

# Expansionary Phase

Bolstered by brisk domestic demand, Japan's output of industrial electronic products and electronic components continues to grow fast and is headed for a new expansionary phase. The industry is forecast to attain a 9%-level growth in the current fiscal year and a 5%-level output gain in fiscal 1990.

The industry had been stagnant since 1985 due to the yen's steep rise against the U.S. dollar and the consequent slowdown in exports, but recovered in fiscal 1988, led by strong domestic demand and a recovery in exports, achieving 13.1% growth. It served as a locomotive of the assembling and processing industries.

During fiscal 1988, demand for industrial electronic machinery grew more than 15%, mirroring the expansion of information-oriented investments (investments in information processing machinery and communications equipment such as computers, telecommunications equipment, local area networks and point-of-sales systems) and active digitalization investments by Nippon Telegraph and Telephone Corp. (NTT).

Information-oriented investments are likely to post growth of over 10% in fiscal 1989 and 1990, pushing the demand for computers and terminal-type communications equipment higher. Such high growth in output and demand has been created by the establishment of in-house information networks by companies, the spread of such investments to small and

medium-sized enterprises, and the replacement of existing information and communications equipment with state-of-the-art equipment.

NTT's digitalization investments are expected to remain high in fiscal 1990, despite some slowdown in the growth rate, maintaining good demand for telecommunications equipment concerned with networks, such as exchangers and code transducers.

Domestic demand for industrial electronic products is likely to register 14% growth in fiscal 1989 and a 9% increase in fiscal 1990, under the lead of computers, though growth rates will slow down.

Exports are likely to be sluggish because of a slowdown in the growth of the U.S. computer market and in exports of facsimile machines to that country.

In fiscal 1988, the electronic component business was in good shape thanks to expanding demand for semiconductors. Semiconductors enjoyed a rising market, brought on by a tight supply situation resulting from the increased demand caused by higher output of electronic equipment and the development of higher-function electronic machines. Another factor was that supplies of semiconductors were limited because of investment curbs in the past and the difficulty in raising production.

In fiscal 1989 and 1990, demand for semiconductors is expected to be firm, due to the likelihood of continued high



A seminar called NTT Collection '89 inviting corporations to invest in the latest network systems. Information-oriented investments have shown steady growth and are likely to post growth of over 10% in both fiscal 1989 and 1990.

output of electronic machines. Shipments of semiconductors are expected to increase considerably, buoyed by high-level investments in plant and equipment in fiscal 1989 and 1990.

In view of the bitter experiences of the 1985 business recession, Japanese semiconductor producers are sticking to a very cautious pricing policy. As it is unlikely they will become embroiled in excessive competition, no sharp fall in the market price can be expected. With supplies of semiconductors gradually easing, however, the market price will edge downward in the months ahead.

The U.S. semiconductor business is already contracting, as can be seen from the downtrend in the bill-to-book ratio. The rate of growth in semiconductor exports to the U.S. is likely to slow gradually.

As a result, Japan's domestic demand for and exports of semiconductors in fiscal 1990 are expected to slow appreciably, while output is estimated to show a 4%-level increase from the previous year, leaving the business in a contraction phase.

On a medium-range basis, the production of 4-megabit DRAM chips will go into top gear, enabling the semiconductor industry to enter an expansion phase again around fiscal 1991. It is expected to peak about 1992 if large-scale production of 4-megabit DRAM chips gets under way smoothly.

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## Supply and Demand of Industrial Electronics

(¥ billion)

	FY 1989 (estimate)	FY 1990 (forecast)
<b>Industrial electronic machinery</b>		
Output	10,260	10,980
Exports	2,670	2,695
Imports	525	585
Domestic demand	8,115	8,870
<b>Industrial electronic components</b>		
Output	7,780	8,060
Exports	4,600	4,840
Imports	1,050	1,160
Domestic demand	4,230	4,380