

# FACILITY INVESTMENT IN ECONOMIC RECOVERY

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## *Facility Investment Shrinks during Economic Crisis*

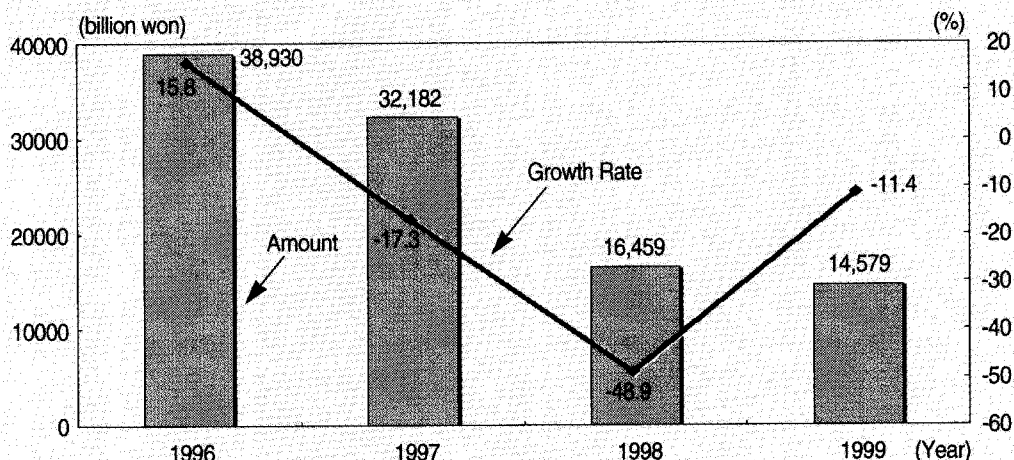
**F**acility investment in the analysis of Korea's macroeconomy plays an important role in assessing the current status of the economy on business cycle. Thus, figuring out the magnitude and the deciding factors of facility investment's movement would shed light on the forecasting of the entire economy's movement as well as the future direction of the facility investment itself. After the IMF bailout program began, facility investment showed a sharp decline, according to a survey by the Korea Development Bank. In contrast to the growth rate of 15.8% in 1996, facility investment dropped to -17.3%

and -48.9% in 1997 and 1998, respectively.

In addition to facility investment, R&D investment also dropped during the economic crisis. According to a survey by KITA (Korea Industrial Technology Association), 1998's R&D investment was 8,931 billion won, decreasing by 11.3% compared with 1997's 10,068 billion won. The number of researchers and developers in industrial institutes fell from 84,618 in 1997 to 84,581 in 1998.

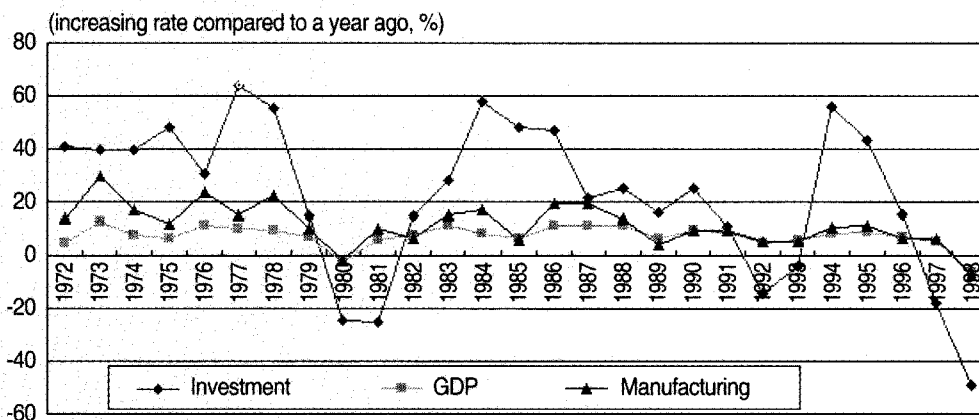
During the 1980s, facility investment showed a tendency to bottom out at the beginning of recovery and increase after one year. For example, after hitting the bottom in 1975, the GDP growth rate began to rise. Facility investment has dropped slightly in 1976 but it began to rise in 1977. From the 1990s, on the

**Figure 1. Trend in Facility Investment, 1996-1999**



Source: Korea Development Bank, *Survey of Facility Investment Plan*, May 1999

**Figure 2. Trend in Growth Rates of GDP and Facility Investment**



other hand, growth rates of GDP and facility investment moved concurrently. For example, after the recession in 1992, GDP and facility investment began to rise concurrently in 1993. Unlike the past, there is no time lag between growth and investment in the 1990s because of the improved forecasting and smooth flow of information, which better prepared firms to make investment plans.

Proportion of the manufacturing industry grew bigger than that of the non-manufacturing

industry during the economic recovery. In contrast to an economic recession in which proportion of the non-manufacturing sector is bigger than that of the manufacturing sector, facility investment of the manufacturing sector is higher from the beginning of the economic recovery. This means that investment of the manufacturing sector is more sensitive to the business cycle than that of the non-manufacturing sector. It also implies that the recovery of facility investment in the

**Figure 3. Trend in Proportion Changes of Facility Investment by Sector**

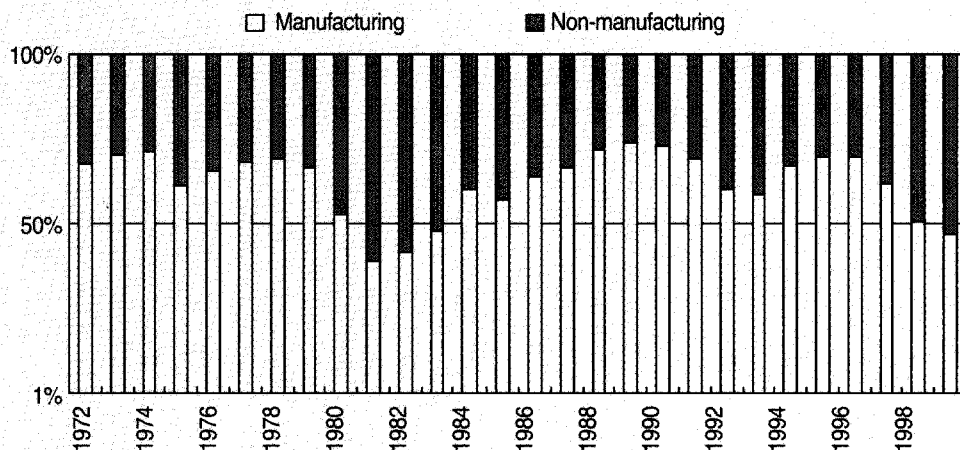
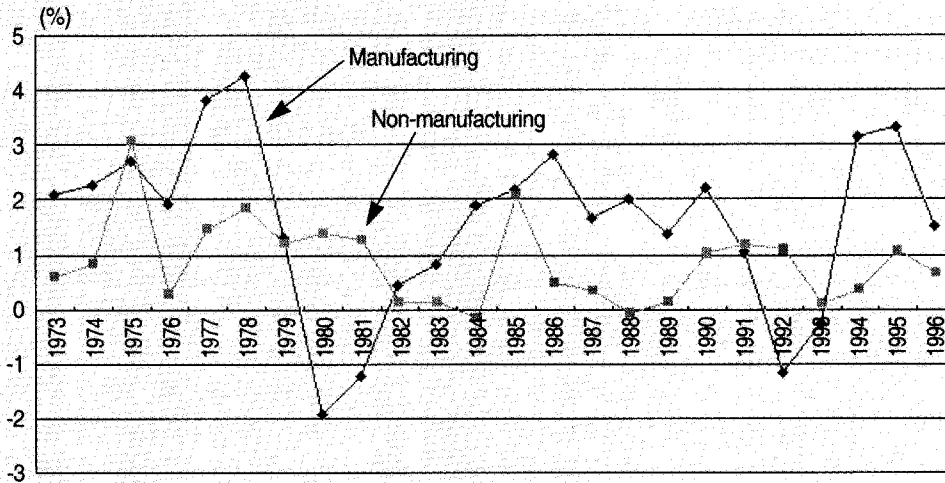


Figure 4. Impact on Economic Growth by Sector



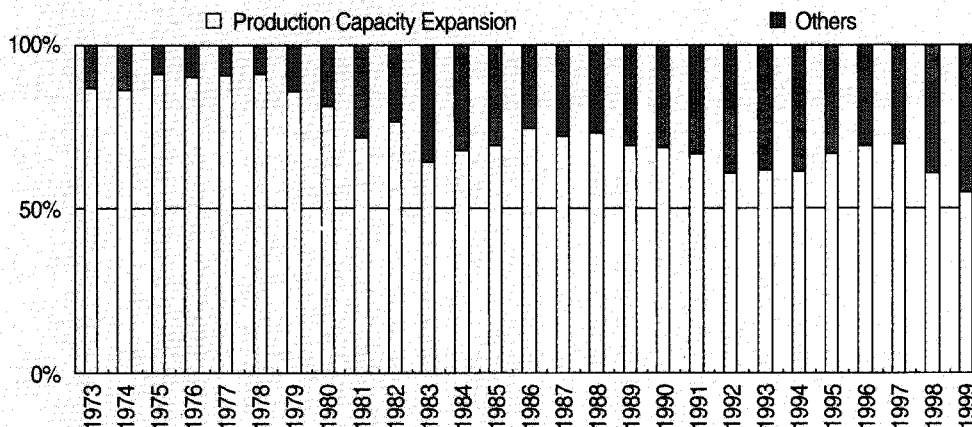
manufacturing sector is a critical means or at least a vitality sign for a full-scale economic recovery.

Facility investment of the manufacturing sector has bigger impact on the growth of GDP than that of the non-manufacturing sector. During an economic recession, the non-manufacturing sector influences the economic growth; from the beginning of economic boom, impact of the manufacturing

sector becomes greater.

Regarding the characteristics of facility investment in the manufacturing sector, proportion of the expansion of production capacity increased along with the economic recovery. In the early 1980s, the proportion of production capacity was reduced in 1981, a year of economic recovery. On the other hand, managerial reforms, R&D and pollution control related investment have increased. From mid-

Figure 5. Motives for Facility Investment



1980's, however, the proportion of production capacity began to increase in the times of economic recovery. In total, proportion of physical production capacity has decreased and the rest of capability increase were filled with managerial reforms and R&D.

### *Facility Investment Shows Signs of Recovery*

Facility investment began to pick up recently. According to the National Statistical Office, domestic machinery investment, equipment investment and estimated equipment investment rose by 38.5%, 20.2% and 42.2%, respectively, in the second quarter of 1999. This means that facility investment is recovering, but the size of investment is not enough when compared to that in the pre-crisis period. The rise in investment is also largely due to a technical rebound from the last year's drastic fall.

According to the regularity of Korea's business cycle as was mentioned above, it is time for facility investment to lead a full economic recovery, especially in the manufacturing sector. From early 1999, economic indicators are showing improvement. Industrial production, shipments and consumption are increasing continuously. In July, industrial production rose by 33.1% from a year ago. Manufacturing capacity utilization recovered the "normal" average level of 81.0%. By looking at the

patterns in the past, this means that facility investment is heading upward. However, there are couple of points to be emphasized in order to boost facility investment and thus to let it lead the full-fledged recovery.

Even though the export-leading industries are a major source of massive increase in facility investment during the 1990s, it is becoming difficult to expect them to play such roles any more. Due to the restructuring process which emphasizes reducing corporate debts and rearranging the industrial bases, Korean big businesses will not have enough business momentum nor financial sources to cover such big-scale investment. Therefore, for the time being, relatively small- and medium-sized enterprises will lead facility investment when they feel the need for it and have enough financial resources. In light of this, policy-makers should figure out the most promising industry segments in the future and the most efficient ways to support facility investment of such kind. Another point is that in the long run, the facility investment should be replaced or at least properly accompanied by intangible investment in human resources. R&D investment is a good example. If that becomes the case, the relationship between business cycle and facility investment will witness a drastic change in the near future. A knowledge-based economy, as is manifested so far by many experts, can be established by this change. **VIP**

**Table 1. Trends in Investment-Related Indexes**

		Domestic Machinery Orders	Imports of Machinery Goods	Estimated Investment in Equipment
1998	Q1	-38.9	-53.1	-31.3
	Q2	-43.8	-57.4	-48.6
	Q3	-22.2	-55.2	-43.2
	Q4	-10.9	-44.0	-28.7
1999	Q1	16.9	7.9	10.9
	Q2	38.5	20.2	42.2

Source: National Statistical Office, *Advanced Report of Major Statistics*, August 1999.