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Examining Japan's Expansion from the Viewpoint of Industrial Structure

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When we view the current economic expansion, which has now lasted longer than the famous Izanagi boom of 1965–70, in the light of the latest SNA-IO table (Input-Output table in the System of National Accounts) released by the Cabinet Office on August 3, we can spot huge gaps that have opened up in the growth performance among industries. The Japanese economy's dependence on exports has increased, and the gap between industries that do and do not benefit from increased exports has widened. One reason for this is that production ripple effects among domestic industries have weakened, with the result that benefits from expanding exports have been limited to just some industries.

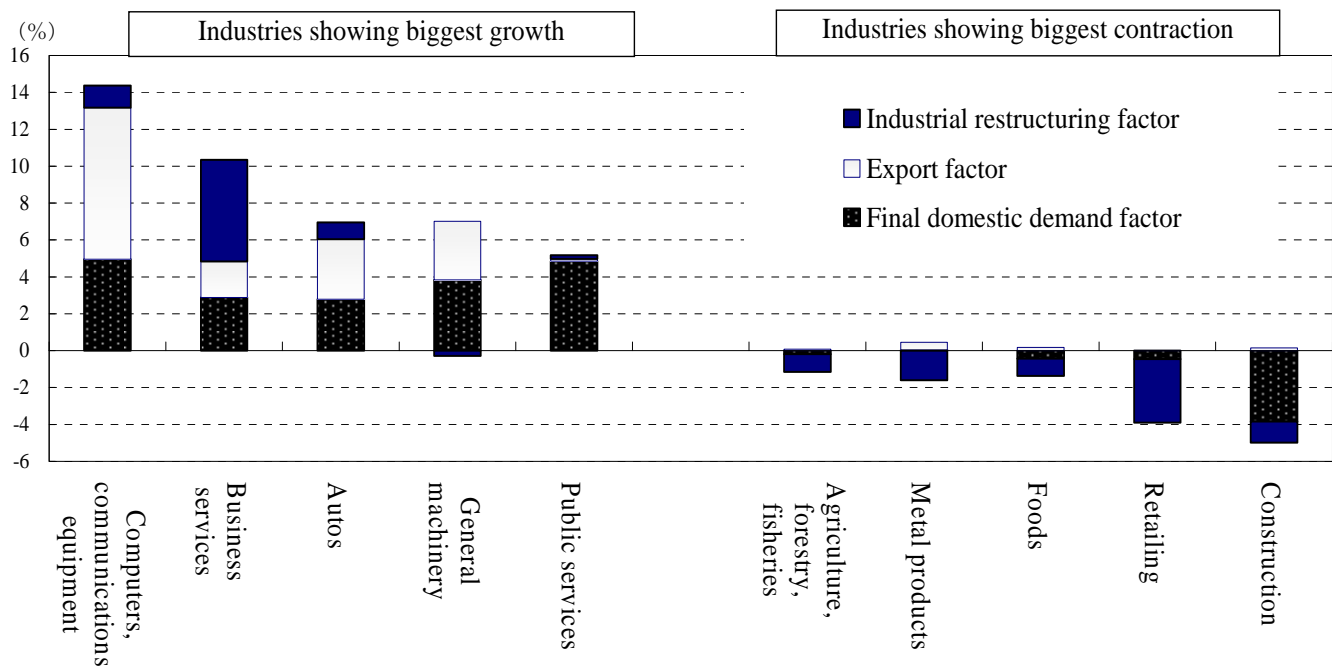
According to the SNA-IO table, real output (after adjusting for price fluctuations) expanded by about 50 trillion yen over the three-year period from 2002, when the recovery began, through 2005. But only a limited range of industries benefited from this expansion. The top five beneficiaries (computers and communications equipment, business services, automobiles, general machinery, and public services) achieved output growth of 44 trillion yen. That is, almost 90% of the Japan's overall growth in production occurred in just five industries. Output in the bottom five industries (construction, retailing, foods, metal products, and agriculture, forestry, and fisheries), by contrast, contracted by 12 trillion yen.¹

¹ The SNA-IO table uses a breakdown into 87 industries. For the purpose of this paper, the 87 industries have been regrouped into 34 categories. In the thirty-fourth medium-term forecast of the Japanese economy, which the JCER will issue at end of November, we plan to unveil output growth estimates up to 2020 for the 34 industries.

Export Expansion and Restructuring

In our analysis, we have found the two key factors behind the gaps in the growth of real output among industries to be export expansion and restructuring (Figure 1).²

Figure 1 Change in Output, 2002→2005



Source: Based on data from the SNA-IO table, Cabinet Office.

Among the five industries showing the biggest output increases, the contribution to growth from exports is prominent. About half the growth came from exports in computers and communications equipment (the top-ranking industry), autos (third place), and general machinery (fourth place). In business services (second place), by contrast, more than half the growth came from the industrial restructuring component (indicating a rising ripple effect from other industries).

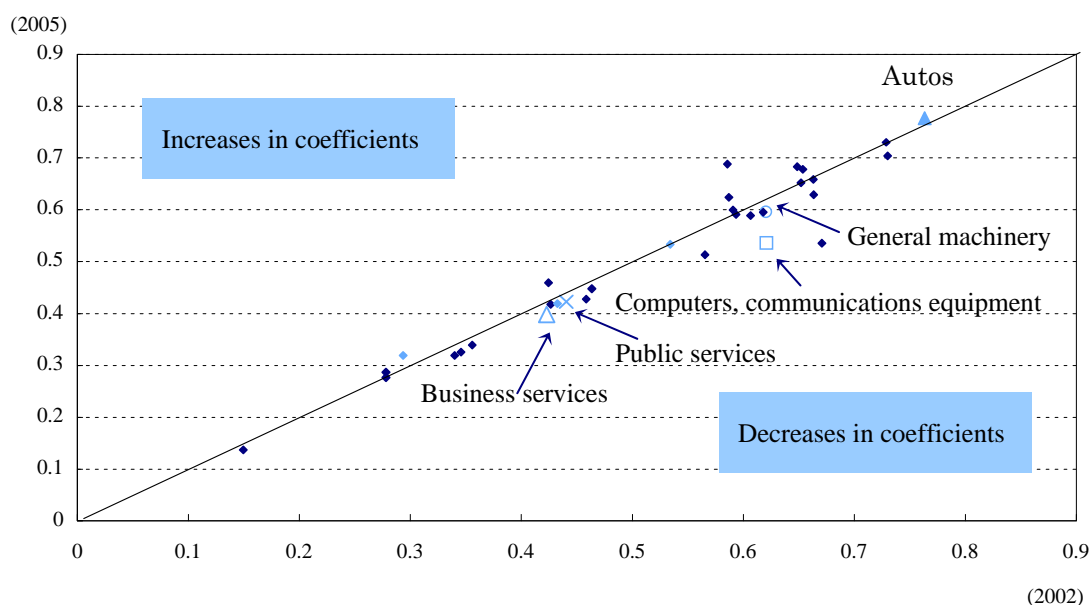
Much of the output increase in business services came from the leasing business and other items in the category of “office goods leasing,” as well as from the staffing business and other items in the “business-to-business services” category. In the course of the economy’s major structural adjustment, corporate managers have sought to achieve lean management by cutting down as much as possible on people (labor) and equipment (capital).

² The domestic demand and export factors indicate the contribution to increases or decreases in each industry’s output from these two sources of demand, excluding change in ripple effects from other industries. The industrial restructuring factor indicates the contribution from change in ripple effects from other industries.

Retailing is one of the industries in which output declined, but a substantial portion of the decrease is thought to have been a consequence of restructuring to simplify the distribution structure. The output decline in construction can be largely explained by the domestic demand component, as public works projects were downscaled as part of the structural reform promoted by former Prime Minister Jun'ichiro Koizumi. Medical care, nursing care, and other public services are an example of an industry where output greatly expanded mainly on the strength of consumption and other components of final domestic demand.

In this way, only certain industries have been the beneficiaries of growth. The ripple effect of growth to other industries has also diminished. So-called production inducement coefficients, which measure the extent of actual output increases from each unit of increase in demand, have grown smaller not just in consumption, investment, and other components of domestic demand but also in exports. This is because the industries enjoying expanding output have tended to be either those whose raw-material inputs as a ratio of output from other industries (the intermediate input coefficient) have been falling or those with a small intermediate input coefficient and small ripple effects on other industries (Figure 2). The computers and communications equipment industry, which was the top-ranking industry in output growth, stands out in this respect. Between 2002 and 2005, its intermediate input coefficient registered an 8% drop. The cause of this change is the evolving international division of labor in the production process.

Figure 2 Coefficients of Intermediate Inputs, 2002 and 2005



Source: Based on data from the SNA-IO table, Cabinet Office.

Pinning Hope on Growth in Medical Care and Nursing

The current expansion is taking place in the midst of major changes in the industrial structure. In this light, what is necessary for the Japanese economy's future growth? Will it be possible for the auto industry, which is exceptional among the industries undergoing output growth in that it has large domestic ripple effects, to retain its competitive edge in exports? The impact of these large ripple effects can be seen in the strength of the Tokai region's economy (Aichi, Gifu, Mie, and Shizuoka Prefectures) during the current expansion, and many local governments have been actively seeking to draw auto-related businesses into their communities.

However, there is no guarantee that strong ripple effects will continue indefinitely. In the electric machinery industry, including computers and communications equipment, the evolution of the international division of labor has caused a major decline in the intermediate input coefficient over the past 10 years. There is nothing to prevent a similar development in the auto industry.

With our eyes focused on the inevitable advent of an old-aged society, should we not place emphasis instead on nurturing medical and nursing care, a sector within which final domestic demand is certain to grow? Intermediate input coefficients are currently relatively low in this sector, and labor productivity is not very high. But with the use of information technology and the promotion of mechanization (to introduce robots into medical and nursing care in the near future), there is ample room to raise productivity and enhance economic ripple effects.

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