

PREPARING FOR Y2K PROBLEM IN KOREA

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With only two months away from the year 2000, the issue of where and how the Y2K problem will show up is becoming hotter. The big problem is that nobody has the perfect solution in advance and problems which will break out overseas can affect the Korean economy via international value chains.

Origination and Effect Channel of Y2K Problem

The Y2K problem which affects the domestic economy can originate from four sectors. The first case is the Y2K problem occurring in an individual industry. Many industries rely on the information technology (IT) such as computer system and embedded chips. When IT equipment fail to cope with the Y2K problem, the industry may suffer significant losses. This can be called the IT risk (①). The second case is the Y2K problem occurring in the industrial infrastructure such as electricity, water and sewage. Malfunction of the industrial infrastructure can throw the regular production into confusion. This can be called the

infrastructure risk (②).

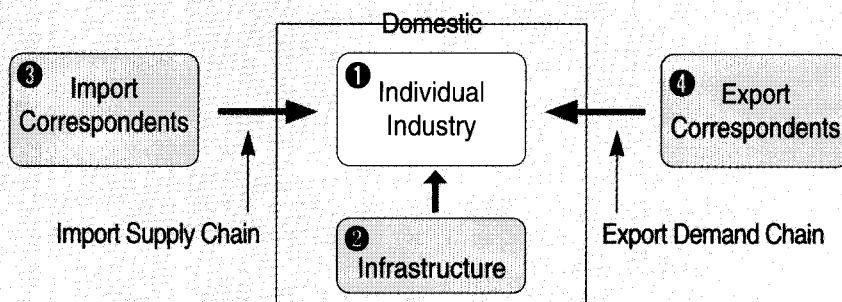
The third case is the Y2K problem occurring with foreign suppliers. In this case, it is impossible to input the raw materials and parts in time and to produce as regular. This can be called the import supply chain risk (③). The fourth case is the Y2K problem occurring with foreign buyers. If foreign buyers are exposed to the problem, exports may be delayed and sales can decrease. In addition, when domestic industries suffer from Y2K disruption and cannot make shipments on schedule, foreign buyers may make claims for damage. This can be called the export demand chain risk (④).

Among the four risks, IT risk and infrastructure risk which are domestic can be under the control by domestic measures but others are not. Considering the Korean economy's high dependence on international trade, more attention should be directed at import supply chain risk and export demand chain risk.

Reducing Domestic Y2K Risks

IT Risk: To reduce IT risk, individual industry and company have been implementing scheduled work. In particular, the

Figure 1. Origination and Effect Channel of Y2K Problem



electronics industry, the most IT-intensive one, has earnestly wrestled with the millennium bug. As a result, 100% of IT area and 99.8% of non-IT area of the electronics industry are reported to be Y2K compliant. Tax credit and technical assistance by the government have also encouraged them to cope with the Y2K problem.

Infrastructure Risk: The government has taken the initiative on Infrastructure risk. The government selected 13 areas, including electricity & energy, finance, environment and nuclear electricity. Their impact on domestic industries and daily life is so large that the government gave those 13 areas priority and has been doing the best to prevent the Y2K problem from happening in these areas. Although the response of medium & small business is somewhat delayed, other areas have almost finished implementing what they should do by schedule.

With such timely measures taken by the government and businesses, the possibility of IT and infrastructure related Y2K problems occurring is considerably lowered.

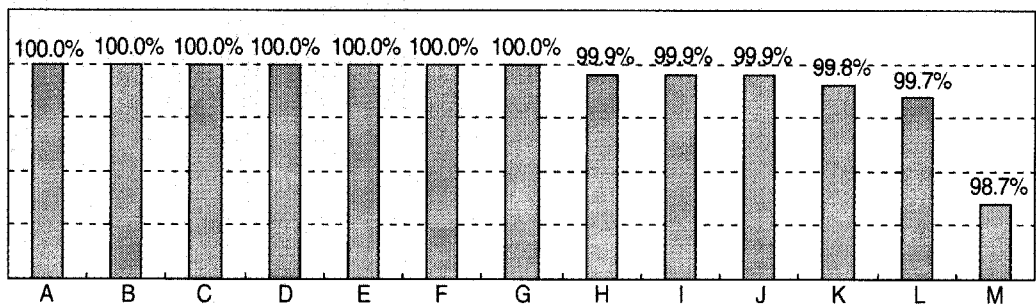
Preparing for Overseas Y2K Problem

As it is extremely difficult or almost impossible to check and test foreign computer systems from Korea, the

overseas Y2K problem affecting import supply chain and export demand chain is beyond control for Korea. Although the aggressive ways and means are quite limited for this reason, several precautionary measures can be figured out to prevent the overseas Y2K problem from occurring. First, Koreans can consistently ask foreign buyers and suppliers for documents on their preparedness for the Y2K problem. Based on the preparedness of foreign partners, Koreans can take reasonable actions. Second, it would be wise to arrange the apportionment of Y2K-related losses in advance. If not, it may be hard to settle disputes when the Y2K problem actually strikes. Third, just in case, it is necessary to adjust inventory to avoid production disruption or shipment failure.

Korea's four major trading partners are the U.S.A., Japan, EU and China. One problem is that China is one of the countries which have done the least to prepare for the Y2K problem, according to the Gartner Group's analysis. China buys 9.6% of Korea's total exports and supplies 7.3% of Korea's total imports, as of September 1999. Therefore, in connection with the overseas Y2K problem, industries and companies whose trade share with China is high should take extra care about the Y2K preparedness by their foreign counterparts. **VIP**

Figure 2. Progress in Preparedness for Y2K (as of September 1999)



Note 1. A: Nuclear electricity; B: Environment; C: Marine transport; D: Electricity & energy; E: Transport; F: Water; G: Communications; H: Finance; I: Defense; J: Public administration; K: Medical; L: Industrial automation; M: Small- and medium-sized business.

2. Progress means what is actually done compared with what is to be done by schedule.

Source : Ministry of Information and Communication.