Trends of supply and final demand

Outline of supply

There was not a substantial change in supply for consumption of the entire industry (0.1% decrease from the previous term), being both the changes in personal consumption and in government consumption 0.1% decrease from the previous term.

Supply for investment of the entire industry increased by 0.7% for 3 consecutive quarters, due to 3.6% increase from the previous term of private investment in plant and equipment, though public investment and private housing fell down by 3.8% and 1.0% respectively.

<table>
<thead>
<tr>
<th>Year</th>
<th>7-9</th>
<th>1-3</th>
<th>4-6</th>
<th>7-9</th>
<th>1-3</th>
<th>4-6</th>
<th>7-9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Previous year</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Personal consumption</td>
<td>1.6</td>
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<tr>
<td>Government consumption</td>
<td>0.9</td>
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<tr>
<td>Total consumption</td>
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<tr>
<td>Private investment in plant and equipment</td>
<td>0.3</td>
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<td></td>
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<tr>
<td>Public investment</td>
<td>1.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Private housing</td>
<td>1.8</td>
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<tr>
<td>Total investment</td>
<td>0.3</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Source: "Total Mining and Manufacturing Supply Table", "Indices of Tertiary Industries Activity", "Total Construction Statistics" (Ministry of Construction), "Construction Price Index" (Construction Price Survey Group), "Input-Output Table for 1995" (Management and Coordination Agency)

Note: Supply index of the entire industry is an index estimated from averaged statistic indices on the supply side such as "Total Mining and Manufacturing Supply Table", "Indices of Construction Industries Activity" and "Indices of Tertiary Industries Activity" with the weight calculated from the figures on "Input-Output Table for 1995".
Studying the trends in consumption of this term from indices of supply for consumption of the entire industry (estimate), supply form mining and manufacturing industry rose by 1.3% from the previous term for 4 consecutive quarters, while supply form tertiary industries dropped by 0.4%, for the first time in 3 quarters, resulting in 0.1% decrease as a whole for the first time in 7 quarters.

Information-related consumption rose by 14.6% from the previous term, for the first time in 2 quarters.

Source: “Total Mining and Manufacturing Supply Table”, “Indices of Tertiary Industries Activity”, “Input-Output Table for 1995” (Management and Coordination Agency)

Note: Information-related consumptions are facsimile machines, PHS and mobile telephones, pagers, cordless telephones, personal computers, domestic electric communication industries (excluding mobile communication), mobile communication industries.

Source: “Total Mining and Manufacturing Supply Table”, “Indices of Tertiary Industries Activity”, “Input-Output Table for 1995” (Management and Coordination Agency)
While business profit is improving, household consumption is on a bearish trend, and increase in household income is to be expected. Comparing the changes in business profit and unit-labor cost, while business profit indicates recovery since January-March 1999 with the increase of ordinary profit, unit-labor cost that had been on a slightly upward trend until April-June 1999 even when business profit was low kept fluctuating after that, and still shows no signs of improvement. Analysis into factors of unit-labor cost indicates that between April-June 1997 and April-June 1999, when unit-labor cost was in a rise against the same term of the previous year, the factor of variation in the number of employees increased and the factor of variation in unit cost of employees contributed to the decrease, and in April-June 2000 when unit-labor cost dropped, the factor of variation in the number of employees had the largest contribution.

Note: Value added = Ordinary profit + Cost depreciation + Interest expense - Discount charge + Unit-labor cost
Source: "Quarterly Statistics of Corporations" (Ministry of Finance)

Note: Concerning the drop of unit-labor cost in April-June 2000 quarterly term, the facts that the Quarterly Statistics of Corporations changes its samples every year in April-June quarterly term and also that this is the season for the newly employed to join the companies have to be taken into consideration.
Source: "Quarterly Statistics of Corporations" (Ministry of Finance)
Studying the trends in investments for this term from indices of supply for investments of the entire industry (estimate), public investment and private housing decreased, though private investments in plant and equipment increased. As a whole, supply for investments increased by 0.7% for 3 consecutive quarters, and is still on upward trend.

Information-related investments increased by 9.1% from the previous term for 3 consecutive quarters, and non-information-related investments increased by 1.8% id. for 2 consecutive quarters.

Looking at the investment ratio in information-related products to the private investments in plant and equipment and final demand, the investment ratio in information-related products for this term grew by 28.3% to the private investments in plant and equipment (1.3 points increase from the previous term) and by 4.4% to the final demand (0.4 points id.) due to increase of software.

Note: Information-related investments are those defined in U.S. as information-related (computers and peripheral devices, office machines, communication devices, precision instruments and others), except precision instruments and others, which is inappropriate to be considered as information-related. Investments in software include only outside products.

Semiconductor products machinery are on a steady upward trend as a whole. Studying the trend by items, the enlargement of the caliber of the wafers and the minimizing of the width of the circuit lines since 1999 had an effect of pushing up most of the products. The ratio of sales on order of semiconductor products machinery stays on a high level of around 140% since July-September 1999. As it has steady order now, the shipment of semiconductor products machinery is expected to maintain this upward trend.

<table>
<thead>
<tr>
<th>Year</th>
<th>Mask-reticle producing equipments</th>
<th>Wafer producing equipments</th>
<th>Treatment equipments for wafer processing</th>
<th>Assembling equipments</th>
<th>Related equipments for semiconductor products machinery</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Notes: 1. According to Dynamic Statistical Survey of Production, semiconductor products machinery are divided into following categories: Mask-reticle producing equipments (equipments to produce the original plate to be printed on a wafer). Wafer producing equipments (monocrystal producing equipments, wafer processing equipments, testing and evaluation equipments, etc.). Treatment equipments for wafer processing (exposure and drawing equipments, etching equipments, film molding equipments, etc.). Assembling equipments (dicing equipments, mounting equipments, wire-bonding equipments, etc.). Related equipments for semiconductor products machinery (conveyor equipments, equipments for pure water and chemical fluids, equipments for clean room, etc.).

2. Related equipments for semiconductor products machinery include mask-reticle producing equipments.

Source: “Dynamic Statistical Survey of Production”

Notes: 1. Figures of Sales amount and Order amount are seasonally adjusted by X-11 default of X-12-ARIMA and turned into indices (Order amount average in 1995 = 100).

2. Ratio of sales on order is calculated from (Order amount / Sales amount x 100) averaged, shifting 2 quarters backward.

Source: “Statistical Survey of Machinery Order” (Economic Planning Agency)
Export for this term decreased by 2.7% from the previous term, owing to the decline of export for USA and EU, though export for Asia increased. Import from USA, EU and Asia increased, marking 1.6% increase from the previous term as a whole.

Notes: 1. Indices of export shipment by areas are estimated by rearranging trade statistics into classification of indices of shipment, and indices of import by areas, into classification of indices of total supply.
2. Areas are as follows:
   - ASEAN9: Singapore, Thailand, Malaysia, Brunei, Philippines, Indonesia, Viet Nam, Laos, Myanmar
   - East Asia: Korea, China, Taiwan, Hong Kong
   - Middle East: Iran, Iraq, Bahrain, Saudi Arabia, Kuwait, Qatar, Oman, Israel, Jordan, Syria, Lebanon, UAE, Gaza, Yemen
Import from East Asia is on a steady trend since last year, and especially the import from China, though it dropped this term for the first time in 8 quarters, is increasing at a rate far higher than the average of the entire East Asia.

Studying the changes in the trade relationship with China according to the specialization coefficient of trade by the category of goods, production goods keep an equilibrium between import and export, but durable goods have turned from export-specialized into import-specialized, due to overseas transfer of processing and assembling plants by Japanese manufacturing companies. Capital goods were turning from strongly export-specialized into balanced, but since around 1997, there has been a trend again toward export-specialization.

Note: Import indices by areas are estimated by rearranging trade statistics into classification of indices of total supply.
Source: "Total Mining and Manufacturing Supply Table"

Changes in specialization coefficient of trade toward China

Note: Specialization coefficient of trade = (Index of export shipment - Index of import - Import weight) / (Index of export shipment - Export weight + Index of import - Import weight)
Source: "Itemized Mining and Manufacturing Shipment Table", "Total Mining and Manufacturing Supply Table"