

Production Expands to Meet Surging Demand for Computers and Chips

Expanded domestic demand, buoyed by growing demand for cellular phones, personal computers, and integrated circuits, propelled the electronics and electrical equipment industry manufacturing profits to grow nearly 5% over the year before in fiscal 1995. With a particularly robust global integrated circuit market expansion in conjunction with rising worldwide demand for information processing equipment, extremely solid growth in both domestic demand and exports bolstered domestic production.

Private sector electronics was the only sector to experience negative growth as manufacturing fell by just over 10% from the previous year, primarily due to declining exports. Replacement demand and healthy interest in new products yielded a volume expansion, which, along with a lull in price cuts for TVs and other products, led to a return to positive growth in domestic demand. However, exports fell by around 15% compared to the year before, due to the yen's strength and increased overseas production of videocassette recorders and other products. Along with a rise in reverse imports, this was a factor in sagging production.

Although positive growth was sustained in private sector electrical equip-

ment manufacturing, there was an abrupt turnabout from the double-digit growth of fiscal 1994 and this sector was held to a slight expansion compared to the year before. Demand for air conditioners, comprising just over 40% of internal demand, trended favorably in the first half thanks to the hot summer, but the burden of bloated inventories led to a slowdown in the second half, resulting in a decelerating growth rate. Exports also saw double-digit negative growth as air conditioner exports fell sharply due to the ongoing shift of manufacturing to China.

Double-digit growth in domestic demand contributed to a year-on-year 5% expansion in commercial sector electronics equipment manufacturing. Personal computers and mobile telecommunications equipment were the mainstays of expanded internal demand.

In the information processing equipment sector, demand for mainframes lagged, but there was continuing high growth in personal computers due to sustained improvements in price performance ratios. Domestic shipments of 5.5 million units represented an increase of around 60% over the year before. Personal computer prices have fallen by about 30%, but expanded volume has

played a role in pushing up internal demand for both PCs and peripherals by value. Domestic demand for telecom equipment grew by more than 20% as growth in mobile telecommunications equipment surged. Increased demand for base stations in conjunction with the launch of "personal handy phone systems" (PHS) and a substantial increase in service subscribers were factors in the expansion of demand for handsets. Aggressive investment in base stations led to substantial growth in demand for equipment and the growing number of subscribers also contributed to expanded demand for digital cellular phones.

The yen's appreciation and the shift of manufacturing abroad led to double-digit negative growth in exports. Continuing overseas production of printers, hard disk drives (HDD), and other computer equipment, coupled with increased overseas manufacturing of facsimile equipment, which makes up nearly 30% of exports, and a decline in telecommunications equipment for Asian telecommunications infrastructure combined for continued negative growth.

Production of commercial sector electrical equipment saw positive growth of around 2% compared to the year before due to strong domestic demand and exports.

Rebounding private sector capital investment and strong growth in rotary electrical equipment produced a firm domestic demand expansion. Exports remained steady due to continued electric power infrastructure development in Asia.

Manufacturing, domestic demand, and exports of electronic components were all driven by integrated circuits for strong year-on-year growth of just over 10%.

High growth in PCs and cellular phones led to positive domestic demand growth of around 20% for both integrated circuits and general electronic com-

Unit: ¥1 billion

	Fiscal 1994		Fiscal 1995	
	Produced	Exported	Produced	Exported
Private sector electronics	2,705 -9.8	1,496.5 -11.1	2,585 -4.4	1,430 -4.4
Private sector electrical equipment	2,740 7.2	320 -8.4	2,675 -2.4	305 -4.7
Commercial sector electronics	9,405 6.3	2,734.5 -8.1	9,500 1.0	2,640 -3.5
Commercial sector electrical equipment	3,470 -3.6	1,247 4.1	3,408 -1.8	1,243 -0.3
Electronic components	8,365 6.8	6,540 14.7	8,640 3.3	6,920 5.8
Total	26,685 3.3	12,338 3.6	26,808 0.5	12,538 1.6

ponents. Computer equipment comprises most of the demand for integrated circuits and, along with a sharp increase in the number of PCs shipped, growth in the number of chips contained in computers boosted demand substantially. This situation led to an aggressive expansion of production capacity, particularly of 16M DRAMs. In comparison, a quick increase in manufacturing capacity for liquid crystal displays and TFTs produced soft supply and demand conditions that led to falling prices and sharply negative growth.

Strong integrated circuits growth also yielded double-digit growth in exports. Tight supply and demand resulting from the worldwide expansion in information processing equipment, primarily PCs, produced continued high growth in integrated circuit exports. On the other hand, exports of general electronic components remained at about the same level due to home appliance inventory adjustments in the ASEAN region.

Slower growth, but information processing equipment and electronic components to continue propelling market

Although the electronics and electrical equipment industry may see a slower paced rate of expansion for production in fiscal 1996, firm year-on-year growth of 3.1% is forecast. As in fiscal 1995, electronic components, mainly integrated circuits, will continue to drive the market. In PCs and other information processing equipment, networking will also make significant advances in Japan in 1996.

In private sector electronics, a consecutive year-on-year decline of around 5% is expected due to the impact of declining exports caused by expanded overseas production. Positive factors will include increased replacement demand for TVs, steady prices due to increased purchases of wide screen televisions, and increased demand for new products such as mini discs (MD); however, these will combine with negative



The personal computer market rides the multi-media boom with soaring demand.

factors, such as a lull in video deck replacement demand, to hold domestic demand to minimal growth. Moreover, although digital video disks (DVD) are expected to be a big hit over the medium term, only limited demand is expected in fiscal 1996. On the other hand, although the decline in exports—the primary factor in dropping production—is expected to continue, the steady shift to overseas manufacturing is expected to slow in some product sectors, yielding a smaller margin of decline.

In private sector electrical equipment production, negative growth of just under 5% is anticipated, mainly due to a reactionary spiral in demand for air conditioning equipment. During fiscal 1995, an unusually chilly year, demand for air conditioners came to 7.7 million units and in fiscal 1996 an expected drop in base demand to around 7 million units will be a factor in pushing the market downward. The shift to overseas production will continue to produce declines in exports, but the negative margin should shrink if the exchange rate stays at around ¥100 to the dollar.

Domestic demand for computer equipment should remain firm, but because a shrinking growth rate is expected for telecommunications equipment, the growth rate for commercial sector electronics equipment production should lag at just under 2% compared to the previous fiscal year.

Double-digit growth is expected in domestic demand for computer equipment as PCs drive the market upward. While there will be continuing advances in making computers speedier, devising smaller component technologies, and

networking, it is highly likely that increasingly heated price competition will lead to price cuts of around 20%, which should yield improved price performance and an expansion of around 7.5 million units in demand for PCs.

Interest in networking and the development of networked environments should also tie in with expanded demand for personal computers and peripherals in 1996. With a slower growth rate for mobile telecommunications equipment, domestic demand for telecom equipment should lag behind the more than 20% growth rate of fiscal 1995. Capital investment on base stations should remain flat or increase only slightly as an outgrowth of the extensive, aggressive investment in PHS and digital cellular phones in fiscal 1995. Slower growth in the number of subscribers and continued price reductions should also mean that the domestic demand growth rate for cellular phone handsets will shrink. However, relatively high growth is anticipated for domestic demand for wireless networking equipment, and this should sustain the overall market.

The impact of overseas manufacturing shifts should mean that negative export growth should continue, with a year-on-year drop of just over 5%. Manufacturing of hard disk drives and other peripherals, as well as PCs in the computer sector, along with fax machines and cellular phones in the telecommunications equipment sector, should continue to be shifted overseas.

Positive growth in both domestic demand and exports is expected for commercial sector electrical equipment manufacturing, yielding a slight increase over the previous fiscal year. Domestic demand should be led by a firm recovery in private sector capital outlays, but growth will be held to a slight increase due to stagnant demand for equipment used by electric power companies. Positive growth in exports should continue due to strong electric power generation and factory equipment markets in Asia.

(continued on page 17)

(continued from page 15)

In electronic component manufacturing continued high level growth is expected for both domestic demand and exports, primarily for integrated circuits, and this should lead to a substantial, double-digit increase over the year before in this sector.

Although growth in domestic demand for integrated circuits will be modest, it should continue favorably. Continued increases in the number of PCs shipped, and a larger volume of chips contained within them, should factor into increased demand for integrated circuits. Internal memory for PCs should continue to increase by 10–20%. With this in

mind, Taiwanese companies have begun to enter the market while Japanese and South Korean firms continue to expand 16M DRAM capacity, indicating a great likelihood that increased supplies will lead to 10–20% price cuts. As such, high level growth will continue, but the rate of expansion will level off. With the shift to larger screens, the liquid crystal display supply and demand balance will also begin to recover.

Although export growth will slow, the beginnings of a recovery in exports of Asia-bound general electronic components, coupled with sustained double-digit growth in integrated circuits, should yield continued high growth overall. Regarding integrated

circuit exports, there is concern that the U.S. book to bill ratio of January 1996 is the lowest in five years, but it is believed that this will be no more than a temporary inventory adjustment and that developments will be favorable on the whole during the year. However, because there is a high probability that prices will drop 10–20% compared to the year before, growth is likely to slow. On the other hand, with continuing adjustments to inventories of home appliances in Asia during the first half of fiscal 1996, exports of general electronic components should again expand.

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