Industry and Microelectronics

The Japanese microelectronics industry is well established and well situated, both domestically and internationally, in terms of its products and the technological capabilities needed to foster continued development and growth. As noted before, while there are many companies in the electronics/ microelectronics fields, more than half of the production comes from fewer than 135 large corporations.

These major companies have a number of characteristics that affect how they do business and how foreign companies must do business with them. All are divisions of large, systems-oriented companies that have highly diversified interests covering several product fields. None are exclusively involved in microelectronics. In their microelectronics activities, the average product profile for ICs has 22 per cent in MOS memory, 35 per cent in other MOS, 9 per cent in bipolar digital areas and the remainder in bipolar linear. These companies use new technology to diversify, to apply existing capabilities to increase the value-added of their products, to improve product profitability and to develop new products or businesses.

Typically, these large companies are vertically integrated - a factor which allows them to invest heavily in microelectronics production, plants, facilities, R&D and product innovation even during economic down-turns. The ratio of vertically-integrated producers to pure merchants is overwhelmingly high. As a result, Japan has many firms that can invest heavily in the long-term future of microelectronics even when present sales are poor, since they can amortize the investment over the vertically-integrated group of products.

Apart from the normal concern for economic health in the short term, Japanese corporations tend to look more to long term profitability and market share than their North American counterparts. Their commitment to microelectronics activities is long term and is based on recognition that microelectronics will ensure the completeness of their business activities in other fields.

A presence in microelectronics allows companies to increase their self-reliance. They can produce diverse product lines across a number of fields such as general electrical goods, consumer goods, appliances, computers and communication devices while enjoying security of supply in essential components, facilities, materials and technology. Microelectronics offers companies a means to diversify products or change business to tap new growth potentials.