## FY 1995: More Imports + Fewer Exports = Sluggish Recovery

With a reversion to positive growth in both domestic and international demand, electronics and electrical equipment production will probably rebound for the first time in three years in fiscal 1994, increasing 3.3% compared to the previous year. Driven by demand for personal computers and related equipment, along with air conditioning equipment and integrated circuits (IC), domestic demand recovery should be particularly noteworthy. Exports of electronics components, predominantly ICs, to Asia and the U.S. also picked up and this will probably compensate for negative growth brought on by the strong ven in other sectors, yielding an incremental upturn. Sector by sector trends are described below.

Growth in consumer electronics production will probably fall behind the previous year by over 10%, primarily due to substantially declining exports. Actuation of replacement demand and the steadily growing acceptance of wide-screen TVs and other new products will probably lead to a rebound in terms of unit volume, but negative growth is likely to continue in domestic demand due to declining retail prices. Increases in exports bound for China will yield a temporary recovery in some product segments, but the repercussions from shifting production overseas will likely signify a significant downturn in exports. Along with low-end products, mid-range product manufacturing is now being moved offshore and this has been the main factor in declining exports. Expanded overseas production has meant increases in reverse imports as well and this will undoubtedly further depress domestic production.

Production of consumer appliances will probably increase by around 7%, primarily due to substantial growth in domestic demand for air conditioning equipment, which accounts for one quarter of the domestic demand, during the long, hot summer of 1994. Demand for refrigerators and washing machines should also increase in conjunction with

the trend toward adding more value. Increased overseas production in Asian countries should contribute to the underlying negative tone in exports. However, because this sector's export ratio has fallen to around 15%, declining exports will have slight impact as far as production cuts are concerned.

Driven by an upsurge in domestic demand for personal computers and peripherals as well as mobile telecommunications equipment, industrial sector electronics equipment production is expected to recover rapidly, exceeding the previous year by a bit more than 6%. Amid calls for "reengineering," demand has expanded rapidly in the computer sector, due to the use of personal computers, whose price performance ratios have improved substantially, being used in networked systems. Improved PC performance should lead to higher volume hard disk drives and other forms of added value in peripherals and should also spur their demand.

Lower prices in conjunction with the introduction of handsets that customers can purchase outright (instead of leasing) should trigger demand for portable phones. Exports of PCs and peripherals in the computer sector as well as facsimile equipment in the telecommunications sector should continue to trend downward as manufacturing is shifted to Asian regions and the U.S. However, the communications equipment sector will probably be sustained by buoyant PBX equipment exports. In imports there has been a trend toward substantial increases in DOS/V PCs from Taiwan and this should limit production growth.

With the heavy impact of slack domestic demand due to slumping private sector facilities investments, along with bottomed-out demand from electric power companies, growth in industrial electrical machinery production will likely lag the previous year by 3.6%. However, steady electric power infrastructure demand in Asia will probably yield low-digit, positive export growth in this sector.



Demand for PCs and peripherals has grown as domestic

Favorable developments in integrated circuits should propel high growth of a bit less than 7% in electronic components manufacturing. Domestic demand should expand slightly due to buoyant growth in ICs for PCs and portable phones. Increases in PC unit volumes and the larger amounts of ICs installed in PCs with upgraded operating systems have led to expanded demand for microchips. Manufacturing capacity for 16 megabit (16M) DRAMs has been substantially upgraded and demand is expanding steadily. With rising demand for notebook PCs, domestic demand for TFT-LCD color displays should also increase substantially.

In the export sector the trends in IC exports to Asia and the U.S., along with general electronic component exports to Asia, are positive, leading to expectations of high export growth. With firm underlying demand for PCs in the U.S., demand for four megabit (4M) DRAM memory should increase substantially and semiconductor demand should also rise in Asia due to increasing production of consumer electrical goods. Although the U.S. book to bill ratio was sluggish at the end of the year, exports to the U.S. should continue to trend favorably in fiscal 1994, judging from past order balances and the firm book to bill ratio for memory.

Although production of general electronic components has continued to move offshore, component demand has exceeded expectations due to increased electronic equipment manufacturing in Asia and exports from Japan will

undoubtedly continue to fill the gap.

Anticipated for fiscal 1995 is slower growth compared to the year before for domestic demand and exports alike, indicating that production will likely remain at incremental 0.5%. Slowed computer sector growth and diminished demand for air conditioning equipment should drive the domestic demand growth rate down. A sluggish growth rate is forecast for electronic components, the main product sector for ICs, and this should result in low export growth. Sector by sector trends are described below.

Declining exports should signify a minus 4.4% growth compared to the year before in consumer electronics equipment production. Unit volume growth similar to the previous year is anticipated, but domestic demand will continue to decline in monetary terms due to falling prices. However, increases in wide screen TVs and other high value added products as well as rising demand for car navigation systems and other new products in the latter half of the year should prevent an extensive slowdown in monetary terms.

As for exports, negative growth will probably continue as the production of VTRs and other products with high export ratios continues to be shifted overseas. As manufacturing increasingly shifts offshore, design and some R&D functions will most likely also move overseas.

Consumer electrical appliance production should lag 2.4% growth compared to the year before in response to anticipated cutbacks in air conditioning equipment manufacturing. With the slump in new housing starts, refrigerators and washing machines should also have limited market boosting effects. Exports should also decline as production of air conditioning equipment continues to be shifted overseas. There should also be a striking increase in reverse imports from the ASEAN region.

Because a sluggish growth rate is anticipated in domestic demand for industrial electronic equipment, manufacturing growth should be held to an incremental 1.0% increase compared to the previous year. The shift to lowerpriced parallel processors has led to slack mainframe demand, which should result in restrained growth in domestic demand in the computer sector, as should the completion of switch equipment digitalization in the telecommunications sector.

However, the growing acceptance of corporate information systems built around client-server cores, as well as improved graphical user interfaces with better price performance that have also penetrated the home marketplace, should spur demand in the personal computer sector.

In the mobile telecommunications equipment sector as well, personal handy-phone system services are scheduled to commence in 1995 and this should create new demand related to these services' base stations and handsets, contributing to an upturn. Negative export growth should continue due to the noticeable shift to overseas production of PCs, peripherals, facsimile machines, and telephone sets. However, exports of switch equipment to Asia should continue to sustain the telecommunications equipment sector and minimize the decline.

In industrial electrical machinery manufacturing, domestic demand should remain flat due to the sluggish recovery in private investments in plant and equipment and increased imports should also contribute to a minus 1.8% growth compared to the year before. Although there is strong electric power infrastruc-

ture demand in China, production continues to be shifted overseas and negative growth is predicted.

Because export growth has been somewhat sluggish, electronic component manufacturing growth should decline to a 3.3% increase over the previous year. Domestic demand growth should be comparatively strong because high growth has continued

in the IC sector due to unit production volume increases similar to the previous year for PCs and the increasing number of ICs installed per PC, as well as a steady recovery in the general electronic component sector. By the first half of fiscal 1995, 16M DRAMs, which are now in the spotlight, should BIT CROSS 4M DRAMs, resulting in a further expansion of demand.

In exports, chip demand is expected to slow due to a lull in the U.S. PC market, which had been trending upward, shrinking the growth rate. This forecast is premised on the expectation that relaxation in the balance of DRAM supply and demand due to current aggressive facilities investments by Japanese and South Korean manufacturers should lead to semiconductor price cuts and serve to push down demand at the end of fiscal 1995. With sluggish growth in personal consumption in the U.S. market and stagnating production of electronics equipment in Asia leading to flat demand for components and Japanese manufacturers increasingly shifting production capacity overseas, exports of general electronics components to Asia should be sluggish.

It appeared that the electronics and electrical equipment industries would lead other industries to a recovery in fiscal 1994, but declining exports, increasing imports, and the added impact of falling prices auger a recovery that will be weak at best in fiscal 1995.

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Unit: ¥100 million

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	FY1994		FY1995	
	Produced	Exported	Produced	Exported
Private sector	27,050	14,965	25,850	14,300
electronics	-9.8	-11.1	-4.4	-4.4
Private sector electrical	27,400	3,200	26,750	3,050
equipment	7.2	-8.4	-2.4	-4.7
Commercial sector	94,050	27,345	95,000	26,400
electronics	6.3	-8.1	1.0	-3.5
Commercial sector elec-	34,700	12,470	34,080	12,430
trical equipment	-3.6	4.1	-1.8	-0.3
Electronic	83,650	65,400	86,400	69,200
components	6.8	14.7	3.3	5.8
Total	266,850	123,380	268,080	125,380
	3.3	3.6	0.5	1.6

growth has continued Source: Industrial Bank of Japan estimates