2. Supply trend and final demand

(1) Summary of the supply trend for final demand

The summary of the supply trend for final demand is as follows.

- Though government spending has increased by 1.0% compared to the previous year, personal consumption dropped by 1.2%id. for the first time in 4 years, and this has resulted in a 0.8%id. decrease in the total industrial supply for consumption, which decreased for the first time in 4 years.

- The total industrial supply for investment has dropped by 5.5% compared to the previous year, and has decreased for 2 consecutive years of which the investment for private firms decreased by 6.1%id., and has decreased for 2 consecutive years. Public investment decreased by 5.1%id., and has decreased for 3 consecutive years and investment for private housings has also decreased by 4.0%id., and has decreased for 2 consecutive years.

- Exports increased 8.1% compared to the previous year. Imports also increased, up 3.0%id., and have increased for 4 consecutive years.

- IT related consumption decreased by 4.5% compared to the previous year, and IT related investments have also decreased by 4.5%id., the first decrease in 4 years.
## Transition of supply indices for all industries

<table>
<thead>
<tr>
<th></th>
<th>Consumption</th>
<th>Personal consumption</th>
<th>Investment</th>
<th>Public investment</th>
<th>Private housing</th>
<th>Private firm capital</th>
<th>Tertiary industry (service)</th>
<th>Tertiary industry (service)</th>
<th>Export</th>
<th>Import</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>2000</td>
<td>2001</td>
<td>2002</td>
<td>2003</td>
<td>2004</td>
<td>2005</td>
<td>2006</td>
<td>2007</td>
<td>2008</td>
<td>2009</td>
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<tr>
<td></td>
<td>1~3</td>
<td>4~6</td>
<td>7~9</td>
<td>8~11</td>
<td>1~3</td>
<td>4~6</td>
<td>7~9</td>
<td>8~11</td>
<td>1~3</td>
<td></td>
</tr>
</tbody>
</table>

(1995=100, ratio compared to previous year, seasonally adjusted ratio compared to previous quarter)

### Notes:
1. Personal IT related consumptions consist of the supply of facsimiles, mobile telephones, pocket bells, cordless telephones, personal computers, domestic telecommunications (mobile telecommunications excluded), and mobile telecommunications for personal consumption.
2. IT related investment consists of wires and cables for telecommunications supplied to private firms, fiber optical products for wires and cables, electrostatic indirect copying machines, digital colored copying machines, key service units, facsimiles, electronic exchanges, digital transmitters, fixed communication devices, mobile telephones, pocket bells, base station communication devices, general purpose computers, mid range computers, personal computers, external storage, input output devices, terminal equipment software development, creation of programs (subcontracts).
3. Indexation of the Total Industrial Supply Index is based on various statistical data of which some of the basic data are flash figures. Therefore, it is necessary to be aware that the index of the previous quarter may possibly be altered to the final figures.
4. Corresponding to the basic alteration of the corporate price index which is the basic data for the Total Industrial Supply Index, backlog adjustments are being made to the Total Industrial Supply Index.

Source: “Total industrial supply index”
(2) Trends in IT related consumption and investment

The personal IT related consumption for 2002 has maintained a high level, however, it has decreased by 4.5% compared to the previous year. In addition, the non-IT related consumption has decreased by 1.0% id., and has decreased for 2 consecutive years.

Furthermore, IT related investment for private firms has decreased by 4.5% compared to the previous year, the first decrease in 4 years, while the non-IT related investment has dropped by 6.8% id., and has decreased for 2 consecutive years.

Transition of IT related consumption

Note: Personal IT related consumption consists of the supply of facsimiles, mobile telephones, pocket bells, cordless telephones, personal computers, domestic telecommunications (mobile telecommunications excluded), and mobile telecommunications for personal consumption.

Source: “Total industrial supply index”
Note: IT related investment consists of wires and cables for telecommunications supplied to private firms, fiber optical products for wires and cables, electrostatic indirect copying machines, digital colored copying machines, key service units, facsimiles, electronic exchanges, digital transmitters, fixed communication devices, mobile telephones, pocket bells, base station communication devices, general purpose computers, mid range computers, personal computers, external storage, input output devices, terminal equipment software development, creation of programs (subcontracts).

Source: “Total industrial supply index”
(3) Expansion and changes in consumption of elder households

In Japan the increasing average age of the population and the number of elder households are leading the nation to an aged society. It is significant to analyze the influences of the consumption trends of elder households to the trends of total consumption from both the quantitative and qualitative aspects.

The size of consumption for all elder households is consistently increasing compared to the flattening or decreasing of other generations. Final consumption spending by elder households takes up approximately 31.8% of the total, adding ¥ 73 trillion in 2001.

Transition of size of living expenditure by age group (1984=100)

Note: Size of consumption spending = Consumption spending per household x distribution of number of households

Source "Family Income and Expenditure Survey" (Ministry of Public Management, Home Affairs, Posts and Telecommunications)
Transition of Consumption of Households of elder households

Notes:
1. Estimated by apportioning of Consumption of Households the said year by the ratio of the size of living expenditure by generation.
2. Imputed rent is excluded.

Living expenditure for households other than the elder households has shifted from an increase to a decrease around 1993. After showing a steeper increase than the other generations, Living expenditure for elder households has also shifted to a decrease. However it’s speed has been much slower, and it has not reached the pre-bubble 1986 leave yet by 2001.

Concerning the elder households, it is not only the increasing number of households, but also the relative increase in living expenditure of each household itself compared to other generations, as a multiplier effect, that the presence of the elder households is increasing. Therefore it is significant to focus on qualitative changes.

**Transition of consumption spending per household by age group (1984=100)**
As a result of the increase in active spending by elder households, observing the items in which their presence has relatively risen, and the information gathered suggests that the elders (1) are very active in accepting new things, (2) are living an active life, (3) are enjoying their lives, (4) are experiencing some change in the degree of reserves.

The above have also been reflected to the research on consciousness and it will be significant to be aware of the changes in the qualitative trends of consumption for elder households in order to forecast future consumption trends.

**Relations between the changes in preferences of elder households and the amount of actual consumption spending**

Note: The figures in the ( ) in the diagram are the number of items which come under the area.
The top and bottom 10 points for changes in preference

<table>
<thead>
<tr>
<th></th>
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<tbody>
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<td>1</td>
<td>Automobile</td>
<td>172,464.2</td>
<td>88.1</td>
<td>65.3</td>
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<td>82.1</td>
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<td>2</td>
<td>Engineering and other services</td>
<td>130,017.3</td>
<td>170.3</td>
<td>164.1</td>
<td>169.2</td>
<td>154.0</td>
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<td>3</td>
<td>Maintenance of automobiles</td>
<td>78,311.1</td>
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<td>80.7</td>
<td>83.5</td>
<td>86.3</td>
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<td>4</td>
<td>Durable goods for reading and recreation</td>
<td>34,483.9</td>
<td>80.0</td>
<td>68.5</td>
<td>95.7</td>
<td>72.8</td>
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<td>5</td>
<td>Ordinary food services</td>
<td>28,246.3</td>
<td>84.4</td>
<td>74.8</td>
<td>81.8</td>
<td>88.8</td>
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<td>6</td>
<td>Fresh vegetables</td>
<td>22,138.5</td>
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<td>95.3</td>
<td>105.9</td>
<td>110.5</td>
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<td>7</td>
<td>Reading and recreation goods</td>
<td>16,163.3</td>
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<td>90.2</td>
<td>90.6</td>
<td>86.9</td>
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<td>8</td>
<td>Prepared staple foods</td>
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<td>81.3</td>
<td>75.9</td>
<td>76.2</td>
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<td>Barber and beauty goods</td>
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<td>86.1</td>
<td>99.5</td>
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<td>87.6</td>
<td>83.8</td>
<td>85.1</td>
<td>88.3</td>
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</table>

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>11</td>
<td>Tabacco</td>
<td>-34,531.4</td>
<td>109.6</td>
<td>117.8</td>
<td>118.8</td>
<td>109.5</td>
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<td>12</td>
<td>Personal effects</td>
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<td>126.5</td>
<td>158.8</td>
<td>95.8</td>
<td>138.1</td>
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<td>13</td>
<td>Health and medical services</td>
<td>-17,596.3</td>
<td>127.5</td>
<td>138.5</td>
<td>126.2</td>
<td>125.3</td>
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<td>14</td>
<td>Women's clothing</td>
<td>-16,688.0</td>
<td>109.5</td>
<td>116.3</td>
<td>104.6</td>
<td>111.2</td>
</tr>
<tr>
<td>15</td>
<td>Other utilities</td>
<td>-1,097.4</td>
<td>119.4</td>
<td>121.4</td>
<td>126.0</td>
<td>117.6</td>
</tr>
<tr>
<td>16</td>
<td>Domestic services</td>
<td>-974.6</td>
<td>114.5</td>
<td>117.8</td>
<td>115.2</td>
<td>112.9</td>
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<tr>
<td>17</td>
<td>Other cereals</td>
<td>-460.8</td>
<td>100.7</td>
<td>104.4</td>
<td>105.4</td>
<td>92.9</td>
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<tr>
<td>18</td>
<td>Sweets</td>
<td>-423.6</td>
<td>80.6</td>
<td>81.6</td>
<td>80.7</td>
<td>79.3</td>
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<tr>
<td>19</td>
<td>Men's underwear</td>
<td>-263.3</td>
<td>108.8</td>
<td>112.4</td>
<td>101.7</td>
<td>110.2</td>
</tr>
</tbody>
</table>

Note: The contents of some items in the table are as follows:
- Engineering and other services: engineering, repair of arrangements of the house and yard – exchanging tatami mats, house repair, trimming plants
- Maintenance of automobiles: Products and services necessary to maintain transportation machinery - gasoline, maintenance, insurance.
- Durable goods for reading and recreation: Durable goods for reading, recreation, hobbies – television, stereo, personal computer, camera.
- Reading and recreation goods: Semi-durable and non-durable goods for reading, recreation and hobbies – stationery, sporting goods, pet supplies
- Prepared staple foods: Foodstuff with rice, noodles, bread – box lunches, rice balls, prepared bread.
- Personal belongings: personal effects and services – for example, umbrella, bags, wrist watches and the expenses of the repair of such goods.
- Health and medical services: necessary expenses for the maintenance of health and for the medical treatment for illnesses, expenses for hospitalization
- Other heat and light: heat and light expenses other than electricity and gas – kerosene, coal
- Domestic services: domestic services – housekeeper, house cleaning, repair of furniture and domestic appliances
- Other cereals: cereals other than rice, bread and noodles – wheat flour, rice cakes, buckwheat flour.

Source: "National Survey of Family Income and Expenditure" (Ministry of Public Management, Home Affairs, Posts and Telecommunications)
Change in the minds of elder citizens

- Conscious of going out
  - "Active": Go out actively
  - "If invited": Go out if invited by family or friends.
  - "Unwilling": Unwillingly go out when invited by family or friends.
  - "Wishing to avoid if possible": Wishing to avoid going out even when invited by family or friends.

Pleasure in daily life (multiple replies)

Source: "Research on daily life of elder citizens" (Cabinet Office)
(4) Qualitative change in unemployment

When the issue of unemployment has been discussed, the quantitative aspects such as the unemployment ratio and the actual numbers of the unemployed has been focused, however, the personal impact index and social impact index will be calculated to grasp a quantitative view of the “qualitative” aspect of unemployment.

The personal impact index will indicate the size of the effect of unemployment on the lives of the unemployed individual, and conceptually it indicates the average degree of the effect of unemployment per 1 unemployed individual. The personal impact index has shown a relatively flat transition from 1986 to 1988, and during the bubble economy of 1990 decreased by approximately 5 points, however, it turned into an increase of around 20 points in 2001 compared to 1990. In the third quarter of 2002, the index increased by 29 points compared to the 1990 index indicating that the condition of unemployment for individuals remained severe. From the degree of contribution by classification, the influence of long term unemployment since 1994 is getting larger. Furthermore, except for 2001, the influence of involuntary separation since 1998 has made a positive contribution suggesting that a severe employment adjustment is taking place.

The social impact index, measure the size of the influence of unemployment on the lives of the unemployed individual indicated by the personal impact index, aims at a quantitative expression of the qualitative effects of unemployment on society by considering the degree of possibility of the unemployed to stay in the society based on the factors other than employment, and will be calculated as a “personal impact index x social impact index.” The social impact index has continued to decrease since 1986 through the bubble economy. It bottomed out in 1990 and had increased from 1991 to 1999. Although there has been a decreasing trend since 2000, it has maintained relatively high level.

The social impact index has been drastically changing, and when evaluating unemployment, it is important to consider the qualitative influence together with the quantitative measures such as the unemployment ratio.
### Personal impact index

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Head of a household</td>
<td>0.73</td>
<td>0.09</td>
<td>0.7</td>
<td>0.94</td>
<td>0.84</td>
<td>0.83</td>
<td>0.81</td>
<td>0.77</td>
<td>0.74</td>
<td>0.72</td>
</tr>
<tr>
<td>Single household</td>
<td>0.27</td>
<td>1.00</td>
<td>0.01</td>
<td>0.73</td>
<td>0.87</td>
<td>0.60</td>
<td>0.10</td>
<td>0.12</td>
<td>0.11</td>
<td>0.10</td>
</tr>
<tr>
<td>Damage of unemployment</td>
<td>Regular member of prior job</td>
<td>1.00</td>
<td>1.00</td>
<td>1.10</td>
<td>0.93</td>
<td>0.76</td>
<td>0.94</td>
<td>1.09</td>
<td>1.12</td>
<td>1.07</td>
</tr>
<tr>
<td></td>
<td>Unemployment for reasons other than own conditions</td>
<td>0.65</td>
<td>0.93</td>
<td>0.89</td>
<td>0.63</td>
<td>0.48</td>
<td>0.60</td>
<td>0.59</td>
<td>0.81</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>Unemployment for own reasons (inverted cycle)</td>
<td>0.35</td>
<td>0.93</td>
<td>0.91</td>
<td>0.79</td>
<td>0.68</td>
<td>0.61</td>
<td>0.57</td>
<td>0.73</td>
<td>0.75</td>
</tr>
<tr>
<td>Difficulty in finding employment</td>
<td>Long term unemployment</td>
<td>1.00</td>
<td>1.15</td>
<td>1.12</td>
<td>1.21</td>
<td>1.31</td>
<td>1.03</td>
<td>0.94</td>
<td>0.89</td>
<td>0.96</td>
</tr>
<tr>
<td>Significance of employment</td>
<td>Main career</td>
<td>1.00</td>
<td>0.99</td>
<td>0.97</td>
<td>1.00</td>
<td>0.94</td>
<td>0.93</td>
<td>0.95</td>
<td>0.96</td>
<td>0.99</td>
</tr>
<tr>
<td>Personal impact index</td>
<td>100.0</td>
<td>102.5</td>
<td>98.5</td>
<td>92.8</td>
<td>85.3</td>
<td>88.1</td>
<td>89.2</td>
<td>92.6</td>
<td>92.7</td>
<td>98.0</td>
</tr>
</tbody>
</table>

| Unemployment rate (for reference) | 2.8 | 2.9 | 2.5 | 2.3 | 2.1 | 2.1 | 2.2 | 2.5 | 2.9 | 3.2 |

### Transition of the personal impact index and the unemployment rate

![Graph showing the transition of personal impact index and unemployment rate](image_url)

**Note:** Indications of 2002 are reference data for each quarter.

**Source:** "Special survey on labor force," "Labor force survey" (Ministry of Public Management, Home Affairs, Posts and Telecommunications)
The degree of contribution to growth to the personal impact index by classification

![Graph showing contribution to growth]

The social impact coefficient and the social impact index

![Table showing social impact coefficients and indices]

Transition of the indices of social impact and of the unemployment ratio (1986=100)

![Graph showing transition of indices]

(5) Import and export trends

The import export trend in 2002 reads that, for exports, the export (mining and manufacturing industry) of goods has increased by 8.3% compared to the previous year and the receipts of services has also increased by 7.4% corresponding to the increase of the total by 8.1%. For imports, the import (mining and manufacturing industry) of goods has increased for 4 consecutive years by 3.4% id. and the payments for services increased for the first time in 5 years by 1.6% id., corresponding to an increase for 4 consecutive years by increasing 3.0% id.

Though exports bound for the EU have decreased, those for the U.S., ASEAN9, and East Asia have increased. Imports have decreased for the U.S. and EU, however, they have increased for East Asia and ASEAN9.

Transition of exports by region (goods)

Index level (1995=100, seasonally adjusted)
Transition of imports by region (goods)

Index level (1995=100, seasonally adjusted)

Notes: 1. The import index by region is estimated by rearranging the foreign trade statistics by the classifications of the total supply index.
2. The regional classifications are as given below.
   ASEAN9: Singapore, Thailand, Malaysia, Burma, Philippines, Indonesia, Laos, Vietnam, Myanmar
   East Asia: South Korea, China, Taiwan, Hong Kong
   Middle East: Iran, Iraq, Bahrain, Saudi Arabia, Kuwait, Qatar, Oman, Israel, Jordan, Syria, Lebanon, the Unite Arab Emirates, Gaza and Yemen

Source: “Total supply table for the mining and manufacturing industry”