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**Recent Trends in the Japanese Economy:
The Japanese Economy under Deflation and
Prospects of Evolution**

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Recent Trends in the Japanese Economy: The Japanese Economy under Deflation and Prospects of Evolution

Summary

1. Following a mild recovery from a trough in early 1999, which turned out to be the shortest period of expansion after World War II, the Japanese economy has remained in recession, with painful adjustments resulting from the slump in IT-related markets which originated in the US.

On the supply side, industrial production dropped further, led by producer goods (intermediate materials including semiconductors and liquid crystals), almost reaching the lowest level since 1990. Tertiary industry activity has also leveled off, while construction activity remains sluggish. The industrial investment cycle is well into an adjustment phase, which began in early 2001 mainly due to falling shipments. From a cyclical perspective, a recovery is not expected until at least early 2002. Employment conditions are likely to worsen in the short term as the unemployment rate continues to record successive highs due to structural unemployment (mismatch between supply and demand) and as production is restructured to cope with globalization. The situation will likely worsen as structural reforms including the writing-off of non-performing loans continue.

On the demand side, there was nothing to offset the deteriorating economic performance: exports declined across the board to the US, Europe and Asia; consumption remained sluggish; and plant and equipment investment showed signs of weakness.

Personal consumption, which has been declining due to concerns about the future, including the budget deficit and pension problem, is expected to remain weak as income and employment conditions worsen. Plant and equipment investment has tended to fall in parallel with exports, after a weak recovery from late 1999 that was led solely by IT-related industries. The leading indicator points to a continued downtrend at least until the first half of 2002. Although housing investment was boosted by tax relief measures for new housing introduced in 1999, it has again begun to decline mainly due to falling investment in owner-occupied houses. Public investment is likely to continue falling in view of the on-going budget reforms. Exports have been decreasing substantially. Meanwhile, the diminishing domestic demand caused imports to fall in early 2001, after consecutive increases due to structural factors, mainly from China.

In the financial sector, despite the quantitative monetary easing policy adopted by the Bank of Japan (which will be continued until consumer price inflation stabilizes above zero), commercial banks continue to invest their assets in the relatively low-risk government bonds to the detriment of lending. Yields on government bonds remained almost on a par, with concerns about the budget deficit offsetting the increase in investment. Consumer price deflation has clearly set in, with industrial product prices falling since late 1999. Thus, the quantitative monetary easing policy will be maintained for some time.

2. The Japanese economy is currently suffering increasingly serious cyclical and structural adjustments under deflation, and concerns about the sustainability of the economy are mounting. Despite this, there are prospects of evolution in some industries that are adapting to the new environment. This report examines the possibility that a new dynamism will emerge from meeting the four challenges facing the Japanese economy: the weak potential for recovery of the

corporate sector; the shrinking trade balance; the malfunctioning of financial and capital markets; and the saturation of household expenditure.

First, the corporate sector may recover as a result of business restructuring. For example, the recent improvement in performance in transport equipment is largely due to substantial reductions in production capacity and the consequent rise in operating rate. Increased liquidity of corporate assets, which can be observed across all business categories and corporate scales, will also have a stimulatory effect through the efficient redistribution of resources. Furthermore, the industrial structure has been changing dynamically even in recent years, chiefly in response to technological innovation, changing consumer preferences, as well as to deflation and uncertainties.

Second, the recent decline in trade surplus, which has caused much concern, may be attributed to cyclical factors including IT goods, rather than to structural factors. Thus, exports increased steadily even in the latest period for high value-added products. The accession of China to the WTO should create substantial business opportunities, including increased exports thanks to custom tariff reductions as well as direct investment. The domestic industry should strengthen its export competitiveness and specialize in the development and production of high value-added products.

Third, concerns about the malfunctioning of financial and capital markets may be addressed by swiftly improving access to stock markets for venture firms and other emerging businesses, including the relaxation of listing requirements on JASDAQ in late 1998 as well as the creation of TSE MOTHERS in late 1999 and Nasdaq Japan in June 2000. Also, M&A is progressing in Japan for improving the efficiency of managerial resources, as established firms continue to restructure their businesses.

Fourth, changing housing preferences, the recycling of durable goods and the importance of investment in human resources should be noted regarding concerns about the saturation of household expenditure. As regards housing, houses for rent, used houses and housing renovation will become more important markets, to the detriment of new and owner-occupied houses. It was found that the Japanese used house market has more room for development than in the US. Likewise, used markets are also likely to develop not only for automobiles but also for other durable goods including through Internet auctions.

Concerning investment in human resources, expenditure on children's education has been rising strongly since the 1990s, and there is a strong willingness to spend money on lifetime education. A system for evaluating the quality of education will be needed to ensure that such willingness will materialize into actual spending. Finally, it is important to note that greater equality of information between suppliers and users will help improve efficiency through the redistribution of resources, which in turn will improve the social welfare through broader choices for consumers.

I The Japanese Economy Amid Serious Adjustment

1. Overview: Continued Drop in Production with a Risk of Further Decline (see p. 25 for figures)

The Japanese economy remains in recession¹. Production continues to slide, affected by the stagnant US economy and the deterioration of markets related to information technology (IT). On the demand side, the adjustment has become increasingly painful with nothing to offset the deteriorating economic performance. In addition to the declines in exports and capital investment, consumption, which had remained relatively firm despite some weakness, has now begun to fall as a result of the worsening employment situation. Looking ahead, aggregate demand is likely to decline further due to global political and economic instability following the terrorist attacks in the US. Although inventories have been reduced in some industries, the outlook for adjustment in the months ahead remains bleak.

Real GDP for fiscal 2000 grew 1.7% from fiscal 1999 (up 1.9%), a second consecutive year of positive growth. The 0.1% drop in consumption from the previous year was no more than offset by increases in exports (up 9.4%) and plant and equipment investment (up 9.3%). In fiscal 2001, however, real GDP recorded the first year-on-year decline in nine quarters in the April-June period (down 0.4%) as exports fell. Negative growth continued in the July-September period, down 0.5% on the previous year (Figure 1-1).

By demand component, private final consumption expenditure has declined slightly due to the deterioration of income and employment conditions. Real private consumption in fiscal 2000 declined for the first time in three years, but by only 0.1%, as stronger corporate profits did not translate into higher household incomes. In nominal terms, it declined for the first time since fiscal 1981 (down 1.3%) under the current standard. Despite expectations, incomes have not grown and consumption has not recovered so far in fiscal 2001. Thus, seasonally adjusted real private consumption declined on the previous quarter for two straight quarters from the April-June 2001. The quick response of the corporate sector to the expected decline in profits has impacted not only overtime pay and the ratio of job offers to applicants, but also on lagging indicators such as regular wages and salaries, bonus and unemployment rate. Concerns about the worsening employment situation are also affecting consumer confidence and may lead to further declines in consumption.

Plant and equipment investment is on the decline on a quarterly basis. Investment in fiscal 2000 increased in real terms for the first time in three years (up 9.3%), thus leading the second consecutive annual GDP growth along with exports. On a quarterly basis, however, signs of a slowdown were already apparent in January-March 2001, as seasonally adjusted real investment recorded the first decline in seven quarters, following the slump in IT-related markets which started in the autumn of 2000. Although preliminary GDP data indicates an increase of investment for a second consecutive quarter since April-June period, other data including the Statistical Survey of Incorporated Enterprises and the shipments of capital goods suggests that plant and equipment investment continued to fall. The weak trend is expected to continue for some time as machinery orders, the main leading indicator, continue to decline, particularly in the manufacturing sector, affected by substantial downward revisions to closing accounts and investment plans.

Housing investment remains low. Investment in fiscal 2000 declined 1.5% in real terms, mainly for owner-occupied houses, as the inflationary effect of the housing loan tax reduction subsided. In fiscal 2001, investment continued to fall on the previous year in real terms, down

¹ The most recent peak of the Japanese economy is estimated to have been around October 2000.

9.4% in April-June and 7.7% in July-September. In addition to the falling investment in owner-occupied houses, investment in condominiums for sale, which remained relatively firm, showed signs of weakness such as the decline in contract rate and increased inventories. Overall, housing investment is expected to remain weak in the months ahead.

Reflecting financial difficulties, public investment remains subdued. In fiscal 2000, it fell for the second straight year, recording the biggest drop since fiscal 1981 under the current calculation standard of 7.4%. On a quarterly basis, public investment has been declining since October-December 1999 (year-on-year change in real terms, excluding January-March 2001, when investment did not change on the previous year). It represented 6.5% of GDP in July-September 2001, showing a substantial drop from about 8% in early 1999 (in seasonally adjusted nominal terms). Investment by the central government will decline further, due to its budget reform policy including the ¥3 trillion cap on bond issues, as well as by local governments, which are in financial difficulties.

Exports declined both to Asia and to Europe and the US. Although exports in fiscal 2000 recorded the biggest increase in real terms since fiscal 1984, up 9.4%, they fell from the previous quarter in seasonally adjusted real terms in October-December 2000. The downtrend has accelerated so far in fiscal 2001 as the recession in the US has begun to affect European and Asian economies. Thus, exports in April-June dropped in real terms from the previous year for the first time in eight quarters, followed by a much sharper drop of 10.1% from the previous year in July-September.

Imports are also declining. Although they increased strongly by 9.6% in real terms for fiscal 2000, there was a slowdown toward the end of the fiscal year due to the domestic recession, followed by the first decline in ten quarters in July-September 2001.

In fiscal 2000, the contribution of net exports (real terms) remained positive for the fourth straight years. On a quarterly, year on year basis, however, it turned negative in January-March in 2001 as exports started to slow down earlier than imports. Prospects for the US economy, on which exports depend, have become increasingly uncertain following the terrorist attacks. Coupled with the structural factor of increased imports due to the transfer of production facilities overseas, some pessimists suggest that the negative contribution of net exports will continue or even worsen, forcing the Japanese economy to make even more painful adjustments.

The Cabinet Office, in its revised economic outlook for fiscal 2000 (published on November 9, 2001), revised downward its estimate of real GDP growth for fiscal 2001, from the original 1.7% defined in the government outlook (Cabinet Meeting Decision on January 31, 2001) to 0.9%, thus predicting the first negative growth in three years.

To confirm this change in GDP from the supply side, Figure 1-2 shows the trend of major production indicators covering the activities of all industries; industrial production index (weighted 22.4%), tertiary industry activity index (59.5%) and construction activity index (8.1%), all seasonally adjusted.

The industrial production index turned down in January-March 2001, with reduced demand for electric machinery and other IT-related industries affecting the production of producer goods. IT demand showed no signs of recovery with sharper drop of capital goods affected by stagnant plant and equipment investment, and the index dropped substantially for three straight quarters to July-September 2001, down 4% approximately in each quarter (an annualized rate of about 17%). This level is already lower than the trough recorded in the previous recession. An estimate based on the Forecast Survey on Manufacturing Production indicates a drop of about 2.4% for the following October-December period. Since the survey estimates tend to be revised downward to better reflect actual performance, a sharper drop may be expected.

The tertiary industry activity index has leveled off mainly due to the decline in services and

wholesale/retail sector against the backdrop of shrinking corporate activities and sluggish consumption, recording a decline for two straight quarters (first time since January-March 1995). The overall slump has also cast a shadow over leading industries. For example, the index for communications, an industry that previously led the tertiary sector with sustained growth, has declined for four straight months.

Despite a temporary recovery in January-March 2001, mainly attributable to the progress of public works projects, the construction activity index has remained low, reflecting the underlying weakness of both private and public demand.

2 Substantial Decline in Shipments and Protracted Inventory Adjustment (see p. 26 for figures)

On a graph with the year-on-year growth of inventories plotted on the horizontal axis and that of shipments on the vertical axis, the level of inventories is empirically known to move in clockwise circles. This confirms the existence of the inventory cycle: although producers try to adjust production to shipment volume, the time lag between noticing a change in shipment growth in parallel with the economic cycle and the subsequent adjustment of production volume causes swings in the inventory level.

For instance, when shipments grow in parallel with the economy, producers intentionally build up inventories by increasing production to avoid missing emerging business opportunities (intentional buildup phase). Subsequently, the growth of inventories exceeds that of shipments as the economy peaks out (crossing the 45-degree line in the first quadrant from upper left to lower right). This means that inventories, despite the efforts of producers, continue to increase above a reasonable level (unintended accumulation phase). Further recession, hence further decreases in shipments, forces producers to cut back production at a pace faster than the decline in shipments until inventories fall to a reasonable level (inventory adjustment phase). As the economy subsequently bottoms out and shipments start to recover, however, inventories will then decrease faster than shipments (crossing the 45-degree line in the third quadrant from lower right to upper left), which means an unwanted reduction in inventories by producers (recovery phase). Realizing that inventories have fallen below a reasonable level, they start to increase production again. This creates the inventory cycle consisting of the above four phases.

According to this concept, the inventory cycle for the mining and manufacturing sector (Figure 1-3) as of July-September 2001, indicates that the increase in inventories slowed somewhat due to reductions in some industries and for some products, while the decline in shipments as a whole accelerated to double figures. The locus of the current cycle on the graph stayed inside the previous cycle until April-June 2001, implying that the current adjustment would be relatively mild. However, it moved outside the locus of the previous cycle toward the bottom in July-September, thus revealing the characteristics of the current cycle, i.e. modest growth of inventories and substantial drop in shipments. In the previous cycle, the locus began to turn toward the third quadrant in April-June 1998, and crossed the 45-degree line in three quarters to enter the recovery phase. In the current cycle, the slower pace of adjustment (weaker turn) indicates that the adjustment is going to be protracted mainly due to shipment (demand) factors.

By type of goods, the shipments of capital goods (Figure 1-4) recorded a substantial drop of over 8% from the previous quarter (annual rate of about 30%) in the recent two quarters due to overall controls on plant and equipment investment. The year-on-year decline also reached double figures in July-September 2001. Inventories grew only slightly from the previous year, up 1.0%, implying a quick response in terms of production adjustment. As regards construction materials (Figure 1-5), there has been a sharper decline in shipments – though milder than for capital goods – due to the sluggishness of construction investment in private housing, private

non-housing and public demand. The growth of inventories has accelerated slightly. Concerning consumer goods (Figure 1-6), shipments continued to decline due to reduced exports of durable goods and sluggish domestic consumption, but inventories grew very little. As for producer goods (Figure 1-7), shipments started to decline earlier than for final demand goods, due to the deterioration of IT-related markets. The locus of the current cycle has stayed outside that of the previous cycle, reflecting the seriousness of the adjustment. However, inventories have been adjusted somewhat, as they fell below the previous year's level in July-September 2001 in some industries and products including the electric machinery related and semiconductor integrated circuits, which had experienced the sharpest drop in demand among producer goods. Nonetheless, the decline in shipments has accelerated for all producer goods, including the industries and products mentioned above, and so the ongoing adjustment process may be protracted still further.

3. Employment Conditions: Deteriorating (see p. 27 for figures)

Employment conditions are deteriorating in response to the production decline. Figure 1-8 shows the ratio of job offers to applicants dropped to 0.59 in the most recent period (July-September 2001) after peaking at 0.65 in October-December 2000. This was partly because the number of job seekers increased but job offers are also weakening; job offers in the manufacturing sector has dropped below the previous year's level for two consecutive quarters, and the increase of the offers in services and wholesale/retail is getting smaller. The unemployment rate exceeded 3% in January-March 1995 and 4% in April-June 1998, and now it has risen over 5% in July-September 2001. The figure is the lowest since 1953, the earliest year for which comparable data are available. The deterioration of employment conditions in the autumn is particularly significant after witnessing some increase in job offers and stable unemployment rate during the summer.

Figure 1-9 shows the trend of the number of unemployed. It reached 3.43 million in July-September 2001, up 290,000 from the previous year. Regarding reasons for unemployment, involuntary severance (at the employer's convenience) resumed to increase. Also, voluntary quit for personal reasons increased for the two consecutive months, partly due to they become more selective especially among young workers, but also due to the rise in voluntary retirement as early retirement is treated favorably.

According to the Labor Force Survey, the number of the employed in July-September 2001 declined from the previous year for the second straight quarter, by 530,000. By industrial sector (Figure 1-10 (1)), the number of manufacturing fell for the second consecutive quarter (520,000 decrease in July-September)², and for the third consecutive quarter in construction (down 260,000). Although the number employed in the service sector increased for the eighth straight quarter (up 490,000), the increase was smaller and not sufficient to offset the decreases in other sectors. The trend by status of employment is shown in Figure 1-10 (2). The self-employed and family workers have decreased substantially for seven years at an annual rate of 4-5%. The number of regular employees³ also fell in the most recent period, while the long-term increase in temporary and daily employees has slowed down. Finally, Figure 1-10 (3) shows the trend by size of corporation. The number of employees in large-sized firms dropped significantly, partly because large numbers of manufacturers fall into this category. Recently, quite a few leading companies announced plans to cutback their personnel in succession, and the employment

² In the recent 12-month period, huge drops were recorded in the processing and assembly sub-sector including general machinery, electric machinery and transport equipment.

³ Regular employees are defined as "workers employed on contracts for over one year or for undetermined period." Workers who are employed on contracts for one year or less are classified into temporary and daily employees.

situation seems to be getting worse. Finally, Figure 1-11 indicates a decline for the third straight quarter in overtime hours, an indicator of short-term adjustments.

The long-term trend of the employment shift from manufacturing to services, or increasing role of temporary workers are still under way. But the present changes are marked by the decrease in self-employed and cutbacks in large-sized firms, if compared with the previous downturn in 1998. However, the current trend cannot be understood as a transitional phase when restructuring economy unless we observe new job opportunities are created. Just how far will the current adjustments continue?

4 Consumption: Weak due to Deteriorating Income and Employment Conditions (see pp. 28 – 29 for figures)

Figure 1-12 shows trends in wages and salaries per person according to the Monthly Labor Survey. The total declined from the previous year in each of the two quarters in fiscal 2001. In July-September, regular wages and salaries, overtime pay and bonus and special earnings all declined, accumulated in an overall drop of 1.2% from the previous year. As shown in Figure 1-13, regular wages and salaries declined due to the record low rate of the annual wage increase in spring, as well as to the rising share of lower-paid part-time workers. By industry, construction and transport workers are tend to be employed by hourly-basis, and experienced a greater decline. Bonus, which represents a major part of the “bonus and special earnings” heading (Figure 1-13), rose for the first time in six seasons in 2000, but then dropped in the following two seasons, i.e. the winter of 2000 and the summer of 2001.⁴ Looking ahead, bonus prospects this winter are bleak in light of the weakening corporate performance. The annual spring offensive for 2002 is likely to result in a record low pay raise again, as the focus shifts toward securing jobs. Although falling prices increase real purchasing power, the current income conditions and future prospects continue to discourage consumption.

Total household consumption expenditure, a major indicator on the demand side, has declined from the previous year so far in fiscal 2001. The growth rate adjusted for the shrinking household size, etc. (Figure 1-14)⁵, indicates consecutive declines in nominal consumption expenditure from 1999, with the only exception of October-December 2000. Although real consumption is actually firmer due to the price drop, it has fallen from the previous year for two consecutive quarters. Furthermore, the consumption expenditure of single-member households has been declining since the beginning of 2000 at an even faster rate (down 6.3% in April-June, down 2.9% in July-September).

In order to identify the factors behind the slumping consumption, Figure 1-15 breaks down the year-on-year growth of real consumption spendings of workers' households into three factors: income (pre-tax income including regular wages and salaries, overtime pay and bonus), tax and charges (income tax, inhabitant tax, social insurance premium, etc.) and consumption propensity (ratio of consumption to disposable income, which is income minus tax and charges).⁶ Income has made a negative contribution almost continuously since 1998. In addition,

⁴ According to the Special Monthly Labor Survey, covering business establishments employing one to four workers, which represent 15% of the work force, total wages and salaries in July 2000 declined 1.0% from the previous year, while bonus and special earnings in the recent 12 months dropped 3.7%, thus recording a sharper drop than in enterprises with 5 or more workers.

⁵ Here, items that are not subject to direct spending by households (gifts and remittances) are excluded as well as automobiles, which fluctuate widely. Data were then converted to those for four-member households to count out the influence of the downtrend in the number of household members.

⁶ Due to wide fluctuation, the growth is broken down after calculating the moving average of the quarter and the following quarter. The downtrend is all the more clear than in Figure 1-14 because no adjustment is made for the number of household members, etc.

consumption propensity, which made positive contributions during the economic recovery phase from 1999, turned negative in fiscal 2001. In January-March 2001, consumption propensity reached the highest level in four years at 73.2 (seasonally adjusted figure), largely due to the eleventh-hour demand before the implementation of the Recycling Law which charges to the disposal of four major durables; tv, washer, refrigerator, and air conditioner. In the following April-June period, however, it plummeted to 69.5 (seasonally adjusted) and is currently at a record low.⁷

Among the supply indicators related to consumption, the retail sales index (January-March 1995=100; Figure 1-16) improved slightly from 2000 to January-March 2001, but has been declining in fiscal 2001. By item, declines continued in textiles, clothing & personal goods and foods & beverages partly due to falling prices. Retail sales were led by home appliances, thanks to the surge in demand just before the Recycling Law was implemented, and by buoyant automobiles sales, mainly of new models. Subsequently, however, retail sales declined for two consecutive quarters as sales of personal computers suffered double-digit declines from the previous year due to market saturation and price reductions.

Car sales (Figure 1-17) plummeted after the consumption tax hike but have recovered gradually since the trough in January-March 1998. Sales increased during the last 12 months, led by small-sized vehicles thanks to the successive launch of new models. On a monthly basis, however, the volume has been lower than that of the previous year since September. Particularly in October, the sales of small-sized vehicles, declined for the first time in 12 months. Although new models will be launched in the months ahead, car sales will decline in the latter half of the current fiscal year.

As regards tourism sales (Figure 1-18), the firm demand for overseas tours collapsed after the terrorist attacks in the US, falling by as much as 25.7% in September and 46.1% in October. Thus, total sales (the sum of domestic tours, overseas tours, and tours for foreigners) declined 0.6% on the previous year in the first half of fiscal 2001. Domestic tours remain relatively firm despite falling unit prices, but the per person expenditure is only one fifth of that of overseas tours, and so the shift from overseas to domestic tours will be insufficient to maintain total sales. Although overseas tours only represent less than 1% of household expenditure,⁸ the negative impact may spread further such as by postponing spending associated with tours, or reduced purchase of clothing and other travel goods.

Finally, various questionnaire surveys reveal that consumer confidence is falling (Figure 1-19). The consumer confidence index, which represents consumer outlook for the coming six months, improved toward last summer buoyed by the start of the Koizumi administration, but declined sharply in the most recent survey. Among the five components of the index, "employment" in particular has declined for four straight quarters, thus lowering the whole index in the September survey. Although it is difficult to compare consumer confidence survey data by levels, the trend since 1990 indicates that "prices" are at the highest level (i.e. prices are falling), while the other three indicators – "overall livelihood," "income growth" and "employment" – are at the lowest levels. Even though falling prices are beneficial for consumers, this is more than offset by the deteriorating consumer environment such as future income and employment. A similar trend can be observed in the livelihood instability index. Reflecting the terrorist attacks in the US,

⁷ Due to the so-called mad cow disease, the September Family Income and Expenditure Survey indicates a 20.3% drop from the previous year in beef consumption expenditure, as well as the first decline in eight months in spending on fast-food hamburgers. Although its impact on overall consumer spending has not been identified due to possible increase in demand for alternative products, the possibility of less active consumer attitude cannot be ruled out despite the difficulty of measuring any such change in attitude.

⁸ In calendar 2000, an average two-member household spent ¥2,805,600 in total, of which overseas tours represent ¥25,614. Incidentally, it spent a similar amount (¥26,140) on beef.

outbreaks of mad cow disease in the country and major bankruptcies, instability increased substantially in the October survey and reached the highest level since the survey began.

Overall, consumption was poor during the economic recovery phase since 1999, partly because income and employment conditions remained weak. Strong car sales, department store sales and overseas tours were expected to prevent demand from falling as the economy moved into a recession, but this did not happen. Income and employment conditions are deteriorating rapidly and consumer confidence are sinking. In general, consumption is much more smooth than other demand components and has shown gradual increase as population and number of households grow, but cannot be expected to grow for the time being.

5. Plant and Equipment Investment: Decreasing with No Sign of Recovery (see p. 30 for figures)

Return on investment, which is defined as operating profit-tangible asset ratio minus average lending rate of banks on new loans according to the Statistical Survey of Incorporated Enterprises, etc. is strongly correlated with the year-on-year growth of plant and equipment investment (Figure 1-20). Empirically, the threshold return on investment vis-à-vis the change in plant and equipment investment is 5% for manufacturing and 2.5% for non-manufacturing.

The recent trend indicates that in the manufacturing sector, plant and equipment investment rose in April-June 2000, a little later than the improvement in return on investment, and showed a strong increase of 22.6% in January-March 2001, which was almost as high as in the bubble era. However, since peaking in October-December 2000, return on investment has fallen rapidly due to the recession. In July-September 2001, it finally fell below the threshold of 5%, while plant and equipment investment declined for the first time in six quarters (down 2.7%), particularly in electric machinery (down 17.2%). In the non-manufacturing sector, plant and equipment investment has almost consistently sluggish compared to the return on investment since 1998, as controls are still in place in industries facing strong pressure to reduce costs mainly due to deregulation. Since the latter half of 2000, investment has been weak despite fluctuating; return on investment remains above the threshold but has leveled off. On a seasonally adjusted quarterly basis, plant and equipment investment has been declining as a whole, since peaking in October-December 2000.

Machinery orders (private demand excluding ships and electricity), which usually lead plant and equipment investment by approximately two quarters, fell substantially from the manufacturing sector including electric machinery (down 20.5% from the previous year in July-September 2001). Orders from the non-manufacturing sector stayed firm in 2001 despite the recession, but declined from the previous year for the first time in eight quarters in July-September 2001 due mainly to the slowdown in communications. According to the Cabinet Office outlook for October-December 2001, orders from manufacturing will decline further by 29.2%, the sharpest drop under the current standard (since April-June 1987). Although non-manufacturing orders will grow by 2.2%, the figure may be revised downward because it was calculated based on the good performance in the most recent three quarters. Based on trends in industrial production and tertiary sector activity, machinery orders are considered to be still falling, which implies that capital investment will continue to decline at least until the first half of 2002.

6. Housing Investment: Decreasing (see p. 31 for figures)

Following a decline in October-December 1998, housing starts (seasonally adjusted annual rate) have hovered around 1.2 million units since 1999, thanks to tax relief measures on housing loans (Figure 1-22). Figure 1-24 shows the trend since 2001 in detail. The construction of owner-

occupied houses declined from the previous year due to the deterioration of employment and income conditions, as well as reaction to the eleventh-hour construction starts before the deadline of the tax relief measures.⁹ Meanwhile, the construction of housing for sale remained firm, and housing for rent, relatively small-sized properties in particular, rose. Construction starts for owner-occupied houses have continued to fall 5% from the previous year since January-March 2001.

The floor area of housing starts (Figure 1-23) has declined since January-March 2001. By category (Figure 1-25), owner-occupied houses led the decline as in the case of the unit number of housing starts. However, owner-occupied houses made a larger contribution to the drop in floor area than in unit numbers, as they have a larger area per unit. Indeed, the floor area of newly constructed owner-occupied houses has fallen 7.8% from the previous year since January-March 2001.

Thus, housing starts (seasonally adjusted annual rate) have exceeded 1.2 million units since 1999, but real housing investment (seasonally adjusted annual rate) has fallen significantly since January-March 2001, due to the reduction in floor area (Figure 1-26).

The construction of condominiums was buoyant in fiscal 2000 (Figure 1-27). Although high-rise condominiums and other quality properties still sell very well, the fall in contract rate and the rise in term-end completed inventories point to increased selectiveness among consumers as a whole.

7. Public Investment: Declining due to Financial Difficulties (see p. 32 for figures)

As a result of two economic stimulus packages in 1998 (totaling ¥40 trillion), in early 1998 public investment (public capital formation, seasonally adjusted nominal value) reached its highest level since 1996, exceeding 8% of GDP (seasonally adjusted nominal value) (Figure 1-28). It then declined to the level of 6-7% of GDP after July-September 2000, though it rose temporarily thanks to an economic renewal package (decision in November 1999, totaling ¥18 trillion).

In the most recent period, financial difficulties among local governments suppressed their investment, which accounts for 70% of total public investment. The impact of those difficulties has limited the effect of economic stimulus measures, by preventing local governments from entirely implementing public works projects within the framework of the New Development Policy (decision in October 2000, totaling ¥11 trillion). Thus, public investment is expected to continue to fall.

The contract value of public works, the leading indicator, recorded an increase of 11.7% in fiscal 1998 thanks to economic measures. It then fell as projects by local authorities were scaled back, declining by 9.1% in fiscal 1999 and by 12.9% in fiscal 2000 (Figure 1-29). It was still falling in the most recent period, although the reduction in public works implemented by the central government narrowed partly due to the effect of the New Development Policy.

While spending on public works has been decreased, annual revenue has also been declining due to the recession, income situation and tax reductions, resulting in large budget deficits in both the central and local governments. As budget deficits have been covered by central and local government bond issues, outstanding public bonds have increased sharply, and outstanding of total long-term debts is expected to reach ¥666 trillion by the end of fiscal 2001, or about 130% of GDP (Figure 1-30).

Although a supplementary budget was prepared in November 2001, additional spending

⁹ The eleventh-hour construction starts may have resulted from the fact that the original housing loan tax reduction measures (applicable to those who moved into the new houses before the end of June 2001) were more beneficial than the so-called new tax reduction measures (applicable to those who move into the new houses between July 2001 and the end of December 2003) in terms of the period of deduction and the total amount covered.

amounts to just over ¥1 trillion (of which central government expenditures related to public investment account for ¥0.5 trillion) (Figure 1-31). Also, the second supplementary budget, to be submitted to the Diet in January 2002, envisages additional spending of only ¥2.5 trillion, as the Koizumi cabinet remains committed to keeping the central government bond issues to within ¥30 trillion. Thus, public investment will continue to be tightly controlled, in contrast to its large growth in the post-bubble period.

8. Exports and Imports: Both Dropping (see p. 33 for figures)

Figure 1-32 shows the trend of the real effective exchange rate of major currencies. The yen remained weak following its depreciation in January-March 2001. The US dollar slightly appreciated until April-June 2001, but in the following July-September period, the rise of the dollar slowed along with the US economy. The euro continued to depreciate until November 2000, but rebounded from December and rose substantially in January-March 2001 mainly due to concerns about the slowing US economy, then stabilized.

How have Japanese exports and imports performed in this foreign exchange environment? Figure 1-33 shows the trend of export and import volumes in terms of seasonally adjusted monthly index. Export volume has fallen significantly so far in 2001, as overseas economies have slowed. The growth of import volume slowed down in early 2001 and then reversed, reflecting the slowdown of the domestic economy.

Figure 1-34a shows export volume by countries. Exports to the US have declined continuously since January-March 2001. Exports to Asia, which led the growth of net exports in 1999 and 2000, recorded significant drops from the previous year since January-March 2001, as the slowing US economy affected the Asian economy due to large falls in demand for IT-related goods. Exports to the EU also declined mainly due to the slowdown in the German economy.

Figure 1-34b shows the trend of shipments for export by type of goods according to Indices of All Industries published by the Ministry of Economy, Trade and Industry. In April-June 2001, shipments of capital goods grew, led by general machinery exports to China, while shipments of producer goods including semiconductor integrated circuits plunged, along with consumer durable goods including automobiles.

The decline in import volume (Figure 1-35a) since April-June 2001 was largely due to reduced imports from the US. Imports from Asia also fell in the same period after growing strongly.

Figure 1-35b shows the trend by type of goods according to Indices of All Industries. Imports of consumer durable goods increased from the previous quarter in April-June 2001, led by VCRs, for which production facilities have been transferred overseas. Meanwhile, imports of the production goods decreased from the previous period for two consecutive quarters, in January-March and in April-June. This was largely due to falling imports of semiconductor integrated circuits caused by the decrease in demand for personal computers.

9. Lending Declines under Low Interest Rates through Quantitative Monetary Easing (see p. 34 for figures)

In terms of financial policy, additional measures for quantitative monetary easing have been implemented through massive funding of short-term financial markets since March 2001, when the quantitative monetary easing policy was first introduced by shifting the target of guidance from the inter-bank overnight lending rate (unsecured call) to the current account balance of the Bank of Japan (Figure 1-36). Thus, the target for the BOJ current account balance was raised from ¥5 trillion to ¥6 trillion in August, by taking measures to increase the monthly amount of government bond buying operations from ¥400 billion to ¥600 billion. Following the terrorist

attacks in the US in September, the guidance target for the current account balance was officially stated to be ¥6 trillion or over, and the funds for yen-selling intervention in foreign exchange markets were unsterilized.

In the financial markets, the inter-bank overnight lending rate (unsecured call) was guided to the level of 0.25% for six months following the temporary abandonment of the zero-interest policy in August 2000. Since then, the rate has returned to almost zero, reflecting the reduction in the target rate in February 2001 and the effective reintroduction of the zero-interest policy with the adoption of the quantitative monetary easing policy in late March.

Yields on three-month CDs (ask), which are representative of short-term interest rates, rose slightly in late 2000 due to the suspension of the zero-interest rate policy and seasonal demand for funds in the year-end period. However, yields have remained around 0.1% in general after actually restoring the zero-interest policy in February 2001. Meanwhile, yields on 10-year government bonds, an indicator of long-term interest rates, rose to almost 2% in September 2000, following the suspension of the zero-interest policy, but then fell again. They fell twice below 1.2%: in March 2001, due to concerns about rapid recession as symbolized by the collapse in share prices; and in June, due to the expectation of government bond issue reduction through fiscal reconstruction to be implemented by the new Koizumi cabinet. The yield was 1.3-1.4% in the most recent period, as the market weighed concerns about the budget deficit against the difficulty of investing elsewhere.

The monetary base fell from the previous year in late 2000 and early 2001, in reaction to the massive supply of funds related to the potential Y2K problems, followed by accelerated growth reflecting the quantitative monetary easing policy. It recorded significant increases of 14.2% in September and 14.3% in October (Figure 1-37). The growth of money supply (M_2+CD) from the previous year dipped temporarily to around 2% in the latter half of 2000, but accelerated thereafter, reaching around 3.5% in the latest period. The credit multiplier, which is the money supply divided by monetary base, reached 13 in early 1999, but dropped below 9 in the latest period, as the monetary base grew faster than the money supply. Staying at almost the lowest level since 1970, it undermines the effect of the current financial policy.

On the credit side, the increase in M_2+CD is largely attributable to the purchase of government bonds as well as to the significant increase in foreign bond purchases in the most recent period. The slow increase in money supply can therefore be explained primarily by decreases in other factors including lending to the private sector (Figure 3-38). Outstanding commercial bank loans have decreased from the previous year since 1998. In the latest period, they declined about 2% from the previous year after adjustments for special factors (Figure 1-39). Thus, commercial banks, with increased deposits, are avoiding the credit risk inherent in new loans and allocating their money in stable assets including government bonds.

10. Downturn in the Wholesale Prices and Continued Decline in the Consumer Prices (see p. 35 for figures)

International commodity prices (excluding crude oil) (Figure 1-40) fell in January-March 2001 due to weakness in the markets. Demand declined as the world economy stagnated, and supply increased for some commodities including coffee, following good harvests.

The Wholesale Prices of domestic demand goods (weighted average of domestic and import prices) continued to rise as a whole until April-June 2001, with upward pressure coming from raw materials, mostly imports, due to foreign exchange factors, and rising crude oil prices offsetting weak demand for intermediate goods. However, they then fell in July-September as the effect of crude oil prices on intermediate goods waned.

The Consumer Price Index¹⁰ (excluding fresh foods) has declined year-on-year since 1999, with steeper drops since October-December 2000, and the trend was the same in the most recent period. By component, goods prices (agricultural & aquatic products and industrial products) have been falling from the previous year, with a sharper decline in July-September 2000. The decline is largely attributable to falling industrial product prices resulting from technological innovation and loose markets. In the service sector, private service prices have been rising, whereas public service prices fell in October-December 2000.

The Corporate Service Prices Index (Figure 1-41) has been falling since 1999. In the latest period, downward pressure came from leasing and rental prices including information equipment, as well as from miscellaneous service prices including motor vehicle maintenance and machinery maintenance.

¹⁰ The base year for consumer price index was changed to fiscal 2000, with items such as personal computers and overseas package tours newly added in calculating the index. This revision serves to better reflect the composition of household consumption.

II The Japanese Economy under Deflation and Prospects of Evolution

1. Concerns about the Japanese Economy and Prospects of Evolution (see p. 36 for figures)

The trend of the Japanese economy since 1990 is shown in Figure 2-1 in terms of real GDP (production) and GDP deflator (prices). Since the period of disinflation between 1994 and 1996, the deflator has continued to decline regardless of the economic cycle, a decline that has accelerated since 1999 due to both supply and demand factors.¹¹

The Japanese economy fell into recession again without escaping from this deflation. As production continues to fall and the trade surplus continues to shrink despite the sluggish domestic demand, concerns are resurfacing about the possibility of a deflationary spiral (a vicious cycle of declining production and falling prices). As the real debt burden rises as deflation accelerates, some pessimists suggest that the Japanese economy is unsustainable in terms of non-performing loans and budget deficits. Uncertainty about the future may cause businesses and households to become increasingly cautious about spending and increase their preference for liquidity.

Despite such concerns, individual industries appear to be adapting to the new environment of deflation, uncertainty and changes in international division of labor. This chapter examines the prospects of evolution according to statistical data, addressing four typical concerns about the Japanese economy (Figure “Typical Concerns about the Japanese Economy and Prospects of Evolution”):

- (1) Can the corporate sector recover on its own?
- (2) Will the trade surplus keep shrinking?
- (3) Are financial markets malfunctioning?
- (4) Has household expenditure saturated?

The discussion reveals that the difficulties facing the Japanese economy will provide opportunities for new dynamism, and will thus encourage reasonable and appropriate economic policies to be taken.

2. Trends of Business Restructuring and Prospects of Revitalization of the Corporate Sector (see p. 37 for figures)

As the macroeconomic adjustment became increasingly serious, the performance outlook and capital investment plans for fiscal 2001 were greatly revised downward in IT-related industries. Nevertheless, some industries appear to be standing firm, including automobiles and chemicals, the so-called “old economy” sectors during the IT boom. As some evidence of the potential of the corporate sector to recover, this section examines the progress and effects of business restructuring.

According to industrial statistics, the domestic production capacity index of the manufacturing sector has been declining since peaking in late 1997, down 5% from the peak as of July-September 2001. Figure 2-2 decomposes the year-on-year change in operating rate index into the contribution of production change and that of capacity change. It is clear that the reduced capacity has consistently supported the operating rate since 1998, although its contribution in each quarter was not necessarily large. By industry, recently the operating rate has plunged in electric machinery as the booming market of the previous year reversed, resulting in a rapid

¹¹ For detail, see Development Bank of Japan, “Recent Trends in the Japanese Economy: The Japanese Economy under Deflation” Sections II-2 and II-3, *Research Report No. 19*, August 2001.

decline in production. In transport equipment, the operating rate has been rising thanks to large cutbacks in production capacity, following the rapid business restructuring in line with maturing demand. This has contributed to the performance of the industry in the latest period.

The progress in business restructuring can also be explained in terms of increased liquidity of existing assets. By defining the liquidity indicator as the amount of sold, lost or transferred tangible fixed assets (excluding construction in progress and land) appearing in the Statistics of Incorporated Enterprises,¹² Figure 2-3 shows the trend of its ratio to the amount of investment in new equipment by size of corporation. In large- and medium-sized firms, the ratio generally showed a cyclical movement within a certain range in the 1980s, followed by a consistent rise in the 1990s. It rose abruptly around 1993 and 1999 in the manufacturing sector, and has shown no sign of resuming the previous level despite subsequent increases in investment in new equipment. The liquidity indicator bottomed around 1991 in non-manufacturing, followed by a steady rise regardless of the change in investment amount. In small-sized firms, the overall trend is similar, with the exception of disruptions such as a discontinuity in the manufacturing sector in 1997 due to the change in minimum capital requirement for stock companies, and a rise in the ratio in non-manufacturing in 1998 due to substantial drop in investment caused by harsh financial conditions. It is hoped that this increased liquidity in corporate assets will help stimulate the corporate sector through the redistribution of resources to more efficient industries and businesses.

The coincidence/lagging ratio of Business Condition CI (composite index) is a long-term leading indicator (leading indicator of leading indices) and is considered particularly reliable in predicting an economic trough.¹³ The reason for the coincidence/lagging ratio to exhibit the nature of a long-term leading indicator may be explained in various ways. One of the most widely-known explanations suggests that the ratio is a proxy variable of corporate profits (in the near future), as the coincidence CI mainly consists of production index and other indicators related to corporate sales, while the lagging CI principally comprises capital investment, unemployment rate and other indicators related to corporate fixed costs. A comparison between the coincidence/lagging ratio and annual change in ordinary profits of incorporated enterprises¹⁴ reveals that the two have almost moved in parallel since the 1980s. In a recession, when the coincidence CI declines, the coincidence/lagging ratio bottoms as the lagging CI falls faster than the coincidence CI. This phenomenon reflects an autonomous mechanism, in which business restructuring accelerates the growth in profits as production bottoms out, thus providing momentum for economic recovery.

The coincidence/lagging ratio has risen for two straight quarters since bottoming in January-March 2001. Although the possibility of a double bottom could not be denied based on past experience, the trend of the ratio suggests that underlying profitability of businesses may improve through prompt restructuring.

3. Incessant Transformation of Industrial Structure (see p. 38 for figures)

From the viewpoint of product life cycle, the growth of production activities in specific industries or for specific products and services is considered to be slow down and then reverse over time due to factors on the demand side (changing consumer preferences, market saturation, the emergence of alternative products, etc.) as well as on the production side (technological advances,

¹² This analysis is based on a simplified method, because a precise liquidity indicator would require that selling be separated from loss, and that selling be limited to transfer to other domestic firms. Transfer included in "the amount of sold, lost or transferred tangible fixed assets" means the transfer from the principal account of tangible assets to other accounts, and usually stands for a negligible amount.

¹³ For more information about the coincidence/lagging ratio, see, for example, Ichiro Shirakawa, *Keiki Junkan no Enshutsu-sha (Directors of Economic Cycle)*, Maruzen Library, 1995, pp.67-69.

¹⁴ In the time series trend of economic variables, the movement of change (growth rate) leads that of level.

changes in cost competitiveness, etc.). Therefore, for sustained macroeconomic growth, the industrial structure must change with new industries, goods and services incessantly emerging. This section shows that a dynamic industrial structure has been created in response to various changes in environment, despite the sluggish macroeconomic conditions since the late 1990s.

The industrial production index by product (477 products¹⁵, 1995 average=100, seasonally adjusted) for July-September 2001 represents the cumulative growth rate for each product since 1995. When multiplied by the share of each product in industrial production (based on the amount of value added in 1995), it reveals the approximate contribution of each product to the cumulative growth rate of the total industrial production index (1995 average=100, July-September 2001=94.4).¹⁶ Figure 2-5 shows the top 20 products that made the most positive and negative contributions to the cumulative growth rate thus calculated.

The data shows that positive contributions mostly came from portable phones, personal computers and other IT-related products including producer goods such as active liquid crystal devices and lithium ion batteries, due to higher demand for portable phones and personal computers. The production index for electric machinery as a whole was 103.9 in July-September 2001, just over the 1995 average, due to the rapid decline in IT-related demand. In the long term, however, these products are still typical growth categories, and reflect a rapid growth in demand due to technological progress. Similar examples can be found in optical fiber products for wires and cables, digital color copiers, car navigation systems and applied electronic toys (household game machines).

A review of the products making negative contributions bears witness to the rapid change in industrial structure in IT-related fields against the backdrop of technological innovation and changing cost competitiveness. For example, semiconductor integrated circuits (memory devices), where competitiveness has been lost recently, provide the most negative contribution, while semiconductor integrated circuits (logic devices) are among the top positive contributors. Examples of technical innovation include changes accompanying digitalization – from cathode ray tubes (decline) to active liquid crystal devices (increase) and from electrostatic indirect copiers (decline) to digital color copiers (increase) – and changes accompanying progress in software, from word processors (decline) to personal computers. Among the products not included in the negative contributors due to their smaller share is pagers, the production index of which has dropped to zero as pagers have been completely replaced by portable phones.

In non-IT industries, there have been interesting changes in response to changing consumer preferences. In passenger cars, medium and small sized vehicles are among the negative contributors, while large sized passenger cars (including recreational vehicles) and midget automobiles¹⁷ are among the positive contributors. This reflects the bipolarization of demand from medium and small sized sedans to large sized recreational vehicles or compact cars. Also, the positive contribution from plastic containers (hollow-molded) is due to the shift in preference for drink containers from cans to PET bottles.

¹⁵ Excludes the industries for which data by product are not published (rolling stock, pharmaceuticals, foods & tobacco, wood & wood products, newspaper and publishing).

¹⁶ Cumulative contribution in a strict sense must be calculated using the share in each of the quarters since 1995. A simplified method is used for the purpose of this report.

¹⁷ The increase in demand for midget automobiles has much to do with the introduction of a stringent collision safety standard in October 1998 and the accompanying change in specifications (enlargement of vehicle size).

The products covered by the industrial production index are revised every five years when the standard is reviewed. Among the top 20 positive contributors, four products - lithium ion batteries, digital color copiers, car navigation systems and chillers for passenger car air-conditioners – were newly added in the latest revision (in 1997). Despite the total index of industrial production remains below the 1995 average, industrial structure has gone through a dynamic transformation in response to the changing environment such as technological innovation, change in cost competitiveness and change in consumer preferences.

Likewise, the industrial structure is changing in non-manufacturing, as shown by calculating the cumulative contribution using the tertiary industry activity index by industry (92 industries,¹⁸ 1995 average=100, average of the original data for the recent 12 months¹⁹) (Figure 2-6). A comparison between the major positive and negative contributors indicates trends such as changing consumer preferences (from clothing retail to mobile communication, from food/beverage retail to restaurants), transition from ownership to rental due to deflation and uncertainty (from real estate sales & brokerage to real estate rental), the growth of the software industry and the bypassing of wholesalers.

4. Reduction of Trade Surplus due to Sluggish World IT Market (see p. 39 for figures)

Since early 2001, Japanese exports have fallen even faster than imports, resulting in a continued year-on-year decline in the trade surplus. This section examines whether this trend is cyclical or long-term in nature.

The current decline in trade surplus on the previous year started in April-June 2000. Does the current decline involve different factors from the decline in past drops in trade surplus?

Figure 2-7 breaks down the amount of trade balance on a customs clearance basis into five factors: export volume, export price, import volume, import price (excluding mineral fuels) and the import price of mineral fuels. As an example of the decline in trade balance in the past, we first examine the period between April-June 1987 and July-September 1988. The Japanese economy was expanding during this period as domestic demand increased. Import volume rose consistently faster than export volume, thus reducing the trade surplus. Price changes subsided compared with the preceding period of rapid yen appreciation, making no significant contribution to the trade balance. The shrinking of the trade surplus stopped between July-September 1988 and April-June 1999, as export volume increased to the growing Asian economies.

The trade surplus also declined from July-September 1994 through January-March 1997. During this period, import volume continued to increase on the back of the strong yen and rising foreign direct investment, as the Japanese economy recovered slowly. Meanwhile, export volume continued to increase until July-September 1995 but then slowed, leading to a sharper drop in the trade surplus. Although the Japanese economy fell into recession in January-March 1997, the trade surplus started to increase as exports to buoyant Europe and the US supported the economy.

First, the current decline in trade surplus is marked by a large increase in import volume from January-March 1999. The growth of imports from Asia was particularly significant, perhaps

¹⁸ Four types of industrial classification are used for the tertiary industry activity index: large, medium, small and individual. The individual classification is basically adopted for the purpose of this report, except that the lowest possible classification is used when individual classification data are not available. Public corporations belonging to the finance/insurance industry are excluded from the data, such as the Bank of Japan, and Postal Savings.

¹⁹ The average of the original data is adopted here, for seasonally adjusted values are not available for the individual classification.

due to the mild recovery of domestic demand and decline in the relative prices of imports.²⁰ This increase in import volume contributed substantially to the decline in trade surplus until January-March 2001. Up to the first half of 2000, the world economy grew rapidly as the US economy remained firm and Asian economies recovered quickly from the currency crisis. Consequently, Japanese exports increased substantially. By the autumn of 2000, however, reduced demand for personal computers and other IT-related goods in the US affected production in Asia through falling demand for intermediate goods including semiconductors. Thus, export volume plummeted to the US and Asia, both of which are major recipients of Japanese exports. The recession in the US and Asian countries became increasingly serious in 2000, resulting in a sharp drop in Japanese exports, and hence a large decline in the trade surplus.

The current reduction in trade surplus is similar to the previous two reductions in that imports increased as the Japanese economy recovered. In the previous cases, increased export volume backed by buoyant overseas economies helped to halt the reduction in trade surplus when the growth of imports slowed as domestic demand leveled off. In the current case, however, the decline in trade surplus was sharper because the economic slowdown was rapid and widespread, particularly in the US and Asia.²¹

The current decline in trade surplus, particularly in April-June and July-September 2001, is largely due to overseas economic conditions. Due to its cyclical nature, the trade surplus is expected to rise again when the slowdown in overseas economies stops. The downturn in import volume on the previous year in July-September 2001 may be attributed to the J-curve effect from the weak yen since October-December 2000, as well as to slumping domestic demand. Since the US economy is likely to recover by late 2002, the Japanese trade surplus will keep shrinking until then, regarding the above-mentioned cyclical factors.

In the medium to long term, however, net exports will certainly decline structurally, as Asian countries are gaining export competitiveness. Domestic manufacturers need to maintain and strengthen their export competitiveness by specializing in the development and production of value-added products. Some characteristics of exports by product in the first half of fiscal 2001 are examined below.

Export volume declined in the first half of fiscal 2001, down 6.1% on the previous year (Figure 2-8), largely due to electrical appliances and general machinery.

In electrical appliances, many products experienced declines in exports including VCRs, communication equipment and integrated circuits, although TVs increased 5.7% on the previous year. Above all, substantial growth was observed in video projectors and liquid crystal television (Figure 2-9); video projectors accounted for almost 60% of the value of television exports. In this field, the export competitiveness of Japanese manufacturers is strong, with more than 50% of the world market. Indeed, exports of the product have been increasing firmly to the US, Korea and China. Despite a smaller weight in value, exports of liquid crystal televisions are also rising, mainly to the US for installation in automobiles. Although other Asian manufacturers have a large share in small-sized liquid display exports and some overseas manufacturers are emerging as competitors in small-sized portable televisions, Japanese firms enjoy a competitive edge in high value-added exports including displays for car navigation systems. Exports of household liquid crystal televisions, mostly sold in the domestic market, started in late 2000 to the US, and may lead to the development of new markets.

²⁰ See Development Bank of Japan, "Recent Trends in the Japanese Economy: Weakness of Current Economic Recovery and Its Background," *Research Report*, No.13.

²¹ This may be explained by closer trade relationships with Asia built in the 1990s in IT goods – intermediate goods in particular. In this regard see Development Bank of Japan, "The Changing Structure of Trade in Japan and Its Impact: With the Focus on Trade in Information Technology (IT) Goods," *Research Report*, No. 24.

In general machinery, exports of automatic data-processing equipment including personal computers declined in volume but increased in value. By countries, export volume has been falling to the US, but rising to Asia. In particular, exports to China have grown strongly, indicating the rising importance of the country as a promising market.

Even among the products for which production has been largely transferred overseas and overseas manufacturers have significant market shares, such as televisions and personal computers, high value-added products developed and manufactured in Japan have been constantly exported. Since the transfer of production facilities overseas will continue and the export competitiveness of Asian countries will improve, greater efforts will need to be made to develop products and strengthen the export competitiveness of Japan.

5. Export of Parts and Materials to China Expected to Increase Following Its Accession to WTO (see p. 40 for figures)

According to the Chinese Custom Statistics, trade between Japan and China is almost balanced. In 2000, Japanese exports to China amounted to \$41.65 billion and imports from China \$41.51 billion, thus a trade deficit for Japan of \$140 million. On the other hand, the Japanese Foreign Trade Statistics indicate a substantial Japanese trade deficit with China. In 2000, Japanese exports to China amounted to ¥3.3 trillion and imports from China ¥5.9 trillion, thus a trade deficit of ¥2.6 trillion. This difference is caused by the exports to China via Hong Kong. It is treated as exports to Hong Kong in the Japanese Foreign Trade Statistics, whereas the Chinese Custom Statistics treat them as imports from Japan. Taking the exports to China via Hong Kong into consideration, the Japanese trade deficit with China will shrink, resulting in a balanced trade relation as shown in the Chinese statistics.

Figure 2-11 shows the breakdown of exports from Japan to China by product category. Machinery and electrical appliances have the largest share, accounting for 56.9% of Japanese exports to China in 2000. Although Japan imports a substantial amount of these products, Japan maintains a trade surplus in this category. According to the Japanese Foreign Trade Statistics, exports of electronic devices including semiconductors rose significantly, whereas office equipment and audio-visual equipment increased import. This shows that China is conducting a processing trade, importing parts from Japan and exporting finished products to Japan. Chemicals and plastics account for 14.9% of exports to China, and Japan has the second largest trade surplus in this product category. Transport equipment, including automobiles, has a small share, accounting for only 3.5% of Japanese exports to China.

Japan has substantial trade deficits with China in textiles, agricultural products (animal products and vegetable products) and processed foods.

Figure 2-12 breaks down the direct investment of Japan into China. Machinery and electrical appliances accounted for as much as 41.1% in 2000. Thus, processing trade in China seems to be conducted by subsidiaries of Japanese firms. Transport equipment has a larger share in direct investment (9.0%) than in exports. Chemicals have a 6.0% share. Services and commerce have significant shares among non-manufacturing industries.

Following China's accession to the WTO, exports of parts are expected to increase in machinery and electrical appliances through tariff reductions. Particularly, semiconductor export will surge as its tariff will be cut to zero in 2005. Processing trade is also expected to increase as direct investment continues to increase. As for the transport equipment, import quotas for automobiles will be abolished but applicable tariff rates will remain relatively high. Model regulations for locally manufactured automobiles will also be abolished. Therefore, direct investment increase is expected for automobiles as well as exports to increase. Exports of automobile parts will increase for some time, thanks to lower tariffs. Exports and direct

investment will both increase in chemicals and plastics, as production in China will remain unable to meet rising domestic demand.

The Japanese trade deficit will continue in textiles, as its imports are expected to increase as before. Imports will also increase in agricultural products and foods led by vegetables. As regards the non-manufacturing sector, direct investment is expected to increase in commerce and services, thanks to the abolition of non-tariff barriers including regulations on amounts and regions. So far, there has been no active entry into China from Japan in the field of finance.

Concerning trade as a whole, China's accession to the WTO will accelerate the growth in exports to China compared to imports, with increased exports in parts and materials following tariff reductions. As for direct investment, the removal of non-tariff barriers will result in a rapid growth of investment in both manufacturing and non-manufacturing.

6. Development of Stock Market for Emerging Businesses and Increase in M&A (see p. 41 for figures)

As shown in the trend of money supply discussed in Section I-9, funds in Japan have been increasing primarily through the purchase of government and foreign bonds, to the detriment of corporate lending and other money flows which support economic growth led by the private sector. This section focuses on two of few active financing channels, namely stock markets for emerging businesses and M&A.

Markets for emerging businesses in Japan have been expanding rapidly in recent years with the relaxation of listing requirements on JASDAQ, an over-the-counter public market, in December 1998, the creation of MOTHERS, a new market in the Tokyo Stock Exchange, in December 1999 and the creation of Nasdaq Japan in June 2000. As a result, there has been a surge in new listings. As at the end of September 2001, 1,016 companies are listed on those emerging stock markets, equivalent to about 70% of the number of companies listed on the first section of the Tokyo Stock Exchange (Figure 2-13). The market capitalization of these companies amounts to almost ¥10 billion, corresponding to over 3% of the market capitalization in the TSE first section. This implies that venture businesses and other relatively small-sized firms have listed on the emerging stock markets as the first step of Initial Public Offering. Average trading volume per day amounted to ¥25 billion in January-August 2001, which was only 3% of the volume in the TSE first section. It should be noted, however, that those markets had a liquidity almost equivalent to that of the TSE first section during the same period, when measured as a percentage of market capitalization.²² In the above-mentioned emerging stock markets, 165 companies were newly listed in 2000. The number is expected to reach 128 in 2001 including those expected to be listed as at the end of October, the highest level since the mid-1990s (Figure 2-14). Thus, market financing appears to have been functioning reasonably for such companies.

As regards investors, individuals account for more than half (53%) of the players in JASDAQ, followed by foreigners with 10% and trust banks/investment trusts with 6%. Thus, the market is characterized by little involvement of institutional investors as compared with the TSE first section (Figure 2-15). This may be partly because the companies listed on JASDAQ are too small for institutional investors to keep their exposure within a reasonable range. In addition, the market is so underdeveloped that it is sometimes impossible to buy or sell shares promptly

²² Transaction turnover ratio (=transaction amount per day/market capitalization), an indicator of liquidity, stood at 0.25% in the TSE first section and 0.24% in JASDAQ in 2000, and 0.22% and 0.18% respectively on average respectively in January-September 2001. Although the differential between them is small under bullish markets, but the turnover ratio in JASDAQ tends to drop relatively sharper under bearish markets.

due to lack of liquidity.²³

Also, there has been a significant increase in M&A, which can promote efficiency in capital allocation of the economy as well as in utilization of managerial resources (Figure 2-16). The number of M&A has been increasing constantly since 1993 due to the progress in corporate business restructuring, reaching 1,635 in 2000. In particular, M&A between domestic firms has increased significantly, accounting for two thirds of the total in 2000. The number for 2001 is expected to remain similar, reflecting the fact that M&A is becoming a common managerial technique among Japanese companies.

7. Hopeful Development of Markets for Rented Houses, Used Houses and the Housing Renovation (see p. 42 for figures)

Housing stock in Japan (Figure 2-17) exceeded 50 million units in 1988, of which owner-occupied houses accounted for 26.5 million units, housing for rent 15 million units and company houses 1.72 million units. For example an unoccupied ratio is over 10%, the Japanese housing market is well supplied.

However, markets for rented and used houses are not sufficiently developed in Japan, as newly-built houses dominate the housing markets. This section examines the current situation of rented and used houses in Japan.

As regards rented houses, the Japanese rented housing market lacks relatively large properties for families. Figure 2-18 shows the shares of owner-occupied houses and housing for rent in the total number of existing houses by floor area. Housing for rent accounts for a large share of properties of 69m² or less, while almost all the properties of 100m² or over are owner-occupied houses.

The construction starts of housing for rent (Figure 2-19) since 1998 indicate that most of them have been relatively small properties. Some of the houses for rent newly constructed in the latest period, i.e. July-September 2001, were relatively large properties of 101-150m². It is not certain, however, if construction starts for relatively large housing for rent will continue in the months ahead, in light of the difficult condition of the rental market including low rents.

Secondly the used housing market, Figure 2-20 indicates that the scale of the Japanese used housing market (the number of housing purchased as owner-occupied houses in principle) was some 160,000 units in 1998. This corresponds to about 13% of housing starts.²⁴ Although the share has been rising, the figure is closely related to the reduction in housing starts in 1997 and 1998.

In the US (Figure 2-21) on the other hand, 5.2 million units of used houses were purchased as owner-occupied houses, 3.1 times larger than housing starts. Even taking into consideration the fact that housing stock is about 2 times as large in the US,²⁵ the Japanese used house market has much more room for development than in the US.

The development of the housing renovation market is also important for development of the rented housing market and the used housing market. Housing renovation represents a ¥5.1 trillion market in real terms in Japan (Figure 2-22). Its ratio to the total amount of housing investment has been rising, as the latter continues to decline. This implies that the renovation market has been gaining importance in relative terms.

²³ In an effort to increase liquidity, JASDAQ has introduced a computerized system in view of establishing a market-maker transaction scheme. On the back of the deregulation of stock commissions fees, expanded transactions on the Internet and the reduction in the unit price of transaction will facilitate the participation of individual investors in particular.

²⁴ A comparison with housing starts was made here not only to see the relative share of newly built houses (including housing for rent) and used houses in the total housing purchased. Incidentally, the share of used houses purchased as owner-occupied houses in the total number of housing stood at 0.3% in Japan in 1998, but 3.9% in the US in 1997.

²⁵ The US housing stock amounts to some 112 million units as of 1997.

The development of the housing markets as a whole, including the rented and used house market, is important because it provides households a large choice. The development of the housing renovation, accompanied by the rented and used house markets, may partially offset the falling in housing investment resulting from the decline in housing starts.

8. Increase in Real Consumption of Durable Goods and Expansion of Secondhand Markets (see p. 43 for figures)

Backed by sluggish consumption, it was argued repeatedly throughout the 1990s that the market for durable goods in particular was already saturated. This section attempts to explain the changes in consumer behavior in durable goods consumption. Figure 2-23 shows the index of real household consumption expenditure (1990=100). Total expenditure (excluding spending on unspecified uses such as pocket money, gifts and remittances) was 96.9 in 2000, meaning a slight decline in the past ten years. By product and service, the consumption of semi-durable goods including clothing, futons and household goods fell by more than 20% during the same period, and its share in total consumption also dropped from 14% to 11%. Spending on services recorded the biggest increase in nominal terms, reflecting slower price reductions than in products. In real terms, service consumption, along with the consumption of non-durable goods including foods and daily products, stayed unchanged or even declined slightly.

Under these circumstances, the consumption of durable goods increased significantly. This increase is partly because it is measured after deflating by falling prices, but spending on durable goods also rose 5.1% in nominal terms, making it a leading component only second to services. Although the consumption of durable goods is generally affected by short-term factors such as business fluctuations and the renewal cycle, the trend for the past ten years is far from saturation. Rather, durable goods have played an important role in helping the long-term growth of consumption.

Despite increased purchases of durable goods, their period of use has become longer over the past ten years (Figure 2-24). The years of use increased in video cameras, which saw rapid technological advances during the process of diffusion, as well as in large-sized household electric appliances, for which markets had matured by 1991. The same survey also showed that more consumers replaced durable goods for being out of order rather than for upgrading, thus implying greater consciousness of savings and the environment among consumers. Considering the increase in durable goods expenditure, it is estimated that their real stock increased not only due to replacement for upgrading (passenger cars, television, etc.)²⁶, but also due to introduction of new products (personal computers, portable phones, etc.) and additional purchases (air-conditioners, fixed phones, etc.). As the increase of the real expenditure of durable goods imply, the “use” of the accumulated stock of durable goods has been increased much faster.

Although durable goods are now owned and used for longer, a qualitative obsolescence may occur apart from the functional degradation of goods, for reasons such as boredom and changes in living environment. A more socially efficient distribution of resources could be achieved (i.e. less wasteful) if the goods could be used by those who find higher value in them. In corporations, for example, efficient use may be achieved by increased use of lease contracts. However, individuals seem to have left such goods idle (ownership not accompanied by use) or disposed of them (no ownership and no use) in most cases. The expansion of the secondhand market, which is discussed in the following section, provides a more effective use of durable goods in households, along with leasing and rental.

²⁶ Shown in parentheses are typical examples in recent years according to the Survey on Consumption Trends, published by the Cabinet Office.

The number of vehicles sold in the used car market (Figure 2-25) has become 1.5 times as large as the number of new cars sold. New car sales fluctuate according to change in taxation systems and standards. On the other hand, the used car market has developed in parallel with the number of passenger cars owned (the line running from lower left to upper right in the figure).

Figure 2-26(1) presents a broader picture covering the whole retail industry. The scale of the industry has recorded three consecutive declines since the survey in 1994. By size of store, traditional small-sized stores including specialized stores and “central stores²⁷” have consistently recorded declines. Declines were also observed in other stores in the latest survey conducted in 1999. By type of store, however, retail stores dealing in secondhand goods have expanded significantly in terms of the number of outlets and revenues (Figure 2-26(2)). The category includes “retail in antiques” and “other retail in secondhand goods (not included in any other category)”. The former expanded until the 1991 survey during the so-called bubble economy, then the latter emerged, led by various recycling shops dealing in clothing, furniture and books among others. This trend cannot be seen if the data is observed by size of store, as the retailers in secondhand goods mostly consist of specialized stores and central stores, which represent a declining category in the data.

Expansion of secondhand markets can also be observed in the growth of Internet auctions, i.e. direct transactions between individuals.²⁸ Internet auction services in Japan were initiated by several firms around 1999. The number of registered participants (ID numbers) is thought to exceed one million, which corresponds to 1 in 100 persons in the population.

Although the expansion of secondhand markets has improved social efficiency, some argue that the trading of secondhand goods itself does not contribute to GDP and actually has an adverse effect on consumption by reducing the need for purchasing new products. For the purpose of national accounts, the transactions of secondhand goods between households would have no effect whatsoever on the calculation of income and consumption in the household sector as a whole.²⁹ By definition, production equals to income and we cannot see whether there happens a negative impact on consumption in that period. This would apply in cases where a household purchases a secondhand product instead of a new one and the selling household does not spend all of the money received, or where a household purchases a new product by recycling a used product.

However, the following three considerations suggest that the expansion of secondhand markets has no adverse effect on consumption and may even encourage the consumption of new goods and services. First, according to the permanent income hypothesis, consumption is determined by expected income and hence the expansion of secondhand markets does not affect the level of consumption as a whole. Yet, under this concept the composition of consumption could change, perhaps in favor of services and to the detriment of durable goods. Second, the purchase of new durable goods may be encouraged by facilitating subsequent transfer which increases the liquidity or market value of assets. For instance, automobiles may be purchased as assets with a certain liquidity, because the buyers may expect to recover part of the money paid by selling them in the already established used car market. Third, the expansion of the secondhand retail industry will increase the consumption of ancillary services including the

²⁷ In the Statistical Survey on Commerce, central stores refer to the non-self service stores other than large-sized stores, and in which the sales of clothing, foods or housing account for 50% or over but less than 90% of total sales. They include the so-called traditional general stores located at city centers.

²⁸ Although not all the participants are individuals and not all the traded goods are secondhand products, the significance of Internet auctions lies in the fact that an efficient market was created to enable individuals to sell secondhand goods for themselves.

²⁹ By definition, any sales of secondhand goods overseas are not included in exports for the purpose of GDP calculation. It is true that the money received for such goods is added to financial assets of households, they have no effect in terms of flow.

maintenance of secondhand goods, the trading and exchange of information as well as packaging and delivery, which will in turn contribute to the growth of GDP. On the supply side, this means that markets related to secondhand goods constitute a promising industry. Finally, it should be stressed that the creation and expansion of formerly underdeveloped markets will widen the range of options for consumers and improve the welfare of the nation as a whole.

9. Strong Willingness to Spend on Education (see p. 44 for figures)

Figure 2-27 shows the trend of spending on school education as the simple average of index (1982=100) by type of education ranging from kindergarten to college. The spending has increased almost at an undisturbed rate, rising 53% in 16 years to 1998. It has increased across the board in all types of school, but the rising share of students attending private schools is partly responsible for this rise particularly for junior high.³⁰ Counting in extramural educational expenditure for cram schools, etc. and the ratio of students in each generation, which are not covered in the data, education-related expenses of households with children attending school or college rose 90% in the same period.³¹ The strong increasing trend in educational expenditures is clear compared with the 30% increase in total consumption expenditure.

In addition to child education, an increasing number of people are now participating in lifelong education. Figure 2-28 shows the number of participants in lectures, etc. by organizer, according to the Ministry of Education, Culture, Sports, Science and Technology. The number of participants has been increasing across the board, whether in events organized by boards of education, in culture centers run by newspaper companies, department stores, etc., or those held by other entities involved in lifelong or social education. The government has been promoting lifelong education and learning since the late 1980s. Lifelong education has become diversified, ranging from job training to culture and sports.

Most of the expenses related to education are classified as service expenditure. But how are they different from other types of service expenditure? Figure 2-29 shows the trend of diffusion index on willingness to spend in the coming three months. Since 1992, when the survey was launched, willingness to spend on "supplementary education including cram school" has been stable at the highest level, followed in most cases by "monthly fee for lessons," which corresponds to lifelong education. Spending on education is different from other recreational consumption expenditures in that it increases consumption (=utility) in the future through the growth of disposable income, rather than providing utility at the time of service consumption. Spending on lifelong education, etc., which does not directly increase future income, may also be construed as a lump-sum payment for utilities to be obtained in the future.³² In contrast, willingness to spend on recreational services such as eating-out, fashion and amusement parks has been declining. Even the relatively strong willingness to spend on concerts and sports is more susceptible to economic fluctuations than the two indicators related to education.

Of course, educational expenditure has an obligatory and defensive nature as competition intensifies in society as a whole, although some even question the value of lifelong education as a fad in the mid-1990s that has now subsided. Although it is difficult to quantify the quality of

³⁰ Data for elementary school only covers public schools because sufficient data are not available concerning educational expenditure for private schools.

³¹ Since the number of college students, who require substantial expenses for education, increased throughout this period, a weighted average using the number of college students results in a higher growth rate. Here, the increase of 90% per household was obtained by adjusting the educational expenditures in the Family Income and Expenditure Survey (a 51% increase from 1982 to 1998) for the decline in the number of pupils and students nationwide (by about 20%).

³² This is typically expressed in the idea that expenses related to education represent investments in children or in oneself. Even if little effect on income may be expected, education differs substantially from concerts, sports and other recreational services, whose utilities are mostly obtained at the time of consumption, or are very low in durability.

education, as in the case of other services, education-related prices included in the consumer price index have been rising in parallel with the increase in expenditure, indicating that the consumption of education has stayed on a par in real terms. In this sense, education is the diametrical opposite of durable goods, whose prices have fallen following qualitative improvement, thus resulting in the growth of real consumption.³³ There is little doubt that education plays important role in creating values. Educational opportunities need to be diversified still further in response to the strong demand. On the other hand, the efficiency and quality of education must be improved, measured and evaluated.

Finally, Figure 2-30 shows spending items of the greatest and least growth over the past five years according to the Family Income and Expenditure Survey. The products mentioned in this section, such as IT-related durable goods and tuition fees, are included in the items that experienced the fastest increase. Changing lifestyles in the recent five years are evident in other increasing items such as foods, insurance premiums and housing facilities, as well as in the decreasing items. Total consumption usually does not fluctuate much, but its composition naturally reflects various changes on both demand and supply, and it is worth to evaluate resulting changes in consumption mix.

(as of December 10, 2001)

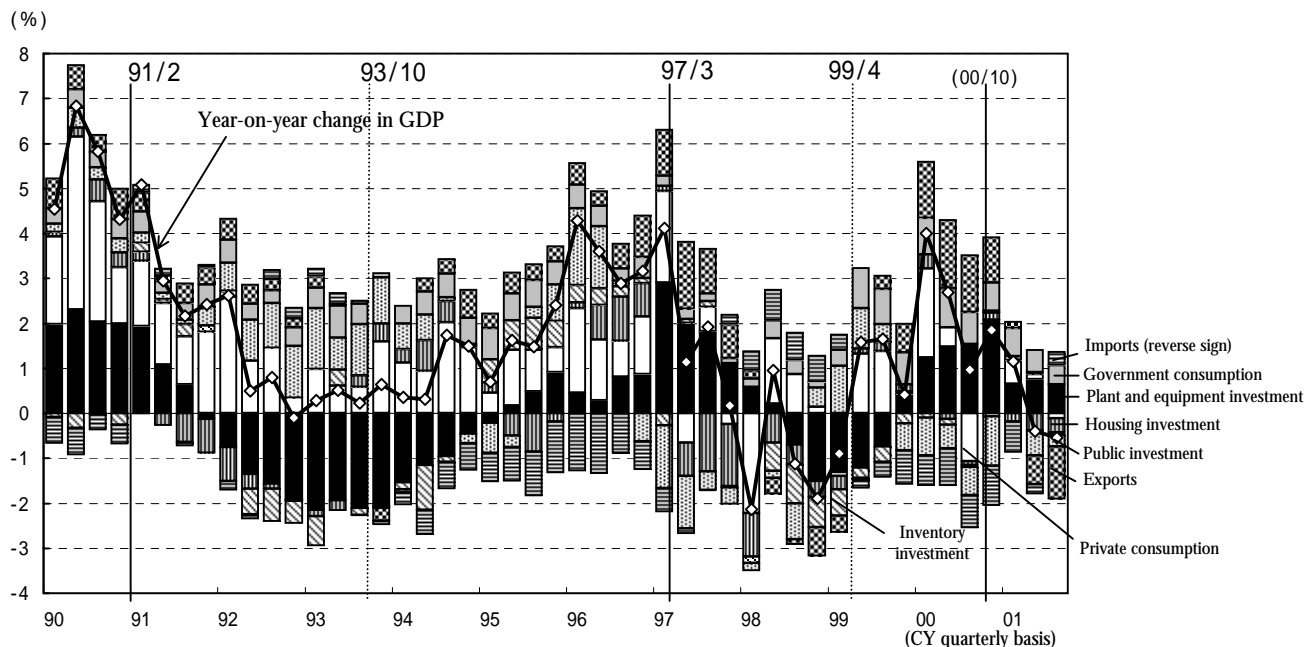
[by Economic Research Group (e-mail: report@dbj.go.jp)]

³³ According to consumer price index, the prices of education including supplementary lessons rose 76% from fiscal 1982 to fiscal 1998, while the prices of recreational durable goods including personal computers and audio-visual equipment fell 54% in the same period.

I. The Japanese Economy Amid Serious Adjustment

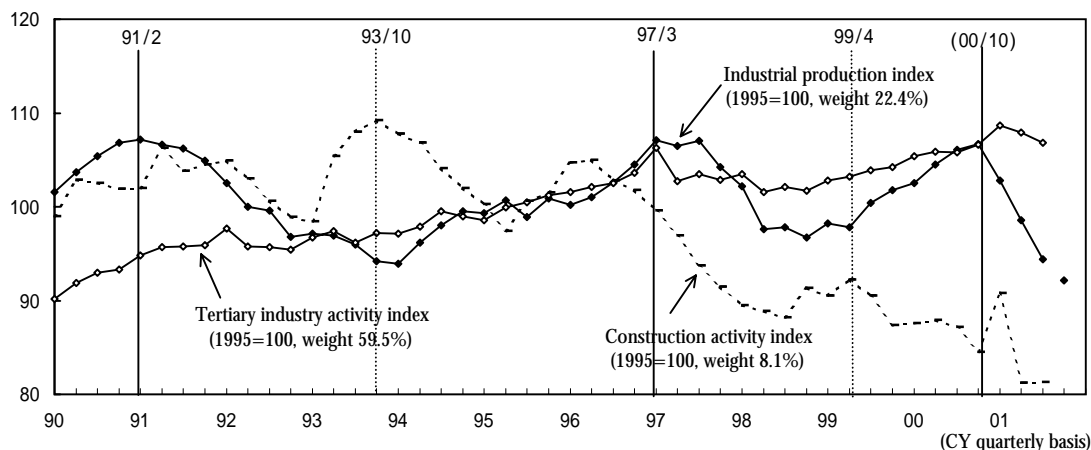
Overview: Continued Drop in Production with a Risk of Further Decline

Figure 1-1. Trends in Real GDP (Year-on-year change by component)



Notes: 1. 1995 as base year. Government consumption includes the contribution of public inventories.
2. The most recent economic peak (October 2000) is estimated by DBJ.

Figure 1-2. Trend of Production Indicators (Seasonally adjusted)



Notes: 1. Weights represent shares in all industry activity index (GDP from the supply side) and add up to 100 in sum with agriculture, forestry and fishery production index (weight 1.8%) and public service activity index (8.2%) which are not indicated in the figure above.

2. Industrial production index for 4Q/01 represents forecast based on actual data for October and the Survey on the Forecast of Manufacturing Production. However, the forecast index tends to be revised downwards.

Sources: 3. The most recent economic peak (October 2000) is estimated by DBJ.
Various indices reported by the Ministry of Economy, Trade and Industry.

Substantial Decline in Shipments and Protracted Inventory Adjustment

Figure 1-3. Inventory Cycle (Mining and manufacturing sector)

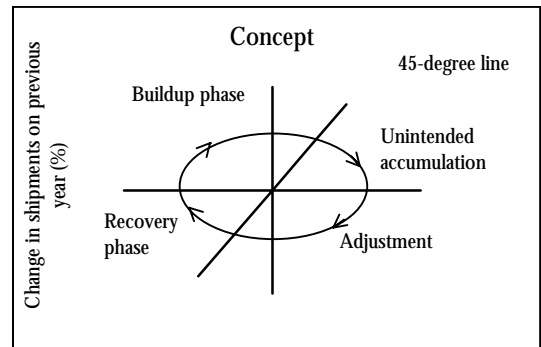
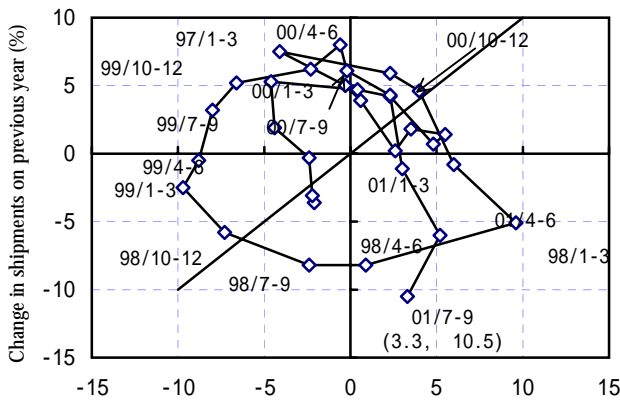


Figure 1-4. Inventory Cycle of Capital Goods (Excluding transport equipment)

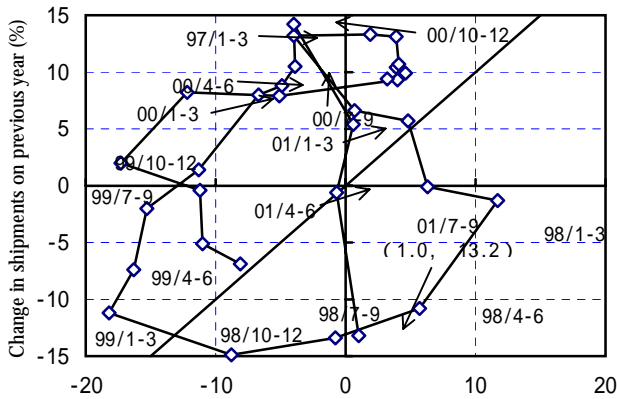


Figure 1-5. Inventory Cycle of Construction Materials

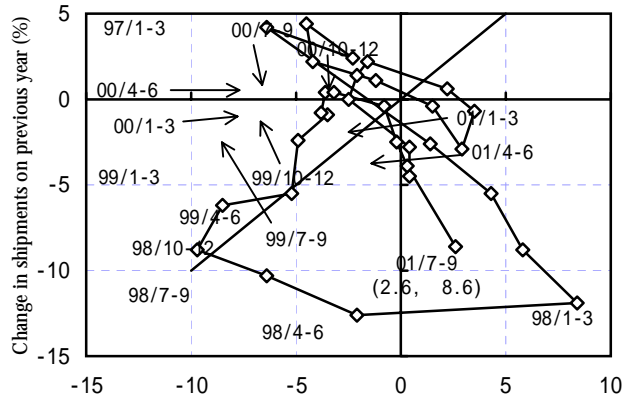


Figure 1-6. Inventory Cycle of Consumer Goods

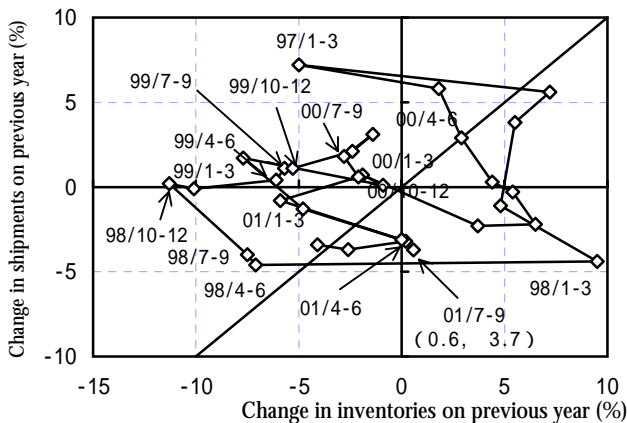
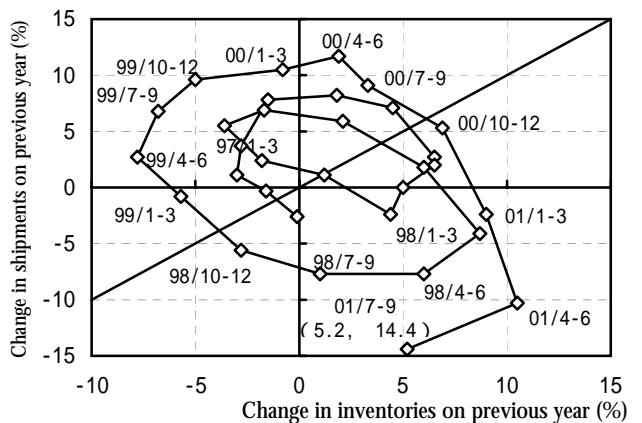


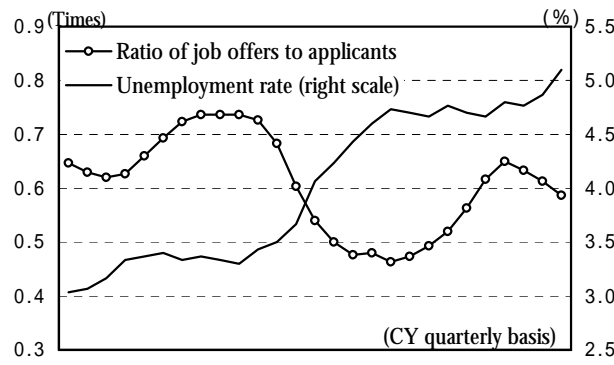
Figure 1-7. Inventory Cycle of Producer Goods



Source: Ministry of Economy, Trade and Industry, "Industrial

Employment Conditions: Deteriorating

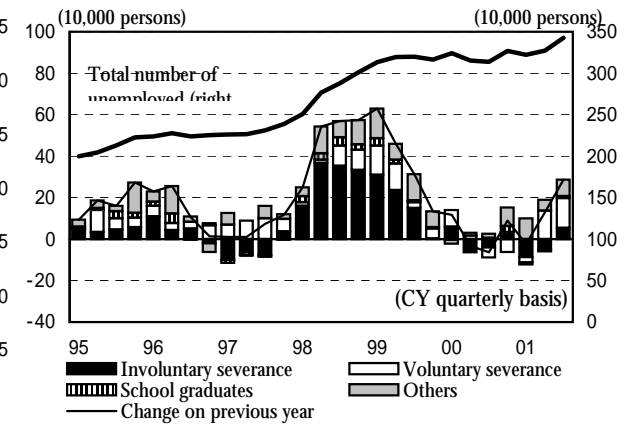
Figure 1-8. Trends in Ratio of Job Offers to Applicants and Unemployment Rate



Note: Seasonally adjusted.

Sources: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Labor Force Survey;" Ministry of Health, Labor and Welfare, "Statistics on Placement Activities."

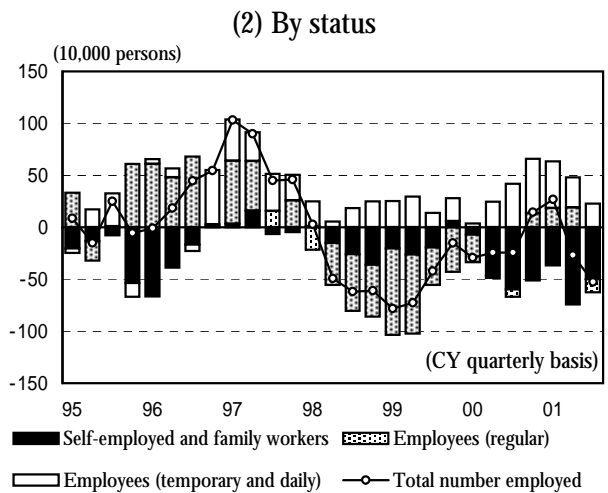
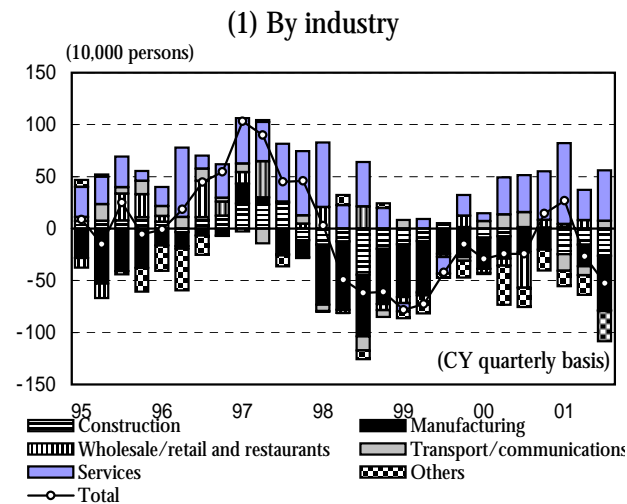
Figure 1-9. Year-on-year Change in Unemployment by Reason for Job-seeking



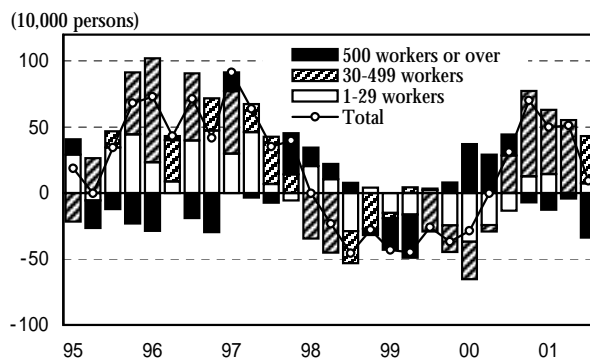
Note: Total number of unemployed is seasonally adjusted.

Source: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Labor Force Survey."

Figure 1-10. Trend of Year-on-Year Change in Number Employed by Component

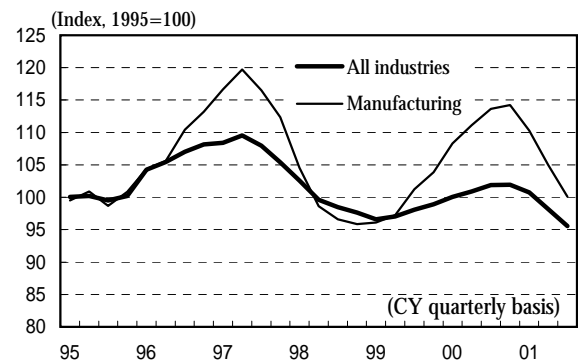


(3) By size of corporation (excluding agriculture, forestry, fisheries and government)



Source: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Labor Force Survey."

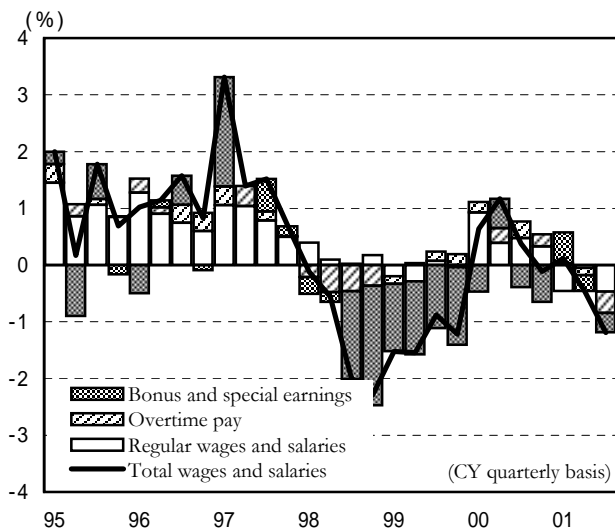
Figure 1-11. Overtime Hours (Seasonally adjusted)



Source: Ministry of Health, Labor and Welfare, "Monthly Labor Survey."

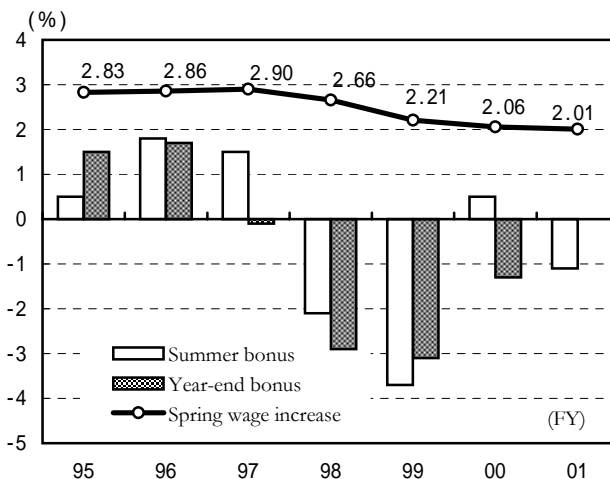
Consumption: Weak due to Deteriorating Income and Employment Conditions

Figure 1-12. Year-on-Year Change in Wages and Salaries per Person



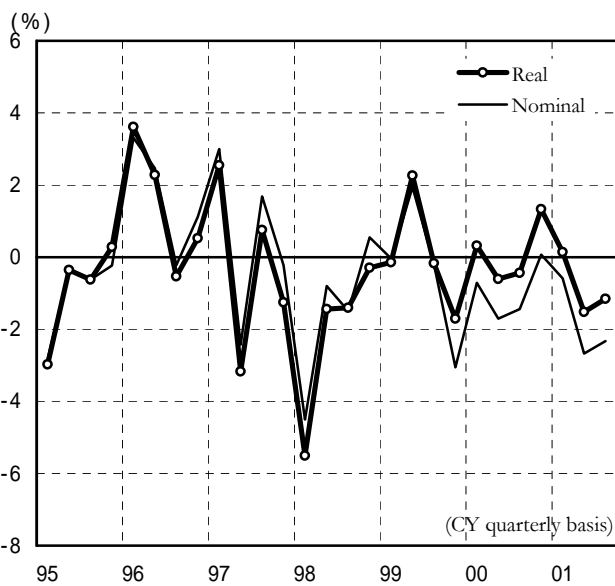
Note: Firms employing five or more workers.
Source: Ministry of Health, Labor and Welfare, "Monthly Labor Survey."

Figure 1-13. Spring Wage Increases and Change in Bonuses on Previous Year



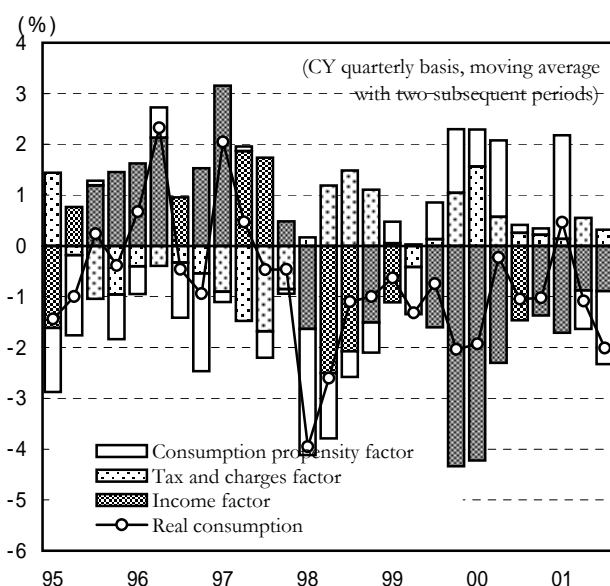
Notes: 1. Summer bonus and year-end bonus include wages and salaries paid as such in June-August and November-January respectively in firms employing five or more workers.
2. Spring wage increase covers listed companies with trade unions.
Source: Ministry of Health, Labor and Welfare, "Monthly Labor Survey." 1,000 or more workers and capitalized at see ¥2 billion or over

Figure 1-14. Trend of Household Consumption Expenditure



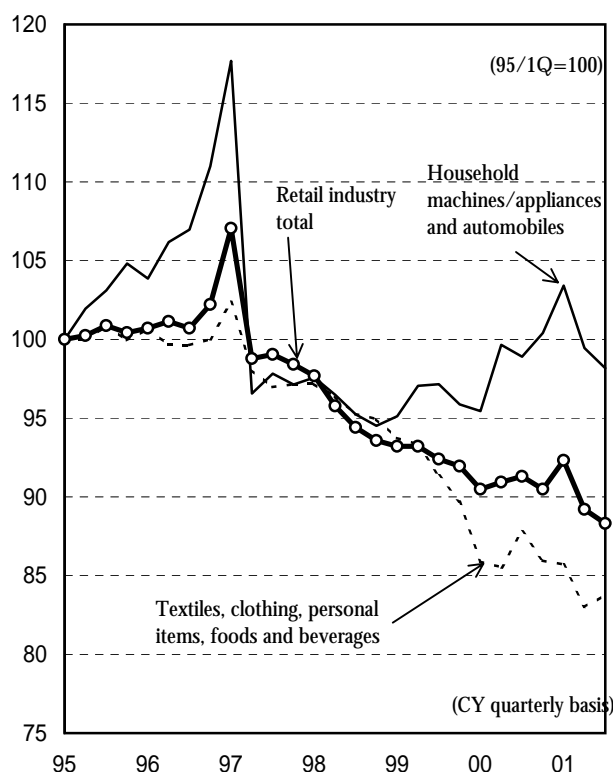
Notes: 1. Excludes automobiles, gifts and remittances. Adjusted for change in the number of household members.
2. Conversion into real terms was made using the consumer price index (composite index excluding imputed rent and automobiles). Excludes the effect of the consumption tax hike in 1997.
Sources: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Family Income and Expenditure Survey" (all households) and "Consumer Price Index."

Figure 1-15. Real Consumption (Change on previous year by component)



Notes: 1. Conversion into real terms was made using the composite consumer price index excluding imputed rent.
2. Factor resolution was made as follows (all in real terms): $\Delta C = \alpha \cdot \Delta Y$ (income) $- \alpha \cdot \Delta T$ (tax and charges) $+ \Delta \alpha \cdot (Y - T)$ (consumption propensity)
C: consumption expenditure, Y: income, T: tax and charges, α : consumption propensity
Sources: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Family Income and Expenditure Survey" (workers' households) and "Consumer Price Index."

**Figure 1-16. Retail Sales Index
(Seasonally adjusted)**

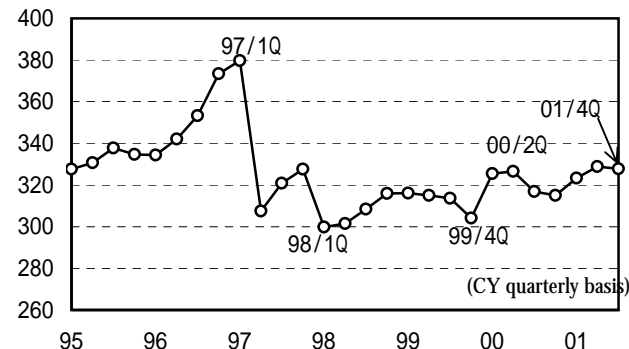


Note: Retail sales index except for total represents the average of published seasonally adjusted figures weighted by the sales of each industry.

Source: Ministry of Economy, Trade and Industry, "Report of the Current Survey of Commerce."

**Figure 1-17. New Car Registrations
(Seasonally adjusted)**

(Annual rate, 10,000 vehicles)

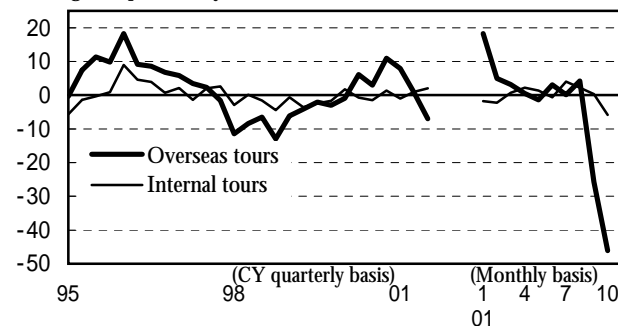


Note: 01/4Q represents October-November average.

Sources: Cabinet Office, "Indexes of Business Conditions;" Japan Automobile Dealers

Figure 1-18. Tourism Sales

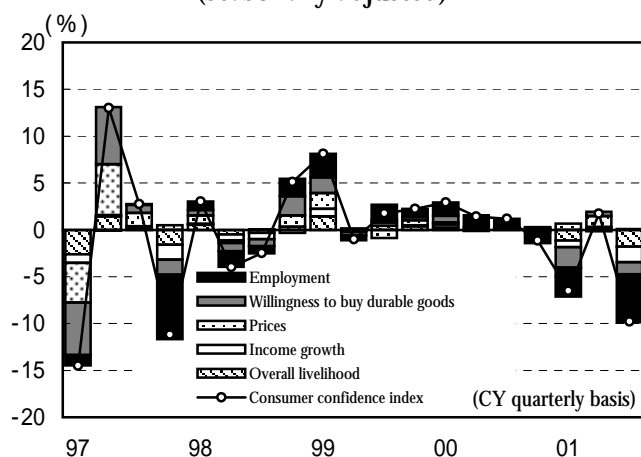
(Change on previous year, %)



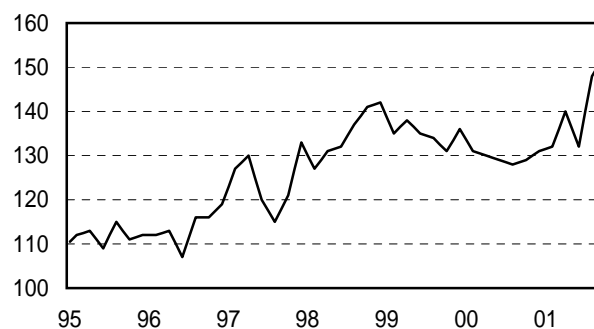
Source: Ministry of Land, Infrastructure and Transport, "Tourism Sales of 50 Major Tourist Agencies."

Figure 1-19. Consumer Confidence Indicators

(1) Quarterly change in consumer confidence index
(seasonally adjusted)



(2) Living Insecurity Index

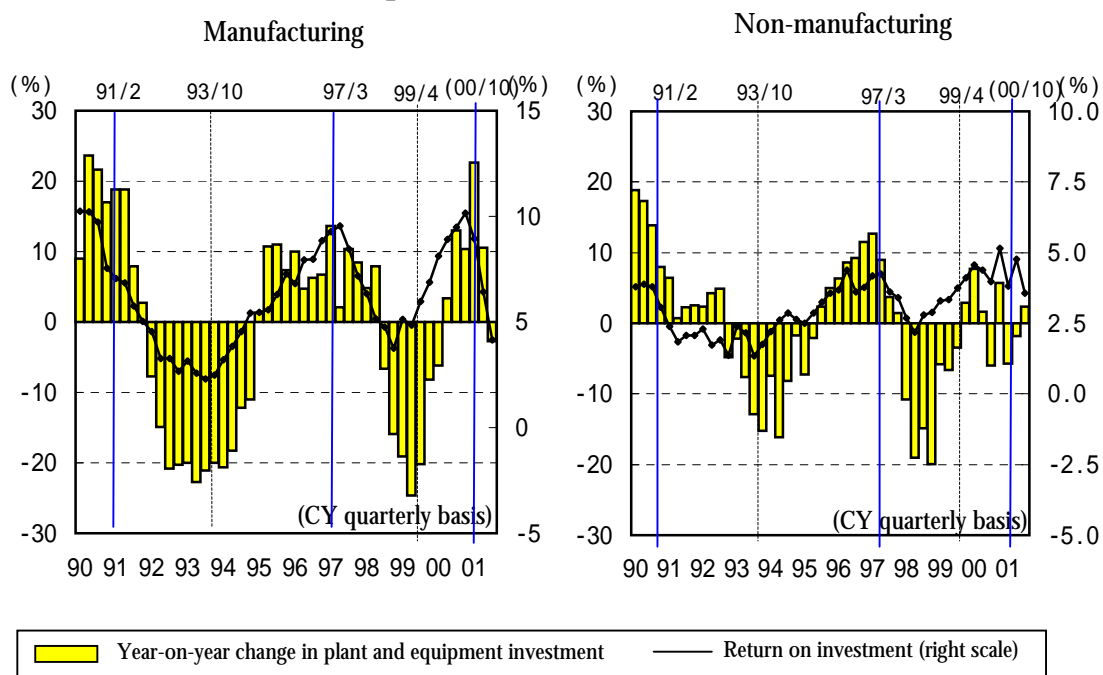


Note: Consumer confidence index is based on questionnaire surveys for the coming six months. Figures for individual components were redistributed from seasonally adjusted data.

Sources: Cabinet Office, "Consumer Confidence Survey;" Japan Research Institute, "Survey on Consumer Psychology."

Plant and Equipment Investment: Decreasing with No Sign of Recovery

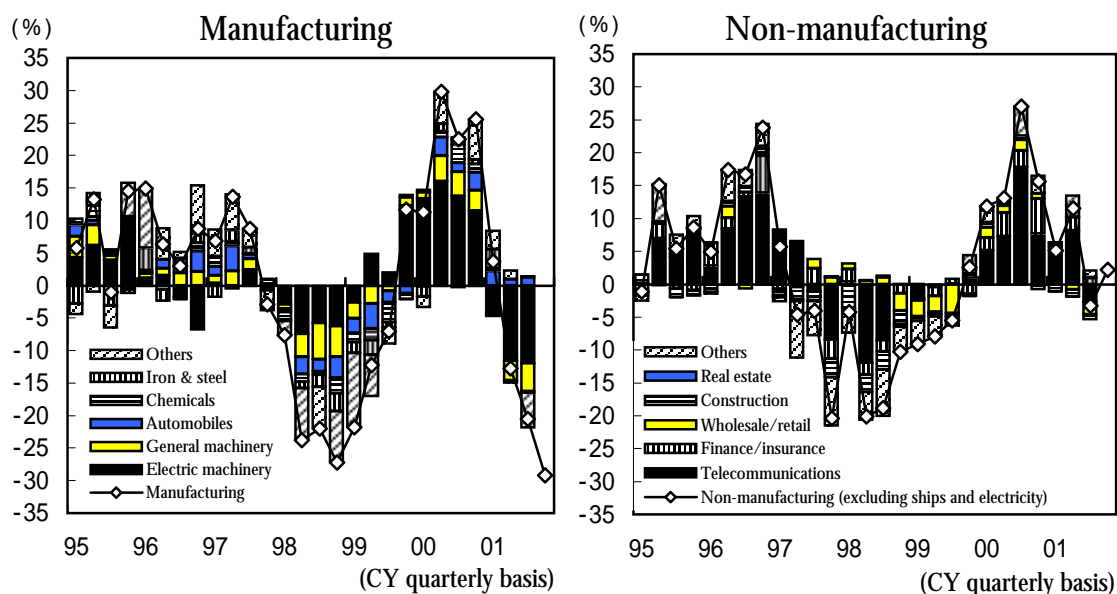
Figure 1-20. Year-on-Year Change in Plant and Equipment Investment and Return on Investment (Corporations of all sizes)



- Notes:
1. Return on investment = operating profit-tangible asset ratio – average lending rate of banks (new loans, total), where operating profit-tangible asset ratio = operating profit/(tangible fixed assets + inventories).
 2. No adjustments are made for changes in the accounting rule on business tax (ministerial order revised in December 1998).
 3. The most recent economic peak (October 2000) is estimated by DBJ.

Sources: Ministry of Finance, “Quarterly Report of Statistical Survey of Incorporated Enterprises,” etc.

Figure 1-21. Orders Received for Machinery (Trend of year-on-year change by industry)

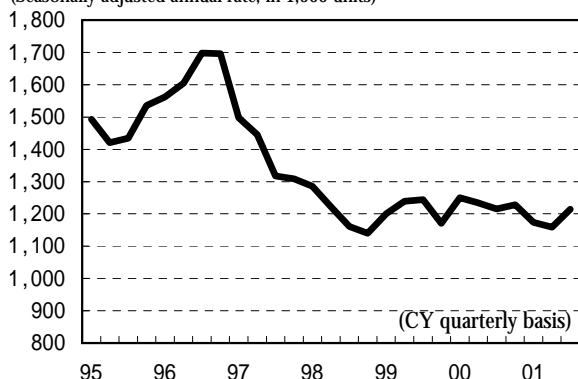


Note: Cabinet Office estimate for 4Q/01.
 Source: Cabinet Office, “Orders Received for Machinery.”

Housing Investment: Decreasing

Figure 1-22. Trend of Housing Starts

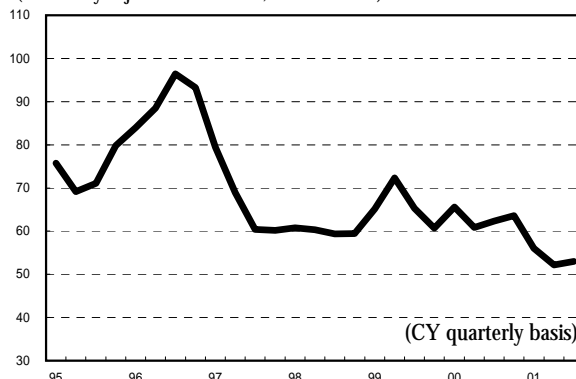
(Seasonally adjusted annual rate, in 1,000 units)



Source: Ministry of Land, Infrastructure and Transport, "Building Construction Started"

Figure 1-23. Floor Area of Housing Starts

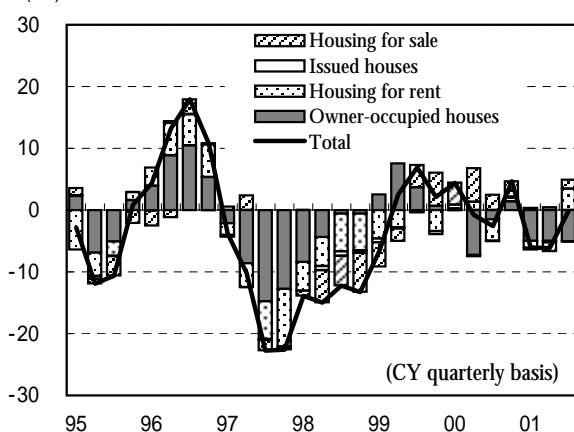
(Seasonally adjusted annual rate, in million m²)



Source: Ministry of Land, Infrastructure and Transport, "Building Construction Started"

Figure 1-24. Housing Starts (Trend of year-on-year change by component)

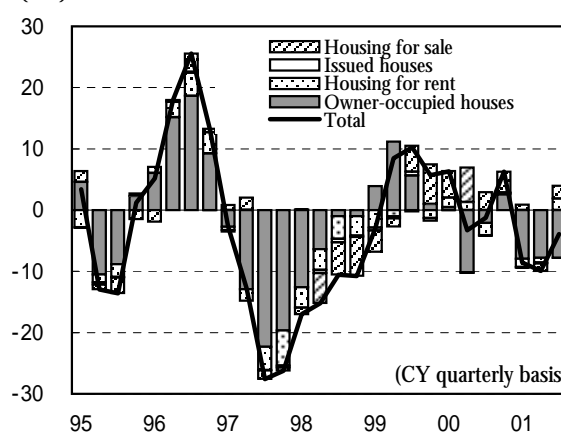
(%)



Source: Ministry of Land, Infrastructure and Transport, "Building Construction Started"

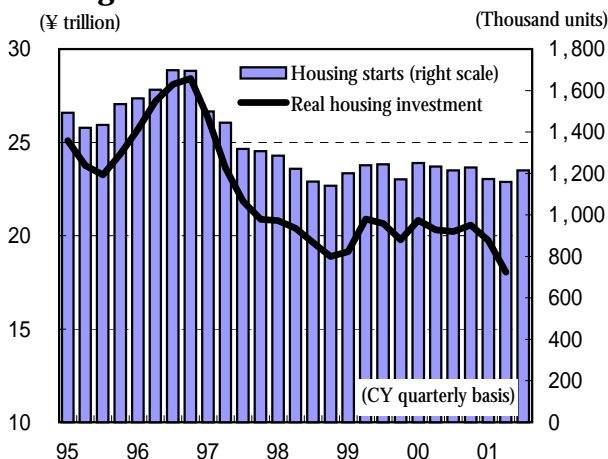
Figure 1-25. Floor Area of Housing Starts (Trend of year-on-year change by component)

(%)



Source: Ministry of Land, Infrastructure and Transport, "Building Construction Started"

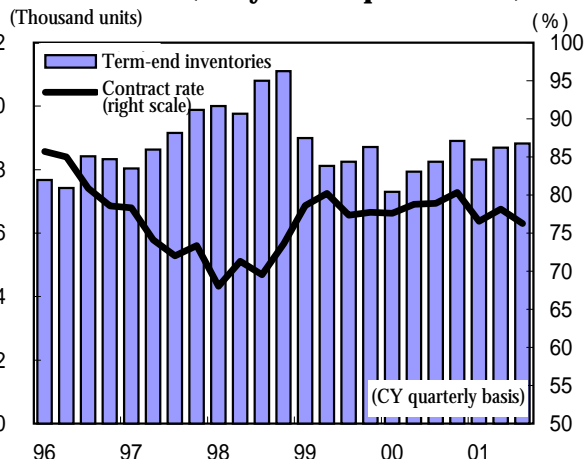
Figure 1-26. Real Housing Investment and Housing Starts



Note: Housing starts and real housing investment are both seasonally adjusted.

Sources: Ministry of Land, Infrastructure and Transport, "Building Construction Started;" Cabinet Office, "Annual Report"

Figure 1-27. Contract Rate and Completed Inventories of Condominiums (Tokyo metropolitan area)

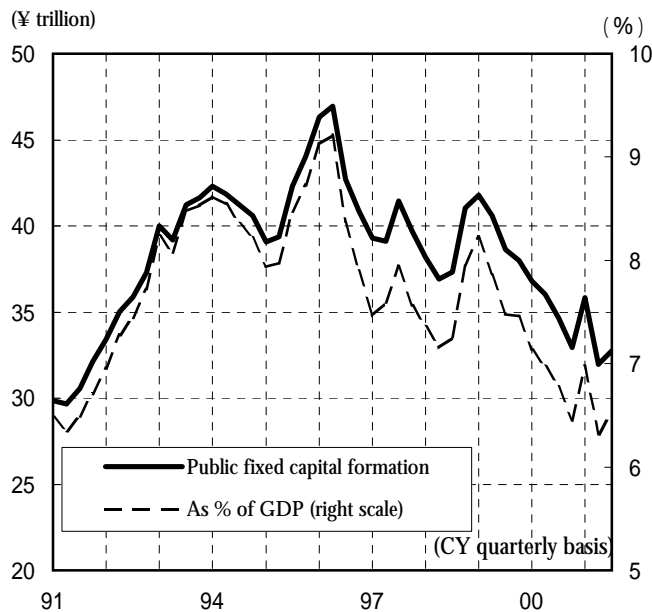


Note: Contract rate represents the quarterly average ratio of units sold

in the month to units marketed in the month. Completed inventories are measured at the end of each quarter.
Sources: Real Estate Economic Institute Co., Ltd., "Trend of Condominium Market in Tokyo Metropolitan Area."

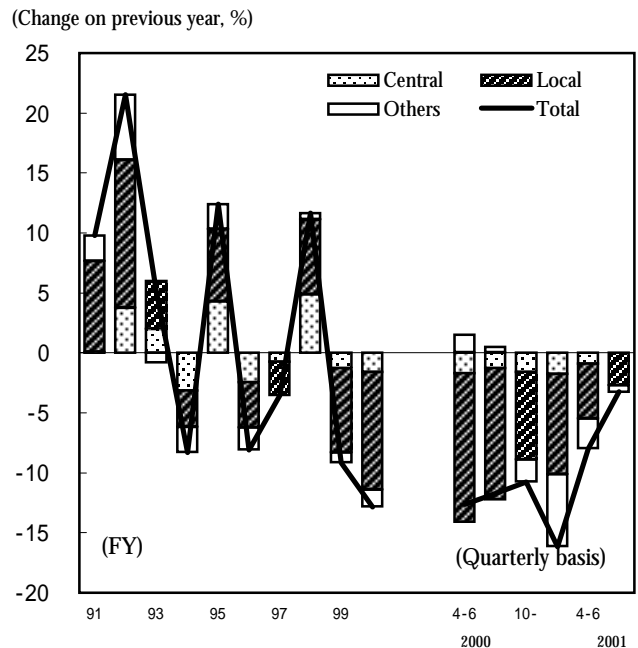
Public Investment: Declining due to Financial Difficulties

Figure 1-28. Trend of Public Investment



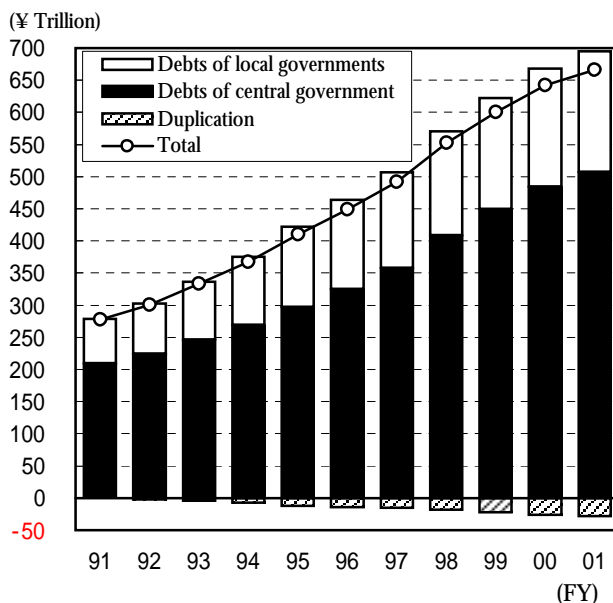
Note: Data represent seasonally adjusted annual rate.
Source: Cabinet Office, "Annual Report on National Accounts."

Figure 1-29. Trend of Contract Value for Public Works



Note: In the legend, "Local" represents the total of prefectures and municipalities. "Others" represent the total of central and local public business entities.
Source: Surety Association for Construction Companies, "Public Works Prepayment Surety Statistics."

Figure 1-30. Long-term Outstanding Debts of Central and Local Governments



Note: Figures for fiscal 2000 and 2001 represent estimates after supplementary budget.
Sources: Ministry of Finance, "Budgetary Data (November 2001);" Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Annual Report of Statistics on Local Budgets," etc.

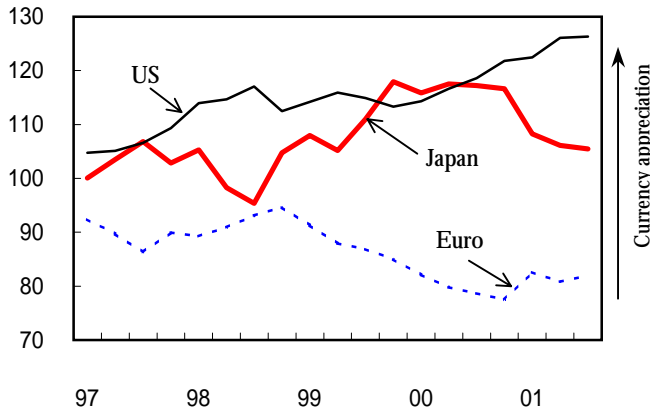
Figure 1-31. Outline of Fiscal 2001 Supplementary Budget (November)

		(¥ trillion)
Additional outlay		1.1
Items		
1. Pilot reform program		1.0
(¥550.1 billion for facilitating employment, etc.)		
2. Other additional outlay		2.0
(¥313.9 billion for disaster restoration, etc.)		
3. Savings of allocated expenses		1.9
Financing		1.1
Items		
1. Additional government bond issues		1.7
2. Carryover from previous fiscal year		0.5
3. Reduction in expected tax revenue		1.1
(Ref.)		
Additional allocation of ¥0.5 trillion to public works		

Sources: Ministry of Finance and Cabinet Office data.

Exports and Imports: Both Dropping

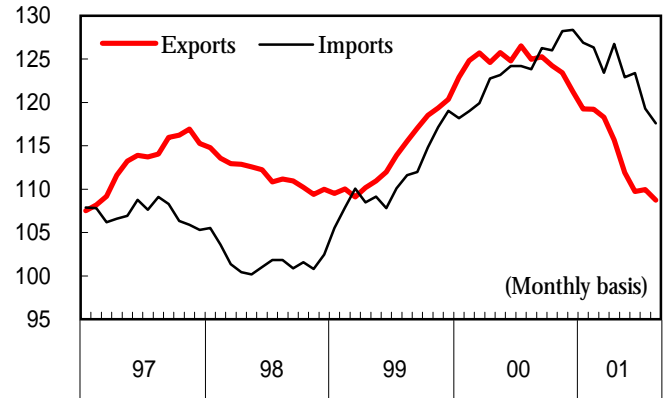
Figure 1-32. Trend of Real Effective Exchange Rate (1990=100)



Note: Exchange rate was converted into real terms with the price levels of the country and its 44 trading partners and then weighted for trade in industrial products in 1990.

Source: J.P. Morgan, "World Financial Market."

Figure 1-33. Export and Import Volume Indices (1995=100)



Note: Three-month moving average of seasonally adjusted values based on X-11.

Source: Ministry of Finance, "Trade Statistics."

Figure 1-34. Trend of Export Volume (Year-on-year change by component)

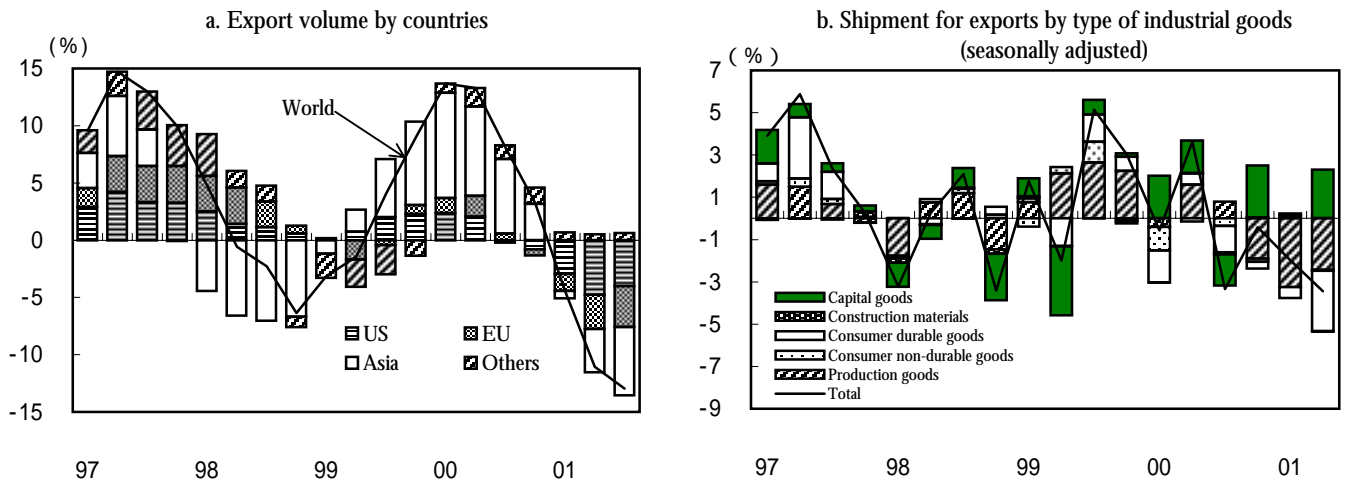
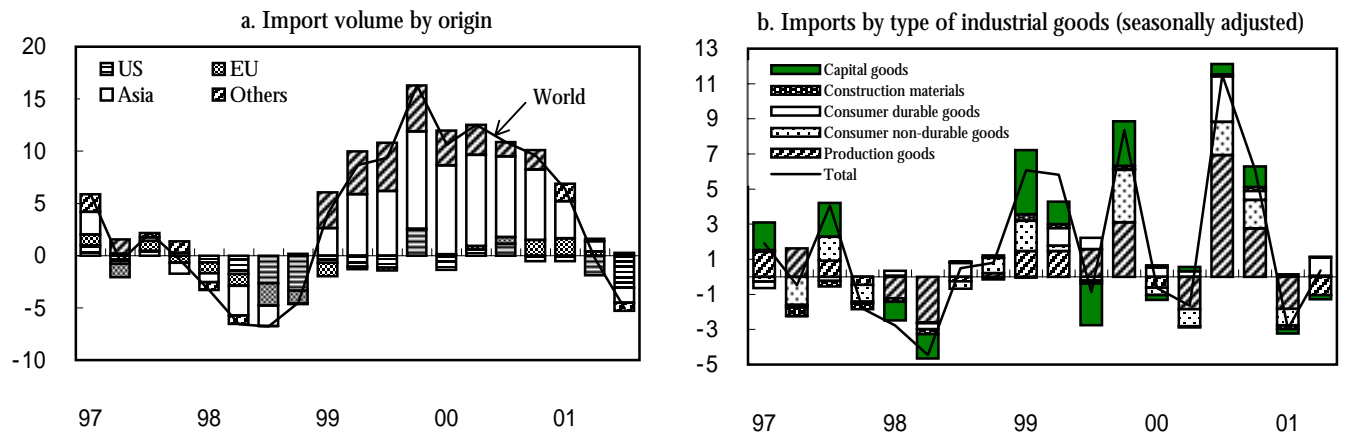


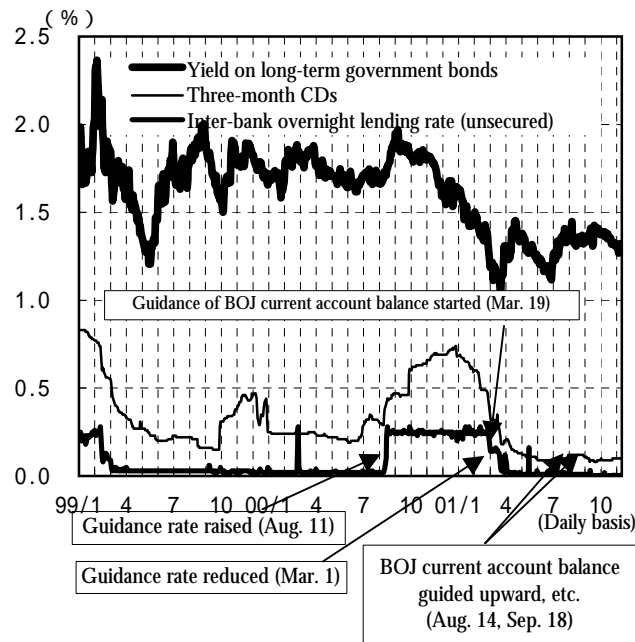
Figure 1-35. Trend of Import Volume (Year-on-year change by component)



Sources: Ministry of Finance, "Trade Statistics;" Ministry of Economy, Trade and Industry, "Analysis of Industrial Production Activities."

Lending Declines under Low Interest Rates through Quantitative Monetary Easing

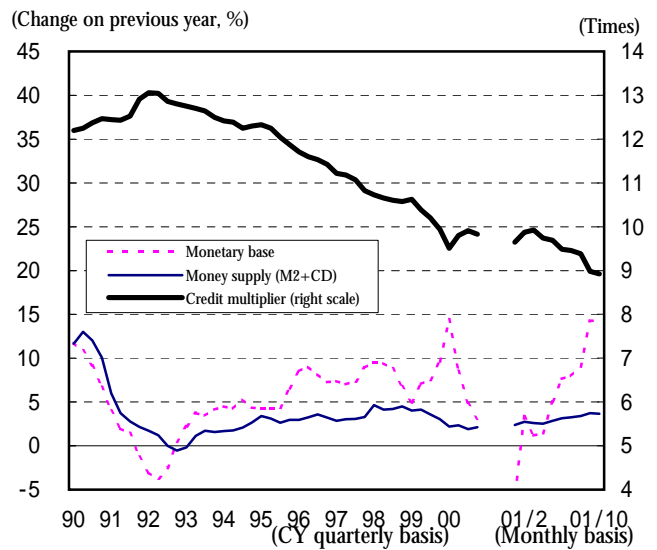
Figure 1-36. Trends in Selected Market Interest Rates



Notes: 1. Yield on long-term government bonds represents that on 10-year bonds.
2. Three-month CDs are represented by the quotation (buy) rate on new issues.

Source: Nihon Keizai Shimbun

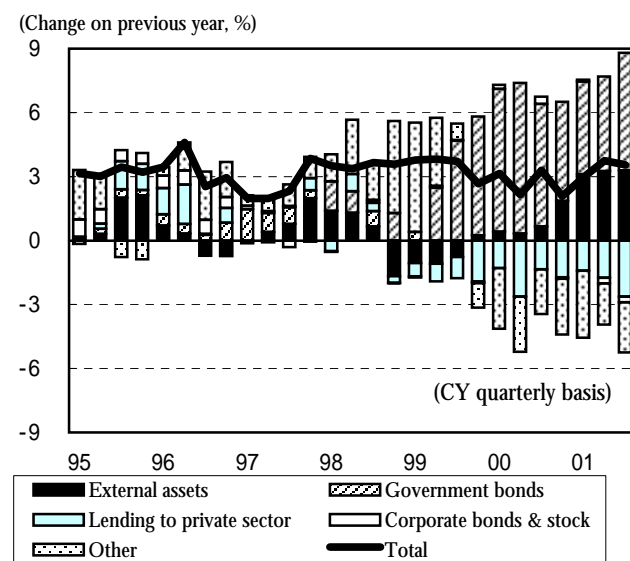
Figure 1-37. Trends in Monetary Base and Money Supply



Notes: 1. Change on previous year in average balance.
2. Credit multiplier = money supply (M2+CD)/monetary base. Seasonally adjusted.

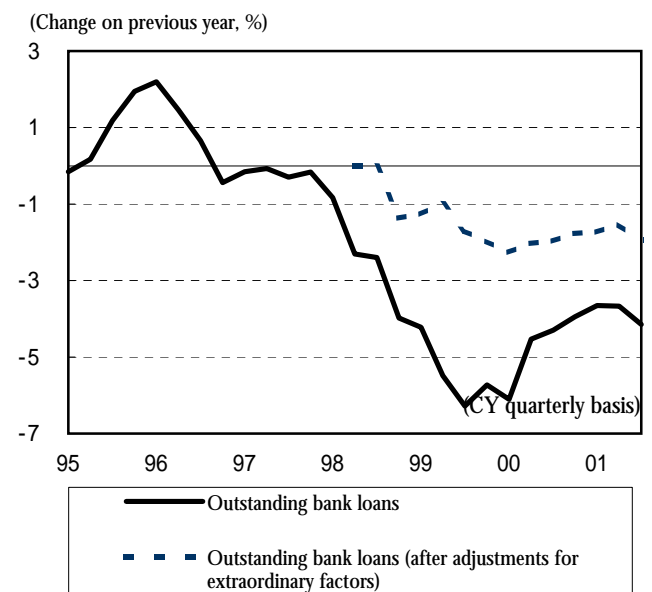
Source: Research and Statistics Department, Bank of Japan, "Financial and Economic Statistics Monthly."

Figure 1-38. M2+CD (Contribution by credit component to year on year change)



Note: Year-on-year change in term-end balance.
Source: Research and Statistics Department, Bank of Japan, "Financial and Economic Statistics Monthly."

Figure 1-39. Trends in Bank Loans

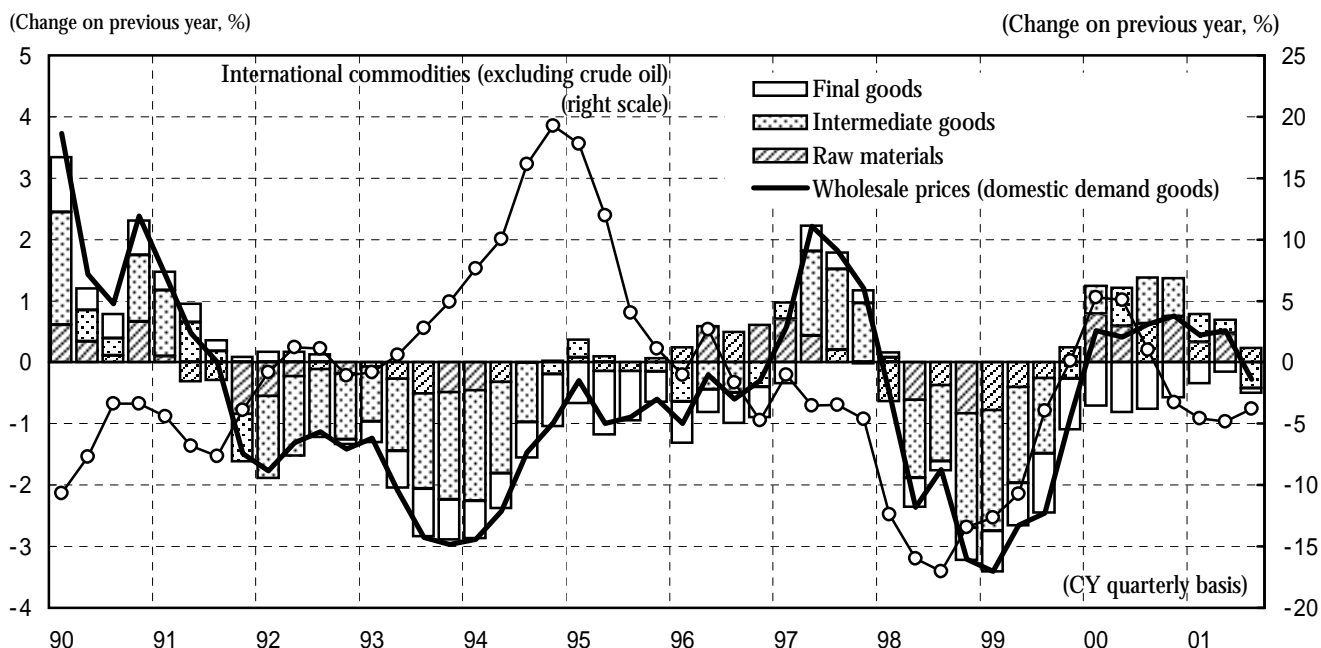


Notes: 1. Change on previous year in average balance.
2. Real deposits do not include deposits in long-term trust banks and trust banks.

Source: Bank of Japan, "Trends in Absorption of Lending."

Downturn in Wholesale Prices and Continued Decline in Consumer Prices

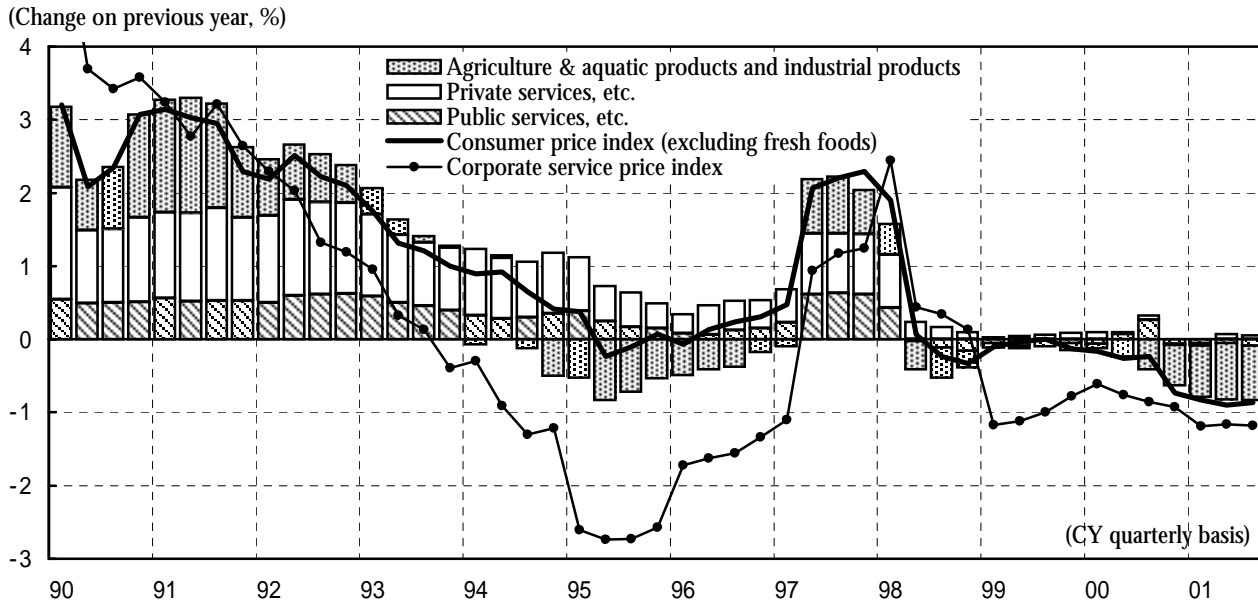
Figure 1-40. Trends in Commodity Prices and Wholesale Prices (Domestic demand goods)



Note: Wholesale prices represent the average of domestic and import prices for domestic demand goods.

Sources: Bank of Japan, "Monthly Report on the Wholesale Price Indexes;" IMF, "International Financial Statistics."

Figure 1-41. Trends in Consumer Prices (Excluding Fresh Foods) and Corporate Service Prices



Notes: 1. Private services, etc. include publications, rent and eating-out. Public services, etc. include electricity, city gas and water charges.

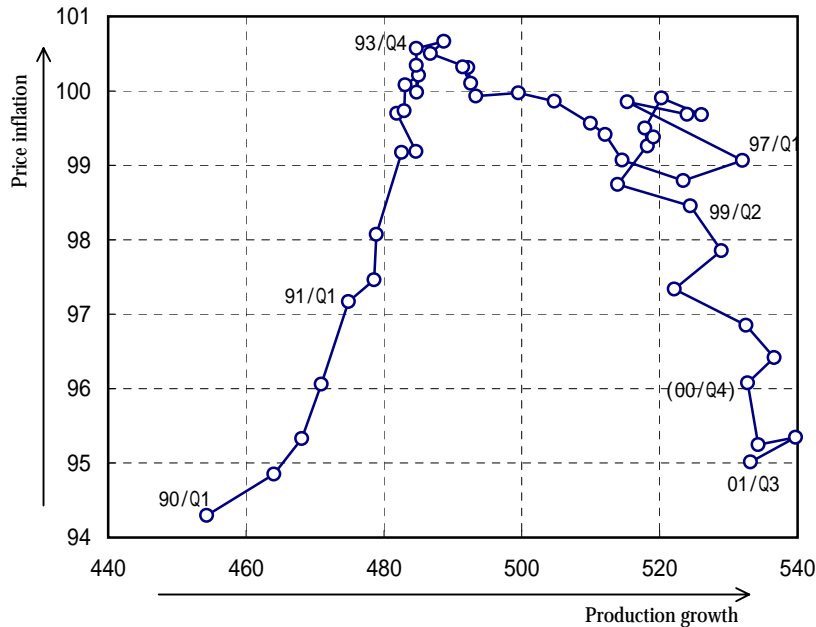
2. Corporate service price index excludes ocean freight transportation and international freight transportation.

Sources: Bank of Japan, "Monthly Report on the Wholesale Price Indexes;" Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Monthly Report on Consumer Price Index."

II. The Japanese Economy under Deflation and Prospects of Evolution

Concerns about the Japanese Economy and Prospects of Evolution

Figure 2-1. Macroeconomic Change in Output and Prices Level
(Horizontal axis = real GDP (¥ trillion), vertical axis = GDP deflator)



- Notes: 1. Real GDP and GDP deflator are both seasonally adjusted. (Seasonal adjustment of the deflator was conducted by DBJ based on the implicit deflator calculated from the original series of nominal and real GDP data.)
2. The most recent economic peak (October 2000) is estimated by DBJ.

Source: Cabinet Office, "Annual Report on National Accounts."

Typical concerns about the Japanese economy and signs of change

Can the corporate sector recover on its own?

Steady progress in business restructuring and changing industrial

Will the trade surplus keep shrinking?

Prospects of trade balance

Effect of China's accession to the WTO

Are financial markets malfunctioning?

Signs of movement toward the revitalization of financial cycle: emerging stock

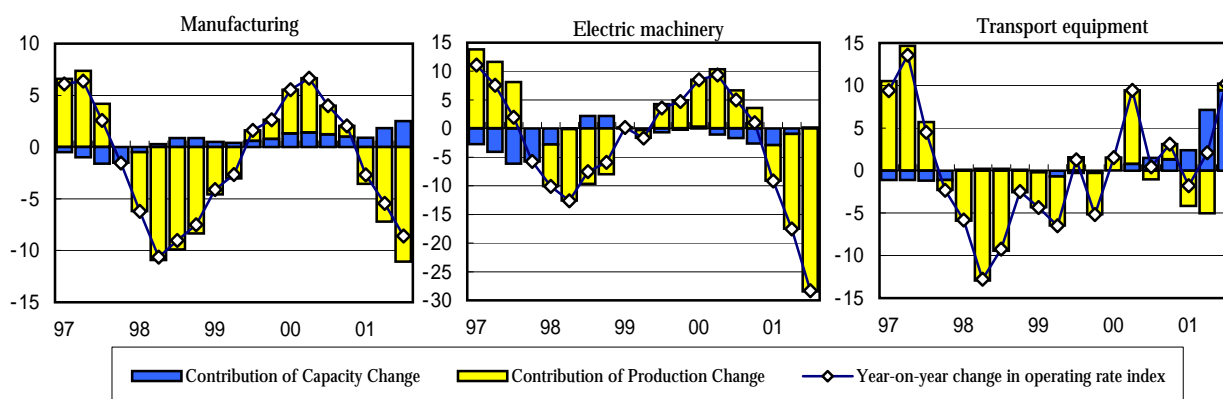
Has household expenditure saturated?

Toward the formation of broader housing markets

Emergence of a new consumption trend

Trends of Business Restructuring and Prospects of Revitalization of the Corporate Sector

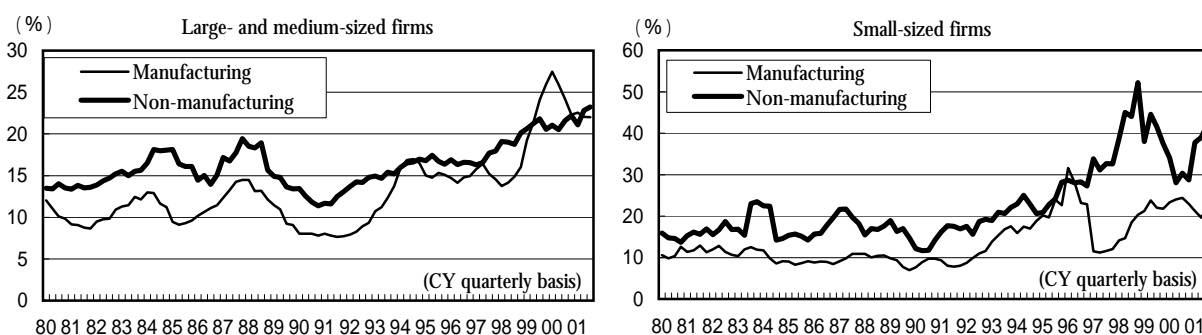
Figure 2-2. Trend of Year-on-Year Change in Operating Rate Index by Component (CY quarterly basis, %)



Note: Based on the relationship of operating rate = production level/capacity, year-on-year change in capacity index (reverse sign) is construed as the contribution of capacity change and the residual as the contribution of production change.

Source: Ministry of Economy, Trade and Industry, "Industrial Index."

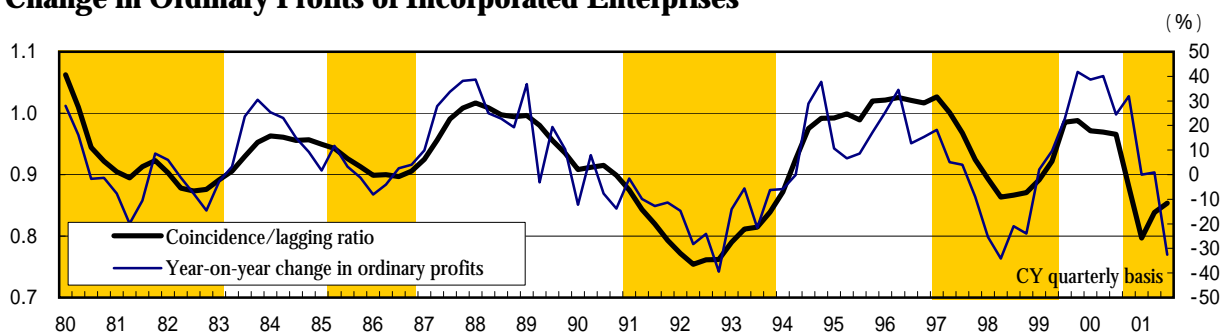
Figure 2-3. Ratio of Liquidity of Existing Equipment to Investment in New Equipment



Note: 1. Ratio of liquidity of existing equipment = sale, loss and transfer of tangible fixed assets excluding construction in progress and land/investment in new equipment. The denominator and numerator both represent moving average with four preceding periods.
2. The amount of sale, loss and transfer in July-September 1999 was excluded from the calculation of moving average, because of anomalies as NTT became a holding company.

Source: Ministry of Finance, "Quarterly Report of Statistics of Incorporated Enterprises."

Figure 2-4. Coincidence/Lagging Ratio of Business Condition CI and Year-on-Year Change in Ordinary Profits of Incorporated Enterprises



Notes: 1. Figures for coincidence/lagging ratio represent quarterly average of coincidence CI/lagging CI.
2. Shaded parts represent recession and white parts represent business expansion. The most recent economic peak (October 2000) is estimated by DBJ.

Sources: Cabinet Office, "Indexes of Business Conditions;" Ministry of Finance, "Quarterly Report of Statistics of Incorporated Enterprises."

Incessant Transformation of Industrial Structure

Figure 2-5. Cumulative Contribution to Change in Industrial Production Index since 1995 by Product

As of July-September 2001 (i.i.p=94.4) compared with 1995 average (i.i.p=100)

Top 20 positive contributors	Top 20 negative contributors
Active liquid crystal devices	MOS integrated circuits (memory devices)
PHS/portable phones	Medium and small sized passenger cars
Large sized passenger cars	Outfit of woven fabrics
Lithium ion batteries	Cathode-ray tubes for computers
Personal computers	Shovel type excavators
Optical fiber products for wires and cables	Static indirect copiers
Digital color copiers	Plastic machine devices and parts
Midrange computers	Small-sized trucks
MOS integrated circuits (logic devices)	Color TV
Chassis/body parts	Switching and controlling devices
Midget automobiles	Ordinary trucks
Plastic containers (hollow molded)	Boiler parts
Fixed condensers	Cement
Transmission and steering devices & parts	Car stereos
Transformers	Food cans
General-purpose steam turbines	VCRs
Car navigation systems	Word processors
Applied electronic toys	Facsimiles
Chillers for passenger car air-conditioners	Knitted outfit
Fixed telecommunication devices	Powder metallurgical magnetic materials

- Notes: 1. Cumulative contribution by product is defined as share in value added in 1995×(Jul.-Sep./01 index – 100), which differs from the cumulative contribution in a strict sense.
 2. Excludes industries for which data are not available by product (rolling stock, pharmaceuticals, foods/tobacco, wood & wood products, newspaper/publishing). Arrows indicate generational change or replacement in spending.
- Source: Ministry of Economy, Trade and Industry, "Industrial Production Index."

Figure 2-6. Cumulative Contribution to Change in Tertiary Industry Activity Composite Index since 1995 by Industry

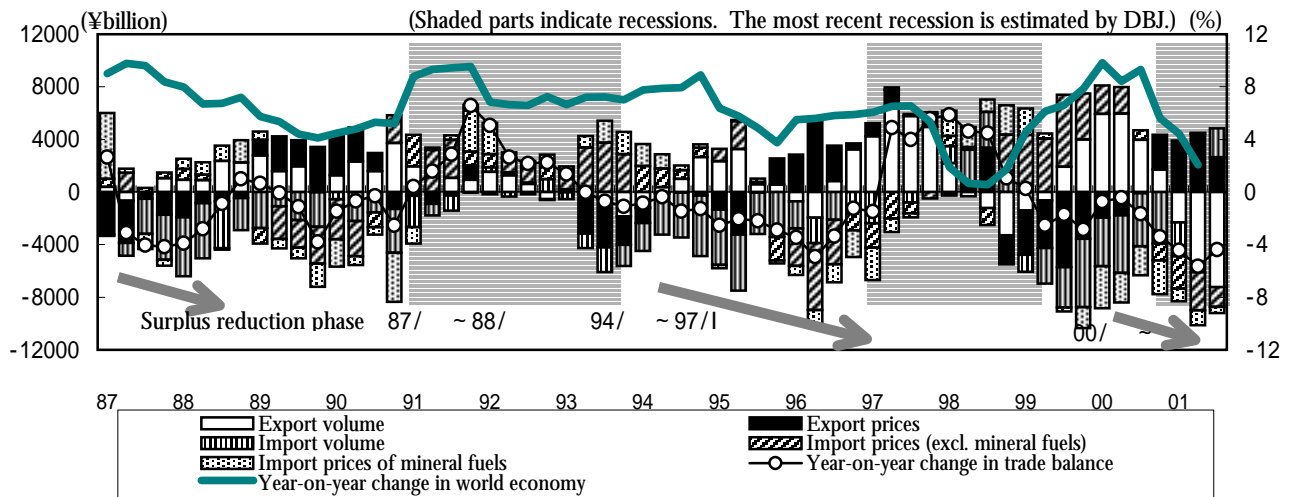
As of September 2000-August 2001 average (composite index=107.4) compared with 1995 average (composite index=100)

Top 10 positive contributors	Top 10 negative contributors
Mobile telecommunication	Wholesale of clothing and personal goods
Domestic telecommunications (excluding mobile telecommunication)	Retail of woven fabrics, clothing and personal goods
Public services	Retail of foods and beverages
Software development and programming	Truck freight transport
Restaurants	Wholesale of construction materials
Real estate rental	Wholesale of minerals and metal materials
Securities	Engineering
Banks, depositories, etc.	Real estate sales and brokerage
Other business services	Sport facilities, playgrounds & amusement parks
Wholesale of machinery and appliances	Wholesale of agricultural, livestock and marine products

- Notes: 1. Cumulative contribution by industry is defined as share in value added in 1995×(Sep./00-Aug./01 average index – 100), which differs from the cumulative contribution in a strict sense.
 2. Excludes the Bank of Japan, postal savings and other public entities included in finance/insurance. Arrows indicate generational change or replacement in spending.
- Source: Ministry of Economy, Trade and Industry, "Tertiary Industry Activity Index."

Reduction of Trade Surplus due to Sluggish World IT Market

Figure 2-7. Trade Balance (Trend of year-on-year change by component)



Note: World economy represents average real GDP of the US, UK, Germany, China, Korea, Taiwan and Hong Kong weighted by exports from Japan in 1995.

Sources: Ministry of Finance, "Trade Statistics;" OECD, "Int'l Trade by Commodities Statistics."

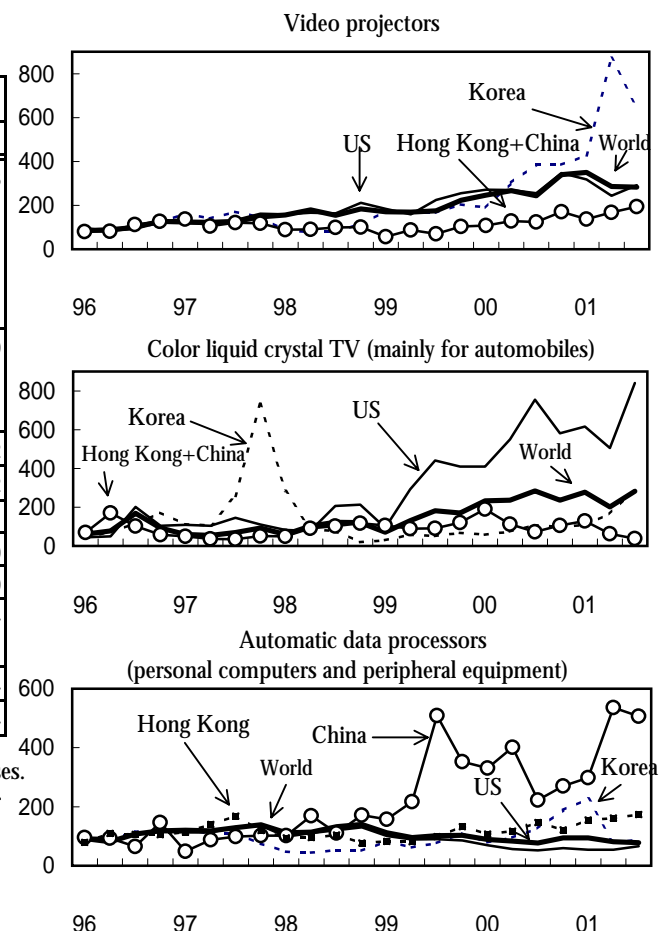
Figure 2-8. Year-on-Year Change in Exports by Products, April-September 2001

Product	Volume	Value	Contribution to value (%)
Total exports (100.0)	-	6.1	6.1
Electric appliances (23.4)	-	18.1	4.8
(Television (0.7))	(11.6)	(5.7)	(0.0)
(VCRs (1.9))	(17.6)	(4.0)	(0.1)
Telecommunication equipment (1.6)	-	(15.5)	(0.3)
(Integrated circuits (4.8))	(30.4)	(21.5)	(1.2)
General machinery	-	9.5	2.0
(Data processing (3.1))	(1.4)	(3.1)	(0.1)
(Metalworking machines (1.6))	-	(9.8)	(0.2)
Precision machinery (5.6)	-	3.2	0.2
Chemicals (7.6)	-	3.2	0.2
Non-metal mineral products (1.2)	-	4.5	0.1
Metals and metal products (5.9)	-	0.6	0.0
Textiles and textile products (1.9)	-	1.4	0.0
Transport equipment (22.5)	-	2.1	0.4
(Automobiles (14.8))	(5.7)	(3.3)	(0.4)
Foods (0.9)	-	105.5	0.4
Others (10.4)	-	4.1	0.4

Note: 1. The share of each product in total exports is in parentheses.
2. Video projectors and color liquid crystal TVs account for 58.1% and 8.0% of television exports in the first half of 2001, respectively.

Sources: Ministry of Finance, "Foreign Trade Statistics."

Figure 2-9. Trend of Export Volume by Destination (1996=100)



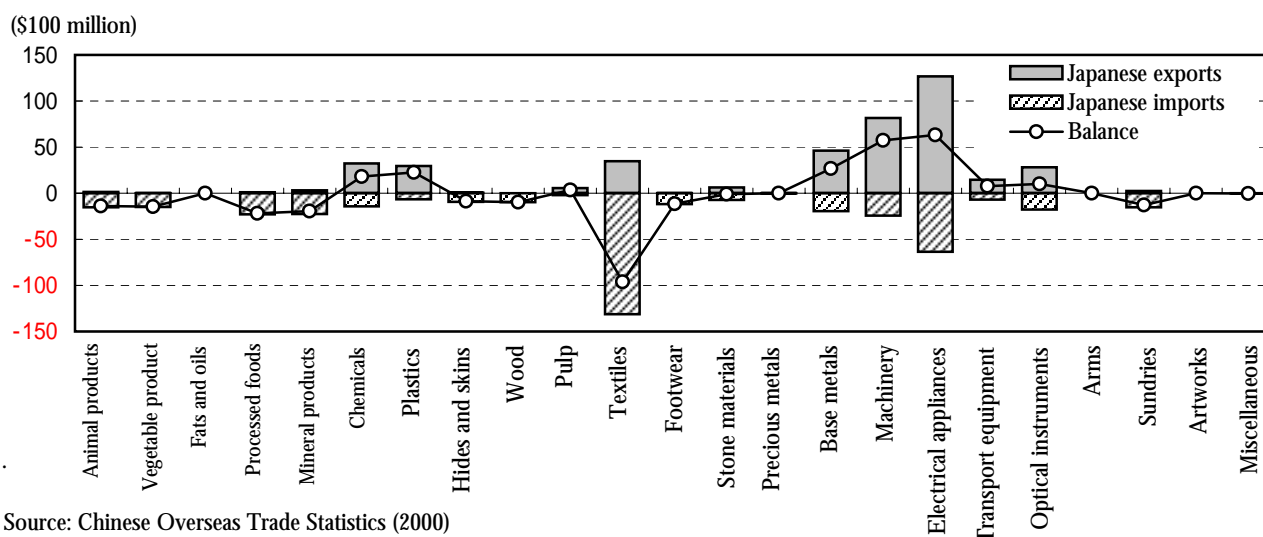
Export of Parts and Materials to China Expected to Increase Following Its Accession to WTO

Figure 2-10. Principal Requirements for Accession to WTO

General	Deregulation of international trade by domestic and foreign companies within three years. A transitional safeguard of 12 years to
Agricultural	Tariff reduction (average of 977 products) from 22.7% to 15.0%. Subsidies limited to 8.5% of total production.
Industrial	Tariff reduction (average of 6,174 products) from 16.6% to 8.9% (by 2010).
Textiles	Safeguard for textiles maintained until 2008.
Machinery	Tariff reduction on air-conditioners from 25% to 15% by 2004. Tariff on semiconductors to be reduced from 6% to 0%, and on IT products (semiconductors/PC, PC equipment, telecommunication facilities) from 13.3% on average to 0%, both by 2005.
Transport equipment (automobiles)	Enlargement of import quota by an annual rate of 15% from \$6 billion. Current tariffs of 70-80% to be reduced to 25% on passenger cars, 10% on parts and 0% on trucks by 2005. Abolition of restrictions on car models and on foreign capital participation i
Services	Commerce
Finance/insurance	Abolition of restrictions in terms of operating area, volume, ownership and after-sales service.
Telecommunications	Banks: Restriction on customers in foreign exchange operation to be abolished at the time of accession. Transactions in the Chinese yuan to be fully liberalized in two to five years. Geographical restrictions to be lifted within five years. Insurance: All Foreign ownership to be granted up to 51% for value-added telecommunications and 49% for other services within four years from accession. All services to be authorized in Beijing, Shanghai and Guangzhou at the time of accession. Geographical restriction

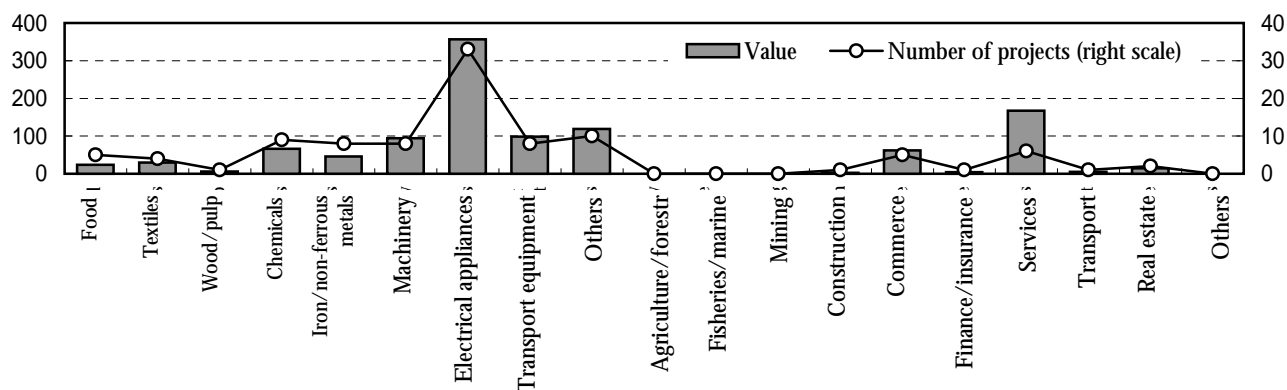
Sources: WTO Homepage, "Working Group Report" on September 17; various press reports.

Figure 2-11. Trade between Japan and China (2000)



Source: Chinese Overseas Trade Statistics (2000)

Figure 2-12. Japanese Direct Investment in China by Industry (Report basis, FY 2000)



Source: Ministry of Finance, "External Direct Investment."

Development of Stock Market for Emerging Businesses and Increase in M&A

Figure 2-13. Scale of Stock Markets for Emerging Businesses in Japan

	TSE Section 1 (a)	Emerging markets total (b)	(b)/(a)	JASDAQ	Nasdaq Japan	Mothers	Others
Listed companies	1,495	1,016	68.0%	902	69	37	8
Market capitalization	2,870,187	94,814	3.3%	80,176	9,113	5,422	103
Trading per day	8,318	248	3.0%	205	27	15	n.a.

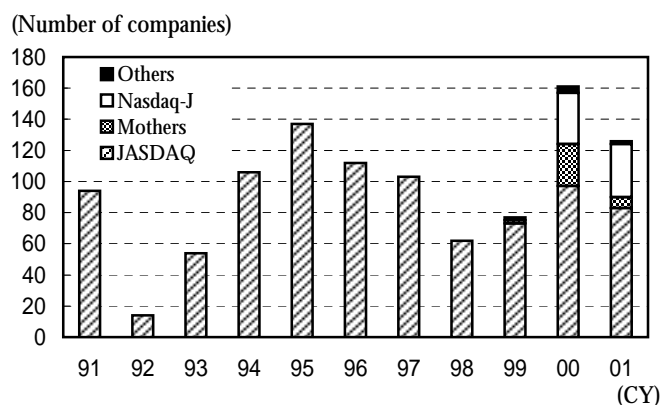
(¥100 million)

Notes: 1. The number of listed companies and market capitalization are as at the end of September 2001. Trading per day represents average for January-August 2001. JASDAQ excludes the Bank of Japan and shares placed under control.

2. Others include the New Market Section of the Osaka Stock Exchange (six listed companies), Centrex of the Nagoya Stock Exchange (one), Ambitious of the Sapporo Stock Exchange (one) and the Q Board of the Fukuoka Stock Exchange (0).

Sources: Tokyo Stock Exchange, "TSE Monthly Statistics;" Securities Dealers Association of Japan, "Annual Report of Statistics on OTC Stock," and "Security Dealers Report;" Nagoya Stock Exchange, "NSE Monthly Statistics," etc.

Figure 2-14. Trend of Newly Listed Companies in Emerging Stock Markets

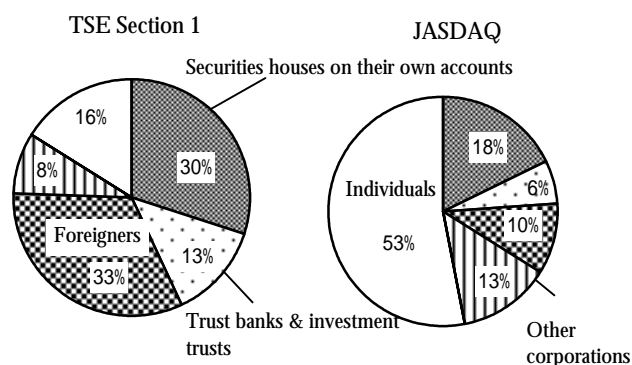


Notes: 1. 2001 includes the companies slated for listing within the year as at the end of October.

2. Others include the same markets as in Figure 2-13

Sources: Securities Dealers Association of Japan, "Annual Report of OTC Stock;" Web Site of each market.

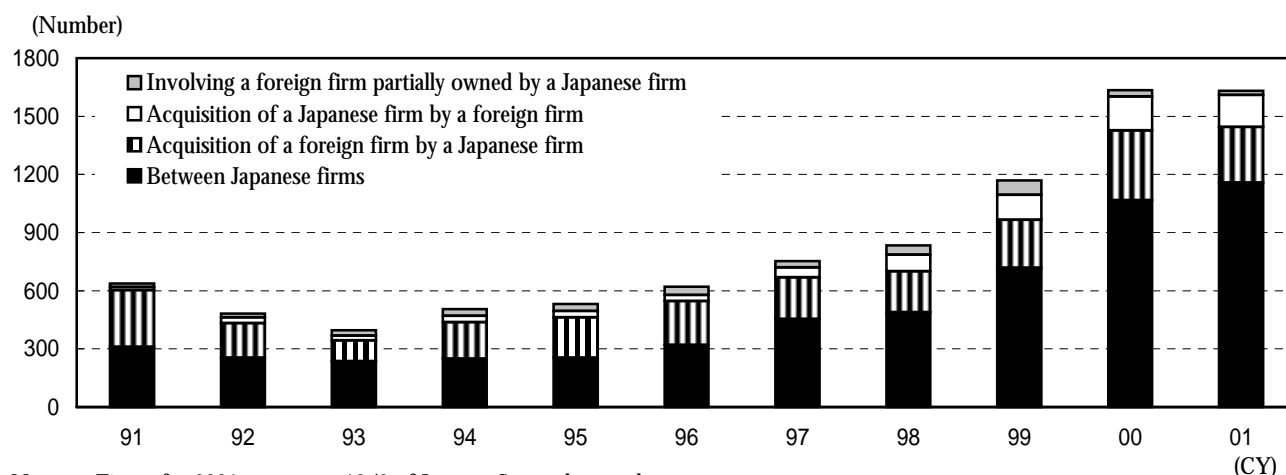
Figure 2-15. Transactions by Type of Investor



Note: Coverage rate is 87% for TSE Section 1 and 69% for NASDAQ.

Sources: Tokyo Stock Exchange, "TSE Monthly Statistics;" Securities Dealers Association of Japan, "Annual Report of Statistics on OTC Stock."

Figure 2-16. Trend of M&A

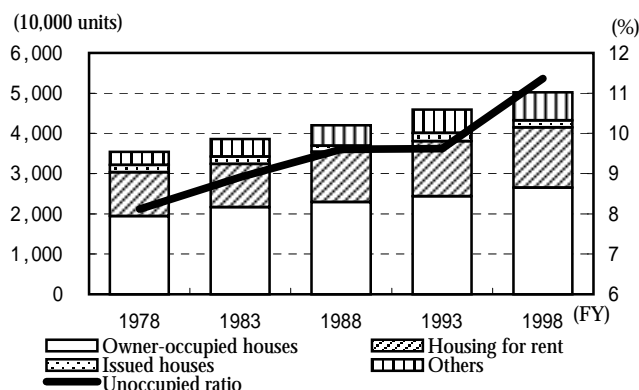


Note: Figure for 2001 represents 12/9 of January-September total.

Source: Lecof, Co. Ltd., "marr."

Hopeful Development of Markets for Rental Houses, Used Houses and Housing Renovation

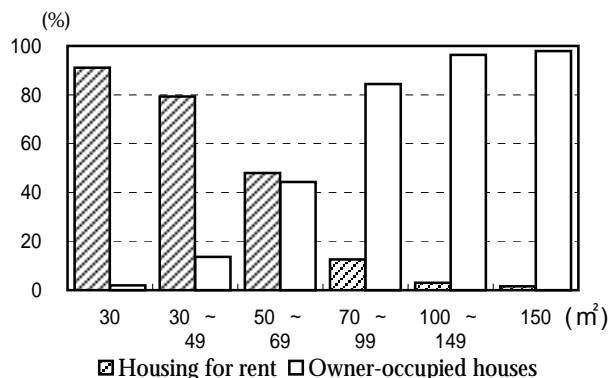
Figure 2-17. Housing Stock and Unoccupied Ratio



Note: "Unoccupied houses" do not include "secondary houses." "Others" include unidentified housing and housing with no inhabitant households. "Unoccupied ratio" only covers densely populated areas.

Source: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Housing and Land Survey."

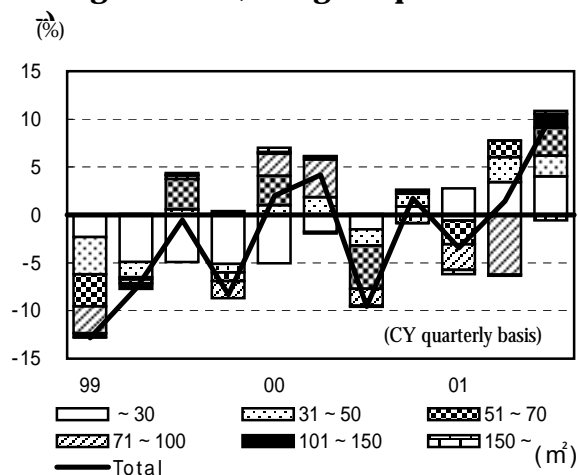
Figure 2-18. Housing for Rent in Housing Markets (1998)



Note: The share of housing for rent (owner-occupied houses) in each floor area segment. Housing for rent does not include issued houses.

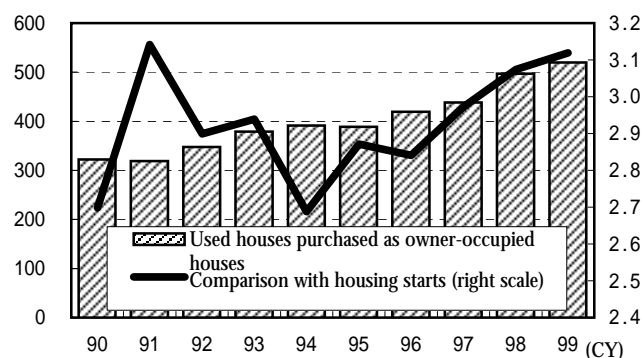
Source: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Housing and Land Survey."

Figure 2-19. Construction Starts of Housing for Rent (Change on previous)



Source: Ministry of Land, Infrastructure and Transport, "Building Construction Started."

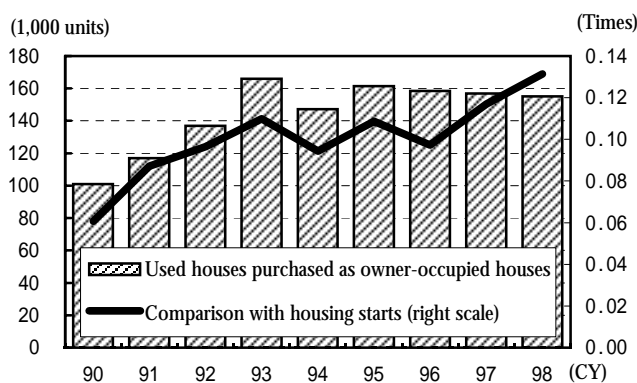
Figure 2-21. Trends in Secondhand Housing Market in US



Note: "Comparison with housing starts" represents used houses purchased/housing starts.

Source: U.S. Census Bureau, "Statistical Abstract of the United States."

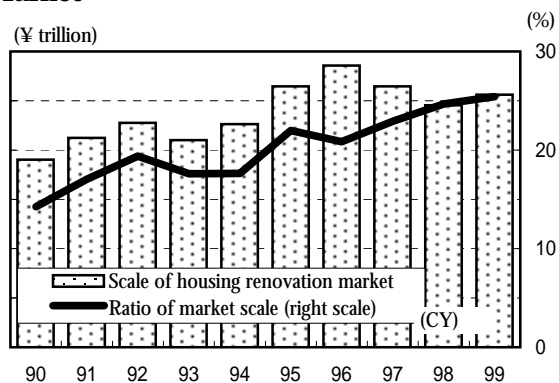
Figure 2-20. Trends in Used Housing Market in Japan



Note: The number of used houses for 1998 represents an estimate based on January-September data. "Comparison with housing starts" represents used houses purchased/housing starts.

Source: Jutaku Sangyo Shimbun, Co. Ltd., "Data on Housing Economy."

Figure 2-22. Trends in Housing Renovation Market



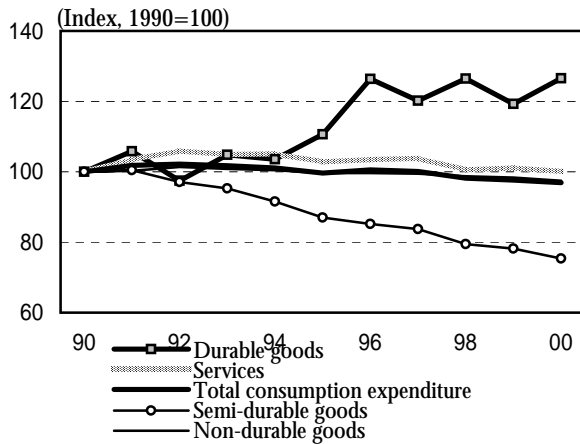
Notes: 1. Scale of housing renovation market is converted into real terms by housing deflator.

2. Ratio of market scale represents the scale of housing renovation market/real housing investment.

Sources: Cabinet Office, "Annual Report on National Accounts;" Center for Support of Housing Reform and Conflict Resolution, "Annual Report on Housing Reform."

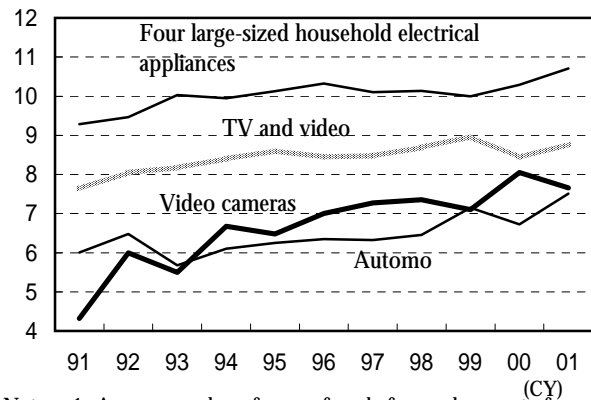
Increase in Real Consumption of Durable Goods and Expansion of Secondhand Markets

Figure 2-23. Real Consumption Expenditure Index by Product and Service



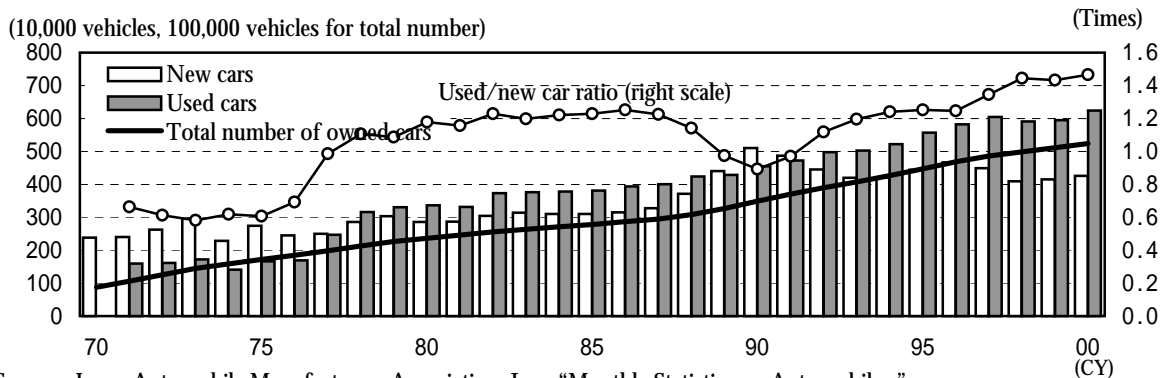
Note: Converted into real terms with the consumer price index excluding imputed rent.
Sources: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Family Income and Expenditure Survey" and "Consumer Index."

Figure 2-24. Period of Use of Durable Goods before Replacement



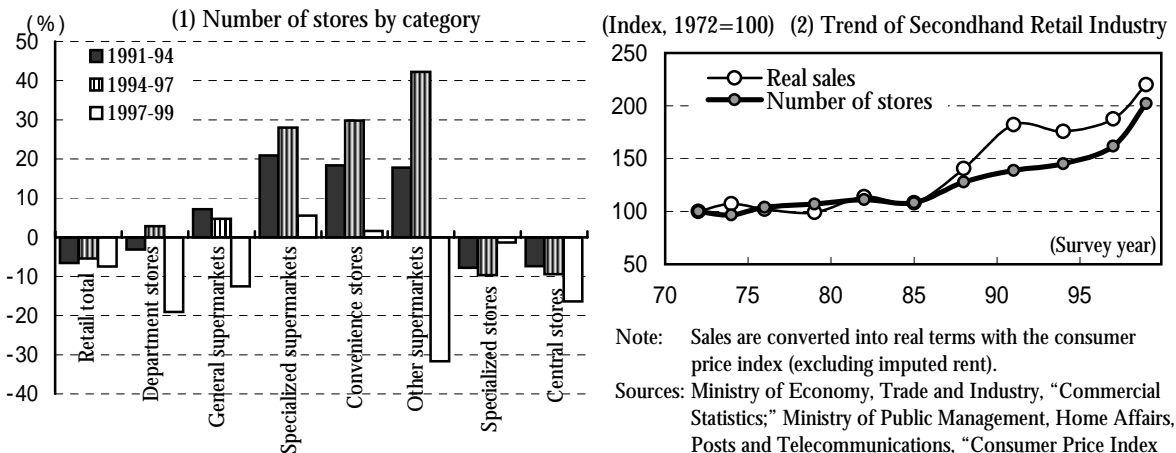
Notes: 1. Average number of years of use before replacement of durable goods (annual average).
2. Four large-sized household electrical appliances represent simple average of refrigerators, room air-conditioners, washing machines and vacuum cleaners.
Source: Cabinet Office, "Survey on Consumption Trends."

Figure 2-25. Sales of New and Used Passenger Cars



Source: Japan Automobile Manufacturers Association, Inc., "Monthly Statistics on Automobiles."

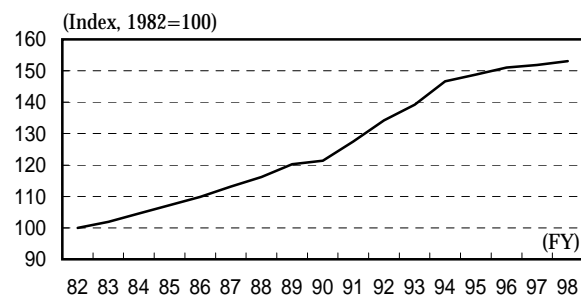
Figure 2-26. Emergence of Secondhand Retail Industry



Note: Sales are converted into real terms with the consumer price index (excluding imputed rent).
Sources: Ministry of Economy, Trade and Industry, "Commercial Statistics;" Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Consumer Price Index (1995 as base year)."

Strong Willingness to Spend on Education

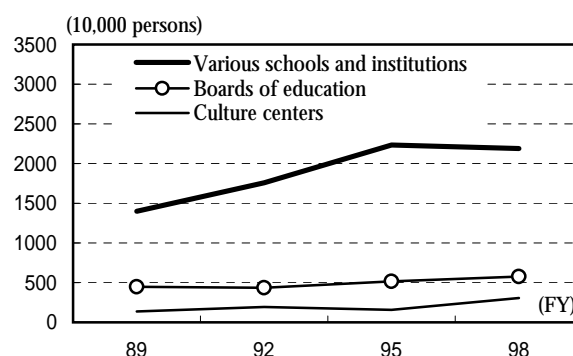
Figure 2-27. Trend of School Education Expenditure per Person



Notes: 1. Exclude extramural education (cram schools, private lessons, etc.)
2. Simple average of index for kindergarten, elementary school, junior and senior high school and college, weighted by the number of students in public and private schools.

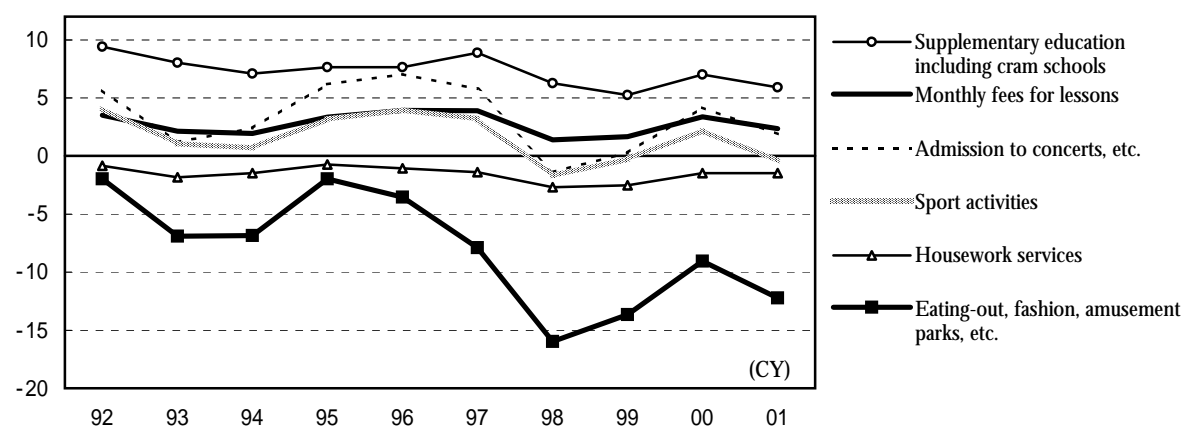
Source: Ministry of Education, Culture, Sports, Science and Technology, "Survey on Child Learning Expenditure."

Figure 2-28. Number of Participants in Lifelong Education



Source: Ministry of Education, Culture, Sports, Science and Technology, "Report of Survey on Social Education."

Figure 2-29. Trend of DI on Service Expenditure (Seasonally adjusted)



Notes: 1. Data represents planned "increase" - "decrease" (%) in expenditure for the coming three months. Average of 3Q and 4Q for 1992.

2. Eating-out, fashion, amusement parks, etc. represent simple average of the three components.

Source: Cabinet Office, "Survey on Consumption Trends."

Figure 2-30. Products with Widest Fluctuation in Household Consumption (1996-2000, annual rate)

(1) Products with fastest growth (change on previous year, %)

1	Wine	19.3	11	Fixtures	9.5
2	Personal computers/word process	19.1	12	Plastic bags and wraps	8.9
3	Eating-out of other noodles	16.7	13	Bananas	8.2
4	Works related to water and sewage	14.7	14	Phone bills	7.7
5	Video cameras	14.3	15	Private junior high schools	7.5
6	Charges related to housing	12.2	16	Automobile goods	7.4
7	AV disks	11.4	17	Cameras	7.3
8	Mackerel	10.5	18	TV games	7.3
9	Non-life insurance premiums	10.0	19	Batteries	6.9
10	Private elementary schools	9.8	20	Others in miscellaneous beverage	6.8

(2) Products with sharpest decline (change on previous year, %)

1	Imported whiskies	13.4
2	Women's clothing	11.8
3	Marriage ceremony expenses	11.1
4	Interior decorations	10.8
5	Canned processed foods	10.7
6	Thermos	10.5
7	Other rent	10.3
8	Electric kotatsu	9.9
9	Domestic whiskies	9.8
10	Hair setting	9.6

Note: Average of annual growth rates for the five calendar years.

Source: Ministry of Public Management, Home Affairs, Posts and Telecommunications.

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