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Financialisation and the Financial and Economic

Crises: The Case of Japan

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FINANCIALISATION AND THE FINANCIAL AND ECONOMIC CRISES: THE CASE OF JAPAN

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Abstract: This study examines the financialisation process in Japan with the aim of identifying the channels of transmission of financialisation on short and long run economic development. The first section gives an overview of the long-run development of the Japanese economy dating back to 1980. The second section analyses the effect of financialisation on income distribution, investment and household consumption as well as discusses the development of the country's current account. The third section identifies the transmission mechanism of the latest economic crisis. It is argued that financialisation in Japan has not been significant and thus has had no explicit effect on the recession the country experienced in 2008-2009. Section four concludes.

Key words: Japan, financialisation, financial crisis,

Journal of Economic Literature classification: E25, E44, F30, P16

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1. Introduction

This paper examines the financialisation process in Japan with the aim of identifying the channels of transmission of financialisation on short and long run economic development. Financialisation has been a rising phenomenon in most developed economies since the 1980s and there is wide literature suggesting that its effect were reflected in the latest global financial crisis. Even though there is no set definition for the term 'financialisation' it is generally understood to mean a rise, in relation to production, in the activities of banking and financial markets that dominates capitalist economies. For example Epstein (2005), refers to financialisation as 'the increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies' (Epstein 2005 pg. 3). In general this is associated with increasing intermediation in an economy.

In particular, financialisation theories argue that the decline in fixed capital investment, and thus the decline of economic activity, is a consequence of firm's management deviation from the principle 'retain and reinvest' to a reduced interest in investment and a greater interest in selling off assets to buy in stock or pay dividends ('downsize and distribute'). In this view the main priority of firms' management has become 'shareholder value maximisation' (Lazonick and O'Sullivan 2000). Similarly Hein (2011) argues that the decline in fixed capital formation is a result of increased dividends payout and the buying back of shares, in order to maintain high stock prices, thus shareholder value. Hence, shareholder value is at the expense of lower internal liquidity levels, which, therefore reduces fixed capital investment.

Financialisation as a process is said to originate with the liberalisation and deregulation of financial markets. In most developed economies such liberalisation occurred during the 1980s, however, for Japan this was a slower

process, starting in the 1970s and finalised in 2001, when the Big Bang reforms were fully implemented.

Before this liberalisation of financial markets started in the 1970s, the Japanese financial system was bank based, known as the “main bank system”. Corporate firms had limited access to bond markets and equity issuance was rather minimal (Hoshi and Kashyap 1999). Therefore, banks were the main external source of finance for Japanese corporations. In late 1970s a secondary market for government bonds was created marking the start of deregulation. This gave investors an alternative investment opportunity to, for example, bank deposits, which offered rather low interest rates. Financial institutions at the time in Japan were subject to interest rates controls, which were set in 1947 under the Temporary Interest Rate Adjustment Law (TIRAL). The law permitted the Bank of Japan (BOJ) to place ceilings on all kinds of deposits rates and on short term lending rates. All financial institutions were subject to these restrictions apart from the government financial institutions and postal savings. The introduction of certificates of deposits (CD) in 1979, for which TIRAL regulation did not apply, marked the start of the deregulation on interest rates. The restrictions were gradually lifted for all other deposits in stages and in 1994 they were completely abolished (Kanaya and Woo 2000).

The liberalisation of domestic corporate bond and equity markets also started in mid 1970s. Also, the lifting of the foreign exchange controls in 1980 and the abolition of the “real demand principle”¹ in 1984, allowed firms to obtain finance abroad. Another step towards financial liberalization was the opening of the Tokyo offshore banking market in December 1986.

However, domestic banks’ deregulation was a slower process, and in many respects they were still subject to tight regulation during the 1980s. For

¹ This principle required foreign exchange transactions to be based on a ‘real’ demand for foreign exchange, such as the actual need for import payments (Hoshi and Kashyap 1999).

example, banks could not engage in loan securitization and fee-generating activities until late 1990's (Hoshi and Kashyap 1999). Furthermore, the banking industry was still subject to the Securities and Exchange Act of 1947², which separated investment and commercial activities. With this regulation in place, the role of banks was a traditional approach, in which deposits are used to make loans. Japanese banks were only able to be more competitive and engage in non-traditional operations when the 'Financial Big Bang' reforms were first introduced in 1996 and fully implemented in 2001. This Big Bang aimed to make the Japanese financial sector 'free, fair and global'. The programme lifted any restrictions that were in place between banks, securities industry and insurance sector (Montgomery and Takahashi 2011).

In the light of these developments the effect of financialisation on the real sectors of the Japanese economy is discussed in detail in this paper. The analysis focuses on the 2008-2009 recession that the Japanese economy experienced. However this paper argues that the causes of such recession was a fall in exports, due to the weakening in foreign demand in the aftermath of the global financial crisis, and the subsequent decline in productive investment by Japanese corporations, rather than financialisation *per se*.

The rest of this paper is organised as follows. Section 2 looks at the long-run developments in the era of financialisation since the early 1980s and the economic and financial crisis. Section 3 looks at the effect of financialisation on the Japanese economy through different channels, focusing on income distribution, investment of capital stock and household consumption. Section 4 identifies the transmission mechanism of the economic crisis. Section 5 concludes.

² Similar to the US 1933 Glass- Steagall Act.

2. Long-run development in the era of financialisation since the early 1980s and the economic and financial crisis

The Japanese economy has perhaps been one of the most studied economies in the world. This interest has been to explain both the 'miracle' economic growth period that characterised the country during early 1950s to early 1970s and the economic stagnation in the aftermath of the stock market and housing market crash in early 1990s. The Japanese economy has received further attention in the latest global crisis, and it has been argued that its economy has been hit the hardest by the crisis, in comparison to other developed economies (The Economist 2009).

Figure 2.1 shows the real GDP growth for the period 1980-2010³. As evident, the 2008-09 the economy has contracted much more than during the stagnation of 1990s and early 2000s. The recovery of the Japanese economy, after a prolong recession following the burst of the stock and real estate bubble, was short lived, lasting from 2003 to 2007. The most significant decline of real GDP was in the last quarter of 2008 and the first quarter of 2009, with GDP falling from an annualized rate of 12 percent to nearly 15 percent. Many associated the massive decline in Japan's GDP with the fall in exports. This on the other hand has been as a consequence of foreign demand, which declined, significantly in the global crisis.

Looking at the components of real GDP, shown in Figure 2.2 net exports contributed very little to the Japanese GDP, prior to 2001. However from 2001 until 2005 net exports have increased from nearly 1 percent to almost 5 percent of GDP. Whereas, Japanese exports increased significantly from 10 percent in

³ The Japanese national accounts data presented in this paper comes from two series 1980-2010, using a base year of 2005, and 1994-2013, using a base year of 2000. In order to maintain the consistency of the data, some of the tables and figures in this paper show only data up to 2010.

2001 to 16 percent in 2008⁴. However, the Economist (2009), argues that the share of exports in Japan's GDP is much smaller than in Germany or China, yet its economy was hit the hardest by the global crisis.

Figure 2.1 Real GDP Growth 1980-2010

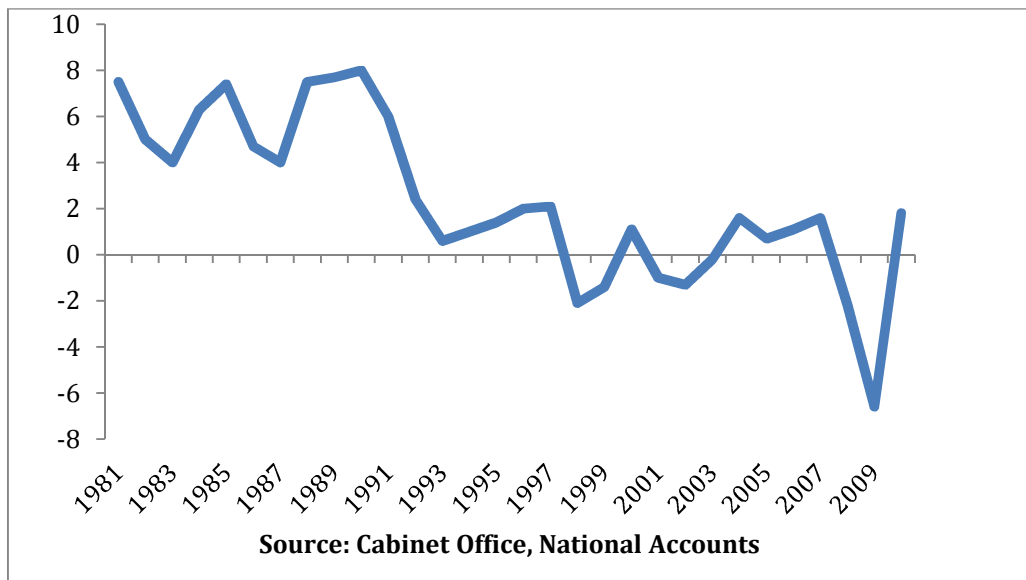
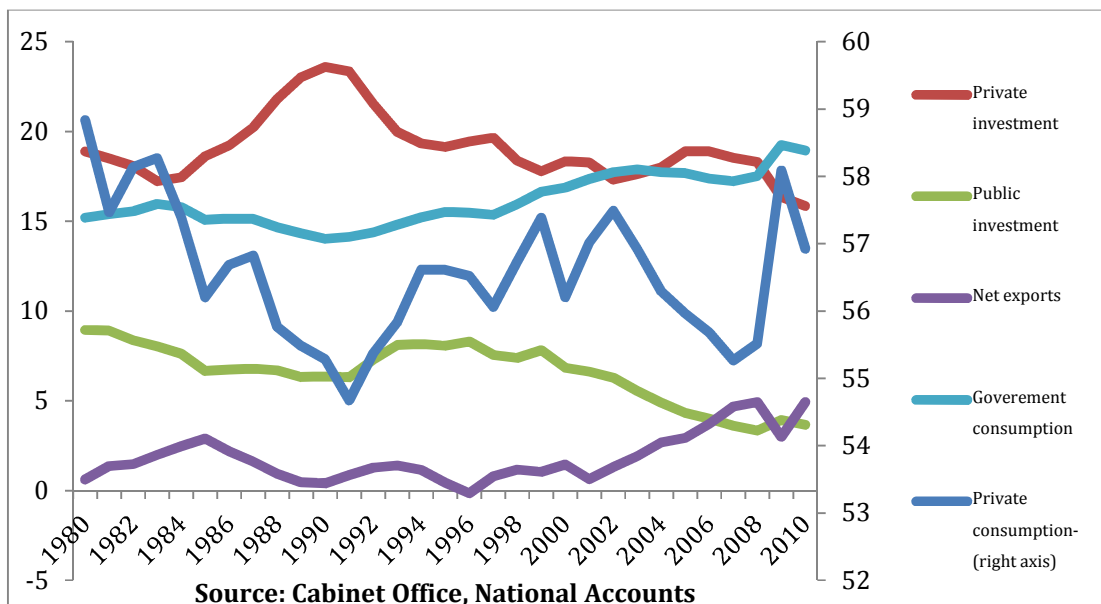


Figure 2.2 Components of Real GDP 1980-2010



⁴ Not shown in the Figure 2.2. The data on GDP components from the National Accounts was used to calculate the share of exports in GDP during these periods.

Looking at the contributions to changes in real GDP, displayed in figure 2.3, it is evident that net exports and private investment are the main contributors to the decline in GDP in 2008 and 2009, with private investment dominating. According to the Economist (2009) one of the main causes of the drastic decline in real GDP growth has been the burst of the export 'bubble'. It is argued that this 'bubble' was created by the strong belief of Japanese exporters that foreign demand would remain high and the yen would stay low. However, in the aftermath of the global crisis, external demand declined and Japanese exports were left with excess stock. Subsequently firms cut back on production. Sommer (2009) notes that the decline of business investment in Japan during 2008-09 was also a consequence of deteriorating financial conditions during this period. He argues that such weakening financial conditions, such as tighter lending standards, high interest rate spread and falling stock markets, were last witnessed in the banking crisis the country experienced during the 1990s.

Table 2.2 Real GDP growth and contribution to changes in real GDP- cyclical averages

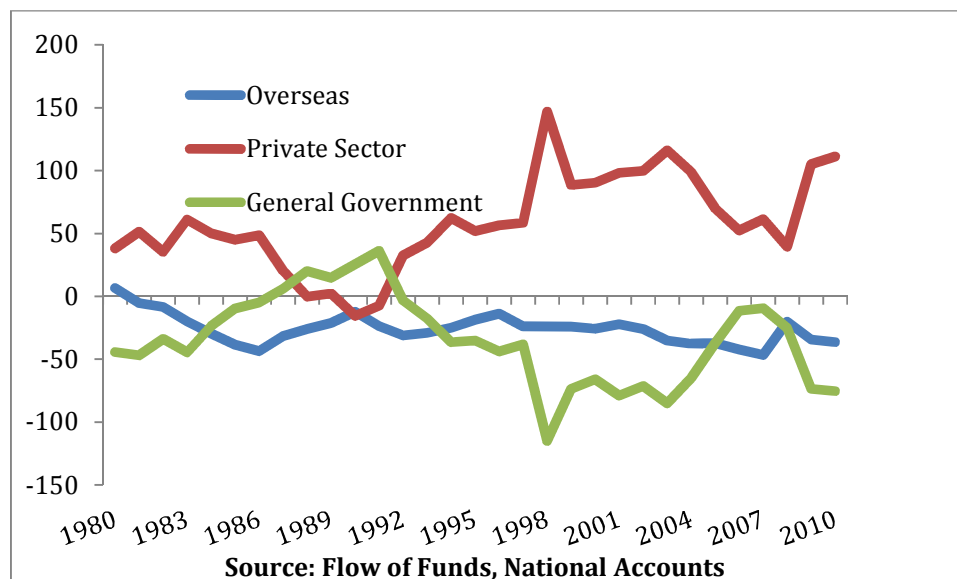
	1981-1986	1987-1991	1992-1997	1998-2002	2003-2007	2008-2010
Real GDP growth	4.05	5.1	1.33	0.26	2.08	-1.2
private consumption	1.86	2.36	0.94	0.4	0.74	-0.13333
private investment	0.97	2.12	-0.38	-0.44	0.6	-1.2
government consumption	0.57	0.48	0.38	0.52	0.28	0.4
public investment	-0.05	0.26	0.35	-0.24	-0.46	0
net exports	0.633333	-0.24	0.05	0.14	0.74	0.166667
Source: National Accounts, authors own calculations						

2.1 Sectorial financial balances

This section examines the sectorial financial balances using the approach suggested by Godley (1999). This approach uses the flow of funds accounts to derive the financial balances for each sector. The underlying idea of this approach is that aggregate income and expenditure is equal. This is the equivalent to saying that saving in all sectors must equal total investment in all sectors. In what follows, the sum of the difference between savings and investment in each sector must be zero. A rise in the surplus of one sector must therefore be offset by changes in the other sectors (Wolf 2012).

As shown in Figure 2.1-1, with the exception of 1980, Japan, has been a consistent net exporter of capital, thus contributing to its current account surplus.

Figure 2.1-1 Financial balances in the Japanese Economy (percent of nominal GDP)

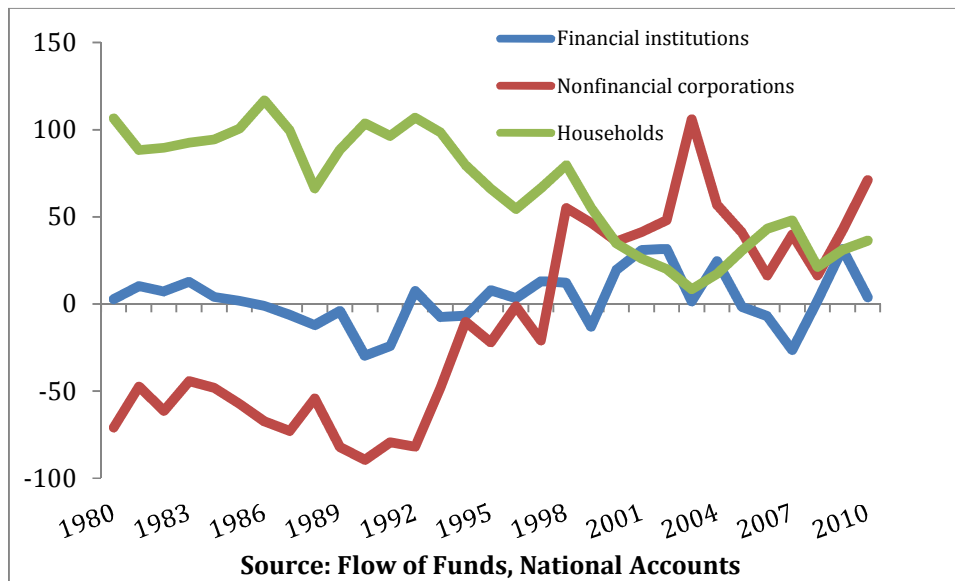


During the global financial crisis, the external financial deficit increased, reaching its peak in 2008. However, in 2013 it has fallen to its lowest levels since early 1980s.

The private sector has run a financial surplus since the early 1990s. After 2006 however, a fall in the financial surplus was recorded, for a short time period until 2009, increasing again in 2010. The financial balances of the government sector have been the opposite of the private sector balances. Since the early 1990s it has run a financial deficit. During the latest financial crisis, as the private sector financial surplus increased, the deficit of the government sector surged. As Wolf (2012) argues, this happens naturally in any economy, after showing evidence of similar patterns for the US private and government financial balances. The term 'natural' implies that, as the private sector, saves more, relative to its income, then the economy shrinks, so government revenue decreases and vice versa.

Figure 2.1-2, shows the components of the private sector which are the financial, non-financial and the household sector. As evident the household sector has consistently run a financial surplus. The non-financial sector on the other hand has switched from running a financial deficit until mid-1990s, to running a financial surplus in the subsequent years. The increase in the financial balances of the non-financial corporate sector in Japan indicates that firms after mid 1990s substantially reduced business investment. The financial sector was quite balanced up until late 1980s. However, following the stock market crash it run a financial deficit. From 1990 till 2000, the financial balances show small fluctuations between surpluses and deficits. The years after 2000, show a rapid increase in the financial surplus, decreasing after 2005, shifting again into a financial deficit. After 2009, the financial sector again had a financial surplus.

Figure 2.1-2 Financial Balances of Household, Financial, and Non-financial –components of the Private sector (percent of nominal GDP)



The evidence provided above confirms that the Japanese economy continues in a regime of export-led growth. Hein (2012), suggest that this type of long-run development prevailing the latest crisis, is characterized by positive financial balances of the domestic sector, and negative financial balances of the overseas sector with positive growth contributions of external demand.

3. Long-run effects of financialisation on the economy through different channels

This section will examine the effect of financialisation on income distribution, investment in capital stock and private consumption in Japan. In relation to income distribution the financialisation hypothesis suggests that with financialisation the gross profit shares, including retained profits, dividends and interest payments, have increased. As a consequence, this phenomenon is associated with a falling labour income and increasing inequality of wages and management salaries. This is because of a weakening bargaining power of trade unions, rising profit claims imposed by powerful rentiers and the shift of sectorial composition in the economy, with the financial corporate sector dominating (Hein and Mundt 2012).

Another important aspect of the financialisation hypothesis is related to the real investment. It is suggested there are mainly two effects that associate financialisation with real investment: 1. Shareholders impose higher distribution of profits on firms (a higher dividend payout ratio, and hence a lower retention ratio and/or lower contribution of new equity issues to the financing of investment, or even share buybacks. 2. Managers (firms) preference for expanding the real capital stock is weakened due to remuneration schemes based on short-term profitability and financial market results and a preference for short term financial investment prevails. (Hein 2010).

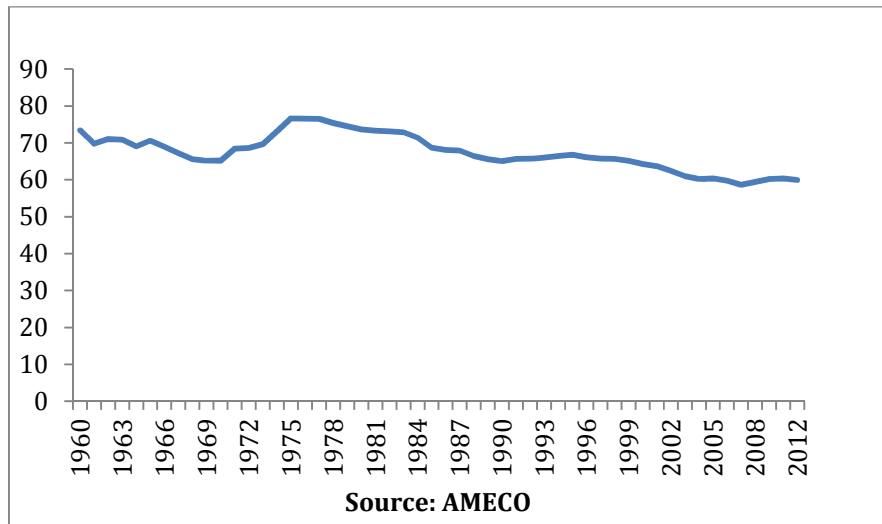
This section also examines the relationship between financialisation and household consumption. In this aspect there are many studies, such as Hein and Mundt (2012), Cynamon and Fazzari (2008) and many more which suggest that financialisation is associated with higher debt-income ratios for households as a result of easier access to credit. It is argued that both the stock market and housing booms have increased notional wealth, thus providing the private

household sector the collateral for credit and mortgage consumption. Furthermore, with changing financial intermediation and financial innovations, credit became easier to obtain by even those households with low income. Therefore, household consumption increased at faster rate than median income, or in other words, due to these factors associated with financialisation households were able to 'live beyond their means'.

3.1 Financialisation and distribution

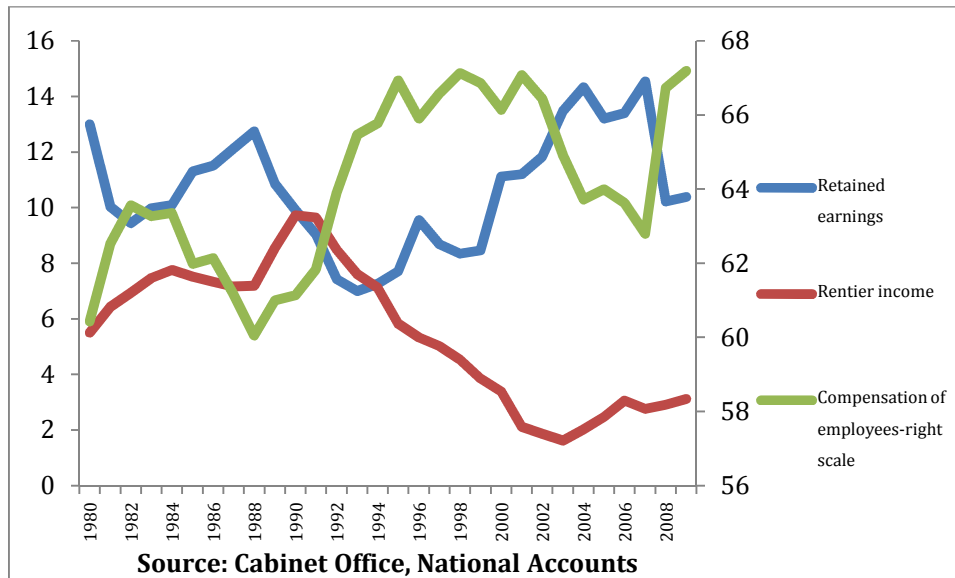
Figure 3.1-2 shows the income shares for Japan, from 1980-2009. The methodology for calculating the wage share, retained earnings and rentier income in net national income follows that used by Dunhaupt (2010). The wage share is taken directly from the national accounts, which is the compensation of employees as a percentage on the net national income. As shown in figure 3.1-1, the wage share in net national income increased rapidly from 1988, reaching a peak in 1995. From 1995 until 2001, it has fluctuated slightly by decreasing and then increasing again in 2001. However, it then dropped significantly from 2001 until 2007, a fall from 67 percent to 63 percent of net national income. In 2008 and 2009 it has increased again, accounting for the same share in net national income as in 2001. Retained earnings on the other hand have fluctuated on the opposite direction of the wage share. This suggests that the increase in retained earnings has been at the expense of lower wage share. Looking at the adjusted wage share, Figure 3.1-1, it is clear that it had steadily declined since the mid-1970s. The adjusted wage share was nearly 77 percent of the GDP in 1975 dropping to 58 percent of GDP in 2007.

Figure 3.1-1 Adjusted wage share, as a percentage of GDP at current market prices



Retained earnings in figure 3.1-2 represent the net income of the non-financial and financial corporate sector. The latter is calculated by summing the net operating surplus and property income of the sector minus property income paid. Following the definition of the OECD (SNA 93), the components of property income are, interest, distributed income of corporations, reinvested earnings on direct investment, property income attributed to insurance policy holders and rent. Dunhaput (2010), states that net income of the corporate sector represents retained earnings, since after deducting net property income from operating surplus, this is what is left at the disposal of firms' management.

Figure 3.1-2. Income Shares



Rentier income is represented by the net property income of the household sector, including the non-profit institutions serving households. Dunhaupt (2010) states that ‘....on balance, corporations and the governments pay for the rentier income of the household sector with only a very small positive rentier income of the corporations’ (2010’ pg. 19). In other words, on balance, the net property income of the household sector it is greater than the net property income of corporations and the government, indicating that it is the household sector, which receives most property income.

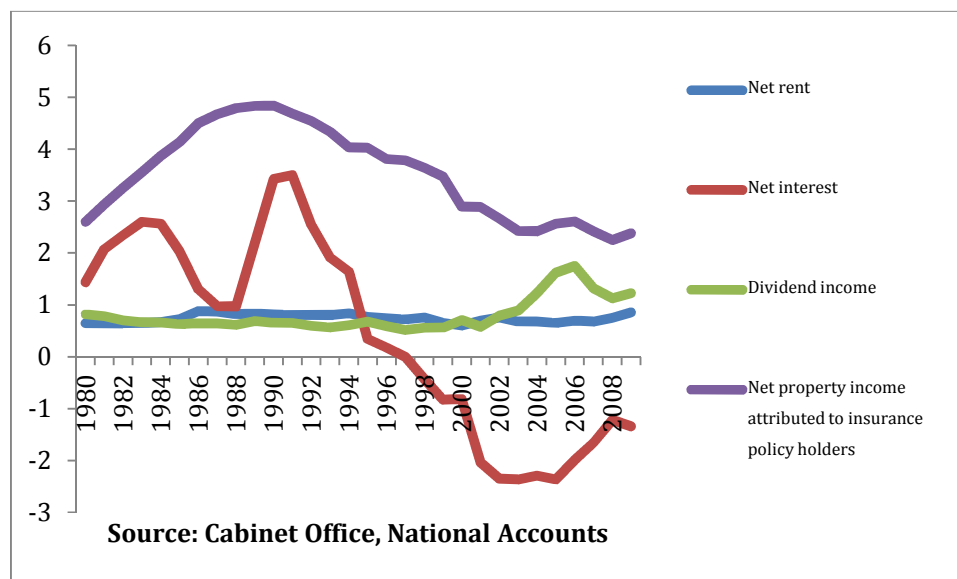
As evident in figure 3.1-2, rentier income decreased steadily from 1991 until 2003. From 2003 until 2007 however it increased at the same time as wage share decreased. This implies that the rise in rentier income has been at the expense of lower wage share. The data suggest that only the period between 2003-07 corresponds to the financialisation hypothesis. This period also fits in quite well with the period in which the deregulation of the financial markets in Japan process took place.

In an attempt to better grasp the development of the rentier income share, its components, which are net interest income, dividend income, property income

attributed to insurance holders and net rents, as a share of net national income, are analysed and presented in figure 3.1-3. Net rent income has been steady through the period under consideration. Net interest income on the other hand has been negative since 1991, indicating higher interest outgoings as risk margins have increased.

Property income attributed to insurance holders also has steadily fallen since 1990. From 2003 however, it has increased slightly. Dividend income on the other hand, seems to have been the most significant component of the trend of rentier income share. Whilst dividend income remained constant from 1980 it has increased since 2003, and falling again in 2007. These results indicate that a rise in rentier income is mainly associated with a rise in dividend payment as suggested by the financialisation hypothesis. However, this association is only evident in a rather short period of time.

Figure 3.1-3 Components of rentier income as a share of net national income



In relation to the personal income distribution developments, the Gini coefficient is examined as an indicator of income inequality in Japan. Tachibanaki (2006), using this indicator to measure income inequality in Japan for the period 1961-

2002, argues that income inequality in Japan was quite high, despite the fact that Japan has often associated with equality. As shown in Table 3.1-1 income inequality increased from 1985 to 2000. Tachibanaki (2006) suggests that the increase in income inequality in late 1990s reflects the recession Japan experienced at the time. However between 2000-2003 income inequality fell and rose again, as evident in table 3.1-1. Looking at the gini coefficient for market income, table 3.1-1, it is evident that the degree of inequality has increased significantly since mid-1980s.

Table 3.1-1 Gini coefficient for market income and disposable income

Year	1985	1995	2000	2003	2006	2009
Gini coefficient for households' disposable income						
	0.304104	0.3188307	0.3339391	0.3141153	0.3234894	0.3316121
Gini coefficient for household market income						
	0.3453964	0.4028949	0.4321364	0.44312	0.4622493	0.482876
Source: OECD Statistics.						

Table 3.1-2 depicts median and mean disposable income in Japan since 1985. As shown, half of Japanese working age population in 2009 earned 3 percent less than in 2006, a fall from 2,853,017 yen to 2,771,561 yen. Over the same period, the average income has also fallen by more than 3 percent, falling from 3,211,523 yen to 3,106,107 yen. Both of these measures however have fluctuated over the years, from 1985 to 2009. Looking at the change in Japanese household income since mid-1990s, the fall is even bigger. For example half of Japan in 2009 earned around 10 percent less than in 1995. The average income has declined even more, nearly 12 percent since 1995. The rising difference between the median income and the mean income indicates the decline in the share of national income accruing to lower income households.

Table 3.1-2 Mean and Median disposable income- in current prices

Year	1985	1995	2000	2003	2006	2009
Median	2243082	3096930	2647213	2538145	2853017	2771561
Mean	2552657	3514214	3040893	2845034	3211523	3106107

Source: OECD Statistics

Table 3.1-3 shows the ratio of the income share accruing to the median income (D5) to the income share of the lowest decile (D1) has increased from 2.4 in 2003 to 2.7 in 2009. This implies that the poorest recorded losses in their income relative to the middle incomes. On the other hand the ratio of the income share accruing to second richest decile (D9) to the income share of the middle decile (D5) has remained relatively steady during the period between 1985-2009, varying between 1.9 and 2. This implies that the income share of the two group deciles has remained nearly constant.

Table 3.1-3 D9/D5 and D5/D1 disposable income decile ratio

Year	1985	1995	2000	2003	2006	2009
D9/D5	1.9	1.9	2	1.9	1.9	2
D5/D1	2.1	2.3	2.5	2.4	2.5	2.7

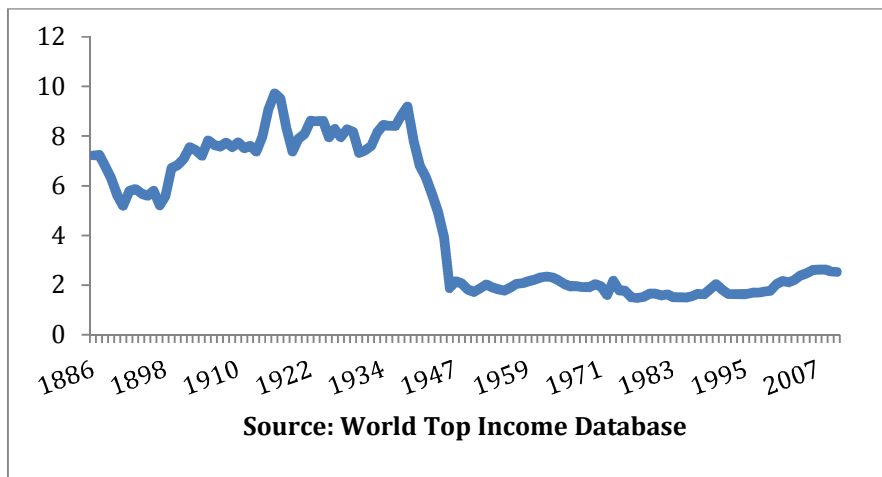
Source: OECD Statistics

Figure 3.1-4 shows the top 0.1 percent share in national income for Japan since 1886 until 2010. The data is obtained from the World Top Incomes Database⁵ provided by Alvaredo et al. (2012). As shown the share of the top 0.1 percent income in Japan was very high until the late 1930s. Thereafter their share in national income has declined substantially. Late 1980s and early 1990s the share

⁵ The composition of the income share of the top 0.1 percent in Japan is not available in this database

of the very top incomes increased slightly but then reverted to the same level as prior late 1980s. Since 1992 the share of the top 0.1 percent has increased steadily.

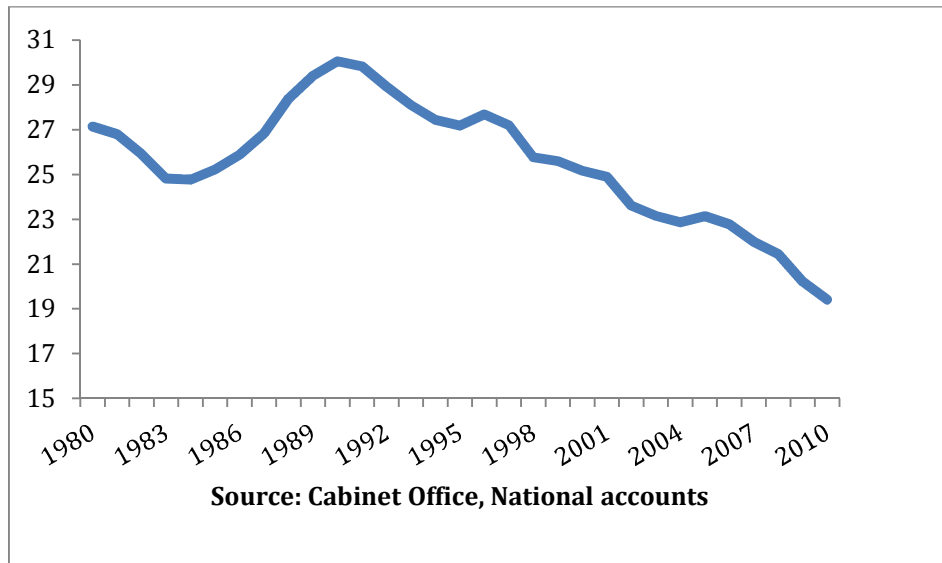
Figure 3.1-4 Top 0.1 percent share in national income, in percent



3.2 Financialisation and investment in capital stock

As a first step in examining the two effects, outlined above, of financialisation on Japan figure 3.2-1 shows the gross fixed capital formation as a share of real GDP. As previously shown, investment in Japan has decreased steadily since 1990 and it is significantly below the pre-boom years.

Figure 3.2-1 Gross fixed capital formation as percentage of real GDP



Looking at the components of gross fixed capital formation, it is clear that purchases of machinery and equipment are the main elements in changes in fixed capital formation. As argued above Japanese investment sharply declined in 2009. Looking at figure 3.2-2, it is clear that machinery and equipment investment contributed by -1.5 percent to the total decline in investment in 2009. While the investment in machinery seems to be responsible for the fluctuations, the long-term negative trend seems to be driven by declining investment in real estate investment.

However looking at the financial income of the non-financial corporate sector in Japan it is clear that it has been negative since 1994 (figure 3.2-3). The share of net interest payments to the operating surplus of the non-financial corporate sector has fallen sharply since 1994. Shirakawa (2011) argues that this is because of the significant decline in the interest cost of debt and financial downsizing. Net dividend payments on the other hand, although negative, until 2004 have been quite steady averaging between minus 7 to 10 percent of net operating surplus. After 2004, net dividends payments have increased, although with fluctuations.

Figure 3.2-2 Growth contributions of gross fixed capital formation

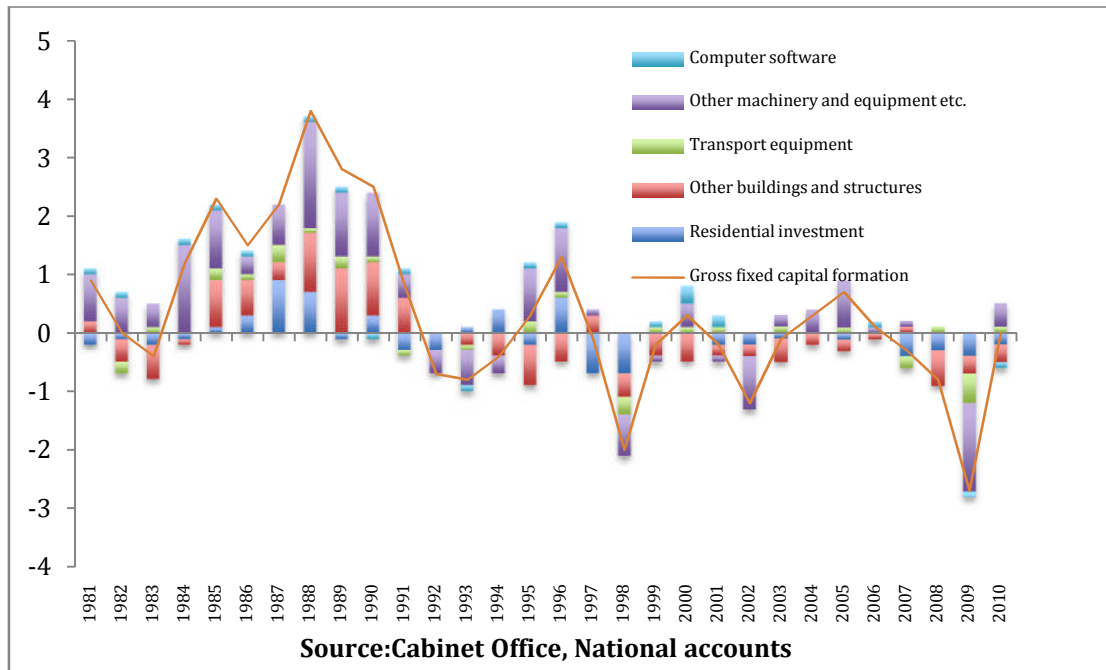
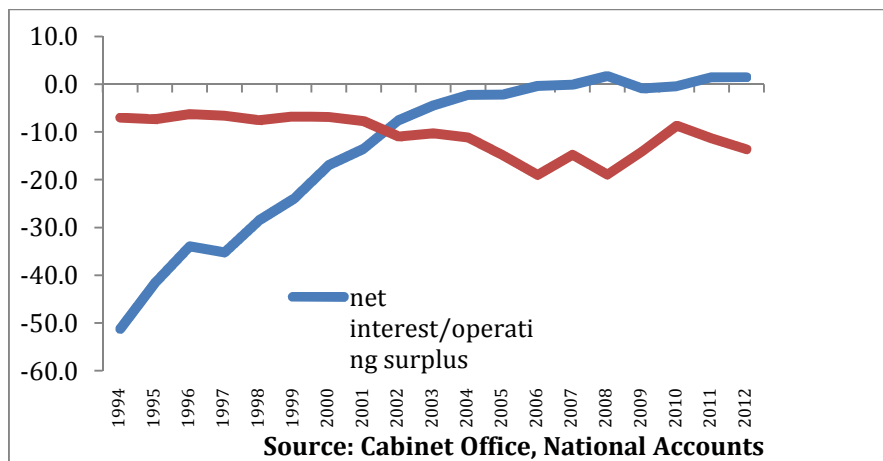
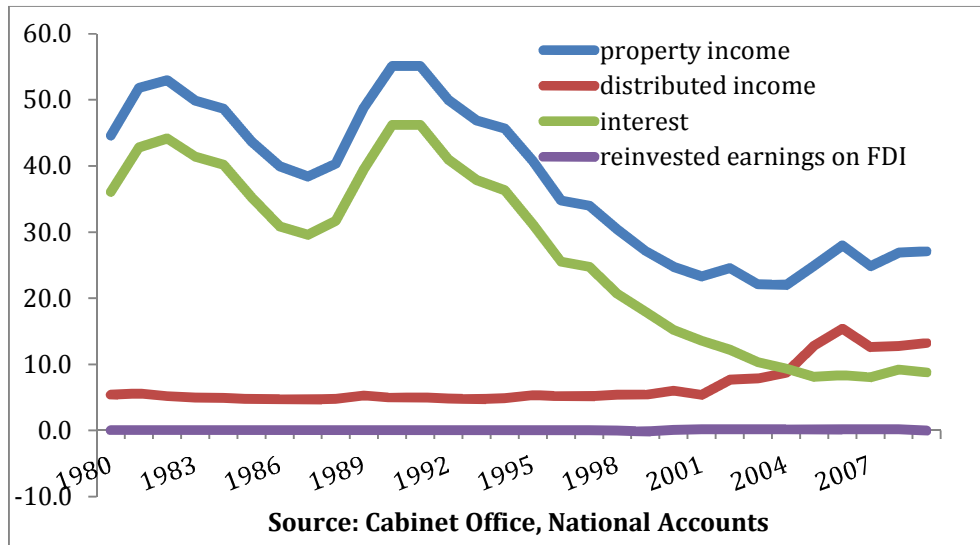


Figure 3.2-3 Net dividends and interest receipts of non-financial corporate (as a share of the operating surplus)



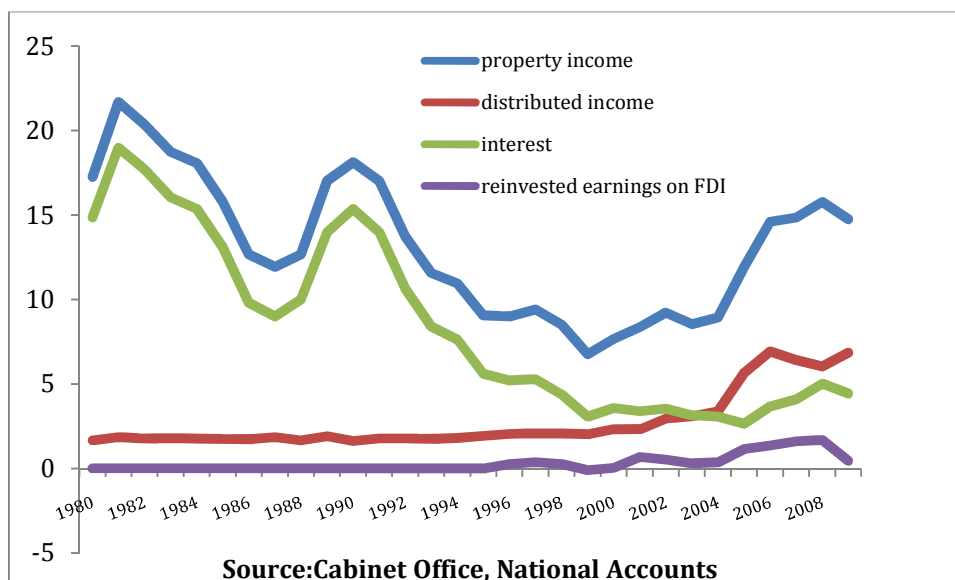
Looking at the financial profits in operating surplus, shown in Figure 3.2-4 is it clear that distributed income and property income have increased substantially since early 2000s. These findings indicate that the financial investment on non-financial corporations has increased significantly since early 2000s.

Figure 3.2-4 Sources of operating surplus of non-financial corporations (percent of gross operating surplus)



From figure 3.2-5 it is evident that since early 2000s there is an upward trend in all uses of operating surplus. However, again, distributed income and property income are the most significant uses of operating surplus.

Figure 3.2-5 Uses of operating surplus of non-financial corporations (percent of gross operating surplus)



Corbett and Jenkinson (1997), provide a methodology using the flow of funds, to identify the sources of finance for corporate investment. The crucial point of this approach is that some of the sources of funds are used to accumulate financial assets rather than physical assets. So in order to identify the sources of funds used for physical investment, the purchases of financial assets need to be subtracted from increases in the liabilities. For example, equity purchases are subtracted from equity issues; bank loans are subtracted from cash and deposits, and so on (see Appendix I).

Japan has long been considered to have been a bank-based system. In such system banks play the major role in providing finance to corporations. Corbett and Jenkinson (1997) , using the same methodology employed in this paper, calculate the net sources of finance for Japanese corporations for the period between 1970-1994. Despite the results suggesting that bank finance fell steadily since the 1980s, they argue that Japan was still a bank – based system.

However, as table 3.2-1 suggest, that the decline in bank finance continued well into the 2000s. The contributions of bank finance to physical investment has been negative in all the periods, except for the period between 2006-2009. This implies that bank finance during these periods, i.e. 1994-1997; 1998-2002; 2003-2005; 2010-2012, has experienced net repayments of debt rather than new funds for investments i.e. bank finance has been a net use of funds rather than a net source. Even during 2006-2009, only 3 percent of total physical investment was funded by banks. The changes in the contribution of bank finance to total physical investment is even more evident in the annual data(table 7.4 Appendix). In all the years, bank finance has been negative, expect for 1997, 2006, 2007, and 2008. Nevertheless, the contribution of bank finance in these years is very small. For example in 1997, bank finance accounted for only 3 percent of the net sources of finance for Japanese corporations, but quite higher in 2007, accounting for 13 percent of total net sources of finance.

Table 3.2-1 Net sources of finance⁶, 4 year intervals * (percentages)

	1994-1997	1998-2001	2002-2005	2006-2009	2010-2012
Internal finance	107.9	100.5	110.4	89.2	97.8
Bank Finance	-14.9	-22.6	-22.9	3.2	-9.7
Bond	0.0	-2.3	-3.3	-0.8	1.0
New equity	1.1	2.9	6.8	-1.5	-5.8
Trade credits	-1.3	2.3	0.8	-0.8	-1.9
Capital transfers	7.6	12.5	3.9	2.4	3.8
Other	8.4	0.6	-11.9	-5.1	-9.0
Statistical adjustment	23.6	16.2	6.5	-16.6	-14.2
* expect for the last column which represents 3 year intervals					
Source: Cabinet Office, National Accounts					

Internal funds remain the main sources of finance in Japan in the period 1994-2012, similar to the findings of Corbett and Jenkinson (1997) for the period 1970-1994. However, their overall use to finance physical investment has declined since 2006. It has recovered in the last period, 2010-2012, but still remained below the levels prior to 2006. Equity finance increased steadily until 2005, but has since declined turning negative.

This implies that after 2005 the Japanese non-financial corporate sector has bought back shares and equity.

Bond markets on the other hand do not seem to have been a significant source in providing investment finance. The gross sources data seems to be similar to the net sources data, figure 3.2-2 for bond finance. However equity finance is more significant for the gross sources data. It is worth pointing here that the

⁶ Notes: Figures are calculated using the same method as Corbett and Jenkinson (1994), for example : $\sum_{t=1997}^{t=1994} i_t^j \frac{CPI_t}{CPI_{2010}} / \sum_{t=1997}^{t=1994} I_t \frac{CPI_t}{CPI_{2010}}$ where i_t^j denotes the amount of finance of type j in year t, measured in current prices of year t, I_t denotes total finance in year t, (the sum of the different types of finance i_t^j in each year) and CPI denotes consumer price index in year t (2010 is the base year). The statistical adjustment term represents rounding errors.

gross sources data shows the sources of funds as a fraction of the total uses of funds, including both financial and physical assets. Internal finance in the gross sources data shows very similar trends to the net sources data.

Table 3.2-2 Gross sources of finance ,4 year intervals (percentages)

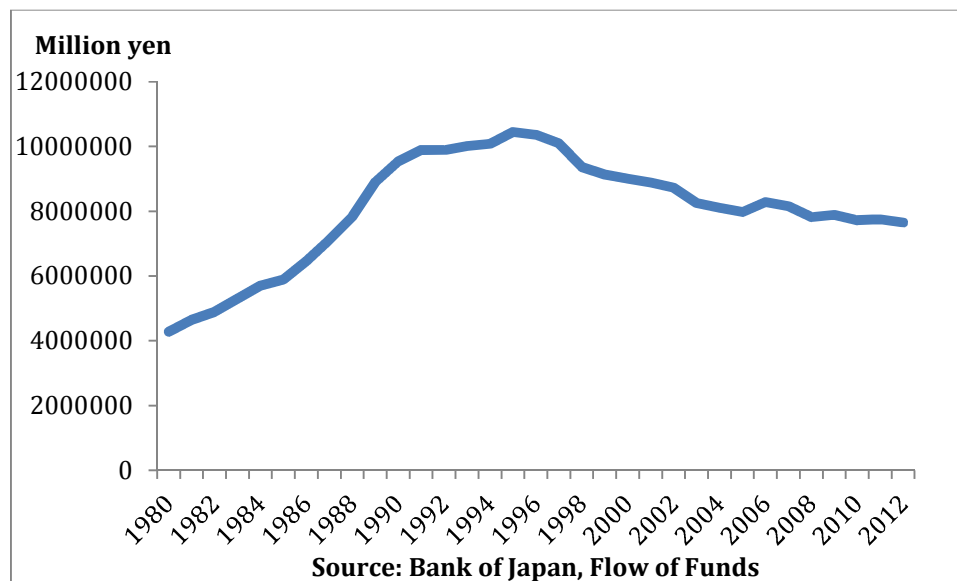
	1994-1997	1998-2001	2002-2005	2006-2009	2010-2012
Internal finance	105.2	106.1	87.8	94.0	77.2
Bank Finance	-12.5	-17.3	-14.2	4.4	-0.3
Bond	-0.5	-2.5	-1.5	1.4	-0.5
New equity	5.0	6.8	6.1	2.8	-1.5
Trade credits	2.3	-10.5	0.0	-8.9	2.6
Capital transfers	9.0	15.4	3.8	3.1	4.5
Other	-7.4	-5.4	-3.1	0.5	1.0
Statistical adjustment	0.95	-7.28	-21.15	-2.76	-17.02

The overall conclusion can best be summarized by looking at the net sources of Japanese corporations in two distinguished time periods, 1994 until 2005 and 2006 until 2012. In the first time period it is clear that internal finance has increased whilst bank finance decreased. The negative correlation between these two types of finance is also shown in Corbett and Jenkinson (1997). Furthermore, equity finance and capital transfers have been the most used sources for external finance.

However, after 2005 internal finance and new equity have fallen. These findings are in accordance with the financialisation hypothesis. As explained above, such a hypothesis suggests that because shareholders impose higher distribution of profits on firms, such as demanding higher dividend payments, both retained earnings and contribution of new equity issuance as a mean to finance new investment falls.

Figure 3.2-6 shows the indebtedness of Japanese non-financial corporate sector. It is clear that the debt levels of this sector have fallen since mid 1990s. In 2005 corporate debt increased slightly but then fell again in the aftermath of the latest financial crisis.

Figure 3.2-6 Non-financial corporate debt⁷



3.3 Financialisation and consumption

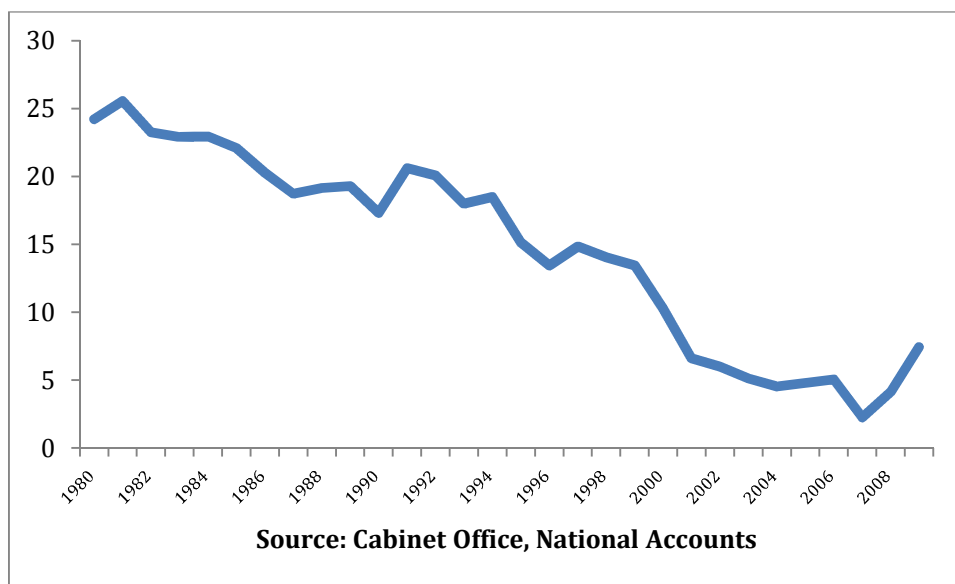
Section 3.1 presented the growth contribution of private consumption to GDP, as well as the components of private household incomes, as a share of net national income. This section further analyses the household sector in an attempt to capture the development in this sector and financialisation.

Section 2, figure 2-1, shows that private consumption is the largest component of real GDP. However its share fell slightly during 2004-2008, it quickly recovered accounting for 57 percent of real GDP. However the decrease in private consumption during 2004-2008 is not due to rising household savings. As evident in figure 3.3-1, the propensity to save out of disposable income has fallen

⁷ Corporate debt represents total liabilities minus shares and other equity.

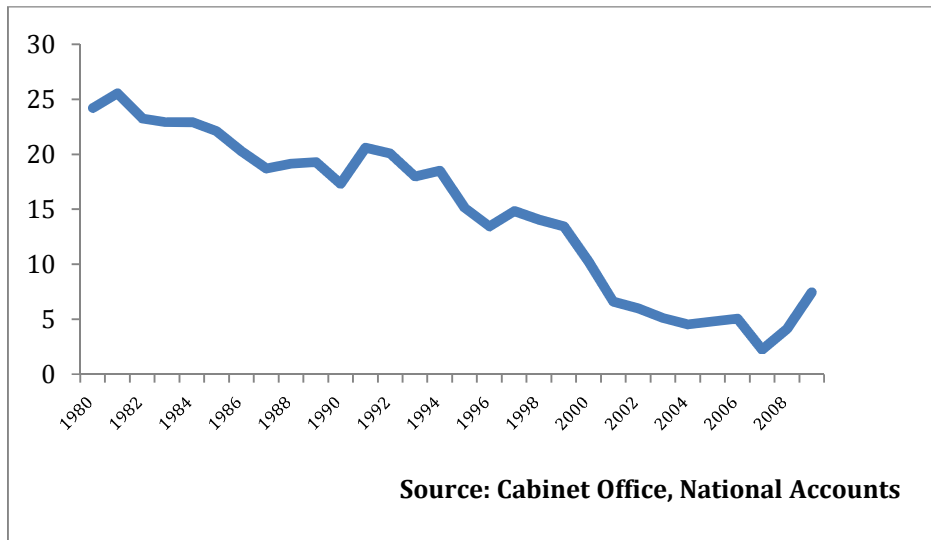
substantially since mid-1990s. Tokuoka (2010) argues that the decline in the household saving rate is mainly due to the aging population that characterises Japan. On the other hand, Tokuoka (2010) associates the decline in private consumption with a fall in disposable income. He shows empirically that private consumption is positively related to disposable income.

Figure 3.3-1 Propensity to save out of disposable income



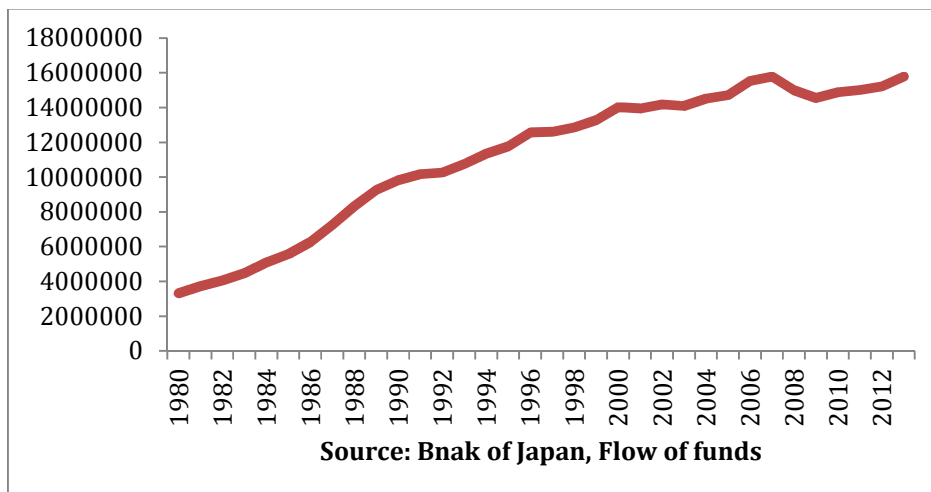
Looking at the propensity to save out of wages and salaries, figure 3.3-2 the same pattern can be seen as in the case of propensity to save out of disposable income. These finding fits in well with the argument raised in section 3.1, showing that wage share relative to rentier income in Japan has fallen since early 2000,

Figure 3.3-2 Propensity to save out of wages and salaries



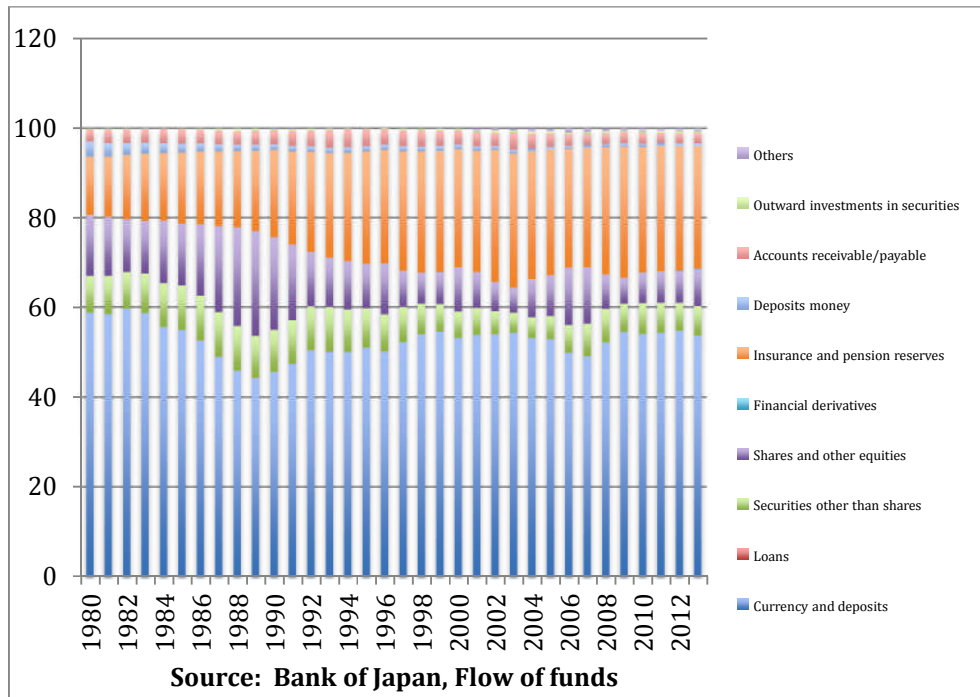
Next in the analysis the household financial wealth and indebtedness are examined. Figure 3.3-3 depicts the gross financial wealth of the Japanese households for the period 1980-2013.

Figure 3.3-3 Household sector- financial assets



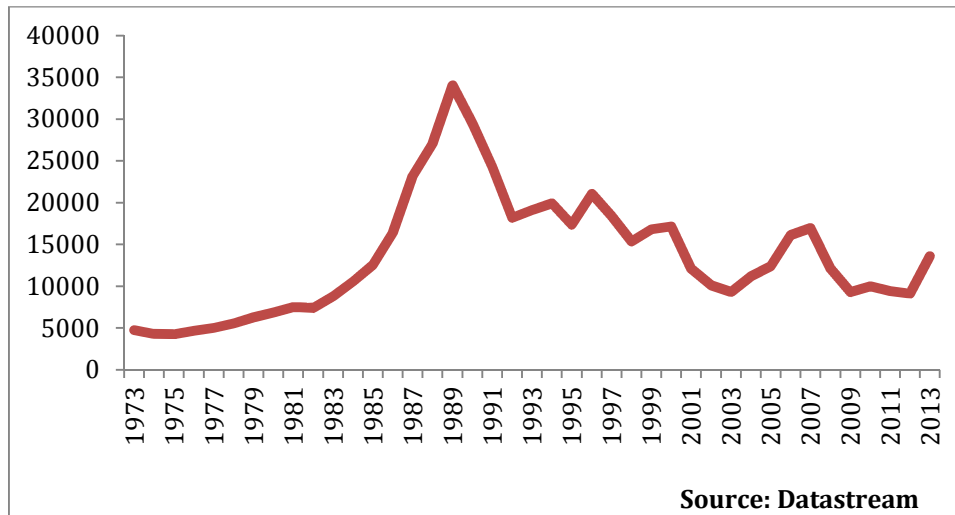
As evident outstanding financial assets of the household sector in Japan have steadily increased since 1980. However, currency and deposits represents the largest share in total financial assets throughout the period (figure 3.3-4).

Figure 3.3-4 Components of financial assets- household sector (percentage of total financial assets)



The second highest component is the ratio of insurance and pension reserves to total financial assets. Figure 3.3-4 also shows that the holding of equity and other shares as a proportion of total asset has fallen sharply since 1990s. The holdings of stocks and shares steadily increased since early 1980s, reaching a peak in 1989 accounting for nearly 24 percent of total financial assets. This reflects the stock market bubble Japan experienced at the time, as shown in figure 3.3-5.

Figure 3.3-5 Nikkei 225 Stock Average Index



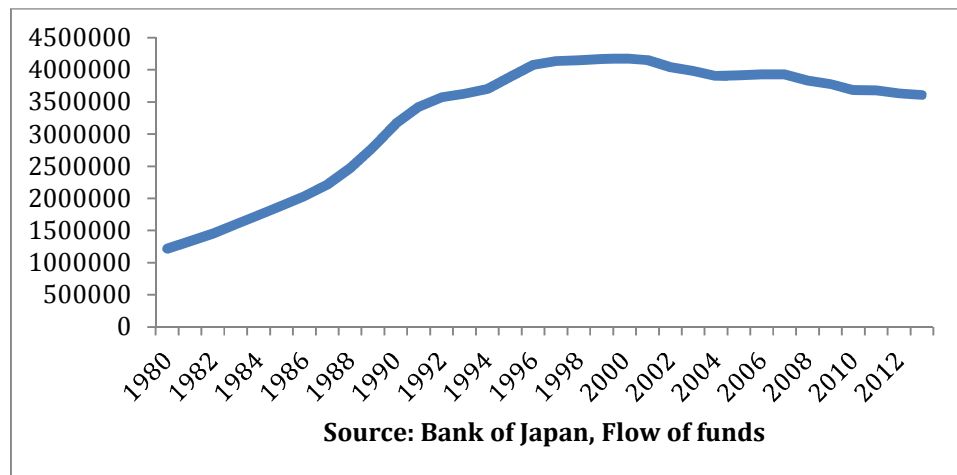
Following the stock market crash in 1989, the average Nikkei 225 price index continued to decline reaching its lowest level in 2002. However, after a short recovery it dropped again during the latest global financial crisis. The decline of the stock market prices is also associated with the lowest ratio of the holdings of equity and other shares of the household sector. In 2009, this ratio was just about 6 percent, the lowest since 1980.

These findings suggest that Japanese households have a preference for holding safe financial assets, such as deposits as opposed to other riskier assets.

Nakagawa and Yasui (2009), state that amongst other reasons, three stand out as possible explanations explaining such preference: firstly is the fact that Japanese households are required to have a high amount of down payment when purchasing a residential property, secondly is the cultural characteristic, especially in relation to the eldest age group, which is the largest holder of retail deposits, believing that savings are best kept through the banking system in terms of deposits; thirdly, is the unstable economic environment that Japan has experienced since the burst of the bubble.

Looking at the development on the liabilities side⁸, as shown in figure 3.3-6 it is apparent that debt levels of the Japanese household sector have declined since 2000.

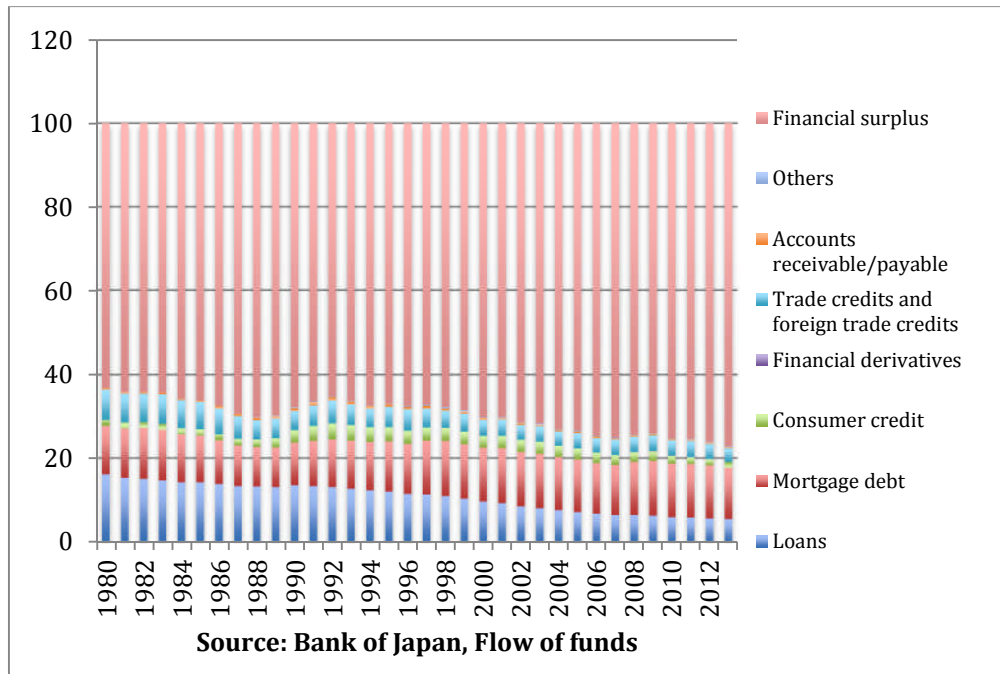
Figure 3.3-6 Financial liabilities of households



From 1980 up until mid-1990s, loans represented the largest component of household debt. However since then, their share in total liabilities has declined with mortgage debt becoming the most significant component. The ratio of mortgage debt has stayed within the 12-13 percent range since mid-1990s. Despite mortgage debt being the largest component of Japanese household debt, in comparison with other developed economies such the US and UK, it is significantly low. Nakagawa and Yasui (2009), argue that unlike in UK and US, Japanese households during the housing bubble period, did not extract equity from houses via loans, a process common in the other comparison countries during the 2000s house bubble period.

⁸ Unfortunately the available data does not a break down of debt distribution for different income deciles or the wealth effect.

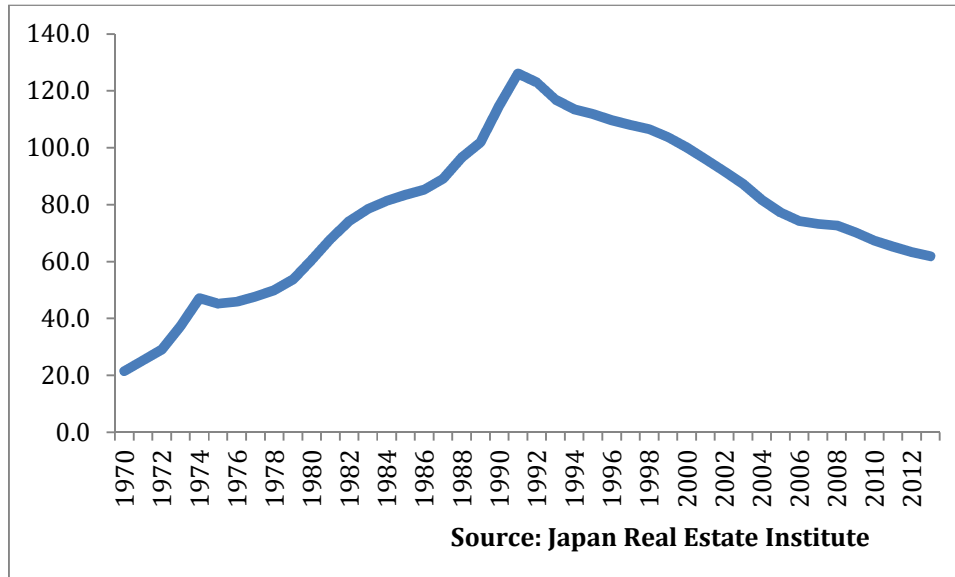
Figure 3.3-7 Components of financial liabilities- household sector (percentage of total liabilities)⁹



The housing bubble that Japan experienced during the 1990s, is evident in figure 3.3-8. Residential land price index reached a peak in 1991, and has steadily declined since. It is worth noting here that the Japanese government has taken different steps in encouraging home ownership since the postwar period (Hirayama 2003; Hirayama and Ronald 2007 cited in Hirayama 2010). For example in 1951 it established the Government Housing Loan Corporation (GHLIC), providing low-interest mortgages to middle-class households aiming to promote home ownership (Hirayama 2010).

⁹ Financial surplus is the difference between financial assets and liabilities

Figure 3.3-8 Residential Land Price Index



Looking at the share of owner-occupied houses in Japan for the period 1988-2008¹⁰ it is evident that the rate of home ownership has been around 60 percent since 1988, as shown in table 3.3-1. Home ownership was at the highest in 1983. However, following the burst of the housing bubble, the subsequent prolonged recession during the 1990s, the ratio of owned houses declined, from 61.3 percent in 1989 to 59.8 percent in 1993. Since then it has increased by only a margin, and in 2008 it stood at 61.1 percent.

Table 3.3-1 Ratio of owned houses – percentage(1983-2008)

1983	1988	1993	1998	2003	2008
62.4	61.3	59.8	60.3	61.2	61.1
Source: Statistical Survey Department, Statistics Bureau, Ministry of Internal Affairs and Communications					

3.4 Financialisation and the current account

¹⁰ Data presented in Table 3.3-1 are based on the Housing and Land Survey, and 2008 is the last available year

This section examines the link between financialisation and the current account development in Japan. The liberalisation of international capital markets and the lifting of capital control during the 1980s have led some countries to record a current account deficit whilst other countries have maintained large current account surpluses. This way, it is argued that the deregulation and liberalisation of financial markets and capital accounts have created global imbalances. As discussed in section 2 of this paper, Japan can be categorised as an export-led country and has run a consistent current account surplus since 1981. However, the trend in the current account has declined sharply since 2011 (Figure 4.1- 1). As evident from Figure 1 the significant decline in the current account surplus is mainly due to the decline in the deficit of goods, which is a consequence of the decline in net exports. Japanese exports have declined substantially since 2008, with the real exchange rate increasing after 2007 (figure 4.1-2). However, in 2013 the exchange rate reached the lowest level since the 1980. Whilst net exports suffered a substantial decline in 2010, account for around 0.7 percent of GDP, net primary income has remained positive through the period.

Figure 4.1-1 Current Account, percentage of nominal GDP

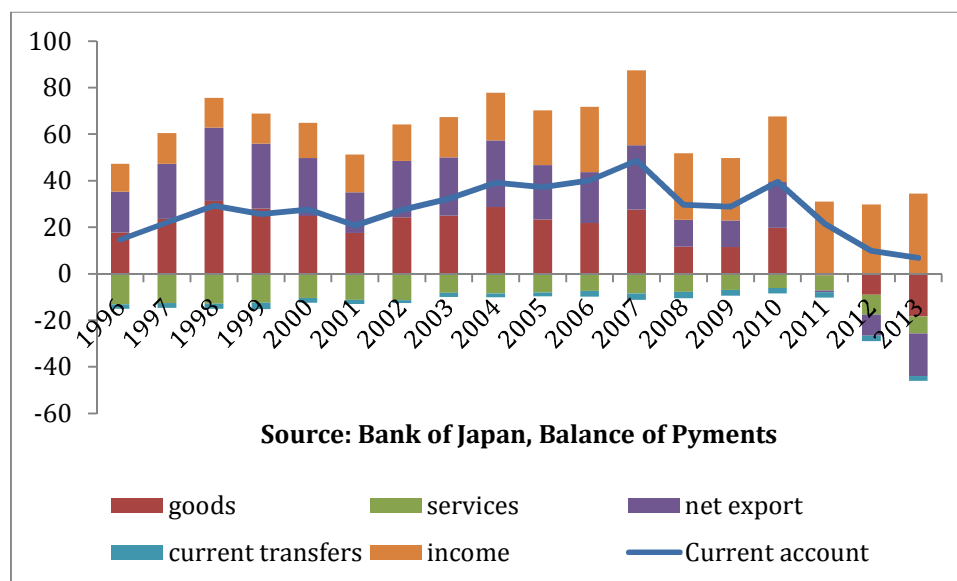
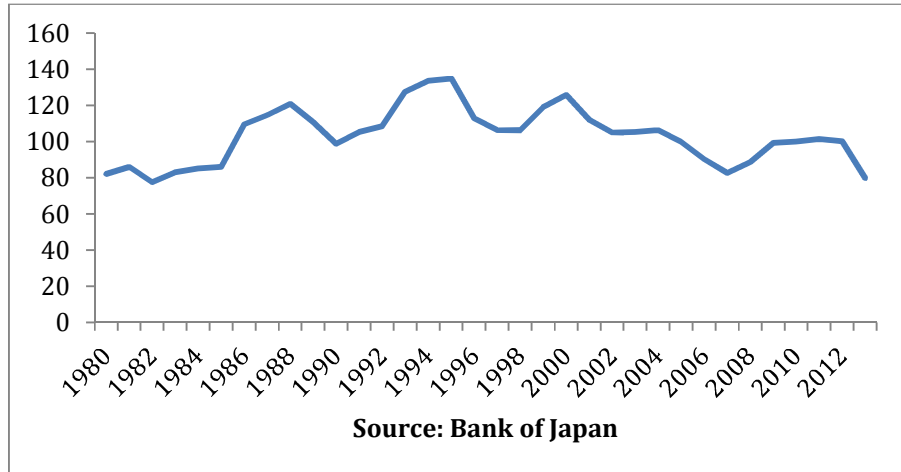
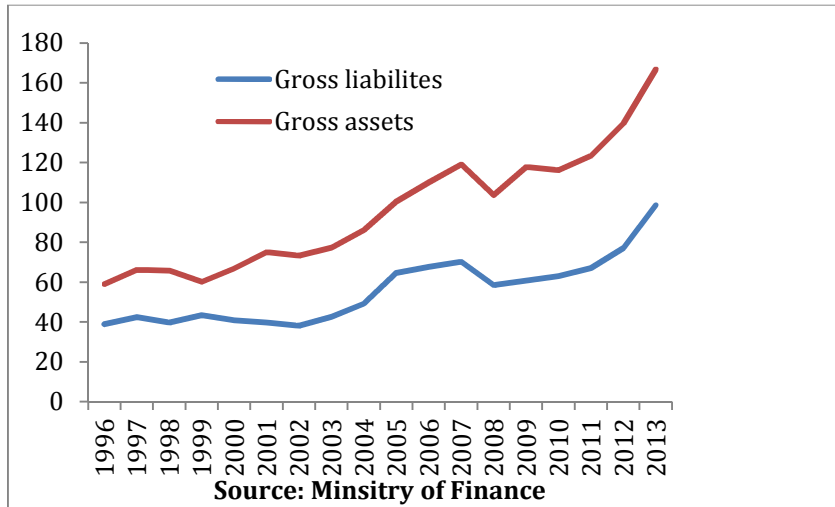


Figure 4.1-2 Effective real exchange rate



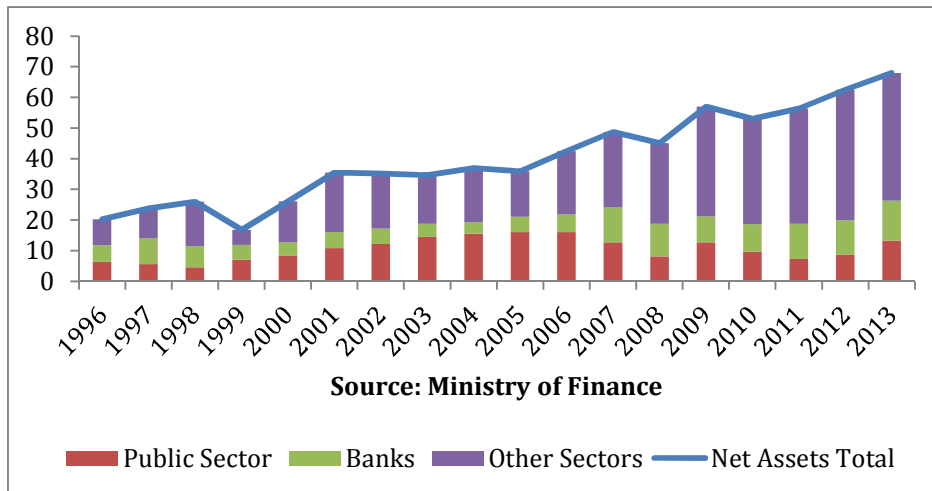
The current account surplus that Japan has consistently registered is associated with positive balances in the country's international investment position. As shown in figure 4.1-3, Japanese international gross assets have substantially increased since 2007, increasing from 119 percent of GDP to around 167 percent of nominal GDP in 2013. The same pattern can be observed for the country's gross liabilities, increasing from 60 percent of GDP in 2009 to around 99 percent of GDP in 2013. According to a report from the Bank of Japan the increase in gross external assets in 2013 is as a result of yen depreciating, mainly against the US dollar and the euro. This has increased the value of Japan's external assets. The increase in the liabilities has been mainly due to higher external demand for Japanese equities, whose prices have experienced an upward trend since the trough of the crisis (Bank of Japan 2013).

Figure 4.1-3 Japan international assets and liabilities as a percentage of nominal GDP



The surplus in the net international investment position has, as a consequence of rising gross assets, steadily increased, reaching its highest level in 2013, a surplus of nearly 70 percent of GDP (Figure 4.1-4).

Figure 4.1- 4 Net International investment position



4. Financialisation and the economic and financial crisis as the crisis of finance-dominated capitalism

As stated above Japan's economy was hit the hardest during the latest global financial crisis. The country's GDP annualized growth rate declined by as much as 12.5 percent in the first quarter of 2009. In February that year unemployment figures soared, reaching nearly 3 million (McCurrey 2009a). Average wages, including bonuses and overtime payments, also declined by 2.7 percent from February 2009. Household spending fell by 3.5 percent in February 2009, and retail sales plunged by 11.5 percent over the same period (The Economist 2009). The weak economic conditions were present despite the country's banking system showing little signs of weakness in the aftermath of the 2007-2009 financial crises.

This is because, unlike banks in other development economies, Japanese banks were not exposed to structural financial products or any subprime-related products (Vollmer and Bebenroth 2012). This placed Japanese banks in a better financial position than their international competitors. This was perhaps most evident from the fact that US banks were rescued at the time by Japanese banks. For example, in January 2008 Mizuho Financial Group invested \$1.2 billion in purchasing 18 percent in preferred shares, in Merrill Lynch (Montgomery and Takahashi 2011; Taniguchi and Sato 2008). In September 2008, Mitsubishi UFJ Financial Group purchased a fifth of Morgan Stanley in a \$9 billion dollars deal (Story and Sorkin 2008). In the same month Nomura Holding Inc, Japan's biggest brokerage firm, announced the purchase of Lehman Brother's equities and investment banking operations in Europe and Middle East (Slater 2008).

However, the global financial crisis did have an impact on the country's stock market. The Nikkei 225 stock price index fell significantly in 2008, as shown in figure 3.3-5. Fackler (2008) argues that this was mainly due to foreign investors panicking during the crisis. But perhaps the most significant impact on the

country's exports has come from the decline in foreign demand. Many commentators attribute to the recession Japan experienced in 2008-2009, to this decline. In this respect there seem to have been no contagion effects in Japan from the crisis through international financial markets.

One of the main reasons given by many commentators of the poor performance of the Japanese economy in the aftermath of the financial crisis was the decline in exports, as a consequence of foreign demand falling significantly.

Subsequently, firm cut back on production plans and reduced the number of job openings. For example Toyota, the world's largest car manufacturer, in 2009, reported its first losses in 60 years, amounting to 436.9 billion yen for the year 2008, with a further 550 billion yen predicted losses for 2009 (McCurrey 2009 b).

One of the consequences of the firm's deteriorated financial conditions in the labor market, was the reducing the number of graduate openings, by almost 50 percent (McCurrey 2009a).

In response to the recession Japan experienced in 2008-2009, the government in April 2009 announced a 10 trillion yen fiscal stimulus. This is addition to the previous International Monetary Fund recommended stimulus measures, amounting to 12 trillion yen, which accounts for 2 percent of GDP (Nakamoto 2009). The Bank of Japan also intervened aiming to support the recovery of the economy by means of purchasing government bonds (The Economist 2009). Other measures of monetary easing included a fixed-rate funds –supplying operations, as well as providing clearer intentions in the commitment to maintain a virtually zero interest rate policy (Lam 2011).

In October 2010, the Bank of Japan also introduced a new asset purchase programme under its Comprehensive Monetary Easing (CME) policy. Under this program private sector financial assets were purchased. This program facilitated purchases of various financial assets such as government securities, commercial

paper (CP), corporate bonds, exchange-traded funds (TEFs) and Japan real estate investment trusts (J-REITs) (Bank of Japan 2010).

In the second quarter of 2009, the Japanese economy was on the track of recovery with the GDP growing at an annualized rate of 7 percent. During this quarter exports increased by 6.3 percent, but private consumption grew by only 0.8 percent (BBC NEWS 2009). However in 2010 the Japanese economy still shows sign of weakness with GDP contracting by 3 percent in the last quarter of the same year. Given the low domestic demand that characterises the Japanese economy, it becomes apparent that its economy is heavily dependent on foreign demand (Moto and Kihara 2010).

In an attempt to combat deflation and revive the economy the newly elected Prime Minister Shinzo Abe¹¹, introduced a new economic policy framework, consisting of 'three arrows', which are: a substantial fiscal stimulus, aggressive monetary easing and structural reform. A report from the IMF suggests that in the months following these so-called "Abenomics" policies domestic demand showed signs of recovery (IMF 2013). In relation to the aggressive quantitative easing undertaken by the Bank of Japan the Economist reported that inflation also picked up by the end of 2014. In April 2013, as part of the dramatic monetary expansion the Bank of Japan, announced a 2 percent inflation target to be achieved within a two-year time span. However, the Economist argues, that achieving the inflation target by April 2015, seems plausible (The Economist 2013).

These monetary measures were used simultaneously with aggressive fiscal spending. In January 2013, the country's prime minister announced a fiscal stimulus package, a total of 10.3 trillion yen (Nakamoto 2013). This fiscal package was estimated to create around 600,000 new jobs and increase Japan's GDP by 2 percent. However despite the efforts of the Japanese government to boost

¹¹ Which took office in December 2012



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no 266800



economic growth in November 2014 Japan entered recession. This is the second recession in the last two years.

5. Summary and conclusion

This paper has analysed the development and effect of financialisation on the Japanese economy. It is argued that financialisation has not been significant in Japan, and thus has no explicit effect on the recession the country experienced in 2008-2009. This paper identifies the level of investment to be the most significant determinant of not only for the prolong recession Japan experienced during the 1990s but also in the recession of 2008-2009.

In summary this paper, introduction aside, was divided in 3 sections. Section 2 gave an overview of the long-run development of the Japanese economy dating back to 1980. The most interesting fact about the Japanese economy revealed in this section is perhaps the massive decline in real GDP during 2008-2009, which was higher than that experienced during the 1990s. The decline in exports was identified as the main cause of such massive decline, arising due to the fall in foreign demand in the aftermath of the global financial crisis starting in 2007. The financial balances of the main sectors, suggest that the Japanese economy remains dependent on export-led growth. In addition, this analysis provides evidence that the Japan is characterised by a high savings rate by both the household and corporate sector. The savings in the latter sector, mostly associated with the period in late 1990s, is in accordance with the balance sheet recession argument made by Koo (2008). The implication here is that after this period Japanese corporations started paying down their debts, and hence productive investment plunged.

Section 3 analysed the effect of financialisation on income distribution, investment and household consumption. Data in income distribution finds some evidence of financialisation in Japan for the period 2003-2007. It was argued that over this period rentier income increased at the expense of lower wage share. Furthermore, the rise in rentier income was mainly associated with a rise in

dividend income, as suggested by the financialisation hypothesis, albeit for only a four-year period, between 2003-2007. The empirical data analysis also finds little evidence that supports the financialisation hypothesis in relation to investment in capital stock and nearly no evidence of any impact of financialisation on household consumption.

It was argued that Japan's fixed capital formation has steadily declined since 1990, whilst financial income for the non-financial corporate sector has been negative since 1994. On the other hand the analysis of the gross sources of finance for corporate investment, suggest that in the period 2006-2009, both internal finance and new equity issues declined. This could be seen as some evidence to the financialisation hypothesis, explaining such a decline as a result of higher dividend payout ratios by shareholders. The last point of section 3 analysed the relationship of financialisation and household consumption, finding no evidence of supporting such relationship. The empirical evidence suggests that the Japanese household sector is relatively little indebted. Mortgage debt has remained relatively low, and propensity to save out of disposable income is high, in comparison to other advanced economies.

Section 3 also provided an analysis of Japan's current account development. The evidence provided suggests that the current account surplus has declined sharply since 2011, mainly due to a significant decline in the Japanese exports. In relation to Japan's international investment position, it was argued that its improvement since 2011 is mainly due to an increase in foreign assets as a result of a weaker yen.

Section 4, argued that it is the manufacturing sector that was badly damaged during the crisis, as a consequence of the decline in the country's exports. The subsequent fall in industrial production has had major implications for the rest of the economy, as evident in the high unemployment rate, and the fall in private consumption that Japan experienced during this period. This and the argument

raised in section 2 of this paper suggest that it is the low level of fixed capital formation rather than financialisation (for which the evidence is tenuous at best) which brought about both the prolonged recession during the 1990s and contributed to the significant fall in economic activity during the 2008-2009. If financialisation was present in Japan, its fragmentary impact suggests that, at best, it has been a temporarily or cyclical phenomenon, rather than the long-term trend, identified in the financialisation literature.

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7. Appendix

Table 7-1 The Flow of Funds

<i>Gross sources</i>	<i>Gross uses</i>
1. Internal	7. Cash and deposits
2. Bank loans	8. Equity purchases
3. New equity issues	9. Bond purchases
4. Bond issues	10. Trade credit given
5. Trade credit Received	11. New capital formation
6. TOTAL SOURCES	12. TOTAL USES
<i>Net sources</i>	<i>Net uses</i>
Internal (1)	
Net bank (2-7)	
Net equity (3-8)	
Net bonds (4-9)	
Net trade credits (5-10)	
NET SOURCES (6-10)	PHYSICAL INVESMENT (11)

Table 7-2 Definitions of gross and net sources (aggregate data)

a) definitions of gross sources		
<i>Sources</i>	<i>Definitions</i>	<i>Notes</i>
Internal sources	Net saving plus consumption of fixed capital	
Bank Finance	Includes loans by private and public financial corporations, instalment credit not included in consumer credit and commercial paper. Assumed to include bills bought and sold ("tegata" bills discounted at banks)	After 1987 includes commercial paper (new instrument)
Bonds	Includes the following under ' securities other than shares', industrial securities, external	Non-consolidate, i.e. intra-sectorial transactions are shown

	securities issued by residents, public corporations securities, securities investment trust and repurchase agreements and securities lending transactions	
New equity	Shares and other equities	Non-consolidated
Trade Credit	Trade credits and foreign trade credits, accounts receivable/payable	Non-consolidated, but negative figures may appear in both sources and uses due to reporting conventions (e.g. when trade credits advanced falls year on year the creditor firms' uses are negative and the debtor firms' sources are also negative)
Capital Transfers	Capital transfers, etc., receivable	
Other	Loans by non-financial sector, direct investment, deposits money, financial derivatives, other external claims and debts	
b) definitions of net sources		
<i>Sources</i>	<i>Definitions</i>	<i>Notes</i>
Interanl Sources	Same as gross	
Bank finance	Subtracts: currency and deposits, commercial paper	
Bonds	Subtracts: securities other than shares except commercial paper	

New equity	Subtracts: shares and other equities, outward investment in securities	The section for outward investment in securities does not separate equities from bonds. It is assumed that equities are the main investment
Trade credit	Subtracts: trade credits and foreign trade credits, accounts receivable/ payable	
Capital transfers	Subtracts: capital transfers, etc., payable	
Other	Subtracts: loans by non-financial sector, direct investment, deposits money, financial derivatives, other external claims and debts	

Table 7-3 Net sources of finance, yearly (percentages)

	internal	bank finance	bond	equity	trade	capital	other	stat.adjust
1994	95.6	-7.8	-3.3	7.1	0.4	7.2	-3.2	-4.0
1995	117.1	-38.8	6.1	0.2	-9.4	9.4	19.5	4.2
1996	107.0	-19.3	3.8	-3.1	-2.3	7.8	10.4	4.2
1997	113.3	3.2	-6.1	0.1	5.2	6.4	8.7	30.8
1998	70.9	-6.4	-0.2	-1.4	0.1	27.3	2.5	-7.2
1999	127.9	-26.9	-16.1	10.8	2.5	5.2	-7.6	-4.2
2000	118.1	-32.8	3.9	3.6	-0.8	5.1	-0.4	-3.4
2001	103.0	-31.8	-1.2	1.8	8.2	4.8	5.2	-9.9
2002	130.4	-28.6	-11.1	-6.3	2.9	5.1	-1.5	-9.1
2003	121.9	-42.2	-3.6	13.0	6.6	5.8	-12.8	-11.3
2004	107.0	-22.3	-3.9	9.4	-0.3	3.1	-14.1	-21.0
2005	91.6	-5.4	2.7	8.5	-3.9	2.5	-16.3	-20.3
2006	83.3	6.5	0.6	3.1	-0.4	2.2	-3.4	-8.3
2007	100.3	13.3	2.6	-11.7	-1.4	2.1	-12.8	-7.6
2008	74.2	9.8	-4.1	-2.0	-1.4	1.9	1.4	-20.2
2009	104.5	-20.2	-1.7	4.6	0.2	3.4	-7.6	-16.8
2010	104.6	-19.6	0.1	-9.3	-4.6	3.4	1.2	-24.2
2011	96.1	0.1	-3.8	-6.8	0.9	3.6	-9.3	-19.1
2012	92.9	-9.9	6.5	-1.4	-1.9	4.3	-18.4	-27.9

Table 7-4 Gross sources of finance, yearly (percentages)

	internal	bank finance	bond	equity	trade	capital transfer s	other	statistic al adjuste ment
1994	88.4	-5.2	2.9	6.3	8.2	7.5	-7.7	0.4
1995	80.8	-15.2	-2.5	4.2	15.6	7.4	0.8	-8.9
1996	96.4	-22.9	-0.1	3.6	5.3	8.3	6.9	-2.5
1997	218.4	1.9	-4.0	7.8	-49.1	17.0	-58.4	33.7
1998	114.6	-3.2	0.1	5.7	-26.2	48.5	-4.2	35.4
1999	98.6	-18.6	-5.7	10.9	0.1	6.7	-16.7	-24.8
2000	89.3	-18.8	0.7	5.5	7.5	4.9	-5.3	-16.2
2001	133.3	-28.6	-6.1	4.8	-35.5	7.5	7.9	-16.7
2002	100.1	-28.1	-0.6	2.9	-4.9	4.8	-4.5	-30.3
2003	96.5	-21.7	-2.7	1.8	-0.2	5.4	-5.4	-26.3
2004	81.2	-12.1	-2.9	7.8	2.7	2.8	-0.8	-21.3
2005	78.2	0.1	0.2	10.1	1.1	2.6	-2.5	-10.2
2006	81.4	2.9	1.4	5.5	10.2	2.6	4.3	8.3
2007	97.4	11.5	1.6	-9.4	-6.2	2.8	-5.4	-7.7
2008	119.6	22.7	2.1	11.1	-54.3	3.8	4.2	9.1
2009	86.1	-13.0	0.8	5.4	0.2	3.6	-0.7	-17.6
2010	79.5	-5.3	1.5	-2.6	-1.5	3.1	3.4	-21.9
2011	73.4	3.7	-2.4	-2.0	12.6	4.7	-1.7	-11.7
2012	78.7	0.8	-0.5	0.3	-4.0	5.6	1.4	-17.6