# The Stock Market and Investors Waver Between Growth and Value Investment Styles 

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## 1. The Stock Market's Volatility

Driven mainly by information technology (IT) related growth stocks, Japan's stock markets rose steadily during 1999. But in 2000, the sharp downswing in the same IT stocks has dragged down the overall market (Figure 1). Japan's IT stocks, known for being strongly correlated to their counterparts in the U.S., mimicked the sharp retreat of the Nasdaq after its remarkable surge from mid 1999 (Figure 2). In addition, a steady diet of initial public offerings as well as large secondary offerings helped to further distort the supply and demand balance.

The market appears to have taken a definite turn. For example, Hikari Tsushin and Softbank, whose stock prices rocketed in 1999 by 29.5 times and 14.4 times respectively, subsequently plunged by $97.6 \%$ and $69.0 \%$ from late February to late May. In Hikari Tsushin's case, trading was stopped for 20 consecutive trading days from March 30 with maximum allowable losses, and hapless investors stood by idly as the price quotes plummeted. Individual investors buying the stock on margin faced margin calls, while investment trusts had to sell off other holdings to accommodate the many investors closing out their positions. The debacle raised questions regarding the valuation of growth stocks and asset management strategies by investment trusts and other institutional investors.

For a closer examination of investment in growth stocks, this paper first looks at the historical performance of IT and other growth stocks to see how well investors have been rewarded. Next, we point out that investment styles in Japan occasionally tend to run toward a particular bias, such as the market's growth preoccupation last year, and try to explain why this occurs. Then we discuss the problems involved in last year's growth market, primarily from the perspective of investment trust funds.

Finally, we redefine the tenets of value and growth investment style categories. For value investment, conventional definitions emphasize valuations such as price-to-book (PBR) and price-to-earnings (PER) ratios. However, prompted by poor performance in recent years, some value investors have begun to incorporate a growth bias, thereby blurring the distinction with growth investment. Moreover, conventional definitions lacks an integrated approach that relates valuation with growth potential. Thus we develop an integrated approach to value and growth styles based on what money managers do to
obtain market beating returns.

Figure 1 TOPIX and Nikkei 225 Indexes


Figure 2 The Nasdaq Index


## 2. Do Growth Stocks Grow Indefinitely?

Predicting the next growth industries is an entirely distinct matter from picking winners in those industries. In America, for example, the automobile industry was an obvious growth industry in the 1920s. People back then undoubtedly realized the industry's massive potential - even though full-scale motorization would not occur until the postwar era when the nationwide highway system was built. But few investors successfully grew wealthy on automobile stocks. Among the dozens of automakers in existence, only the big three have managed to survive in some form. And even the big three faced a perilous time in the 1980s. Chrysler is no longer a purely American company. Thus even if investors could predict the course of the automobile industry, few could have predicted the fate of individual companies.

The same can be said for air transportation and petroleum. It was widely recognized early on that airplanes and oil would play defining roles in the century. But because of strict competition, very few of the companies have survived in their original form. Mergers and acquisitions transformed the airline companies into international groups that are fighting for supremacy. Even the major oil companies have weakened to the point that they must coordinate their actions to survive.

In the IT sector, mainframe makers in the computer industry lost their dominance as the downsizing wave passed them by. Even the once almighty IBM was forced to beef up its personal computer business and declare a major shift to software.

Furthermore, in the personal computer OS market, Microsoft gained dominance after replacing its own original system software. Now even Microsoft is under threat from the Justice Department as well as from the emerging Linux open architecture platform. Indeed, the computer industry is even more volatile than other industries.

As these cases show, insights into predicting mega-trends and identifying growth industries alone offer no guarantee of success in the stock investment. This is because promising new industries attract many people and companies, and as a result undergo rigorous competition and rapid change. Investors have great difficulty picking winners who will continue to prosper in such highly competitive growth industries.

Obviously, investors would have been rewarded with astounding returns if they could have identified Sony or Honda at the IPO. But picking out the Sonys and Hondas from among the sea of new companies in the early postwar period would have required luck more than foresight.

In addition, even growth industries start slowing down as they mature. Particularly in rapidly changing industries such as IT, growth can be rapid but brief if the next new business model gains ascendancy.

Although the IT revolution is attributed to have a large impact on society, we say instead that IT is being built into the social infrastructure. If so, IT would be adopted by existing industries and companies, so that today's leading edge companies would lose their advantage. Just as the semiconductor industry succumbed to the silicon cycle, if the IT industry grows enough to become an integral part of the social infrastructure, it will shift from being a growth industry to a cyclical industry. When that happens, only a handful of leading edge companies will be able to keep growing.

The above discussion should make clear the difficulty of picking winners who can grow indefinitely, and caution investors to never lose sight of the risk that companies can eventually lose their growth potential.

## 3. Changes in Investment Style

The term investment style appeared relatively recently in Japan. It is not even clear if the term has truly become entrenched in the asset management industry. To explain why, we must look at the stock market from the late 1980s to the present from the perspective of growth and value investment styles.

In the late 1980s, a large number of supposedly growth style investment trust funds were established. Obviously, it was difficult to sell value-oriented investment trust products when the market was booming, particularly when valuations were soaring for individual stocks as well as the overall market. But the truth is that value indicators were never more useful in picking stocks than at this time (Figure 3).

In Figure 3, we ranked the TSE first section stocks at yearend in rising order of PBR, created portfolios for each group of five adjacently ranked stocks, and measured the return differential between the 90th percentile (lowest PBR, and hence most undervalued) and 50th percentile (high PBR, and hence overvalued) portfolios. While results are not risk adjusted for simplicity, let us suppose that when the return differential is high, value stocks outperform growth stock returns. What is interesting is that low PBR stocks had high returns in the late 1980s, and low returns in 1997 and 1999 (in the two-tiered market).

Figure 3 Difference in Annual Returns of Low PBR and High PBR Stocks


Note: TSE first section stocks are ranked by increase in yearend PBR, and compiled into portfolios of 5 issues. Graph shows difference in annual returns for the following year (equally weighted) of the first (most undervalued) and fifth (most overvalued) portfolios

The late 1980s in particular was a time when the large securities firms thrived by promoting "scenariooriented marketing," while investors emphasized macroeconomic factors over microeconomic factors. Interestingly, value stocks performed the best throughout the period. However, this merely reflected investment behavior in which the major securities firms recommended stocks in order of their undervaluation. In other words, the fact that valuation indicators played a role in stock selection did not mean that value investment had become an established investment style or philosophy.

After the stock market collapsed in the 1990s and the market fluctuated within a limited range, investors turned their attention not to individual stock selection but to the market's overall direction. Emphasis on market timing of portfolios caused differences in stock returns to decline (Figure 4).

Figure 4 Standard Deviation of the Difference in Monthly Stock Returns (TSE $\mathbf{1}^{\text {st }}$ section)


For first section stocks on the TSE, Figure 4 shows the six-month moving average of standard deviations for monthly returns, weighted by total market valuation. The figure shows that the variance in returns trended downward until the market became two-tiered in mid 1996.

The decline in return spread indicates the difficulty of obtaining returns above the benchmark. As a result, market timing experts gained popularity, while the issue of value versus growth investment styles lost importance because performance differences had become relatively smaller.

Under this investment climate, the deregulation of pension fund management sent repercussions through the asset management industry. In April 1995, the abolition of the risk-free asset ratio, which had applied to the expanded portion of assets under management, set the stage for specialization in style management. In particular, investment advisories began defining their investment styles with more clarity to differentiate themselves from investment trusts and life insurers, and also partly because pension funds and pension consultants began questioning money managers how they sought to produce above average returns.

At this time, many investment advisories advocated value investment. They were not genuine advocates of the value style and philosophy. One reason was that many investment advisories lacked analysts to prepare performance and growth rate predictions for individual companies, which is necessary in growth style management. In addition, in the absence of actual performance results for style man-
agement, value style investment was preferred fot its greater ease in demonstrating past results.

However, the two-tiered market from mid 1996 exposed the immature condition of investment styles in Japan. While funds are clearly defined by style and thus should be compared against a relevant style index, pension funds frequently used the unadjusted TOPIX as a benchmark. This was likely due to the attitude that investment styles referred to little more than management methods - an observation corroborated by the fact that only a small minority of investors showed a firm stance on investment style.

In addition, the two-tiered market at this time was caused by a flight to quality as the financial crisis aggravated credit uncertainty. In other words, the two-tiered market was a result of investment by process of elimination.

However, a different explanation exists for the market's bipolarization in 1999. The surge in stocks of IT related and new service industries occurred among companies in which investors saw growth potential. Thus the two-tiered market had acquired a more active meaning.

Many growth style investment trust funds were established during this time. Moreover, more fund managers declared publicly that they were investing in companies, not stocks, and that investing in stocks was a way to participate in a company's growth. The sudden appearance of fund managers espousing this investment philosophy is itself a curious phenomenon; people do not ordinarily adopt a new investment philosophy or style overnight. It remains to be seen whether investment philosophies nurtured over a year long bull market are strong enough to withstand a three-month long bear market.

In 2000, as growth stocks became more volatile, value style investment trust funds were established. While the planning of these trusts occurred at an earlier time, the timing of their appearance was no doubt prompted by investors' unease regarding whether the two-tiered market would persist.

This point demonstrates a characteristic of Japan's investment trusts more clearly than perhaps anything else. Instead of accentuating their strengths with a unique asset management approach, investment trusts conform to market trends and timing to provide products that securities firms can sell easily.

Thus looking back at the history of asset management in Japan, we inevitably find that the investment style of asset management companies and products conveniently changes to suit the particular circumstances of the time. That is, investment styles merely reflect the attempt of asset managers to conform to market trends, and are certainly not a manifestation of any investment philosophy. Thus the notion of equity investment style has not become established enough for the words value and growth to carry much weight.

This is one reason that the actions of foreign investors are so closely watched in the domestic stock market. Investors who lack an investment philosophy and follow market trends need someone to lead them, and so this role goes to foreign investors. Excluding the bubble period when Japan money dominated the world, Japan's stock market has always needed to follow the lead of foreigners.

## 4. Stock Investment Trust Funds Pursue a Growth Style in 1999

Below we take a closer look at the two-tiered market during 1999. One characteristic of this growth oriented market was the broad participation of foreign investors, individual investors, and institutional investors in bidding up the prices of favored stocks.

This point is corroborated by increases in the foreign stockholding ratio of growth stocks, volume of margin transactions, and net assets of growth investment trust funds, as well as by the composition of top holdings of these funds.

Perhaps the most closely watched investors were the investment trust funds because of misgivings as to whether they will become established as stock investment vehicles for individuals and the Japanese 401(k).

There are two reasons for this. First, because securities firms churned customers' accounts from one investment trust fund to the next, it was difficult to regard investment trust funds as long-term vehicles. Second, the poor performance of investment trust funds in the past has disappointed their customers.

Let us see if these points have been improved. With regard to the fund churning practice, while some contend that this has not changed, the diversification of sales channels such as banks and the Internet has helped steer the overall direction toward improvement. In addition, the recent trend to create flagship funds is a promising development in that rather than creating many mediocre funds, funds are being designed with long-term investors in mind. However, unlike funds like Fidelity's Magellan Fund, which grew into a flagship fund by virtue of its strong performance, flagship funds in Japan solicit massive funds from the start. While money managers can choose to concentrate their resources into one fund, if it performs poorly, the result is not a flagship fund but simply a massive fund.

The good performance of stock investment trust funds in 1999 was due in no small part to the strong market. Thus growth investment funds began to perform poorly as growth stocks became volatile in 2000. Of course, such short-term returns are not an appropriate metric for evaluating the quality of management.

The question is whether a fund's management can be expected to turn in a superior performance over
the long term. Investment trust funds are essentially supposed to pool together small funds for investment, diversify investment risk, and benefit from the management of experts. However, one fund operated by a foreign investment company at times held as much as one-third of its investment in only two stocks - Softbank and Hikari Tsushin. While this is an extreme case, some funds produced high returns last year by concentrating their holdings in a handful of stocks. Below we examine whether such funds are being managed appropriately as investment trust funds.

As evident from the large volume of margin transactions, many of the stocks targeted by the investment trust funds were those that individual investors had bid up. In the process, it is doubtful whether the experts made accurate valuation judgments. With regard to diversification, the portfolios are so concentrated that the concept of portfolio management becomes meaningless. Consequently, only one of the three conditions mentioned above is satisfied - the pooling of small investment funds - and the only thing these growth-type investment trust funds offer is the opportunity for small investors to invest in high-priced stocks.

For long-term investment, the risk-to-return balance suggests the need for a consistent management policy. In practice, however, risk tended to be ignored in pursuing short-term returns, resulting in investments in high-priced stocks. Alternatively, we could surmise that many individual investors bought high-risk, high-return investment trust funds in pursuit of short-term returns. If so, the problem may be to better educate investors.

## 5. Distinguishing Growth and Value Investment Styles

In the past few years, value investors have suffered from dismal performance. But the recent sell-off in growth stocks has attracted the attention of bargain-hunting value investors. That is, these investors are finding value in the growth potential of oversold growth stocks.

Both proponents and opponents of expanding the conventional classification of investment styles often misunderstand value and growth investment styles. Let us consider the basic valuation metrics of these investment styles.

Essentially, valuations of both value and growth stocks are made by discounting future cash flow (at the risk free rate plus a risk premium). While a variety of approaches are used - including the dividend discount model, free cash flow model, and the recently popular EVA ${ }^{\mathrm{TM}}$ model (economic value added)- the fundamental concept is the same.

In these valuation models, the growth rate of future cash flow is reflected in stock prices even for value stocks. Thus growth clearly does matter when evaluating value stocks, and conversely, growth stocks
may be considered undervalued when growth potential and risk are taken into account.

Conventional definitions that use metrics such as PBR and growth rates to distinguish between value and growth styles may not necessarily conform with valuation models in some cases. For example, it is difficult to categorize the oversold stocks of companies that are turning around, as well as the GARP approach (growth at a reasonable price).

The source of this misunderstanding is the confusion of value and growth styles on one hand, with oversold stocks and growth stocks on the other. While many value stocks have low PBR and PER and growth stocks have the opposite, these characteristics represent outcomes. Value investment is not simply investing in stocks with low PBR and PER, while growth investment is more than investing in stocks with strong growth potential. Another source of misunderstanding is the definition of value stocks as simply being undervalued according to some standard. If we accept this definition, then even growth stocks can be defined as value stocks by arguing that growth potential has not been priced into the stocks in question.

To resolve this confusion, we present an integrated definition of value and growth investment styles that is in line with valuation models.

In the growth investment strategy, investors target stocks whose growth potential is underestimated by the market. Thus growth investors seek above-average returns by predicting future corporate performance more accurately than the market can. On the other hand, the value investment strategy targets stocks whose risk premium the market has overestimated. Value investors try to beat market returns by judging the risk premiums priced into stocks more accurately than the market can.

Thus the difference between growth and value investment styles lies in the source of the superior returns. With respect to the valuation models mentioned earlier, growth investors are those who believe they can predict growth potential more accurately than average investors, while value investors believe they can determine risk premiums more accurately than average investors.

Despite the difficulty in growth investing of predicting a company's growth, growth investors have many opportunities to invest because the market often underestimates growth prospects. Since growth investors seek a risk premium to compensate for high risk, their stock selections are not likely to attract value investors. However, these stocks could attract value investors during market phases when valuations are low despite the hefty risk premium reflecting volatility.

In addition, stocks with a low PBR are companies the market believes have earnings that do not justify the cost of capital. Leaving aside the stability of a particular company's business results, the more unified the market's consensus is on a company's future performance, the less appealing that company
becomes to growth investors. However, since the downside risk is often overestimated in declining markets (sell-offs bring these stocks into value territory), they present opportunities for value investors as well. Thus many stocks that attract value investors are undervalued according to common valuation metrics. But even a low PBR stock can attract growth investors who believe that the company will outperform the market consensus. This type of investment is also called earnings momentum investment (Figure 5).

Figure 5 Value and Growth Definitions of Style Indices

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Despite differences among vendors who compile style indices, the following cri-
teria are frequently used to categorize stocks.
Value: Low PBR, low PER
Growth: High PBR, high revenue growth, and high earnings growth rates
Investment Sub-Styles
There are several investment sub-styles.
Value: Low PER, low PBR, and high yield
Growth: Consistent growth, earnings momentum growth
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Source: Frank J. Fabozzi, ed., Active Equity Portfolio Management.

Using the above definitions, the poor performance of value stocks causing the two-tiered market can be attributed both to weak business results as well as higher risk premiums not only in value stocks but the general market. Since risk premiums have risen against the backdrop of credit uncertainty and supply and demand instability from unwinding cross-stockholdings, companies who lack a clear vision have difficulties dispelling investors' doubts and uncertainties.

Stated differently, market under-performers can recover only by improving their business results and risk premiums. Since the risk premium reflects investor psychology, managements must not only improve business results but emphasize stockholders' interests and pursue greater disclosure.

In the past few years, there has been a growing price disparity between the stocks of companies that focus on stockholders' interests and investor relations, and those who do not. This stock price disparity reflects differences in risk premiums. If this trend continues, the economic recovery and improving corporate performance may not translate directly into rising stock prices, because even if a sustained recovery boosts corporate performance, investors may find little appeal in these stocks as a long-term investment.

