Monetary Policy and Investment Financing During Structural Change: The Japanese Financial Crisis of the 1990s

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1 Financial Crisis
2 Monetary Policy and the 'Bubble'
3 Investment and the Misallocation of Funds
4 Financial Transformation With a Bubble
5 Conclusion
6 Literature

Summary

The expansionary policy of the Plaza Accord has only been the trigger for the 'bubble' and the following financial crisis of the 1990s. The causes of the crisis can rather be found in the transformation of the financial system from a system of investment financing by banking groups to one of competition between banks and the open capital markets in the 1980s.

To show this, the article is organized as follows. Section 1 will sum up the development of the crisis. Section 2 reconsiders and evaluates the role of the monetary policy during the crisis. Section 3 will explain the structure and dynamics of the asset inflation/deflation. Section 4 will analyze this process due to financial transformation. Section 5 puts it all together.

1 Financial Crisis

The prices on the Japanese capital markets experienced a rise starting in 1986, directly

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resulting in a deflation of the capital values, which has burdened the economy until today. Figure 1 illustrates the Japanese share price index in comparison to its equivalent in the United States.

The Japanese share index exceeded the development of the U.S. index first in 1986, recovered from the world-wide stock market crash of 1987 very quickly and experienced a national crash staring in 1989, which brought the index back to the level of 1986. During 1990, a serious deflation of real estate prices also set in. In 1992, the value of commercially-used real estate had already fallen by 35%. In 1995, prices had fallen 85% compared to the peak in 1990 (Economist July 8, 1995: 83).

The strong deflation on the capital market led to a worsening of the banks’ balance sheets and assets shrunk considerably. In September 1992, the 21 largest banks held disclosed bad claims worth 12 Trillion Yen (ふるよさいかん) (Japan Times October 30, 1992: 14). Together with mortgage banks and non-bank intermediaries, this amount reached 30 Trillion Yen. A further 10 Trillion Yen of loans from the City Banks (tōgin), for

2) The claims these loans were mot served for at least 6 months.
which only symbolic interest was paid, are not included in this amount, however. In June 1995, the head of the Finance Ministry’s banking department estimated that the banks owned approximately 40 Trillion Yen worth of loans suspect to deduction. The figure used as a realistic estimation for bad loans/claims held by all banks in 1995 was about 80 Trillion Yen or around 14% of total loans outstanding, i.e. 20% of GNP. The figures for 1996 disclosed by the banks are still about 29 Trillion Yen and the estimates double this sum. (Asahi Shimbun Weekly AERA July 31, 1995: 7; Economist June 17, 1995: 82; Economist July 8, 1995; GERN 1993; Nikkei Weekly, March 24, 1997: 6).

2 Monetary Policy and the ‘Bubble’

The cause of the extreme development of the Japanese capital market is often seen as the result of the Bank of Japan’s expansionary policy following the Plaza-Accord. At this time, the Finance Ministers of the G7 decided a coordinated revaluation, especially of the Yen and Deutsche Mark, by means of an expansionary monetary policy in those countries in order to lessen the overvaluation\(^3\) of the Dollar. In contrast to Germany, the Bank of Japan followed this policy quite consequent, despite the increasing inflationary pressures.

At the end of 1985, the Bank of Japan intervened in the foreign exchange market and continuously raised their (now target) money supply M2+CD. This was carried out in order to fulfill their part of the agreement by simultaneously revaluing the Yen in comparison to the Dollar as well as accelerating domestic demand in order to reduce the U.S. trade deficit. When the Japanese exporters experienced difficulties as a result of the appreciation of the Yen, the rate of expansion of the money supply M2+CD reached approximately 10% in 1987. It was accompanied by additional expansionary fiscal measures and further deregulation of the financial markets following the Maekawa Report\(^4\). Only in mid-1989 did the Bank of Japan attempted to slow

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3) Here defined as an exchange rate level where a country runs a current account deficit.

4) This is understood as the suggestions offered by a commission under the chairmanship of the former head of he central bank Maekawa to accelerate domestic consumption. The commission and the suggestions were necessary because the US trade deficit could not be ‘sufficiently’ reduced despite the appreciation of the Yen.
down the inflation in asset markets because it had started to spread to the entire economy. The following policy change to monetary contraction led to the burst of the 'bubble' in 1990.

While examining Figure 2 many reservations must be made to the short-term-based explanation of an over-expansionary monetary policy causing a speculative 'bubble'. The growth in money supply was in no way extreme by Japanese standards. Besides international commitments, the Bank of Japan could justify its monetary actions in 1985 with a decreasing GNP growth rate, caused by the appreciation, combined with simultaneous low inflation rates. A further increase in the money supply can be observed in 1987. At this time, an international move to expansionary monetary policy took effect. It was an attempt to flood the capital markets with liquidity after the Black Monday in October in order to prevent the fall in share prices from resulting in an escalating deflation. This policy was successful on the Japanese market and share prices recovered very quickly. Even so, in an international comparison, the broad GNP deflator shows no high inflation rates at any point of time which might have necessitated
a change to a restrictive monetary policy. McCallum 1993 for example, shows in his
evaluation of monetary policy rules for Japan, that a monetary aggregate rule, as
well as an interest rule would not have been considerably more restrictive. The is true
for a 'Taylor-rule' with an interest rate instrument.

In 1989, when the asset inflation began to spread to the goods markets, monetary
policy reacted, again, in a consistent (though shortsighted) way. Monetary policy
changed to a strong restrictive course. Interest rates were raised, the monetary base
was reduced, and even credit rationing, which had not been used since 1982, was brou-
ght back into practice starting in the third quarter of 1989\(^5\). But, and this time defi-
nitely against the intentions of the policy-makers of the Bank of Japan, the result of
the restrictive policy was not only a dampening of market expectations, but a break-
down of asset markets and a severe deflationary process.

Respectively, the fallen real estate prices had an effect on the assets of private house-
holds. As of 1995 they had to accept a loss of their non-commercial real estate worth of
over 30% compared with 1991 (\textit{Economist} July 8, 1995: 83). For that reason and because
of the aversion of Japanese tax payers to support the financial intermediaries (whom
they suspected to have caused the 'bubble'), the government tried to stabilize the finan-
cial system by extensive public investment programs (60 Trillion Yen since 1992; \textit{Nikkei
Weekly} March 3, 1997: 7) instead of bailing-out individual financial intermediaries
directly.

In addition, a bank liquidation system (\textit{seisan-shisutemu}) (all together 162 banks,
naturally with a large predominance of the City Banks) in the form of a Cooperative
Credit Purchasing Company (\textit{kyōdōsaikenbaishukikō}) was formed on January 7, 1993,
with a starting capital of 7.9 billion Yen. The company was founded to buy up the
mortgage-secured claims of the banks and to allow them to gradually write off their
losses. Although the company first started buying up bad claims on March 25th, the
City Banks had already thrown 50 billion Yen worth of bad claims per bank into the
company by April 1, 1993. The City Banks wanted to compensate for their high profits,
which had grown in the meantime by 20%, through tax write-offs (the semi-annual
final reports are published at the end of March). So the company acquired claims
worth 681.7 billion Yen by April 1, 1993 from only 35 banks. With this transaction,
the City Banks realized a loss of 10 billion Yen per bank. As a result, though, the

\(^5\) 'Window Guidance' finally stopped for good in June 1991 (\textit{Hoshi, Scharfstein and
Singleton} 1993: 66).
Regional Banks already saw themselves as overburdened in this early phase and called for further governmental help with the financial burden of the company. By September 1993, the Cooperative Credit Purchasing Company had already acquired 10 trillion Yen worth of claims, without though being able to liquidate claims or real estate through purchases worth mentioning⁶).

In contrast to the Resolution Trust Company in the US, which even accepted the collapse of banks in order to quickly end the savings and loan crisis, the Cooperative Credit Purchasing Company only extended the process of writing off the bad claims due to the hope that taxable profits and the recovery of the real estate market would be enough to solve the problem. But since the company could not increase the resell transactions of claims or parcels of real estate to a considerable amount, the write-off possibilities through the company were limited and further threatened the real estate market prices.

The Cooperative Credit Purchasing Company can therefore be seen as a synonym for the governmental task to solve the crisis. First of all, the policy is 'wait and see'. Second, it offers a quite huge, but limited and hidden tool to the banks to write off their bad loans up to the amount of their taxable profits. Third, the construction falls back upon the pre-existing structures within the keiretsu (corporation groupings) because it forces the big banks to step in for the bad loans of the smaller members of a corporation grouping. These plans did not only extend the crisis by reducing the profitability of the more healthy banks during their regain of competitiveness by international standards, they also exacerbated the concentration of the banking sector and hindered further liberalizations.

3 Investment and the Misallocation of Funds

An appreciation of the currency in a country with an influential export sector and traditionally high current account surpluses hardly offers the opportunity for heavy investment in the capital markets due to increased profit expectations of the corporate

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⁶) The bad claims of non-banks within a keiretsu are taken over by the respective banks for price which experts judge to be close to the price, but still reasonable for the company to avoid bankruptcy. In this way, the company naturally suffers a loss (of the book value), which is partly covered by the bank (shien-son [participation loss]). The bank as the new owner of the claim resells it to the Credit Purchasing Company.
sector. The reason for the rise in share prices is therefore often seen in the ‘risk premium’ or the demand for assets as an inflation hedge during times of monetary instability.

Accordingly, a self-strengthening speculative bubble caused by an expansionary monetary policy should be due to a high distrust of the inflationary ambitions of monetary authorities which had to predominate the estimation of the deflationary and depressing effects of an appreciation of the Yen. In history, the Bank of Japan has already been massively expansive during periods of currency revaluation. At the start of the 1970s, during the devaluation of the Dollar in connection with the break-down of the Bretton-Woods system, the Bank of Japan tried to support the exchange rate in order to prevent a decline in the important export sector. The failed attempt led to inflation that had not been seen since the period after World War II.

But the sharp devaluations of the dollar and the expansionary monetary policies during the break-down of the Bretton-Woods system in 1970 and after the Plaza Accord in 1985 represent two entirely different situations (SCHULZ 1993). At the start of the 1970s, the Bank of Japan undertook a forceful attempt to prevent the devaluation of the dollar with an expansionary monetary and exchange rate policy, despite the grow-
ing inflationary potentials especially in the labor markets. In contrast, during the expansion beginning in 1985, the acceleration of domestic demand was a wanted element of the implemented revaluation. Furthermore, since the Bank of Japan had built up a good reputation as a guarantor of monetary stability, as can be derived from the low variance of inflation and money growth in Figure 3, the strong reaction of the asset markets after 1985 can hardly be explained by a special sensitivity of Japanese investors to inflationary monetary policy in the mid-1980s.\(^7\) In addition, although there might have been some fears for a relapse to inflationary monetary policy, inflation hedging in the asset markets should have been a temporary phenomena with a short-term peak starting in the markets of residential housing and durable goods. This can not be proved by an examination of the commercial and residential land prices in Figure 4.

The huge rise in real estate prices of over 10% a year had already begun in the market for commercial land in 1983. Figure 4 illustrates that the increase in commercial land prices only gained speed in 1985 and developed even stronger than the inflationary developments in 1973, even though the monetary expansion at that period was consi-

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\(^7\) The reaction was even stronger than in 1973 when the oil crisis complemented the problem.
Figure 5: Dividend-Price Ratio, Japan and U.S. (%)

Source: FRENCH and POTERBA (1990: 36).

derably more severe.

Since there was no monetary expansion or inflation in 1983/84 and the expansionary monetary policy of the mid-1980s hardly offers a basis for the explanation of the huge price rises through rational inflation hedging or related speculative behavior, another factor for the shift in the Japanese investment decisions has to examined. In 1982 an important liberalization of Japanese financial and capital markets began. Considerable increases in potential returns on investment in shares and commercial land could therefore have also been a reason for the asset inflation. Unfortunately, such simple measures of profitability like Dividend/Price ratios or Price/Earning ratios are not the right measures to use for returns on capital in economies during a process of liberalization. This can easily be seen from Figure 5.

Although the returns to capital on the basis of the Dividend/Price Ratio in both Japan and the USA were relatively the same in 1970 (3.9% and 3.3% respectively), from this point on, they started to drift apart from each other. While no special trend can be found in the American dividends for the period from 1970 to 1988, the returns to capital in Japan decreased steadily. In 1988, the American return to capital was about 3%; that of Japan was already under 1%.

The trend shows that the dividend return in Japan, just as in other countries with
underdeveloped capital markets, apparently follows a totally different pattern of compensating the capital owners than in the US. While the capital owners in the US were able to push through a ‘reasonable’ dividend that reflected the real returns to business, the capital owners in other countries such as Japan or Germany have had to accept lower dividends in exchange for unrealized gains. The decreasing trend in the Japanese Dividend/Price Ratio is largely due to a change in the methods of investment financing of Japanese corporations since the 1970s. The corporations switched from banking based outside financing to internal sources of finance. The substitution of external financing with internal sources or cash flow depresses the dividend return per share at the beginning and has therefore little meaning for the portfolio decisions of Japanese investors.

A much better basis for judging the profitability of Japanese investments is for that reason given by the Price/Earning Ratio (PER), which includes capital gains. But the spread between Japanese and US PERs in Figure 6 delivers much the same picture. The PER in the Japanese stock market had already risen above that in the US market in 1973. During the period 1973 to 1985, the Japanese PER was about twice the level of the US and exploded in 1985. This large difference in the PERs can be relativized, though, when the national accounting differences and effects of different national inflation rates, especially in the real estate sector, are taken into account by calculating Returns to Capital Ratios (ROC).\(^8\) The returns from Japanese capital investments

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The different inflation rates had an important impact, because starting in 1986, the large increase in real estate prices with overall lower rates of inflation in Japan compared to the US, affected the PER spread negatively by driving up the share prices. This can be illustrated by the development of Tobins'q'. Tobins'q' represents the relationship between the market value of the shares and the market value of the assets of a company. A 'q' larger than 1 points to the fact that the productive capacities or the expected returns of the company have been positively valued on the marketplace above its value, which consists of the capital goods owned by company. Even during the development of the bubble, the 'q' of Japanese keiretsu companies lay below or at 1 (HAYASHI and INOUE 1991; HOSHI and KASHYAP 1990). The market value of the companies therefore increased with the increase in their asset worth and with the increase
Figure 6: Japan-US Spread between PER (inverted scale). Returns-to-capital Ratio Spread Corrected for Accounting Methods in Japan and the US. Returns-to-Capital Ratio Spread Corrected for Cross Holdings and Real Estate Inflation in Japan (inverted) (%)

Note: For comparison purposes with the PER, the Returns-to-Capital are illustrated inverted.
Source: Ando and Auerbach (1990: 342), French and Poterba (1990: 38)

after correcting for both factors does not appear to be on a lower level than the returns in the US even after 1985.

Although the microcalculation has shown that reasonable returns on stocks were offered on the Japanese stock-markets, this calculation has been sensitive to the dynamic of the real estate sector. As has been pointed out above, the driving force of an investment process in the real estate market is usually an inflation hedging household sector. This has not been the case for Japan during the 1980s. As Figure 4 has already shown, it was commercial land which started the price hike in 1983. Figure 7 gives some evidence that this investment in the real estate market was not done by the household sector in the first place.

Figure 7 shows the relative sectoral contributions to national investment since 1965. Because the investments accredited to the households consisted mainly of real estate purchases, an inflation hedging investment into 'concrete gold' should have increased in their actual returns. Considering this, Ando and Auerbach (1990) calculated Returns-to-Capital Ratios, which are based on the accounting figures in the companies balance sheets rather than the market prices.
Figure 7: Sectoral Shares of Net National Investment and Real Economic Growth (Moving Average) (%)

Note: The graph depicts the sectoral shares of total investment. When added together, the shares will total 100 at any point. The GNP deflator was used to deflate the values. Real growth is depicted as a two year moving average.


the relative investment share of the household sector. At the same time, the increased investments made by the household sector should have ceteris paribus resulted in a reduced purchase of financial assets and therefore in a reduction of the dynamic (and hopefully more productive) investment process led by the corporate sector. Such a relation can be seen in the figure until the mid-1970s. A high growth rate of the economy was related to an high investment share of the corporate sector while an increase of the household share of investment since 1970 was correlated with a decreasing GNP growth rate (SCHULZ 1996).

This picture changed in the middle of the 1970s. After a 10-year period of relative decline in the investment share of the household sector, a relative increase of household investments occurred only in 1986, during the monetary expansion directly after the Plaza agreement. The households reduced their investment share again in 1987 and the corporate sector regained an increasing investment share. But in contrast to the phases

9) The argument deals with relative and not absolute investment shares. A relative decline is not equal to a reduction in the household investment quota.
of the 1960s when the corporate sector as the main investor produced strong growth, business investments during the 1980s only resulted in a productive use of capital on a small scale. Unlike the period seen up until the mid-1970s, there is no coincidence of growth and corporate investment a fact, at least partially due to the increased investment in real estate by the corporate sector (Tsuda 1994).

The same is true for the governmental intervention by increasing its investment starting in 1991 after the 'bubble' collapsed. Altogether, the sectors' sequential move investment with a preference for the real estate sector led to a misallocation of funds, which can be seen in the declining growth rates of real GNP after 1989 and the subsequent long-term deflation. It is most important to point out however, that this misallocation of funds was not the result of a short-term move in monetary policy or short-term speculation in the private sector. As will be argued in the next chapter, the main reason can be found in the long-term shift in the Japanese investment process due to a change in investment financing in the Japanese financial markets.

4 Financial Transformation with a Bubble

The monetary and fiscal steps resulting from the Plaza Accord interacted with a comprehensive liberalization of the financial markets which was introduced in the 1980s. Not only the portfolios of private investors, who were hoping to share in the unrealized capital gains of large corporations, were restructured to be more strongly based on share holdings. Institutional investors, such as the life insurance companies, who up until then were dependent upon government securities with low interest rates, also hoped to attract new customers with a modern investment management which placed more weight on capital stock and derivatives. In this way, private households increased their portfolio share of stock from 7.9% in 1984 to 9.9% in 1988. The Special Money Trust Funds raised their share holding from 10% to 43% and the Pension Funds at Trust banks raised theirs from 10% to 25.5% (Ueda 1990: 365). In contrast to the resulting crisis, such a diversification in the portfolios as a result of a liberalization process should have been healthy for the Japanese economy, since the additional instruments and intermediaries should raise the volume and efficiency of the economic investment process.

With the liberalization of the financial markets since the start of the 1980s, however, more significant shifts in the portfolios of Japanese investment financing have resulted.
Companies who were formerly dependent on bank financing and cash flows for investment (Suzuki 1983, Tsuru 1993), now possessed the additional ability of issuing new stocks or bonds without the participation of one of the large banks. Figure 8 illustrates the shift from indirect bank financing to a direct fund raising in the capital markets after 1982.

Again, standard theory predicts that a diversification in the investment financing of the Japanese corporate sector should have positive results. The increase in business’ and households’ portfolio choices should raise the efficiency of investment due to a better adjustment to preferences, a decrease in reaction times and a reduction of the transaction costs. For example, when banks act as intermediaries, the capital costs are usually higher since the inflexible, administratively-determined reserve requirements, capital adequacy regulations and the relatively illiquid bank loans cause higher costs of refinancing for the banks. In addition, the administrative procedures of general banks are often longer and more inflexible than the procedures of direct fund raising or the services of specialized non-banks.

These general disadvantages of investment financing with banks as intermediaries were pronounced in Japan before the liberalization of the financial markets through
procedures of credit rationing or window guidance.\footnote{This system of banking regulation was most important in Japan until the 1980s. It offered the banking system the chance to raise relatively cheap loans because of moderate reserve ratios, low capital/asset requirements and a de facto full credit insurance by the lender of last resort in exchange for strict controls in business administration, market segmentation and limited opportunities of accumulating (tax free) hidden reserves.} This system of banking regulation was most important in Japan until the 1980s. It offered the banking system the chance to raise relatively cheap loans because of moderate reserve ratios, low capital/asset requirements and a de facto full credit insurance by the lender of last resort in exchange for strict controls in business administration, market segmentation and limited opportunities of accumulating (tax free) hidden reserves.

Figure 9 illustrates the large share of loans provided by credit-rationed banks. More than 58% of all industrial loans were provided by credit-rationed banks during the entire

\footnote{The chance to fix the important interest rates by the Bank of Japan below the market rate for reasonable periods required a rationing of the volume of credit. However, although this has been considered as a special feature of Japanese banking regulation, it can be argued that banks principally have to ration their loans due to the failure of the price mechanism in financial markets with limited information, free riders, and adverse selection (JAPFEE 1971, STIGLITZ 1992, STIGLITZ and WEISS 1992a, STIGLITZ and WEISS 1992b).}
period. When the credit-rationed institutions were forced to cut the credit supply, such as during the period of restrictive monetary policy following the first oil shock and between 1979 and 1980, the national investment rate decreased along with the loan rate considerably.

After the liberalization of the financial markets in 1982 the increased competition with other intermediaries or non-banks did not reduce the participation of the banks in the credit market. Instead, the banks made up for their losses in terms of profitability by expanding the volume of their claims. This expansion of loans became the core problem of the financial crisis for two reasons. The structure of the debtors worsened for the banking system as a whole, and secondly the banks' specific preference for credit expansions against collateral led to the observed misallocation of funds towards the real estate sector.

First, banks fulfill a positive role as intermediaries for lenders and debtors as long as imperfect markets and information costs are assumed. For the creditors they provide services for cost reductions, such as the bundling of information about their clients, the screening and monitoring\(^\text{11}\) of borrowers (Diamond 1984 and 1991), or the reduction of general principal-agents problems, as long as they are connected to the companies through both loan contracts and stock ownership (Myers and Majluf 1984). The debtor, on the other hand, will gain some advantages because the business relation with a major intermediary can earn a higher credit rating over time and will therefore reduce the interest costs. In addition, a monitoring process will not only disclose corporate information to the bank. The monitoring bank, which is involved in a number of other companies, will also provide information, business contacts and a limited safety net to the debtor.

But the contributions of strong banks and keiretsu company relations with their monitoring and safety nets are not the same for all types of debtors. Very good and very bad debtors will not have any incentive to agree to monitoring by the banks as financial intermediaries. For the best debtors, it would mean higher costs since they would receive loans with favorable conditions even without monitoring due to their

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11) In a screening process, potential and current debtors are separated based upon their credit worthiness. Monitoring, in contrast, presupposes long-term relationships since this type of controlling process is supposed to push the company in the direction of the safest investment decisions with reasonable returns on a regular basis.
Table 1: Company Characteristics of Median-Companies of Corporation
Groupings (keiretsu)

<table>
<thead>
<tr>
<th></th>
<th>1977</th>
<th>1986</th>
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</thead>
<tbody>
<tr>
<td>Tobin’s q (for all assets)</td>
<td>1.32</td>
<td>1.68</td>
</tr>
<tr>
<td>(Investment)/(Capital)</td>
<td>0.07</td>
<td>0.19</td>
</tr>
<tr>
<td>(Market value of debt)/(Market value of equity)</td>
<td>1.26</td>
<td>0.37</td>
</tr>
<tr>
<td>(Borrowing from group)/(Total bank borrowing)</td>
<td>0.31</td>
<td>0.29</td>
</tr>
<tr>
<td>(Total bank borrowing)/(Total debt)</td>
<td>0.93</td>
<td>0.88</td>
</tr>
<tr>
<td>(Borrowing from group)/(Total debt)</td>
<td>0.28</td>
<td>0.22</td>
</tr>
<tr>
<td>(Total bank borrowing)/(Capital)</td>
<td>1.75</td>
<td>1.01</td>
</tr>
<tr>
<td>(Borrowing from group)/(Capital)</td>
<td>0.51</td>
<td>0.30</td>
</tr>
</tbody>
</table>

Source: HOSHI, KASHYAP and SCHARFSTEIN (1990a: 112).

good reputation. In particular, respected, older corporations could reduce their credit
costs by cashing in their risk bonus directly in the capital markets. On the other hand,
the corresponding bank loans are hardly attainable for risky debtors since, regardless
of possible spectacular profit chances, they would fail the initial screening process.
They will therefore gain from the ready availability of developed capital market instru-
mements for risk capital, whose high risk premiums they hope to be able to cover with
the profits from their market niche. However, in particular young companies with safe
projects and older companies with an unfavorable business development in the recent
past will fall back upon bank loans. Both company types are dependent upon the posi-
tive reputation that stems from the banks’ monitoring and are willing to bear the costs.

The general trend towards substituting the expensive or complicated bank loans with
other capital sources could already be seen in Figure 8. Especially interesting, though,
is the behavior of firms in a keiretsu since they are the primary debtors of the City
Banks. Table 1 lists the changes in investment financing for a median company in a
keiretsu.

Even the median companies reduced their debts substantially. For the investments
they still financed through loans, they reduced the share of loans from banks and the
share of loans from within the group. The clear shift from the old structures is even
more apparent when the performance of the companies who reduced their group-bank
loan share are considered. While the companies that reduced their group-loans reached
a yearly growth rate from 1977 to 1986 of 6%, the companies that increased their
group-loans only showed a growth rate of under 1%. Additionally, the companies that possessed a high net asset worth as well as the keiretsu companies with a Tobin ‘q’ above average (a high market valuation of the company) turned away from the banks. The opposite is true for companies with a below average ‘q’. Apparently, the banks lost the ‘good’ companies of the keiretsu and kept or won the ‘bad’ companies of these corporation groupings (HOSHI, KASHYAP and SCHARFSTEIN 1990a and 1993).13

Second, the main objective of banks is not primarily the maximization of returns from investment projects they are financing. They earn their profits from the margin between interest rates on deposits and loans and are not concerned about the possible above or below average profits of their borrowers. In other words, as intermediaries, they are not exposed to any direct interest risk. Their deliberations are necessarily much more directed towards the loan risk or the security of the return of their claim, because the expected returns have only to be written off in the case of a debtor’s bankruptcy. The investment structure of an economy based upon the calculation of banks acting as intermediaries is therefore more oriented towards turnover (which increases the volume of loans) and bankrupt-free structures with little competition (which increases loan security) instead of efficiency and profit.13 Furthermore, with the major banks forming the core of the financing structure of the keiretsu as well, such a turnover and less profit oriented calculation has even influenced the decision-making of the large corporations and had some serious implications for the allocation structure and risk distribution in Japan (Hodder 1988).

Due to the absence of efficient capital markets, only the substitution of bank loans

12) The same is in the meantime true for the participation in the safety nets of the keiretsu. The cross holdings from relatively ‘bad’ companies, that can make up a considerable cost for a company listed on the stock market, have also been reduced. Between 1991 and 1994, non-financial companies listed on the stock market sold stocks for 7.1 trillion Yen. Another 340 billion Yen worth of stocks were sold in the first quarter of 1995 (Economist June 3, 1995: 83).

13) It has already been shown, that cover distributed to capital owners from these companies in form of dividends was only a small remaining category. The asset accumulation connected to the low dividends and the potential inefficiency of companies in a keiretsu due to their turnover orientation can also be seen as the main reason for the companies need to protect themselves against tough competition during a crisis and against hostile takeover bids from abroad through the cross holding of share packages. This is in direct contrast to the situation in the U.S. where hostile takeover bids, especially in the 1980s, acted as an important tool in the competition of corporations for investors’ scarce capital.
with trade loans and the access to the capital of large insurance companies offered companies financing possibilities during periods of restrictive monetary policy. Companies that belonged to a larger corporate grouping or *keiretsu* with a bank in the middle were therefore considerably advantaged (Hoshi, Kashyap and Scharfstein 1991). This is because not only the major banks, but also all the large insurance companies belonged to one of the *keiretsu*. Hoshi, Kashyap and Scharfstein (1990) indicate, for example, that when their cash flow is reduced, companies that do not belong to any grouping reduced their investments by half the amount of their cash flow reduction while *keiretsu* companies only reduced their investments by 5%. At the same time, the keiretsu companies also regenerated their investment and sales level quicker after a crisis because the safety net of the *keiretsu* protected them from disinvestment or bankruptcy.

Although the safety net of the keiretsu enabled successful avoidance of bankruptcy, the costs of such bail-outs are still questionable because the number of inefficient companies looked atlas in a keiretsu will reduce its overall efficiency. Bankruptcy and takeovers in a crisis do have considerable adjustment costs but they also form a central element of competition and efficiency in a market economy. The disadvantages as well as the advantages of such business relations are felt by the Japanese households. Their income from wages and realized capital gains are much less than could otherwise be realized. But on the other hand, they will not easily become unemployed during a crisis.  

To sum up, the financial liberalization of the 1980s should have reduced the market share of the banks because of the loss of some good debtors. The financial liberalization should also have improved the risk distribution in the economy and the availability of risk capital for small companies. But since the liberalization of the 1980s also changed the limitations in banks’ possibilities to extend the volume of their loans with no timely counteractions of the monetary authorities, they could even expand their

14) Such a bank-company structure can be considerably advantageous for the households. In stable company structures without those costs that result from bankruptcy, such as the destruction of capital, of information structures, human know-how on the job, and without the large search costs of employees after losing a job, a considerable economic potential is provided to compensate risk-adverse households. Consequently, financial systems which are strongly bank oriented have advantages that can make them competitive against capital market oriented financial systems although it is only by chance that the long-term balance of such an economy coincides with that of a pure (capital) market solution.
amount of claims.\textsuperscript{15)\textsuperscript{16}}

Still worse, since banks with deteriorating balance sheets and risk structures tried to find new customers and low risk projects at the same time, they awarded loans to real estate projects or against collateral on a large scale. For that reason the reasonable 'micro-calculation' of the single banks became a 'macro-error'.\textsuperscript{16} The common institutional division between market risks (including interest risks) and loan risks, whereby banks should only carry the loan risks, has proved to be inadequate during the financial deregulation in Japan. Economically, it is hardly possible to detach banks from market risks since the illusion of security of any asset can burst just as quickly in a crisis as their supposedly secure book values must be written off to the new market value.

5 Conclusion

The expansionary policy of the Plaza Accord has only been the trigger for the bubble' and the following financial crisis of the 1990s. The causes of the crisis can rather be

\textsuperscript{15) Due to the evaluation of the Yen in the 1980s, the City Banks also got the chance to extend their business internationally. With still low capital costs at home and relatively decreasing asset prices abroad, international investment became an important alternative for the shrinking margins at home (IWAMI 1993 and 1994). This expansion of loans, with the given a simultaneous worsening in the structure of the debtors was assisted in Japan by other factors. Since the Japanese City Banks acted until the mid 1980s in regulated markets with the Bank of Japan as 'Lender of Last Resort' in the background, they were faced with neither high capital reserve requirements as protection against capital risk nor had they high administrative or monitoring costs since they mainly dealt with wholesale clients. At the same time of the burst of the 'bubble', the advance of the Bank for International Settlements (BIS) in 1988, which dictated a capital adequacy ratio of 8% since 1993 for international banks (TIROLE 1994: 474), changed this situation dramatically.

\textsuperscript{16) HELLWIG (1994) notes:

"Such a reorientation of banking regulation seems the more important since in the past the very concern of regulators with the risklessness of deposits seems to have been a source of distortions that actually have enhanced the interest rate risk exposure of banks and other institutions: in certain jurisdictions, regulatory restrictions on lending have led to concentrations of activities on safe home mortgages and other real estate related lending where interest-induced valuation risks are particularly high. Government provision of cheap deposit insurance has effectively subsidized 'risk free' demand and savings deposits relative to other forms of finance (HELLWIG 1994: 1385)."
found in the transformation of the financial system from a system of investment financing by banking groups to one of competition between banks and the open capital markets of the 1980s. The banking-oriented investment financing with its turnover orientation and its implicit socialization of risk had been an important element in the high growth area of the Japanese economy since the early 1960s. As long as the major banks received a part of profits and participated in the controlling of corporation groups they were financing while being a member, and as long as the Bank of Japan or the Ministry of Finance limited the volume of loans through credit rationing on a regular basis, the relative disregard to the profitability of investments by the banks contributed to strong growth with reasonable inflationary problems. This form of investment financing only became a serious economic problem when important alternative financing sources became available and when the Bank of Japan abandoned its direct control of the banks, without fitting them to the market in terms of profitability and clear cut limitations such as capital adequacy requirements. As a result, the Japanese banks, still mainly interested in expanding their loans and still being protected by the Bank of Japan as a 'lender of last resort', but yet worried by higher competition and of being increasingly stripped of the control as well as the profit share of the company groupings they were members, took wrong market risks.

The consequences for the Japanese investment financing were far-reaching. Although the historical financing and control relations between the monetary authorities, the city banks and the companies were fading, all actors did not face the consequences. The companies used the expanded financing possibilities of the deregulated markets, but protected themselves from the now profit-oriented control of the liberalized capital markets through cross-holding of share packages. The banks exhausted their financing possibilities and replaced the loss of their well known 'good' clients from the heiretsu, with new clients, which where not chosen through an expensive and time-consuming screening and monitoring process, but for their seemingly safe real estate projects or collateral. Since the credit risk is reduced with the collateral for the individual bank, but not for the economy as a whole, the real estate-oriented misallocation on the asset markets finally led to a restrictive intervention by the 'lender of last resort' and the collapse of the 'bubble'. While doing so the monetary authorities did not fulfill their market role as well. Instead of covering the process of financial transformation with a policy of sound banking regulation, they restricted themselves to a shortsighted 'classical' monetary policy of interest rate control and short-term intervention.
With this, the problems of the Japanese economy in its transition to liberalized financial markets increased dramatically. The private households, who are the real 'lender of last resort' with their nominal assets and taxes, lost simultaneously their confidence in the allocation function of the new capital markets and the old banking structure. As a result, they hardly supply the capital markets with any new capital and refuse to bail out the banking system at the same time. But since the take-over of losses is economically unavoidable in one form or another, it is high time for a switch of policy from hidden financing, further purchases of real estate and strengthening of structures from before the liberalization to a comprehensive monetary policy with further deregulation and a clear cut market frame.

6 Literature


NEEDS Database Tape 1992, Tokyo.


