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Recent Trends in the Japanese Economy:
Globalization and the Japanese Economy

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Recent Trends in the Japanese Economy: Globalization and the Japanese Economy

Summary

I. Compared to other countries and regions, in the 1990s Japan witnessed slower economic growth or even stagnation. Still, recent data shows a high degree of linkage between the U.S., Europe, Asia and Japan regarding short-term economic changes. The Japanese economy lags behind the U.S. economy by several quarters, while the Asian economy has reacted quickly to or even preceded the U.S. economy, which has served as the engine of growth for the world economy.

The U.S. economy has been recovering in terms of GDP growth since October-December 2001 thanks to solid consumer demand for cars and housing. However, corporate capacity utilization remains at low levels and the adjustment of fixed assets has not been completed. As a result, nonresidential fixed investment has continued to slump except for that in information-related equipment.

The major European economies are bottoming out. The French and German economies slowed in 2001 due to the subdued industrial sector resulting from more moderate export growth. However, there have been signs of gradual recovery since the start of 2002 thanks to the improving export situation.

The major Asian economies are improving. There have been clear signs of recovery in Taiwan and Singapore, two countries that rely heavily on exports. Korea has enjoyed solid consumption and its exports have been recovering.

The Chinese economy has not demonstrated a strong linkage with the economies of the other countries and regions. It continues to enjoy a high rate of growth due to public investment, real estate investment, higher consumption due to wage hikes for public workers and aggressive direct investment from foreign countries.

II. The Japanese economy appears to be bottoming out as the U.S. and Asian economies recover and as adjustments in the IT sector get underway. Overall, the economy appears to be turning upward, despite concerns that the poor employment situation will hurt consumption.

On the supply side, industrial production fell sharply until October-December 2001, especially in the area of electric machinery. This was mainly due to the poor supply and demand situation for IT-related products. While industrial production has been at the lowest level since the 1990s, there was a slight rise in January-March 2002 and further improvement is widely expected. Looking at the inventory cycle, producer goods (electronic components and other intermediate goods), for which adjustment has been more serious than that of the previous cycle, have now moved into the recovery stage ahead of final goods and this should help to improve the cycle for the manufacturing industry overall. Tertiary industries remain weak due to the scaling back of corporate activities and weak consumption, and the construction industry has remained stagnant. Unemployment is high, remaining above 5% due to an increase in involuntary unemployment, especially among the larger corporations. However, overtime has increased in line with the recovery in production.

On the demand side, exports to Asia and the U.S. appear to have bottomed out, but it will take time for this to lift internal demand by spreading to consumption and fixed investment.

Personal consumption remains weak due to the poor income and employment situation, suppressed persistently by concerns about government budget deficits and pension problems. Personal consumption is expected to remain weak for the time being amid the uncertain earnings and employment environment. Plant and equipment investment continues to be constrained in some of the deregulated non-manufacturing sectors, but there have been signs of improving investment profitability in the manufacturing sector. The relationship with investment profitability and some leading indicators in the past suggests

that the decline in plant and equipment investment will cease in the second half of fiscal 2002.

Residential investment in rental units has been strong, but investment in owner-occupied housing remains weak. Public investment is very likely to continue to decline due to the ongoing fiscal reforms. Exports are expected to continue improving, while imports have recently started to level off after falling due to poor internal demand. However, the structural increase in imports from China is expected to continue.

Looking at the financial sector, as the Bank of Japan has kept its quantitative easing policy, private investors and banks have been able to continue to avoid credit risks. The weakening of this financial intermediary function means that it will take time for the policy to take effect. The policy will therefore continue for as long as consumer prices continue to fall.

III. Recently, there have been growing concerns that globalization will lead to hollowing out of the Japanese economy for the third time following the yen-appreciation induced recession of the mid-1980s and the super-strong yen period of the mid-1990s. This recent concern consists of two unique features. First, people are increasingly concerned under the yen depreciation in comparison with the break-even point for exporters. Second, there are concerns about the rising competitiveness of the Chinese economy. This report provides objective arguments regarding the hollowing out of the Japanese economy. Analysis of the data revealed the following.

1. Direct investment, which is a good indicator of globalization, has become very active in recent years between the U.S. and Europe and intra-EU due to large-scale M&A. In contrast, Japan's direct investment, both in flows and outflows, has remained surprisingly low.
2. Overseas direct investment does not necessarily replace domestic investment, but rather the two complement each other. The ROA of subsidiaries in the U.S. and Europe has been improving. The main problem for Japanese firms is how best to raise absolute profitability both domestically and overseas.
3. The effect of exports being replaced along with the shift of production overseas has been widely reported. However, a closer examination on how this shift can trigger exports and how re-imports can raise the economic welfare of consumers is required.
4. Japan is a leading creditor nation with huge net external assets, but its gross assets are still much smaller than those of the U.S. and the U.K. Furthermore, these assets are mainly in bonds and other low-risk instruments, and so the expected returns are smaller.
5. China has been using direct investment from foreign countries to fuel development. However, the country receives far more direct investment from the U.S. and European countries than from Japan. China will continue to become more competitive regardless of whether or not Japan provides direct investment.

Regardless of the fears about the hollowing out of industry, the Japanese economy has lagged behind in terms of embracing globalization. As globalization accelerates, Japan will need to build a highly adaptable economic structure and strengthen its industrial base while improving the quality of life.

(As of June 19, 2002).

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I Recovery of the Global Economy

1. The Japanese Economy and Recovery of the Global Economy (see p. 29 for figures)

Compared to other countries and regions, in the 1990s Japan witnessed slower economic growth or even stagnation. This gap between Japan's growth rate and those in other economies became much more pronounced in the latter half of the 1990s. Comparing real GDP indexed against 1990 as 100 (Figure 1-1 (1)), the NIEs countries and four main ASEAN countries consistently achieved faster growth than the developed economies, except for 1998 when the Asian currency crisis resulted in negative growth. A comparison of economic growth among the developed countries shows that Japan enjoyed steadier growth than the U.S. and the EU during the 1980s, but the rate of growth slowed around 1990 and declined to the same level as these economies.[1] Around this time the U.S. economy started to recover and went on to record the longest period of economic expansion in its history, extending its lead over Japan and the EU. The European economies also remained strong as unification progressed. However, the Japanese economy retreated sharply in 1998 due to the impact of the Asian currency crisis and falling confidence in the nation's financial system, and this stagnation has since worsened. In fact, based on a comparison of real GDP, Japan fell a full 10 percent below the EU.[2]

An examination of economic correlations between the growth rates of these economies on an annual basis shows that positive correlations exist between Japan and ASEAN, between ASEAN and NIES, and between the U.S. and EU (Figure 1-1(2) bottom left). The economies within the Asian region and those of the U.S. and Europe have long been closely connected. However, when examined on a quarterly basis since the recovery from the Asian currency crisis (Figure 1-1 (2) top right), there have been strong economic connections between these countries and regions, except for China which continued to enjoy steady growth of at least 7% during this period.

Regarding Japan's relationships with the U.S. and NIES, whose economies more closely related to Japan, correlations between growth rates were found, albeit with various lags. Figure 1-2 shows that correlation coefficients are larger when the growth rates of the U.S. and NIEs are taken as having negative lags, showing that these two economies tend to lead Japan. NIEs rely heavily on exports, particularly IT-related products, to the U.S. and so are very sensitive to changes in the U.S. economy.[3]

Taking these relationships into consideration (Figure 1-3), like the economy of the U.S. which had fueled the growth of other countries, the economies of both NIEs and Japan retreated in 2001. However, the U.S. economy has grown again in recent quarters and so NIEs, which are closely related with the U.S. in IT trade and other areas, saw their economies recover quickly and even grow rapidly. Considering that Japan's economic changes have lagged those of the NIEs and the U.S. in the past, Japan's economy may now be moving toward improvement.

2. U.S. (1): Personal Consumption Improving but Weakness Continuing in Nonresidential Fixed Investment (see p. 30 for figures)

The U.S. economy continued to slow down from the second half of 2000 and registered negative growth in July-September 2001, the first such period of negative growth since January-March 1993. However, the U.S. economy now appears to be recovering again after recording a quarterly annualized growth rate of 1.7% in October-December 2001 and a 5.6% increase in January-March 2002 (preliminary estimate).

Personal consumption has been a main contributor to this growth in real GDP. Personal con-

[1] Unless otherwise specified, the term "EU" in this report refers to the 15 European countries, not just the 12 countries that share the euro currency.

[2] Based on the figures for 2001, NIEs were at 188, the ASEAN 4 at 157, the U.S. at 139, the EU at 125, and Japan at 115 (indexed to 1990 as 100). The shaded sections in the figure indicate years in which the growth rate fell below the trend obtained by smoothing with the HP filter.

[3] When directly measuring the correlation between the U.S. and NIEs, NIEs tend to lead the U.S. Furthermore, Granger causality tests with multiple lags including autocorrelation show that NIEs also lead Japan, lending further support to the above result.

sumption was weak in the April-June and July-September quarters of 2001, and the outlook became even bleaker following the September 11 terrorist attacks. However, the U.S. government implemented various tax relief measures, and car sales remained strong as automakers conducted aggressive sales campaigns including zero-percent financing and cash-back incentives. Housing investment also remained strong, hence consumption of construction materials and other housing-related products was solid. As a result, overall personal consumption in the U.S. has been improving.

However, nonresidential fixed investment has continued to slump, recording quarterly declines since January-March 2001. As will be described in a later section, production levels have remained low and the adjustment of equipment inventories has not been completed. With corporate earnings still sluggish[4], fixed investment will take time to recover. However, while investment in buildings and general machinery continued to sink, investment in computers and other information-related equipment rose for two straight quarters, October-December 2001 and January- March 2002, indicating a bright spot in fixed investment

3. U.S. (2): Production Improving but Difficult Employment Situation Continuing (see p. 31 for figures)

Industrial production continued to rise until October-December 2001 (Figure 1-7). In addition to the sharp drop in the production of durable equipment due to the stagnant fixed investment, the production of consumer goods has also been declining. However, as inventory levels have been adjusted, industrial production has improved: output for January-March 2002 marked the first quarterly rise in six quarters. Consumer goods production has increased on the back of solid consumer spending, and the fall in production of durable equipment has shrunken considerably. However, capacity utilization fell throughout 2001 and was still well below 80% during January-March 2002, suppressing fixed investment.[5]

The employment situation remains severe. The number of employed people fell continuously from April-June 2001 to January-March 2002. Among the various sectors, there was a clear reduction in the number of workers in the manufacturing sector. The service sector (including wholesale, retail and others), which supported the increase in employment during the 1990s, saw sharp reductions in employment in some areas during October-December 2001 due to the September 11 terrorist attacks, and remains weak. As a result, the unemployment rate rose from around 4% in October-December 2000 to 5.3% in January-March 2002 and as high as 5.8% in May of this year.

On the financial side (Figures 1-9, 10), stock prices rose sharply at the start of 2002 on the back of expectations for a quick economic recovery. However, prices began falling in late March on fears that the growing expectations for an economic recovery would lead to a rise in interest rates, market concerns that corporate earnings would not recover as strongly as forecasted, and due to increased tensions in the Middle East. From April the markets became bearish due to the outlook for corporate earnings and doubts that the economy would experience a true recovery. In the U.S., the Federal Fund rate was left at the target level of 1.75% since the economy entered its recovery stage. Long-term interest rates, which have a big impact on stock prices, have remained largely unchanged.

4. Economies of Major European Countries (Germany, France, U.K.) in Period of Bounching a Bottom (see p. 32 for figures)

This section will examine the economic conditions for three major European countries: Germany and France, which were among the 12 countries that adopted the euro as a common currency from 1999, and the United Kingdom,

[4] The level of profits before taxation and depreciation from October-December 2001 was higher than in previous quarters, but this was due to depreciation based on the government's tax reduction measures and to changes in the system for carrying forward tax losses.

[5] When the operating ratio in the manufacturing sector exceeds around 80%, there tends to be a positive correlation with equipment investment. Refer to "This Month's Key Indicators" No. 10, produced by the Development Bank of Japan (http://www.dbj.go.jp/japanese/research/download/indicate.html).

which is a member of the European Union (15 members) but has not embraced the euro.

The German economy was the first in the EU to begin slowing down from the latter half of 2000 as higher crude prices and a weak euro resulted in higher commodity prices and a decline in private consumption (Figure 1-11(1)). The U.S. slowdown in IT investment in 2001 had a significant impact on the global manufacturing sector. Exports of mainly capital goods slowed and production fell. Germany's real GDP growth rate (seasonally adjusted, quarterly annualized rate) was the worst among the euro bloc nations, posting negative growth for two consecutive quarters: minus 0.7% in July-September 2001 and minus 1.0% in October-December 2001. During this period exports leveled off and domestic demand slumped. Even though after-tax income increased due to tax cuts which took effect from January 2001, the benefits were weakened by the poor consumer sentiment in the latter half of the year. The excessive investment during the construction boom following the reunification of East and West Germany has resulted in a structural slump in the construction sector, causing a slump in fixed capital formation. At the start of 2002, the sense that the U.S. economy was starting to recover led to a stronger dollar against the euro, which in turn helped lift exports through a recovery in foreign demand and a weaker exchange rate. As a result, there was 0.7% growth in the January-March period of this year, and the economy is now gradually recovering.

The French economy began to slow down in early 2001 mainly due to the worsening environment for exports (Figure 1-12 (2)). Even though private consumption remained relatively strong, exports continued to decrease, which contributed to a slowdown in fixed capital formation. Real GDP fell 1.8%, the first decline in two quarters, during October-December 2001, also reflecting changes in inventories. Corporate sentiment at the start of 2002 improved as exports rebounded, reflecting expectations for a recovery in production and inventory adjustments. As a result, growth resumed in early 2002. Real GDP in January-March of this year rose 1.4%.

The economic expansion in the U.K. since mid-1999 has started to slow gradually. Real GDP for April-June 2001 increased 2.0%, followed by 1.7% growth in the subsequent July-September quarter, but then zero growth in the October-December quarter, marking the first quarter since October-December 1991 without positive growth (Figure 1-12 (3)). During this time private consumption remained strong but external demand was weak, as was the case with Germany and France during this time. The British pound remained strong against the euro, which contributed to a reduction in British exports. As a result, the manufacturing sector scaled down production and capital formation. The growth rate during January-March 2002 was only 0.1%, which was comparatively weak among these three countries, as private consumption slowed.

Looking at the recent trends in production according to the industrial output figures (seasonally adjusted), France has already witnessed quarterly growth, the quarterly figures for Germany are mostly unchanged, while the U.K. is still seeing quarterly decreases (Figure 1-12). Since late 2001 the production trends and economic growth for these three countries have fluctuated along similar cycles, suggesting that these economies bottomed out during October-December 2001, but are recovering at different speeds.

The employment situation in these countries was studied by analyzing the unemployment rate (International Labor Organization standards, seasonally adjusted) (Figure 1-13). Germany saw a decline in its unemployment rate from the latter part of 1998 thanks to an increase in service-sector jobs, and by the end of 2002 the rate had finally fallen to 7.7%, down 2% from its peak. However, from early 2001 reduced production in the manufacturing sector required employment adjustments and so the unemployment rate crept back up to 8.1% in early 2002. Faced with this worsening employment situation, the German government gradually introduced wage subsidies for low-wage workers such as those in nursing-care to expand employment, but the unemployment rate has little changed recently. There are also reasons for concern regarding employment conditions: in May 2002 Germany's largest labor union, the metal workers' union IG Metal (2.8

million members) held their first strike in seven years to demand higher wages. The resulting settlement provided lump-sum payments of 120 euros and a 4% wage increase from June (3.1% in 2003) and is expected to affect wage negotiations in other industries as well. This means that corporate earnings will be undercut by rising labor costs, raising fears about the possible impacts on production and employment.

The unemployment rate in France fell to 8.6% in the first half of 2001, down more than 3% from its peak, thanks to economic expansion and growth in public-sector employment. However, from the latter half of 2001 unemployment began to increase in line with the worsening corporate earnings, reaching 9.1% in March 2002. Since winning re-election in May 2002, the Jacques Chirac administration has proposed several employment initiatives, such as establishing a 35-hour workweek introduced in 1997, and expanding the system by which local governments provide wage subsidies to low-wage workers. These efforts are expected to have some effect.

In the U.K., the unemployment rate has declined steadily since 1993 due to the flexible labor market resulting from restrictions on unemployment payments and deregulation, and fell below 5% in the first half of 2001. Even though there was a slight rise to 5.1% in March 2002, the rate in the U.K. is still around 25-year lows. There are concerns that poor corporate earnings could lead to higher unemployment, but the service sector has continued to develop and so the employment situation is still favorable.

Fears of inflation started to subside in the euro area from the latter half of 2001 (Figure 1-14). Energy prices, which had pushed up prices, began to stabilize, the rise in food prices following the outbreaks of BSE and foot-and-mouth disease subsided, and the sharp drop in the euro also steadied. At the start of 2002 there was some upward price pressure on unprocessed foods due to bad weather, and the introduction of new tobacco taxes in several countries also hit prices. In fact, the Harmonized Consumer Price Index has increased just over the 2% reference value set by the European Central Bank. Amid expectations for an economic recovery, there are concerns that higher labor costs, such as those resulting from the German labor negotiations, may push prices higher. Although it was feared that the changeover of price labels upon the introduction of the euro cash in January 2002 would be used as an excuse to raise prices, this actually has had little impact on overall prices. Moreover, the convergence of prices within the euro bloc should lead to lower prices in the long term.

Between May and November 2001 the ECB lowered the official interest rate from 4.75% to 3.25% as financial easing amid concerns of an economic slowdown. The fall in sentiment halted in November, but the official interest rate will remain unchanged until June 2002 as economic considerations and price movements are carefully monitored.

5. Recovery among Major Asian Economies (Korea, Taiwan, Singapore)

(see p. 33 for figures)

The major Asian economies appear to have entered a recovery phase. In terms of GDP growth rates in 2001, Korea saw 3.0% growth, Taiwan minus 1.9% and Singapore minus 2.0%. Looking at quarterly growth rates (Figure 1-15), Korea expanded after reaching a trough in July-September 2001 and posted 5.7% growth for January-March 2002 (the figures in this section are year-on-year). Taiwan also touched bottom in July-September 2002 before recording 0.9% growth in January-March 2002. Singapore has been lagging behind by one quarter, hitting its bottom in October-December 2001. Although the decline was smaller in January-March 2002, the growth rate was still minus 1.7%.

The industrial output figures are moving roughly in line with the GDP figures (Figure 1-16). In terms of industrial output in April, Korea saw a 7.4% rise, Taiwan a 8.4% rise and Singapore a 8.1% rise, providing clear evidence of recovery.

The differences in economic growth among these three countries/region are due largely to the differences in private consumption. A breakdown of the GDP growth (Figure 1-17) shows that consumption has made a positive contribution in Korea since 1999. In contrast, in Taiwan and Singapore, net exports made a positive contribution, while investment (fixed capital formation) continued to fall. Singapore experienced a de-

cline in consumption, too.

The decline of imports and exports eased from the start of 2002. In April all three countries/region saw big jumps in exports due to the demand increase for semiconductors and other products as the U.S. and Asian countries started to recover. Korea and Taiwan also saw increased imports (Figure 1-18).

Korea could have avoided negative growth during this global economic slowdown, largely because the country had already undergone drastic IMF-led structural reforms during the Asian currency crisis. Furthermore, stimulus measures such as last year's interest rate cuts and special consumption tax cuts maintained the consumption. However, there is now fear of a mini-bubble, as the low interest rates have led to an increase in borrowing, which in turn has led to more funds being poured into real estate and the stock market. Therefore, although prices have remained steady, the Bank of Korea preemptively raised interest rates in May 2002, the first such raise since October 2000.

6. China: Maintaining High Growth Rate by Internal Demand Expansion

(see p. 34 for figures)

China has continued to enjoy a high growth rate in its real GDP, seeing a 7.3% rise in 2001, and a 7.6% rise in January-March 2002 (Figure 1-19). The value added of Industry has also continued to enjoy a high rate of growth (Figure 1-20), rising 12.1% year-on-year in April 2002, largely on the back of growing consumption and investment in fixed assets.

The high rate of growth in retail sales of consumer goods (Figure 1-21) has been supported by stimulus measures such as a wage hike for public employees. However, this growth is now slowing. It marked an 8.4% increase in January-March 2002 followed by 8.2% in April. Another wage hike for government employees in July is currently being considered.

The growth rate of investment in fixed assets has increased since the start of 2002 (Figure 1-22), with 26.1% growth in the January-March quarter and 28.4% growth in April. This was due to an increase in real estate investment and investment through government expenditure. Even though the share of fixed asset investment attributed to foreign direct investment has been declining in recent years, it still plays a major role, accounting for 5.1% in 2000.

The growth in exports and imports started to level off in 2001 (Figure 1-23), but there was a jump from the beginning of 2002. Exports in April were up 17.2% and imports up 17.8%, and the trade balance remains in the black. In 2001 China had a trade surplus of 22.5 billion dollars with the world and a trade surplus of 2.2 billion dollars with Japan.

The consumer price index has showed a slight downward trend (Figure 1-24). Consumer prices in April were down 1.3% year-on-year. The retail price index which excludes services, and the ex-factory price index have both lost ground.

II Japanese Economy Bottoming Out

1. Overview: Production Starting to Recover

(see p. 35 for figures)

The Japanese economy appears to be bottoming out as the U.S. and Asian economies recover and as the correction in the IT-related sectors runs its course. Despite concerns that the poor employment situation will hurt consumption, the economy appears to be recovering.

Real GDP in 2001 fell 1.3%, marking the first downturn in three years and only the second time negative growth was recorded since the current standards were adopted in 1980. The Japanese economy has been facing problems on almost every front. Exports and plant and equipment investment, the two driving forces of growth in the previous year, retreated due to the slump in the global IT sector. Consumption remained weak, rising a mere 0.3% in 2001. There has also been little contribution from public demand as the government tries to constrain expenditure. With the ongoing deflationary tone and poor demand, the GDP deflator declined by 1.2% year-on-year, marking a decline for the fourth consecutive year. However, industrial output appeared to bottom out in October-December 2001 as the U.S. and Asian economies recovered and as progress was made in adjusting inventories in the IT sector. This and other positive economic signs are appearing as the end of the fiscal year approaches. Real GDP in January-March 2002 was down 1.6% year-on-year, which was a smaller percentage decline, but actually recorded its first quarterly rise in one year thanks in part to the slowing decline in exports (Figure 2-1).

Looking at each component of GDP (GDE), consumption has remained weak due to the poor income and employment situation, suppressed persistently by concerns about budget deficits and pension problems, falling year-on-year for eight straight quarters through the January-March quarter in nominal terms. With corporate restructuring intensifying, unemployment rose to a record-high 5.5% at the end of 2001. Even households with secure employment cannot expect significant salary increases. And although consumer sentiment is improving thanks to positive economic signs such as forecasts for large improvements in corporate earnings in fiscal 2002, lingering employment and income concerns may continue to suppress consumption.

After rising 4.4% year-on-year during July-September 2001, plant and equipment investment turned sharply lower in the October- December quarter, declining 10.3% and then 11.5% year-on-year in January-March 2002, giving rise to concerns about the hollowing out of Japanese industry. However, taking into consideration the inherent distortion in the estimation method as well as trends in supply-side statistics, plant and equipment investment had already started to decline from the first half of 2001 due to the slump in the IT sector, and so the pace of this reduction is no faster than that in a normal cyclical downturn. Thanks to the progress in adjusting inventories and bottoming out of production especially for electronic components, leading indicators in the manufacturing sector such as machinery orders are showing signs of bottoming out. However, the situation in the non-manufacturing sector is still bearish, and it will take time before plant and equipment investment become the driving force of final demand.

Housing investment experienced year-on-year drops for five straight quarters through January-March 2002 and still looks weak. Home ownership is declining due to concerns about future earnings and employment, while sales of apartments in metropolitan areas have eased after recent strength brought about by declining land prices and a growing desire to return to urban areas.

Public-sector investment has continued to decrease since October-December 1999 (except for January-March 2001 when it was flat) due to the financial difficulties faced by central and local governments. Public-sector investment in fiscal 2002 will account for 6.4% of GDP (nominal base), a 0.4% decline from the previous year. This downward trend is expected to continue as the central government carries out fiscal reforms and due to the financial constraints faced by local governments.

Exports to both Asia and the U.S. appear to have bottomed out and overall exports have started to rise. After the year-on-year decline in

exports during April-June 2001, the first drop in two years, the fall in exports increased to double digits in October-December of that year. However, the year-on-year reduction in exports shrunk to only 4.5% in the January-March quarter, and this rate was actually the first quarterly rise in six quarters. Imports have been falling since July-September 2001 due to the weak domestic demand, and have fallen below last year's level. However, imports in January-March 2002 were virtually unchanged from the previous quarter. With exports reaching the trough first, net exports rose year-on-year in January-March 2002 for the first gain in five quarters.

As the world economy improves, Japanese exports should bottom out by around the middle of fiscal 2002, and as exports rebound, the fall in consumption and plant and equipment investment should cease towards the end of this fiscal year. However, taking these prospects into account, still the Japanese economy will likely record its second straight year of negative GDP growth in fiscal 2002. In January of this year the government forecasted an actual growth rate of around 0% for this year.[6]

To confirm this GDP trend from the supply side, Figure 2-2 shows the trends of key components for the index of all-industry activity: the industrial production index (22.4% weighting), the tertiary industry activity index (59.5% weighting) and the construction activity index (8.1%), all seasonally adjusted.

The industrial production index fell a total of 14% over four quarters through October-December 2001 due to the slump in the IT sector, especially for electric machinery. However, the decline in the production of electric machinery bottomed out in January- March 2002, while the industrial production index as a whole rose 0.5% as inventory adjustments progressed. Looking at the actual results for April and the projections for May and June, this figure is likely to continue rising in the April-June quarter. Industrial output is starting to recover centered on the IT sector.

The index of the tertiary industry has fallen gradually for three straight quarters through October-December 2001 due to the contraction in business activity, weak consumption and slowing growth in the communications fields. However, the slide may have ceased as the index saw a slight 0.1% quarterly rise in January-March 2002. On the other hand, even if the economy is reviving, domestic demand remains weak, and so it is still necessary to carefully monitor whether the tendency toward bottoming out in the index of tertiary industry continues.

The index of construction industry activity has remained bearish due to weak private and public demand. The index saw a temporary recovery in January-March 2002 due to progress in public works projects and private civil engineering projects. However, there was a similar recovery in the same quarter last year that was then followed by a falloff in the next quarter. Therefore, this rise could also prove illusory and not the start of a new upward trend.

2. Steady Progress in Adjusting Inventories, Entering a Recovery Phase Led by Producer Goods (see p. 36 for figures)

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

For example, when shipments grow as the economy expands, producers intentionally build up inventories by increasing production so as not to miss opportunities for profit (intentional build-up phase). However, the economy will eventually pass its peak and the growth in inventories will exceed the growth in shipments (crossing the 45° 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 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). The economy

[6] From the government's Fiscal 2002 Economic Outlook and Basic Stance Toward Economic and Fiscal Policy (January 25, 2002 Cabinet Decision).

subsequently bottoms out and shipments start to recover. However, inventories will then be decreasing faster than shipments (crossing the 45° line in the third quadrant from lower right to upper left). This means that the producer unintentionally reduces inventories (recovery phase). Once the producer realizes that inventories have fallen below the suitable level, production will again start to be increased. This creates the inventory cycle consisting of the above four phases.

According to this concept, January-March 2002 marked the fifth quarter since the inventory cycle for the total of mining and manufacturing sector (Figure 2-3) entered the current correction phase. The pace of this correction has been a little slower than the previous cycle, which entered the recovery phase after four quarters in the correction phase. Still, the adjustment is making steady progress with the reduction in inventories gaining speed and the reduction in shipments shrinking. The actual results for April strongly suggest that the recovery stage will be reached during April-June 2002. A unique characteristic of the current inventory cycle seen around the entrance to the recovery phase is that the adjustment in electronic parts and other producer goods occurred before the adjustment for final goods.

A breakdown of the various goods shows that overall shipments for capital goods (Figure 2-4) continue to fall substantially due to the reduction in domestic plant and equipment investment except for some IT-related products with signs of bottoming out. Even though greater progress is being made in reducing inventories, it will take time before the recovery phase starts. There are also no signs that the decline in shipments of construction products has bottomed out (Figure 2-5), as the outlook for these products remains bleak considering the weak state of private-sector plant and equipment investment, housing investment and public-sector investment in this area. Shipments of consumer goods remain weak (Figure 2-6) with little change in inventory condition. The rate of reduction in consumer goods shipments slowed somewhat during January-March 2002 thanks to an increase in passenger car exports, and the figures for April suggest that the recovery phase is about to start. However, compared to other goods consumer goods are more easily swayed by short-term, irregular factors. Furthermore, domestic demand remains weak and so this change may not last. In terms of producer goods (Figure 2-7), inventories increased beyond the level seen during the previous cycle, especially for electronic parts, while there were almost no increases in the inventories of final goods. Therefore, producer goods have played a key role in the current inventory adjustments; once the correction was completed, they entered a recovery phase in January-March 2002, ahead of final goods, and have been leading the recovery cycle for all industries.

3. Number of Jobs Shrinking but Working Hours Increasing (see p. 37 for figures)

Even though production has started to recover and some labor indicators appear to be stabilizing, the number of jobs has continued to shrink. The ratio of effective job offers to job seekers (Figure 2-8) in January-March 2002 was 0.51, falling for the fifth consecutive quarter. Furthermore, the unemployment rate hit a record-high 5.5% in December 2001. Since then, this figure has retreated somewhat due to seasonable adjustments and other technical factors, but still remains at a very high level. A breakdown of the unemployment data (Figure 2-9) shows that the number of involuntarily unemployed is increasing, meaning those who lost their jobs due to business failures, restructuring or other reasons related to the poor economy.[7] The rate of increase in the number of unemployed is smaller than the rate of reduction in jobs, as can be seen in the tables below. However, this can be attributed to the continued drop in the labor force participation ratio due to an increase in the number of people who have given up trying to find employment. In light of this possible increase in latent job seekers, the unemployment rate is unlikely to improve in the near-term, even if the economy steadily recovers.

The number of employed has continued to shrink (Figure 2-10), with the total job loss

[7] Since 2002 the Labor Force Survey added "retirement age" as a choice in the question asking respondents to explain their reasons for not being employed. The Labor Force Survey provided figures for the reasons behind involuntary unemployment, but the correspondence before this change is ambiguous and so these figures were noted separately in the graph.

standing at 1.06 million people year-on-year during January-March 2002. A breakdown by industry shows that there has been a continued reduction in jobs in the construction industry, while the wholesale and retail sectors have also seen two straight quarters of declines partly due to some major corporate failures. The service industry, however, has continued to see an increase in jobs, and has even provided some support for the employment market by absorbing some of the jobs lost in other sectors.

Looking at the different employee classifications (Figure 2-10 (2)), the number of self-employed has been falling, and recently there has also been a noticeable decline in the number of payroll employees. The decline in the number of career employees has also been gaining momentum. The number of temporary and day laborers, which in the past has increased during times of economic difficulty, has remained roughly the same as last year's levels. Looking at the employment situation by size of corporation, most of the jobs being lost are with large corporations that have 500 or more employees. This is different from the situation in 1998 when most of the job losses occurred at small and medium-size corporations. A large number of jobs have been lost among the electric equipment makers due to the slump in the IT industry. However, the electric industry accounted for less than 50% of all the jobs lost, as the decline in jobs has spread to a wide range of industries.[8]

The amount of overtime hours turned higher in January-March 2002 in accordance with production changes (Figure 2-11). Working hours are very sensitive to the state of the economy, and the number of working hours is known to lead changes in payroll figures by about two quarters. However, during the last recovery in 1999, even though overtime working hours in the manufacturing sector bottomed out in line with the trough in the economy, employment rose very slightly four to five quarters later, but a rapid improvement was never seen and jobs started to fall again. Structural adjustment pressures remain very strong, but wages and employment are adjusting slowly over time. This means that unless there is a sharp improvement in production, employment is unlikely to recover until 2003 at the earliest.

4. Signs of Improving Sentiment Despite Poor Consumption

(see pp. 38 - 39 for figures)

Consumption has been weak since 1997 and continues to move sideways. This is due to delays in recovery of the employment situation and the difficult earnings environment. According to the Monthly Labor Survey, per person cash wages have been falling since April-June 2001 in the categories of regular wages, overtime pay and special bonuses (Figure 2-12). Regular wages have been decreasing due to the decline in the rate of spring wage increases, and the increase in the share of part-time and service sector jobs, which usually receive lower pay. Special compensations consisting mainly of bonuses saw a sharp drop at the end of 2001, reaching a record-low due to ongoing deflation (Figure 2-13). Considering these restraints on wages, the wage increase this spring is expected to record the lowest level for the fifth straight year.

If the influences of deflation are removed, actual buying power remained roughly in line with the level of the previous year, but the decline in the rate of salary increases had a negative impact on consumption. There have also been some changes to the wage setting practices based on the premises of base pay increases and regular raises. It can be assumed that consumption is swayed by both current income and prospects for future income. However, the impact on consumption will differ depending on whether the consumer believes that the current wage correction will lead to a recovery in corporate earnings and a future wage hike, or if they simply see it as the start of a continuing decline in their income.

Household spending data from the Family Income and Expenditure Survey (Figure 2-14), which is a representative demand-side statistic, shows that nominal consumer spending has continued to fall year-on-year since July-September 1999.[9] The size of the decline in actual con-

[8] However, the restructuring plans of each company span several years and so employment cuts may precede as these plans progress.

[9] Items not directly consumed by the household budget (such as monetary gifts and allowances) were excluded, as

sumption was limited somewhat by deflation, but this consumption still fell for five straight quarters. Figure 2-15 looks at the factors for changes in actual consumer spending among worker households, where income data are obtained. These factors include actual earnings, non-consumption expenditure and the propensity to consume. When changes to earnings are due to temporary causes, these impacts can be compensated by the propensity to consume such that the level of consumption is maintained. In other words, the "ratchet" effect comes into play. However, in 2001 there was no clear supporting effect from this propensity to spend.[10] An analysis of income changes in this manner makes it possible to judge worsening of long-term income prospects as well as short-term sluggishness in income growth.

GDP statistics for January-March 2002 showed that real consumption expenditure increased by 1.1% from the same period one year earlier. This is a reflection of the primary statistics such as the Family Income and Expenditure Survey (FIES) and the Single-person Household Spending Survey (the latter have been combined into the former from this year). However, we cannot take the figure as is: for example, in the period shown in Figure 2-15 the FIES shows an increase in income, but the Monthly Labor Survey (Figure 2-12), which has a sample size at least ten times larger, shows a decrease in wages. Furthermore, looking at single-person households, which account for roughly one-fourth of all households, the Single-person Household Spending Survey showed a decrease in earnings throughout 2001, but a large 6.0% jump in January-March 2002. Even though the estimation methods have been improved, the sample size for the demand-side statistics is still too small, and it has been repeatedly pointed out that this has resulted in some large statistical errors and numerous problems when trying to measure minute changes in consumption in recent periods.[11] Revised estimation methods are to be introduced from the advance GDP figures for the April-June quarter. Since the population parameters for household budgets are much larger than those for businesses and there are still problems with the accuracy of the correspondence, comprehensive assessments will still need to be made from both supply-side and demand-side indicators.

On the supply side, the retail sales index (Figure 2-16) has been declining for a long time. Consumption of home appliances in particular fell sharply. This was due to the year-on-year decline in personal computer sales, which had lifted overall consumption in recent years, and the big decline in other appliances compared to the sharp rise in the buying of appliances last year before the introduction of a new home appliance recycling law in April 2001. Consumption of food and clothing products also continued to slip despite lower prices. The number of new and used cars sold has been flat to marginally higher since 2000 (Figure 2-17). However, sold cars have recently included more smaller ones, so an increase in the overall number of cars sold may not equate to an increase in the total sales amount.

Looking at trends in traveling expenditure (Figure 2-18), there has been a gradual recovery in overseas travel, which fell sharply after the September 11 terrorist attacks in the U.S. Prices for domestic travel have fallen as consumers look for cheaper prices and due to a reluctance to use airplanes. However, there was a year-on-year rise in the purchase of package tours. Although overall expenditure on travel fell from the previous year, similar to department store sales which have been flat year-on-year, there have been some signs of a steady recovery, suggesting that non-essential goods are bottoming out. These are promising areas for future growth over the long term, as the declining price of essential goods may lead to an increase in spending on durable goods and services, thus boosting overall consumption.

Consumer sentiment has been improving

were automobiles, which have a big impact on the statistics. The influence of households with a decreasing number of members was also removed.

[10] During 1998 earnings and the propensity to spend fell in tandem due to the sudden economic downturn.

[11] The samples in the FIFS consist of around 8,000 households with two or more people and just under 700 single-member households. Consumer spending figures for the former group are reported to have a standard error of 1.4%. The standard deviation for the growth in the final consumption expenditure of households based on GDP since January-March 1991 has been 1.6% for both year-on-year and quarterly calculations.

since the start of 2002 (Figure 2-19). A March survey forecasting consumer sentiment over the next six months showed improvements in all areas except prices.[12] Since last fall there have been numerous negative factors that have dampened consumer confidence such as the terrorist attacks in the U.S., Japan's first-ever case of BSE disease, major corporate failures and the rising unemployment rate. However, since then various factors have helped to brighten consumer sentiment, including stability in the stock market, overcoming the "March Crisis" scenario, and signs that the economy is recovering. Furthermore, some have also suggested that sentiment was improved by the warmer weather since February and by the positive effects of major events such as the Winter Olympics and World Cup.

Unfortunately, many of these indicators are still near record-low levels. Furthermore, the last improvement in consumer sentiment in 1999 did not lead to an improvement in actual consumer spending. Expectations are high, but the key to stronger consumption is an improvement in the fundamentals of income and employment. Taking into consideration these trends, a real improvement in consumption will take time to materialize. For the time being, the focus is on the extent to which consumption will support the economic recovery in light of these improving forecasts.

5. Plant and Equipment Investment Continuing to Fall; Leading Indicators Showing Signs of Bottoming Out in Manufacturing Sector (see p. 40 for figures)

Historical data based on the Statistical Survey of Incorporated Enterprises shows that the rate of year-on-year growth in plant and equipment investment[13] is strongly correlated with return on investment defined as operating asset profit rate minus the average contracted interest rates on new loans (Figure 2-20). 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.

Looking at the trend in the manufacturing sector, there was a sharp drop in return on investment from the peak in October-December 2000 due to the downturn in the economy. In fact, return on investment remained below the 5% threshold value for three straight quarters from July-September 2001. Year-on-year plant and equipment investment turned lower along with the decline in return on investment below the 5% threshold value. There was a large 27.8% decline in January-March 2002 due mainly to a decline in investment in electric machinery. In January-March 2002 there were some signs that the decline in return on investment was bottoming out, and corporate earnings are now expected to recover strongly during the current fiscal year. However, the bottoming out in plant and equipment investment tends to lag behind an improvement in return on investment at the start of a recovery stage, and so the effects from this recovery in earnings will probably not be seen until the latter half of fiscal 2002.

Plant and equipment investment in the non-manufacturing sector has been restrained in industries experiencing strong cost-cutting pressures amid greater deregulation. Therefore, plant and equipment investment has consistently been weaker than return on investment since 1998. Although the return on investment has not worsened significantly during the current downturn, equipment investment has suffered double-digit year-on-year reductions since October-December 2001.

Machinery orders (excluding ships and electric power generating equipment), which is a good leading indicator of plant and equipment investment, suggest that orders from the manufacturing sector are bottoming out (Figure 2-21).

Orders from the manufacturing sector have been falling year-on-year since April-June 2001 due mainly to the decline in orders for electrical

[12] There was an increase in the percentage of those saying that deflation was easing. This was likely due to increases in the prices of personal computers, fast food and some other items. When compounding the index, these were negative factors.

[13] According to the Statistical Survey of Incorporated Enterprises, "Plant and Equipment Investment Including Software" was taken as the official amount for plant and equipment investment since July-September 2001, but time series data before this period could not be obtained. Therefore, in this research report analyses are made using the "Plant and Equipment Investment Excluding Software" figures.

machinery amid the slump in the IT sector. This correction has spread to general machinery, resulting in an overall decline of 36.4% year-on-year in the manufacturing sector during October-December 2001, marking the biggest decline since the current measuring standards were implemented in April-June 1987. However, the most bearish period in plant and equipment investment sentiment in the electric machinery industry seems to be over, as adjustments in the inventories of electronic components have progressed since late 2001. The year-on-year decline in orders from the manufacturing sector during January-March 2002 narrowed to 24.5%. According to forecasts made by the Cabinet Office (simple totals for corporate forecasts modified by multiplying average achievement percentage over the last three quarters), the year-on-year decline in orders expanded again in April-June 2002 to 29.3%. However, these figures are unlikely to reach a second bottom in light of improving production and the improvement in achievement percentage based on the actual results for the January-March quarter.

Orders from the non-manufacturing sector (excluding electric power and shipping) held up until the first half of 2001, especially in the communications, financing and insurance fields. However, orders fell year-on-year during July-September 2001, and this decline reached 16.8% for January-March 2002. Orders in the communications sector were weak due to decreased investment in fixed-line equipment and slowing growth for investment in mobile phone equipment. Orders in the finance and insurance sectors also fell as extraordinary spending on IT equipment fueled by mergers and new business came to an end. According to a Cabinet Office survey, orders for April-June 2002 probably fell by 13.0%. However, unlike the manufacturing sector, the achievement percentage for the non-manufacturing sector has sharply deteriorated, and this decline could be even larger.

Looking at the prospects for machinery orders, the trends in the non-manufacturing sector may apply downward pressure in the near term. However, if the economy continues to show steady improvement, the manufacturing sector will help stem the slide in overall private demand. During the last recovery phase, industrial output and orders from the manufacturing sector both bottomed out in October-December 1998. Private demand, excluding electric power and shipping, approached its bottom in April-June 1999. If this simple pattern repeats itself this time, industrial output and orders from the manufacturing sector should have bottomed out in October-December 2001 and machine orders from private demand, excluding electric power and shipping, should reach bottom in April-June 2002. Movements in machine orders tend to precede changes in plant and equipment investment by about two and a half quarters, which would mean that the decline in plant and equipment investment should cease during the latter half of fiscal 2002.

6. Residential Investment Remains Weak (see p. 41 for figures)

The number of new housing starts (seasonally adjusted annual rate) since 1999 has remained around 1.2 million houses per year. However, in 2001 housing starts fell below this figure (Figure 2-22). In order to understand the cause behind this drop, housing starts from the previous year were analyzed (Figure 2-23). The analysis revealed that the big decline was mainly in owner-occupied houses due to the reaction to the substantial increase because of the surge in demand before the revision of the housing loan tax reduction scheme.[14] The service employment and income situation of households also affected this decline. On the other hand, there has been a year-on-year increase in housing for rent from April-June 2001, mainly for comparatively small units.

Looking at year-on-year comparisons of floor area for new housing (Figure 2-24), because of the reduction in owner-occupied houses having relatively a large floor area per house, the size of the decline in floor area was larger than the size of the decline in new housing starts.

The movement in housing starts, which is a leading indicator of residential investment, has

[14] The Home Loan Tax Reduction (for those who moved into their newly purchased home took residence by June 2001) was seen as offering much greater advantages in terms of the deduction period and amount as compared to the so-called "New Home Loan Tax Deduction (for those who moved into their newly purchased home between July 2001 and December 2003)". This is the cause of the surge in demand before the June 2001 deadline.

moved in a similar manner (Figure 2-25). Residential investment (seasonally adjusted annual rate) was around 20 trillion yen from mid-1998, but fell in January-March 2001, and has recently been around 18 trillion yen.

The condominium market[15] remained strong from 1999 (Figures 2-27, 28), but recently there has been a decline in the contract rates in the Tokyo metropolitan area and Kinki area, as well as growth in stock.[16] Demand remains strong for high-rise condominiums in blocks with more than 200 units and one-room apartments with an area of less than 30m^2 for investment. Overall, it would appear that consumers are becoming more selective.

7. Public Investment Falling due to Difficult Financial Situation (see p. 42 for figures)

Public investment (seasonally adjusted annualized nominal values) temporarily rose at the start of 2001 due to the effect of the "Newly Initiated Development Measures (11 trillion yen project enacted in October 2000)". However, public investment has been falling since the latter half of 1999 due to the fading effects of major economic measures and the decline in expenditure under the deteriorating financial situation (Figure 2-28). As a result, public investment in recent years has fallen to around 6.5% of nominal GDP (seasonally adjusted).

Contracted public works orders, which is a leading indicator, fell 7.8% in fiscal 2001, marking the third straight year of decline (Figure 2-29). The administration of Prime Minister Junichiro Koizumi, launched in May of 2001, implemented new fiscal reforms, which meant that there were no major economic packages totaling at least 10 trillion as was the case for every year since fiscal 1998. As a result, public works spending has decreased since the second half of fiscal 2001. In particular, there was a drastic reduction in funds allocated to local regions, which had accounted for 70% of public investment, due to the difficult financial situation. Public expenditure fell 8.9% year-on-year in local regions in fiscal 2000. Even regional projects with financial assistance from the central government, as well as those without it, decreased significantly, and projects planned in the NIDM remain incomplete. Efforts to reduce government expenditure have intensified, and so this downward trend in public investment looks set to continue.

Although in fiscal 2002 the supplementary budgets of fiscal 2001 (0.6 trillion yen for the first revised project scope enacted in November, and 4.1 trillion yen for the second revised project scope enacted in January) will be implemented, public works spending in the original budget called for a year-on-year reduction of 10.7% by the central government and 9.5% by the local governments. These reductions are likely to continue.

Even though public investment is expected to follow the trend, the central and local governments are still expected to record large budget deficits as government revenues remain weak in the stagnant economy and the present tax system. Outstanding debt has risen sharply as the government continues to finance successive budget deficits by issuing government bonds, local bonds and borrowing through the special account with local tax allocations. At the end of fiscal 2002, long-term outstanding debt held by the central and local governments totaled 693 trillion yen, or 140% of the nation's nominal GDP (Figure 2-30).

Currently Japan's general public debt is much larger than those in other developed countries, and its basic fiscal balance excluding bond issuances, interest payments and bond redemptions (primary balance) continues to suffer large losses (Figure 2-31). This fiscal position is in stark contrast to the fiscal restructuring carried out by Italy and Canada in the late 1990s.

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[15] The term "condominium" refers to subdivided housing lots made with reinforced steel frames, ferro-concrete or steel frames.

[16] According to the statistics, condominiums, including subdivided lots, accounted for 65% of new housing in 2001 (based on the number of new housing starts). Recently, condominium housing starts in the Tokyo metropolitan area and Kinki region have accounted for around 70% of the overall total for the nation. Therefore, condominium contract rates and inventory trends in these two areas are important leading indicators for overall condominium and subdivided lot housing starts.

8. Exports Recovering as Imports Level Off (see p. 43 for figures)

Figure 2-32 shows the trend of real effective exchange rates for major currencies. After falling during the January-March 2001 period, the yen remained weak due to the slowdown in the Japanese economy. The rise in the U.S. dollar began to weaken somewhat in July-September 2001 due to the apparent slowing in the U.S. economy, but the upward trend has continued. The euro has basically remained unchanged.

Figure 2-33 compares purchasing power parity for the yen/dollar exchange rate levels. The yen/dollar rate in 2001 saw a weakening of the yen after the Japanese currency had strengthened for almost two years. The yen is expected to continue this downward trend and approach the purchasing power parity.

Against these trends in the foreign exchange markets, Japanese imports and exports underwent some changes from the recent downward trend. Looking at the seasonally adjusted monthly indicators for import and export amounts (Figure 2-34), the amount of exports continued to decline until November 2001 due to the slowdown in the U.S. and Asian economies. However, exports have since started to recover thanks to the recovery in the U.S. economy and improving exports to Asia. Imports, on the other hand, fell until October 2001 due to the poor demand and have been flat ever since.

Looking at a breakdown of export amounts by country (Figure 2-35), there were year-on-year drops in the amounts of exports to the U.S., EU and Asia from January-March 2001 to October-December 2001. However, there was a year-on-year gain in exports to Asia in January-March 2002 thanks to the progress made in adjusting IT inventories. Furthermore, the decline in exports to the U.S. has been shrinking thanks to solid car sales amid the economic recovery.

Figure 2-36 shows the trends for exports for each type of goods based on the "Analysis of All-Industry Activity" published by the Ministry of Economy, Trade and Industry. The decline in exports in 2001 was mainly due to the fall in shipments of producer goods such as semiconductor integrated circuits. In January-March 2002 there were strong quarterly gains for producer goods (steel plates, normal steel wires), durable goods (passenger cars, electronic toys) and capital goods (steel ships, opening/closing control systems).

Figure 2-37 shows the import trends for each type of goods. In the latter half of 2001 there was a dramatic decline in the imports of producer goods, and imports of capital goods also fell. Recently there has been some recovery in imports, mainly IT-related products from Asian countries, thanks to the progress being made in adjusting domestic inventory levels. However, the overall trend remains flat. In particular, there were quarterly increases in imports of capital goods (personal computers, external storage devices) and producer goods (electronic calculating components, metals for electronics) during January-March 2002.

9. Decline in Wholesale Prices Slowing but Decline in Consumer Prices Continuing (see p. 44 for figures)

International commodity prices (excluding crude oil) (Figure 2-38) turned down in October-December 2000 and continued to decline through 2001 due to the slowdown in the global economy. The year-on-year fall in prices of metal products such as steel and aluminum, and of some agricultural products such as natural rubber shrank in January-March 2002 due to cutbacks in supply and on expectations of economic recovery in the U.S. and Asia. Even the year-on-year fall in prices of beverages including coffee started to slow. Therefore, there have been signs that the overall slide in prices may be coming to an end.

The wholesale prices of domestic demand goods (weighted average of domestic and import prices) rose by between 0.4 to 0.8% year-on-year since January-March 2001; even though the prices of final goods continued to fall, the prices of raw materials (which account for a large percentage of all imports) rose due to higher crude oil prices on increased demand from the U.S. and so the prices of intermediate goods also rose. However, wholesale prices fell year-on-year in the July-September quarter due to a decline in domestic intermediate goods and a weakening of the effect of higher crude oil prices of the previous year. There was a further year-on-year de-

cline in overall wholesale prices in October-December 2001 due to the further weakening effect of raw materials and crude oil prices. However, this decline has been slowing since January-March 2002.

The Consumer Price Index[17] (excluding fresh food) turned down in October-December 2000 and recently this downward trend has continued (Figure 2-39). Prices for services declined slightly year-on-year. On the other hand, prices of goods declined mainly in industrial products including durable goods, such as personal computers and refrigerators due to technological advances and the spread of cheap imports. In October-December 2001 there was a slight year-on-year increase in the prices of services due to the rise in electricity charges. However, overall prices continued to decline due mainly to industrial products.

The Corporate Service Price Index continued to decline mainly in leasing and rental, communications and broadcasting and advertising services. Recently, overall prices continued to decline about 1% from the previous year.

10. Credit Risk Aversion through Low Interest Rates (see p. 45 for figures)

In terms of the fiscal policy of the Bank of Japan, the overnight unsecured call rate has remained near 0% since March 2001 when the quantitative monetary easing policy was first introduced by shifting the target of guidance from the interbank overnight lending rate (unsecured call) to the current account balance of the Bank of Japan (Figure 2-40).

Yields on three-month CDs (bid), which represent short-term interest rates, had been relatively stable in a 0.1 -0.15% range since the start of quantitative easing. However, in January 2002 there was a temporary rise in interest rates due to demand for over-fiscal-year-end rate funds from city banks and limited supply from some regional financial institutions in order to secure funds just before the government partly removed its full guarantee of certain deposits in the event of a bank failure.

Meanwhile, yields on 10-year government bonds, a good indicator of long-term interest rates, had stayed mainly in a 1.3-1.4% range since July 2001 although the market weighed concerns about the budget deficit against the difficulties in investing elsewhere. However, rates rose to 1.5% in January 2002 when short positions on futures rapidly surged, mainly among foreign investors who were concerned about a financial crisis at the end of March. During this time there were growing fears that, in addition to the severe operating conditions for financial institutions due to the decline in bond prices, there would also be a downward spiral caused by a tumble in bank share prices and appraisal losses of corporate cross-shareholdings. Both long- and short-term interest rates have stabilized since late March as share prices have recovered and investor sentiment improved amid a sense that the economy had bottomed out and that a financial crisis would be avoided.

The fiscal policy since the September 11 terrorist attacks in the U.S. has been to maintain and even expand quantitative easing. As an additional easing measure, the target for the Bank of Japan's current account surplus was raised to between 10 and 15 trillion yen in December. Furthermore, additional funding beyond this range was also provided as a measure for the end of the fiscal year. This high level of funding was retained until late April due to the computer system troubles that resulted from a large merger of major banks, but since the end of April the target range has returned to the level before the fiscal year-end measures were implemented.

The money market has been adjusted by raising long-term government bond buys from 600 billion yen in August to 800 billion yen in December and to one trillion yen in February. At the same time asset backed securities (ABS) and asset backed commercial papers (ABCP), collateralized by real estate and mortgages, were additionally allowed for short-term operations. The reason for expanding the scope of operations was because occasionally the target bid amount for the operation has not been achieved in the market as there is the perception of an oversupply of

[17] The Consumer Price Index from the August 2001 announcement has been using 2000 as the base year with items such as personal computers and overseas package tours being added in the calculation of the index. The inclusion of the new items more accurately reflects the composition of household consumption.

funds. In fact short-term government bond buying operations and notes with somewhat longer periods have been aggressively used to maintain the target balance.

Looking at the year-on-year comparison of the monetary base, which is the total of the Bank of Japan's current account balance and the stock of notes and coins in the economy, there has been significant growth in 2001 followed by 27.8% in January-March 2002, due to the above-mentioned fiscal policies. Especially in March there was a year-on-year rise of more than 30% as the BOT current account surplus exceeded 20 trillion yen (Figure 2-41). Looking at the money stock (M_2 + CD), year-on-year growth of around 3% has been maintained since the latter half of 2001. The credit multiplier, which is the money stock divided by the monetary base and which reached 13 in 1992, has continually declined as the monetary base has increased. As a result it will likely take significant time before the current fiscal policies take effect. The credit multiplier recently fell below 8, its lowest level ever, due to the sharp expansion of the monetary base.

A breakdown of the contribution made by each type of M_2 + CD shows that since 2001, ordinary deposits have increased sharply in stark contrast to the decline in time deposit savings (Figure 2-42). Investors are averting credit risk by (1) shifting time deposits into different accounts as the government lifted its full guarantee for time deposits exceeding 10 million yen as of April 2003 and (2) moving money from some investment funds back into ordinary savings accounts after several MMF and open-ended bond investment funds fell below their principle following the collapse of Enron.

In terms of credit, the main reason for the increase in M_2 + CD is the buying of government bonds as lending to the private sector, corporate bonds and stocks continues to decrease (Figure 2-43). Accordingly, private commercial banks are working to reduce credit risks. The purchasing of foreign assets, mainly foreign bonds, has slowed somewhat as the recovery in the U.S. economy suggests that interest rate cuts are coming to an end.

Investors and institutions are thus risk-averse and the supply of risk money in the financial markets has been constrained. The weakening of this financial intermediary function means that the effects of financial easing policies will take time to appear.

III Globalization and the Japanese Economy

1. Expansion of Overseas Production and Rising Concerns about Hollowing-out of Japanese Industry (see p. 46 for figures)

Even though the Japanese economy is turning around, it still looks weak compared to the steady U.S. and Asian economies. There have been growing concerns about the sustainability of the economic recovery and about the mid-term prospects for the Japanese economy as globalization progresses. These fears are due to macroeconomic considerations such as the temporary shrinking of Japan's trade surplus, and microeconomic considerations such as the emergence of many Asian corporations, especially Chinese corporations, in the IT-related industries. This section looks at the progress in globalization and the rising concerns it is producing.

Figure 3-1 shows the overseas production ratios and foreign direct investment trends as key indexes for understanding the progress in globalization made by Japanese corporations. According to the Survey of Overseas Business Activities produced by the Ministry of Economy, Trade and Industry, the overseas production ratio, which was only 3% in 1985 when the prolonged appreciation of the yen started following the Plaza Accord, has gradually increased to 14% in 2001. The ratio of accumulated foreign direct investment (based on balance of payments[18], since 1985) to GDP has also been steadily increasing due to structural current account surpluses, along with the increase in the overseas production ratio. The ratio of trade surplus to GDP basically repeats a cyclical pattern of rising when the economy is weak and falling when the economy expands. However, in fiscal 2001 this ratio fell even though the economy was in a downturn. This has raised fears that as overseas production expands, the trade surplus will continue to shrink and could even become a trade deficit.

Another important question is whether the stagnation in domestic plant and equipment investment is related to this globalization. Figure 3-2 shows the trends for both domestic and overseas investment by Japanese companies. The ratio of foreign direct investment to domestic plant and equipment investment peaked at 9% in 1989 as investment in overseas real estate boomed during the bubble years in Japan, but by 1993 it had fallen back to around 2%. Since then it has again risen gradually. The ratio of plant and equipment investment made by overseas subsidiaries to domestic plant and equipment investment has been increasing since the bursting of the bubble economy, rising to 6% in 1996 and since remaining just under this level. This figure rose to 12% for the manufacturing sector in 1997 and has since been moving around 10%. Although a macroeconomic view does not suggest that the extreme situation has occurred over the last few years, there are plenty of individual examples of leading Japanese companies raising the proportion of their investments overseas. Thus, these microeconomic anecdotes give rise to serious concerns as follows; Firstly, Japan is losing its appeal as a location for leading companies in terms of human resources and cost; Secondly, corporations have been shifting their focus to overseas investments and economic steadiness is being weakened by the reduction in domestic investment. Thirdly this trend has long-term implications for the Japanese economy in terms of productivity and technical prowess.

The trade balance and domestic investment problems in relation with these concerns, which could be exhausting the domestic economy through overseas development by corporations, are also referred to as the "hollowing out of industry."[19] Figure 3-3 shows the trend in the

[18] There are two types of direct investment statistics: (1) direct investment (asset side) within financial accounts based on the balance of payments, and (2) direct investment reported to the Ministry of Finance according to the Foreign Exchange Low. The former is the net figure on an execution and payment basis, subtracting the repayment and withdrawal of the invested capital and the sales of assets. The latter is the gross figure based on the reports and plans and contains details broken down by industry and region. It is important to notice that sometimes large differences exist between the two series of direct investment figures.

[19] The term "hollowing out of industry" has not been established as an academic term and the definition may vary among those using it. A detailed survey on various arguments on "hollowing out" including its definition was made by Nakamura and Shibuya (1994) in their "What is the Hollowing Out Phenomenon?", Research Institute of International Trade and Industry.

number of newspaper articles on the hollowing-out phenomenon, reflecting public interest. Based on Figure 3-3, we can find out that since 2001, hollowing-out has brought about rising concern, following earlier concern in the yen-appreciation induced recession period (1986-87) and the super-strong yen period (1994-95), although the number of articles has not yet reached the level seen during the super-strong yen period. It is worth noting that during the previous two periods of rising concern, the yen was amid of appreciation and overvalued in comparison with the average break-even rate for exporting companies, whereas current concern about hollowing-out is occurring during a time of yen depreciation. China distinguished itself as a key figure for the first time in the hollowing-out argument during super-strong yen period, but this time the focus has shifted from overseas production in China to its competitive strength (Figure 3-4).

Therefore, to sum up, the main concern of prevailed anxiety about threat of globalization for the Japanese economy is the hollowing out of industry as the manufacturing sector shifts production overseas. There has been pessimism that this hollowing-out trend will accelerate and crush the Japanese economy. However, some counter-arguments must also be considered as follows. First, statistical data show the globalization of Japanese corporations and expansion of overseas production is quite stable and prolonged phenomena. Furthermore, the reduction in trade surplus in fiscal 2001 was still well within the scope of past reductions (and the trade surplus is expected to rise again in fiscal 2002). The sudden surge in concern about the hollowing out of Japanese industry is thus not consistent with the actual trend of globalization. Second, the rise in overseas production ratios and accumulated direct investment ratios are unavoidable phenomena as long as Japan retains a current account surplus, because a rise in the ratio of foreign assets to domestic production implies that the weighting of overseas production using these assets in relation to the scale of domestic production should be also increased.[20] If Japan were to experience a current account deficit, various adjustment mechanisms such as the flow of funds and foreign exchange rates would gradually come into play and restore a new balance. The third point is that many of Japan's leading corporations are major multinationals which of course invest heavily in countries other than Japan. Nevertheless, competition is becoming increasingly severe, due partly to the conversion of former communist countries to market economies, deregulation, explosive expansion of capital markets, and rapid development of information technology.

This section will present objective arguments on the hollowing out of Japanese industry, while avoiding intuitive but groundless arguments. The analysis is based on pertinent data to assess the magnitude of the issue for the domestic economy, and considers the mid- to long-term trends.

2. Japan's Falling Share of Global Exports (see p. 47 for figures)

This section analyzes the current state of global trade and direct investment.

The total value of goods traded around the world in 1980 was 2 trillion dollars, a figure that had risen to 6 trillion dollars in 2000. The recent trend has been characterized by a rise in the trade of IT related products such as semiconductors and communications equipment following the global IT boom. However, the amount of exports fell in 2001 due to the global recession commencing with the U.S., the main importing country. The Japanese share of exports has been declining since 1993, partly because Japanese companies are shifting production overseas. In 1986 Japan accounted for 10.3% of total exports, but in 2001 the proportion fell to 6.7%.

Figure 3-6 shows global export ratios by country and region for five-year periods. Asia accounted for about 9% of global trade in 1980, but 21% in 2001, as NIEs and ASEAN countries aggressively promoted export-based in-

[20] This is of course a simplistic view in order to clarify the point being discussed. Direct investment is just a portion of the foreign assets accumulated by the current account surplus, and overseas production is just one of the goals of direct investment. Furthermore, as overseas operations grow, they are able to increase plant and equipment investment through their own financing. This means that overseas production ratios can rise without any increase in direct investment.

dustrialization and as industrialization took off in China. A snapshot of the trade relationships by country and region in 2001 (Figure 3-7) shows that Japan enjoyed a trade surplus with all countries and regions and that the U.S. had a trade deficit. Asian countries' share of global exports is growing because they are not only actively exporting products to developed countries, but also trade within the region has grown rapidly.

Along with trade, direct investment is another important consideration when analyzing globalization. Direct investment refers to the ownership of a subsidiary for the purpose of directly investing in production, sales and management in other countries.[21] It is different from trade in that business know-how and firm-specific assets such as technological expertise are transferred to the subsidiary. Figure 3-8 summarizes the direct investment relationships between various countries and regions as of 1999. Direct investment between the U.S. and EU is quite large compared to other countries and regions, largely due to the increase in cross-border M&A activity. Japan has less influence in direct investment relationships shown in Figure 3-8 compared to trade relationships shown in Figure 3-7.

3. Rapid Expansion of Global Direct Investment Mainly by EU
(see p. 48 for figures)

Figure 3-9 shows the global overseas direct investment. The total outflow amounted to 400 billion dollars between 1995-97, and had reached 1.2 trillion dollars by 2000 due to the sharp increase in the EU since 1998. Developed countries account for 90% of overseas direct investment, and the EU in particular has accounted for around 70% of this figure since 1998. Regarding global direct inward investment[22] (Figure 3-10), between 1995-97 developed countries accounted for around 60%, but the proportion has since risen to around 80% in 2000. A feature of recent inward investment is that the U.S. and EU account for a majority of both those making and receiving investment. By comparison, Japan accounts for less than 6% of foreign direct investment outflows, and less than 1% of inflows.

This section examines the trends in overseas direct investment over time for the U.S., EU and Japan. Figure 3-11 shows the overseas direct investment trend for the U.S. This investment increased from 130 billion dollars in 1998 to 140 billion dollars in 1999. The EU consistently received between 40-50% of this investment, with an especially large percentage going to the U.K. Because stock prices rose sharply due to the strength of the U.S. economy and good corporate earnings, it was easier to conduct M&A through the exchange of stocks. There was strong direct investment in communications, financial and insurance companies in the EU region. Inflows into Japan have reached 4-5% of the global total since 1998 due to the acquisition of some failed companies by American corporations.

Figure 3-12 shows overseas direct investment by EU countries. Between 1997-99 overseas direct investment increased sub- stantially, primarily intra-EU and reached 660 billion dollars in 1999. This was due to the integration of EU economies, deregulation (especially in infrastructure) and M&A with U.S. corporations in order to compete in the global marketplace. The introduction of an environment that encourages competition between companies across borders resulted in an increase in large M&A, including among some very large corporations. For example, many tele-communications firms began trying to cover larger areas of the EU region after local restrictions were abolished in principle. These companies used M&A to enter markets in other EU countries, expand their scale of business, and thus put them in a stronger position to acquire licenses for next-generation cellular phone services in the EU and better shoulder the costs of equipment investment. There have been

[21] The IMF manual defines foreign direct investment as investment by a resident in a nonresident company for the purpose of obtaining permanent rights. Specifically, this refers to holding more than 10% of the common stock or voting rights.

[22] There are some inconsistencies in the global totals for outflow and inflow. The "JETRO Investment White Paper" cited the following three reasons for this situation: (1) different number of countries and regions included in the calculations (outflow: 146, inflow: 193), (2) countries not covered by the various central banks and international organizations such as the IMF are covered by UNCTAD, (3) each country has different methods for defining and evaluating foreign direct investment in terms of reinvestment profits, profit remittance and transactions with the official market.

some major alliances due to such reasons as the formation of the euro zone in financial and insurance markets, relaxation of restrictions on U.S. businesses, surges in research and development costs for studies on genomes and other pharmaceutical applications, and the privatization of oil.

Finally, Figure 3-13 shows the trends in Japanese overseas direct investment. The Finance Ministry's "Foreign Direct Investment"[23] report shows Japanese overseas direct investment by country and region. Japan's outflows in fiscal 1990 during the bubble economy exceeded 8 trillion yen, but have since declined, bottoming out in fiscal 1993 and falling again in fiscal 1998. Outflows then posted a high 8 trillion yen in fiscal 1999, but fell to about 4 billion in 2001. Analyzing the countries and regions receiving this investment, the EU attracted an increasing share from fiscal 1998, reaching around 50%. Figure 3-14 shows the breakdown by industry. Much of this investment has recently been in the electric machinery sector, the food sector including tobacco (fiscal 1999) and the communications sector (fiscal 2000). In Japan, similar to the U.S. and EU, direct investment through M&A has grown in recent years.

However, looking again at the trends in foreign direct investment for the U.S. and EU in Figures 3-9 and 3-10, it is clear that on a global scale Japan's outflows and inflows remain small. If foreign direct investment is an indicator of globalization, Japan has room for further development.

4. Small Outflows and Inflows of Direct Investment Compared to Domestic Plant and Equipment Investment (see p. 49 for figures)

As mentioned in section 1, the main concern for the Japanese economy amid ongoing globalization is that as investment moves overseas, domestic investment will suffer a hollowing out. However, it is not always true that corporate expansion overseas leads to a decline in domestic investment.

If funds and production factors (capital, labor) could be endlessly supplied at a fixed price, and if the shift did not result in any friction, all investment would go into projects with positive net present values and overseas investment would not have any impact on the level of domestic investment regardless of relative profitability. In practice, however, some restrictions exist on the supply side, so an increase in highly profitable investment opportunities overseas will possibly constrain domestic investment. Theoretically, in the other extreme case, the shift overseas could accelerate and eventually completely replace domestic investment under special conditions that economies of scale based on the agglomeration effect apply without any limitation.[24] Therefore, we examine the available data to assess which of the extremes more closely reflects reality.

Although it is not easy to verify the relationship between overseas investment and domestic investment, a comparison of trends among the major advanced nations including Japan provides some suggestions. Figure 3-15 shows chronological data for the ratios of domestic plant and equipment investment, foreign direct investment and inward direct investment (all-industry base) against GDP in five-year intervals for Japan, the U.S., Germany, France, and the U.K. since 1980 (1991 for Germany following its reunification). However, the following considerations need to be taken into account when making these comparisons. In the national income statistics, only the U.S. also reports figures similar to the nonresidential private investment figures reported by Japan. Therefore, the domestic plant and equipment investment reported by Germany, France and the U.K. is calculated excluding the general government portion and housing from the gross domestic fixed capital formation. Accordingly, this raises the possibility that general government housing investment may be subtracted twice, and so strictly speaking this is not the nonresidential private investment concept.

[23] This data can be used for providing details on the direct investment relationships between the various countries and regions.

[24] Abandoning foreign investment will not necessarily lead to an increase in domestic investment, except in some unique cases where the relevant corporation stands to gain a monopolistic position due to some technology or other advantage. This is because a rival corporation will likely seize the overseas investment opportunity that was abandoned and the Japanese company focusing only on domestic operations will lose its competitive edge.

Looking at the foreign and inward direct investment ratios on the charts, it is clear that these ratios have risen sharply among European countries in recent years due to: 1) greater competition among businesses and faster realignment of industries following the economic integration of Europe, 2) an increase in "mega-deals"[25] along with the surge in stock prices and M&A through the exchange of stocks, and 3) deregulation in the telecommunications and infrastructure sectors. Even though the contribution of the surge in stock prices must be discounted, foreign direct investment in France and the U.K. in recent years has surpassed domestic plant and equipment investment. The U.S. economy is huge and progress has been slower compared to Europe, but foreign and inward direct investments have been rising nevertheless. In comparison, Japan's foreign and inward direct investments have remained at low levels.

Comparing these trends, it is hard to ascertain the impact of foreign direct investment on domestic investment since the domestic investment ratios of these countries remain stable. Chronological data shows that Japan's domestic plant and equipment investment ratio has been slumping in recent years, but in 2000 still exceeded those in the U.S. and Europe, regardless of the different definitions[26] used. The remarkable feature when comparing Japan with other countries is not the decline of domestic plant and equipment investment in line with the increase in foreign direct investment, but the fact that globalization is progressing so slowly in terms of the country's direct investments, both inflows and outflows.

[25] Generally "mega-deal" is defined as an M&A exceeding one billion dollars when the deal is completed.

[26] However, the problem of the different definitions can be said rather trivial. In a broad sense, reasonable comparisons are assured because the figures of each country are uniformly based on 93SNA (the U.S. has its own system, but sections covering plant and equipment investment are the same as 93SNA).

5. Improving ROA for Manufacturers Moving into U.S. and European Markets (see p. 50 for figures)

The previous section compared foreign and inward investment for major countries on an all-industry basis and found that overseas investment did not necessarily curtail domestic investment. However, concerns that overseas investment will replace domestic investment may relevant to the manufacturing sector for the most part. Although it is difficult to compare international trends for each type of industry due to limitations of the data, this section approaches the issue in terms of corporate finances. For industry based data, the Statistical Survey of Incorporated Enterprises[27] will be used for domestic plant and equipment investment, depreciation costs and cash flow data, and the Direct Investment Abroad as reported to the Ministry of Finance will be used for data on foreign direct investment, hence the analysis in this section is based on different data sources than sections 1 and 4.[28]

Figure 3-16 shows the ratios of domestic and overseas investment to depreciation costs and cash flows[29] for corporations in the manufacturing sector. Recently the ratio of domestic plant and equipment investment to depreciation costs has been around 100 and the ratio to cash flow has been around 70, which are both considerably low compared to the levels seen in the mid-1980s. However, the situation is somewhat different regarding the trends for the total of domestic and overseas investment (henceforth "total investment" while overseas investment means the total of foreign direct investment and plant

[27] The Statistical Survey of Incorporated Enterprises provides statistics based on the non-consolidated results of domestic corporations, including corporations without any overseas operations, to reflect the situation of companies headquartered in Japan. Analyses are made using "Plant and Equipment Investment Excluding Software" (see Note 14 in Section 2).

[28] Domestic plant and equipment investment tends to be estimated on the small side compared to that on an SNA basis, while foreign direct investment tends to be estimated on the large side compared to that on a balance of payments basis. Therefore, foreign investment appears to have a bigger overall presence in this section.

[29] Cash flow is calculated by the simple formula of pretax profit x 0.5 + depreciation costs.

and equipment investment made by overseassubsidiaries).[30] Total investment to depreciation cost ratio is still around 150 recently, which is roughly the level seen in the mid-1980s. If the investment to depreciation cost ratio is seen as a proxy variable for aggressiveness to invest[31], unlike when considering only domestic investment, it can be pointed out that Japanese corporations have remained fairly aggressive toward investment except for the sharp swings before and after the bubble economy. However, even in terms of total investment, the ratio to cash flow in fiscal 2000 was at a low level of less than 90. Furthermore, in financial terms, the plant and equipment investment made by overseas subsidiaries is largely covered by funds procured locally (overseas subsidiaries' own funds and external funds procured locally) (Figure 3-18). Therefore, the burden shouldered by the domestic corporation is not as large as that suggested by the investment to cash flow ratio, so for the manufacturing sector, overseas investment is unlikely to crowd out domestic investment in terms of finance.

Figure 3-18 shows the correlation between two series of historical data: domestic plant and equipment investment in the manufacturing sector is plotted on the horizontal axis, and overseas investment (defined above)[32] in the vertical axis. A positive correlation means that domestic and overseas investment complement each other, whereas a negative correlation indicates that the two types of investment are substitutes for each other. Keeping this point in mind, the graph shows that between fiscal 1985 and 1994, both types of investment mostly maintained a positive correlation except for a large curve to the right and a swing back to the left due to the boom and bust in domestic investment. Since fiscal 1995 there have been small fluctuations in domestic investment, while overseas investment continued to rise steadily, which produced an upward movement on the graph (except for very recently). Overall, a long-term positive correlation has been maintained, except for the years before and after the bubble economy (fiscal 1989-94). It is important to note that the movements each year have easily maintained a positive correlation due to common influences such as the macroeconomic environment and cash flows, but domestic and overseas investment in the manufacturing sector until now has mostly shown a complementary relationship.

Finally, the relationship between domestic and overseas investment was examined from the viewpoint of rationality of capital spending by comparing return on investment for the different regions. If the (expected and risk adjusted) rate of return on investment is vastly better overseas than in the domestic market, and if the cost of shifting the production base overseas is small, then the rational economic unit would favor such a shift. However, since it is difficult to observe the expected returns in reality, the following section will attempt to make analyses based on historical data for the return on investment.

Figure 3-19 shows changes in return on foreign direct investment based on statistics for the balance of payments. The return on foreign direct investment is defined here as the total of interest, dividends and the increase in equity (out of the retained earnings of the overseas subsidiaries), divided by the outstanding foreign direct investment (both the numerator and denominator are calculated using the current exchange rate). Therefore, the return on foreign direct investment here can be interpreted as the portion of the overseas subsidiary's ROA attributed to direct investment in the past. However, data for each industry is not available and so these figures are on an all-industry basis. Furthermore, the increases in equity out of the retained earnings of the local corporation are reflected in the statistics six months after the end of the fiscal year. Therefore, these points must be taken into consideration for the analyses below.[33]

[30] The portion of plant and equipment investment made by overseas subsidiaries financed by the parent company is possibly included in the direct investment in the same fiscal year and so is calculated twice.

[31] Essentially, the portion from the local corporation must be included in the denominator of the depreciation costs. However, this has been ignored due to limitations in the available data, which leads to an overestimation of the ratio of gross investment to depreciation costs. The same problem occurs for the ratio of gross investment to cash flow.

[32] The moving average of the last three years was used to eliminate any short-term fluctuations.

[33] Reinvestment income within the direct investment returns covered in the balance of payments is evenly allocated 6 and 12 months after the settlement month, once each company submits its reports.

Looking at the changes in return on foreign direct investment[34], after a decline between 1998 and 2000 due to the Asian economic crisis, the rate of return rose to 5.7% in 2001, which was roughly in line with the level before the Asian economic crisis, and is higher than the rate of return for physical and financial assets in Japan. Of course, judgments on the profitability of investment opportunities cannot be made without considering the volatility and growth rate of earnings, inflation rate and others. Still, if corporate decision-making tends to be influenced by the recent situation, then overseas investment is likely to take priority at present over domestic investment. Looking at the various regions, the level for North America is comparatively high based on the most recent usable data from 2000.

Figure 3-20 shows asset share and ROA (Return on Assets) by region for overseas subsidiaries in the manufacturing sector according to the Basic Survey of Overseas Business Activities conducted by the Ministry of Economy, Trade and Industry. This survey, targeting Japanese corporations with overseas units, is conducted once every three years. The most recent results from the fiscal 1998 survey[35] are a little old, but are still useful for understanding regional trends for each industry. The announced figures are actual accounting figures and only valid answers are tabulated.

The following characteristics emerge from comparisons of the situations in 1989, 1995 and 1998. First, the ROA of overseas subsidiaries can experience some large changes, but there has been an overall upward trend compared to the ROA of the parent companies, which has continued to slide. Secondly, focusing on the situation of fiscal 1998, the absolute level was not high under the influence of the Asian currency crisis. Thirdly, looking at the various regions, there have been improvements in ROA for some of the units in the U.S. and Europe that saw unavoidably low ROA initially. Fourthly, China has gradually been gaining influence in terms of asset share, but ROA has remained at low levels such that may be allowable only in cases of strategic investment.

While the above is a rough observation, there appears to be no definitive difference between the return on investment for Japanese and overseas operations when factoring in business risks and other considerations. Rather, the main problem for Japanese firms can be said how best to raise their absolute profits both domestically and overseas. In fiscal 2000 the number of Japanese overseas units that were abandoned exceeded the number of new operations established.[36] Overseas development for Japanese firms is becoming more selective and focused. Therefore, it is important to prepare against growth risks in regions that appear attractive for investments due to growth expectations, such as China.

6. Shift to Overseas Production Leading to Recent Increase in Re-imports

(see p. 51 for figures)

This section will discuss the influence of the shift in production overseas on imports and exports. First, the amounts imported and exported by Japan and how the changes in these amounts impact internal and external income were analyzed. Figure 3-21 shows estimates of income elasticity coefficients for both imports and exports.[37]

Figure 3-22 illustrates how this mechanism works. First, we must consider the path that leads to the shift in production overseas. When the average rate of productivity growth domestically

[34] The International Investment Position Statistics were built into the balance of payments for the first time in 1996 according to the 5th version of the IMF Manual. Therefore, data earlier than this currently cannot be used.

[35] These statistics better correspond with the relevant fiscal year, and so there is no time lag as seen with the balance of payments.

[36] Fiscal 2001 Basic Survey of Overseas Business Activities prepared by the Ministry of Economy, Trade and Industry.

[37] Import and export demand elasticities, which are parameters of the demand factor, are estimated using the Kalman Filter. In estimating the export elasticity, the export volume index serves as a dependent variable, and world import volume (indicating the foreign demand factor) and export price per world wholesale price index (indicating comparative price factor) serve as independent variables. In estimating the import elasticity, the import volume index serves as a dependent variable, and real domestic demand and the import price per domestic wholesale price index serve as independent variables. The estimation period is 1986Q1-2001Q2, and the benchmark of the estimation is calculated using the data from 1982Q1 to 1985Q4.

surpasses the rate of growth overseas, there may still be instances in which changes to the domestic industrial structure result in varying degrees of productivity growth among the different industries. Those industries that achieve a rate of growth higher than the average are said to have an advantage over overseas production.

In other words, exports should increase because export competitiveness in such goods has risen to an adequate level. On the other hand, the comparative advantages of those industries that have shown slower rates of productivity growth than the national average can be determined by comparison with overseas levels. Industries with lower rates of productivity growth than those overseas have comparative disadvantages, and their export competitiveness will weaken and exports will decrease. This is why production facilities have been moved overseas in order to raise this productivity.

There are still cases in which industries that had comparative advantages lose those advantageous for some reason and are forced to move their production overseas. This is known as the "hollowing-out" effect.[38] There are several reasons for this unwanted shift of production overseas. One example is that when the actual exchange rate far exceeds the level of purchasing power parity and remains high for a long time, the price competitiveness of exports weakens and overseas production becomes necessary.

There are also cases in which the rate of productivity growth domestically falls to a comparably low level. For example, products that are highly valued in foreign markets may become much cheaper due to market expansion and mass production. In this case, the same product produced in Japan will often lose most of its cost competitiveness. It is also possible that, through receiving direct investment, overseas competitiveness can be raised and the productivity growth rate seen in Japan can be exceeded. In this manner the domestic level of productivity growth becomes comparatively lower and companies now finding themselves at a comparative disadvantage are forced to move production overseas.

What impact does this shifting of production overseas have on imports and exports? As mentioned above, when export competitiveness drops and exports of products at a comparative disadvantage fall, production is shifted overseas to compensate for that fall. This decline in exports is known as the "export substitution effect". However, when the materials and equipment needed for starting up plants overseas are procured from Japan, capital goods and other products are exported from Japan to the overseas local corporations. Once the overseas operations are up and running, there would likely be a gradual increase in local procurement, but there will still be a period in which the more competitive capital goods and producer goods made in Japan will be needed and so these exports should continue. The promotion of exports in this manner is known as the "export inducement effect".

In terms of the impact on imports, when products that until now have been produced and consumed domestically are replaced by those produced overseas, there is an increase in reimports, also known as the "re-import effect". Furthermore, imported materials used in domestic production no longer need to be imported when production is shifted overseas, and so this portion of imports decreases. This is sometimes called the "import conversion effect".

These are some of the direct impacts on imports and exports resulting from the shifting of production overseas. Therefore, the macroeconomic changes to import and export amounts are the results of combining these various effects. When considering the impact of shifting production overseas on imports and exports, we must consider the different paths taken by each type of goods.[39]

Figures 3-23 and 3-24 show changes in im-

[38] There are many arguments on how best to judge the relative advantages and disadvantageous of tradable goods. There is the Heckscher-Ohlin factor endowment theory that says trade patterns are determined by the endowment ratio of production elements. However, here the Ricardo theory is used to determine trade patterns based on the differences in the comparative ratios of production expenses. This is due to the differences observed among the various Japanese industries in recent years.

[39] A macro analysis of the overall impact that foreign direct investment has had on Asian imports and exports can be found in DBJ Research Report No. 13, "Recent Trends in the Japanese Economy: Weakness of Current Economic Recovery and Its Background" (Development Bank of Japan, March 2001).

port and export amounts for various goods along with the trend in foreign direct investment. There has been an accumulated increase in foreign direct investment, but exports of various items have not always mirrored this trend. For example, exports of most products increased at about the same pace as the increase in foreign direct investment between fiscal 1985 and 1992. Since then exports of producer and capital goods have continued growing, but the level of exports of non-durable goods has fallen back somewhat. The rise in exports of producer and capital goods may be due to the "export inducement effect", while the decline in exports of non-durable goods may be attributable to the "export substitution effect".

On the other hand, there has continued to be a steady increase in the imports of various goods since the 1990s, which would suggest that the re-import effect has been strengthening. This increase has not been limited to just non-durable goods, but there has also been a marked increase in the imports of capital goods, including computer peripheral equipment. In recent years, both imports and exports of these IT-related (information technology) goods have risen, suggesting that the so-called "intra-industry trading" (trading the same type of goods back and forth) has become more active.[40]

The shift of production overseas by Japanese corporations has thus had various impacts on imports and exports. The recent arguments about international competitiveness and the hollowing out of Japanese industry have often focused only on the direct export substitution effect. However, other effects must be examined while looking at the overall macroeconomic impacts. In the longer term, the overseas income elasticity to Japan's exports will reduce and the continued shift of production overseas will lead to more export substitution and re-imports. However, there should also be much more active trade within industries, especially in the area of capital goods. This means that Japan will have to adapt quickly to changing industrial structures and will need to effectively allocate resources to fields where its exports are still competitive if it wishes to continue enjoying a favorable trade balance.

7. Accumulated Securities Investments Lead Income Surplus to the Level of Trade Surplus (see p. 52 for figures)

Figure 3-25 (1) shows that since the 1980s Japan's balance of international payments has remained in surplus in terms of current account, while its balance of capital accounts has remained in deficit (capital outflows). If we break down the current account further, there has been an upward trend in income surplus, and in 2001 it was roughly the same as the trade surplus, party due to a cyclical reduction in trade profits. This section will examine the situation for Japan, which is a major creditor nation that has achieved high levels of both income surplus and net assets.

Figure 3-25 (2) shows a breakdown of the income balance. Earnings from securities investments account for more than half of the total, while the weighting for direct investment earnings such as from expanding the bases for overseas activities is small. This means that the expansion in income surplus is not so much the direct result of the globalization of production sites belonging to Japanese corporations, but more due to the increase in profits from securities investments, in particular from United States government bonds.

Figure 3-26 compares the balance of stock-based foreign assets and liabilities of four countries. While Japan clearly has net assets exceeding those of the U.S. and the U.K., the scale of Japan's foreign assets is still surprisingly small on a gross basis. The ratio of Japan's gross assets divided by nominal GDP is less than half that of Germany. Looking at the types of assets, the small scale of Japan's foreign assets is clearly due to its low level of direct investment and investment in equities. It has often been pointed out that in terms of direct investment, the level of investment into Japan is very low. Although this indicates that there is an imbalance in direct investment into and out of Japan, a more accurate assessment may be that direct investment is very

[40] Refer to Chapters 3 and 4 of DBJ Research Report No. 24, "The Changing Structure of Trade in Japan and Its Impact: With the Focus on Trade in Information Technology (IT) Goods" (Development Bank of Japan, March 2002) for information regarding Japan's trade in IT goods and intra-industry trade.

low in both directions. This may explain the high expectations that foreign companies will enter the Japanese market or participate in management through M&A, while at the same time allowing plenty of room for Japanese corporations to aggressively expand their overseas operations.

Looking at investments in securities, the holdings of Japanese shares by foreign investors and the holdings of foreign bonds by Japanese investors have reached appropriate levels. However, the reverse does not apply: the level of foreign shares held by Japanese and the level of Japanese bonds held by foreigners are both significantly low. This means that Japanese investors prefer bonds over stocks, in other words, they are more interested in guaranteed returns.

The reason for this is the attitudes of the household sector, which is expected to ultimately bear the investment risk. Figure 3-27 (1) compares a breakdown of financial assets held by households for major countries. The Japanese keep a high 55% of their assets in cash and deposit, with only a small portion in shares, bonds, investment trusts and other short-term instruments. By comparison, the current percentage of household assets made up of shares is 25% in the U.S., 17% in the U.K., 16% in Germany and 9% in Japan.

However, the category "insurance/pension fund" in Figure 3-27 (1) (roughly 28% in Japan) also invests money in shares and bonds, and there are also share-based and bond-based investment trusts (roughly 2% in Japan). Therefore, the exact allocation of household budgets to various investment instruments needs to be calculated in more detail. Figure 3-27 (2) provides a closer breakdown of the assets of financial institutions in regards to insurance, pension funds, investment trusts and regular savings. The results show that Japanese households, with their high savings rates, have 40% of their assets involved in lending operations. Furthermore, if the values of assets invested in the market via insurance, pension funds and other institutions are combined, the weighting of assets in the stock market is: U.S. 51%, U.K. 48%, Germany 33%, and Japan 15%. The differences in weighting of bond investments between these countries are comparatively smaller.

The management of Japanese household assets is partly influenced by changes in housing and real estate prices as well as a lack of familiarity in investing in the shares of European and American companies. Nevertheless, the allocation of financial assets shows that funds from regular savings are mainly used for lending by the banking sector. In the future it will be necessary to bolster the capital markets in order to encourage the flow of money so that investments can be made in emerging businesses, by taking risks and obtaining rewards from investment. As Figure 3-27 shows, the flow of funds into the capital markets through institutional investors should increase and so there are hopes that individual investors will learn to trust the financial products offered by investment trusts and the like.

8. Foreign Direct Investment Spurring Development in China (see p. 53 for figures)

Foreign direct investment into China expanded sharply following the acceleration of reforms in 1992. The level of actually used foreign direct investment appeared to have peaked in 1998, but then jumped to 46.85 billion dollars in 2001, topping the 1998 level, in anticipation of China's accession to the WTO. Foreign direct investment into China from Japan in 2000 came to 2.92 billion dollars, or roughly 7% of the total amount.

Trade by foreign funded enterprises is growing following the increase of foreign direct investment (Figure 3-29). Foreign funded enterprises accounted for around 50% of all Chinese imports and exports in 2001. Looking at a breakdown of the trade balance, foreign funded enterprises began earning a surplus in 1998 and the surplus expanded in 2001. On the other hand, the surplus at state-owned enterprises has been shrinking.

The breakdown of the trade balance by foreign funded enterprises (Figure 3-30) shows that the deficit from investment-related imports exceeded the surplus made from the processing trade, which resulted in an overall deficit until 1997. However, once production by foreign direct investment got on track, the surplus from the processing trade grew and overall balance turned positive from 1998.

Looking at the international balance of

payments (Figure 3-31), foreign exchange reserves have been increasing due to the influx of foreign direct investment and the current account surplus. At the end of 2001 the reserves stood at 212.2 billion dollars, the second largest in the world.

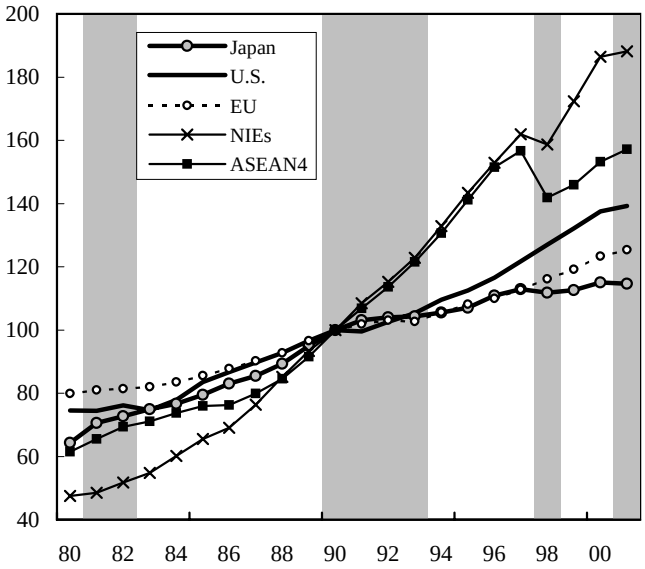
Since 1994, the Chinese currency Renminbi, has substantially been pegged to the U.S. dollar (Figure 3-32). According to the World Bank, per capita GNI was $840 in 2000 when converted using the U.S. dollar exchange rate, but was $3,920 when converted by purchasing power parity. The purchasing power of the Renminbi is thus 4.7 times larger than the U.S. dollar conversion rate, which also suggests that the Renminbi is undervalued.

I Recovery of the Global Economy

The Japanese Economy and Recovery of the Global Economy

Figure 1-1 Economic Growth in Major Countries and Regions

(1) Growth of Real GDP (1990 = 100)



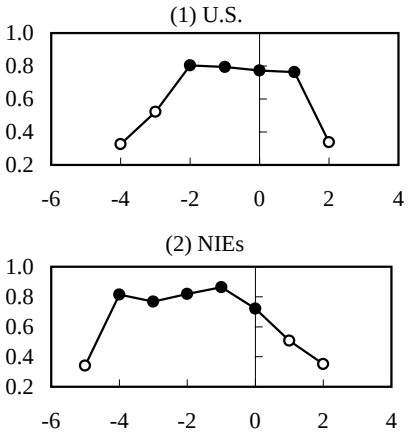
(2) Growth Rate Correlation

	Japan	U.S.	EU	ASEAN4	NIEs	China
Japan		0.77	0.84	0.74	0.72	
U.S.			0.91	0.89	0.94	
EU		0.46		0.91	0.80	
ASEAN4	0.44				0.89	
NIEs				0.60		
China						

Notes : 1. In Figure (1), the indices are extended from 1990 level using the real growth rats. The shaded areas indicates the period of stagnation or recession when the real world growth rate fell below the trend.
2. In the table, the bottom left triangle is the correlation obtained from the annual growth rate from 1980 to 2001, while the shaded upper-right triangle are based on the on-year growth rate from 99Q2 to 2001Q4. Only those significant at 5% leevl is cited.
3. NIEs refers to Korea, Taiwan and Singapore, and ASEAN4 refers to Thailand, Malyasia, Indonesia and the Philippines. Regional growth rates are weighted averages based on the purchasing power parity.

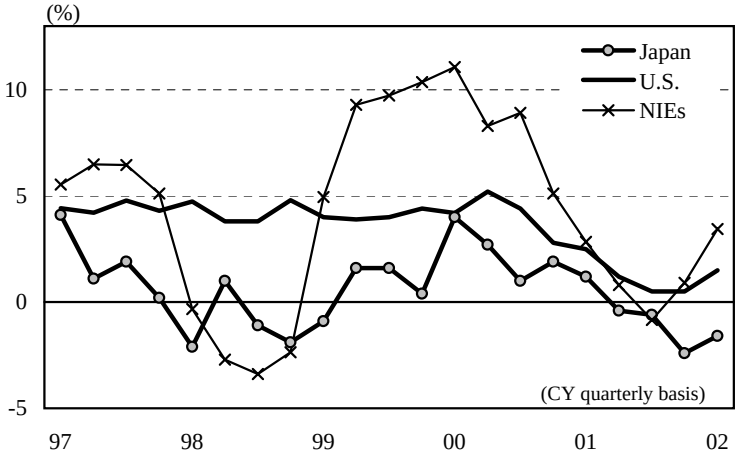
Source : IMF, "World Economic Outlook" complemented by recent figures from each country.

Figure 1-2 Lags behind the Japanese Economy



Note : Correlation between the growth rate in Japan and those in the U.S. or the NIEs with various lags. Estimation periods are taken from 99Q2 to 2001Q4 at longest. ● indicates statistically significant correlation at 5%.

Figure 1-3 Recent Trends in Growth Rates

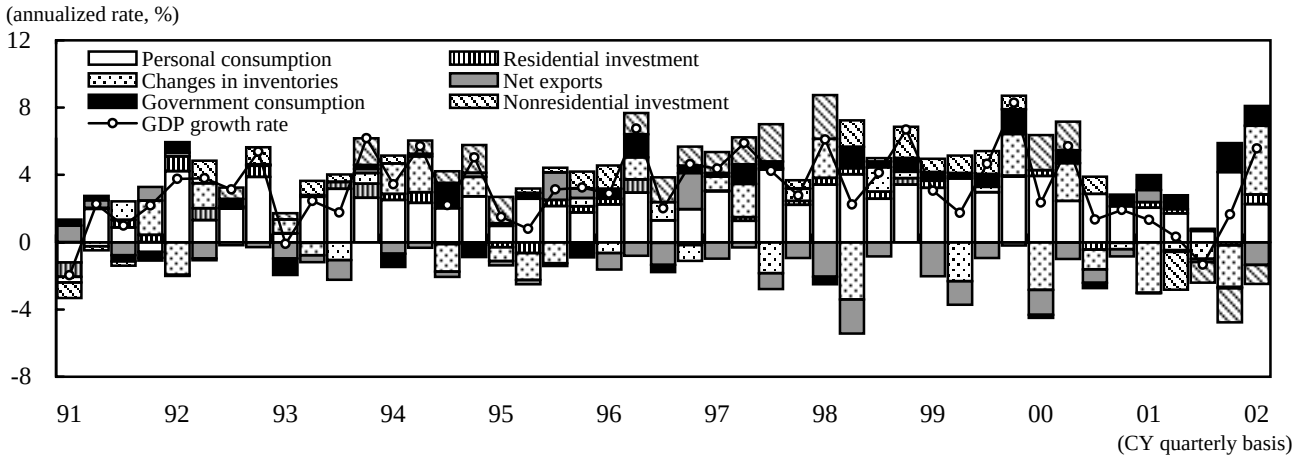


Note : Real GDP growth rate from a year ago. Figures for NIEs are weighted by the purchasing power parity averaged from 1995 to 2000.

Sources : IMF, "World Economic Outlook," and other materials from each country.

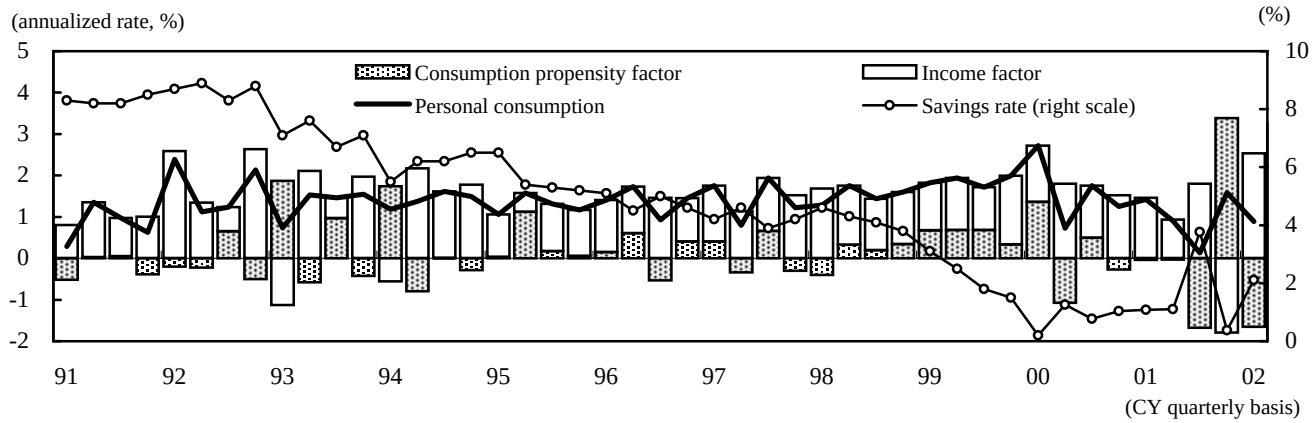
U.S. (1): Personal Consumption Improving but Weakness Continuing in Nonresidential Fixed Investment

Figure 1-4 Trends in Real GDP



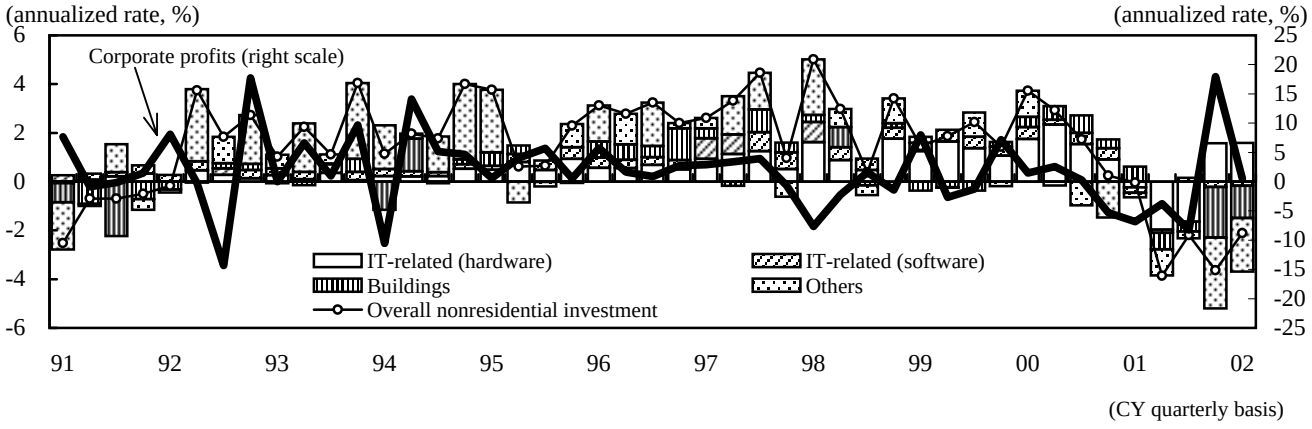
Source: U.S. Department of Commerce, "National Income and Product Account."

Figure 1-5 Personal Consumption Trends



Source: U.S. Department of Commerce, "Personal Income and Outlays."

Figure 1-6 Trends in Real Nonresidential Investment and Corporate Profits

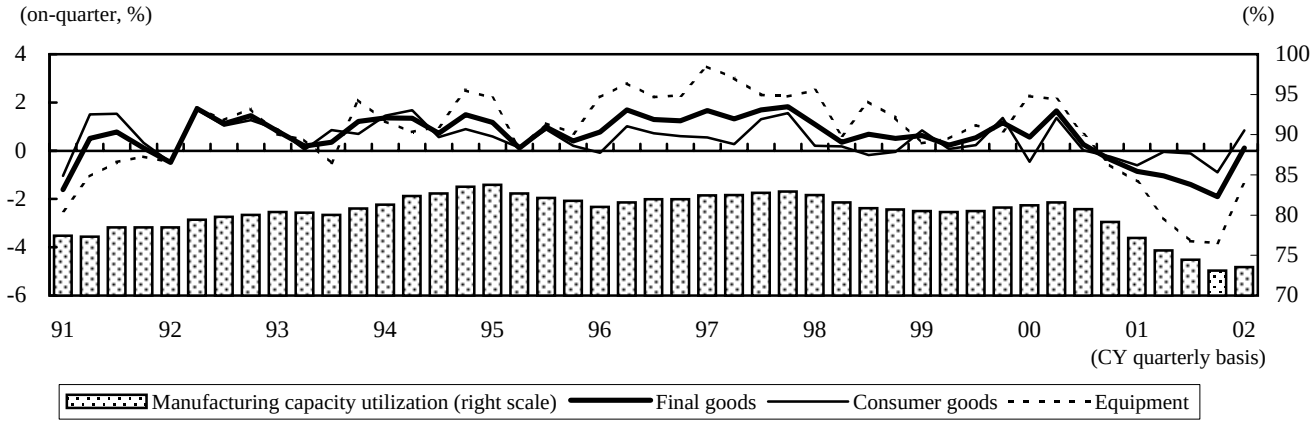


Note: Corporate earnings are based on inventory assessments and capital expenditure adjustments before taxes, and are on-quarter comparisons of nominal and seasonably adjusted averages.

Source: U.S. Department of Commerce, "National Income and Product Account."

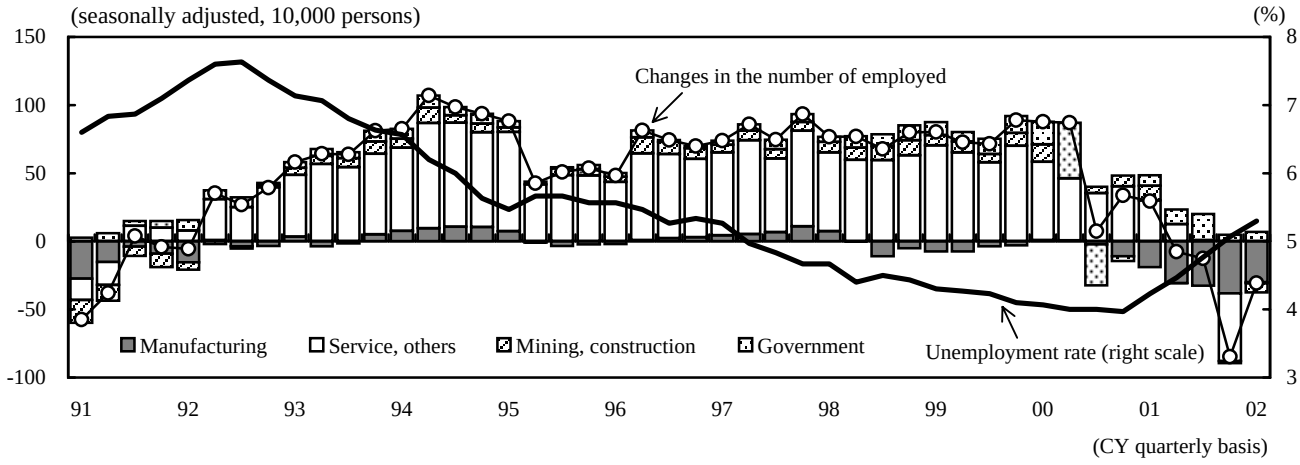
U.S. (2): Production Improving but Difficult Employment Situation Continuing

Figure 1-7 Industrial Production Growth (seasonally adjusted)



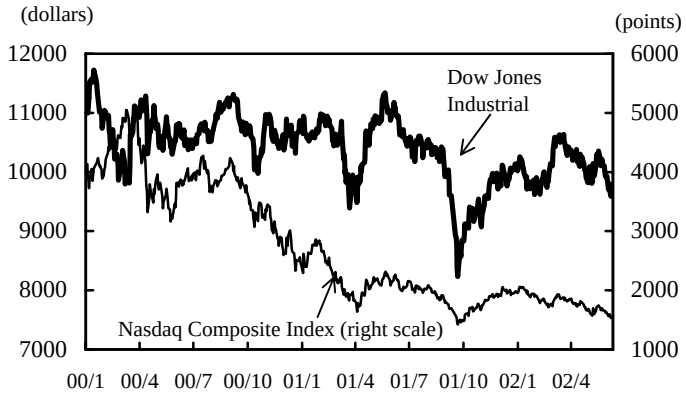
Source: FRB, "Industrial Production and Capacity Utilization"

Figure 1-8 On-Quarter Changes in Number of Employed and Unemployment Rate



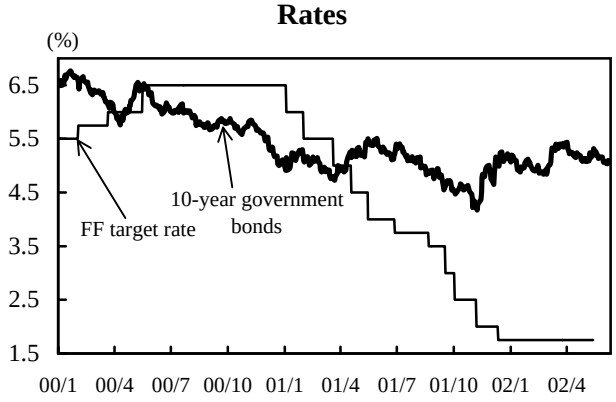
Note: The number of employed is based on monthly averages of those not working in the agricultural sector.
Source: U.S. Labor Ministry, "Employment Situation."

Figure 1-9 Stock Market Indexes



Source: Based on materials from Dow Jones and DRI.

Figure 1-10 Long and Short-term Interest Rates



Source: Based on FRB materials and the Wall Street Journal.

Economies of Major European Countries (Germany, France, U.K.) in Period of Bounching a Bottom

Figure 1-11 Real GDP of Major European Countries (anualized quarter on quarter change by component)

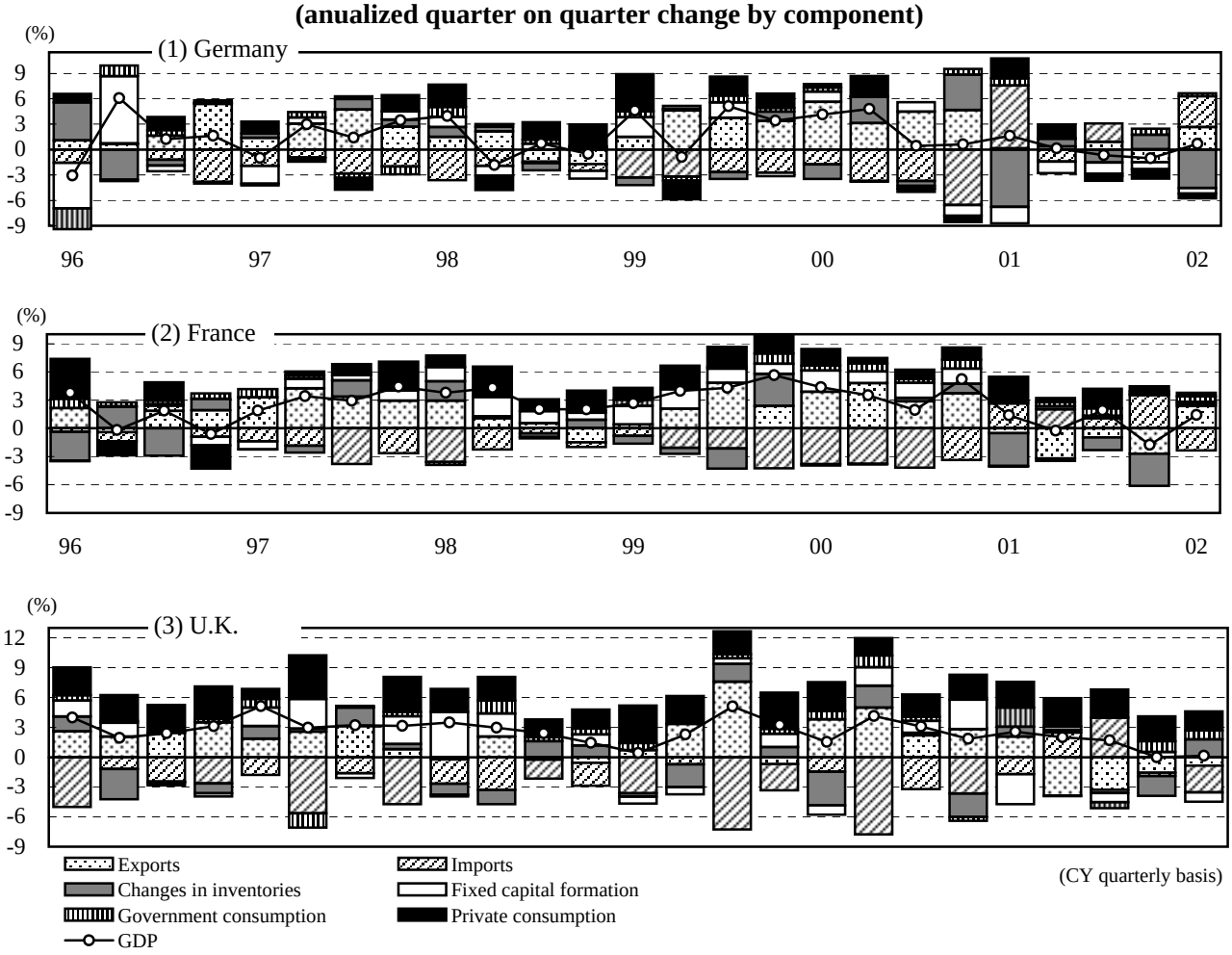


Figure 1-12 GDP (on-year)

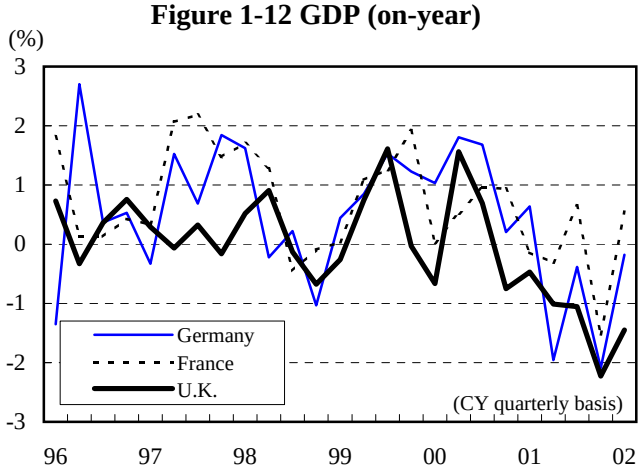


Figure 1-13 Unemployment Rate Trends

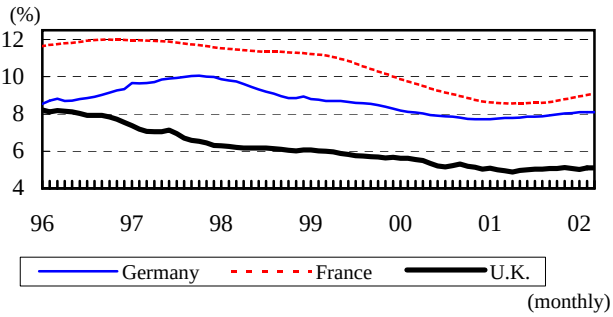
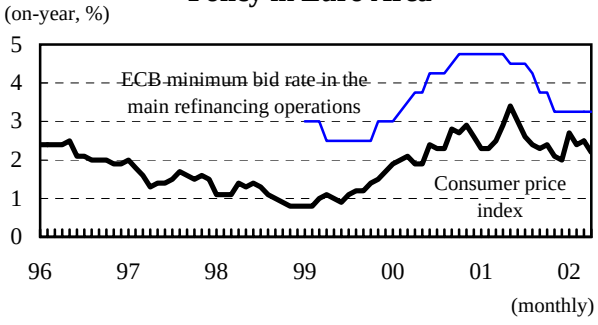


Figure 1-14 Consumer Prices and Financial Policy in Euro Area



Notes: 1. Based on seasonally adjusted values, except for Figure 1-14.
2. The ILO standard values were used to make comparisons of unemployment in the different countries.

Sources: Based on materials provided by the German Federal Statistical Office, Farnce National Institute for Statistics and Economic Studies, U.K. Office for National Statistics, European Commission (Eurostat), the European Central Bank and OECD.

Recovery among Major Asian Economies (Korea, Taiwan, Singapore)

Figure 1-15 Real GDP Growth Rate

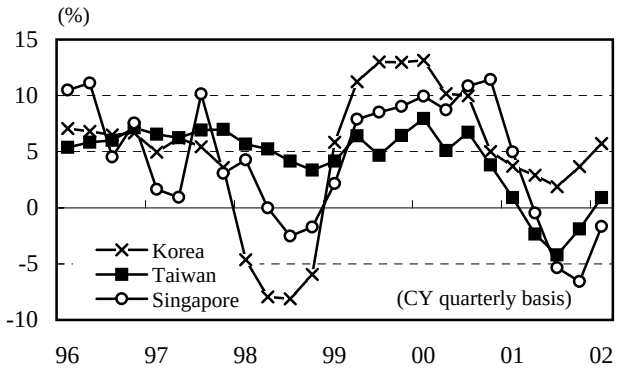


Figure 1-16 Industrial Output Growth Rate

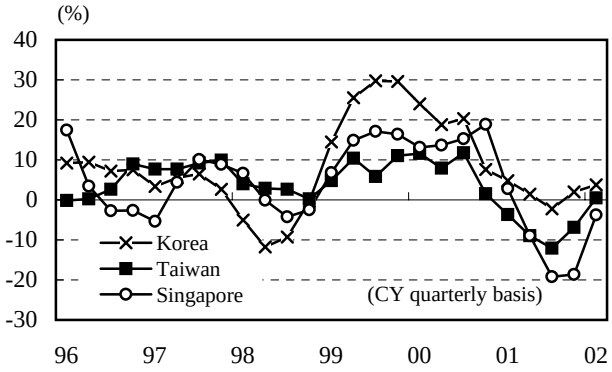


Figure 1-17 Real GDP Growth Rates by Components

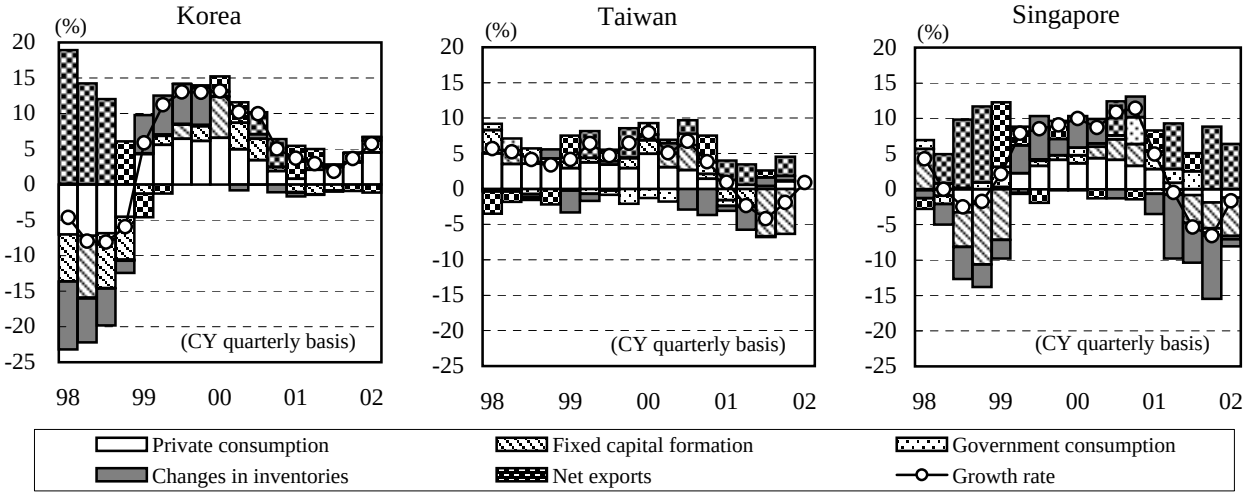
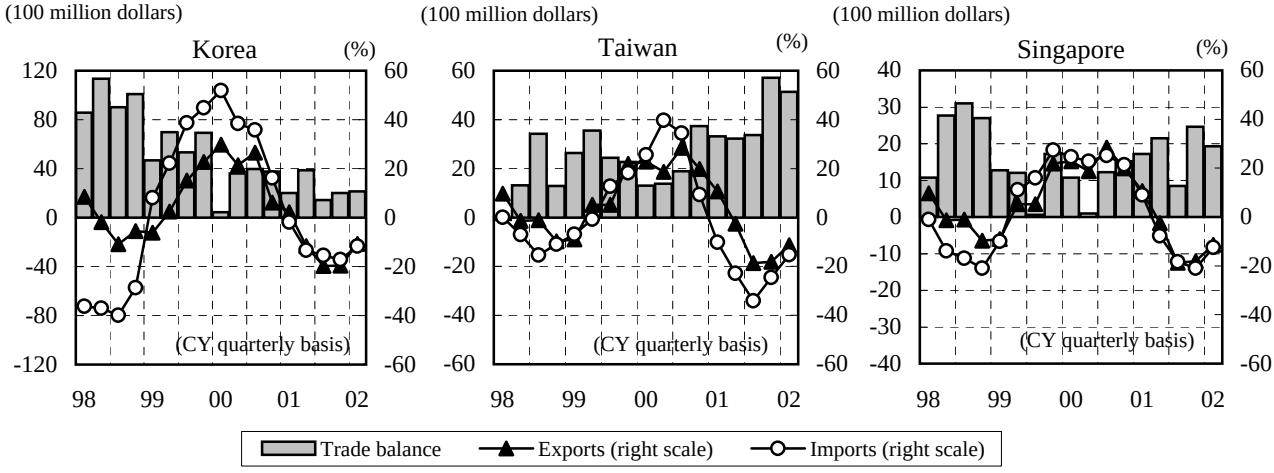


Figure 1-18 Trade



Notes: 1. The trade balance of Singapore is calculated from that of Singaporean dollar with the average exchange rate.
2. Growth rates are based on comparisons with the same period in the previous year.

Sources: Based on materials provided by the Korean Central Bank, Taiwan Administrative Office and Singapore Bureau of Statistics.

China: Maintaining High Growth Rate by Internal Demand Expansion

Figure 1-19 Trends in Real GDP Growth

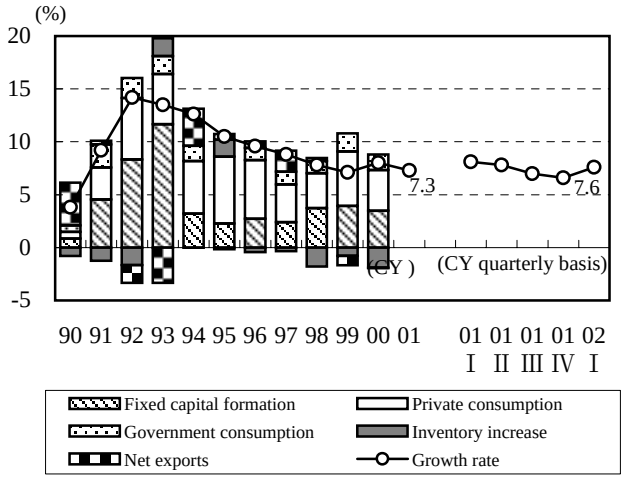


Figure 1-20 Value Added of Industry

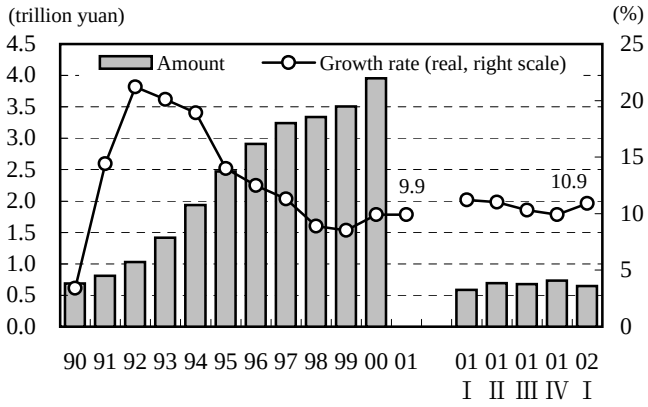


Figure 1-21 Retail Sales of Consumer Goods

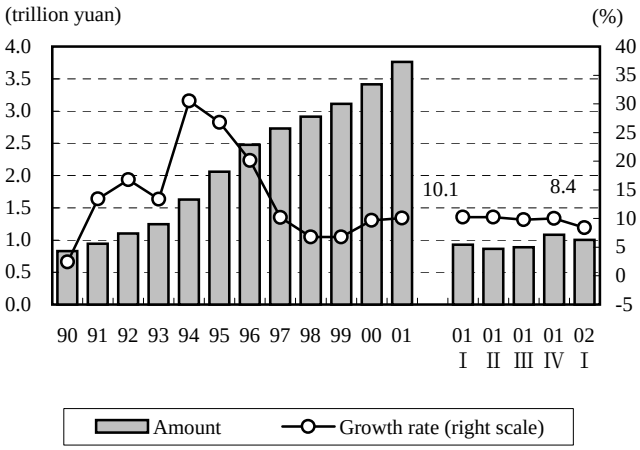


Figure 1-22 Investment in Fixed Asset

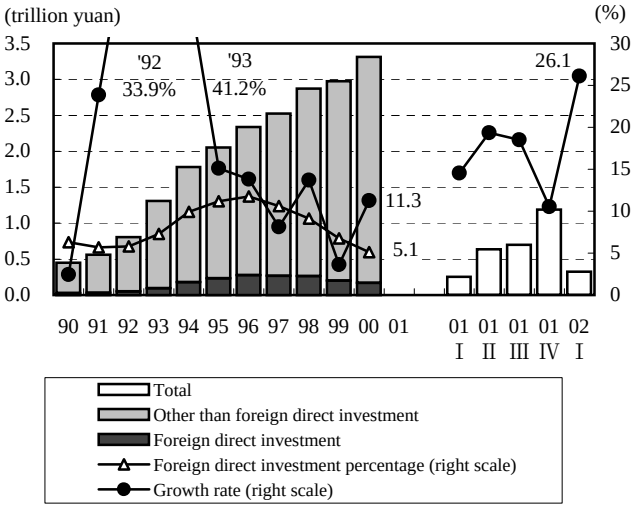


Figure 1-23 Imports and Exports

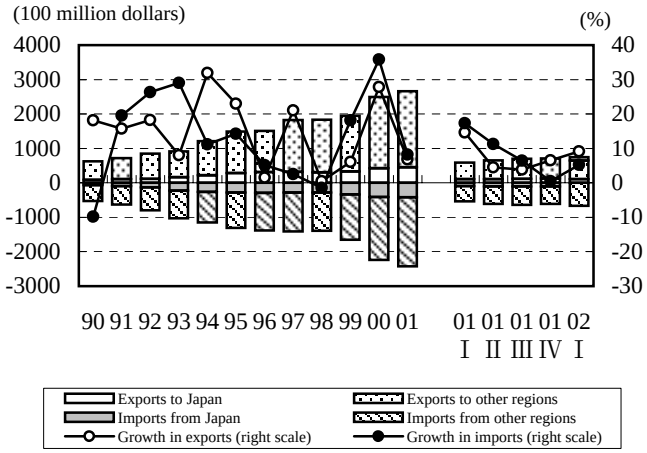
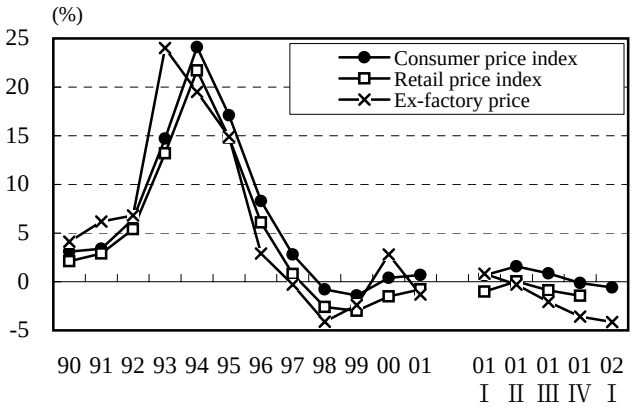


Figure 1-24 Price Indexes



Notes : 1. Quarterly data for Value Added of Industry and the growth rate in 2001 are based on state-owned enterprises and non-state owned enterprises with an anual sales income of over 5 million yuan. The growth rate is in real terms.

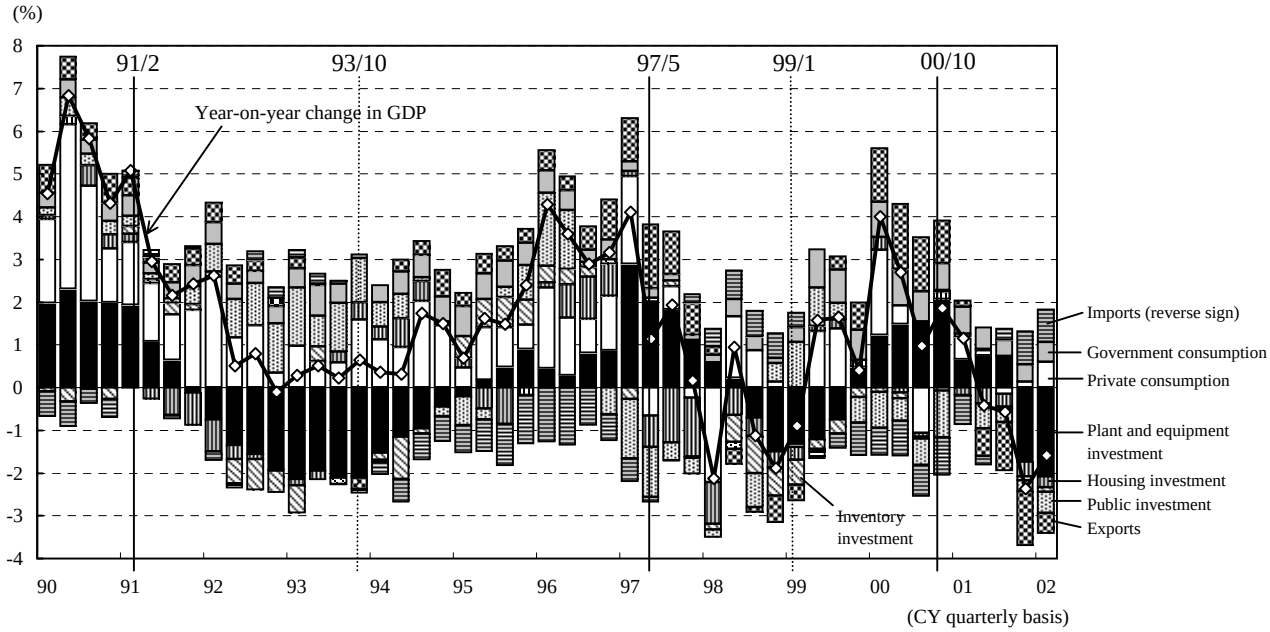
2. The growth rate is in comparison with the same period during the previous year.

Sources : Figure 1-19 is based on the "International Financial Statistics," IMF.
Other figures are based on the China Statistical Yearbook and the China Monthly Economic Indicators.

II Japanese Economy Bottoming Out

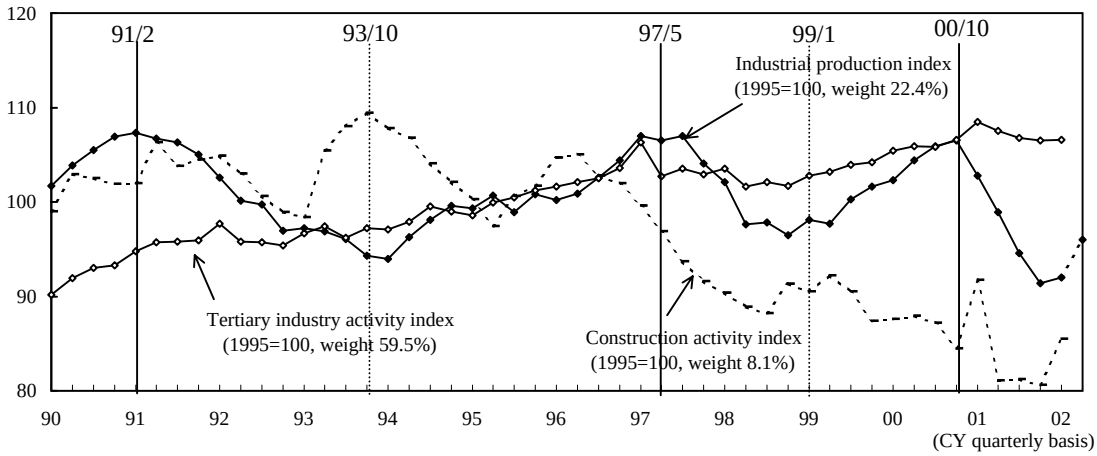
Overview: Production Starting to Recover

Figure 2-1 Trends in Real GDP (Year-on-year change by component)



Note: Government consumption includes the contribution of public inventories.
Source: Cabinet Office, "National Accounts," 1995 as base year.

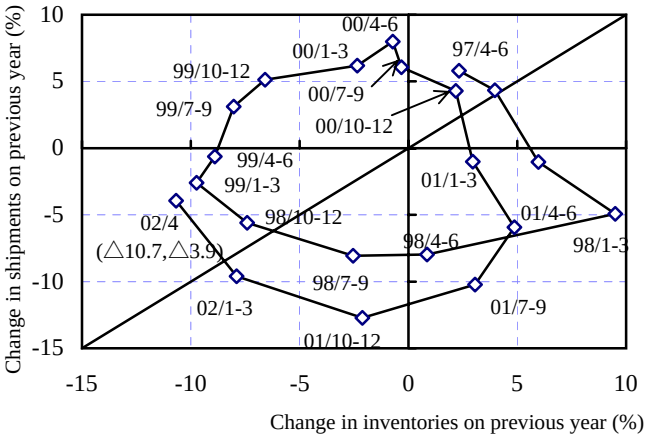
Figure 2-2 Trend of Production Indicators (Seasonally adjusted)



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%).
2. The industrial production figures for April-June 2002 are a combination of actual results and forecasts based on the survey of production forecast.
Source: Ministry of Economy, Trade and Industry.

Steady Progress in Adjusting Inventories, Entering a Recovery Phase Led by Producer Goods

Figure 2-3 Inventory Cycle
(Total of Mining and manufacturing sector)



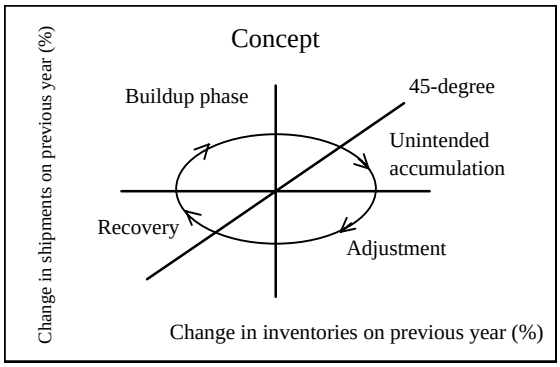


Figure 2-4 Inventory Cycle of Capital Goods
(Excluding transport equipment)

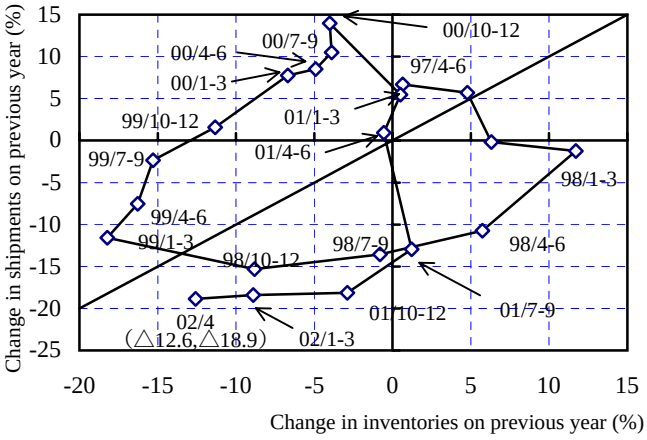


Figure 2-5 Inventory Cycle of Construction Goods

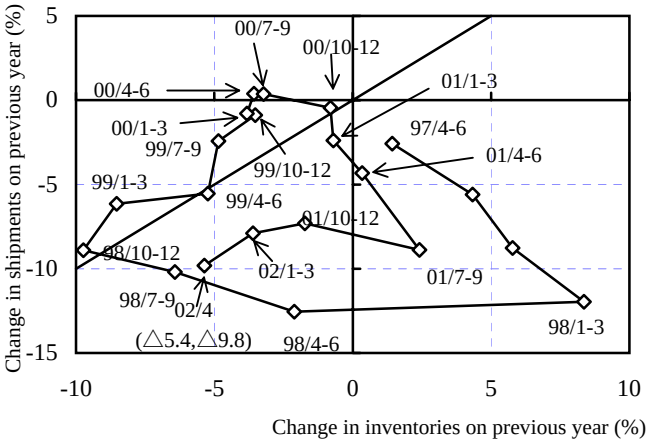


Figure 2-6 Inventory Cycle of Consumer Goods

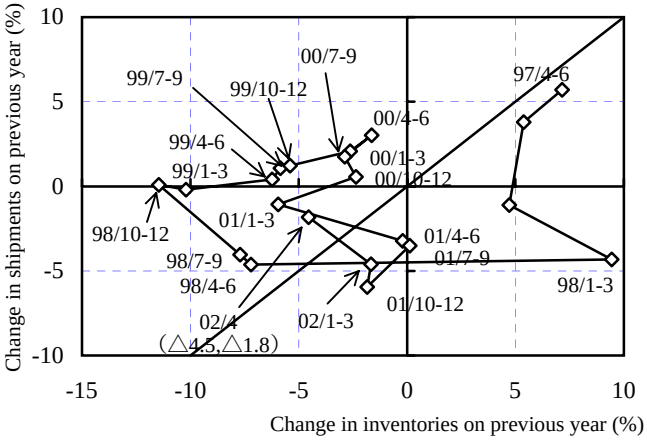
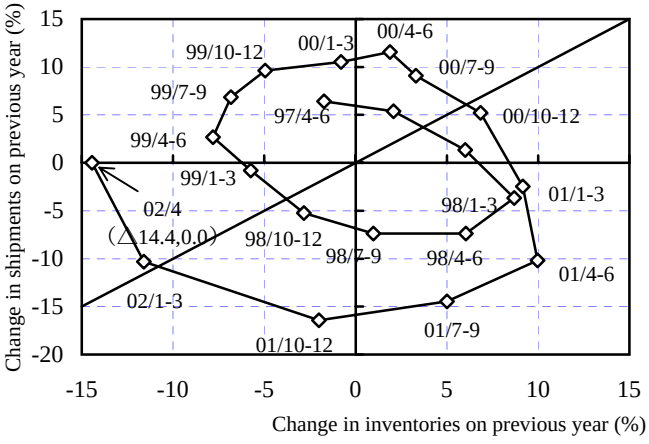


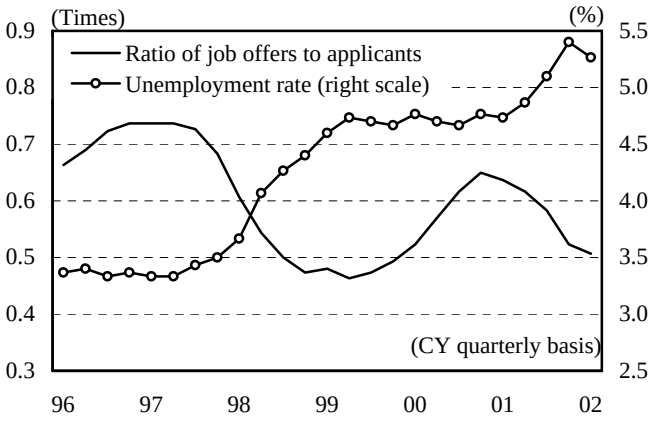
Figure 2-7 Inventory Cycle of Producer Goods



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

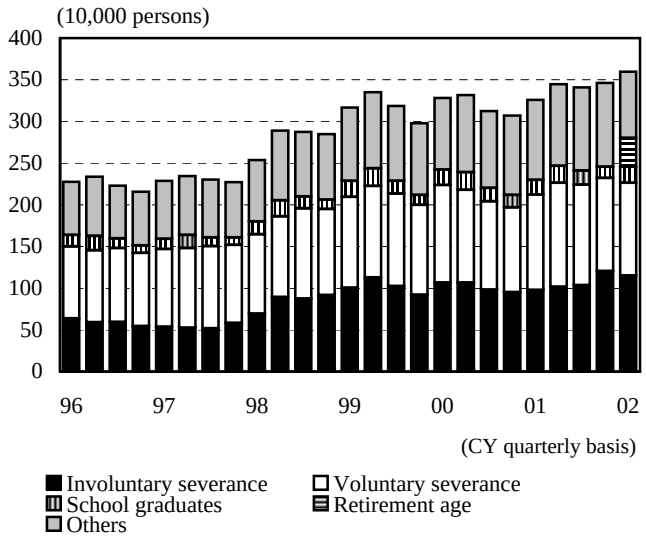
Number of Jobs Shrinking but Working Hours Increasing

Figure 2-8 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."

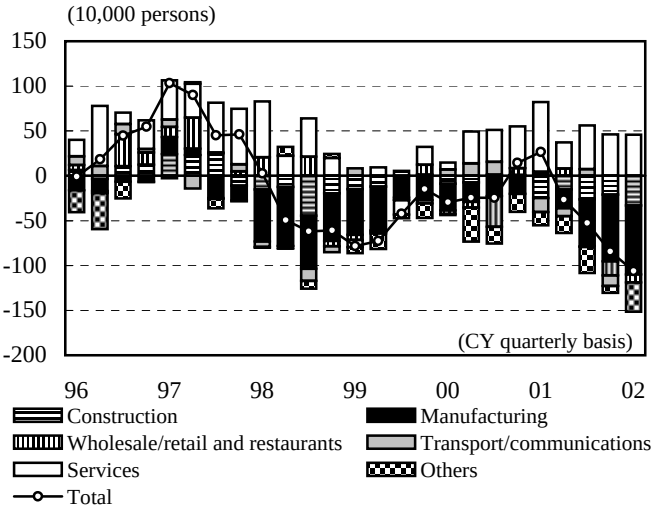
Figure 2-9 Year-on-year Change in Unemployment by Reason for Job-seeking



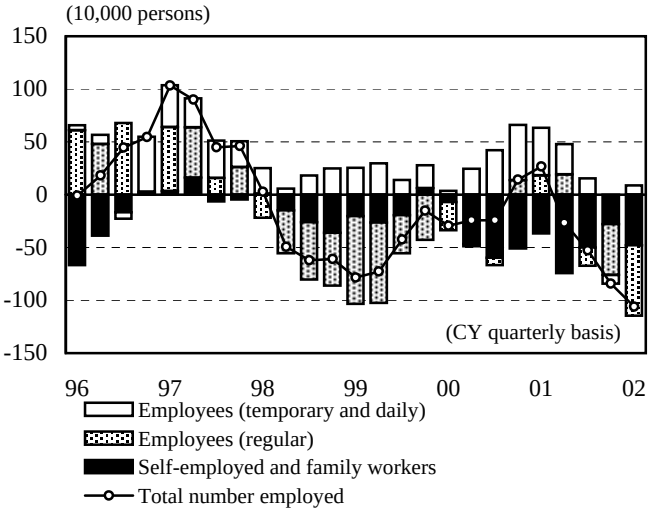
Note : "Retirement age" was added as an option in 2002.
Source : Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Labor Force Survey.'

Figure 2-10 Trend of Year-on-Year Change in Number Employed by Component

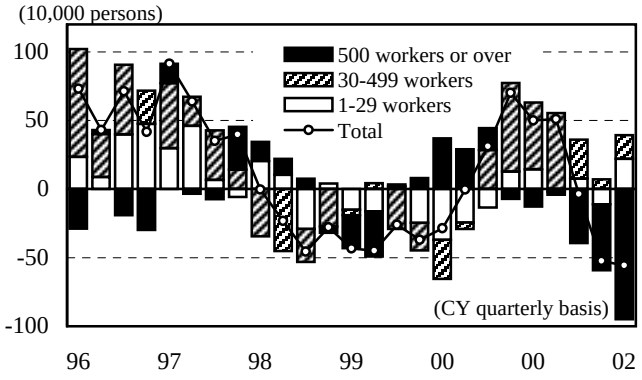
(1) By industry



(2) By status

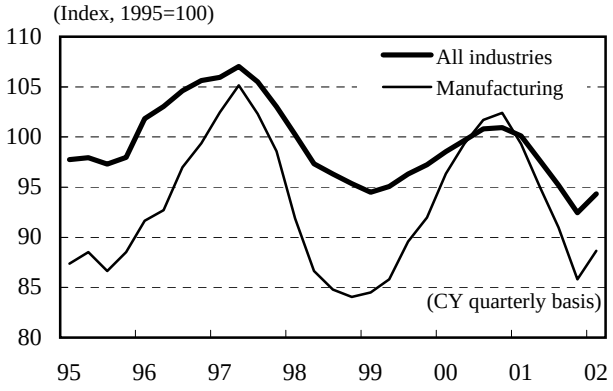


(3) By size of corporation
(excluding agriculture, forestry, fisheries and government)



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

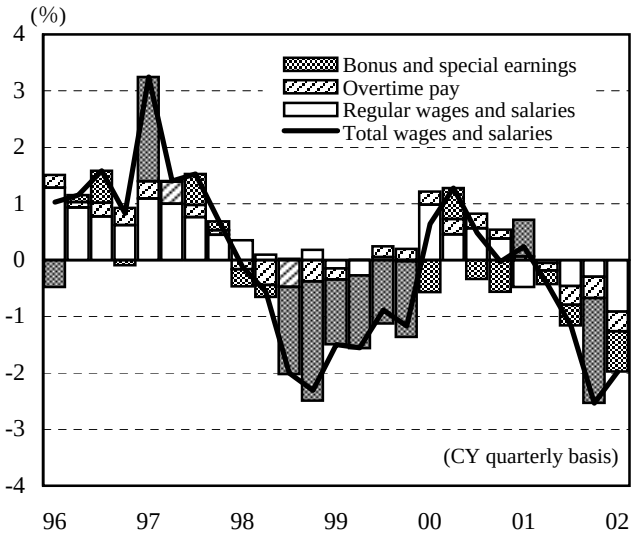
Figure 2-11 Overtime Hours (Seasonally adjusted)



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

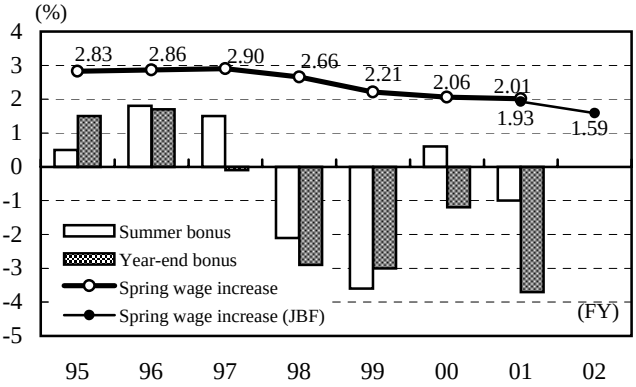
Consumption Environment Remains Poor

Figure 2-12 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."

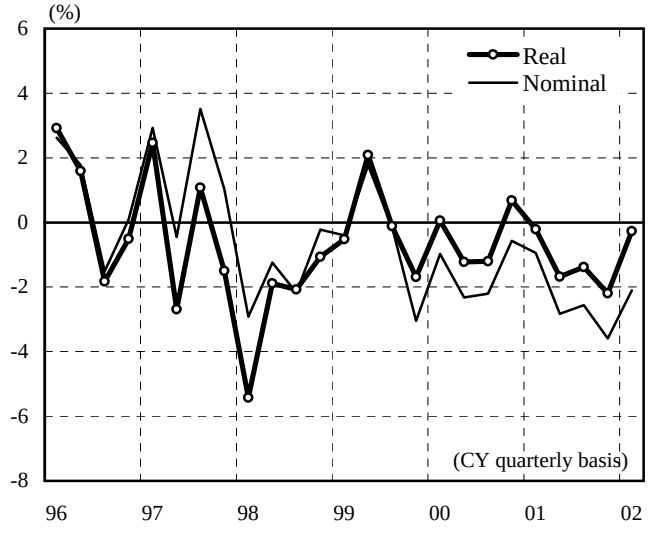
Figure 2-13 Spring Wage Increases and Change in Bonuses on Previous Year



Notes :
1. Summer bonus and year-end bonus include wages and salaries paid as such in June-August and November-January respectively in establishments employing five or more workers.
2. Spring wage increase covers listed companies with trade unions employing 1,000 or more workers and capitalized at ¥2 billion or over.
   Spring wage increase (JBF) is advance figure surveyed
3. by the Japan Business Federation.

Sources : Ministry of Health, Labor and Welfare "Monthly Labor Survey," and "Spring Wage Increase Requests and Settlement Conditions for Major Private Corporations," and "Settlement of Spring Wage Negotiations," the Japan Business Federation.

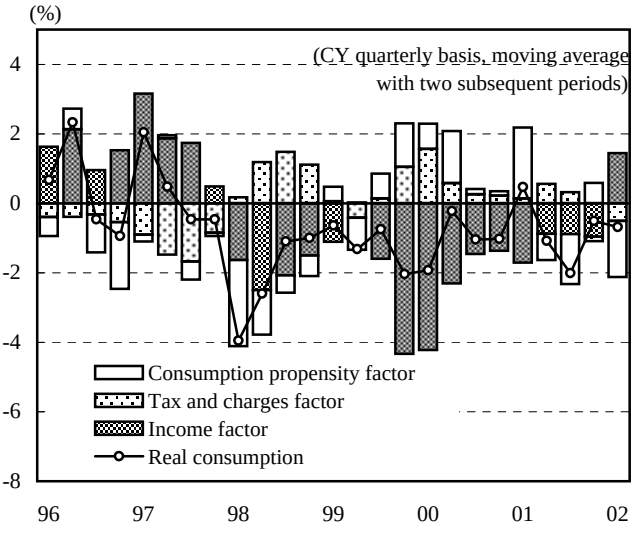
Figure 2-14 Trend of Household Consumption Expenditure



Notes :
1. Excludes automobiles, gifts and remittances. Adjusted for change in the household size.
2. Conversion into real terms was made using the consumer price index excluding imputed rent and automobiles.

Sources : Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Family Income and Expenditure Survey," (all households) and "Consumer Price Index."

Figure 2-15 Real Consumption (Change on previous year by component)

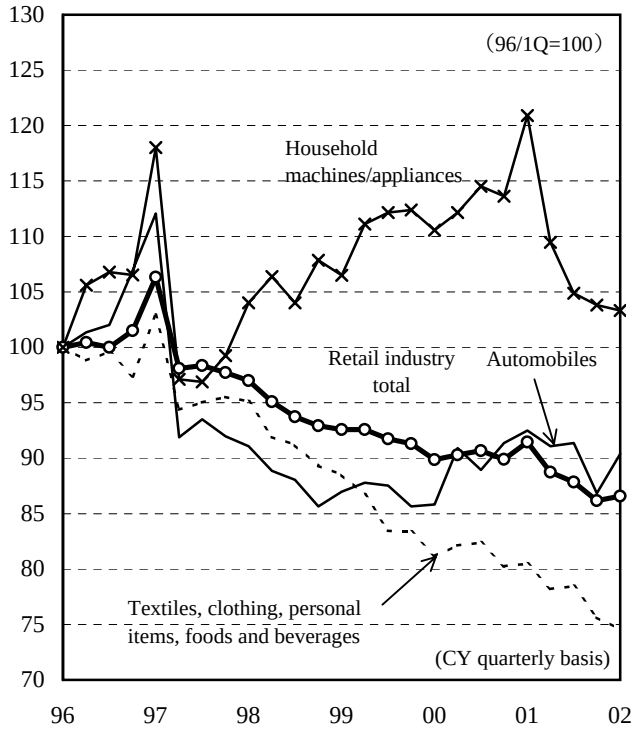


Notes :
1. Conversion into real terms was made using the composite consumer price index excluding imputed rent.
2. Factor resolution was made as follows (all in real terms):
   $\Delta C = \alpha \cdot \Delta Y$ (income) $- \alpha \cdot \Delta T$ (tax and charges) + $\Delta\alpha \cdot (Y - T)$ (consumption 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."

Signs of Improving Sentiment

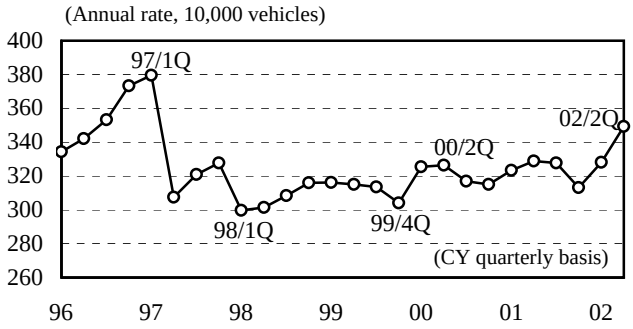
Figure 2-16 Retail Sales Index (Seasonally adjusted)



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

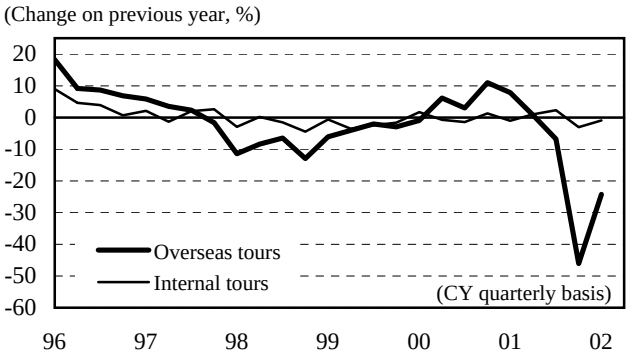
Source: Ministry of Economy, Trade and Industry, "Report of the Current Survey of Commerce."

Figure 2-17 New Car Registrations (Seasonally adjusted)



Note: Based on materials from the Japan Automobile Dealers Association. Passenger cars include light cars. 02/2Q is based on the averages for April and May.

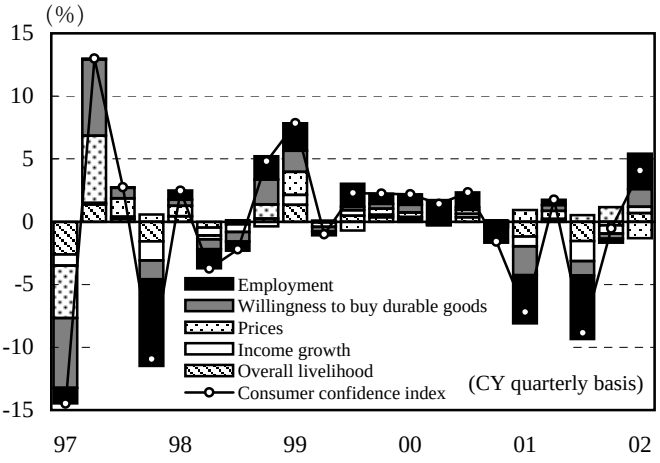
Figure 2-18 Tourism Sales



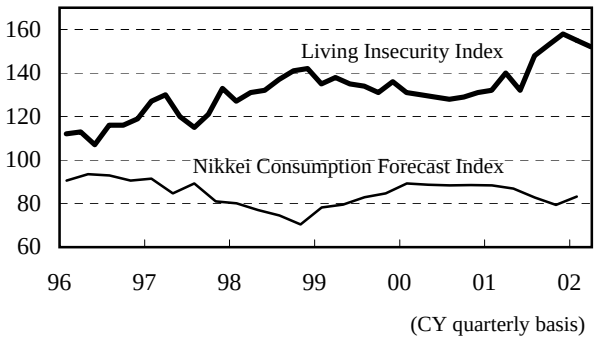
Source: Ministry of Land, Infrastructure and Transport, "Tourism Sales of 50 Major Tourist Agencies."

Figure 2-19 Consumer Confidence Indicators

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



(2) Living Insecurity Index

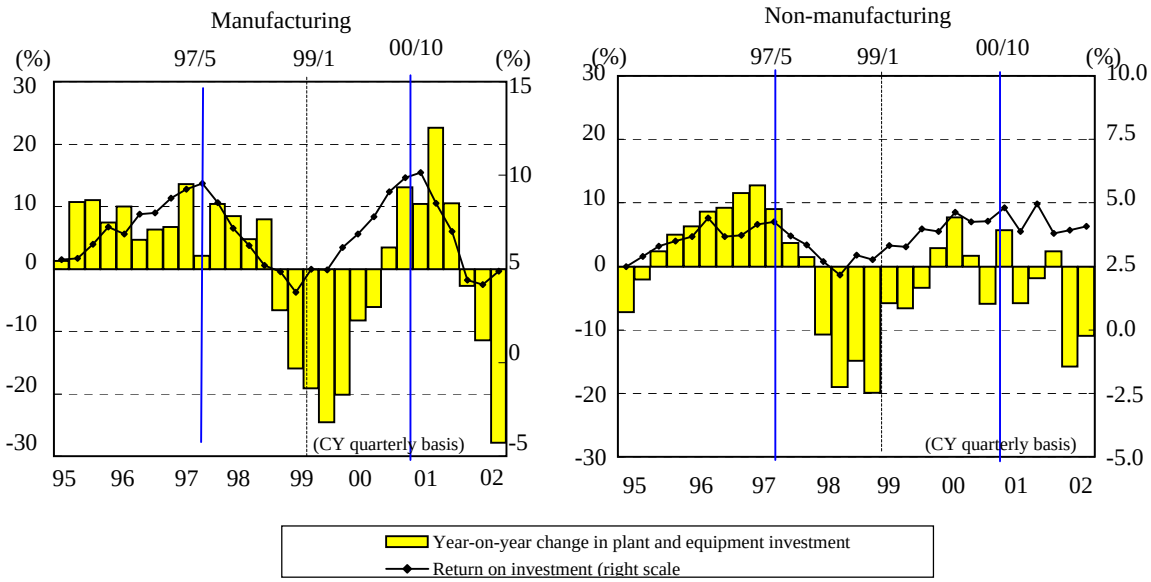


Note: Consumer confidence index is based on questionnaire surveys for the coming six months. Figures for individual components were redistributed from seasonally adjusted data.

Sources: Cabinet Office, "Consumer Confidence Survey;" Japan Research Institute, "Consumer Sentiment Index."

Plant and Equipment Investment Continuing to Fall; Leading Indicators Showing Signs of Bottoming Out in Manufacturing Sector

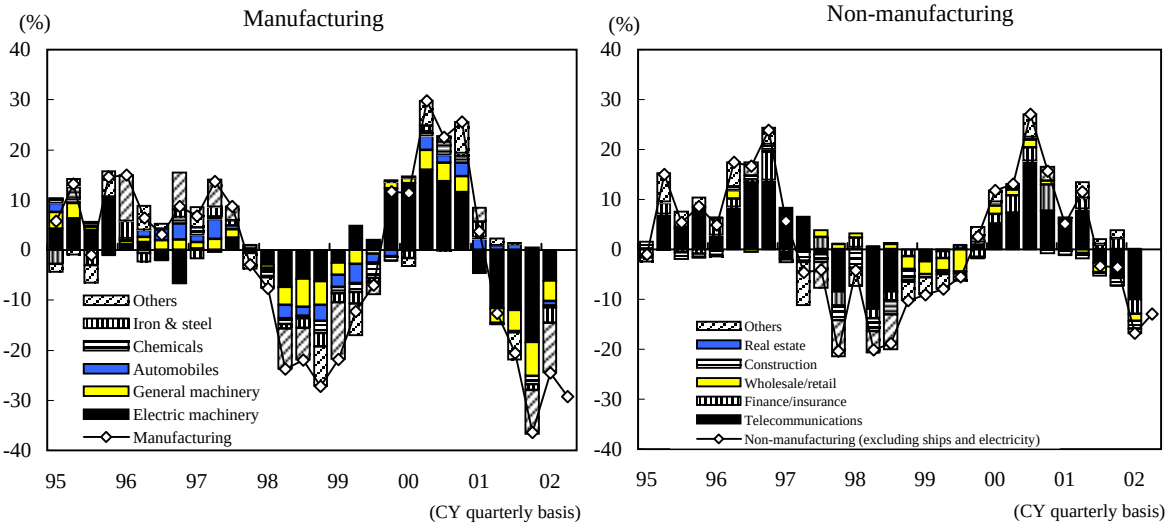
Figure 2-20 Year-on-Year Change in Plant and Equipment Investment and Return on Investment (Corporations of all sizes)



Notes : 1. Plant and equipment investment is excluding software.
2. Return on investment = operating asset profit rate – average contracted interest rates of banks (new loans, total), where operating asset profit rate = operating profit/(tangible fixed assets + inventories).
3. No adjustments are made for changes in the accounting rule on business tax (ministerial order revised in December 1998).

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

Figure 2-21 Orders Received for Machinery (Trend of year-on-year change by industry)

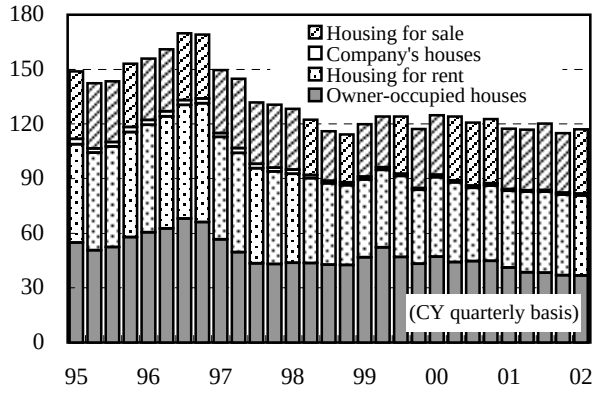


Note : Cabinet Office estimate for April - June 2002.
Source : Cabinet Office, "Orders Received for Machinery."

Residential Investment Remains Weak

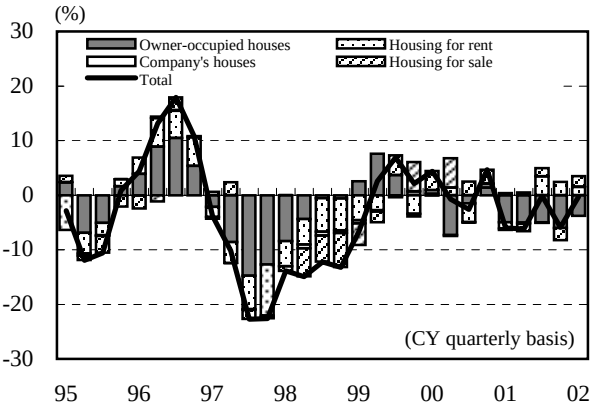
Figure 2-22 Trend of Housing Starts

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



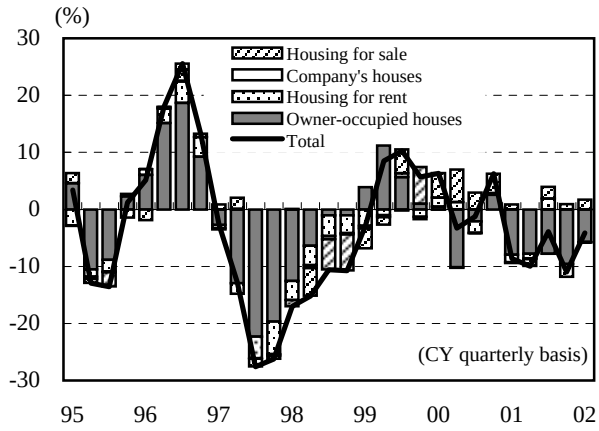
Source : Ministry of Land, Infrastructure and Transport, "Building Construction Started"

Figure 2-23 Housing Starts (Trend of year-on-year change by component)



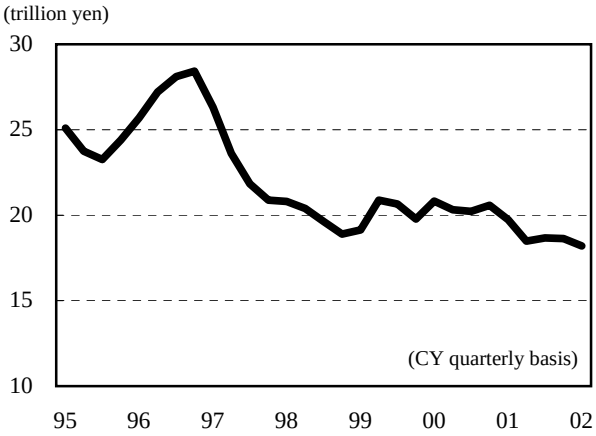
Source : Ministry of Land, Infrastructure and Transport, "Building Construction Started"

Figure 2-24 Floor Area of Housing Starts (Trend of year-on-year change by component)



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

Figure 2-25 Real Residential Investment (seasonally adjusted annual rate)



Source : Cabinet Office, "National Accounts."

Figure 2-26 Contract Rate and Stock of Condominiums (Tokyo metropolian area)

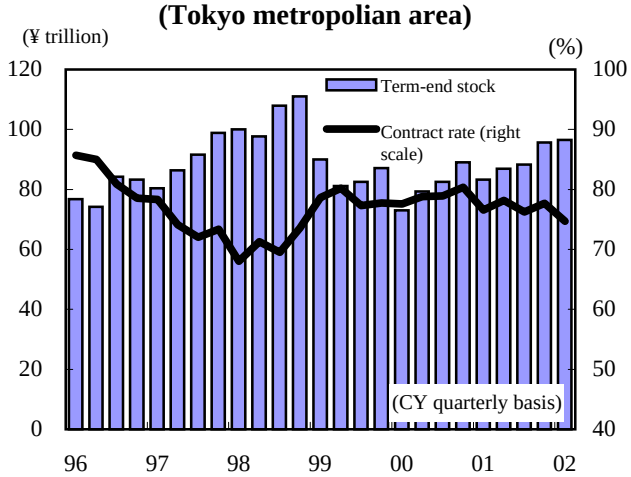
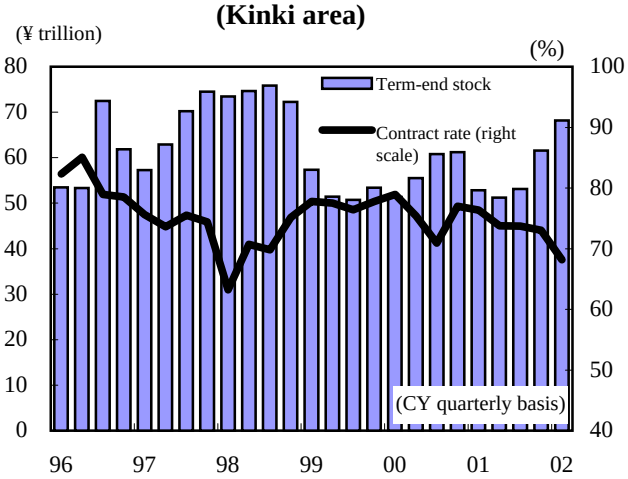


Figure 2-27 Contract Rate and Stock of Condominiums (Kinki area)

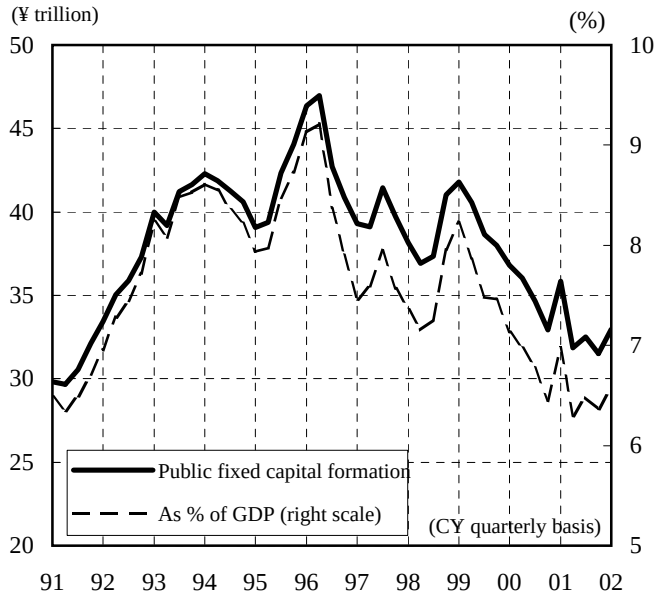


Note : Contract rate refers to the quarterly average of the percentage of housing sales contracts that were actually closed from among the total number of contracts started for any given month. Stock refers to the figure at the end of the quarter.

Source : Real Estate Economic Institute Co., Ltd.

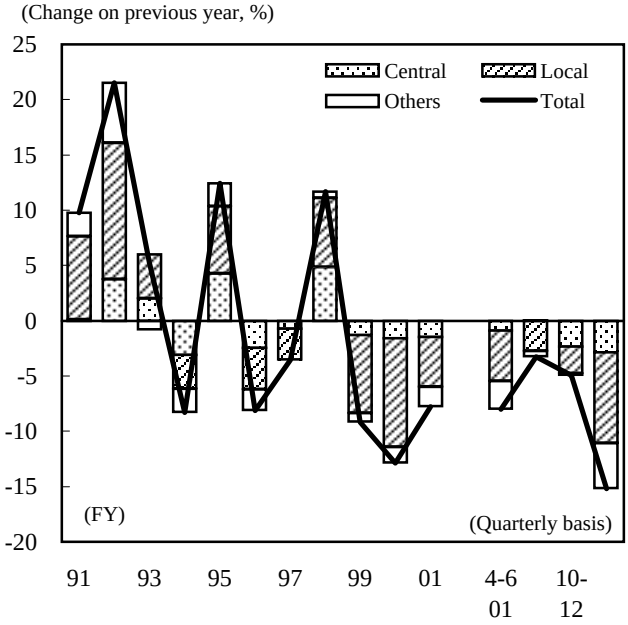
Public Investment Falling due to Difficult Financial Situation

Figure 2-28 Trend of Public Investment



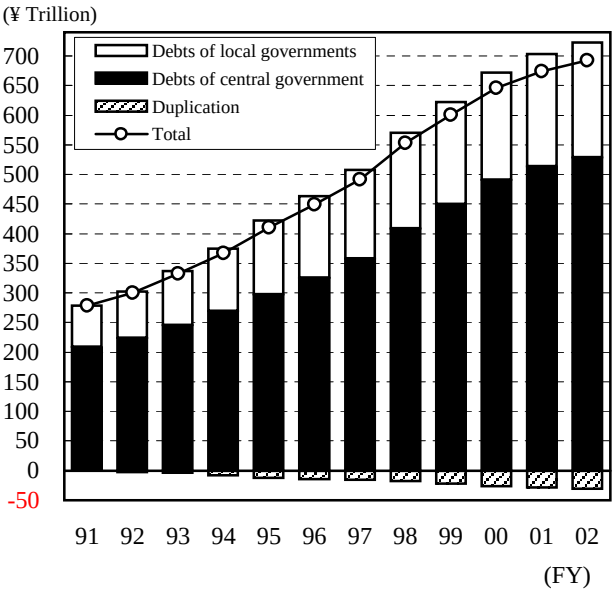
Note : Data represent seasonally adjusted annual rate.
Source : Cabinet Office, "National Accounts."

Figure 2-29 Trend of Contract Value for Public Works



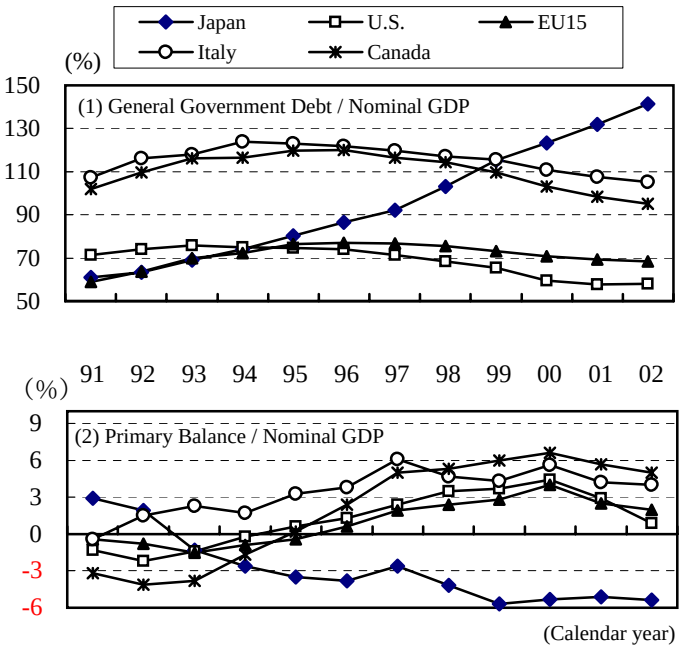
Note : In the legend, "Local" represents the total of prefectures and municipalities. "Others" represent the total of central and local public business entities.
Source : Surety Association for Construction Companies, "Public Works Prepayment Surety Statistics."

Figure 2-30 Long-term Outstanding Debts of Central and Local Governments



Note : Figures for fiscal 2001 represent estimates after supplementary budget and those for fiscal 2002 are estimates based on the initial budget.
Sources : Ministry of Finance, "Budgetary Data (March 2002)."

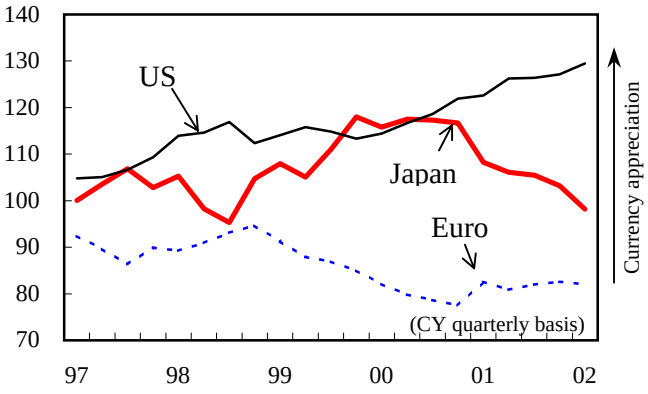
Figure 2-31 Comparison of International Financial Situations



Notes : 1. Values for 2001 and 2002 are estimates.
2. Figures for some European countries in 2000 included income from the selling of cellular phone licenses (around 1% of the primary balance).
Source : OECD, "Economic Outlook 70."

Exports Recovering as Imports Level Off

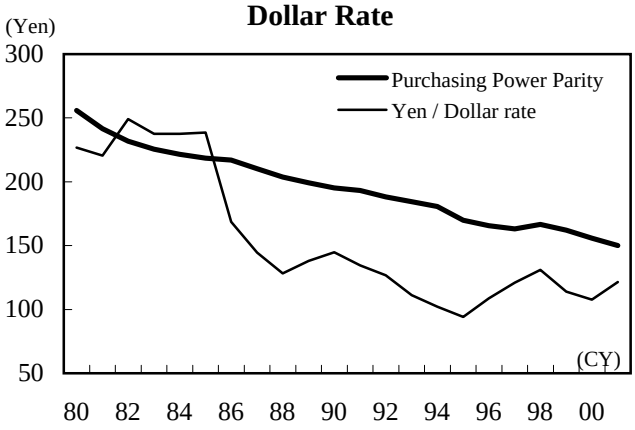
Figure 2-32 Trend of Real Effective Exchange Rate (1990=100)



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.

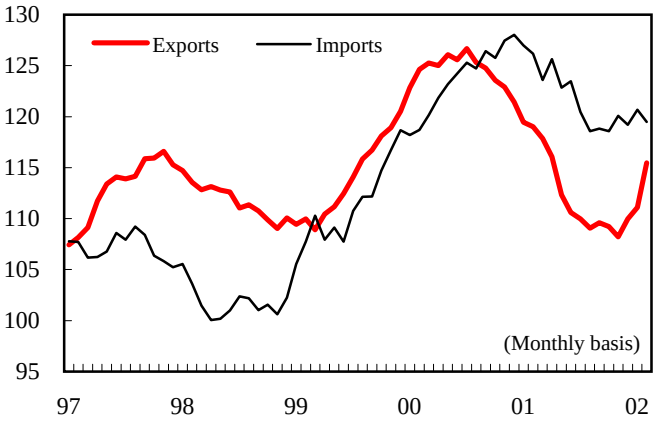
Source : J.P. Morgan, "World Financial Market."

Figure 2-33 Japan's Purchasing Power Parity Vs Dollar Rate



Source : OECD, "Purchasing Power Parity and Real Expenditure."

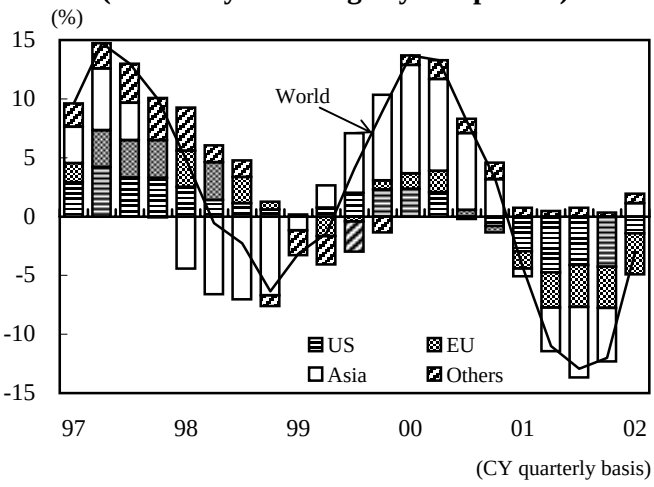
Figure 2-34 Export and Import Volume Indices (1995=100)



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

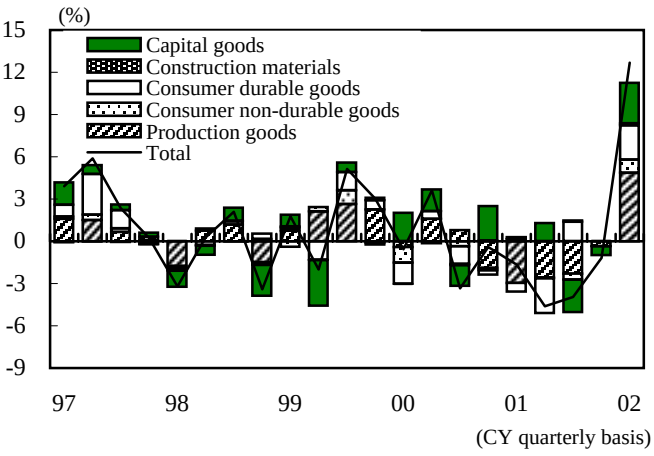
Source : Ministry of Finance, "Trade Statistics."

Figure2-35 Trend of Export Volume (Year-on-year change by component)



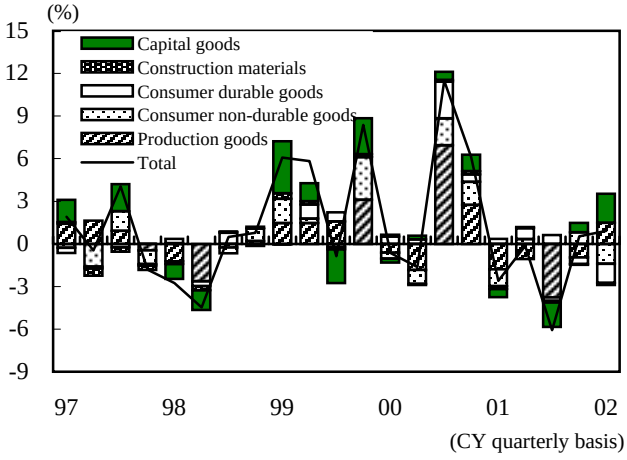
Source : Ministry of Finance, "Trade Statistics."

Figure 2-36 Shipment Index of Producer Goods for Exporting (seasonably adjusted annual rate)



Source : Ministry of Economy, Trade and Industry, "Analysis of Industrial Production Activities."

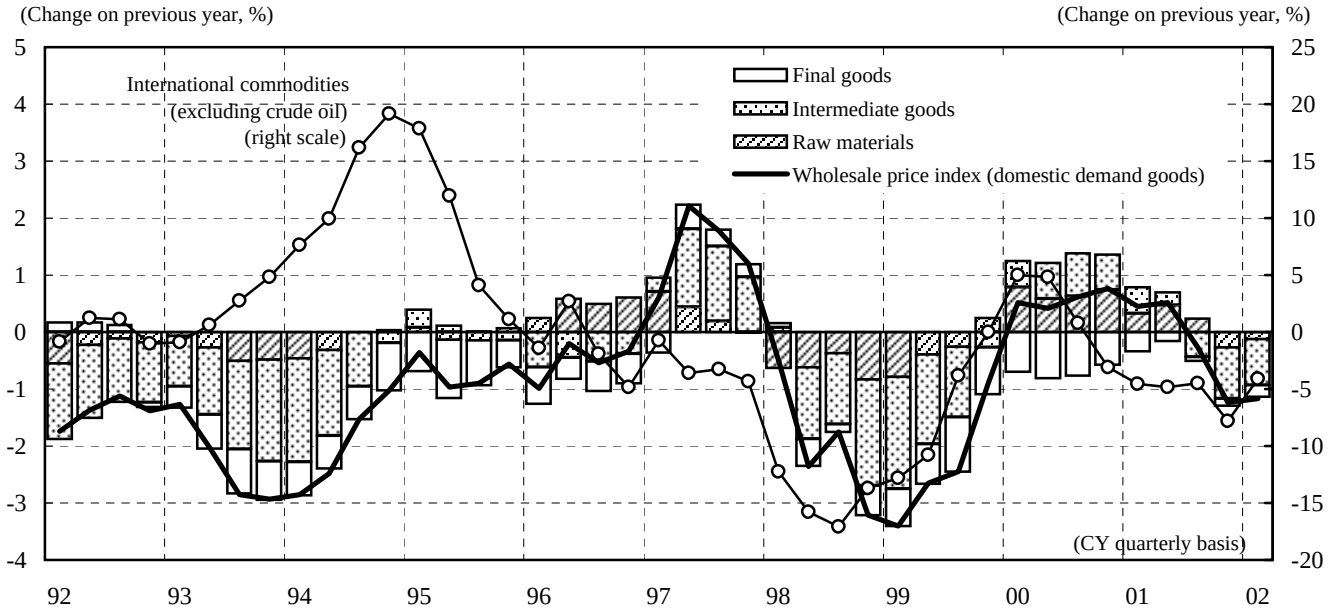
Figure 2-37 Import Index of Producer Goods (seasonably adjusted annual rate)



Source : Ministry of Economy, Trade and Industry, "Analysis of Industrial Production Activities."

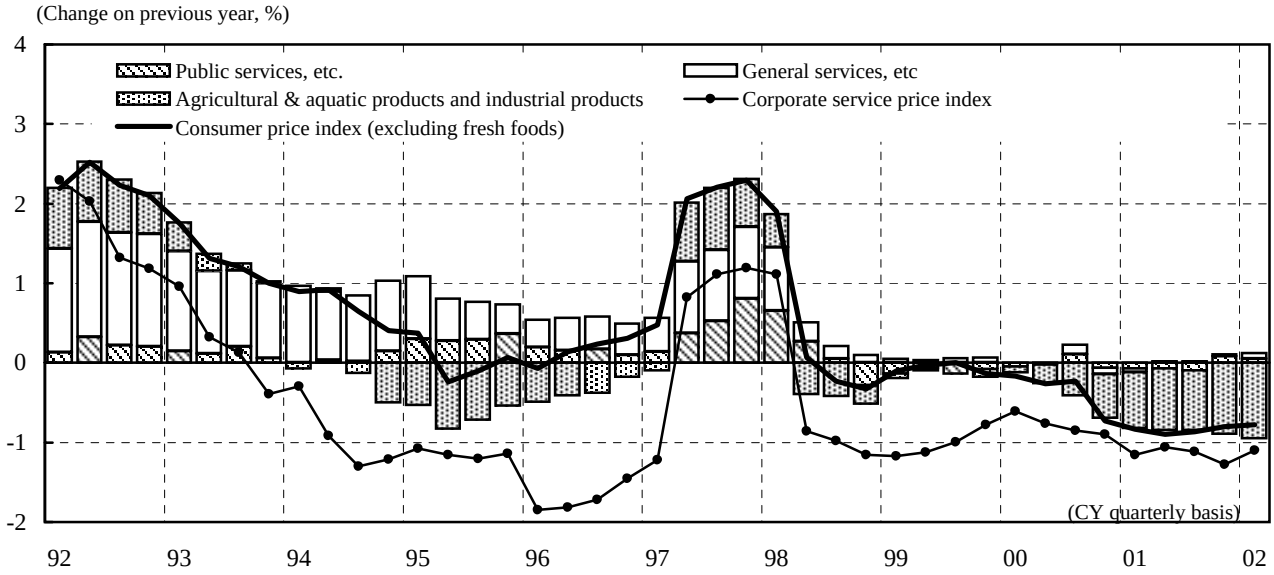
Decline in Wholesale Prices Slowing but Decline in Consumer Prices Continuing

Figure 2-38 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."

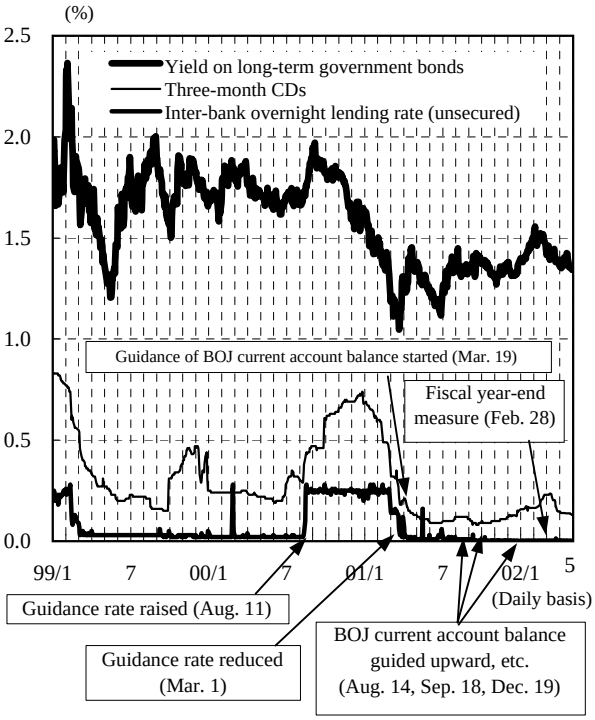
Figure 2-39 Trends in Consumer Prices (Excluding Fresh Foods) and Corporate Service Prices



Notes: 1. General services, etc. include publications. Public services, etc. include electricity, gas & water charges.
2. Corporate service price index excludes ocean freight transportation and international air freight transportation.
Sources: Bank of Japan, "Monthly Report on the Wholesale Price Indexes;" Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Consumer Price Index."

Credit Risk Aversion through Low Interest Rates

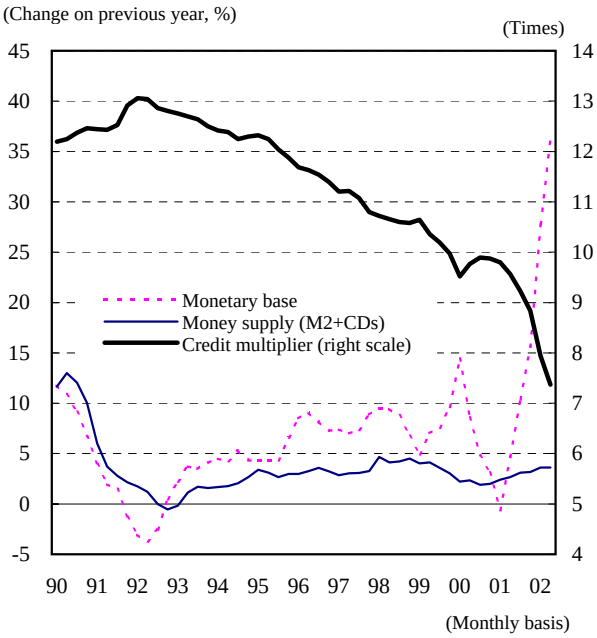
Figure 2-40 Trends in Selected Market Interest Rates



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

Source: Nihon Keizai Shimbun

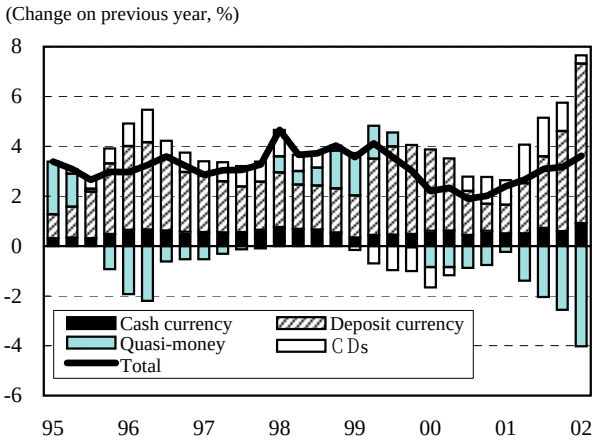
Figure 2-41 Trends in Monetary Base and Money Stock



Notes: 1. Change on previous year in average balance.
2. Credit multiplier = money stock (M2+CDs)/monetary base. Seasonally adjusted.
3. April figures were used to represent April-June 2002.

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

Figure 2-42 Money Stock (M2+CDs) Contribution by Credit Component

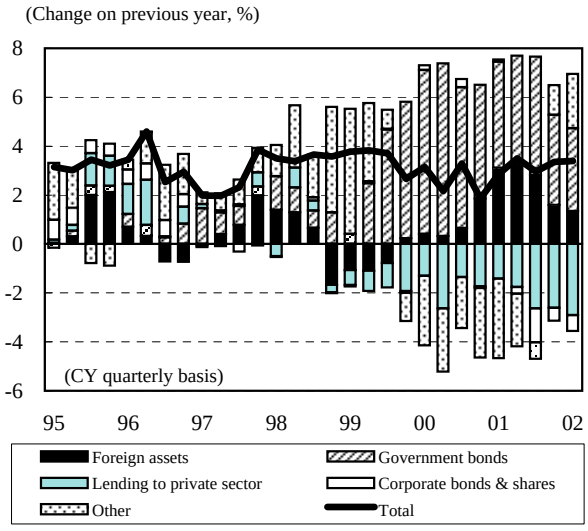


Note: Average balance for the period.

Sources: Bank of Japan, "Financial and Economic Statistics Monthly," and "Money Supply Report."

	M1	M2
Cash currency:		
Bank notes not held by a bank……	○	○
Deposit currency:		
On-demand savings (current account, regular savings)……	○	○
Quasi-money:		
Time deposits……		○

Figure 2-43 Money Stock (M2+CDs) Contribution by Credit



Note: Year-on-year change in term-end balance.

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

III Globalization and the Japanese Economy

Expansion of Overseas Production and Rising Concerns about Hollowing-Out of Japanese Industry

Figure 3-1 Development of Overseas Production and Trend for Trade Surplus

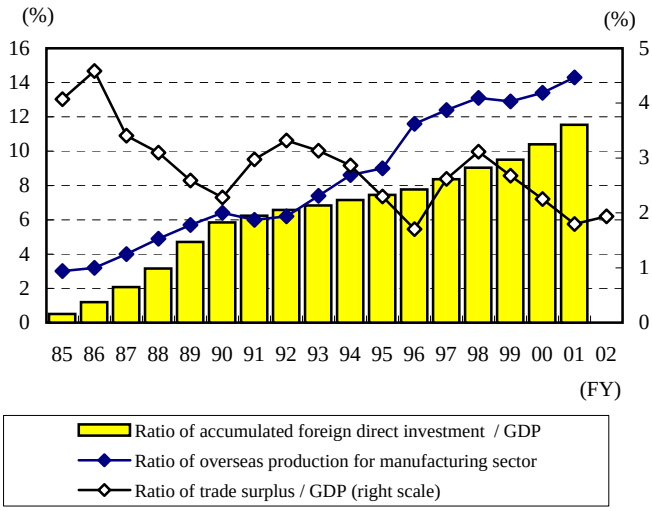
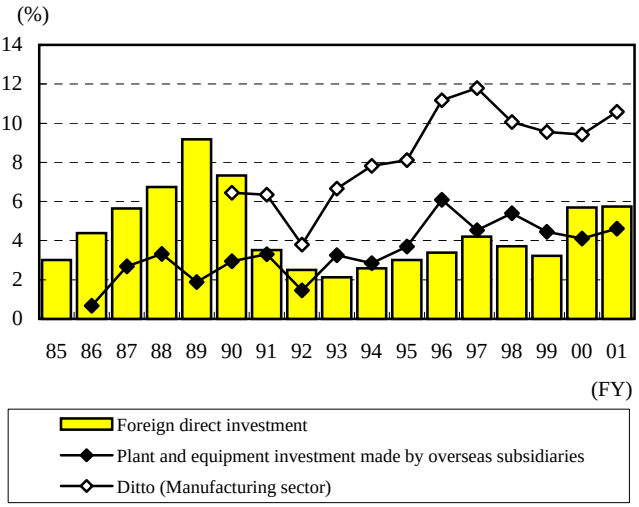


Figure 3-2 Trends for Foreign Direct Investment, Plant and Equipment Investment Made by Overseas Subsidiaries (presented as the ratios to domestic plant and equipment investment)



Notes: 1. The overseas production ratio for fiscal 2001 is a forecast. The actual value for fiscal 2000 was 13.4%, which was less than the forecast of 14.5%.
2. The accumulated foreign direct investment is from fiscal 1985 and based on the balance of payments.
3. The trade surplus / GDP ratio for fiscal 2002 is based on government forecasts. The plant and equipment investment made by overseas subsidiaries for fiscal 2001 is a forecast.

Sources: Ministry of Economy, Trade and Industry, "Survey of Overseas Business Activities," Bank of Japan, "Balance of Payment Statistics," and the Cabinet Office, "National Accounts."

Figure 3-3 Yen/Dollar Rate and Concerns about Hollowing-Out of Industry

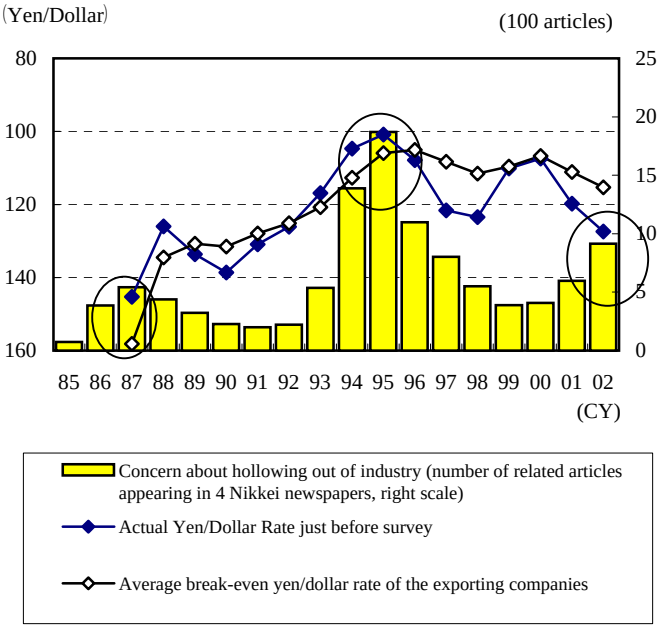
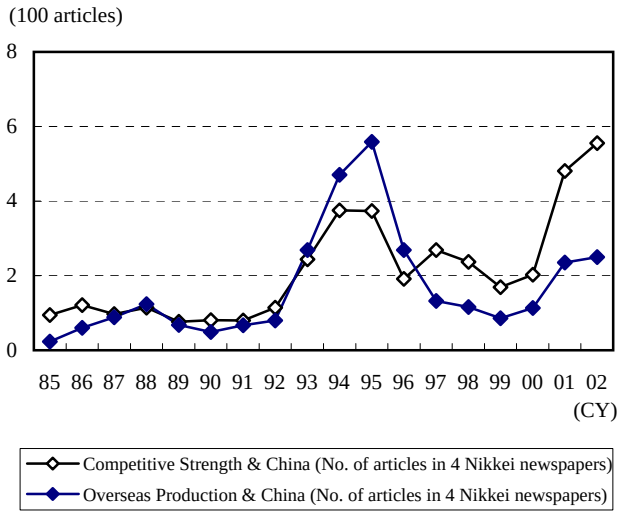


Figure 3-4 Change in Concerns about China

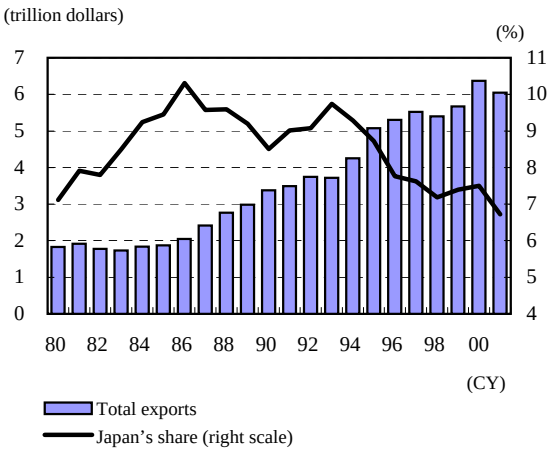


Notes: 1. Based on the number of hits for keywords in searches of four Nikkei newspapers looking for articles on the relevant topics ("inner cities & hollowing-out" was excluded for searches of "hollowing-out"). Figures for 2002 are the number of articles up until June 14 converted into annual basis.
2. The average values from the previous year's survey are shown for the average break-even yen/dollar rate of the exporters and actual rate just before the survey, because the survey is conducted each year in January. However, in 2002 the actual numbers from the January survey were used.

Sources: Cabinet Office, "Survey of Corporate Activity," and the Nikkei Telecon21.

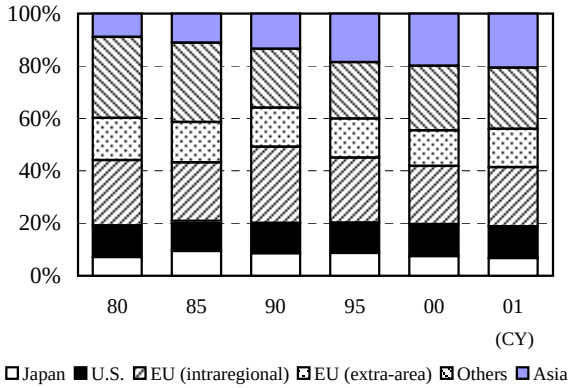
Japan's Falling Share of Global Exports

Figure 3-5 Total Global Exports



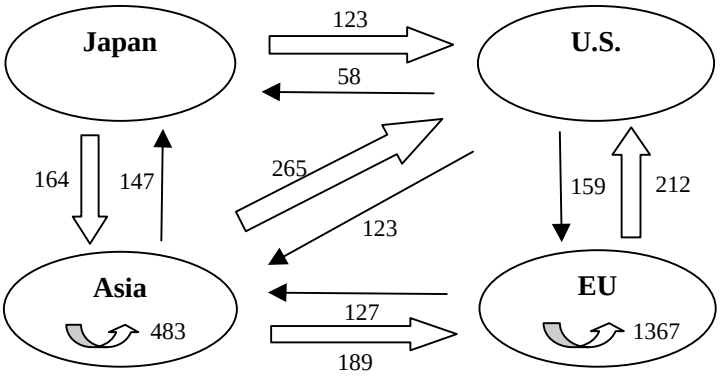
Source : IMF, "Direction of Trade Statistics."

Figure 3-6 Regional Shares of Global



Source : IMF, "Direction of Trade Statistics."

Figure 3-7 Japan, US, EU and Asia Trade Relationships (2001, Unit: billion dollars)



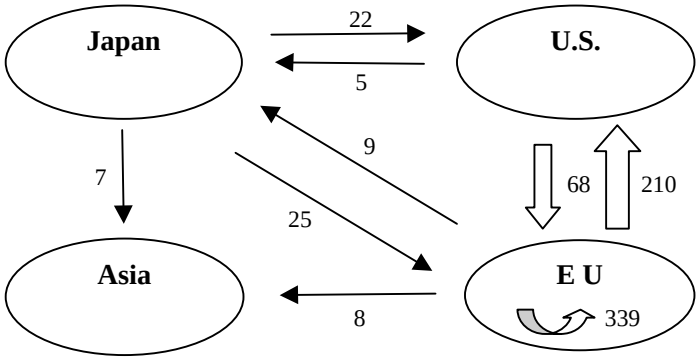
Region Share of Imports / Exports

(Unit: %)

Exporting Country	World	U.S.	Japan	EU	Asia
World	100.0	18.2	5.3	35.6	17.3
U.S.	12.1		1.0	2.6	2.0
Japan	6.7	2.0		1.1	2.7
EU	37.3	3.5	0.7	22.6	2.1
Asia	20.6	4.4	2.4	3.1	8.0

Note : For the Japan / EU relationship, EU → Japan: 40, Japan → EU 65 (Unit: billion dollars)
Source : IMF, "Direction of Trade Statistics."

Figure 3-8 Direct Investment Relationships between Japan, U.S., EU, and Asia (1999, Unit: billion dollars)

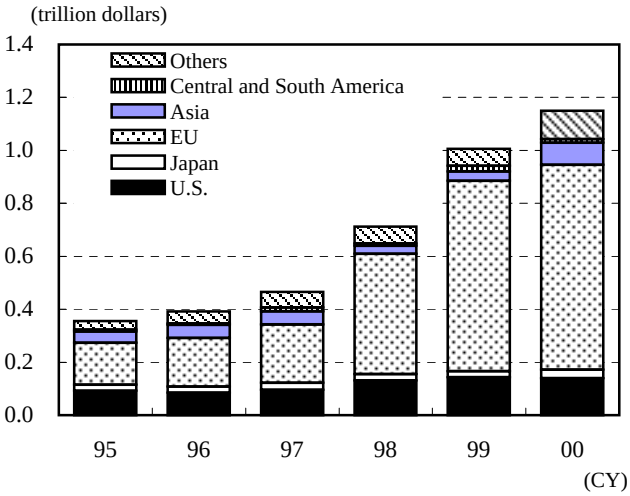


Notes : 1. Japanese figures are on a fiscal year basis. The average of Interbank rate of Tokyo Marktet Spot Rate (Central Rate Average, Monthly) is used for the dollar conversion.
2. U.S. → Asia is 12 (Unit: billion dollars). Investment from Asia into various countries and regions is omitted.

Sources : Bureau of Economic Analysis, "U.S. Direct Investment Abroad," "Eurostat, European Union Direct Investment Yearbook 2000," Ministry of Finance, "Foreign Direct Investment," and Bank of Japan, "Financial and Economic Statistics Monthly"

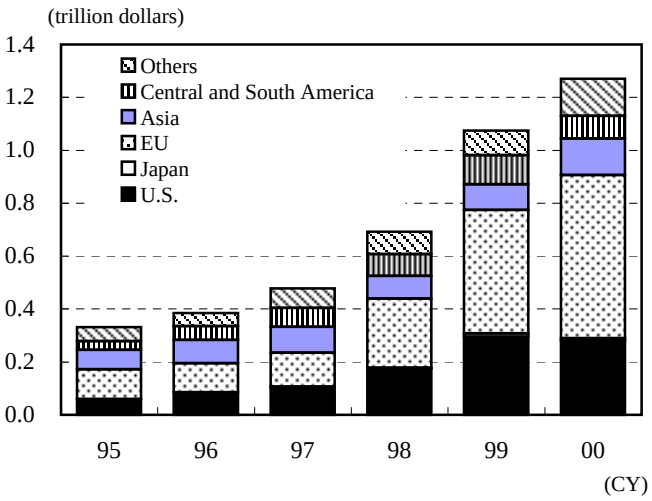
Rapid Expansion of Global Direct Investment Mainly by EU

Figure 3-9 Global Foreign Direct Investment



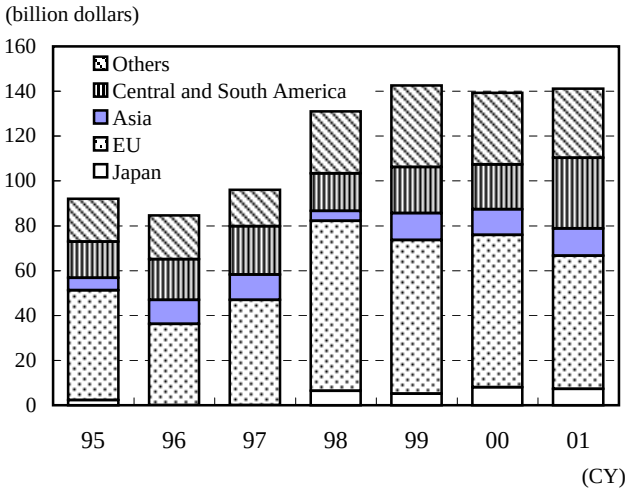
Source : UNCTAD, "World Investment Report 2001."

Figure 3-10 Global Inward Direct Investment



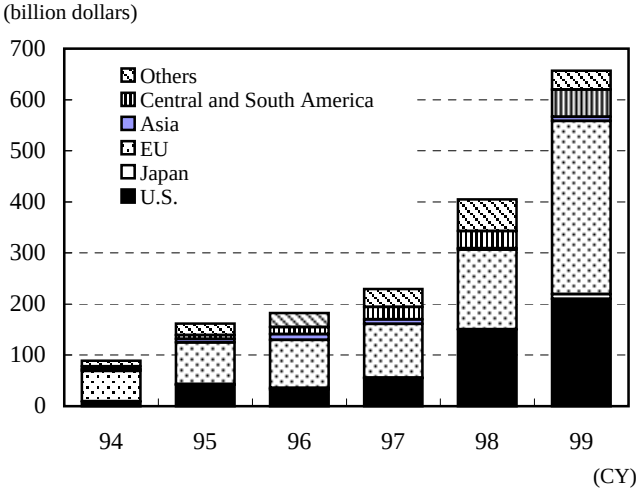
Source : UNCTAD, "World Investment Report 2001."

Figure 3-11 U.S. Direct Foreign Investment



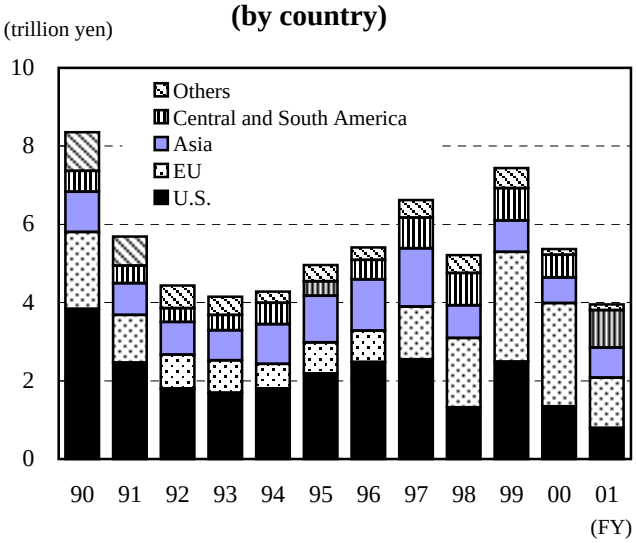
Source : Bureau of Economic Analysis, "U.S. Direct Investment Abroad."

Figure 3-12 EU Direct Foreign Investment



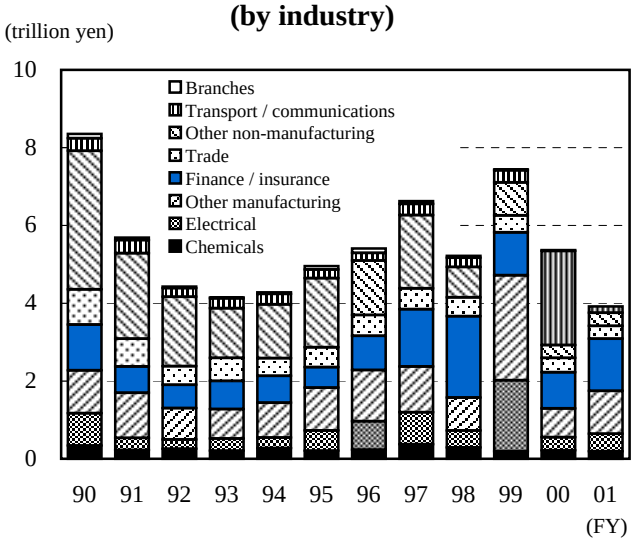
Source : Eurostat, "European Union Direct Investment Yearbook 2000."

Figure 3-13 Japan's Direct Foreign Investment (by country)



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

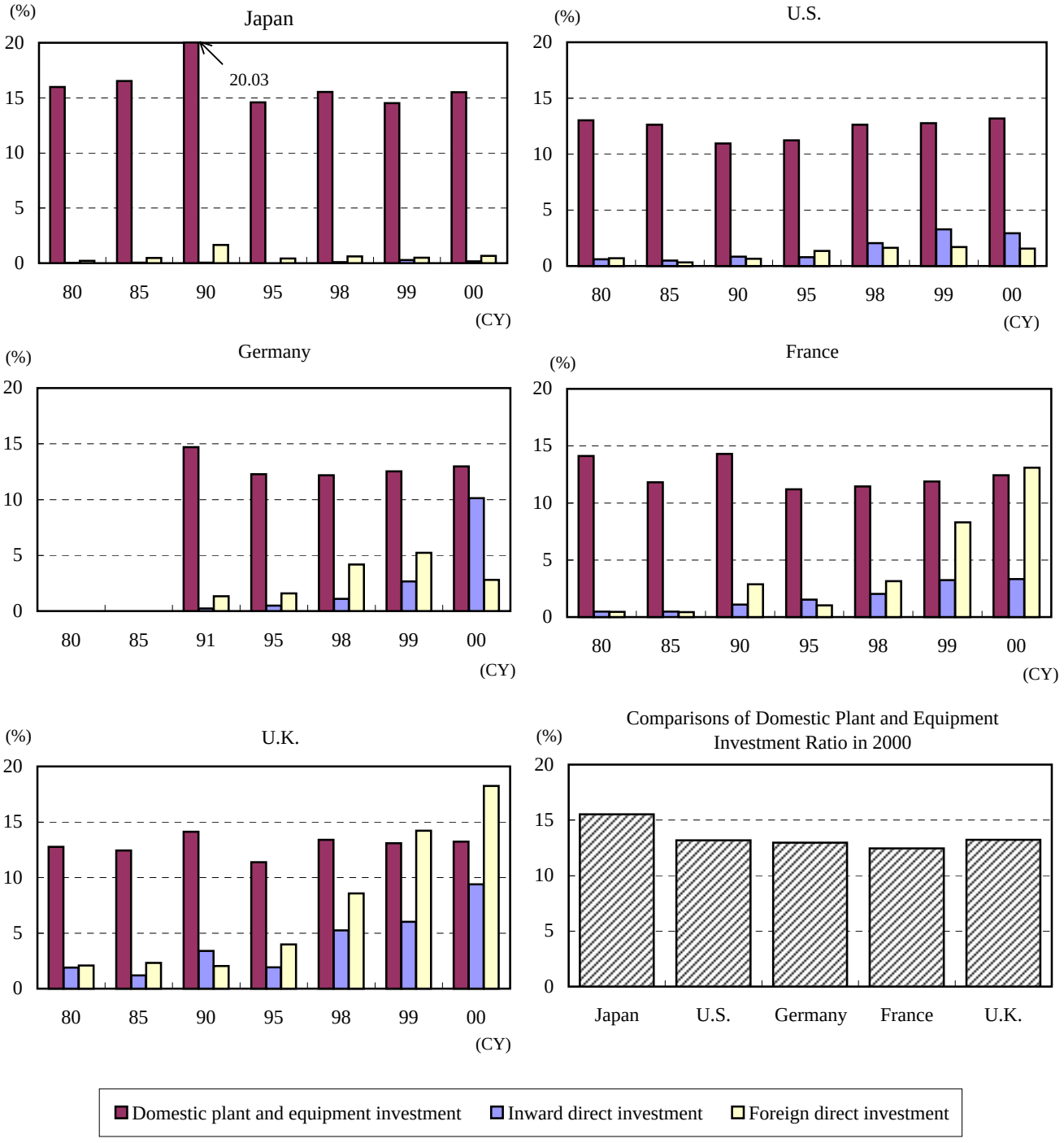
Figure 3-14 Japan's Direct Foreign Investment (by industry)



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

Small Outflows and Inflows of Direct Investment Compared to Domestic Plant and Equipment Investment

Figure 3-15 International Comparisons of Domestic Plant and Equipment Investment and Outflows and Inflows of Direct Investment (against GDP)



Notes: 1. The ratios to GDP are based on nominal (current) prices.
2. The domestic plant and equipment investment amounts for Japan and the U.S. are from the national income statistics. Figures for the other countries are not provided in the national income statistics and so are calculated by subtracting general government and housing from the overall fixed capital formation amount.

Sources: OECD, "National Accounts," and IMF, "International Financial Statistics."

Improving ROA for Manufacturers Moving into U.S. and European Markets

Figure 3-16 Ratio of Domestic and Overseas Investments to Depreciation and Cash Flow in Manufacturing Sector

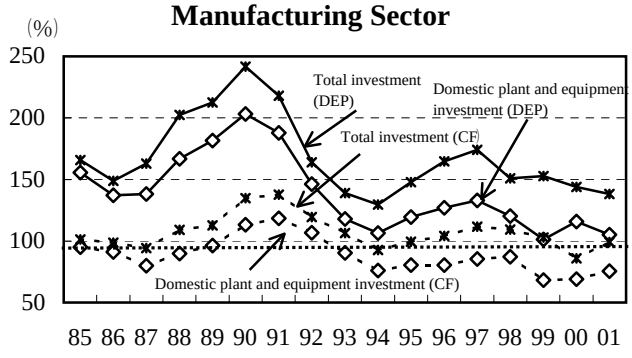
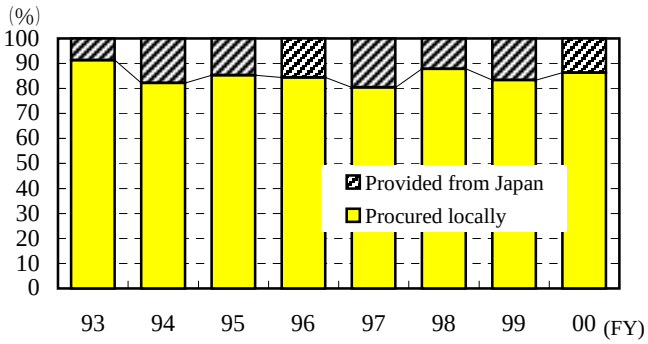


Figure 3-17 Financial Resource of Plant and Equipment Investment Made by Overseas Subscidiaries

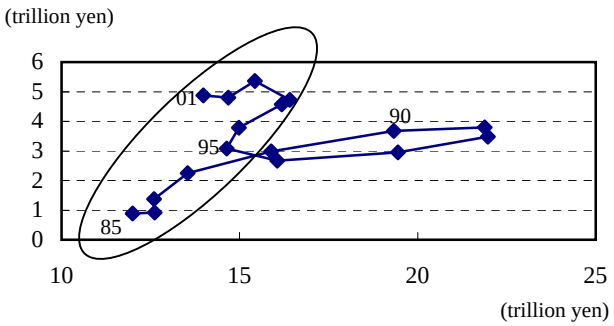


Note: Total investment = domestic plant and equipment investment (based on corporae statistics, excluding software) + foreign direct investment (based on report to MOF) + plant and equipment investment by overseas subsidiary. The figure for 2001 is an estimate.

Sources: Ministry of Finance, "Quarterly Report of Statistical Survey of Incorporated Enterprises," and "Direct Investment Abroad as Reported," and Ministry of Economy, Trade and Industry, "Survey of Overseas Business Activities."

Figure 3-18 Correlation between Domestic Plant and Equipment Investment and Overseas Investment in Manufacturing Sector

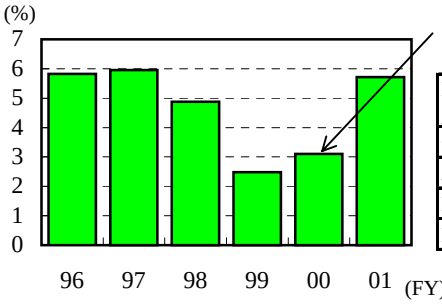
(x-axis: domestic plant and equipment investment, y-axis: overseas investment, moving average of the last 3 years)



Note: Domestic plant and equipment investment is based on the Corporate Statistics, excluding software. Overseas investment = foreign direct investment (based on report to MOF) + plant and equipment investment made by overseas subsidiary.

Sources: Ministry of Finance, "Report of Statistical Survey of Incorporated Enterprises," and "Direct Investment Abroad as Reported," and Ministry of Economy, Trade and Industry, "Survey of Overseas Business Activities."

Figure 3-19 Return on Foreign Direct Investment based on Balance of Payments Statistics (all industries)



Regional Breakdown as of 2000

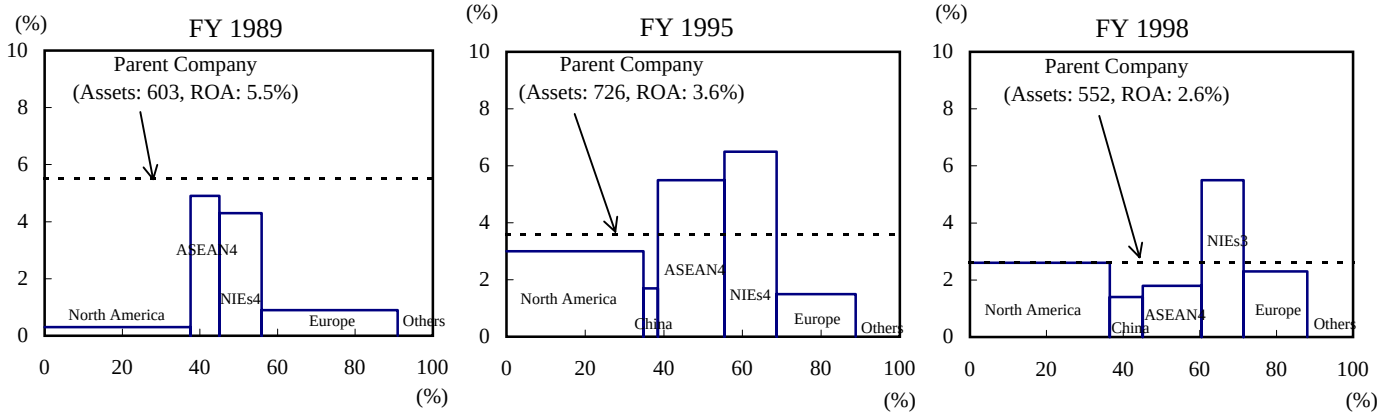
North America	5.6
China	▲ 0.4
ASEAN4	▲ 0.9
NIEs3	▲ 6.7
Europe	3.1

Note: Return on direct investment = direct investment profits / average amount of direct investment at period start/end

Sources: Bank of Japan, "Balance of Payments Statistics," and "External Assets and Liabilities of Japan."

Figure 3-20 Asset Share and ROA by Region for Overseas Subsidiaries in Manufacturing Sector

(x-axis: regional shares of total overseas subsidiary assets, y-axis: ROA)

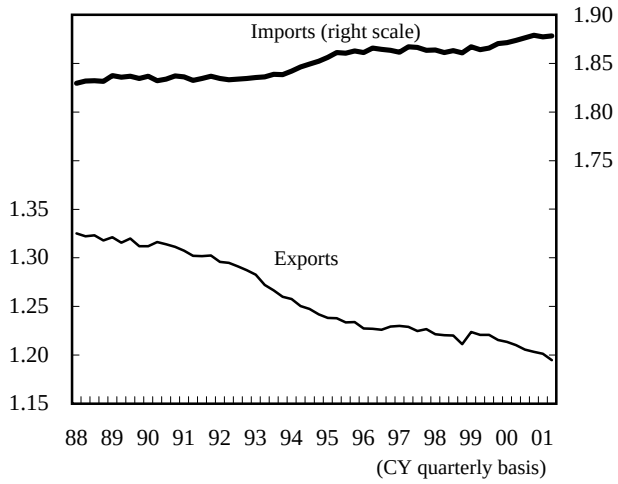


Notes:
1. FY 1989 is based on results up to March 1990, FY 1995 is based on results up to March 1996, and FY 1998 is based on results up to March 1999. There was not a perfect agreement between the number of companies providing total assets information and the number of companies providing ROA information.
2. ROA = recurring profit to total assets. The figure of "Assets" for parent company shows the ratio to total overseas subsidiary assets (%).
3. ASEAN4 = Malaysia, Thailand, Indonesia and the Philippines. NIES3 = Singapore, Taiwan and Korea. Hong Kong was tabulated as part of NIES4 until it was returned to China in 1998. Mainland China was included in the "others" group in FY 1989. ROA for this region is unclear and so was omitted.

Sources: Ministry of Economy, Trade and Industry, "Basic Survey of Overseas Business Activities."

Shift to Overseas Production Leading to Recent Increase in Re-imports

Figure 3-21 Income Elasticity for Imports and Exports



Note : Imports and exports were estimated using the Kalman filter with the income factor (Japan's real domestic demand, real global imports) and relative price factor serving as dependent variables.

Sources : Ministry of Finance, "Trade Statistics," Cabinet Office "National Economic Accounting," Bank of Japan "Wholesale Price Index," and IMF, "International Financial Statistics."

Figure 3-22 Impact on Imports / Exports Caused by Overseas Production Shift

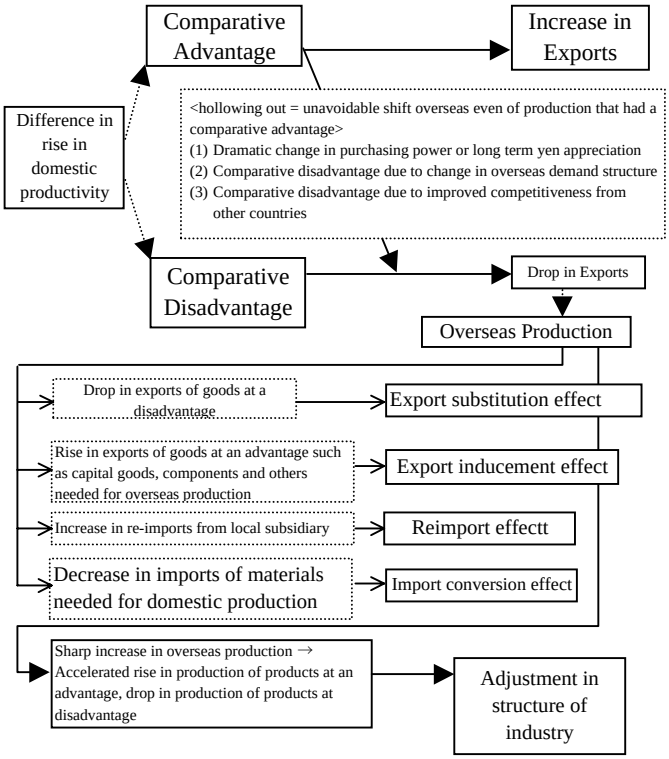
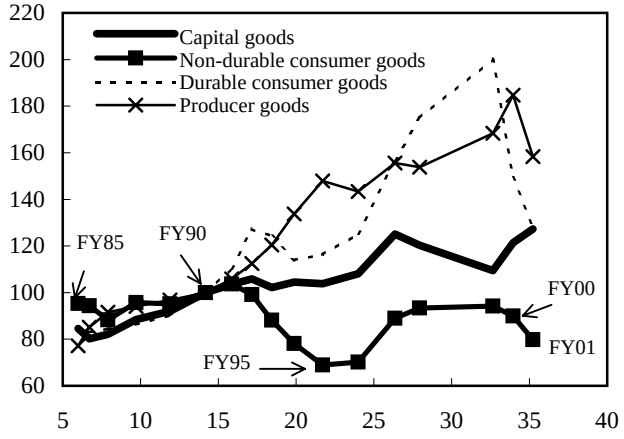


Figure 3-23 Accumulated Foreign Direct Investment and Export Amounts by Goods for Manufacturing Sector

(export amount indicator, 1990 = 100)



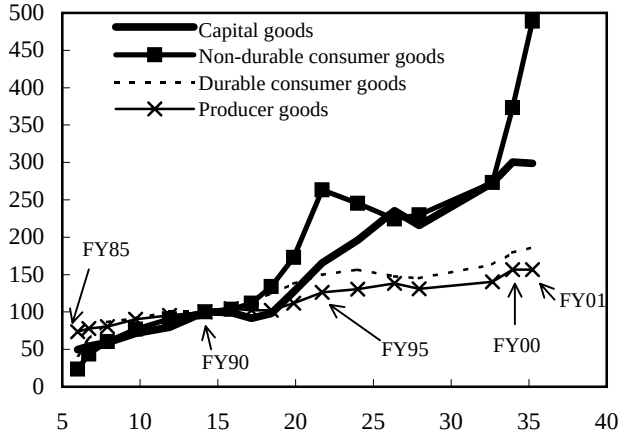
(manufacturing sector, accumulated foreign direct investment, trillion yen)

Notes : 1. Accumulated foreign direct investment is tabulated from 1970.
2. The foreign direct investment amount for fiscal 2001 was estimated to be in line with the level for fiscal 2000.

Sources : Ministry of Economy, Trade and Industry, "Table of Manufacturing Shipments," and Ministry of Finance, "Status of Foreign Direct Investment."

Figure 3-24 Accumulated Foreign Direct Investment and Import Amounts by Goods for Manufacturing Sector

(import amount indicator, 1990 = 100)



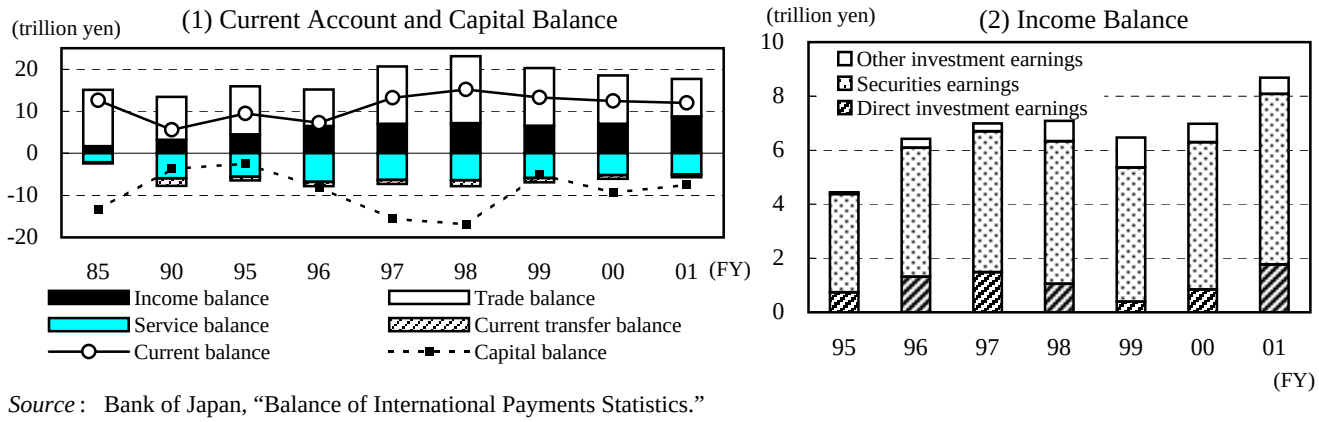
(manufacturing sector, accumulated foreign direct investment, trillion yen)

Notes : 1. Accumulated foreign direct investment is tabulated from 1970.
2. The foreign direct investment amount for fiscal 2001 was estimated to be in line with the level forf iscal 2000.

Sources : Ministry of Economy, Trade and Industry, "Table of Manufacturing Shipments," and Ministry of Finance, "Status of Foreign Direct Investment."

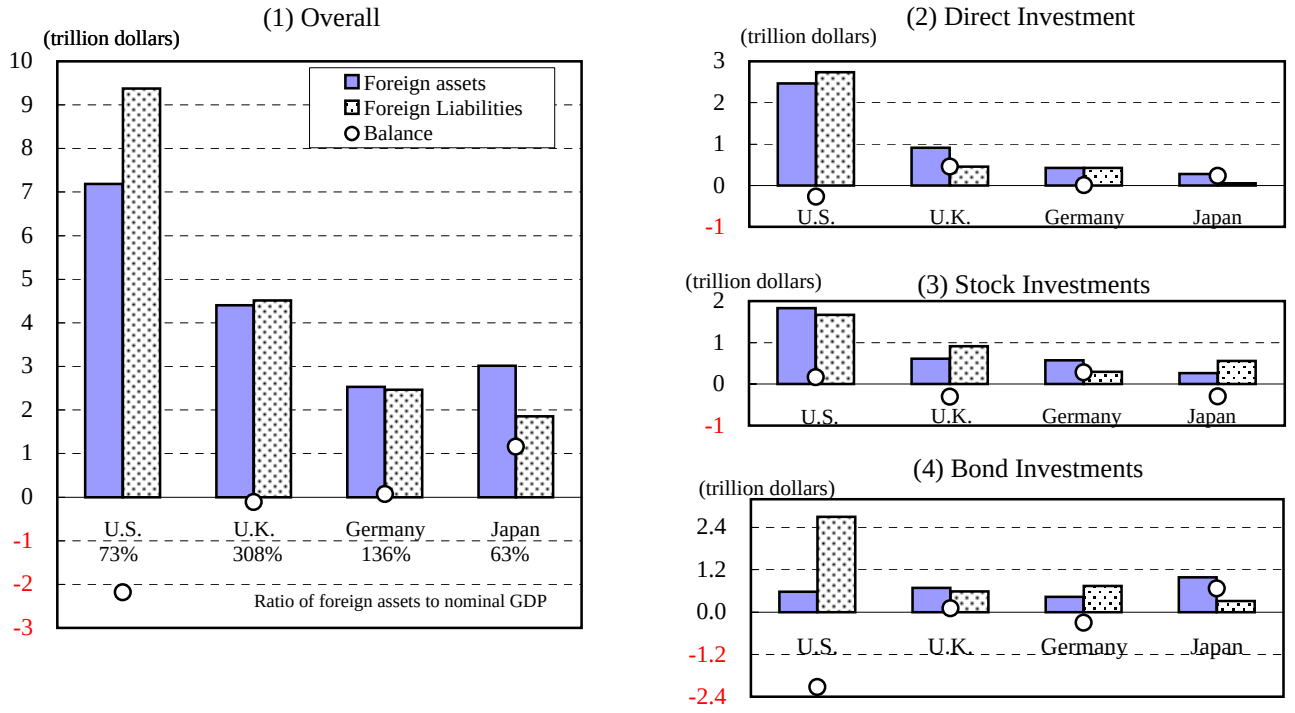
Accumulated Securities Investments Leads Income Surplus to the Level of Trade Surplus

Figure 3-25 Changes in Japan's Current Account



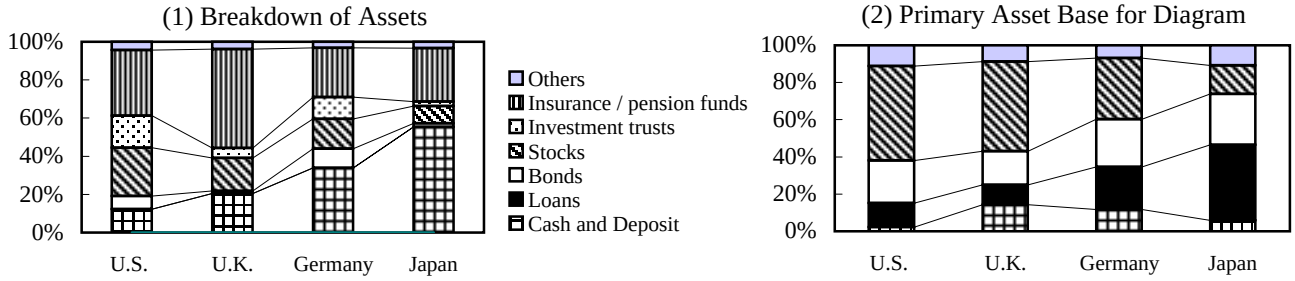
Source: Bank of Japan, "Balance of International Payments Statistics."

Figure 3-26 Balance of Foreign Assets and Liabilities (end of 2000)



Source: IMF, "International Financial Statistics."

Figure 3-27 Financial Assets Held by Households (end of 2000)

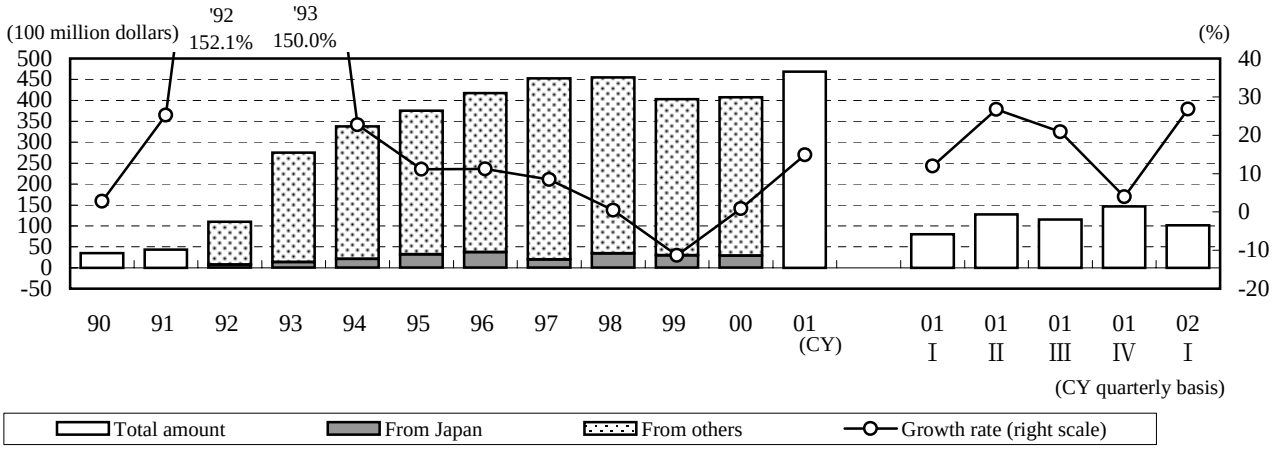


Notes: 1. Comparison based on the total of households and private non-profit institutions serving households. Only Japan includes private unincorpoarted enterprises. Net assets from the privae unincorporated enterprises in the U.S. are excluded.
2. In (2) the proper operating asset ratios were applied to deposit, insurance / pension funds and investment trusts.

Sources: FRB, "Flow of Fund Accounts," U.K. Office for National Statistics, "National Accounts," the Deutsche Bundesbank, "Ergebnisse der gesamtwirtschaftlichen Finanzierungsrechnung fur Deutschland," Bank of Japan, "Flow of Funds Statistics," and Cabinet Office, "National Accounts."

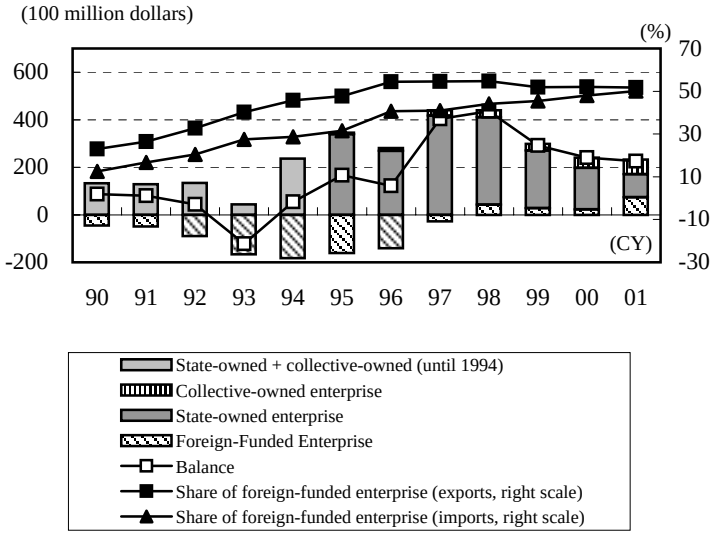
Foreign Direct Investment Spurring Development in China

Figure 3-28 Foreign Direct Investment (Actually used)



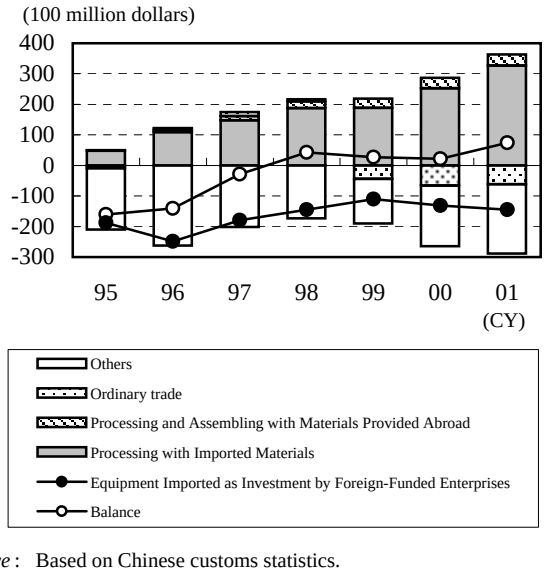
Source: Based on the China Statistical Yearbook and the China Monthly Economic Indicators

Figure 3-29 Trade Balance by Type of Organization



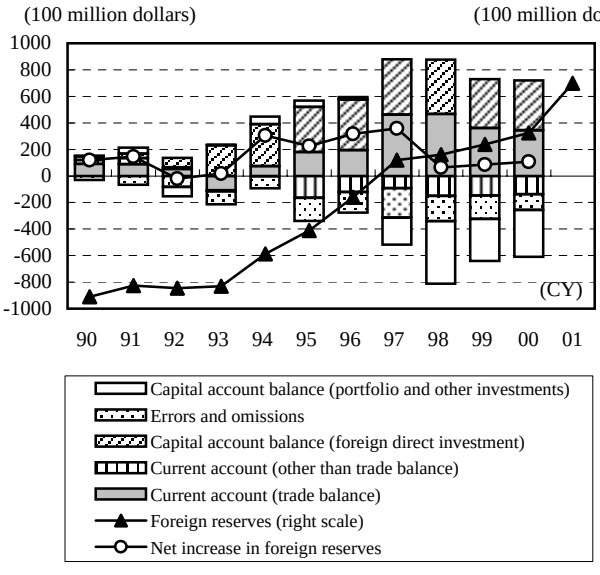
Source: Based on Chinese customs statistics.

Figure 3-30 Trade by Foreign-Funded Enterprises



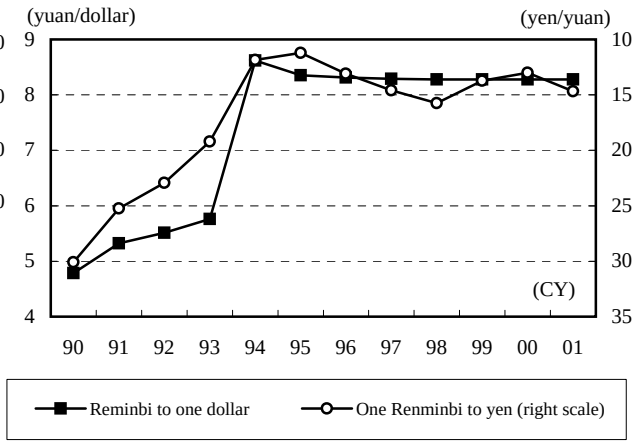
Source: Based on Chinese customs statistics.

Figure 3-31 International Balance of Payment



Source: IMF, "International Financial Statistics."

Figure 3-32 Exchange Rate



Sources: Based on the China Statistical Yearbook and the China Monthly Economic Indicator.

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