## How Can High-tech Firms Attract Investors?

By Fred F. Yoshino

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"Big profits await firms which aggressively take the lead in pursuing technological trends. At the same time, this implies expanding research and development (R&D). Competition between electronic companies to develop new technological standards and have them succeed in the marketplace is only going to grow as positioning gains in importance. This will also serve to push costs upward," predicted Peter G. Wolff, vice president of Asian Technology Research, Kidder, Peabody & Co., Inc., during the Hong Kong conference.

The question that follows is how to raise the necessary capital to finance such spending. With the stock market crash at the end of 1989, high-tech companies which benefitted from prevailing low interest rates during the late 1980s must refinance the outstanding portion of earlier issues. The difficulties are compounded by pressing time requirement for redemption, and the rating of their outstanding debts, as well as their low profitability.

Furthermore, Japanese electronics firms are likely to suffer from a cyclical economic downturn for sometime since they have expanded manufacturing capacity primarily in commodity products. Coupled with this vulnerability, firms in other countries are pressuring Japanese companies, especially in product lines such as dynamic random access memory (DRAM) and home electronics.

As market globalization prevails, price competition in these commodity products will intensify, and, as a result, profitability is likely to erode in many segments of the industry.

Moreover, Vice President Wolff casts

doubt over the technology development strategy adopted by Japanese firms which have positioned as future profit drivers such commodities as flash memories and liquid crystal displays (LCDs). These innovative products can be very profitable during the initial stages, but as an increasing number of competitors enter the market, earnings quickly shrink as seen in the case of DRAMs.

Hot items can mature too quickly as technology gaps are narrowed between leader and followers. The so-called cascade model (product diffusion taking enough time to stretch the product cycle) no longer works since we are plunging in to the period of global synchronization where anyone can get anything, anywhere without time lag.

To avoid being caught by cyclical influence and excessive competition from those quickly gaining, Japanese high-tech firms may well be advised to be more creative and original and more attention should probably be paid to higher profit-margins and specific-use varieties such as customerized application specific integrated circuits (ASIC).

To regain the confidence of investors in high-tech firms some changes must be made. "Fundamentally, electronics companies [in Japan] have not been able to generate high enough returns to keep investors from reducing their [portfolio] exposure in this sector," comments Wolff. "The vast majority of investors have gotten burned too many times and have lost [their] money by understanding neither the technology products drivers, nor the investment cycles in stocks."

His advice to high-tech companies is pithy, "... in order for high-tech firms to maintain access to adequate levels of capital for future growth, management must center their strategies on highly margined product segments that can maintain competitive returns. They should focus on those markets which

are growing faster or have the widest potential. Such products are either going to require leading-edge manufacturing processes, proprietory components and/or contain a lot of proprietary software.

"To do this, R&D management may have to be restructured away from large hierarchical organizations to a number of more autonomous, more focused units. Many companies have talked about in-house venture capital in the press, but I have not yet seen such avenues aggressively pursued." He then went on to argue that Japanese firms quickly acknowledge the need for a drastic change and that they need to become more profit-minded.

From Wolff's analytical reading of comparative stock movements in the recent past, he also suggested diversification for larger high-tech companies. An aggressive pruning of low-margin product portfolio is also recommended so that management can reallocate the savings from restructuring for much needed R&D funding and product designs that are promising in the future.

"Management should not be afraid of cannibalizing product lines if another, more price-competitive technology is developed," says Wolff. Japanese hightech companies can be more venture-some in exploring new non-commodity-type products and untapped areas of the global market.

Standing at a critical turning point, the Japanese high-tech industry has these problems to overcome, promptly. But we are at least witnessing an encouraging sign: An understanding of the seriousness of the issue is being built among all concerned, thus enabling us to come out of the current situation much stronger.

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