

Icarian Stock Prices?

By Fumiko Kon'ya

The unsettling fluctuations that rippled through stock markets around the world at the start of the year have resurrected concern about Japanese stock prices. The oft-repeated shibboleth is that Japanese stock prices are overvalued, are headed for a fall, and may well trigger a global crash. What are the facts?

Japanese stock prices grew nearly six-fold in the nine years through 1989, an average annual increase of over 20%. During the same nine-year period, American stock prices increased 2.5-fold, British four-fold, West German three-fold, and French five-fold (Fig. 1). The increases were particularly sharp in the two

years preceding Black Monday, and the fear that Japanese stock prices are fated to fall is no longer just a domestic concern but is heard from analysts worldwide, "There is," these people worry, "going to be a crash, and Japan is going to be the epicenter. The market is going to fall first, farthest, and fastest in Japan."

These are almost tangible fears, and they have grown stronger since New York-born Black Monday. "Japan is next," these people fret. Yet their fears continue to be betrayed. Looking at the most recent tremor for which data are available, Japan suffered less damage and was quicker to recover after Black Monday than any other industrial nation.

Undaunted, these people point to the very high Japanese PER (price-earnings ratio). Other countries have multiples of 10 to 20 at most, while in Japan they are up around 60 or 70 (Fig. 2). Japanese PERs are four to six times higher than those elsewhere. The PER, considered the most basic yardstick of stock value, is the ratio between the stock's price and the company's earnings. The PER is a generally accepted assessment of share price because the company's earnings are fundamental to stock price in that shareholder dividends (investor yields) are paid from these earnings.

Yet despite PER's widespread acceptance, there is no reason why PER levels have to be the same worldwide. Rather, they are influenced by such diverse factors as corporate growth potential and interest rates. Yet even seen against Japanese business's earnings growth potential and Japan's low interest rates, how are we to explain these high PERs?

In order for an international comparison of PERs to be statistically meaningful, company earnings must be calculated the same way in all countries. As is well-known, accounting standards such as the way depreciation is treated mean that Japanese earnings show up as smaller than the equivalent earnings would be elsewhere. Likewise, the practice of cross-holding also contributes to higher PERs in Japan. This is easiest understood if we consider all the listed companies as a single company, in which case cross-held shares can be considered shares that the company has bought back. Thus earnings per share are calculated too low because the total value of the shares is double-counted but only the dividends paid are double-counted on the earnings side.

Recalculating Japanese PERs to eliminate these accounting differences and the effects of cross-holding brings the multiple down to about twice that in other countries. Clearly, a good portion of Japan's high PER is attributable to accounting differences—this even before we have

Fig. 1 Comparison of Stock Price Indexes (end of 1980=1)

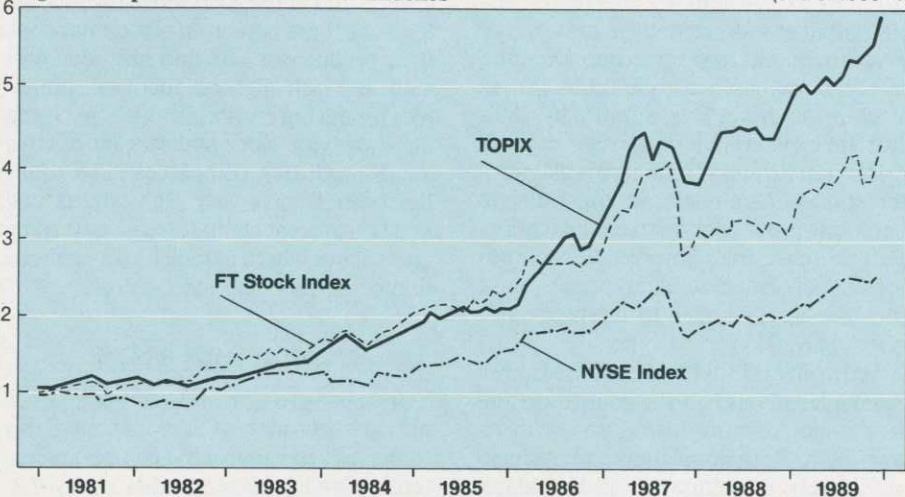


Fig. 2 Comparison of PERs

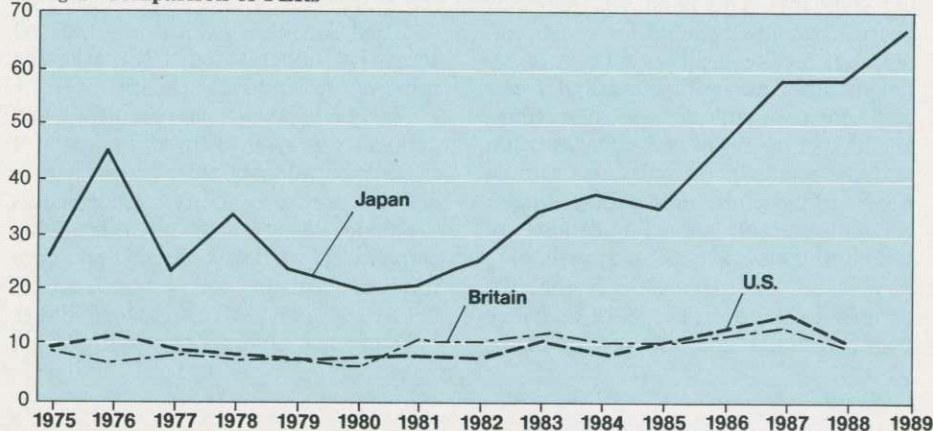
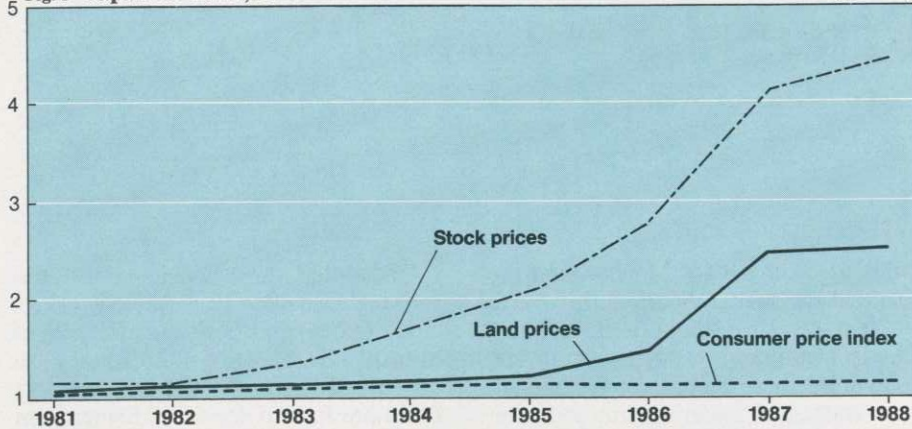


Fig. 3 Japanese Land, Stock and Consumer Price Indexes (1980=1)



looked at growth potential and interest rate differentials.

Although Japan's interest rates have started edging up in recent months, they had been at low levels for a long time. Not only were these interest levels low by international comparison, they were very low historically for Japan. Japanese stock prices have gone up as interest rates have gone down, and it is commonly accepted that low interest rates are one factor pushing stock prices higher.

Liquidity glut

Many analysts, however, dismiss the idea that interest rates can fully explain Japan's high stock prices. Rather, they argue that the low interest rates are caused by the glut of excess liquidity sloshing around and looking for investment opportunities at home. It is this homeless money that has ratcheted up stock prices, and advocates of this thesis contend that there are no fundamental economic reasons for the soaring stock prices.

Given all of the investment choices available to investors, however, the idea of homeless money is ridiculous. Investors are putting their money into the stock market because stock is preferred to purchasing assets, saving, or making other investments. Very simply put, stock is seen to offer the best overall return. Other observers maintain that Japanese investors prefer the security of buying Japanese stock not because of its higher return but because it is free of the higher risks involved in foreign investment. These people contend that Japan's stock prices are a bubble-like phenomenon ready to burst.

If the rapid increase in Japanese stock

prices has created an investment bubble, why aren't investors discounting for this risk? If it were that much of a bubble, there would be less risk in investing abroad. Certainly investors expect that their investment in Japanese stocks will yield enough return to at least cover the risks involved. No one is being compelled to purchase Japanese stocks.

Most people who contend that the stock market is an investment bubble inflated by excess liquidity also tend to assume that stocks are not the best overall investment and that the economic value of the stock has not gone up as fast as stock prices have. It is, admittedly, difficult to explain the rapid rise in stock prices in 1986 and 1987 in terms of low interest rates. As a result, we must turn to corporate growth for further explanation. Before doing this, however, it is worth looking at Japanese land prices, since they are closely linked to the high stock prices (Fig. 3).

With only 1/25th the area of the United States, Japan has half the population and is a major manufacturing power in its own right. Both population and business are largely concentrated in the major urban centers, however. As Japanese living standards have gone up, there has been increasing demand for consumer-oriented service facilities such as shopping centers, movie theaters, and sports and entertainment parks in these cities, and the provision of these facilities has had the result of attracting even more people to the cities. More people, greater convenience and larger populations are locked in a vicious cycle of growth.

What is important here is that the companies listed on the stock exchange own substantial amounts of land in the

urban centers. Much of this property was purchased when land was relatively inexpensive, but because companies are allowed to list assets at purchase price, the upward-spiraling market value of this land does not show up on their books. By present value, land is half of the listed companies' assets; on the books, it is less than 4%. This difference underscores the tremendous gap between what the land cost them and what it is now worth.

The old blue-chip smokestack companies are still major forces on the Japanese stock market. They purchased large tracts of land when the prices were much lower and have pursued projects that made both productive and profitable use of the land in terms of its purchase price. But the industrial structure has been radically transformed over the last decade or so. More affluent lifestyles and advancing technological levels have sharpened the shift to more information-intensive, higher-tech and service-oriented operations. Because there is such strong demand for their products, a situation has been created in which high-productivity companies producing service products are vying for sites with older and less productive goods-producing companies. The result has been Japan's very high land prices, and this process should also give us some ideas about where to look for an explanation of Japan's high stock prices.

Asset value and M&A

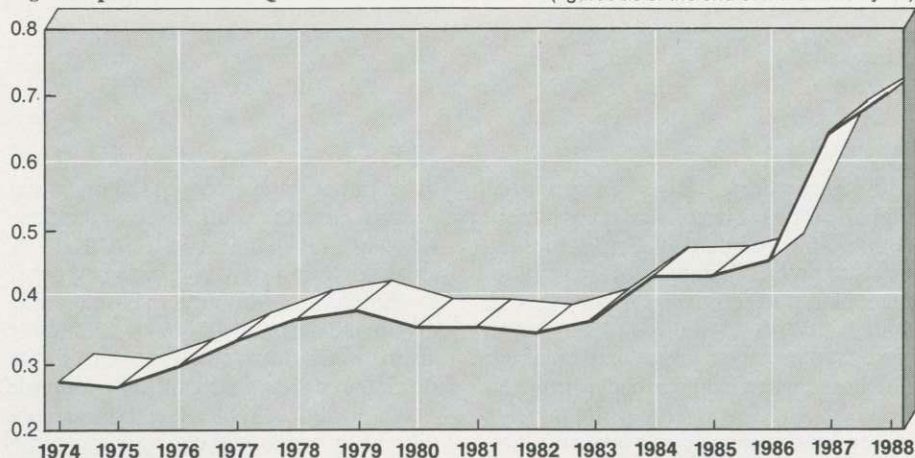
In seeking to explain Japan's high stock prices, many analysts have attributed this to the hidden value of the companies' extensive land holdings. Earlier it was stated that Japan's PER suggests that stocks are overvalued. These people would argue that Japanese stock prices are still somewhat undervalued if you take the value of the land into account.

The Q ratio, which has recently gained popularity as an investment indicator, is the ratio between the stock's current price and the company's current-value assets per share. Because stock prices are being compared with asset value, the figure used in calculating the Q ratio is equity net assets (total assets minus liabilities).

Doing the arithmetic, one finds that

Fig. 4 Japanese Stocks' Q Ratio

(figures as of the end of March each year)



Note: Q ratio = the ratio of total value of shares outstanding to market value of assets

the total current value of all the assets held by listed companies is considerably higher than the total current value of their stock. In other words, the Q ratio is well below one (Fig. 4). The factor increasing the total asset value, of course, is land. Yet even this is understated, since land prices as announced by the National Land Agency and used in calculating the Q ratio are much lower than the actual market value. Believing that a Q ratio of less than one is evidence that stock prices are undervalued in respect to asset value, investors have been eagerly investing in the stock market.

This is not the entire story, however. Given the Q ratio and PER's contradictory signals—the Q ratio saying that stocks are undervalued and the PER saying that they are overvalued—what are we to believe?

Shareholders have a claim on the company's assets just as they have a claim on the company's earnings. Seen in this light, it seems fair to measure a company's stock price in terms of its assets. This must be qualified, however, by the realization that assets do not necessarily translate into shareholder yield. Unless there is some prospect of the assets being transferred to the shareholder, the share price should be independent of assets, regardless of how valuable the assets are. The assets have value to the shareholder only in terms of breakup value. In the case of a takeover, for example, the value of the assets is transferred to the acquiring company's shareholders. Yet takeovers of listed companies have been rare in Japan, and this has been attributed to their use of cross-holding strategies to protect themselves. Is it really true that this strategy prevents takeovers?

It would be a mistake to say that there are no takeovers in Japan. Hostile takeovers have not succeeded in Japan, but friendly takeovers are a daily fact of Japanese business life. These takeovers flow through the cross-holding agreements that seal financial alliances and among companies within the same *keiretsu* groups. Very often, stronger companies within a *keiretsu* group will second directors to companies that are not doing very well, and it is not uncommon for the com-

pany's lead bank to take the initiative in arranging for the spin-off or sale of operating divisions and the company's restructuring. There are more ways to effect a takeover than the classic definition of a takeover tender offer on the stock market.

Hostile takeovers have failed in Japan not because of defensive cross-holding but because they are too expensive. The cross-holding strategy could just as logically result in hostile takeovers engineered by a company holding another company's stock. But this does not happen. Why? Basically because the company has more to gain over the long term by staying in the *keiretsu* group and its financial alliances than it does by breaking up these long-term economic relations in a hostile takeover.

Restructuring and stock prices

While asset value is important, Japan's rising stock prices are not simply moving lockstep with the rise in asset value. In fact, this connection functions only to the extent that it is possible to transfer the value of a company's assets to its earnings. One way this can be done is with company-initiated restructuring, which offers shareholders the benefits of the company's assets without putting them through a hostile takeover.

If the value of assets is sure to make its way into future earnings, then the present value of a company's assets can be safely perceived as its earnings potential. By restructuring, the company can realize the earnings potential reflected in its assets. Analysts thus view the PER as an indicator of the company's present earnings and the Q ratio as an indicator of its

future earnings potential. Seen this way, the seeming contradiction between the PER and the Q ratio is simply the difference between the company's present earnings and its potential future earnings. A high PER simply means strong earnings growth.

Having a Q ratio below one, on the other hand, should not be taken as indicative of either undervaluation or inefficient management. While companies must use their assets efficiently and restructure promptly if the value of assets is to be translated into earnings, analysts have to remember that such projects entail both costs and risks for the company. Thus a more accurate way to measure potential earnings would be to bear in mind these costs and risks when assessing the asset value.

As stock prices have risen in recent years, there has also been an accompanying increase in the Q ratio. Since this increase in the Q ratio means that the differential between asset value and stock price is shrinking, they indicate that restructuring is becoming cheaper and less risky. In short, it is now more possible to realize the potential earnings contained in the value of assets. The higher stock prices are thus the market's way of saying that the future potential earnings reflected in the asset value are accessible through restructuring. The period of domestic demand growth starting in the latter half of the 1980s has dramatically reduced the costs and risks of restructuring and heightened the possibility that this potential value will be real value to the investor.

Thus Japan's rising market may be seen as evidence that investors believe corporate earnings will continue to grow

with restructuring. Driven by consumer demand for a more convenient and more comfortable standard of living, the service and high-tech industries are expanding rapidly and companies in slow-growth mature sectors or industries are being forced to use their large land holdings, purchased when land was cheap, more efficiently. And this restructuring is being driven by new investment opportunities, as indicated by the higher land prices of late, and the expansion of domestic demand.

Japan is today in the midst of a sustained boom that promises to surpass the records set during the rapid-growth period of the 1960s. Restructuring is gaining increasing momentum, as shown by the fact that more and more corporate earnings are coming from new operations. As land prices have gone up, companies have moved to make more efficient use of their land and to earn a decent return in terms of the assets invested, and these stronger earnings are in turn reflected in higher stock prices.

Returning to our earlier explanation of the high stock prices, it is now possible for this phenomenon to be entirely described by economic factors, the low interest rates and the growth in company earnings, since whatever is left over from the low interest rate reasoning can be explained by high shareholder expectations for corporate growth. Seen in this light, it can also be said that the low interest rates were responsible for the rise of both land and, especially, stock prices.

Cross-holding

Many analysts claim that cross-holding pushes stock prices up unreasonably. However, it does not seem likely that cross-holding could or would force stock prices any higher than their fair market value, although it does contribute to a rise in PER.

Rather, economic theory would argue that cross-holding by companies itself is neutral and is not responsible for either higher prices or lower prices. To understand this, it is necessary first to imagine all companies as one massive company. Because shares traded within this compa-

ny would offset each other, the only final owners are the outside shareholders. Likewise, dividends paid as a result of cross-holding simply go from one pocket to another and, although they may show up on the company's books, ultimately accrue to the outside shareholders. In the final analysis, the shareholders' economic rights, including their dividends, are not diluted by cross-holding.

Another way to understand cross-holding would be to see it as a ledger in which borrowing and lending cancel each other out. This relationship, being distinct and apart from demand for the company's stock from outside sources, is not a source of demand. And since stock prices move in accordance with demand, they are unaffected by the establishment of cross-holding arrangements.

There are, however, other issues involved in cross-holding. For example, the scarcity theory claims that cross-holding, by sopping up a portion of stock that would otherwise be available to the market, causes scarcities and inflates stock prices. Another theory maintains that cross-holders are in these arrangements for more than just the surface investment benefits and that they thus push stock prices up in pursuit of these unstated but valuable benefits. But both of these arguments are open to question.

The scarcity problem can be evaluated by thinking about stock splits. Stock splits increase the number of shares available and simultaneously reduce the share price—the price dropping not simply because there are more shares outstanding but because the total assets represented by the stock remain unchanged but are now represented by more shares. Considering that the trading volume on Japanese stock exchanges is among the largest in the world, it is clear that there is no scarcity of available shares. The ordinary investor—one not planning a takeover—is more interested in the value of his holdings than the number of shares he holds. The number of shares in circulation is not a major concern for most investors.

In the second case, the fact that cross-holding companies gain non-monetary benefits and that these might push the stock's price up is simply a recognition



Tokyo Stock Exchange—an ability to bounce back.

by the market of the economic benefits of the particular cross-holding. Cooperation among companies enables them to manage their businesses better and naturally results in a higher valuation. Essentially, stock prices are rising in response to an improvement in the companies' fundamentals. If such benefits were not foreseeable, the stock price would not go up; and when they are, the stock price reflects this.

Will there be a collapse?

Although there are clear economic reasons for Japan's high stock prices and this is not a bubble just waiting to burst, the possibility of a collapse cannot be categorically denied. As illustrated by Keynes's famous remark likening investing in the market to judging a beauty contest, it is obvious that stock prices are often influenced by more than economic fundamentals and that investor psychology is a major factor in the market. Analysis based on the value of assets, for example, implies an expectation of future profits and, since no one can predict the future with 100% certainty, there is ample room for subjectivity.

However, I would argue against a collapse. The fact that Japanese stock prices were so quick to recover after Black Monday indicates that, at least for the Japanese market, that downward slippage itself was an abnormality—a deflation bubble, if you will. While it is impossible to predict whether or when such a bubble might reappear, my analysis suggests that Japanese stock prices are more likely than not to follow the previous pattern and to bounce back quickly.

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