2. Trends in supply and final demand

(1) Outline of trends of supply intended for final demand in 2001

Outline of trends in supply intended for final demand in 2001 are as follows:

- Private consumption increased by 0.3% compared to the previous year and has increased for three consecutive years. Government consumption increased by 1.1% id., and overall industry supply intended for consumption increased by 0.5% id. and has increased for 3 consecutive years.

- Private enterprise facilities decreased by 5.3% compared to the previous year, private housing decreased by 5.3% id. down for the first time in three years, and public investment decreased by 1.8% id. and has decreased for two consecutive years, overall industry supply intended for investment decreased by 4.4% id. down for the first time in three years.

- Exports decreased by 7.2% compared to the previous year for the first time in three years. Imports increased by 2.4% id. and have increased for three consecutive years.

Changes in overall industry supply indices
(1995 = 100, compared to the previous year, seasonally adjusted, compared to the previous quarter)

<table>
<thead>
<tr>
<th>Sector</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private consumption</td>
<td>1.2</td>
<td>2.2</td>
<td>0.3</td>
</tr>
<tr>
<td>Government consumption</td>
<td>1.3</td>
<td>2.4</td>
<td>1.1</td>
</tr>
<tr>
<td>Investment</td>
<td>0.3</td>
<td>0.6</td>
<td>4.4</td>
</tr>
<tr>
<td>Public investment</td>
<td>4.6</td>
<td>7.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Private housing</td>
<td>1.6</td>
<td>0.6</td>
<td>5.3</td>
</tr>
<tr>
<td>Private plant and equipment</td>
<td>2.5</td>
<td>5.4</td>
<td>5.3</td>
</tr>
<tr>
<td>Mining and manufacturing</td>
<td>1.5</td>
<td>4.9</td>
<td>0.3</td>
</tr>
<tr>
<td>Construction (structure)</td>
<td>6.0</td>
<td>1.1</td>
<td>6.5</td>
</tr>
<tr>
<td>Tertiary industry (service)</td>
<td>1.1</td>
<td>1.2</td>
<td>0.5</td>
</tr>
</tbody>
</table>

(Note) 1. IT-related consumption: Facsimile, PHS, Mobile phone, Beeper, Cordless phone, Personal computer, Domestic telegram and communications (excluding mobile), Domestic telegram and communications (mobile)

2. IT-related investments: Electric wire and Cable for communication (for private investment), Fiber optics for electric wire and cable, Copying machine (black and white), Copying machine (digital color), Push phone, Facsimile, Electrical switchboard, Digital transmission, Fixed communication apparatus, PHS, Mobile phone, Beeper, Broadcasting equipment, Mainframe computer, Mid-range computer, Personal computer, Memory, Input unit, Terminal, Development of software

3. The latest “Indices of all industry supply” have provisional figures in some parts.

4. Indices of all industry supply are based on indices of construction costs and which have been revised recently. Therefore, indices of all industry supply will be revised soon.

Source: “Indices of all industry supply”
(2) Trends in IT related consumption and investment

IT related consumption for the year 2001 increased by 7.9% compared to the previous year, while non-IT related consumption decreased by 0.2% down or the first time in three years.

Furthermore, IT related investment in private enterprise facilities increased by 1.8% compared to the previous year and has increased for three consecutive years, while non-IT related investment decreased by 7.7% id.

Changes in IT related consumption

Changes in IT related investment

(Note) IT related consumption for individuals: Facsimile, PHS, Mobile phone, Beeper, Cordless phone, Personal computer, Domestic telegram and communications (excluding mobile), Domestic telegram and communications (mobile)

(Note) IT-related investments: Electric wire and Cable for communication (for private investment), Fiber optics for electric wire and cable, Copying machine(black and white), Copying machine(digital color), Push phone, Facsimile, Electrical switchboard, Digital transmission, Fixed communication apparatus, PHS, Mobile phone, Beeper, Broadcasting equipment, Mainframe computer, Mid-range computer, Personal computer, Memory, Input unit, Terminal, Development of software

Source: “Indices of all industry demand”
(3) Trends in IT related consumption by age of the head of the household

With regard to IT related consumption, which has kept up total consumption in recent years, the ratio of the expansion of each good and service to household shows that personal computers, mobile phones and internet have expanded very quickly. They expanded as quickly as major consumer durable goods in the past.

The ratio of the expansion by age of the head of the household points out the fact that these goods have not necessarily spread to elderly householders. As to major consumer durable goods, products indispensable in daily life, such as refrigerators and color televisions have spread to all households. However, those for culture and entertainment, such as CD players and video recorders have not spread to all elderly households. There are similarities in expansion between IT related goods and service and products for culture and entertainment.

Changes in the ratio of the expansion of IT related goods and major consumer durable goods
The ratio of the expansion of IT related goods and major consumer durable goods, by age of the head of the household

(Note) The figure of Mobile phone and Internet is seen in "Research on communication (up; Oct. 2001, down; Oct. 2000)." The figure of other items is seen in "Research on consumption (up; Mar. 2002, down; Mar. 2001)."

Source: "Research on consumption" (Cabinet office), "Research on communication" (Ministry of Public management, Home Affairs, Posts and Telecommunications)
(4) The effect of BSE on consumption

A cow infected with BSE was found for the first time in Japan in September 2001. Trends in beef consumption in family consumption expenditures show a significant decrease compared to the previous year, which reflects the effect of BSE. Chicken and pork are being consumed as a substitute food for beef.

Calculating the amount effected by BSE (including substitution effect) for the September to December, the reduction in consumption was ¥1012 per month. The contribution ratio to the total family expenditure was -0.32%, which means the effect of BSE was limited.

However, because of consumers’ continuous cautiousness toward beef, there is a possibility that BSE will have an effect on all consumption in the future.

Changes in meat consumption in family expenditures (compared to the corresponding month of the previous year)

![Graph showing changes in meat consumption]

Source: Family income and expenditure survey (Ministry of Public management, Home Affairs, Posts and Telecommunications)

Effect of meat consumption trends on all consumption (September to December)

<table>
<thead>
<tr>
<th></th>
<th>Expenses (¥ per month)</th>
<th>All consumption (% )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef etc.</td>
<td>¥1343</td>
<td>¥0.43</td>
</tr>
<tr>
<td>Pork, Chicken</td>
<td>¥331</td>
<td>¥0.11</td>
</tr>
<tr>
<td>total</td>
<td>¥1012</td>
<td>¥0.32</td>
</tr>
</tbody>
</table>

(Note) 1. “Beef etc.” includes processed meat.
2. This table is calculated under the hypothesis that only BSE is a reasonable factor to explain the gap between the years.
3. Pork and chicken do not seem to substitute beef perfectly. Nevertheless, other items, such as fish and shellfish, are not adopted to this table, because they do not appear in any reliable statistics.

Source: Family Income and Expenditure Survey (Ministry of Public management, Home Affairs, Posts and Telecommunications)
(5) Changes in investment of enterprises

According to the trends in facility investment of overall industries after 1989, the rates during the rise toward the peak of the business cycles are getting lower and lower. Also, investment at the recovery stage of the business cycle is less active.

In terms of investment of enterprises, a look at the balance sheet of funds showed trends in the capital department and in the debt financing section of liabilities. There was a tendency in 1999 to 2000 to use profits made from the business recovery to pay off debts and raise capital. In 2001, when business results worsened, capital and fund raising showed a downward trend.

The trend in the fund movements of the asset management department continued to turn down in 2001. Fixed assets, which had been on the upward trend also turned downward. It seems that enterprises are active in improving their organizations by asset compression rather than raising fixed assets through facility investment etc.

Real estate, electrical machinery tools and electricity made a significant contribution to the decrease in facility investment of all industries for the January-March and July-September quarters in 2001, while the service industry contributed to an increase. It includes private services related to life and nursing and entertainment such as movies and theme parks, which played a leading part.

Changes in facility investment of all industries (1995 = 100)

(Note) Changes of facility investment are composed of "Financial statements statistics of corporation" and "Financial statements research" by using X-11-default of X-12-ARIMA
Source: "Financial statements statistics of corporation" (Ministry of Finance Japan), "Financial statements research" (Cabinet office), "Supply indices of all industry".
Changes in classification of balance sheets of all industries

- Changes in liabilities and capital department (for raising funds)

- Changes in assets department (for employing funds)

(Note) 1. When lines in the balance sheet are adjusted by X-11-default of X-12-ARIMA, the assets, which are the total of the lines, are adjusted independently. Therefore, the amount of each line does not meet assets perfectly.

2. In the department of liabilities, there is a category “other liabilities”. The difference between total liabilities and sum of short and long term borrowings means “other liabilities” here.

(Source): “Financial statements statistics of corporation” (Ministry of Finance Japan)
(6) Effect on the structure of facility investment

In order to know the factors of demand for facility investment, estimation was made using an industrial input-output table. The greatest induction effect upon national fixed capital (private investment) (hereinafter referred to as private investment) was the one that had the effect of inducing one private investment from another private investment every year. This effect, however, has been decreasing after the peak of bubble in 1990. This induction effect, in which one private investment induces another, is becoming less effective.

Furthermore, when one unit of facility investment occurs, how will the final inducted amount of production be determined? Its value (the coefficient of productivity induction in facility investment) shows that in 1985 ‘building and repairing,’ ‘general machine’ and ‘service in offices’ were first, second and third, but in 1998 they changed order. There was a change in induction effect among the categories.

In particular, the coefficient of the productivity induction of ‘service in offices’ and ‘electronic instruments and communication instruments’ is continuously increasing. These include categories related to information and communication, such as ‘service of investigation and information,’ ‘calculators and attachments’ and ‘communication apparatuses.’ The expansion of IT related investment has had an effect in recent years.

Changes in induction effect of private investment by item of final demand

(Note) Private investment’s induction effect is estimated under the condition that the ratios of final demand items in private investment have been fixed.
Top ten categories by the coefficient of productivity induction in private investment

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Building and repairing structure</td>
<td>0.45066</td>
<td>0.44806</td>
<td>0.36701</td>
<td>0.30752</td>
</tr>
<tr>
<td>2</td>
<td>Machinery</td>
<td>0.18085</td>
<td>0.16245</td>
<td>0.19058</td>
<td>0.19188</td>
</tr>
<tr>
<td>3</td>
<td>Service in office</td>
<td>0.14261</td>
<td>0.15708</td>
<td>0.18308</td>
<td>0.17255</td>
</tr>
<tr>
<td>4</td>
<td>Commerce</td>
<td>0.14146</td>
<td>0.15425</td>
<td>0.14419</td>
<td>0.15989</td>
</tr>
<tr>
<td>5</td>
<td>Steel</td>
<td>0.09572</td>
<td>0.09176</td>
<td>0.11487</td>
<td>0.13783</td>
</tr>
<tr>
<td>6</td>
<td>Electronic instrument and communication</td>
<td>0.08161</td>
<td>0.08934</td>
<td>0.10577</td>
<td>0.10597</td>
</tr>
<tr>
<td>7</td>
<td>Engineering works</td>
<td>0.07980</td>
<td>0.08618</td>
<td>0.09758</td>
<td>0.08241</td>
</tr>
<tr>
<td>8</td>
<td>Vehicles</td>
<td>0.07874</td>
<td>0.08338</td>
<td>0.07566</td>
<td>0.06649</td>
</tr>
<tr>
<td>9</td>
<td>Metal products</td>
<td>0.07613</td>
<td>0.07370</td>
<td>0.06873</td>
<td>0.06474</td>
</tr>
<tr>
<td>10</td>
<td>Sawing, timber and wooden furniture</td>
<td>0.06764</td>
<td>0.05409</td>
<td>0.05493</td>
<td>0.04837</td>
</tr>
</tbody>
</table>

(Note) In the table, if the figure of categories is increasing continuously they are marked dark, and if the figure of categories is decreasing continuously they are marked light.

(7) Comparison between Japan’s and the USA’s ratio of IT related investment

A comparison was conducted between Japan’s and the USA’s ratio of IT related facility investment. In the year 2001 the ratio for Japan was 36.4% (up 2.2 points compared to the previous year), whereas that of USA was 44.9% (down 0.2 points compared to the previous year). Nevertheless, as the ratio of investment for software has been on the steady increase in USA, the ratio shows the upward trend in the October-December quarter in 2001.

Comparison between Japan and USA over the ratio of IT related investment to facility investment of private enterprises

- The ratio of goods
- The ratio of software
The ratio of the total of goods and software

(Note) 1. In the table investments are classified into the “IT-related” and “non IT-related” with the standard of USA. Japanese classification standard of “IT-related” is partly shown in the note (p17). To make it complete the items below need to be added. Register system, X-ray equipment for medical use, Ultrasonic equipment for medical use, Electron microscope, TV for industry use, Electricity meter, Semiconductor, IC meter, Industrial control device, Industrial measure, Precision gauge, analyzer, tester, measurement apparatus.

2. The ratio of IT-related investment in USA is calculated with an equation below.

\[
\text{The ratio} = \frac{\text{Information processing equipment and software}}{\text{Nonresidential}}
\]

(8) The conditions of apartment construction

The number of apartments under construction during the year 2001 decreased by 1.1% compared to the previous year, but is still a relatively high level. The ratio by region in Japan shows that the capital region exceeded 50% and it had a profound effect on the trend as a whole. Particularly, the number of apartments under construction in Tokyo has increased and is on a higher level compared to the rest of the country.

Changes in the number of apartments under construction by region

Index level (seasonally adjusted, 1995 average = 100)

Component ratio by region

Source: "Construction statistics" (Ministry of Land, Infrastructure and Transport)
(9) Outline of exports and imports

In terms of trends in exports and imports for the year 2001, the export of goods (mining and manufacturing industry) decreased by 8.5% compared to the previous year for its first decrease in three years. Received services also decreased by 2.4%, and the total exports decreased by 7.2% down for its first decrease in three years.

By region where goods exported, the export to the ASEAN9 decreased by 15.0% compared to the previous year for its first decrease in three years. In addition to that, there was a decrease in export to all regions, such as USA, EU and East Asia.

For imports, although service payments decreased by 2.4% compared to the previous year down for the fourth consecutive year, the import of goods (mining and manufacturing industry) increased by 3.9% and up for the third consecutive year. Overall imports increased by 2.4% up for the third consecutive year.

By region where goods are imported from, imports from the USA decreased by 13.4% compared to the previous year for down four consecutive years, while the imports from EU, ASEAN9 and East Asia increased.

Changes in export by region

*Index level (seasonally adjusted, 1995 average = 100)*

![Changes in export by region graph](image)

Changes in import by region

*Index level (seasonally adjusted, 1995 average = 100)*

![Changes in import by region graph](image)

(Note) 1. Indices of export are the figures calculated in “statistics of trade.”
2. ASEAN9: Singapore, Thailand, Malaysia, Brunei, Philippine, Indonesia, Vietnam, Laos, Myanmar.
3. East Asia: Korea, China, Taiwan, Hong Kong.
(Source): “Classified table of mining and manufacturing shipment”, “Table of mining and manufacturing supply”