(1) Summary of the supply trend for final demand

Supply trend of the quarter

Summary of the supply trend for final demand in the first quarter of 2003 is as follows.

- The whole of industrial supply for consumption decreased by 0.2% (compared to the previous quarter) for the first time in four years due to the decrease of individual consumption by 0.7% (id.) for the first time in four years, although government consumption increased by 1.2% (id.).

- The whole of industrial supply for investment increased by 1.2% (id.) for three consecutive quarters due to the increase of private enterprise facilities and private housings by 1.4% (id.), although public investment decreased by 0.4% for two consecutive quarters.

- Exports decreased by 0.6% (id.) and imports decreased by 2.2% (id.) for the first time in five quarters.

- IT-related consumption decreased by 2.9% (id.), on the other hand, IT-related investment increased by 3.2% (id.) for two consecutive years.

Changes in the Indices of All Industries

(1995=100, Ratio compared to the previous year, Ratio compared to the previous quarter after seasonal adjustment)

<table>
<thead>
<tr>
<th></th>
<th>2001 compared to the previous year</th>
<th>2002 compared to the previous year</th>
<th>2003 compared to the previous year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1–3</td>
<td>4–6</td>
<td>7–9</td>
</tr>
<tr>
<td></td>
<td>10–12</td>
<td>1–3</td>
<td>4–6</td>
</tr>
<tr>
<td>Consumption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private consumption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining and manufacturing industry (goods)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private residential investment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary industry (services)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government consumption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Public investment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private residential investment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private non-res. Investment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary industry (services)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction business (structures)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining and manufacturing industry (goods)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary industry (services)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(special posted)IT-related</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining and mining industry (goods)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary industry (services)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Government consumption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exports</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining and mining industry (goods)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary industry (services)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Notes) 1. The supply indices of all industries are calculated using various statistical data, therefore, preliminary figures are used for some basic data. In such cases, it should be noted that the indices of previous quarters are changed to the authentic figures.

2. For calculation of the supply indices of all industries, because the breakdown list of the mining and manufacturing shipment and the all supply list of the manufacturing and mining industry, both of which are included in the basic data of the supply indices of all industries, are amended according to the standard of FY 2000, see p.212 of the text.

3. For IT-related consumption and investment, see the notes in p.62 and p.84 of the text, respectively.

(Source) “The indices of all industries”
Consumption trend and features of child-related items

Following is an analysis of the relationship between the steady declining birthrate in Japan and the consumption of child-related items*.

Looking at the changes in consumption of child-related items in real amounts, as a whole, it had been around 9 trillion yen until since 1994, however, in 1999, it has declined to around 7.7 trillion yen, which was lower than the level for 1984. Comparing the proportional change rate of the survey of the size of consumption of the child-related items and the child population compared to the previous term (yearly since 2000), the change rate of the consumption size of child-related items was larger than that of the child population up until FY1994. Since FY 1999, the change rate of consumption size has occasionally been lower than the change rate of the child population, however, the difference is very small, and taking a look at the overall change rate (change rate since FY 1984), it has always exceeded the change rate of the child population. In conclusion, due to the increase of expenditure per child, the consumption size of child-related items has not decreased as much as the child population.

* For the definition of child-related items, see p.66 of the text.

Changes of the consumption size of child-related items (in real term)

<table>
<thead>
<tr>
<th>Year</th>
<th>Others</th>
<th>Indirect education</th>
<th>Direct education</th>
<th>Clothing and footwear</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>2,528</td>
<td>4,695</td>
<td>1,245</td>
<td>310</td>
</tr>
<tr>
<td>1989</td>
<td>3,018</td>
<td>4,782</td>
<td>1,249</td>
<td>305</td>
</tr>
<tr>
<td>1994</td>
<td>3,170</td>
<td>4,422</td>
<td>1,133</td>
<td>310</td>
</tr>
<tr>
<td>1999</td>
<td>3,518</td>
<td>3,862</td>
<td>986</td>
<td>305</td>
</tr>
<tr>
<td>2000</td>
<td>3,411</td>
<td>3,738</td>
<td>897</td>
<td>2,296</td>
</tr>
<tr>
<td>2001</td>
<td>2,214</td>
<td>3,619</td>
<td>885</td>
<td>2,341</td>
</tr>
<tr>
<td>2002</td>
<td>2,137</td>
<td>3,654</td>
<td>897</td>
<td>2,303</td>
</tr>
</tbody>
</table>

Notes: 1. Consumption size of child-related items
   - Average expenditure for child-related items per household
   - Number of all households excluding single households
   - “Number of all households excluding single households” is estimated on the assumption that it would be increased or decreased equally intercensally.
   2. Expenditure amount was added after making it real based, by the consumer price index by item.
   3. Since FY 2001, it has been estimated by family budget survey.

Source: “National survey of Family Income and Expenditure”, “Family Income and Expenditure Survey”, “Population Census” and “Consumer price index” (Ministry of Public Management, Home Affairs, Posts and telecommunications)
Moving on to households, although there has not been a significant change in the size of households with children, the composition ratio of households with children and those without children was reversed in around FY 1995, principally due to the number of households with children decreasing (i.e. the number of households without children has been increasing). For households with children, the number of children per household has not decreased, so this could not be the reason for an increase of expenditure per child.

However, by actively shifting the income to the expenditure of child-related items and enhancing the expenditure ratio of child-related items to consumption expenditure, households with children have increased expenditure per child.
Changes in the number and size of households

![Graph showing changes in number and size of households over time.](image)

- **Family size per household of nuclear family household with member under the age 18**
- **Family size per household of family household**

**Source:** "Population census" Ministry of Public Management, Home Affairs, Posts and Telecommunications

### Growth rate of expenditure for child-related items and that of annual income per household with children

![Graph showing growth rates and cumulative totals.](image)

- **Cumulative total of growth rate of annual income** (right scale)
- **Cumulative total of growth rate of expenditure of child-related items** (right scale)
- **Growth rate of annual income**
- **Growth rate of expenditure of child-related items**

(Note) Survey ratio compared to the previous time

**Source:** "National census" Ministry of Public Management, Home Affairs, Posts and Telecommunications

### Composition ratio of expenditure for child-related items per household with children

![Graph showing composition ratios.](image)

- **Clothing and footwear**
- **Direct education**
- **Indirect education**
- **Others**

**Source:** "National survey on actual consumption": Ministry of Public Management, Home Affairs, Posts and Telecommunications
While the number of children per household per family has not significantly changed, by economizing more than households without children, and restraining consumption for items other than child-related items, households with children have increased expenditure per child. However, each time a National survey has been conducted on actual consumption, it has been observed that the difference between the growth rate of expenditure for child-related items and that for items other than child-related items has been shrinking. Therefore, it can be concluded that a significant increase in the proportion of expenditure for child-related items has become more and more difficult.

Changes in the relative consumption structure of households with children (excluding child-related items)

- from FY1984 to 1989

- from FY 1989 to FY 1984

- from FY1994 to FY1999

Notes:
1. 'Relative change inter-household' refers to the difference in figures between surveys, which can be obtained by dividing the expenditure for items of a household with children, with the expenditure for the same items of a household without children younger than 50 years old. (FY1984-FY1989, FY1994-FY1989, FY1999-FY1994) When the figure is a negative number, it shows that households with children have economized more with regards to said items than the household without children between surveys.
2. 'Expenditure elasticity' is the figure that shows how much the expenditure for the items will increase if consumption expenditure increases. Where the figure is below 1, it means that it is less subject to changes in consumption expenditure, that is, they are fundamental items.
3. The figures in the charts show the number of data in the quadrant.

Source: "National survey of Family Income and Expenditure" (Ministry of Public Management, Home Affairs, Posts and Telecommunications)
Changes in consumption structure of households with children

(Notes) 1. The legend "□ child-related items - consumption expenditure" shows the difference between the growth rate of expenditure for child-related items and that of consumption expenditure.
   The legend "● Items excluding child-related items - consumption expenditure" shows the difference between the growth rate of expenditure for child-related items and that of consumption expenditure.
2. Ratio compared to the previous survey

Source: "National survey of Family Income and Expenditure" (Ministry of Public Management, Home Affairs, Posts and Telecommunications)
Trend in capital investment and leading indicators

Following is an analysis of future capital investment estimated by trends in statistics of machinery orders and the diffusion index, the leading indicators for capital investment.

Looking at the relationship between machinery orders and capital investment by dividing figures from before FY1994 and after FY1995, the following can be seen. Comparing to the former term, in the latter term the correlation index of manufacturing industry retains its importance although it has slightly decreased, however the precedence of machinery orders has shortened to one term, the correlation is lost in non-manufacturing industry, as a result, the correlation of all industries has decreased.

On the other hand, the proportion of non-manufacturing industry to machinery orders and capital investment has been increasing yearly, whereas the correlation between machinery orders and capital investment has been decreasing, while at the same time the composition ratio of non-manufacturing industry has been increasing.

The reason for the loss of correlation between the non-manufacturing industry and machinery orders is thought to exit in the “construction suspense account” of capital investment. In order to seek the indicators to replace machinery orders, looking at the correlation with the dynamic statistics for construction orders that is thought to have a close relationship with machinery orders, it can be seen that the construction orders received in the non-manufacturing industry is preceding the construction suspense account by one term.

Following is an analysis of leading indicators of capital investment based on the above analysis.

The machinery orders in the manufacturing industry is increasing for five consecutive quarters after hitting their lowest point in the third quarter of FY2001, however the change is slower compared to past periods of increase. To the contrary, the machinery orders in the non-manufacturing industry have increased for the first time in three quarters but have not been increasing consecutively in the same fashion as the manufacturing industry.

The construction orders in the non-manufacturing industry as a whole have been decreasing since FY 1991, and after remaining flat for some time started to decrease again in the current quarter.
Trends in machinery orders, diffusion index of business sentiment and capital investment (1988=100, seasonally adjusted)

![Graph showing trends in machinery orders, business sentiment, and capital investment over time.]

**Source**: "TANKAN" (Bank of Japan), "Financial Statements of Corporations by Industry" (Ministry of Finance) and "Orders Received for Machinery" (Cabinet Office)

### Correlation between machinery orders and capital investment

<table>
<thead>
<tr>
<th>Period</th>
<th>Lag</th>
<th>All industries</th>
<th>Manufacturing industry</th>
<th>Non-manufacturing industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 1994</td>
<td>-3</td>
<td>0.25</td>
<td>0.22</td>
<td>0.51</td>
</tr>
<tr>
<td></td>
<td>-2</td>
<td>0.48</td>
<td>0.45</td>
<td>0.65</td>
</tr>
<tr>
<td></td>
<td>-1</td>
<td>0.67</td>
<td>0.66</td>
<td>0.76</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0.81</td>
<td>0.80</td>
<td>0.86</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0.90</td>
<td>0.91</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.96</td>
<td>0.96</td>
<td>0.93</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.98</td>
<td>0.98</td>
<td>0.92</td>
</tr>
<tr>
<td>On and after 1995</td>
<td>-3</td>
<td>0.27</td>
<td>-0.01</td>
<td>0.22</td>
</tr>
<tr>
<td></td>
<td>-2</td>
<td>0.50</td>
<td>0.26</td>
<td>0.41</td>
</tr>
<tr>
<td></td>
<td>-1</td>
<td>0.68</td>
<td>0.52</td>
<td>0.54</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0.81</td>
<td>0.74</td>
<td>0.59</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0.85</td>
<td>0.90</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.79</td>
<td>0.93</td>
<td>0.52</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.67</td>
<td>0.89</td>
<td>0.40</td>
</tr>
</tbody>
</table>

**Note**: 1. The maximum correlation coefficient of 0.7 or more is shaded.
2. The positive lag shows that machinery order precedes capital investment by that number of quarters.

**Source**: "Orders Received for Machinery" (Cabinet Office), "Financial Statements of Corporations by Industry" (Ministry of Finance)
Correlation with capital investment in non-manufacturing industry

<table>
<thead>
<tr>
<th>Period</th>
<th>Lag</th>
<th>Non-manufacturing industry</th>
<th>Construction order</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total of fixed asset</td>
<td>Other tangible fixed asset</td>
</tr>
<tr>
<td>Before 1994</td>
<td>-3</td>
<td>0.51</td>
<td>0.71</td>
</tr>
<tr>
<td></td>
<td>-2</td>
<td>0.65</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>-1</td>
<td>0.76</td>
<td>0.86</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0.86</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0.89</td>
<td>0.90</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.93</td>
<td>0.85</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.92</td>
<td>0.79</td>
</tr>
<tr>
<td>On and after 1995</td>
<td>-3</td>
<td>0.22</td>
<td>0.08</td>
</tr>
<tr>
<td></td>
<td>-2</td>
<td>0.41</td>
<td>0.44</td>
</tr>
<tr>
<td></td>
<td>-1</td>
<td>0.54</td>
<td>0.58</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0.59</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0.62</td>
<td>0.71</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.52</td>
<td>0.61</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.40</td>
<td>0.43</td>
</tr>
</tbody>
</table>

1. The maximum correlation coefficient of 0.7 or more is shaded.
2. The positive lag shows that machinery order precedes capital investment by that number of quarters.

Source: "Orders Received for Machinery" (Cabinet Office), "Financial Statements of Corporations by Industry" (Ministry of Finance), "The Current Survey on Orders Received" (Ministry of Land, Infrastructure and Transport)

Trends in machinery orders  (1988=100, seasonally adjusted)

Source: "Orders Received for Machinery" (Cabinet Office)
Construction orders from non-manufacturing industry (1988=100, seasonally adjusted)

(Note) Capital investment was seasonally adjusted using X-11 default of X-12-ARIMA independently.
Source: ‘The Current Survey on Orders Received’ (Ministry of Land, Infrastructure and Transport)

Following is an analysis of the correlation between the changes of business sentiment (diffusion index of business sentiment) capital investment that is thought to have more precedence, by dividing two terms to before FY1995 and from FY1995 onwards. It can be seen that both manufacturing and non-manufacturing industries have a correlation through both the first and last half. However, in the lag period, during the first half, the diffusion index of business sentiment has precedence over capital investment by between five and seven quarters, whereas in the last half it has shortened to between two and three quarters.

The diffusion index of business sentiment of the manufacturing industry hit its lowest point in the first quarter of FY 2002 and although slowly, started to increase from the second quarter of FY 2002. The diffusion index of business sentiment of the non-manufacturing industry started to increase in the second quarter of FY 2002 yet remains flat.

Following is an analysis of the future trends in capital investment using machinery orders, construction orders and the diffusion index of business sentiment by manufacturing and non-manufacturing industries. In the manufacturing industry, machinery orders precede by two quarters and the diffusion index of business sentiment by three quarters, and both of them show increases from quarter one to quarter three. On the other hand, in the non-manufacturing industry, machinery orders and construction orders precede by one quarter, and the diffusion index of business sentiment by three quarters. The diffusion index of business sentiment remains flat and there is a difference in the movement of machinery orders and construction orders.

In conclusion, there are bright prospects for capital investment in the manufacturing industry from the leading indicators, however the non-manufacturing industry faces an uncertain future.
Correlation between diffusion index of business sentiment and capital investment

<table>
<thead>
<tr>
<th>Period</th>
<th>Lag</th>
<th>All industries</th>
<th>Manufacturing industry</th>
<th>Non-manufacturing industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before 1994</td>
<td>0</td>
<td>0.19</td>
<td>0.46</td>
<td>-0.04</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0.38</td>
<td>0.63</td>
<td>0.13</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.54</td>
<td>0.76</td>
<td>0.29</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.67</td>
<td>0.85</td>
<td>0.44</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.77</td>
<td>0.90</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0.84</td>
<td>0.93</td>
<td>0.66</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>0.87</td>
<td>0.90</td>
<td>0.75</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>0.86</td>
<td>0.83</td>
<td>0.80</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>0.81</td>
<td>0.73</td>
<td>0.78</td>
</tr>
<tr>
<td>On and after 1995</td>
<td>0</td>
<td>0.56</td>
<td>0.30</td>
<td>0.45</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>0.71</td>
<td>0.59</td>
<td>0.62</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0.77</td>
<td>0.77</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>0.74</td>
<td>0.81</td>
<td>0.76</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0.60</td>
<td>0.67</td>
<td>0.71</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>0.44</td>
<td>0.42</td>
<td>0.60</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>0.28</td>
<td>0.16</td>
<td>0.48</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>0.14</td>
<td>-0.07</td>
<td>0.36</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>0.03</td>
<td>-0.21</td>
<td>0.26</td>
</tr>
</tbody>
</table>

Prospect of capital investment from the leading indicators

<table>
<thead>
<tr>
<th>Number of quarter from 1-3 period, 2003</th>
<th>1 quarter after (4-6 period, 2003)</th>
<th>2 quarters after (7-9 period, 2003)</th>
<th>3 quarters after (10-12 period, 2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing industry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-manufacturing industry</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other tangible fixed asset</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction in process</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Machinery order —————– Business sentiment D1 ——— Construction order received

Note: 1. The maximum correlation coefficient of 0.7 or more is shaded.
2. The positive lag shows that machinery order precedes capital investment by the number of quarters.
3. Source: "TANKAN" (Bank of Japan), "Financial Statements of Corporations by Industry" (Ministry of Finance).
4. 1 quarter after 1-3 period, 2003
5. 2 quarters after 4-6 period, 2003
6. 3 quarters after 7-9 period, 2003
7. 4 quarters after 10-12 period, 2003
(2) Outline of import and export trends

- Import and export trends for the quarter

Looking at the trends of export and import for the first quarter of FY 2003, export as a whole decreased by 0.6% compared to the previous quarter, for the first time in five quarters due to the decrease in the export of goods (mining industry) by 3.1% and the decrease of services received, by 1.8% compared to the previous quarter. Import as a whole decreased by 2.2% for the first time in five quarters due to the decrease in the import of goods (mining industry) by 0.2% for the first time in six quarters and the decrease of service payments by 1.2% compared to the previous quarter.

Change in the supply indices for all industries for export

- Index level (0.995=100, seasonally adjusted)
- Changes in Contribution Levels to Growth Ratio, Compared with the Previous Quarter

Change in the supply indices for all industries for import

- Index level (0.995=100, seasonally adjusted)
- Changes in Contribution Levels to Growth Ratio, Compared with the Previous Quarter

Source: “Supply Indices for All Industries”
Present situation of export

In FY 2002, there was an export led recovery of production. However, in the first quarter of FY2003, exports decreased by 4.3% compared to the previous quarter, and the economy of Japan was facing an uncertain future. Among major export counterparts, China and the Asian NIES were at the top with respect to the degree of contribution to growth rate by region (country) in FY 2002. The U.S., which has the largest composition ratio, contributed to the increase in the first and last quarter of FY 2002, however there was a considerable decrease in this present quarter. Following is an analysis of exports to the U.S., Japan’s largest export counterpart, from the viewpoint of the present U.S. economy.

Capital goods and consumer durable goods make up 85% of the total amount of export value to the U.S., therefore the major items included in that category shall be examined next. Passenger cars make up around 83% of consumer durable goods. Looking at the trends in vehicles, they decreased considerably by 18.1% compared to the previous quarter in the first quarter of FY 2003. Capital goods, general machinery and electric machinery, make up around 74% of the total. General machinery decreased by 12.7% in the first quarter of FY 2003 compared to the previous quarter and its major decrease was caused by business equipment. Electric machinery decreased by 14.8% compared to the previous quarter due to the decrease of video equipment and others. In conclusion, the key articles of export to the U.S. from Japan have been significantly decreasing.

Change in export amount of Japan

Composition ratio by major region (country) Changes in Contribution Levels to Growth Ratio by nation, Compared with the Previous Quarter (country)

![Graph showing composition ratio and changes in contribution levels to growth ratio by region and country.](image-url)
Change in major items (seasonally adjusted, ratio to the previous quarter and degree of contribution to the growth rate)

**Passenger cars**  **General machinery**  **Electric machinery**

(Note) Export amount was seasonally adjusted using X-11 default of X-12-ARIMA independently.
Source: “The Summary Report on Trade of JAPAN” (Published by Japan Tariff Association)

Following is an analysis of the U.S. current economy concerning vehicles, general machinery and electric machinery, which are key items for export to the U.S., by means of the inventory cycle. Compared to a typical inventory cycle, each of the items shows an irregular movement, making it difficult to forecast only from the inventory cycle. However, it can be seen that inventory adjustments have been conducted for passenger cars without decreasing their shipments, while general machinery and electric machinery are in the stage of unintended inventory decrease for economic recovery on the theory of inventory cycle.

Next, by keeping an eye on the similar movement of the ISM economic index for the manufacturing industry (hereinafter referred to as the “ISM index”), the DI for business confidence of the manufacturing industry in the U.S., and the movements of Japanese exports, exports to the U.S. are examined by means of the ISM index. The ISM index reached 52.8 on average in the first quarter of FY 2002 and exceeded 50 for the first time in six quarters, which is the turning point for production expansion of the manufacturing industry. It has remained at the level of 50 or more, however, in the first quarter of FY 2003, it has slowed down to 50.2.

In recent years, due to the rapid economic growth in China, export to China has been increasing. However, in the first quarter, increases of exports to China and the EU could not cover the decrease in exports to the U.S. With regard to examining future export trends in Japan, export to the U.S. must be continuously taken into account.
Shipment and inventory cycle of the manufacturing industry in the U.S. (Comparison of the same period of the previous year)

Passenger car manufacturing industry  General machinery manufacturing industry  Electric machinery manufacturing industry

Change of U.S. ISM index and amount of export to the U.S.

(Note) Export amount was seasonally adjusted using X-11 default of X-12-ARIMA independently.

Source: "MANUFACTURING,MINING, AND CONSTRUCTION STATISTICS" (U.S. Census Office of the Department of Commerce)

Source: "ISM Business Index of Manufacturing Industry" (Association of National Supply Management)

"The Summary Report on Trade of JAPAN" (Published by Japan Tariff Association)
Trend in the manufacturing industry

A. Steel industry

Due to steady domestic demand, both production and shipment are increasing.

- Production increased by 1.3% compared to the previous quarter for five consecutive quarters due to the increase of hot formed steel and plated steel. Shipments increased by 3.7% compared to the previous quarter due to increases in all kinds of industries except crude products. Inventory decreased by 4.3% compared to the previous quarter due to the decreases in all industries except plated steel.

Small classification by kind of industry

1) Production of crude products increased by 0.1% compared to the previous quarter for five consecutive quarters.

2) Production of hot formed steel increased by 1.3% compared to the previous quarter for five consecutive quarters.

3) Production of steel pipes increased by 4.9% compared to the previous quarter for the first time in three quarters.

4) Production of cold finished steel increased by 1.0% compared to the previous quarter for five consecutive quarters due to the increase of plain cold rolled electric steel bands, cold rolled formed sections and plain cold rolled wide band steel.

5) Production of plated steel increased by 2.0% compared to the previous quarter for five consecutive quarters due to the increase in galvanized sheet iron.

6) Production of cast and forged product remains flat (0.0% of increase compared to the previous quarter) due to the decrease of cast steel and forged steel products.

B. Nonferrous metal industry

Production increased for three consecutive quarters due to the favorable situation of optical fiber communication cables.

- Production increased by 3.2% compared to the previous quarter for four consecutive quarters due to the increase in the production of wires, cables and nonferrous ground metals, in spite of the decrease of production of nonferrous castings, drawn copper and aluminum rolling products. Shipment increased by 0.2% compared to the previous quarter due to the increase of shipment of nonferrous ground metals, drawn cooper and aluminum rolling products.

Small classification by kind of industry

1) Production of electric wires and cables increased by 9.8% compared to the previous quarter for three consecutive quarters due to the substantial increase of optical fiber communication cables, electric wires and other cables. Inventory decreased by 5.4% compared to the previous quarter for two consecutive quarters.

2) Production of drawn copper and aluminum rolling products decreased by 0.6% compared to the previous quarter for the first time in five years due to the decrease of aluminum rolling products. Shipment decreased by 0.2% compared to the previous quarter for the first time in five quarters due to the decrease of aluminum rolling
products. Inventory increased by 2.0% compared to the end of the previous quarter due to the increase of aluminum rolling products.

3) Production and shipment of nonferrous castings decreased by 0.8% and 0.9% respectively compared to the previous quarter due to the decrease of die-castings and aluminum castings.

4) Production of nonferrous ground metals increased by 6.4% compared to the previous quarter for two consecutive quarters due to the increase of electrolytic gold, electrolytic copper and zinc. Shipment increased by 5.4% compared to the previous quarter for two consecutive quarters due to the increase of electrolytic gold and electrolytic copper. Shipment increased by 7.8% compared to the end of the previous quarter due to the increase of aluminum secondary alloy ground metals, aluminum alloy ground metals and zinc.

C. Metal manufacturing industry

- Production remains at a low level due to the slump in construction

□ Production decreased by 0.8% compared to the previous quarter due to the decrease of metal products for construction in spite of the increase of metal products for construction and kitchen heaters. Shipment increased by 2.4% compared to the previous quarter due to the increase of metal products for construction, other metal products and kitchen heaters. Inventory decreased by 4.3% compared to the end of the previous quarter due to the decrease of kitchen heaters and other metal products.

□ Small classification by kind of industry

1) Production of metal products for construction decreased by 3.9% compared to the previous quarter due to the decrease of aluminum window sashes for buildings and wooden houses and aluminum doors, which was caused by the decrease in the commencement of wooden and non-wooden building construction. Shipment decreased by 1.8% compared to the previous quarter due to the decrease of aluminum window sashes and aluminum doors. Inventory increased by 1.1% compared to the previous quarter for two consecutive quarters due to the increase of aluminum window sashes and aluminum exteriors for wooden houses.

2) Production of metal products for construction increased by 2.6% compared to the previous quarter for the first time in four quarters due to the increase of steel towers and steel beams in spite of the decrease in bridges. Shipment increased by 6.7% compared to the previous quarter due to the increase of bridges and steel towers.

3) Production of kitchen heaters increased by 0.9% compared to the previous quarter for two consecutive quarters due to the increase of gas-heated bath and oil burning hot water heaters. Shipment increased by 7.4% compared to the previous quarter due to the increase of gas water heaters, kerosene heaters and gas-heated bath boilers. Inventory decreased by 13.1% compared to the previous quarter for four consecutive quarters.

4) Production of other metal products decreased by 0.6% compared to the previous quarter for the first time in five quarters due to the production restraint by inventory adjustment for aluminum beverage cans. Shipment increased by 2.1% compared to the previous quarter for two consecutive quarters due to the increase of aluminum
beverage cans and drums. Inventory decreased by 3.5% compared to the end of the previous quarter.

D. General machinery industry

- Further increases due to favorable exports -

- Production increased again by 4.5% compared to the previous quarter due to the increase of boilers, generating machinery, special industrial machinery, metal processing machinery, construction machinery and parts of general machinery. Shipment increased by 1.4% compared to the previous quarter. Inventory increased by 1.2% for eight consecutive quarters. Inventory ratio decreased by 3.2% compared to the previous quarter.

- Small classification by kind of industry

1) Production of boilers and generating machinery increased by 29.4% compared to the previous quarter for the first time in four quarters. It is caused by the significant increase of general steam turbines by 51.4% compared to the previous quarter due to the increase in orders by domestic companies and the increase of parts of steam turbines by 55.0% compared to the previous quarter due to the concentration of demand for periodic inspections. Parts of boilers, general internal combustions and water tube boilers that had been depressed, increased by 23.3%, 5.1% and 1.95% respectively.

2) Production of special industrial machinery increased by 10.5% compared to the previous quarter due to the favorable export to Asian countries of semiconductor equipment and injection molding machines and the increase of printing machinery for newspapers.

3) Production of metal processing machinery increased by 20.4% compared to the previous quarter for three consecutive quarters due to the increase of mechanical presses and roller machine for steel.

4) Production of construction machinery increased by 4.2% compared to the previous quarter due to the four quarter consecutive increase of shovel backhoes which are enjoying favorable exports.

5) Production of parts for general machinery increased by 1.6% compared to the previous quarter due to the increase of automatic regulating valves, hydrants and fixed ratio reduction gear.

6) Production of transportation machinery decreased by 8.9% compared to the previous quarter due to the decrease of cranes and conveyers, which was a reaction to their increase in the previous quarter.

7) Production of refrigerators and appliances that use their technology decreased by 4.2 % compared to the previous quarter due to the decrease of air conditioning refrigerators for passenger cars for the first time in five quarters and the decrease of general air conditioning refrigerators.

E. Electric machinery industry

- Production decreased for the first time in four quarters due to the decrease of electric
refrigerators -

Production decreased by 1.3% compared to the previous quarter for the first time in four quarters due to the decrease of household electronic appliances and switching devices, in spite of the increase of batteries, electric measuring devices, wiring accessories and lighting equipment. Shipment decreased by 1.3% compared to the previous quarter for the first time in five quarters due to the decrease of household electronic appliances, switching devices and batteries. Inventory decreased by 0.4% compared to the previous quarter for two consecutive quarters. Inventory ratio decreased by 3.9% compared to the previous quarter.

Small classification by kind of industry

1) Production of household electric appliances decreased by 10.9% compared to the previous quarter for three consecutive quarters due to the decrease of all items excluding separate air conditioners.
2) Production of switching devices decreased by 2.6% compared to the previous quarter due to the decrease of switching devices, programmable controllers and electromagnetic switches in spite of the increase of electromagnetic relays and electromagnetic clutches.
3) Production of batteries increased by 5.7% compared to the previous quarter for seven consecutive quarters due to the increase of lithium ion batteries in spite of the decrease of alkaline batteries.
4) Production of electric measuring devices increased by 17.2% compared to the previous quarter due to the increase of semiconductor and IC measuring devices and industrial measuring control devices in spite of the decrease of electric measuring devices.

F. Information and communication facility industry

- Production increased for three consecutive quarters due the increase of cell phones and digital cameras -

Production increased by 1.4% compared to the previous quarter for three consecutive quarters due to the increase of electric computers and communication machinery in spite of the decrease of household electric appliances. Shipment increased by 1.1% compared to the previous quarter for two consecutive quarters due to the increase of all industries including electric computers, communication machinery and household electric appliances. Inventory decreased by 2.8% compared to the previous quarter. Inventory ratio increased by 8.4% compared to the previous quarter for two consecutive quarters.

Small classification by kind of industry

1) Production of electric computers increased by 6.5% for the first time in seven quarters due to the increase of external memory devices, general-purpose computers and midrange computers in addition to terminal devices including cash dispensers for financial businesses, in spite of the decrease of personal computers and I/O devices.
2) Production of communication facilities increased by 5.8% compared to the previous quarter for three consecutive quarters due to the increase of cell phones and base station
communication facilities where new sophisticated models had appeared, in spite of the decrease of digital transmission devices.

3) Production of household electric appliances decreased by 4.3% for five consecutive quarters due to the decrease of car stereos and color televisions in spite of the increase of digital cameras and car navigation equipment which enjoyed favorable sales of small and new models for domestic consumption.

G. Electric parts and device industry
- Production increased due to the increase of active liquid crystal elements (medium and small size) -
  □ Production increased by 3.4% compared to the previous quarter due to the increase in all kinds of industry including integrated circuits and microchips in addition to the increase of electric parts caused by the substantial increase of active liquid crystal elements (medium and small size). Shipment increased by 5.4% compared to the previous quarter for five consecutive quarters due to the increase in the whole industry including electric parts. Inventory decreased by 8.7% compared to the previous quarter for two consecutive quarters. Inventory ratio decreased by 9.7% compared to the previous quarter for the first time in three quarters.
  □ Small classification by kind of industry
    1) Production of electric parts increased by 4.1% compared to the previous quarter due to the increase of electronic circuit boards, active liquid crystal elements (large size) and cathode ray tubes for color television in addition to the increase in active liquid crystal elements (medium and small size) for cell phones, digital cameras and pachinko machines.
    2) Production of integrated circuits increased by 2.5% compared to the previous quarter for five consecutive quarters due to the increase of MOS semiconductor integrated circuits (logic) and MOS charge coupled devices (CCD) for cell phones with cameras as well as digital cameras.

H. Transportation machinery industry
- Production and shipment decreased for the first time in five quarters due to the decrease of passenger cars -
  □ Production in the transportation machinery industry decreased by 5.5% compared to the previous quarter for the first time in five quarters due to the decrease of passenger cars, marine vessels and their engines, railroad vehicles and industrial vehicles. Shipment decreased by 3.9% compared to the previous quarter for the first time in five quarters. Inventory increased by 1.8% compared to the previous quarter for three consecutive quarters. Inventory ratio increased by 4.9% compared to the previous quarter for two consecutive quarters.
  □ Small classification by kind of industry
    1) Production of passenger cars decreased by 5.1% compared to the previous quarter for first time in five quarters. Looking at the type of cars, ordinary passenger cars decreased by 5.9% compared to the previous quarter due to the decrease of domestic consumption in addition to the decrease of export particularly to North America. Compact cars decreased by 4.7% compared to the previous quarter for two consecutive quarters.
quarters due to the decrease of domestic consumption and exports, particularly North America, as well as the Middle East and Latin America. Light cars decreased by 1.0% compared to the previous quarter for two consecutive quarters.

2) Production of industrial vehicles decreased by 8.7% compared to the previous quarter for the first time in four quarters due to the decrease of shovel trucks and fork-lift trucks.

3) Production of trucks increased by 6.6% compared to the previous quarter. By type of cars, medium-duty trucks increased by 7.6% compared to the previous quarter due to the increase of export particularly to Asia and Europe in addition to the increase of replacement demand caused by the new NOx regulation and driving regulations for diesel-powered vehicles. Small trucks increased by 5.0% compared to the previous quarter for three consecutive quarters and light trucks increased by 7.0% compared to the previous quarter due to the increase of domestic demand.

4) Production of automobile parts increased by 1.3% compared to the previous quarter for five consecutive quarters due to the increase of driving transmission parts, controlling parts and air conditioners for vehicles.

Numbers of registration and reports of new vehicles

Looking at the domestic demand of automobiles by the number of new registrations and reports of new vehicles, vehicles as a whole increased by 1.73 million vehicles, an increase of 4.3% compared to the same quarter of the previous year for three consecutive quarters. Among them, passenger cars increased by 1.35 million vehicles, an increase of 7.4% compared to the same quarter. Trucks decreased by 5.7%, a decrease of 0.37 million vehicles compared to the same quarter for eight consecutive quarters. Buses increases by 7,000, a significant increase of 18.2% compared to the same quarter for three consecutive quarters.

I. Precision instrument industry

- Production decreased for the first time in three quarters due to the decrease of 35mm cameras.

- Production decreased by 1.3% compared to the previous quarter for the first time in three quarters due to the decrease of optical instruments and parts as well as watches in spite of the increase of measuring instruments. Shipment decreased by 2.1% for the first time in four quarters due to the decrease of optical instruments and parts as well as measuring instruments in spite of the increase of watches. Inventory decreased by 2.8% compared to the end of the previous quarter for four consecutive quarters in spite of the increase of optical instruments and parts. Inventory ratio decreased by 2.3% compared to the previous quarter.

Smaller classification by kind of industry

1) Production of optical instruments and parts decreased by 9.2% compared to the previous quarter for two consecutive quarters due to the decrease of interchangeable lens for cameras in addition to the decrease of 35mm cameras caused by the change to digital cameras.

2) Production of watches decreased by 1.7% compared to the previous quarter for the first time in three quarters due to the decrease of battery-run watches (movement) in
spite of the increase of battery-run watches (finished product) and battery-run clocks.

3) Production of measuring instruments increased by 0.3% compared to the previous quarter for three consecutive quarters due to the increase of industrial weighing machines, testing machines and analytical instruments.

J. Ceramic industry
- Production increased for two consecutive quarters -

□ Production increased by 0.3% compared to the previous quarter for two consecutive quarters. This is a result of the following. In spite of the decrease of cement and its products by 1.8% compared to the previous quarter, glass and associated products increased by 2.5% for four consecutive quarters due to the favorable demand for plate glass and safety glass for cars. Ceramic wares and fine ceramics increased by 2.8% for the first time in three quarters due to the increase of hygienic ceramic wares. Shipment decreased by 0.2% for three consecutive quarters due to the decrease of cement and related products by 1.4% compared to the previous quarter in spite of the increase of ceramic wares, fine ceramics, glass, glass products and other ceramic products. Inventory decreased by 0.9% compared to the end of the previous quarter for six consecutive quarters due to the decrease of cement and related products, ceramic wares and fine ceramics.

□ Small classification by kind of industry
1) Production of glass and related products increased by 2.5% compared to the previous quarter due to the increase of plate glass, safety glass and continuous glass fiber products.

2) Production of cement and related products decreased by 1.8% compared to the previous quarter due to the unfavorable situation for public works and decreased building construction.

3) Production of ceramic wares and fine ceramics increased by 2.8% compared to the previous quarter for the first time in three quarters due to the increase of ceramic wares including those for hygienic and electric use as well as fine ceramics (construction materials).

4) Production of other ceramic products increased by 1.7% compared to the previous quarter due to increases of calcium oxide, fire brick and solid electrodes.

K. Chemical industry (excluding medicines)
- Production increased for four consecutive quarters -

□ Production increased by 1.6% compared to the previous quarter for four consecutive quarters due to the increase of cosmetics, organic chemical, soap, synthetic detergent and surface-active agent in spite of the decrease of plastic, synthetic rubber and chemical fertilizer. Shipment increased by 2.0% compared to the previous quarter due to the increase of plastic, cyclic intermediates, synthetic dyes and cosmetics in spite of the decrease of synthetic rubber and soda chemicals. Inventory decreased by 1.7% compared to the previous quarter for two consecutive quarters due to the decrease of plastic, cosmetics and synthetic rubber.

□ Small classification by kind of industry
1) Production of cosmetics increased by 4.1% compared to the previous quarter. This
is attributable to the increase of makeup products including foundation and manicure as a reaction of production decrease by inventory adjustment in the previous quarter and the quarter preceding that. It is also caused by the increase of cosmetics for skin, including facial cleansing cream and foam as well as face lotion.

2) Production of organic chemicals increased by 3.9% compared to the previous quarter. This is attributable to the favorable export of acrylic nitrile and ethylene glycol to China and the recovery of synthetic butanol from the facility troubles in the previous quarter.

3) Production of soap, synthetic detergent and surface-active agents increased by 4.8% compared to the previous quarter for two consecutive quarters due to the increase of bath soaps and solid soaps as well as synthetic detergents, which enjoyed a favorable demand.

L. Petroleum and coal product industry
- Production and shipment increased for three consecutive quarters due to the increase of demand of B/C heavy oil for electricity -

Production increased by 3.1% compared to the previous quarter for three consecutive quarters due to the increase of gasoline, kerosene and B/C heavy oil. Shipment increased by 2.1% compared to the previous quarter for three consecutive quarters due to the increase of gasoline, B/C heavy oil and naphtha. Inventory decreased by 4.7% compared to the end of the previous quarter due to the decrease of gasoline, light oil and jet fuel oil. Inventory ratio decreased by 2.8% compared to the previous quarter for four consecutive quarters.

Trends in major items
1) Production of gasoline increased by 2.2% compared to the previous quarter. Shipment increased by 2.7% compared to the previous quarter for three consecutive quarters due to the steady increase in car ownership. Inventory decreased by 13.1% compared to the previous quarter for the first time in three quarters.

2) Production of naphtha increased by 0.4% compared to the previous quarter for five consecutive quarters. Shipment increased by 4.5% compared to the previous quarter for three consecutive quarters due to the increase of production of ethylene and B.T.X. (pure benzene, pure toluene and xylene) to the major destination. Inventory decreased by 2.4%.

3) Production of kerosene increased by 9.4% compared to the previous quarter for three consecutive quarters. Shipment increased by 0.5% compared to the previous quarter for three consecutive quarters similar to that of production, because the average temperature was lower than the same period of the previous year. Inventory increased by 9.2% compared to the end of the previous quarter.

4) Production of light oil increased by 2.2% compared to the previous quarter for the first time in four quarters. Shipment increased by 1.5% for the first time in five quarters although it had been decreasing due to rationalization and the decrease light oil cars owned.
5) Production of B/C heavy oil increased by 9.0% and shipment increased by 8.3% compared to the previous quarter and both for three consecutive quarters. This is attributable to the increase in demand for thermal power generation since stopping nuclear electric power generation. Inventory increased by 19.7% compared to the end of the previous quarter for two consecutive quarters.

6) Production of coal products (coke) increased by 0.5% compared to the previous quarter for two consecutive quarters. Shipment increased by 2.4% compared to the previous quarter for three consecutive quarters. Inventory decreased by 8.6% compared to the end of the previous quarter.

M. Plastic product industry
- Production remains flat -

- Production was at 0.0% (remains flat) compared to the previous quarter for two consecutive quarters, because consumption materials-related production increased but production materials-related consumption materials-related and engineering and construction material-related production decreased. Shipment increased by 0.4% compared to the previous quarter due to the increase of consumption materials-related and engineering and construction material-related production. Inventory decreased by 1.2% compared to the previous quarter for five consecutive quarters due to the entire decrease of consumption material-related, manufacturing material-related and engineering and construction material-related production.

- Production by use

1) In manufacturing material-related items, plastic machine parts decreased by 0.7% compared to the previous quarter for five consecutive quarters due to the decrease of telecommunication parts. Synthetic leather decreased by 1.7% compared to the previous quarter for the first time in four quarters due to the decrease for the use of clothing and sandals. Plastic containers (hollow molded) increased by 1.1% compared to the previous quarter for the first time in three quarters due to favorable demand, in particular, on PET bottles for beverage use. Plastic containers (other than hollow molded) increased by 1.0% compared to the previous quarter for three consecutive quarters due to the increase of containers for transportation use.

2) Among consumption material-related items, plastic film sheets increased by 1.2% compared to the previous quarter due to the increase of hard films for food containers and that of laminated films for packing. Plastic daily necessities and miscellaneous goods increased by 2.8% compared to the previous quarter for the first time in eight quarters due to the increase of garden supplies and storage articles. Foam-made products increased by 1.6% compared to the previous quarter due to the increase of demand on food styrene paper.

3) Among engineering and construction material-related items, plastic pipes decreased by 5.1% compared to the previous quarter for the first time in three quarters on the rebound of speculative demand before the price increase of vinyl chloride resin. Plastic building materials decreased by 1.5% compared to the previous quarter for three consecutive quarters due to the decrease of floor materials and gutters. Reinforced plastic decreased by 1.4% compared to the previous quarter for the first time in three
quarters due to the decrease of digestion tanks and bathtubs. Plastic boards increased by 10.5% compared to the previous quarter for five consecutive quarters, in particular due to the increase of export to North America.

N. Pulp, paper and paper products industry
   - Production and shipment decreased for two consecutive quarters -
     □ Production decreased by 0.8% compared to the previous quarter for two consecutive quarters due to the decrease of paper, paperboards and paper products. Shipment decreased by 0.2% for two consecutive quarters due to the decrease of paper products, paperboards and pulp. Inventory decreased by 0.6% compared to the end of the previous quarter due to the decrease of paper and paper products.
     □ Small classification by kind of industry
       1) Production of paper decreased by 1.4% compared to the previous quarter for two consecutive quarters due to the decrease of printing paper (coating), printing paper (non-coating) and winding paper for newspaper. Shipment stayed at 0.0% compared to the previous quarter, remaining flat, because hygiene paper, package paper and information paper increased, while printing paper (non-coating), printing paper (coating) and winding paper for newspaper decreased. Inventory decreased by 1.9% compared to the previous quarter for the first time in three quarters due to the decrease of winding paper for newspaper, hygiene paper, printing paper (coating), packing paper and information paper.
       2) Production of board paper decreased by 1.2% compared to the previous quarter for two consecutive quarters due to the decrease of fiberboard. Shipment decreased by 0.4% compared to the previous quarter for two consecutive quarters due to the decrease of fiberboard. Inventory increased by 1.2% compared to the end of the previous quarter for two consecutive quarters due to the increase of board paper for paper containers and fiberboard.
       3) Production of paper products (fiberboard sheet) decreased by 0.8% compared to the previous quarter. Shipment decreased by 0.6% compared to the previous quarter due to the decrease of shipment for greengroceries and processed food (including beverage).

O. Textile industry
   - Production and shipment continued to decrease due to the sluggish demand -
     □ Production decreased by 1.8% compared to the previous quarter for twenty-four consecutive quarters due to the decrease of all kinds of industry including textile fabric, clothing and spinning. Shipment decreased by 0.6% compared to the previous quarter for twenty-four consecutive quarters due to the decrease of textile fabric and spinning. Inventory decreased by 2.4% compared to the end of the previous quarter for seven consecutive quarters due to the decrease of spinning, clothing and other textile products.
     □ Small classification by kind of industry
       1) Production of chemical fiber decreased by 0.7% compared to the previous quarter for nine consecutive quarters due to the decrease of discontinuous synthetic fiber. Shipment increased by 0.4% compared to the previous quarter for four consecutive
quarters due to the increase of discontinuous synthetic fiber. Inventory decreased by 1.6% compared to the end of the previous quarter for seven consecutive quarters due to the progress of inventory adjustment for synthetic fiber (continuous and discontinuous fiber).

2) Production of spinning continued to decrease; 2.8% compared to the previous quarter, due to the effect of the shift towards overseas production and the import of products. Shipment decreased by 7.0% compared to the previous quarter as sluggish as production. Inventory decreased by 8.3% compared to the previous quarter for four consecutive quarters due to the decrease of all kinds of industry including wool, synthetic fiber spun yarn and cotton yarn.

3) Production of textile fabric decreased by 3.3% compared to the previous quarter for fourteen consecutive quarters due to the decrease of all kinds of items including silk, silk fabric, synthetic fabric (continuous) and wool fabric. Shipment decreased by 6.9% compared to the previous quarter for eleven consecutive quarters. Inventory decreased by 1.0% compared to the end of the previous quarter due to the decrease of synthetic fabric (discontinuous) and towel cloth.

4) Production of clothing decreased by 1.8% compared to the previous quarter for sixteen consecutive quarters due to the decrease of textile jackets, socks and underwares caused by sluggish individual consumption. Shipment increased by 3.1% compared to the previous quarter for the first time in four quarters due to the increase of knitted jackets, socks and textile jackets. Inventory decreased by 1.5% compared to the end of the previous quarter due to the decrease of knitted jackets, textile jackets and socks.
(2) Trend in tertiary industry

A. Commerce

- Wholesale sales reached 115.3148 trillion yen, an increase of 0.4% compared to the same quarter of the previous year for eight consecutive quarters, due to the increase in the wholesale industry of mineral and metal materials where billings of oil-related items have rapidly increased due to the Iraq crisis.
- Sales of big wholesalers ran up to 34.8008 trillion yen, an increase of 0.3% compared to the same quarter of the previous year for two consecutive quarters.
- Retail sales decreased to 31.8972 trillion yen, a decrease of 1.3% compared to the same quarter of the previous year in spite of the increase for food and drink retailers and motor vehicle retailers.
- Sales of large scale retailers reached 5.3009 trillion yen, a small increase of 0.2% compared to the same quarter of the previous year for fourteen consecutive quarters due to the steady demand on food and increase in shops, although consumers were reluctant to purchase due to the uncertainty over future employment and decrease of income.
- Sales of items and service of convenience stores reached 1.6733 trillion yen, an increase of 3.0% compared to the same quarter of the previous year. On an existing shop basis, there was a decrease of 1.1% compared to the same quarter of the previous year.

B. Specific service industry

- Service for offices
  - Contract amount (acceptance basis) for lease of articles decreased by 3.0% compared to the same quarter of the previous year for six consecutive quarters. Purchase amount of delivered items decreased by 3.3%.
  - Sales of renting business decreased by 2.7% compared to the same quarter of the previous year for seven consecutive quarters.
  - Sales of information service industry decreased by 2.2% compared to the same quarter of the previous year for seven consecutive quarters.
  - Sales of advertising industry increased by 0.8% compared to the same quarter of the previous year for the first time in seven quarters. Sales of the advertisement of four major media increased by 1.8% compared to the same quarter of the previous year for the first time in eight quarters.
  - Billing of credit card industry increased by 3.7% compared to the same quarter of the previous year. By type of business, sales and credit business increased by 4.9% compared to the same quarter of the previous year.
  - Amount of orders accepted in engineering industry increased by 16.5% compared to the same quarter of the previous year. Its breakdown is as follows. Domestic order increased by 12.7% and overseas orders increased by 30.2% compared to the same quarter of the previous year.

- Service for individuals
  - Among hobby and recreation-related services, increase was seen in pachinko parlors, theaters, show business and bowling alleys and a decrease was seen in movie theaters, amusement parks, golf parks and golf driving ranges.
Among culture and living-related services, an increase was seen in foreign language schools, the funeral industry and fitness clubs and a decrease was seen in wedding parlors and culture centers.