

《論 説》

## The Bubble and Monetary Policy in Japan : 1984–1989\*

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### Preface

The issue in this paper would be confined to the cause of the bubble formation and development. To begin with, it would be useful to overview briefly relevant preceding researches shown below.<sup>1)</sup>

Y. Miyazaki, Fukugoh-Fukyoh : *The Compound Depression*, 1992

Y. Noguchi, Bubble no Kei-zai-gaku : *Economics of the Bubble*, 1992

Y. Suzuki, Ni-hon no Kin-yuh Sei-saku : *Monetary Policy in Japan*,  
1993

Economic Planning Agency, Kei-zai Haku-sho, 1993 : *Economic  
Survey of Japan*, 1993-94

Y. Habu, Gen-dai Kei-zai to Zai-sei : *Contemporary Economy and  
Public Finance*, 1994

〈other important books related〉

Y. Funahashi, Tsuh-ka Retsu-retsu : *The Rage of Currency  
Competition*, 1988

P. Volcker & T. Gyohten, Tomi no Koh-boh : *Changing Fortunes*,  
1992

S. Nakao, Japan Money no Uchi-maku : *The Inside Story of Japan*

*Money, 1991*

To our great regret, neither the Bank of Japan (BOJ) nor the Ministry of Finance (MOF) has published any formal report on the bubble economy, while the Economic Planning Agency analyzed it in its annual White Paper, *Economic Survey of Japan, 1993-94*. The Survey regards 1986 as the beginning date of the bubble formation. It points out the expectation for asset price rise as the most important factor of the bubble. Meanwhile it also stresses the Bank Rate (BR) cuts in 1986-87 as an important factor of the asset inflation. The latter seems to be supporting the former as its ground.

Among individual economists, Professor Y. Miyazaki presented the most full-scale analysis on the Japanese bubble. He lays emphasis on the world-wide financial deregulation as the most important factor of the bubble formation and development. His book contains almost all factors to be discussed and is very instructive. But unfortunately he is not very persuasive as to what part of, and how, the de-regulations brought about the asset inflation.

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The content is basically the summary of Chapters 5 and 6 of A. Ichinose & H. Sunami, Geki-doh-ki-no Nihon-ginkoh Kin-yuh Seisaku : 1971-89, *The Bank of Japan Monetary Policy in the Upheaval Period : 1971-89* (Dai-gaku Kyou-iku Shup-pan, 1999). But some alterations have been added.

Economists, who are deeply concerned with BOJ, generally stress the so-called "internationally co-operative economic policy" in 1986 and 1987 as the first factor of the bubble development. Here the international co-operation means the Plaza Agreement (PA, Sep. 1985), the co-operative BR cuts in 1986, and the Louvre Agreement (LA, Feb. 1987), and so on. A representative of this view is Y. Suzuki, an influential ex-BOJ economist. According to him, both BOJ and MOF hesitated to turn to tight money policy after the Black Monday (BM, Oct. 1987), because they feared that the turn to tight money must bring about depreciation of US dollar which the U. S. eagerly wanted to avoid at that time. As a result, he says, the bubble swelled because people came to hold an illusion as if the super cheap money would last forever. One interesting aspect in his argument is that he regards the bubble period in Japan as only after the Black Monday.<sup>2)</sup> This narrow confinement of the period does not seem to be very realistic.

Y. Noguchi regards from 1986 onwards as the bubble period. He points out the improvement of fundamentals first: the maintenance of unprecedented cheap-money policy and the increase of corporate profits after PA. As the causes of the bubble formation he stresses the change of the flow of funds (equity-finance and the so-called Zai-tech.) and improper macro-economic policy (suppression of the floatation of national debt and too long-lasting cheap-money policy due to the international policy co-operation).

Y. Habu (1994) presents another wider view based on a historical and comparative approach.

He emphasizes the shift of economic sovereignty from US to Japan as the basis of the bubble in Japan of this time. In the new sovereignty

country excess fund is bound to be formed through various channels, which promotes the development of the bubble. He also stresses the characteristics of Japanese tax system, which is very advantageous to firms' asset transactions, as an important factor of the Japanese bubble formation. As to the suppression of the floatation of national debt and the long-lasting cheap-money policy, he agrees with Noguchi.

In short, preceding researches point out two factors as direct causes of the bubble: the financial de-regulation and the international co-operation of economic policy. This paper is not against these views at all. However a big problem has been overlooked so far. The preceding researches have neither solved nor raised the following question: **why did the huge bubble swell under the regime of rapid appreciation of yen (the co-development of the bubble and the rapid appreciation of yen) ?** In this paper main attention will be focused on this question.

Now let us give a glance at a series of Table 1 below (pages 5-7). They will give us a rough image of Japanese bubble in the international aspect.

One thing seems to be interesting. While there seems to be some positive correlation, though not very clear, between 'M 2 - real GDP' and consumer price, there is no correlation between asset price and M 2 at all. Further, rather strangely, there seems to be a negative correlation, though not so clear, between the appreciation of each national currency against US dollar and stock prices of each country. Putting them aside, we can notice how large the Japanese bubble was when we look again at Table 1-(1).

Table 1 (1) International Comparison : Stock Price Index

	Japan	US	Canada	UK	France	(W) Germany
1984	10,560	1,178	.....	516	180	1,026
85	12,565	1,328	100	631	243	1,408
86	16,401	1,793	111	785	363	2,012
87	23,248	2,276	132	1,026	268	1,769
88	27,038	2,061	122	932	1,573	1,454
89	34,058	2,509	140	1,110	2,001	1,826
1990	29,437	2,679	-	1,092	1,517	2,111
89/84	3.2	2.1	1.4	2.2	-	1.8

Japan : Nikkei 225 US : Dow Jones Industrial Average (30 stocks)

Canada : Toronto 300 UK : FT Acturies (1962. 4=100) France : CAC 40  
(1987. 12. 31 = 100) (W) Germany : Commerz Bank (1962. 4. 10=100)

• France : year end Others : annual average

• Canada : bottom column, 89 / 85

(Source) *Weekly Toyo Keizai, Extra Issue, Annual Economic Statistics (Data Bank)*, 1995, pp. 460-496

Table 1 (2)-1 International Comparison : Money Supply (M 1)

(annual growth rate, seasonally adjusted) (%)

	Japan	US	Canada	UK	France	(W) Germany
1985	5.0	12.2	4.3		8.4	4.3
86	6.9	16.9	5.0		8.3	10.0
87	10.5	3.5	12.9	n.a.	4.8	9.0
88	8.4	5.0	6.1		2.6	9.7
89	4.1	0.9	4.6		5.7	6.3
1990	2.6	4.0	-1.9		4.1	14.3
ave. 85-89	7.0	7.7	6.6		6.0	7.9

Table 1 (2)-2 International Comparison : Money Supply (M 2)  
(annual growth rate, seasonally adjusted) (%)

	Japan	US	Canada	UK	France	(W) Germany
1985	8.4	8.0	9.5	9.4	7.4	4.5
86	8.7	9.5	8.7	14.4	6.3	7.4
87	10.4	3.6	10.1	10.5	3.5	6.7
88	11.2	5.8	7.6	17.0	3.7	6.3
89	9.9	5.5	13.1	9.9	3.9	9.1
1990	11.7	3.8	10.6	7.9	1.1	19.1
ave. 85-89	9.7	6.5	9.8	12.2	4.5	6.8

Japan : M 2 + CD

(Source) IMF, *International Financial Statistics Yearbook*, 1997, pp. 395, 409, 847, 853

BOJ, *Economic Statistics Annual*, 1992, p. 1 BOC, *Bank of Canada Review*, April 1991, S 20

BOE, *Bank of England Statistical Abstract*, 1992, p. 18

Table 1 (3) International Comparison : Real Growth of GDP  
(annual growth rate, seasonally adjusted) (%)

	Japan	US	Canada	UK	France	(W) Germany
1984	4.3	6.2	6.3	2.3	1.3	2.8
85	5.0	3.2	4.8	3.8	1.9	2.3
86	2.6	2.9	3.3	4.3	2.5	2.3
87	4.1	3.1	4.3	4.8	2.3	1.4
88	6.2	3.9	4.9	5.0	4.5	3.6
89	4.7	2.5	2.4	2.2	4.3	3.7
1990	4.8	0.8	-0.2	0.4	2.5	5.7
ave. 85-89	4.5	3.1	3.9	4.0	3.1	2.7
M 2-real GDP	<b>5.2</b>	<b>3.4</b>	<b>5.9</b>	<b>8.2</b>	<b>1.4</b>	<b>4.1</b>

(Source) IMF, *International Financial Statistics Yearbook*, 1998, p. 155

Table 1 (4) International Comparison : Consumer Price Index

	Japan	US	Canada	UK	France	(W) Germany
1984	91.7	79.5	77.3	70.7	81.2	88.2
85	93.5	82.4	80.4	75.0	85.9	90.2
86	94.1	83.9	83.7	77.6	88.1	90.1
87	94.2	87.0	87.4	80.8	91.0	90.3
88	94.9	90.5	90.9	84.7	93.5	91.4
89	97.0	94.9	95.5	91.3	96.7	94.0
1990	100.0	100.0	100.0	100.0	100.0	96.5
89/84	1.06	1.19	1.24	1.29	1.19	1.07

1990=100 (Germany : 1991=100)

(Source) IMF, *International Financial Statistics Yearbook*, 1997, pp. 295, 421, 435, 523, 887, 893

Table 1 (5) International Comparison : Exchange Rate

(against 1 US dollar\*)

	Japan	Canada	UK	France	(W) Germany
1984	238	1.30	1.34	8.74	2.85
85	239	1.37	1.30	8.99	2.94
86	169	1.39	1.47	6.93	2.17
87	145	1.33	1.64	6.01	1.80
88	128	1.23	1.78	5.96	1.76
89	138	1.18	1.64	6.38	1.88
1990	145	1.17	1.78	5.45	1.62
89/84	0.58	0.91	0.82	0.73	0.66

\*UK : US dollar against 1 pound, bottom column = reciprocal

• rate = annual average

(Source) IMF, *International Financial Statistics Yearbook*, 1997, pp. 293, 419, 433, 521, 887

## Section 1 The Early Stage of the Bubble (1984-1985)

In this paper we would like to avoid discussing what the definition of the “bubble” is or should be.<sup>3)</sup> Instead we only take an extraordinary rise of asset prices for a bubble. Here the word “extraordinary” is used,

supposing our historical standard as its basis. In the post-war Japan, when the rise of asset prices by about 20% (or more) continued for more than two years, it was unusual. That is to say, we had such a rapid rise only two times, from 1959 to 1961 and from 1972 to 1973 as are partly seen in Table 2, and either of them ended with a crash.

Let us just refer to one merit when we adopt this extremely naive approach. It would be quite rational to suppose that a certain size of GDP of a country can support a certain amount of total asset price or the earnings on such assets. Meanwhile, as is well known, the size of GDP does not fluctuate so drastically : the movement of GDP is relatively mild. Therefore, even if we paid attention only to the movement of asset prices, we would be able to judge whether the swollen assets, or their earnings, could be supported for a long time by the GDP level of that year and after.

Table 2 Price of Stocks : Nikkei Averaged 225 Index

(yen)

year	Nikkei 225 Index	year	Nikkei 225 Index
1971	2,385	81	7,510( 9.3)
72	3,755( 57.4)	82	7,399( -1.5)
73	4,759( 26.7)	83	8,808( 19.0)
74	4,276(-10.1)	84	10,560( 19.9)
75	4,243( -0.8)	85	12,565( 19.0)
76	4,651( 9.6)	86	16,401( 30.5)
77	5,029( 8.1)	87	23,248( 41.7)
78	5,537( 10.1)	88	27,038( 16.3)
79	6,272( 13.3)	89	34,058( 26.0)
1980	6,870( 9.5)	1990	29,437(-13.6)

Figures show the annual average of day to day Nikkei Averaged 225 Index.

Inside of each ( ) shows annual rate of growth.

(Source) *Weekly Toyo Keizai Extra Issue, Annual Economic Statistics (Data Bank)*, 1976, p.134, 1995, pp. 398-399



Anyway when we adopt such a very naive approach, the year 1985, at latest, seems to be already in the range of the bubble air mass. If we look at Table 2 again, and at Table 3, especially at the right column, B/A, we can see the ratio of outstanding stocks to GNP in 1984 had already exceeded the hitherto historical record of 1972, to say nothing of the ratio in 1985. According to our examination, which is not shown here, the rise of this ratio is not due to the volume of issued stocks but mainly due to the soaring up of the price.

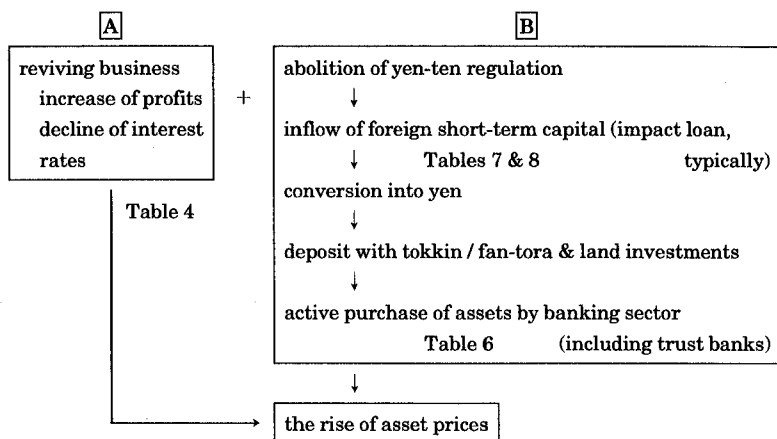
Table 3 Total Current Value of Stocks Listed on All of the Japanese Stock Exchanges and its Ratio over GNP

(10 billion yen)

	(A) GNP	(B) Total Current Value	B / A (%)
1972	9,240	4,955	53.6*
73	11,252	4,003	35.6
74	13,400	3,747	28.0
75	14,817	4,478	30.2
76	16,642	5,492	33.0
77	18,553	5,364	28.9
78	20,447	6,906	33.8
79	22,182	7,202	32.5
1980	24,010	7,995	33.3
81	25,682	9,486	36.9
82	26,970	10,124	37.5
83	28,057	13,123	46.8
84	29,845	16,750	56.1
85	31,744	19,622	61.8
86	33,125	29,303	88.5

\* The figure of 1972 had been the record. B : at the end of each year  
(Source) Tokyo Stock Exchange, *Annual Statistics of Securities*, 1997,  
p.10

*Weekly Toyo Keizai, Extra Issue, Annual Economic Statistics (Data Bank)*, 1990, p. 72



Then why did such a sharp rise take place in 1984-85? Look at the chart above.

No one will doubt that the recovery of business from the bottom of 1982 gave ground for the asset price rise from 1983 to 1985. This is clearly seen in Table 4, especially in columns concerning profits. At the same time rates of interest steadily declined up to 1989, which also bolstered the rise of asset prices.

However 1985 was the year of mild recession. Further short-term rates of interest became steeply higher from October due to the BOJ guidance.<sup>4)</sup> But even at that time stock prices rose as we see in Table 5.

Even taking a probable time lag into account, it seems to be difficult to explain the sharp rise of asset prices in 1985 only with the trend of business activity. Then what made the stock prices rise so sharply in 1984-85?

Look at Table 6. The column of "corporations" in the middle shows that in 1980's purchasing by corporation sector was always in excess of selling.

This was the strongest supporter of the stock price rise through 1980's. In the corporation sector banks were predominant. And from 1984 we can

Table 4 Profits of Firms\* and Rates of Interest (100 billion yen)

year	operating profits	current profits	call rate (%)	yield of government bond (%)
1981	252(-5.3)	165(-8.3)	7.4	8.4
82	247(-2.0)	158(-4.2)	6.9	8.3
83	253( 2.4)	177(12.0)	6.4	7.8
84	286(13.0)	209(18.1)	6.1	7.3
85	289( 1.0)	217( 3.8)	6.5	6.5
86	267(-7.6)	214(-1.4)	4.8	5.2
87	319(19.5)	273(27.6)	3.5	5.0
88	401(25.7)	343(25.3)	3.6	4.8
89	451(12.5)	393(14.9)	4.9	5.2
1990	487( 8.0)	366(-6.9)	7.2	7.0

\*Firms : all corporations for profit in all industries with capital stock of 10 m. yen or more.

Figures inside ( ) are annual rate of growth.

call rate : annual average of collateralized overnight, Tokyo

yield : annual average of end-month yields on government bonds maturing in 10 years.

(Source) *Weekly Toyo Keizai, Extra Issue, Annual Economic Statistics (Data Bank)*, 1995, pp. 360-361

BOJ, *Comparative Economic and Financial Statistics : Japan and Other Major Countries*, 1992, p. 72

BOJ, *Economic Statistics Annual*, each year

Table 5 Quarterly Change of Nikkei Averaged 225 Index (yen, %)

quarter	1983	1984	1985	1986
I	8,083( 7.0)	10,149(25.5)	12,122(19.4)	13,635(12.5)
II	8,606(17.5)	10,542(22.5)	12,578(19.3)	16,251(29.2)
III	9,109(28.5)	10,381(14.0)	12,651(21.9)	18,006(42.3)
IV	9,427(23.7)	11,196(18.8)	12,875(15.0)	17,650(37.1)

Figures show the quarterly average of day to day Nikkei Averaged 225 Index.

Inside of each ( ) shows the growth rate since the same quarter of the previous year. (%)

(Source) *Weekly Toyo Keizai, Extra Issue, Annual Economic Statistics (Data Bank)*, 1995, pp. 398-399

Table 6 Sum of Buying/Selling Balance : by investors (10 billion yen)

year	total sum of buying / selling by general security companies							
	own trade	en-trust-ed	breakdown of the entrustors					foreigners
			corporations	banks	security companies	individuals		
1981	21	-3	24	61	24	-5	-42	11
82	33	-4	37	52	25	0	-33	18
83	54	-4	58	73	46	-1	-86	73
84	1	-12	13	212	115	-2	-6	-192
85	53	-16	69	258	153	-8	-94	-87
86	53	-18	71	638	426	-10	-178	-379
87	-23	-101	78	927	559	2	-131	-719
88	150	-195	345	691	417	-15	-335	5
89	111	-382	493	935	541	-11	-266	-165
1990	38	-44	82	192	-120	7	137	

Figures are the total of Tokyo, Osaka, Nagoya Stock Exchanges.

(Source) Tokyo Stock Exchange, *Annual Statistics of Securities*, 1996, pp. 206-209

see that the excess purchase by corporation sector increased remarkably. Most part of the increase was taken by banking sector. Vigorous buying of stocks by banking sector from 1984 seems to have been the generating energy for the sharp rise of stock prices during the period.

Why then did banks begin to increase their investment in securities from 1984? The key to solve this problem lies in the abolition of yen-ten regulation<sup>6)</sup> in June 1984 and the consequent inflow of massive short-term capital from abroad. Now due to the strong pressure from the US-Japan Dollar-Yen Committee led by US side, MOF had decided to abolish yen-ten regulation in June 1984. As a result of this abolition it became substantially easy for banks to take in short-term foreign money because now banks had to make their yen-dollar position square only by overall basis. That is to say, they were freed from the regulation which had forced

banks for a long time to make yen-dollar position square on spot dealing basis.

In short, after the abolition of yen-ten regulation, it had become possible for banks to take in short-term foreign money more freely. In fact they did so. And they invested the converted money themselves in assets up to PA<sup>6</sup> and lent it mainly as impact loans (ILs)<sup>7</sup> after PA. Let us look at Table 7. We notice that from 1984 ILs began to increase by leaps and bounds. Next, the right column of Table 8 ("others") shows net short-term borrowing of banks from abroad. From 1984 this borrowing by banks also increased, which coincided with the increment of impact loan above. We can safely suppose that IL was the main propelling power for the increase of short-term capital inflow. Therefore we can infer that banks and firms must have increased their investment in assets making use of IL as their main source of investing fund.

IL is an English word coined in Japan. It means a loan made by banks

Table 7 Trend of the Impact Loan  
(100 m. dollar)

	sums carried out	sums outstanding at year end
1981	576	203
82	2,062	274
83	2,776	367
84	4,100	466
85	5,102	527
86	7,537	1,194
87	11,849	n. a.
88	17,225	n. a.
89	15,894	n. a.

- Figures are the total of short-term and long-term impact loans.
- Both columns include foreign and Japanese banks. But from 1984 on the latter has been predominant in both short and long terms.
- MOF does not show the outstanding sum from 1987 on. (The reason is not clear.)

(Source) MOF, *Annual Report of International Finance*, each year

to a business firm in a foreign currency, mostly in the US dollar. There are both short- and long-term loans, the former being by far the more important in quantity. Up to this point we can see no peculiar character. However in Japan the firm who borrowed IL from a bank immediately would sell the borrowed dollar to the very, or to another, bank and use the converted money (yen, now) for a domestic purpose. It should be kept in mind that the scale of the IL is surprisingly large, which we will mention later again.

With regard to the borrowers, *Annual Report of International Finance* by MOF, in its 1985 issue, explains as follows :

recently not only lenders but also borrowers have changed : until some years ago lenders were city banks only, but by now local banks and much smaller banks for small-and medium-sized firms, have joined the party : the change on the borrowers' side is worth paying more attention : some years ago borrowers were mostly

Table 8 Japanese Balance of International Payments (100 m. dollar)

	current a/c	capital a / c		errors & omissions	overall balance	financial a / c	
		long	short			reserve	others
1980	-107	23	31	-31	-84	49	-133
81	48	-97	23	5	-21	32	-53
82	69	-150	-16	47	-49	-51	2
83	208	-177	0	21	52	12	39
84	350	-497	-43	37	-152	18	-170
85	492	-645	-9	40	-123	2	-125
86	858	-1,315	-16	25	-448	157	-605
87	870	-1,365	239	-39	-295	392	-688
88	796	-1,309	195	28	-290	162	-452
89	572	-892	208	-220	-333	-128	-205
1990	358	-436	215	-208	-72	-78	6

(Source) BOJ, *Economic Statistics Annual*, 1993, pp. 330-331

manufacturers but recently main borrowers have come to be composed of construction, real estate industries, miscellaneous financial institutions, leasing industries, and so on.

This remark by MOF on the changing composition of borrowers disappeared from the next issue on, and has never appeared again, the reason of which is not clear. But it is worth keeping in mind that borrowers of the IL were shifting in the middle of 1980's to those types of industries who played the leading part of the bubble drama.

Positive reason for firms to take in short-term foreign money had been mainly because of its relatively lower rate of interest. Though the level of short-term rates of interest was higher in the US than in Japan, the MOF *Annual Report* says, it had been more reasonable for firms to raise short-term fund in the Euro-market.<sup>8)</sup> Banks were able to earn exchange commission in addition to the margin between lending and borrowing rates. Furthermore when lending by means of IL, banks could avoid the Window Guidance by BOJ, which was nothing but a direct form of credit control through fixing a lending ceiling for each bank.

Firms converted the borrowed money into yen and invested it partly in their primary business but increasingly in securities and lands as their prices had begun to rise. Even when firms invested the converted money in their primary business, the final result was an excessive increase of their liquidity at hand, so that we could say the total effect of the inflow of foreign money on asset markets was regardless of its direct usage.

Here we should not overlook the strong correlation between Tokkin·Fan-tora (TF)<sup>9)</sup> and the sharp rise of stock prices. Coming back to Table 6, we notice that the purchase of stocks by banking sector in excess of selling markedly increased from 1984 and again from 1986. However when we

examine the content of this increment, by far the most part of the exceeding purchase was taken by trust banks.<sup>10)</sup>

Tremendous swell of trust banks' stock purchasing owed to the development of TF. TF had become advantageous with regard to taxation in 1981 compared with other financial assets.<sup>11)</sup> The sharp rise of stock prices after 1983, however, made TF all the more attractive. And firms invested the converted money of IL directly or indirectly in stocks and in lands. Here TF played an important role of the intermediary.

Before Plaza Agreement, however, the above mechanism had only begun to evolve. As are seen in Tables 2, 3, 5, 6, 7, 8 (above) and Table 9 (below), the full-scale development of the above mechanism, that is to say, the mechanism of the soaring up of asset prices combined with the inflow of short-term foreign money, will start after PA. Especially land prices, which had shown remarkable rise only in the commercial district of six largest cities (mainly Tokyo) in 1984, came to soar up along with the price of stocks after PA. Note that the figure of March 1986, for example, in Table 9 shows largely the rise in 1985.

## **Section 2 The Full-scale Stage of the Bubble**

### **(1) The Plaza Agreement and After**

As we have seen so far, a substantially rapid rise of asset prices had already begun before PA. But **the full-scale development of the rise of asset prices is to be seen only after the PA. Why?** The chart below (page 17) is intended to show the correlation between PA and massive inflow of foreign short-term capital. And the latter greatly concerns the appreciation of yen on one hand, and asset inflation on the other hand.

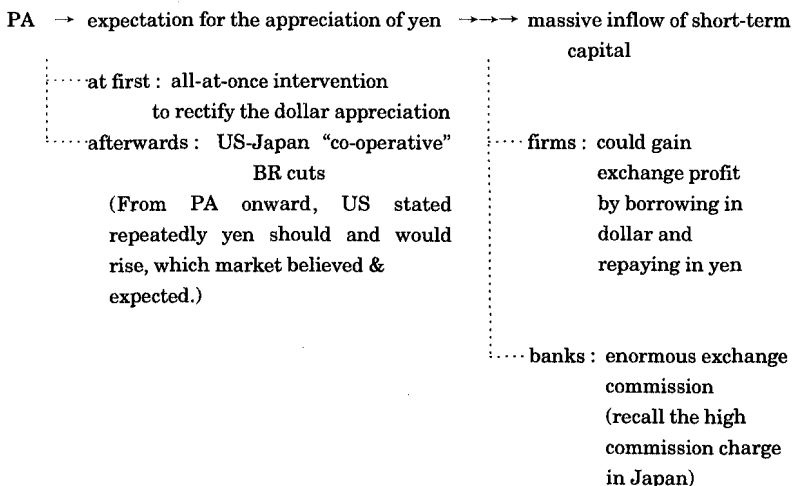


Table 9 Annual Growth Rate of Land Prices in Urban Districts

year	all urban districts	6 largest cities			
		average	commercial	residential	industrial
1979.3	4.5%	7.4%	5.4%	12.6%	4.0%
1980.3	8.6	13.2	13.3	20.6	8.7
81.3	8.7	8.5	6.7	10.6	6.7
82.3	7.1	6.6	8.0	6.6	5.5
83.3	4.7	4.8	6.8	3.9	3.6
84.3	3.2	5.2	8.9	3.5	3.3
85.3	2.8	7.4	13.2	5.5	3.6
86.3	2.9	14.2	28.8	9.6	5.0
87.3	5.4	25.9	33.8	27.0	17.0
88.3	10.0	27.9	41.7	23.1	19.3
89.3	7.6	24.4	25.1	15.3	33.0
1990.3	14.1	30.0	27.6	33.1	29.5

Calculations are based on land price index. (end of 1980 = 100)

(Source) The Japan Real Estate Institute, *Land Price Indexes of Urban Districts*, each year



At the Plaza Conference of G 5 in September 1985, it was agreed that the appreciation of the US dollar should be rectified and should be

depreciated against yen and German mark, in particular. It was decided that the means to lower the US dollar should be the multilateral intervention of G 5 authorities. And that was all. In other words, no co-operation of monetary policy was agreed at this conference. However the decision that yen should be appreciated brought about a strong expectation for the rise of yen in the exchange market. As a result, Japanese banks began borrowing the US dollar massively from abroad and lending it to firms as IL. From the viewpoint of firms, if they borrow in dollar and repay in yen, exchange profit could be gained. (Recall the mechanism of the IL, referring to footnote 7 again.)<sup>12)</sup>

The merit for the banks is not necessarily clear. But *Annual Report of International Finance* by MOF, in its 1989 version, referred to the effort of banks to "sell" the IL to firms. Probably banks were able to earn enormous exchange commission, because in Japan commission charge was very high due to the monopoly of exchange business by banks.<sup>13)</sup>

Let us give a glance at Table 7, again. We notice that both the carried out- and the outstanding sums of the IL began to increase tremendously after PA. It would be worth mentioning that the increase of the outstanding IL in 1986 was no less than 67 billion dollars which was more than one third of the increase of all banks' lending of the year in Japan.<sup>14)</sup> After that the increase of the outstanding IL must have shared more than half of the banks' total lending outstanding. (Unfortunately outstanding sum of IL had not been disclosed since 1987 as mentioned above.) Looking at Table 10, firms' liquidity at hand began to increase at the same time and seemed to have become excessive after 1986 judging from our historical standard. As their liquidity at hand became excessive, so the firms increased their investments in assets.

Table 10 Corporate Finance (Ratio of Liquidity) (%)

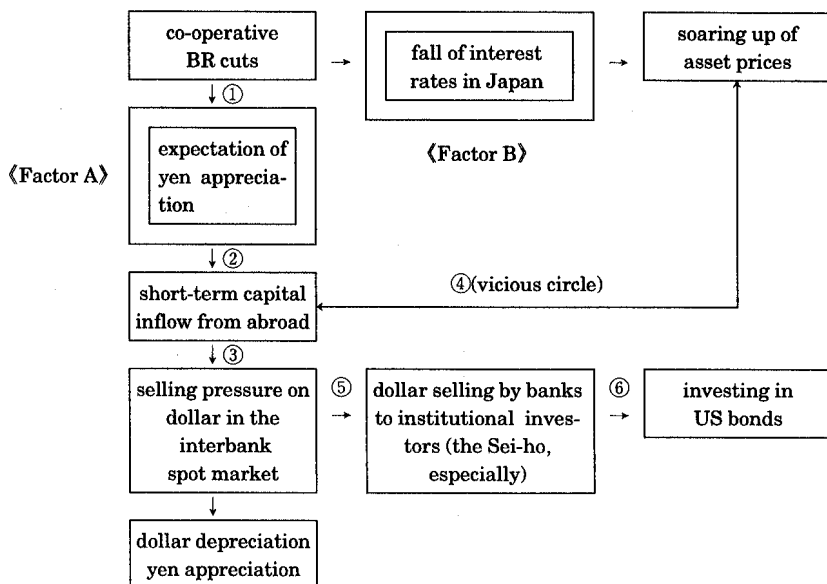
F. Y.	cash & deposit & liquid asset securities	cash & deposits
	monthly sales	monthly sales
1981	1.11	0.76
82	1.09	0.75
83	1.18	0.79
84	1.16	0.78
85	1.16	0.79
86	1.49	1.00
87	1.71	1.21
88	1.91	1.44
89	2.02	1.58
1990	1.77	1.31

BOJ, *Economic Statistics Annual*, each year

However **why did the expectation for the appreciation of yen continue even after the multilateral intervention was over**, and after yen appreciated to the degree that the Plaza Conference expected? Because, as will be seen below, the so-called “co-operative BR cuts” in 1986-87 played the role to drive the market to expect further appreciation of yen. (With regard to the detail of the co-operative BR cuts, see Supplementary Note on the So-called “Co-operative BR Cuts” in 1986-87 at the end.)

The PA and co-operative BR cuts greatly concern the mechanism of co-development of yen appreciation and soaring up of asset prices. Let us look at the chart on page 20.

The co-operative BR cuts brought about a strong expectation for the appreciation of yen. Why? Because first of all, the cuts contained no element to strengthen the US dollar. In 1986 both US and Japan reduced the BR by 2.0% altogether one after the other, so that the gap of the level of interest rates between US and Japan did not change at all. Second, US-



- ① US does not stop attacking yen.
- ② Borrowing in dollar is favorable.
- ③ Firms sell borrowed dollar at once to banks (in the IL case).
- ④ vicious circle
- ⑤, ⑥ US bonds include both risk and high-return prospects (capital gain due to the reduction of interest rates in US, in particular. See Economic Planning Agency, *Economic Survey of Japan, 1993-94*)

[Government supported the Sei-ho (→banks) to buy US securities by abolishing a regulation of external security investments (1986).]

Japan trade kept on marking increasingly the deficit on the US side. Third, in the meantime, US authorities often publicized, during and after the individual negotiations on BR cuts, some complaining statements that the appreciation of yen was still not enough (so-called “talking down”). All these factors, put together, produced a further expectation for the rise of yen. The short-term capital inflow would become all the more brisk. This would result in a selling pressure on dollar in the inter-bank spot market.

The dollar will fall, while the yen will rise. These logical chains of causes and effects are shown as Factor A on the left side of the chart above.

On the other hand, successive cuts of interest rates resulted in soaring up of asset prices. This relation of cause and effect is shown as Factor B in the same chart on page 20. A vicious circle becomes unavoidable, because if asset prices rose, borrowing from abroad and investing in Japanese assets would become advantageous, while if borrowing from abroad increased and flowed into asset markets, so prices of asset would rise.

Preceding researches seem to have overlooked this mechanism and failed to explain why rapid rise of asset prices went on simultaneously with the sharp rise of yen. If some exaggeration is allowed, we could say **the rise of yen and the rise of asset prices was only the two sides of a coin.**

Anyway it will be worth noting that there were two main factors, shown in double-lined rectangles in the chart on page 20 for the asset prices to soar up. (We will call these simply Factor A and Factor B below.) During 1986 and basically up to the BM, these two factors, which supported the rise of asset prices, remained undamaged.

## **(2) The Louvre Agreement and Washington G 5**

Then, however, **why did the LA, which marked the change of the U. S. strategy on the rate of exchange, not bring about a reverse movement in Japanese exchange- and asset markets?** Next let us examine the LA and its effect.

Before the LA, the attitude of the U S authorities toward the exchange rate had changed. US Treasury had been positive in lowering both the price of US dollar and its level of interest rates. But toward the end of

1986, it ceased to try to lower the US dollar further. There seem to have been three reasons for that. First, in spite of the rapid appreciation of yen, US import from Japan did not decrease at all. As a result, from the US viewpoint, trade balance of Japan with US was not improved as shown below. (Table 11)

Second, being stimulated by the successive cuts of BR, US inflation had begun to show a sign of development.<sup>15)</sup> The third and the most important factor was that subscriptions for the US Treasury securities from abroad began to show a sign of decrease from the last quarter of 1986 and lasted for about one year.<sup>16)</sup> J. Baker, US Secretary of Treasury, was badly nervous about this.<sup>17)</sup>

Due to these factors the U S had turned to anti-dollar-depreciation policy before Louvre Conference. Louvre Conference was to be a conference to prevent the depreciation of US dollar further. But in spite of this, the dollar kept on depreciating. Why, then, was US unable to attain its purpose of preventing a further depreciation of the dollar ? Because the decision of the Conference included a few fatal weakpoints.<sup>18)</sup>

- 1 The relation between so-called "margin"·"band " and participating governments' intervention was entirely ambiguous.
- 2 The intervention was not of a compulsory character but would be

Table 11 Japanese Balance of Visible Trade with US (100 m. US dollar)

year quarter	1984	1985	1986	1987
1 st	58	66	104	110
2 nd	87	102	126	136
3 rd	90	105	138	134
4 th	96	122	146	141

(Source) MOF, *Foreign Trade Overview*, each year

carried out through a discussion for agreement.

3 The central rate was to be re-based at Washington G 5 in April which was only two months ahead.

4 The "margin" and the "band" were to be kept in secret.

Furthermore, just as at the Plaza Conference, there was no agreement on monetary policy. In short, from the view of the market, the agreement of the Conference remained quite vague. Such an agreement could not gain any confidence from the market. In March when the trade deficit of the U. S. was again publicized, US dollar began to fall further from the level of LA.

With Japan as the most eager part, the governments of G 5 intervened into the market. But the eagerness, and the sum of money for the intervention were quite dispersed. In spite of the huge sum used for the intervention, the US dollar had fallen by about 5% before the Washington G 5. And this current rate was admitted as the new central rate at the Conference, which entirely denied the authority of the LA, but it was absolutely clear that such a result was due to the latter's weakness.

In short, we can say the US, during the period from LA to BM, did not provide any tough pillar to support its new strategy, i. e. preventing further depreciation of the dollar. That would be the answer to the above question raised in gothic letters (on page 21).

### **(3) Black Monday**

In early September US at last turned its policy by itself, as it were, to check further fall of the US dollar. FRB raised the BR by 0.5% to 6.0% after 41 months. By now it had become essential for US to keep the gap of interest rate levels with other countries and to secure the inflow of foreign

capital for the finance of deficit on the balance of international payments.<sup>19)</sup>

Germany and Japan also tried to follow US and guided the short-term rate of interest higher. Inside the BOJ activity to raise BR was becoming heated. BOJ had kept short-term rates of interest higher. But Baker was aware of the movement and pressed Governor Sumita at a conference not to raise Japanese BR. Japan followed his asking. On the other hand Germany outstayed with higher rates, which irritated Baker. When Baker issued a statement at an occasion threatening Germany that if Germany continued to keep its interest rates high the LA might be cancelled, which meant the US dollar might fall drastically again. This statement aroused a panic in financial markets and brought about the famous Black Monday.<sup>20)</sup>

#### **(4) After the Black Monday to the End of 1988**

Japanese authorities, especially the government, became very timid of turning to tight-money policy. They thought, if Japan raised its BR, the US dollar rate might drastically drop and a world-wide confusion might be brought about. And there seemed to be no serious economic troubles inside Japan. Lands and securities had become valuable, and most people felt richer than before. In short, there was no strong impact for them to tighten the financial market.

On the other hand, BOJ had been seeking for a chance to turn to tight money, especially since July 1987.<sup>21)</sup> Note that the date is before BM. It was not that the Bank had predicted the emergence of the serious non-performing debt problem at all, but simply that as a guard of the value of money, they had felt very uncomfortable to continue extraordinary cheap



money policy further.<sup>22)</sup>

But in the financial market, tide had already changed. The above two factors which are shown on page 20 began to disappear. First, the U S had raised its BR in early September 1987 under the new chairman Greenspan as mentioned above. And when the U. S. and Germany raised their BR in the summer of 1988 (US : from 6.0 to 6.5% in August. Germany : from 2.5 to 3.0 and 3.5% in July and August), the change of the trend had become substantial.

In Japan the short-term interest rates began to rise markedly from July, 1988. Factor A in page 20 was disappearing.

#### (5) **The Year 1989**

Mainly due to the successive BR raises by Germany (from 3.5 to 4.0 % in January) and US (from 6.5 to 7.0% in February), the expectation for the rise of yen began to shrink and, in fact, yen continued to fall gradually during the year. Reflecting these circumstances, banks' procurement of short-term money from abroad began to show a sign of decrease. Let us look at Tables 7 and 8 again. Still there was massive lending in the form of IL. But for the first time the carried out sum decreased compared with the previous year. And the net total sum of short-term money raised from abroad decreased remarkably compared from the previous year.

That is to say, the two factors (factor A and factor B on page 20) which had been supporting the rapid rise of asset prices had already disappeared, when BOJ decided to raise BR (May 1989) and started to turn to tight money stance. In this sense, return to tight money was decidedly delayed. The successive raises were not of a character of preventing but of entirely past saving.

## Conclusion

We are not qualified for criticizing the then BOJ and MOF. No one predicted the seriousness of the non-performing debt problem beforehand. If one had been energetically discussing against the swelling of the bubble for the reason that it might cause a serious tangle of debt and credit, he (she) would be qualified. But in fact no one did so. Still we are able to learn some lessons of the bubble this time.

- 1 We had a similar experience in Japan from 1920 to the outbreak of Manchurian Incident in 1931. We failed to learn from our historical lesson. In other words asset prices should become an important indicator of the overheating economy.
- 2 More attention should have been paid to the movement of international short-term capital. With regard to this we also had a historical experience no more than 15 years ago, counting the date from 1985 backward, at the time of so-called "excess liquidity inflation" in 1973, preceding the first Oil Crisis.

The different characteristic of this time from 1973 is that money supply did not increase so markedly partly because huge outflow of long-term capital mitigated the massive inflow of short-term capital, and that general prices hardly rose.

- 3 Half-way international co-operation should not have been carried out. If it was necessary, the decision of the Conferences should have stood on a solid basis, for example, the decision of the Louvre Conference should have been observed by a compulsory intervention and a solid co-operation of monetary policy.

But the co-operations as a whole, which were carried out in 1986-87,

should not have taken place. Because the unnatural rise of US dollar up to 1985 was the product of the earlier stage of Reaganomics, US should have solved its own problem.

- 4 It is now a common reflection that if the international co-operation had been given as a prerequisite, BOJ should have started to raise its BR, at latest, in summer 1988.
- 5 With regard to an ordinary inflation, monetary aggregates can be one of the useful indicators of the overheating of the economy. However, to pay attention only to monetary aggregates can be dangerous with regard to a typical asset inflation like the very Japanese case we examined here. Note that the “real” growth of monetary aggregates in Japan [see the bottom of Table 1-(3)] was rather in the middle among advanced countries, while the scale of the bubble in Japan was outstanding.
- 6 In either inflation of 1973-74 and of the later 1980's, firms' liquidity at hand showed a remarkable change. This might be a useful indicator of the overheating economy.

#### Notes

- 1) A detailed examination of preceding researches is given in A. Ichinose, Representative Arguments on the Formation of Bubbles : Pigeonholing, *Okayama Economic Review*, Vol. 29, No. 3 (Dec. 1997) and in A. Ichinose and H. Sunami (1999), Supplementary Chapter 2
- 2) Y. Suzuki(1993), pp. 104-106
- 3) Bubble : commonly defined as the rise of asset prices beyond a certain line. The line is provided by so-called “fundamentals” in asset markets, i. e. firms' profits and interest rates. But this definition is, though plausible, misleading. Fundamentals may include extraordinarily low interest rates and high profits as well. After the bubble burst, such low interest rates and high profits could be deemed as the base of the bubble. Current profit of companies could include profits due to buying/selling of

bubble assets. If, therefore, we capitalize such profits and explain the resulting price as within the range of fundamentals, we would fall into a logical contradiction.

In this paper we have taken a very naive approach. We have regarded a historically unusual rise of asset prices as a bubble. It will not be wise to stop here to discuss the merit and demerit of this naive approach.

- 4) S. Sumita, the then Governor of BOJ, had guided short-term rates of interest higher in order to promote further appreciation of yen and to prepare for the cut of BR. (U. Shiota et al. , *Men Who Operate Interest Rates* [1992], pp. 179-183)
- 5) Yen-ten ("ten" means "conversion") regulation had been enforced by the government to restrict the conversion of borrowed dollar into yen. It was aimed not only at reducing the exchange risk of banks but also at controlling the international short-term capital flow.
- 6) Thus the foreign short-term capital taken in by banks was used differently according to the periods. As to the detail, see A. Ichinose and H. Sunami (1999), Chapter 5.
- 7) Impact loan is a loan to firms in foreign currency (mainly, the US dollar). But this loan is, in fact, a loan in yen. Firms will sell the borrowed dollar at once to banks. They will invest the converted money (yen, now) in their primary business or in assets. Even in the former case, firms' liquidity at hand will increase and their investments in asset markets will thus indirectly increase.
- 8) This statement appears repeatedly in each issue of the *Annual Report of International Finance*.
- 9) Tokkin (Toku-tei-kin-sen-shin-taku) is one way of trusting money with a trust bank. The money would be invested following the primary investor's (or his / her agent's) instruction. The agent is usually a security company. Trust banks could not invest the trusted money at their own disposal. Fan-tora (Japanese pronunciation of 'fund trust' : but fund trust is also a mere nick-name.) is another way of trusting money. Here trust banks can invest the trusted money at their own disposal (independent of the security company).
- 10) See Tokyo Stock Exchange, *Annual Statistics of Securities*. In addition , trust business has been carried out by trust banks in Japan. However genuine trust business has not been so brisk. Instead the trust banks have run a type of term loan (Kashi-tsuke-shin-taku) vigorously. This is nothing but a form of time deposit. Tokkin and Fan-tora were long-expected new types of trust business.
- 11) Y. Miyazaki (1992), pp. 137-139
- 12) In the "bubble period" it is said that 30% or so of the total IL was carried out on "open "basis, i. e. firms borrowed US dollar without hedging exchange risk, so that in return for the risk they could gain exchange profit. The remaining 70% or so was carried out with hedging through buying back "future", so that superficially firms could not gain exchange profit.

However in the real business world, even in this case firms would have been able to obtain exchange profit, because under the appearance of hedged IL firms could delay the counterpart "future buying" a little so as to gain exchange profit.

- 13) For example, in February 1992, a customer still had to pay a commission of 0.8% when he / she bought (sold) foreign money from (to) a bank. In the case of an IL, the commission money payable to banks became 1.6 % of the contracted loan because firms usually had to pay it both in buying and selling.
- 14) Converting into yen in terms of the average exchange rate through the year, this 67 billion dollar will be about 11,000 billion yen. The increase of total lendings by "nationwide banks" (city banks, regional banks, long-term credit banks, trust banks) during the year 1986 was about 31,000 billion yen.
- 15) According to IMF, *International Financial Statistics* (May 1987, p. 517) both wholesale and consumer prices rose substantially in December 1986 and January 1987.
- 16) See *Federal Reserve Bulletin*, each issue.
- 17) Funahashi(1988), pp. 263, 313.
- 18) Funahashi(1988), pp. 301-314
- 19) Shiota(1992), pp. 219-213
- 20) Miyazaki(1992), pp. 141-148
- 21) Shiota(1992), pp. 220-223
- 22) Shiota(1992), pp. 204-205

### **Supplementary Note on the So-called "Co-operative BR Cuts" in 1986-87**

The so-called "co-operative BR cuts" played a role in driving the market to expect further appreciation of yen. Why? Because in the process of co-operative cuts, US kept on pressing Japan's BR cut, ahead of its own reduction, on BOJ. This meant to confess the weakness of US economy at that time both in the foreign trade competitiveness and in the value of its currency, American dollar. The market reacted.

There were two reasons for US to press BR cuts on Japan. One reason is easy to understand. US business had begun to show a sign toward recession after entering 1986 and it was necessary for US authorities to cut BR in US. But if Japan remains to be at the same level of interest rates as before, its demand for US exports may be sluggish, taking the rapid appreciation of yen into accounts. Therefore it was necessary for US authorities to ask BOJ to reduce its BR.

The other reason was the necessity to keep the gap between the levels of interest rates in US and other countries (notably Japan and Germany). It was necessary for US to

secure the inflow of capital from other countries. This subject is, however, not simply understandable, because it related to the dispersion of opinions and interests among leading groups in US. Baker Treasury, during the period from PA to LA, seems to have been rather indifferent to keeping the gap. The Treasury was positive in reducing BR of US to stimulate domestic business and lower US dollar. In the meanwhile P. Volcker, chairman of FRB, was earnest to maintain the above gap in order not to bring about the drastic fall of the US dollar, so that he is less positive in reducing American BR. Agricultural group and the manufacturers supported the former. They had become influential in the Houses again. Financial world and tertiary industries backed the latter. (With regard to such political interests, Funahashi [1988] gives us excellent and detailed information.) Thus there seems to have been a concealed discrepancy of opinion in America as to keeping the gap of interest rate levels between US and Japan=Germany.

Anyway, however, put the problem of the gap of interest rate levels aside, two opinions in America could co-operate in pressing the cut of BR on Japan in order to promote US exports.

In Japan, for the purpose of coping with the decrease of export due to the rapid appreciation of yen, the government was earnest in reducing BR. BOJ was not strongly against the cuts, either, at least until the middle of 1986. Thus under the constant and strong pressure from US, **BOJ reduced BR three times in the first half of the year, while US did so two times.**

US wished to continue the co-operative BR cuts in such style, but in Japan the so-called domestic faction in BOJ began to strengthen their opposition and MOF was not able to persuade BOJ this time. So **America was forced to cut their rate alone in July and August.** Minister of Finance, N. Takeshita, a typical Japanese politician, is reported not to have pressed the cut so forcefully on Governor Sumita.

In July, however, Minister of Finance changed from Takeshita to K. Miyazawa who was known from his young days as a supporter of an expansive fiscal policy. In September and October both Baker and Volcker pushed Miyazawa to cut Japanese BR. Miyazawa promised Baker to arrange a Volcker = Sumita meeting. After all, Sumita was persuaded by Volcker. In the meantime there were a few delicate and complicated negotiations between BOJ and MOF under surface. But **at last BOJ as a whole had to give up opposing. Thus around 20 October the fourth cut was decided** and was put into practice from 1 st November.

**The fifth cut of February 1987**, publicized at the same time as the Louvre Agreement, had been **decided in fact at Baker=Miyazawa meeting in January 1987.** Yen had been rising still, which could menace the political life of Miyazawa. So Miyazawa flew suddenly over to Washington D.C. on 21 January to ask Baker his co-operation in stabilizing dollar-yen rate. Baker agreed to co-operate with the exchange

rate at around 1 dollar=150 yen. The fifth cut was the return for this statement of Baker's. This time Miyazawa already had received a consent from Sumita beforehand. It seems that the domestic faction in BOJ were forced to obey the established fact in which the Governor had been concerned.

## The Bubble and Monetary Policy in Japan : 1984-1990

Atsushi Ichinose

There will be no great opposition, among Japanese people, to the assertion that the problem of non-performing debt was the most important inducement to the present serious depression in Japan. The non-performing debt problem was brought about by the huge swell of the bubble in the later 1980's and its collapse after entering 1990's. As for the causes of the bubble formation several useful books were published rather intensively during 1992-93. But in February 1994, Mr. Mieno, the then Governor of the Bank of Japan, stated at a lecturing speech that the causes of the bubble had not been clarified yet. He enumerated some problems to be solved, for example why bubbles took place almost simultaneously over the world, and why such tremendous rise of asset prices occurred. Basically this reflection seems to be right.

Relevant researches, which were published mostly during 1992-1993, if we dare to simplify, pointed out two factors as the important causes of the bubble : various financial de-regulations and long-lasting cheap money policy which was closely concerned with the so-called " international co-operation of economic policy" in 1986-87.

This paper is not against these arguments at all. However it calls attentions to the fact that preceding researches have overlooked an important problem to be solved : that is to say, the problem of the correlation between the rapid appreciation of yen and the soaring up of asset prices. The paper tries to analyze the simultaneous development of yen appreciation and asset inflation. Consequently it points out that the key factor was the massive inflow of foreign short-term capital. In other words, banks took in huge short-term money from abroad and lent it to



firms as impact loan, which is presumably a peculiar Japanese financial instrument. Firms converted borrowed dollar into yen and invested it in asset markets. In the case of stocks, Tokkin & Fan-tora, deposited with trust banks, played an important role as the intermediary. Thus the prices of assets rose steeply.

The banks' huge taking-in of foreign short-term money resulted in a strong selling pressure on US dollar in the exchange market. Thus the dollar fell and the yen rose. A pioneering work along this line is S. Nakao (1991). Unfortunately he confines his interest to the relation between the activities of banks and the appreciation of yen, putting the co-development of yen appreciation and the asset inflation out of his argument.

In addition, preceding researches, which stress the financial de-regulations as the most important cause of the bubble, tend only to enumerate various de-regulations. And they seem to have been unsuccessful in clarifying what part of the de-regulations was crucial. This paper deems the abolitions of regulations on impact loan and on yen-ten as crucial. It was these de-regulations that played by far the most important roles in the formation of the bubble.

Finally, the reader will see some concluding remarks at the end of the paper. The main concern of the paper lies, however, in the field of fact verification. What to learn or derive from verified facts belongs rather to a role of politicians and high officials.