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Stylized facts of financialization
in Japanese non-financial corporations

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1. Introduction

After the 1980s, the developed countries have experienced a social phenomenon called financialization. Many previous literatures of financialization indicate that in the process of financialization, the roles of financial markets and financial transactions become much more important (Epstein (2005), Krippner (2005), Orhangazi (2008a, b)). As financialization progresses, even non-financial corporations (hereafter NFCs) strengthens their relations with financial activities. For example, in the United States, NFCs have earned much more profits from financial investments than ever before over the past few decades (Krippner (2005)). As financialization advanced, NFCs became more and more involved with financial activities, and this is a particularly important characteristic of financialization.

So far previous studies have mainly made much of an ideology for corporate governance, “shareholder value orientation,” as the cause of financialization of NFCs in the Western countries. This ideology had its origins in the United States in 1970s (Lazonick and O’Sullivan (2000)). It is well known that shareholder value orientation plays very important roles on financialization. Especially in NFCs, the spread of shareholder value orientation evokes many aspects of financialization such as the increase of financial investment, the surge in dividend payments, and the rise in profit share by changing management goals in NFCs (Boyer (2000),

Krippner (2005), Orhangazi (2008a, b), Stockhammer (2008)). Furthermore, some empirical studies insist that financialization caused by the spread of shareholder value orientation has suppressed capital accumulation in Western countries in the past few decades (Stockhammer (2004), van Treeck (2008), Clévenot et al (2010)). Thus far, previous studies of financialization have illuminated serious influences of financialization on NFCs of the Western countries to some extent focusing on the spread of shareholder value orientation.

However, on the other hand, financialization of non-Western countries have not been fully demonstrated. This is surprising when considering the fact that shareholder value orientation spreads even to outside the United States and European countries in these days and financialization prevails around many non-Western countries. Among the non-Western countries, Japan is an interesting country in the sense that financialization that was evoked by shareholder value orientation has caused many great changes in NFCs.

NFCs in Japan originally did not make much of interests of shareholders. Before the bubble economy collapsed in 1990, cross-shareholdings among corporations were popular in Japan. However, after the bubble economy collapsed, changes in ownership structures such as the increase in the shareholdings of foreign investors, individuals, and trust banks who aggressively demand firms to meet shareholder value occurred in Japanese firms (Aoki et al (2007)). As a result, shareholder value orientation has penetrated Japanese NFCs since the 1990s. As the shareholder value orientation spread in Japanese NFCs, the Japanese economy began to show several aspects of financialization after 1990s. As a result of the financialization, many important changes were brought about in the Japanese economy. The increase of financial investments, the surge in dividend payments, and the change in income distribution and a regime of capital accumulation were particularly important.

This paper demonstrates how financialization has affected the Japanese economy through its effect on NFCs and shows the outlines of Japanese financialization. In doing so, I divide the Japanese NFCs into manufacturing and non-manufacturing industries and illuminate details of the effect of Japanese financialization on both of the industries. This paper shows how financialization has affected investment policies, income distribution and capital accumulation in Japanese manufacturing and non-manufacturing NFCs. This paper is a first attempt to analyze financialization in Japanese NFCs by industry and show the stylized facts of it¹⁾.

This paper is organized as follows. Section 2 shows how financialization in the Japanese economy has changed investment policies and income distribution of Japanese NFCs since the 1990s. Section 3 demonstrates the influence of financialization on capital accumulation in the Japanese economy from the 1990s, focusing on the effect of functional income distribution on demand formation. Section 4 concludes.

2. Evidence for financialization in Japanese NFCs

In Japanese NFCs, a new ideology for corporate governance, shareholder value orientation, began to penetrate in Japanese NFCs from 1990s. An important reason of the spread of this ideology is a change of ownership structure in Japanese NFCs. From the mid-1990s, cross-shareholdings between NFCs and financial institutions began to decrease in Japan because share price of financial institutions in Japan dropped from financial crisis in 1997 and many NFCs sold their shares of financial institutions. Before the 1990s, such cross-shareholdings enabled Japanese NFCs to have nothing to do with hostile takeovers and run a business from a long-term

1) This paper aims to complement the findings of Shimano (2016 a) that describes the effect of financialization on investment policies and income distribution in all industries of Japanese NFCs by showing sectoral details of Japanese financialization.

perspective. However, after that, shareholders called “outsiders” who strongly demand interests of shareholders have dramatically increased in Japanese NFCs (Aoki et al (2007)). “Outsiders” consist of foreign investors, individuals, and trust banks, and the increase of such shareholders has gradually changed management goals of Japanese NFCs. Namely, management of Japanese NFCs became short-termism, and management goals such as short-term profits, share price, the dividend payout ratio became much more important in Japanese NFCs. The spread of shareholder value orientation evokes many aspects of financialization.

In general, as shareholder value orientation penetrates in NFCs, three aspects of financialization appear. First, financial investments increase because NFCs substitutes financial investments for real investments (Krippner (2005)). This is because financial investments are more suitable for making short-term profits than real investments. To make profits from capital investments needs a long duration of time, and the capital investments are sometimes suffered from uncertainty. Financial investments are more prompt way to earn profits. As financialization advances, therefore, financial investments increase and capital investments decrease. As a result, the substitution of financial assets for real assets occurs in the asset side of balance sheet in NFCs (Clévenot et al (2010)). Secondly, dividend payments dramatically increase because of a high pressure from shareholders. In the United States where the influence of shareholder value orientation is very powerful, the dividend payments have dramatically increased since the 1980s (Skott and Ryoo (2008), van Treeck (2008)). Recently, even in a country like Germany where shareholder value orientation was originally not so powerful, the dividend payments have dramatically increased since the 1990s because the protection of shareholder value has been gradually recognized in corporate governance (Duenhaupt (2012)). The great increase of dividend payments caused by shareholder value orientation is an important aspect of financialization. Thirdly, a change in functional income

distribution occurs. Namely, the profit share rises because NFCs raises mark-up to secure profits for paying large dividend payments (Boyer (2000), Hein and Schoder (2011)). This pro-shareholder income distribution, the rise in profit share, has been the common trend in functional income distribution of the developed countries in the past few decades. Of course, such a change in functional income distribution caused by financialization can influence demand formation in a country through some routes.

Among the three aspects, as for dividend payments, Shimano (2015) shows trends of the dividend payments of Japanese NFCs by industry in detail. Shimano (2015) shows that both the amount of dividend payments and the ratio of dividend payments to capital stock have dramatically increased in both manufacturing and non-manufacturing industries in Japanese NFCs since the 2000s. On the other hand, with regard to the effect of financialization on trends of financial investments and income distribution in Japanese NFCs, no studies have attempted to reveal the whole figures of these aspects by industry. Therefore, I show details of the trend of financial investments and income distribution in both Japanese manufacturing and non-manufacturing NFCs, and provide a much more complete picture of financialization in Japanese NFCs.

2-1. Financial investments and financial revenues in Japanese NFCs

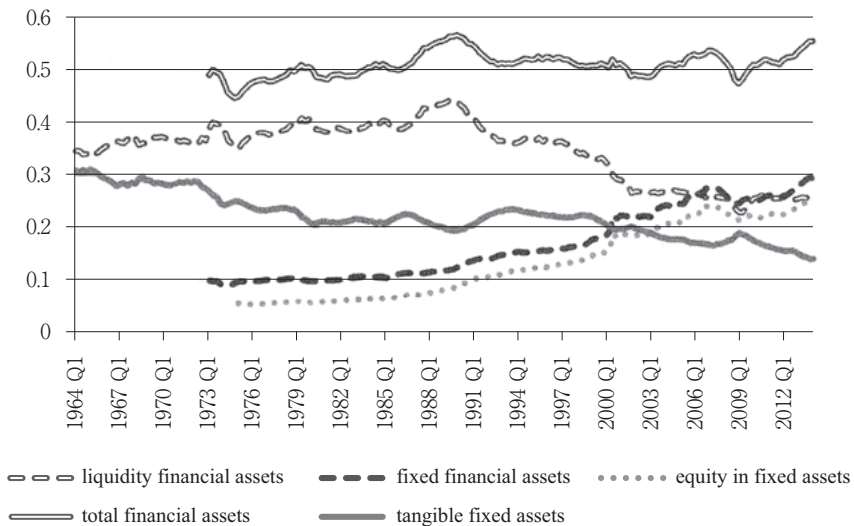
At first, I show trends of financial investments from 1964 to 2013. From all-industry level analysis, Shimano (2016 b) indicates that financialization erodes large firms more deeply than small and medium-sized firms²⁾. This tendency is the same in both manufacturing and non-manufacturing industries. Figure 1 and 2 show the

2) Shimano (2016 b) shows that in all-industry-level, the ratio of total financial assets to total assets had increased by 9.9% from 1998 Q1 to 2013 Q1 in Japanese large NFCs, but it had increased by 4.3% during the same period in Japanese small and medium-sized NFCs. 1998 Q1 was the start point of surge in financial investment in Japanese NFCs.

ratio of respective assets to total assets in Japanese large NFCs in both industries³⁾. In Japanese NFCs, effects of financialization is deepest in large firms that is capitalized over 1 billion yen (Shimano (2015), (2016 b)⁴⁾. Therefore, I choose large firms to clearly show the trend of financialization.

As these tables show, the ratio of total financial assets to total assets has

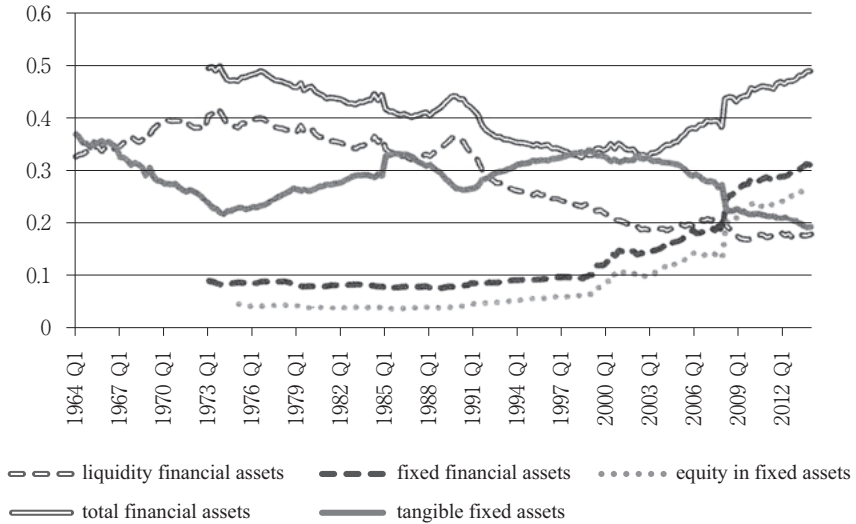
Figure 1 : The ratio of respective assets to total assets in Japanese large NFCs, in manufacturing industries, 1964-2013



3) Data of all figures and tables in this paper is taken from *Corporate Statistics* published by Ministry of Finance. If quarterly data are used, all variables are seasonally adjusted based on the Census X12 using Eviews 8. In these figures, total financial assets are composed of liquidity financial assets and fixed financial assets. Liquidity financial assets are financial assets that belong to liquidity assets, and fixed financial assets are financial assets that belong to fixed assets. Equity in fixed assets is one of the components of fixed financial assets. See Shimano (2016 b) for detailed definitions of these variables.

4) On the contrary, effects of financialization is relatively weak in small and medium-sized firms that is capitalized between ten million and one billion yen. In the figures of this paper, all firms include both large firms and small and medium-sized firms. However, as shown in Table 1 and 2, the increase of total financial assets and the decrease of tangible fixed assets since the late 1990s can also be seen all firms and small and medium-sized firms.

Figure 2 : The ratio of respective assets to total assets in Japanese large NFCs, in non-manufacturing industries, 1964-2013



dramatically increased since the late 1990s in both industries, especially in large firms. This reflects the great increase of financial investments in Japanese large NFCs in the same period. Also, it can be found from these tables that the ratio of tangible fixed assets to total assets has remarkably decreased in both industries, especially in large firms. The substitution of financial assets to tangible fixed assets occurred in both industries. The substitution of financial assets for real assets is a remarkable characteristic of financialization (Clévenot et al (2010)).

It is worthy of note that the degree of substitution is more serious in non-manufacturing industries than in manufacturing industries. This also can be detected from Table 1 and 2 that show the ratio of total financial assets and tangible fixed assets to total assets in NFCs of both industries.

While the ratio of total financial assets to total assets rose by 3.4% from 1998 Q1 to 2013 Q1 in manufacturing large NFCs, this ratio rose by 15.0% in non-

Table 1 : The ratio of respective assets to total assets in Japanese manufacturing NFCs

		1975 Q1	1990 Q1	1998 Q1	2013 Q1
all firms	tangible fixed assets	23.7%	20.4%	22.8%	15.8%
	total financial assets	45.4%	53.3%	48.2%	50.9%
large firms	tangible fixed assets	25.0%	19.7%	22.3%	14.6%
	total financial assets	45.0%	56.2%	50.7%	54.1%
small and medium-sized firms	tangible fixed assets	18.8%	16.7%	23.7%	17.1%
	total financial assets	48.0%	47.7%	41.1%	46.0%

Table 2 : The ratio of respective assets to total assets in Japanese non-manufacturing NFCs

		1975 Q1	1990 Q1	1998 Q1	2013 Q1
all firms	tangible fixed assets	19.5%	19.5%	26.8%	18.1%
	total financial assets	48.4%	47.7%	38.9%	49.3%
large firms	tangible fixed assets	22.8%	26.6%	33.3%	19.7%
	total financial assets	46.9%	43.4%	32.8%	47.8%
small and medium-sized firms	tangible fixed assets	16.8%	14.6%	22.8%	16.6%
	total financial assets	48.3%	47.3%	39.5%	45.3%

manufacturing industries in the same period. The ratio of tangible fixed assets to total assets dropped by 7.7% from 1998 Q1 to 2013 Q1 in manufacturing large NFCs, and the ratio dropped by 13.6% in non-manufacturing industries in the same period. These figures show a deeper influence of financialization on Japanese non-manufacturing NFCs.

The great increase of financial investments brought about a surge in financial revenues in both industries. Figure 3 and 4 show the amount of financial revenues in both industries of Japanese NFCs.

From Figure 3 and 4, it is apparent that financial revenues have also dramatically increased since the 2000s, especially in large firms. The amount of financial revenues approximately doubled from 2000s in large firms in both

Figure 3: Financial revenues in Japanese manufacturing NFCs, 1964~2013 (in billions yen)

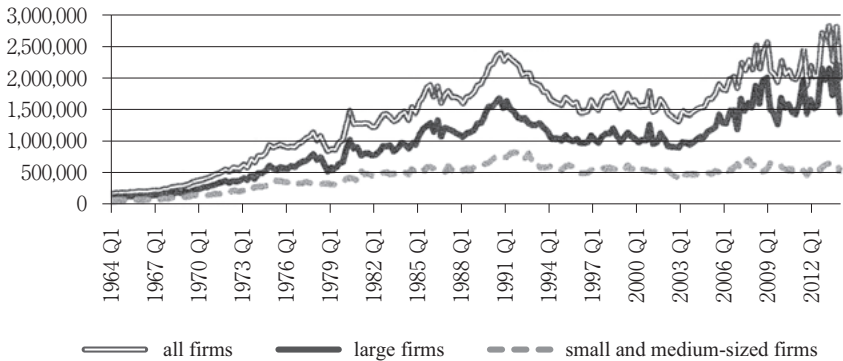
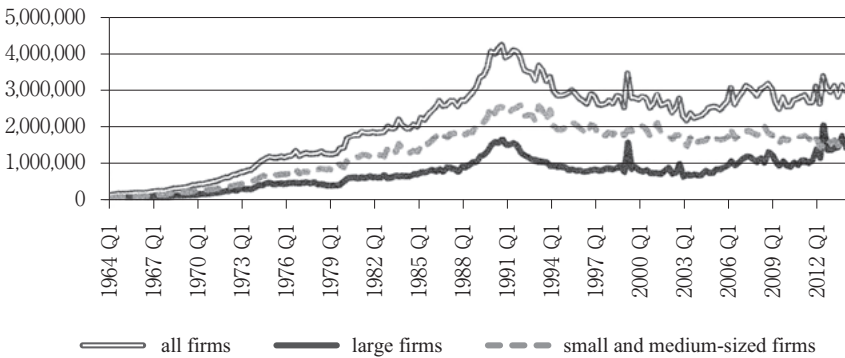


Figure 4: Financial revenues in Japanese non-manufacturing NFCs, 1964~2013 (in billions yen)



industries.

The cause of the rise in financial revenues in Japanese large NFCs is due to great increase of dividend income from equity in fixed assets (not equity in liquidity assets). Isobe (2013, 2014) indicate that Japanese large NFCs have greatly increased the holding of equity in fixed assets since 2000s through substantial growth in holding of equities in affiliated companies. According to Isobe (2013,

2014), important reasons for the growth in holding of equities in affiliated companies are aggressive investments in overseas subsidiaries in Japanese large NFCs and increase of their merger and acquisition of foreign companies. The ratio of equity in fixed assets to total assets in Japanese large NFCs in all-industry was only 5.1% in 1983 and 9.3% in 1998, but the ratio reached 25.0% in 2012 after great increase in the 2000s. In listed companies, the ratio of equity of affiliated firms to total assets was 4% in 1983, but the ratio began to increase especially in the 2000s, and exceeded 20% in 2012 in Japanese large NFCs in all industry. Most of equity in fixed assets consist of equity of affiliated firms in Japanese large NFCs. Isobe (2013) shows that a significant proportion of great increase of dividend income in Japanese large NFCs since the 2000s can be explained by the increase of dividend income from foreign direct investment returns. The increase of financial investments have changed the composition of asset side of balance sheet in Japanese large NFCs.

Reflecting the great increase of financial revenues, the ratio of financial revenues to gross profits has also soared since the 2000s. Figure 5 and 6 show the ratio of financial revenues to gross profits in manufacturing and non-manufacturing industries of Japanese NFCs.

A surge in the ratio occurred in both industries from the 2000s, especially in large firms⁵⁾. Gross profits are the sum of operating profits and depreciation and represent the profits from productive activities. Therefore, a surge in the ratio of financial revenues to gross profits means that the source of profit-making changed from productive activities to financial activities. Through the increasing influence of finanacialization, the degree of dependence upon financial revenues in Japanese NFCs has apparently increased since the 2000s in both industries.

From the trends of financial investments and financial revenues, it is apparent

5) The ratio of financial revenues to gross profits became more than twice during the 2000s both manufacturing and non-manufacturing industries.

Figure 5: The ratio of financial revenues to gross profits in Japanese manufacturing NFCs (all firms), 1964~2013

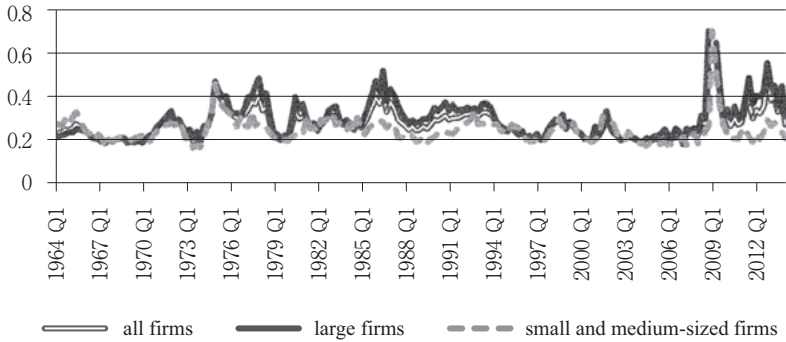
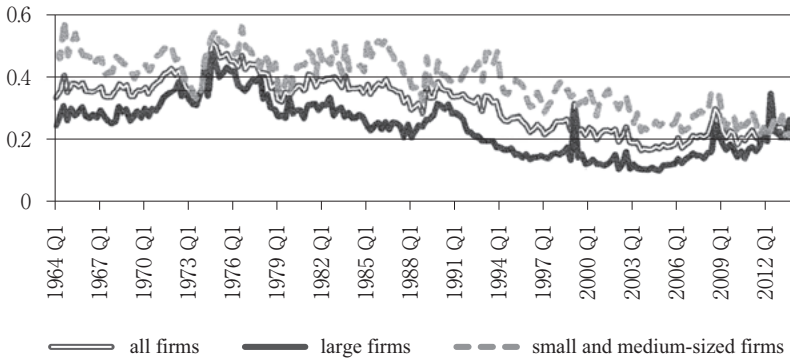


Figure 6: The ratio of financial revenues to gross profits in Japanese non-manufacturing NFCs (all firms), 1964~2013



that the way of earning profits in Japanese NFCs changed from 2000s. The importance of financial investments to acquire profits in Japanese NFCs has greatly increased.

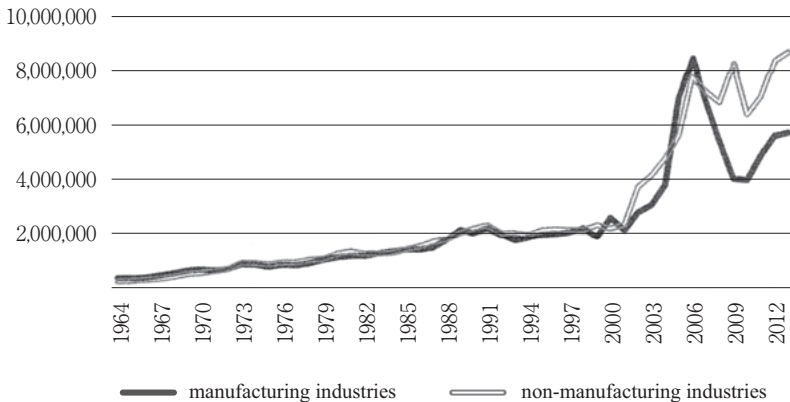
2-2. Dividend payments in Japanese NFCs

In addition to the increase of financial investments and financial revenues, the rise in financial payments like dividend payments also appears when financialization

penetrates NFCs. This is simply because high pressures from shareholders evoked by shareholder value orientation makes firms pay larger dividends. Shimano (2015) shows that Japanese NFCs have greatly increased their dividend payments since the 2000s⁶⁾. Figure 7 shows the amount of dividend payments in Japanese manufacturing and non-manufacturing NFCs from 1964 to 2013.

From the Figure 7, it is apparent that the amount of dividend payments has dramatically increased in both Japanese manufacturing and non-manufacturing industries since the 2000s. In manufacturing NFCs, although the dividend payments decreased temporarily in the late 2000s, it has recovered again since 2010. In non-manufacturing NFCs, the dividend payments tremendously increased in the first half of 2000s, and it has also had an increasing trend since the late 2000s. Dividend payout policies in Japanese NFCs have been more friendly with shareholders since the 2000s.

Figure 7: The dividend payments in Japanese manufacturing and non-manufacturing NFCs, 1964~2013 (in billions yen)



6) Shimano (2015) shows that the amount of dividend payments in Japanese NFCs has dramatically increased since the 2000s. Dividend payments of all industries in Japanese NFCs in 2006 was three times as large as dividend payments in 2000.

2-3. Functional income distribution in Japanese NFCs

Next, I reveal trends of income distribution in both Japanese manufacturing and non-manufacturing NFCs. Figure 8 and 9 illustrate the rising trend of the profit share in both industries except the depression from 2008 to 2009, especially in large firms.

Crotty (1990), Stockhammer (2004, 2006) and Dallery (2009) indicate that firms prefer short-term profits to long-term growth as a management goal under the influence of shareholder value orientation because shareholders prefer the recent

Figure 8 : The profit share in Japanese manufacturing NFCs, 1964-2013

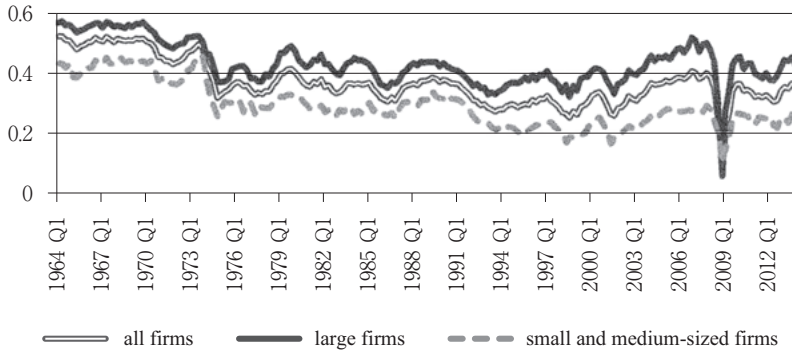
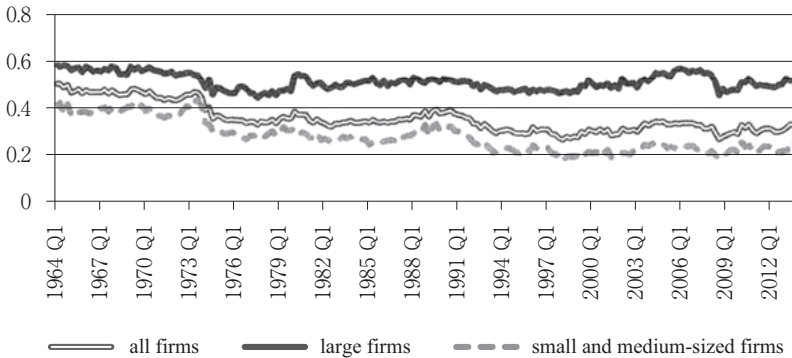


Figure 9 : The profit share in Japanese non-manufacturing NFCs, 1964-2013



profits to keep the stock price and pay sufficient dividends. Boyer (2000) also argues that firms raise their profit share to secure profits for dividend payments under pressures from shareholders. The rise in profit share is the same meaning as the decline in wage share. For the duration of the increase in dividend payments, Japanese large NFCs maintained retained earnings and increased the dividend payments at the expense of wage share since the 2000s. The wage share is defined as the share of personal expenses in value added. When personal expenses are decomposed into wage for employees, compensation for officers, and welfare expenses, it turns out that that an erosion of wage for employees was the most severe from the late 1990s. Figure 10 and 11 show the components of expenditures and saving as a share of value added in both industries of Japanese large NFCs from 1964 to 2013.

Table 3 and 4 also show detailed figures about income distribution of Japanese NFCs.

Figure 10: Components of expenditures and saving as a share of value added in Japanese large manufacturing NFCs, 1964-2013

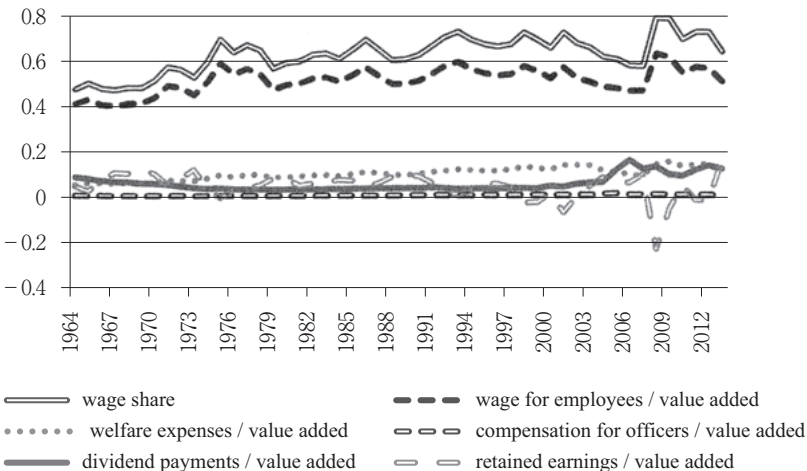


Figure 11: Components of expenditures and saving as a share of value added in Japanese large non-manufacturing NFCs, 1964-2013

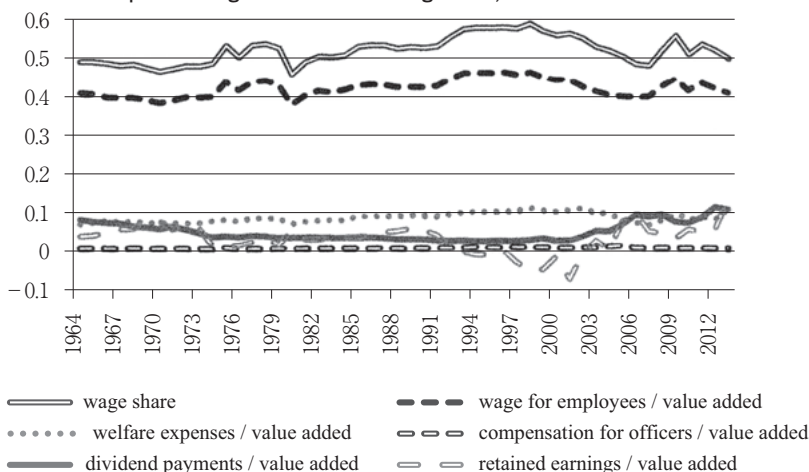


Table 3 and 4 show that with the spread of shareholder value orientation, rentiers gained dividend incomes from the fall in wage share. When focusing on the difference of the industries, it can be said that the decrease in wage share and the increase in dividend payments differ among the industries. From 2001 to 2006, the wage share dropped by 14.4% in manufacturing industries and by 7.8% in non-manufacturing industries. In the same period, the ratio of dividend payments to

Table 3: Components of expenditures and saving as a share of value added in Japanese large manufacturing NFCs, 1964-2013

	2001	2006	2009	2013
wage share	72.7%	58.3%	78.7%	64.2%
wage for employees	57.3%	47.1%	61.9%	51.1%
welfare expenses	14.3%	10.1%	15.7%	12.1%
compensation for officers	1.1%	1.0%	1.2%	1.0%
dividend payments	4.6%	16.3%	10.1%	12.5%
retained earnings	-6.5%	6.5%	-5.1%	16.1%

Table 4 : Components of expenditures and saving as a share of value added in Japanese large non-manufacturing NFCs, 1964-2013

	2001	2006	2009	2013
wage share	56.5%	48.7%	56.0%	50.1%
wage for employees	44.6%	40.0%	44.8%	41.1%
welfare expenses	11.0%	7.7%	10.2%	8.1%
compensation for officers	0.9%	1.0%	0.9%	0.9%
dividend payments	3.0%	9.8%	7.9%	11.1%
retained earnings	-7.1%	10.0%	3.6%	13.7%

value added rose by 11.7% in manufacturing industries and by 6.8% in non-manufacturing industries. From 2009 to 2013, the wage share dropped by 14.5% in manufacturing industries and by 5.9% in non-manufacturing industries. In the same period, the ratio of dividend payments to value added rose by 2.4% in manufacturing industries and by 3.2% in non-manufacturing industries.

These figures show that in both periods, the decrease in the wage share in manufacturing industries was larger than that in non-manufacturing industries. On the other hand, the increase in percentage of dividend payments was larger in manufacturing industries than in non-manufacturing industries from 2001 to 2006, but the order reversed from 2009 to 2013. There are differences among the industries like these, but both of the industries share the common trend of income distribution from the 2000s that the increase in profit share and dividend payments coexist.

This pro-shareholder income distribution reflects changes in the structure of stock ownership in Japanese NFCs. The ratio of cross-shareholding among firms declined from 15.3% in 1996 to 9.0% in 2008, while stock ownership ratio of foreign investors, individual investors, institutional investors rose since the mid-1990s. Especially, stock ownership ratio of foreign investors increased from 5% in 1990 to 25% in 2009. Sasaki and Yonezawa (2000) reveal that foreign stock

ownership ratio had a significant negative influence on the wage share in Japanese large firms, while stock ownership ratio of main bank had a positive influence. From decomposition of the wage share, Noda and Abe (2010) show that the decrease of per capita wage was more important than the growth of labor productivity for the decline of the wage share from 1997 to 2006 in Japanese large firms. Then, Noda and Abe (2010) estimate wage equations and found that foreign stock ownership ratio had a significant negative impact on wage in Japanese large firms from 1997 to 2004. On the other hand, Noda and Abe (2010) show that stock ownership ratio of financial institutions and business firms had a positive impact on wage in Japanese profitable large firms. These results imply that the rise in foreign stock ownership ratio and the decline of stock ownership ratio of stable shareholders have contributed to the rise in profit share since the 2000s.

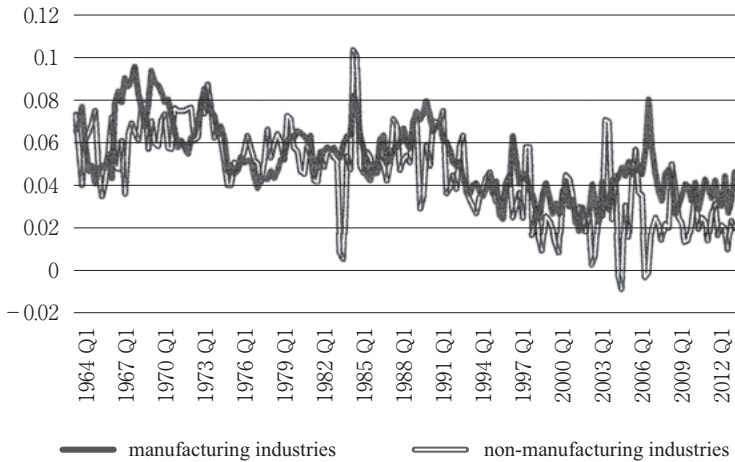
3. Financialization and capital accumulation in Japanese NFCs

In the previous section, I showed actual states of financialization in Japanese NFCs. In this section, I further reveal details of the effect of Japanese financialization on capital accumulation by industry.

First, I show the rate of capital accumulation in Japanese manufacturing and non-manufacturing NFCs, from 1964 Q1 to 2013 Q4. Figure 12 shows the rate of capital accumulation in both industries.

Figure 12 indicates that the rate of capital accumulation in manufacturing industries has been larger than that in non-manufacturing industries since the 1990s. Figure 12 reveals that after bubble economy collapsed in 1990, the rate of capital accumulation stagnated in Japanese NFCs, but the slowdown of capital accumulation has been more serious in non-manufacturing industries than manufacturing industries in Japan. After 1990s, compared with non-manufacturing industries that experienced serious stagnation of capital accumulation, stagnation of capital accumulation in

Figure 12: The rate of capital accumulation in Japanese manufacturing and non-manufacturing NFCs (all firms), 1964-2013



manufacturing industries was not so hard. From 1991 Q1 to 2013 Q4, the average value of the rate of capital accumulation was 4.04% in manufacturing industries and 2.82% in non-manufacturing industries.

Then, what caused the difference of the pace of capital accumulation between Japanese manufacturing and non-manufacturing industries after the 1990s? The most convincing explanation is that the effect of functional income distribution on demand formation differs among the industries. The rise in profit share influences each components of aggregate demand. It has a negative effect on consumption through income distribution from workers who have high propensity to consume to capitalists and rentiers who have low propensity to consume. Generally, since the negative effect of the rise in profit share on consumption is larger than its positive effect on investment, the rise in profit share has negative effect on domestic demand that is composed by consumption and investment (Stockhammer and Stehrer (2011)).

However, the rise in profit share stimulates exports since it decreases the cost effect of wages. The decline in wage share leads to the fall in unit labor cost. Even if the rise in profit share depressed domestic demand and domestic demand regime is wage-led, it may increase aggregate demand and aggregate demand regime becomes profit-led on the condition that the positive effect of the rise in profit share on export exceeds its negative effect on domestic demand. Therefore, industries with high dependence on exports tend to be profit-led and industries with low dependence on exports tend to be wage-led.

With regression results of consumption, investment, and net exports function, Shimano (2016 a) concluded that from the 1990s, while the rise in profit share caused by financialization depressed domestic demand, but it increased aggregate demand because the positive effect of rising profit share on exports had been so large⁷⁾. Namely, the Japanese economy has been wage-led in domestic demand, but has been profit-led in aggregate demand that is the sum of domestic demand and net exports since the 1990s. From the empirical results, it is expected that the increase of profit share raises demand in manufacturing industries that highly depend on exports but depresses demand in non-manufacturing industries that mainly depend on domestic demand. An accelerator effect caused by growing demand is the prominent factor to stimulate investment (Chirinko (1993)). Therefore, if the rise in profit share increases net exports and aggregate demand, it also contributes to a promotion of capital accumulation in industries heavily depend upon exporting. Similarly, if the rise in profit share decreases domestic demand through its negative effect on domestic demand, it also contributes to slowdown of capital accumulation. This may explain the difference of speed of capital accumulation between Japanese

7) Shimano (2016 a) shows that 1 percent increase in profit share bring about 0.189 percent decrease in domestic demand but 0.436 percent increase in aggregate demand from his calculation of the functions.

manufacturing and non-manufacturing industries after the 1990s.

The difference of speed of capital accumulation between the two industries also caused an change in capital accumulation regime in the Japanese economy. Generally, the movement of the rate of capital accumulation is mainly determined by that of the profit rate. In fact, as shown in Figure 13 and 14, this is the case for the Japanese economy before the 1980s in both manufacturing and non-manufacturing industries.

The figures show that the movement of the rate of capital accumulation was perfectly determined by that of the profit rate before the 1980s. However, the figures also show that the great change occurred in capital accumulation regime since the 1990s. Although the rate of capital accumulation has still been determined by the profit rate in manufacturing industries since the 1990s, it has no longer been determined by the profit rate in non-manufacturing industries over the same period⁸⁾. After the 1990s, although the profit rate recovered, the rate of capital accumulation remained stagnant in non-manufacturing industries.

The abnormal change in capital accumulation regime in non-manufacturing industries after the 1990s can be explained by the effect of rising profit share on capital accumulation. The rise in profit share raised the profit rate. However, it depressed capital accumulation in non-manufacturing industries by lowering the level of domestic demand. That is why the rising trend of profit rate and the declining trend of rate of capital accumulation have coexisted and the rate of capital accumulation has no longer been determined by the profit rate since the 1990s in non-manufacturing industries in Japanese NFCs. On the other hand, the rise in

8) Shimano (2016 a) estimates a simple investment function that only includes the profit rate as an explanatory variable for all firms of manufacturing and non-manufacturing industries in Japanese NFCs from 1991 Q1 to 2013 Q4. Estimation results of the investment function is that while the profit rate is estimated positively and significantly at 1% level in manufacturing industries, it is not estimated significantly in non-manufacturing industries.

Figure 13: The profit rate and the rate of capital accumulation in Japanese manufacturing NFCs (all firms), 1964-2013

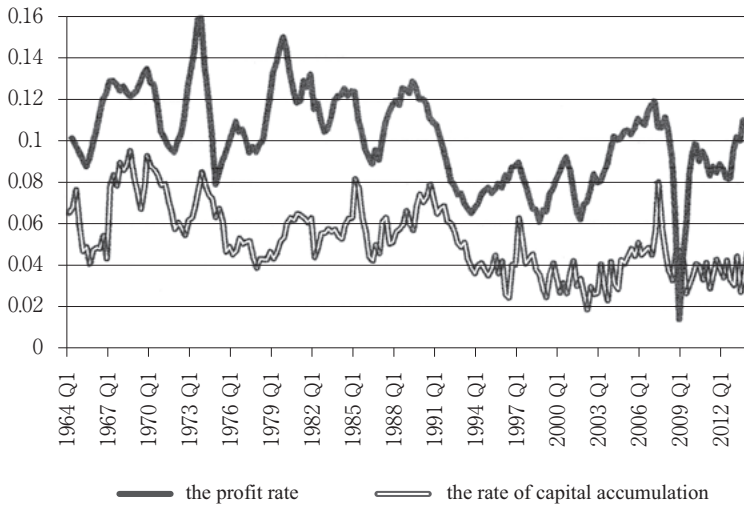
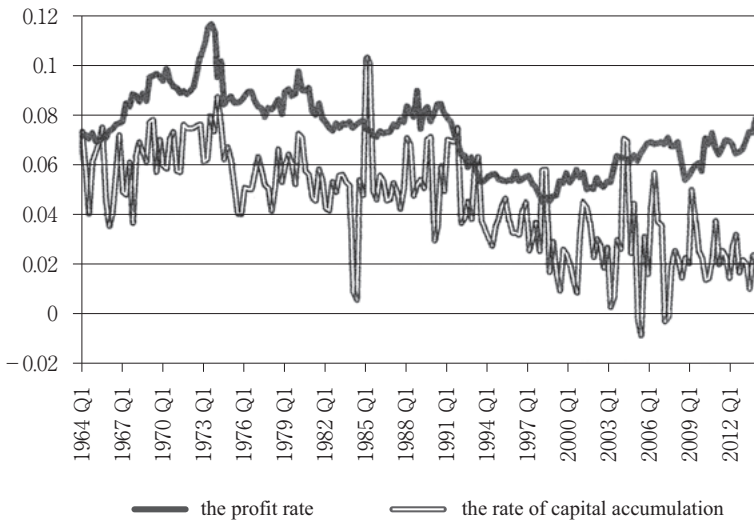


Figure 14: The profit rate and the rate of capital accumulation in Japanese non-manufacturing NFCs (all firms), 1964-2013



profit share has raised not only the profit rate but also the rate of capital accumulation by raising the level of aggregate demand in manufacturing industries over the same period. Therefore, the movement of the profit rate has still corresponded with that of the rate of capital accumulation and accumulation has still been determined by the profit rate in manufacturing industries since the 1990s. In this way, the rising profit share has generated totally different capital accumulation regimes in the two industries because its effect on demand formation utterly differs among these industries.

4. Conclusion

This paper has shown details of financialization in Japanese NFCs. With respect to the increase of financial investments, the increase of dividend payments, and the rise in profit share, both Japanese manufacturing and non-manufacturing NFCs have shown all of the important signs of financialization since the 1990s, mainly due to the spread of shareholder value orientation. Financialization has deeply affected the Japanese economy in several ways after the bubble economy collapsed regardless of the difference of industries.

Interestingly, however, the effect of financialization on capital accumulation has differed between the two industries. After the 1990s, the slump of capital accumulation has been more serious in non-manufacturing industries than in manufacturing industries. Furthermore, a regime of capital accumulation has also differed between the two industries since the 1990s. After the collapse of the bubble economy in 1990, the profit rate and the rate of capital accumulation have still corresponded in manufacturing industries, but trends of the two variables have differed in non-manufacturing industries. In non-manufacturing industries, the rising trend of the profit rate and the decreasing trend of the rate of capital accumulation have coexisted.

Behind the difference of a regime of capital accumulation, there have been pro-shareholder income distribution, namely the rise in profit share caused by financialization. The rise in profit share since the 1990s has increased a demand level in manufacturing industries through its positive effect on exports. But it has decreased a demand level in non-manufacturing industries through its negative effect on domestic demand. The rising profit share from the 1990s has raised capital accumulation in manufacturing industries by causing the growing demand, but it has depressed capital accumulation in non-manufacturing industries by decreasing the level of demand. Since the rise in profit share has uniformly increased the profit rate in both industries, the differing effect of the rise in profit share on capital accumulation generated the varying regime of capital accumulation between manufacturing and non-manufacturing industries.

Thus, many aspects such as investment policies, income distribution, and a regime of capital accumulation has been changed as a result of financialization in the Japanese NFCs since the 1990s.

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