Reverse Stock Splits in Japan and the United States

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During the bull market of the 1990s, US companies often carried out stock splits, thereby lowering the price of their shares and making it easier for retail investors to buy them. However, during the bear market that began in 2000, when the Internet bubble burst, share prices have declined of their own accord, and an increasing number of companies have carried out reverse stock splits. In 2001 alone, no fewer than 700 companies decided to do so.

As well as looking at this growing trend in the United States, this report gives a brief overview of reverse stock splits in Japan.

1. Reverse Stock Splits in the United States

1) Definition

A reverse stock split is a method of reducing the number of a company's shares outstanding by combining more than one share into a single share and is the exact opposite of a stock split, whereby a company divides a single share into more than one share. For example, if a company combines two of its shares into one (in a 2:1 ratio), the number of its shares will be halved while its share price will double. Furthermore, in theory a reverse stock split should have no effect on the actual value of the company.

2) Reasons for increase in reverse stock splits

The reason for the increase in the number of reverse stock splits in the United States in recent years is that, as share prices have tumbled, a growing number of stocks have fallen in value to below $1, one of the delisting criteria on the main US stock exchanges. On the NASDAQ, for example, if a stock trades below $1 for 30 consecutive business days, the exchange will issue a delisting warning. If the price fails to regain the $1 level during the following 90 business days, the stock will be

delisted.[1] In such a situation, companies will carry out a reverse stock split in an effort to push their share price back over $1 and thereby avoid having to delist. It is not at all uncommon for companies to carry out reverse stock splits in a 10:1 ratio. Another likely consideration is the fact that, if the price of a stock falls to around $1, this may be seized upon as a trading opportunity by day traders, and its volatility is likely to increase as a result.

Reverse stock splits are also carried out before the price of a stock breaches the $1 level. This is mainly to maintain liquidity. If the price of a stock drops below $5 on a US stock exchange, it will cease to be a margin stock and institutions such as pension funds and mutual funds will tend to shun it in order to comply with their fiduciary obligations. In addition, any stock that falls to that level is apparently likely to be removed by brokers from their recommendation lists[2] or dropped by analysts from the list of companies they follow. If this occurs, a stock's liquidity is likely to suffer, therefore the company will try to maintain the share price at a minimum of $5 by means of a reverse stock split.

The second reason for carrying out a reverse stock split is if a company has spun off one of its divisions and the value of the business has declined. In such a situation it may carry out a reverse stock split in an attempt to maintain a minimum share price. It is mainly larger companies that carry out such reverse stock splits, and they are not particularly common.

The third reason for carrying out a reverse stock split is in order to take a company private. This can be done by aggregating shares in a high ratio so that minority shareholders find themselves holding only odd lots.[3] The minority shareholders can then be excluded by paying them cash for their odd lots, thereby bringing the total number of shareholders below the minimum required to maintain a listing.[4] However, reverse stock splits are only rarely used for this purpose, the main method of taking a company private being a cashout merger.[5]

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1 In 2001, 210 companies were delisted from the New York Stock Exchange and 770 from the NASDAQ. Many companies are also delisted because they are unable to comply with the requirements for continued listing.

2 Stocks quoted on OTC bulletin boards or pink sheet markets and trading below $5 are called "penny stocks." Broker-dealers in such stocks are subject to risk disclosure rules. As a rule, stocks listed on the NASDAQ do not fall into this category.

3 When PTI Holding, a sports good maker, was taken private, the reverse stock split was carried out in a ratio of 1,000:1.

4 The minimum number of shareholders required in order to maintain a listing on the New York Stock Exchange or the NASDAQ is 400.

5 For further details of going-private transactions, see Masanobu Iwatani, "Going Private as a Strategic Option," Capital Research Journal, Summer 2002.

3) Effects of reverse stock splits

(1) Effect on share prices

A number of academic studies have pointed out that, in contrast to stock splits, reverse stock splits can have a negative effect on share prices. For example, in their empirical study Desai and Jain (1997)[6] found that, in the case of 76 reverse stock splits carried out between 1976 and 1991, there was an excess return of -4.59% against the benchmark during the month in which the reverse split was announced, compared with an excess return of -10.76% during the following 12 months. The reason for the negative return is said to be the unfavorable message that this sends to shareholders about the company's faith in its own future.

Recent examples of the use of reverse stock splits by IT companies listed on the NASDAQ suggest that they have been used mostly to avert a delisting by maintaining the share price above the $1 level. In most cases, however, the boost is only temporary, and the share price declines again as soon as the reverse split is carried out, eventually forcing the company to delist.

However, not all reverse stock splits are failures. In some cases (see Figure 1), the shares outperform their theoretical value (adjusted by the aggregation ratio). One of these cases is that of IGN Entertainment, whose share price rose by 400% in the six months after the company carried out a reverse stock split. However, even in cases such as this it is impossible to be sure that it is the reverse split that has boosted the share price—rather than some other factor or factors.

Figure 1 Examples Where Share Prices Have Risen following a Reverse Stock Split (2001)

Company	Exchange	Date of reverse split	Aggregation ratio	Gain (%)			Share price	Market cap
				transaction day	+1 month	+6 months	(as of 8/30 2002)	
j2 Global Communications	Nasdaq	2/8	4:1	0.0	16.4	58.2	18.00	1.95
Corrections Corp. of America	NYSE	5/18	10:1	1.7	41.3	92.3	14.75	4.13
Capstead Mortgage	NYSE	7/2	2:1	10.6	52.3	26.4	21.20	2.95
IGN Entertainment	Nasdaq	9/24	6:1	-6.3	-15.1	415.9	5.22	0.11
United Online	Nasdaq	9/26	5:1	-4.1	28.2	297.4	11.51	4.63
Iomega	NYSE	10/1	5:1	2.5	15.1	48.0	12.12	6.62

Note: Share price gains are based on the closing price (adjusted by the aggregation ratio)on the day before the reverse stock split was carried out. Market capitalization is in units of $100 million.
Source: NRI.

6 See Hemang Desai and Prem C. Jain, 1997, "Long-Run Common Stock Returns following Stock Splits and Reverse Splits," Journal of Business, v70, pp. 409-433.

(2) Effect on liquidity

One of the reasons frequently given for carrying out reverse stock splits is the need to maintain or increase the liquidity of a company's shares. In fact, however, not many empirical studies of this have been carried out.[7] According to one of these, Han (1995),[8] reverse splits do increase liquidity.

In the case of 68 reverse stock splits carried out on the NASDAQ between 1971 and 1990, Han found that, in the 50 days of trading before and after a reverse stock split was carried out, the bid-ask spread narrowed by 35.8%. Similarly, in the case of 124 reverse splits carried out on the New York Stock Exchange, the American Stock Exchange and the NASDAQ between 1963 and 1990, he found that volume increased by 11.8%, while, in the case of 119 of these reverse splits, the number of days when no trading in a stock took place declined by a third.

These findings suggest that reverse stock splits are one means by which publicly traded companies can boost the liquidity of their shares.

4) Case studies

(1) IGN Entertainment: delisting averted

IGN Entertainment (formerly Snowball.com) is a typical dotcom: founded in February 1999, its business is to distribute leisure-related content on the Internet. No sooner had the company listed on the NASDAQ in March 2000 at an initial price of nearly $300 (adjusted by the aggregation ratio), than its share price plunged as the Internet bubble burst, and by October the stock was trading at around $1. In order to maintain the share price above the $1 level, the company carried out a reverse stock split (in a ratio of 3:1) in March 2001. However, the shares fell back below $1 immediately afterwards. The NASDAQ then issued a delisting warning, and the company carried out a second reverse split (in a ratio of 6:1) in September. This time, the shares regained the $1 level, and the company managed to avert a delisting.

As well as carrying out these reverse stock splits, the company restructured its operations by (1) slashing both its payroll and its costs, (2) offering an equity stake to an investment fund, and (3) concentrating its resources, which had been spread over

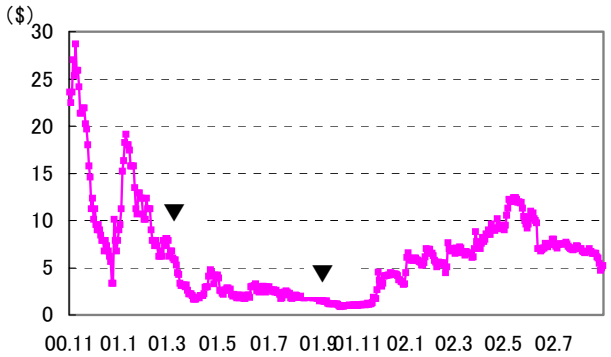
7 In contrast, numerous empirical studies of the effect of stock splits on liquidity have been carried out. The conclusion in many cases is that they do not boost liquidity. For further details of the effect of stock splits in Japan, see Sadakazu Osaki and Nasuka Hiramatsu, "The Effect of Stock Splits in the Japanese Market," Capital Research Journal, Spring 2002.

8 See Ki C. Han, 1995, "The Effects of Reverse Splits on the Liquidity of the Stock," Journal of Financial and Quantitative Analysis, v30, No.1, pp. 159-169.

five different Web sites, in one game portal (IGN.com). Then, when Microsoft launched its Xbox in November 2001, this strategy found favor with the market, and by May 2002 the share price had reached $12 (see Figure 2).

Such cases are few and far between. Although the company was fortunate in the timing of the launch of Xbox, it did make good use of the extra time granted by its reverse stock split to restructure its business successfully.

Figure 2 IGN Entertainment's Share Price



Note: The ▼ symbol indicates when the reverse stock splits were carried out. The share price is adjusted by the aggregation ratio.
Source: NRI, from Bloomberg data.

(2) AT&T: decline in share price mitigated

In April 2002, AT&T, the largest communication company in the United States, announced the details of its plan to spin off its cable TV division, AT&T Broadband, and merge it with Comcast, one of the country's largest cable TV companies, by the end of the year. At the same time, AT&T announced that it was planning a 5:1 reverse stock split. This is likely to be carried out once the merger has been completed.

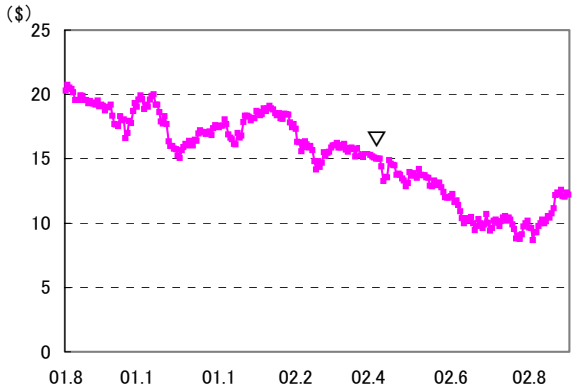
The main reason for the reverse stock split is thought to be that AT&T is worried that the spin-off could lead to a sharp decline in the value of the parent company. If the share price fell below $5, not only would liquidity suffer: the company could find itself unable to raise capital by issuing new shares.

The announcement of the reverse split took Wall Street by surprise. This was partly because things had come to such a pass that a company that had once been the crème de la crème now had to resort to such action in order to boost its share price, and partly because the use of a reverse stock split (normally used by smaller publicly traded companies) by a company the size of AT&T was unprecedented. Because the move was seen by the market as a sign that the company had no confidence in its own

share price, this has been under pressure ever since the announcement was made (see Figure 3).

Both the reverse stock split and the merger were approved by a majority of shareholders at the company's annual general meeting in July. Given the number of large companies in the United States with massive debts and a flagging share price, there is a great deal of interest in whether the reverse split proves a success.

Figure 3 AT&T's Share Price



Note: The ▽ symbol indicates when the reverse stock split was announced.
Source: NRI, from Bloomberg data.

2. Reverse Stock Splits in Japan

1) Gradual increase in reverse stock splits

Although reverse stock splits are still much rarer in Japan than in the United States, there has been a gradual increase in their use in recent years. During the past few years there were about five cases every year, but this year (2002) there have already been more than 10.

Most of the companies are heavily indebted and use a reverse stock split as a means of reducing their capital (without compensating shareholders)[9] in order to make good a capital deficit. In most cases, they have then issued shares to their principal shareholders and business partners in order to increase their capital again (see Figure 4).

[9] With this method, shareholders do not receive the value of the capital reduction. This ensures that the company's assets are not depleted.

Figure 4 Japanese Companies That Have Carried Out Reverse Stock Splits (2000 and 2001)

Company	Date of reverse split	Aggregation ratio	Gain/decline (%)			Share price (as of 8/30 2002)	Remarks
			transaction day	+1 month	+6 months		
《2000》							
TonenGeneral Sekiyu (Oil: TSE 1st Sect)	7/1	2.7:1	-9.5	-12.2	+3.6	750	Merger between Tonen and General Sekiyu
Tomen (Wholesale: TSE 1st Sect)	8/5	2:1	-22.3	-27.7	-30.4	84	Capital increase by third-party allotment
G-Net (Wholesale: OSE 2nd Sect)	8/10	2:1	-7.6	-1.5	-6.8	-	Delisted in July 2002
Kawasaki Electric (Electrical: TSE 2nd Sect)	8/11	2:1	-12.5	+20.5	-	-	Filed for permission to reorganize under the Reorganization Law in December 2000
《2001》							
Chiyoda (Construction: TSE 1st Sect)	2/20	2:1	+24.4	+41.7	+14.3	266	Capital increase by third-party allotment
Daisue Construction (Construction: TSE 1st Sect)	2/28	2:1	+4.5	+19.7	+9.1	32	Capital increase by third-party allotment
Kumagai Gumi (Construction: TSE 1st Sect)	3/1	2:1	-11.9	-17.9	-48.8	24	Capital increase by third-party allotment
(Timber: NSE 2nd Sect)	4/1	2:1	flat	+3.3	-11.7	40	
Mitsui Construction (Construction: TSE 1st Sect)	8/4	2:1	-7.4	+20.4	-55.6	39	Capital increase by third-party allotment

Notes: 1) Share price gains and declines are based on the closing price (adjusted by the aggregation ratio) on the day before the reverse stock split was carried out.
2) All the above reverse stock splits involved a reduction in capital with no compensation for shareholders.
Source: NRI.

2) Deregulation of reverse stock splits

In Japan the regulations governing reverse stock splits were amended in 2001 along with other sections of the Commercial Code. Prior to these amendments, reverse stock splits were only permitted in the following circumstances because of the risk that they could damage the interests of existing shareholders—whether it be shareholders who had acquired odd lots as a result of a reverse stock split and risked being regarded as fractional shareholders and losing their rights as ordinary shareholders or shareholders who, as a result of a reverse stock split, found themselves unable to transfer part of their shareholding:

1. cases where, according to the latest company balance sheet, net asset value per share is less than ¥50,000 and the aim of the reverse split is to boost this to at least ¥50,000;
2. cases where the aim is to reduce a company's capital; and
3. cases where shares in either the surviving company or the new company are allocated to shareholders in either the liquidated company or the new company as a preliminary to a merger.

However, following the 2001 amendments to the Commercial Code and the lifting of restrictions on the size of shares (e.g., the abolition of par value shares), the first of these restrictions on reverse stock splits became meaningless, and all restrictions on their use were eased. Since then, companies can carry out reverse stock splits for a wide range of purposes provided they disclose the reason and obtain the permission of shareholders by special resolution at a general meeting (Commercial Code, Article 214).[10]

Two examples of reverse stock splits that have been carried out since the October 2001 amendments to the Commercial Code for purposes other than a capital reduction are those by Daiei and Snow Brand Milk Products, which were carried out "to adjust the total number of shares outstanding in the future."[11] However, so far in Japan there have been no examples of reverse stock splits carried out mainly, as in the United States, to boost a company's share price.

3) Effects of reverse stock splits

In order to establish the effect of reverse stock splits in Japan on share prices and liquidity, we did a simple study of 15 reverse splits carried out between 1998 and 2002.

As far as the effect on share prices is concerned, we established (1) that the share prices of six of the 15 companies were higher immediately after the reverse split than immediately before (adjusting the share price by the aggregation ratio), (2) that the share prices of seven of the 15 companies were higher one month later, (3) that the share prices of three out of 13 of the companies were higher six months later, and that the share prices of three out of six of the companies were higher 12 months later. Although the sample is small and no account was taken of the overall market, these findings cannot be said to suggest that these reverse stock splits had a negative effect

[10] This is to ensure the right of fractional shareholders to receive dividends and to sell odd lots to the company.

[11] In both these cases, however, a capital reduction was carried out simultaneously. They were therefore, in effect, no different from the traditional type of reverse stock split.

on the share prices of the companies concerned. Indeed, the share prices of some of the companies rose by as much as 35% immediately after the reverse splits were carried out. One of the reasons for this—in addition to a reduction in capital—was probably the fact that many of the companies concerned also restructured their finances (e.g., by being forgiven debt and carrying out a capital increase) and that this raised expectations that their earnings would recover. It should, however, be pointed out that the shares of 13 of the 15 companies were trading below ¥100 immediately before the reverse splits were carried out and that as of end-June 2002 the shares of nine of these 13 were once more trading below ¥100.

We also did a simple study of the effect of reverse stock splits on liquidity in Japan. Comparing trading volume (adjusted by the aggregation ratio) over a 50-day period before and after the reverse splits were carried out, we established that it increased by roughly 5%. As the sample was small and no account was taken of overall market volume, it is difficult to conclude from these figures alone that reverse stock splits tend to boost volume. What we did observe from the data for individual companies was a tendency to diverge: while the volume of some shares increased considerably, that of other shares declined considerably.

The liquidity situation in Japan and the United States is different. In Japan, there is no convention whereby institutions shun stocks if their price falls below a certain level (like the $5 level in the United States). Instead, Japanese institutions are more likely to be concerned about a company's market capitalization. Similarly, decisions about whether a stock should be eligible for a standardized margin transaction or a loan transaction[12] are based on criteria such as the total number of shares outstanding, the percentage of shares owned by specified shareholders, and the number of shareholders rather than on share price. It is therefore a moot question whether the findings of the empirical studies that have been carried out in the United States are valid in Japan.

4) Case study: Chiyoda Corporation

Founded in 1948, Chiyoda Corporation is one of Japan's leading general engineering companies and specializes in the construction of plant for liquefied natural gas and oil refining. Its shares were listed on the Tokyo Stock Exchange in 1961.

[12] There are two types of margin transaction in Japan: standardized and negotiable. In the case of a standardized transaction, 1) the lending fee and period of settlement are regulated by stock exchange rules, 2) securities companies may borrow shares and cash needed from a securities finance corporation ("loan transactions"), and 3) eligible stocks are designated by the exchange in accordance with its rules. In the case of a negotiable transaction, 1) the lending fee and period of settlement are negotiable, 2) loan transactions may not be used, and 3) all listed stocks are eligible.

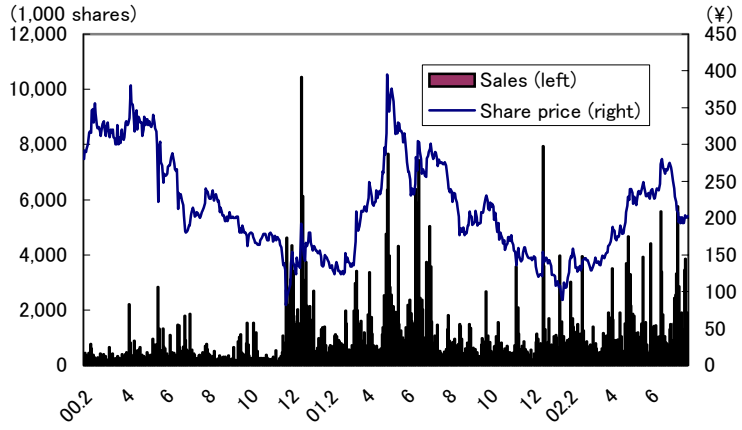
In the late 1990s the company suffered a decline in plant orders from both Japanese and non-Japanese customers as a result of (1) the prolonged economic slowdown in Japan and (2) the weak economic growth in Southeast Asia (one of the regions in which the company specializes) and (3) changes and postponements of plans as a result of the restructuring by the major oil companies. To make matters worse, in 1996 the company also began to make a loss on some of its construction projects. As a result, it started to record a net loss in the year to March 1997, and its financial position began to deteriorate rapidly. At the same time, its share price fell sharply.

In April 1998 the company announced plans to restructure, and in March 1999 it carried out a capital increase, financed by issuing ¥11.3 billion worth of shares to a third party. In spite of this action, however, the company was unable to improve its sales and earnings, and its deficit increased. Therefore in November 2000 the company drew up a new five-year restructuring plan and continued to restructure its operations. At the same time, it persuaded a number of its banks, including two of its principal shareholders, Tokyo-Mitsubishi Bank and Mitsubishi Trust & Banking, to forgive it ¥22.6 billion of debt. Then, in February 2001, it carried out a reverse stock split in a ratio of 2:1 in order to make good some of its deficit, reducing its capital by ¥14.2 billion. Then, in March 2001, it carried out a capital increase, financed by issuing ¥11.6 billion in new shares to third parties, including a number of its banks and principal shareholders such as Mitsubishi Corporation. Finally, in June 2001, the company completed its financial restructuring by writing down ¥23.7 billion in additional paid-in capital.

As a result, the company's share price rose sharply: from ¥84 just before the reverse split (or ¥168 if adjusted by the aggregation ratio) to nearly ¥400 (on a closing basis) by April 2001, helped by orders for new plant. The share price then underwent a correction but recovered again in 2002 and stood at ¥203 at the end of June—higher than its level before the reverse split. The stock's trading volume has also increased considerably since the reverse split was announced (see Figure 5).

Sales and earnings have also improved. In the year ended March 2002 the company managed to turn a net loss into a net profit, and booked orders worth ¥200 billion for the first time in four years. Similarly, it has succeeded in further reducing its interest-bearing debt and now has an equity ratio of 11.7% (compared with 2.1% in the year ended March 1998).

Figure 5 Chiyoda Corporation: Share Price and Trading Volume



Note: The symbol indicates when the reverse stock splits were carried out. The share price is adjusted by the aggregation ratio.
Source: NRI, from AURORA data.

3. Conclusion

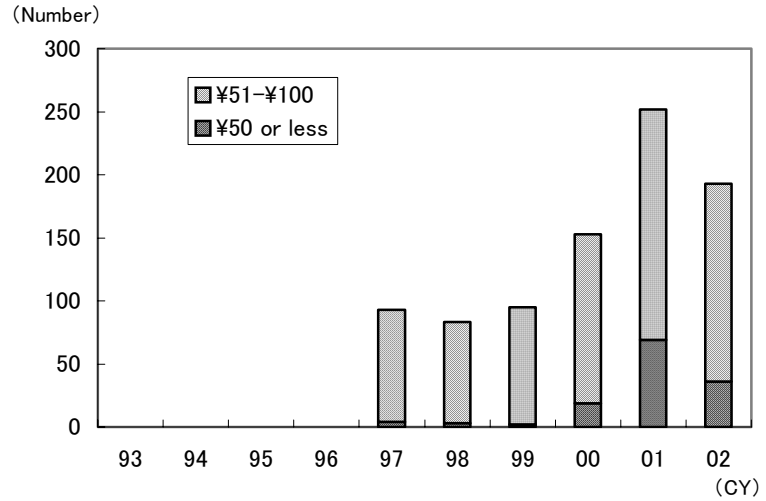
In Japan, the regulations governing reverse stock splits have been eased. However, the fact that share price is not one of the criteria for delisting in Japan means that there have been no cases of Japanese companies resorting to a reverse stock split in order not to be delisted—unlike the situation in the United States, where this is common. However, reverse splits other than for the purpose of a capital reduction can be expected to become more common in Japan, too.

In considering whether to carry out a reverse stock split, companies need to bear the following points in mind. First, reverse splits should not affect the value of a business. Any impact is likely to be largely psychological. Therefore, any reverse split should be accompanied by action to enhance the value of and restructure a company's business. Second, there is no clear correlation between the price and the liquidity of a company's shares in Japan, and it is by no means certain that reverse splits would be an effective means—as they are in the United States—of boosting liquidity.

With a growing number of stocks trading below ¥100 (see Figure 6) and bankruptcies by listed companies—once a rare event—now common, investors have become very sensitive about the credit risk of companies with low share prices. It is therefore quite possible that companies whose share prices are lower than those of their rivals may seek to boost them by means of a reverse stock split. Also, the fact that Japanese companies now have greater freedom in how they deal with their shareholders as a result of regulatory changes (e.g., the replacement of the previous

system of trading lots with a new system[13]) means that they may see reverse stock splits as one means of reducing the cost of dealing with shareholders.

Figure 6 Number of Companies with Shares Trading below ¥100



Note: Based on all the companies listed on the First Section of the Tokyo Stock Exchange at end-July 2002. The data for 2002 are as of end-July 2002.
Source: NRI.

[13] Under the old system, one trading lot had to have either a total par value of ¥50,000 or a total net asset value of at least ¥50,000. Under the new system, however, shares have no par value and each company can decide how many shares constitute a trading lot, with a maximum number of 1,000 shares or 0.5% of the shares outstanding.