Annual Review of 2007

Analysis of All Industrial Activities

Summary

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March 5, 2008

Research and Statistics Department,
Economic and Industrial Policy Bureau,
Ministry of Economy, Trade and Industry
Outlook of all industrial activities (2007)

Industrial activities continued to increase for the fifth consecutive year.

**Characteristics**

- In spite of a decline in construction industry activities, there were increases in tertiary industry activities and industrial production.
- The indices of all industrial activities increased by 1.0% from the previous year, up for the fifth consecutive year. The index level marked a record high of 107.2 (based on the year 2000 level).
- Industrial activities have generally been on a moderate upward trend.

### Changes in the Indices of All Industrial Activities

<table>
<thead>
<tr>
<th>Indices of All Industrial Activities</th>
<th>Indices for All Industries (Index level 2000=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indices of All Industrial Activities</td>
<td>103.8</td>
</tr>
<tr>
<td>%Change from the Previous Quarter (Year)</td>
<td>1.9</td>
</tr>
<tr>
<td>%Change from the Same Quarter of the Previous Year</td>
<td>-</td>
</tr>
<tr>
<td>Indices of Agriculture, Forestry &amp; Fisheries Production</td>
<td>126.3</td>
</tr>
<tr>
<td>%Change from the Previous Quarter (Year)</td>
<td>3.0</td>
</tr>
<tr>
<td>%Change from the Same Quarter of the Previous Year</td>
<td>-</td>
</tr>
<tr>
<td>Indices of Construction Industry Activities</td>
<td>82.7</td>
</tr>
<tr>
<td>%Change from the Previous Quarter (Year)</td>
<td>0.6</td>
</tr>
<tr>
<td>%Change from the Same Quarter of the Previous Year</td>
<td>-</td>
</tr>
<tr>
<td>Indices of Industrial Production</td>
<td>101.3</td>
</tr>
<tr>
<td>%Change from the Previous Quarter (Year)</td>
<td>1.3</td>
</tr>
<tr>
<td>%Change from the Same Quarter of the Previous Year</td>
<td>-</td>
</tr>
<tr>
<td>Indices of Tertiary Industry Activities</td>
<td>108.2</td>
</tr>
<tr>
<td>%Change from the Previous Quarter (Year)</td>
<td>2.0</td>
</tr>
<tr>
<td>%Change from the Same Quarter of the Previous Year</td>
<td>-</td>
</tr>
<tr>
<td>Indices of Public Administration, etc. Activities</td>
<td>107.8</td>
</tr>
<tr>
<td>%Change from the Previous Quarter (Year)</td>
<td>2.0</td>
</tr>
<tr>
<td>%Change from the Same Quarter of the Previous Year</td>
<td>-</td>
</tr>
</tbody>
</table>

Notes: 1. The weight is based on the contribution ratio by sector of gross value added in the input-output table of YR2000 (Ministry of Internal Affairs and Communications). Since the Indices of Agriculture, Forestry & Fisheries Production contain no data corresponding to the Indices of All Industrial Activities for 2006-2007 and the indices for quarters, the weight was calculated without including them.

2. The annual values and % change from the same quarter of the previous year are original indices, and others are based on seasonally adjusted indices.
(2) Outline of industrial activities

~ Production continued to increase in 2007 for the fifth consecutive year ~

① 2007 production trend

【Characteristics】
・The indices of industrial production increased in 2007 for the fifth consecutive year, up by 2.7% from the previous year to 109.1, marking a record high based on the year 2000 level.
・By type of goods, increases were observed in producer goods and durable consumer goods, etc., while there were decreases in non-durable consumer goods, etc.
・By industry, production increased in 12 industries including the electronic parts and devices industry, and decreased in five industries.
・By demand, shipments for domestic demand and foreign demand both increased.
・Production has generally been on a moderate upward trend.

Changes in Industrial Production, Shipments, Inventory and Inventory Ratio (2000=100, Seasonally adjusted)

② Production trend by item

【Characteristics】
・Major items that increased in 2007
  ① Large passenger cars (up for the ninth consecutive year)
    ・Production increased due not only to an increase in domestic demand but also in exports mainly to Europe, Middle East and North America.
  ② Metal oxide semiconductor ICs (CCD) (up for the fifth consecutive year)
    ・Production increased for cellular telephones and digital cameras.
  ③ Semiconductor products machinery (up for the fifth consecutive year)
    ・Production increased for domestic use.
・Major items that decreased in 2007
  ① Small passenger cars (down for the second consecutive year)
    ・In spite of an increase in exports, there was a decrease in domestic demand.
  ② Flat-panel display manufacturing equipment (down for the first time in two years)
    ・Production decreased due to declines in domestic demand and exports to Asia.
  ③ Aluminium sashes for wooden houses (down for the fourth consecutive year)
    ・Production decreased due to a decline in new housing starts.

Production Trend by Item (2007)

<table>
<thead>
<tr>
<th>Items that contributed to Increase</th>
<th>Change from the Previous year (%)</th>
<th>Contribution Ratio (% points)</th>
<th>Items that contributed to Decrease</th>
<th>Change from the Previous year (%)</th>
<th>Contribution Ratio (% points)</th>
</tr>
</thead>
<tbody>
<tr>
<td>① Large passenger cars</td>
<td>17.3</td>
<td>0.79</td>
<td>① Small passenger cars</td>
<td>▲ 17.2</td>
<td>▲ 0.24</td>
</tr>
<tr>
<td>② Metal oxide semiconductor ICs (CCD)</td>
<td>46.3</td>
<td>0.49</td>
<td>② Flat-panel display manufacturing equipment</td>
<td>▲ 39.3</td>
<td>▲ 0.21</td>
</tr>
<tr>
<td>③ Semiconductor products machinery</td>
<td>15.4</td>
<td>0.23</td>
<td>③ Aluminium sashes for wooden houses</td>
<td>▲ 15.3</td>
<td>▲ 0.04</td>
</tr>
<tr>
<td>④ Fixed capacitors</td>
<td>16.4</td>
<td>0.23</td>
<td>④ Cellular telephones</td>
<td>▲ 6.1</td>
<td>▲ 0.04</td>
</tr>
<tr>
<td>⑤ Metal oxide semiconductor ICs (Logic)</td>
<td>13.2</td>
<td>0.22</td>
<td>⑤ Midget passenger cars</td>
<td>▲ 6.3</td>
<td>▲ 0.04</td>
</tr>
</tbody>
</table>

Note: Degree of contribution to total industrial growth rate of 2.7% (percentage points)
Inventory trend  
**Characteristics**

1. **Mining and manufacturing**
   Inventory and production increased for the 12th and 9th consecutive quarter, respectively, and the margin of increase in inventory diminished. As a result, on the inventory cycle chart, inventory shifted to an inventory accumulation stage.

2. **Final demand goods**
   Remained in an expanding inventory stage.

3. **Producer goods**
   Remained in an inventory accumulation stage.

4. **Electronic parts and devices**
   The margin of increase in inventory diminished. Inventory shifted from an expanding inventory stage to an inventory accumulation stage.

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Changes in the Inventory Cycle

1. **Mining and manufacturing**
   - Inventory cycle for the fourth quarter of 2007 is as follows.
   - Inventory and production increased for the 12th and 9th consecutive quarter, respectively, and the margin of increase in inventory diminished. As a result, on the inventory cycle chart, inventory shifted to an inventory accumulation stage.

2. **Final demand goods**
   - Remained in an expanding inventory stage.

3. **Producer goods**
   - Remained in an inventory accumulation stage.

4. **Electronic parts and devices**
   - The margin of increase in inventory diminished. Inventory shifted from an expanding inventory stage to an inventory accumulation stage.
Production index by manufacturing region and size (estimates)

**Analysis Point 1**
There is a deviation between production index by manufacturing region and size and manufacturing production index by size (re-summed), for small and medium enterprises.

**Characteristics**
- We calculated the production index by manufacturing region and size (based on the year 2000 level; hereinafter referred to as the “estimated index”) and made a comparison with the current manufacturing production index by size (Small and Medium Enterprise Agency) (based on the year 2000 level; hereinafter referred to as the “current index by size”), which was re-summed for 459 items, as was the case with the estimated index.
- With regard to manufacturing industries, both indices have changed almost in line with each other for all industries and for large enterprises. However, a deviation has been observed between them, in the case of small and medium enterprises. Since the second quarter of 2002, the current index by size has shown an improvement, while the growth in the estimated index has been limited.

![Fig. I-1-7 Comparison of Changes in Current Index by Size (459 items) and Estimated Index (Manufacturing; 2000=100; Seasonally adjusted)](source)

**Analysis Point 2**
As the current index by size is calculated based on the survey results for all industries, the current index deviates from the estimated index for small and medium enterprises.

**Characteristics**
- One of the reasons for the deviation between the current index by size and the estimated index is the fact that the former is calculated based on the survey results for all industries.

<Outline of how to calculate indices>
- Production index by manufacturing region and size (estimated index; based on the year 2000 level)
  - Figures by region, size and industry are obtained by calculating the weighted average of actual monthly numbers for each item in the Current Survey of Production (Ministry of Economy, Trade and Industry), based on the weights by item, region and size in the base year (calculated from data such as the Census of Manufacture).

- Manufacturing production index by size (current index by size; based on the year 2000 level)
  - Figures by size and industry are obtained by calculating the weighted average of monthly indices of industrial production by item (all industries), based on the weights by item and size in the base year (calculated from data such as the Census of Manufacture).

In this way, the figures obtained are based on data for all industries. Therefore, when only the indices for large enterprises grow with sluggish results for small and medium enterprises, the current index by size may sometimes show growth for both large enterprises and small and medium enterprises.
【Analysis Point 3】
~ Manufacturing industry production has been on an upward trend mainly in large enterprises. ~

【Characteristics】
・The estimated index (manufacturing; all industries), which has had repeated ups and downs, has shown increases more often since 2002, reflecting the overall economic expansion.
・Looking at changes in the estimated index from the previous quarter in terms of the contribution ratio to growth rate by size, the ratio of large enterprises has been consistently significant.

Fig. I-1-10 Changes in Estimated Index in Terms of Contribution Ratio to Growth Rate by Size (Changes from the previous quarter; Seasonally adjusted)

Source: “Production index by manufacturing region and size (estimate)”

【Analysis Point 4】
~ Small and medium enterprises have come to notably contribute to growth in Tohoku and Kyushu. ~

【Characteristics】
・The estimated index (manufacturing; all industries) has shown increases from the previous quarter, notably in Tohoku, Kanto, Chubu, Shikoku, Kyushu and Okinawa.
・In Tohoku and Kyushu in particular, the contribution of small and medium enterprises has been significant, in addition to that of large enterprises.

Fig. I-1-12 Changes in Estimated Index (Manufacturing) by Region and Size (2000=100; Seasonally adjusted)

Source: “Production index by manufacturing region and size (estimate)”
The index for small and medium enterprises has been on a rise in Tohoku and Kyushu, due to the significant contributions of the electronic parts and devices industry and the information and communication electronics equipment industry, respectively.

Specific industries have contributed significantly to the estimated index’s growth (manufacturing; total) by region and size between 2006 and 2007.

The index for large enterprises has increased significantly in Tohoku and Chugoku due to a rise in the electronic parts and devices industry, and in Chubu due to the contribution of the transport equipment industry and the electronic parts and devices industry.

The index for small and medium enterprises has increased in Tohoku and Kyushu, notably contributed to by the electronic parts and devices industry and the information and communication electronics equipment industry, respectively.

Table 1-1-19 Contribution Ratio to Growth Rate of Estimated Index by Region and Size (Seasonally adjusted; 2007/2006; Extracted)

<table>
<thead>
<tr>
<th>Region</th>
<th>Size</th>
<th>Contribution ratio (%)</th>
<th>Ranking of contribution ratio</th>
<th>Industries that have grown</th>
<th>Contribution ratio (%)</th>
<th>Ranking of contribution ratio</th>
<th>Industries that have declined</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tohoku</td>
<td>All industries</td>
<td>0.80</td>
<td>1</td>
<td>General machinery 0.98</td>
<td>Electrical machinery 0.73</td>
<td>Information &amp; communication 0.81</td>
<td>Fabricated metals 0.28</td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td>0.48</td>
<td>2</td>
<td>General machinery 0.19</td>
<td>Electrical machinery 0.73</td>
<td>Information &amp; communication 0.81</td>
<td>Precision instruments 0.31</td>
</tr>
<tr>
<td></td>
<td>Small and medium</td>
<td>0.84</td>
<td>3</td>
<td>General machinery 0.86</td>
<td>Information &amp; communication 0.56</td>
<td>Others 0.05</td>
<td>Electrical machinery 0.23</td>
</tr>
<tr>
<td>Kyushu</td>
<td>All industries</td>
<td>0.61</td>
<td>1</td>
<td>Information &amp; communication 0.83</td>
<td>Electronic parts &amp; devices 0.76</td>
<td>Transport equipment 0.56</td>
<td>Others 0.18</td>
</tr>
<tr>
<td></td>
<td>Large</td>
<td>0.21</td>
<td>2</td>
<td>Electronic parts &amp; devices 0.10</td>
<td>Iron &amp; steel 0.30</td>
<td>Transport equipment 0.54</td>
<td>Information &amp; communication 0.09</td>
</tr>
<tr>
<td></td>
<td>Small and medium</td>
<td>0.63</td>
<td>3</td>
<td>Iron &amp; steel 0.63</td>
<td>Transport equipment 0.54</td>
<td>Others 0.05</td>
<td>Textiles 0.26</td>
</tr>
</tbody>
</table>

Note: Figures for 2006 and 2007 are both based on arithmetic averages of seasonally adjusted indices for each quarter. For some industry names, abbreviated forms are used due to space limitations.

Source: “Production index by manufacturing region and size (estimate)”
(3) Outline of tertiary industry activities

Tertiary industry activities increased in 2007 for the fifth consecutive year.

① 2007 trend of activities in tertiary industries

【Characteristics】
- Tertiary industry activities for 2007 increased by 1.1% compared to the previous year, up for the fifth consecutive year. The index level marked a record high, based on the year 2000 level.
- By industry, there were increases in eight industries out of 11, including the wholesale trade and retail trade, while three industries showed decreases.

Changes in Indices of Tertiary Industry Activities (2000=100)

Note: Industries on the chart are the major seven industries in the Indices of Tertiary Industry Activities.
**Trend in the advertising industry**

**Analysis Point 1**

Sluggish growth in the 14th cycle is attributable to a slump in the major four advertising media including newspapers, while others (including Internet advertising) have been maintaining a positive trend.

**Characteristics**

- Overall advertising industry sales had generally continued to increase compared to the same quarter of the previous year in past economic expansion stages. However, in the 14th cycle, sales turned negative for consecutive quarters after 2006 and have continued to be sluggish.
- Looking at the contribution ratio at the major four advertising media, or others ad another, a slump in the major four advertising media has been a major cause of the sluggish growth of the overall advertising industry in the 14th cycle.

**Fig. I-2-7-① Factor Analysis of Advertising Industry Sales (By Media)**

1. Overall advertising industry

**Fig. I-2-7-② Factor Analysis of Advertising Industry Sales (By Media; 14th Cycle)**

- Among the major four advertising media, sales were especially sluggish for newspapers in the 14th cycle.
- Among other advertising media, others (including Internet advertising) have constantly contributed most significantly to the increase.

Notes: 1. Sales data is corrected for continuity from past data.

2. Others include advertising such as through free paper magazines that cannot be classified under other categories, overseas advertising and Internet advertising.

Source: "Survey of Selected Service Industries"
From 2003 to 2006, advertising industry sales increased in all regions except Shikoku. Sales concentrated in large cities and those in Kanto accounted for 60% of total national sales.

【Characteristics】
《Nationwide》
・Overall advertising industry sales increased from 4.9 trillion yen in 1988 to 8.7 trillion yen in 2006.
・The average growth rates of the major four advertising media between 1988 and 2003 and between 2003 and 2006 were almost the same, at 2.1%, while those of other advertising media showed expansion from 3.8% for the period between 1988 and 2003 to 6.4% for the period between 2003 and 2006.

《By region》
・Advertising industry sales by region showed increases in all regions between 1988 and 2003 and in all regions except Shikoku between 2003 and 2006.
・The distribution ratio of sales by region has been largest in Kanto, accounting for 60% of total national sales every year.

Fig.I-2-14.15 Changes in Advertising Industry Sales Nationwide and by Region (1988→2006)

【Analysis Point 3】
～From 2003 to 2006, advertising industry sales increased in all regions except Shikoku. Sales concentrated in large cities and those in Kanto accounted for 60% of total national sales.～

【Characteristics】
《Nationwide》
・In the 14th cycle, the trend in most media in the advertising industry has come to lag conspicuously behind the business trend and the correlation coefficient has declined sharply. Linkage between both trends seems to have become weaker than before.
・The trend in magazine advertising and TV advertising, which is considered to maintain stronger linkage with the business trend than that in other media, has also come to lag conspicuously behind.

Fig.I-2-7 Correlation between Index of Business Conditions (CI) and Advertising Industry Sales (Comparison from the Same Quarter of the Previous Year)

<table>
<thead>
<tr>
<th>Year</th>
<th>Advertising Industry Sales</th>
<th>Major four advertising media</th>
<th>Other advertising media</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>¥4.9 trillion</td>
<td>¥4.9 trillion</td>
<td>¥4.9 trillion</td>
</tr>
<tr>
<td>1993</td>
<td>¥8.1 trillion</td>
<td>¥8.1 trillion</td>
<td>¥8.1 trillion</td>
</tr>
<tr>
<td>1998</td>
<td>¥9.4 trillion</td>
<td>¥9.4 trillion</td>
<td>¥9.4 trillion</td>
</tr>
<tr>
<td>2003</td>
<td>¥10.7 trillion</td>
<td>¥10.7 trillion</td>
<td>¥10.7 trillion</td>
</tr>
<tr>
<td>2006</td>
<td>¥11.4 trillion</td>
<td>¥11.4 trillion</td>
<td>¥11.4 trillion</td>
</tr>
</tbody>
</table>

Note: See the main text (p.56).
Source: “Index of Business Conditions (CI)” (Cabinet Office) and “Survey of Selected Service Industries”
【Analysis Point 4】
~ The major factor increasing advertising industry sales by region has shifted from sales from flyers and DM to those from others (including Internet advertising). ~

【Characteristics】
・The growth rate (period average rate) between 1988 and 2003 was positive in all regions. TV advertising contributed significantly to the increase in Kanto, but in other regions, flyers and DM contributed most significantly to the increase.
・The growth rate between 2003 and 2006 was positive in all regions except Shikoku. The contribution ratio of others (including Internet advertising) was largest in all regions.

Fig.I-2-17 Factor Analysis of Growth Rate (Period Average Rate) of Advertising Industry Sales by Region (Estimate)

Note: See the main text (p.65).
Source: “Survey of Selected Service Industries”