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Recent Trends in the Japanese Economy: A Medium-term Scenario for the Japanese Economy with Special Focus on the Flow of Funds and Finance

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Recent Trends in the Japanese Economy:
A Medium-term Scenario for the Japanese Economy with Special Focus on the Flow of Funds and Finance

Summary

I. The major economies of the world, particularly the U.S. and Asia, are starting to recover.

In the U.S., personal consumption is remaining strong thanks to substantial tax cuts by the Bush administration, and plant and equipment investment in information technology is rebounding. However, the trade deficit with China has surged, and the issue is whether the economic recovery will lead to a sustained recovery in employment.

In Europe, the German and French economies have suffered due to the fluctuation of the euro against the dollar. As consumption in the U.K. remains strong backed by personal lending, the Bank of England raised interest rates to calm the overheated economy.

Major Asian economies have picked up as the SARS epidemic has subsided. In South Korea, however, consumption has slowed due to checks on personal lending and the impact of the prolonged strike of cargo workers.

The Chinese economy has been growing rapidly, led by fixed asset formation and private consumption. Deflation in 2002 turned to inflation in 2003, and there is a risk of a real estate bubble or economic overheating, with possible inflows of capital from overseas in anticipation of the Rmb being revalued upward.

II. The Japanese economy finally started moving again in the latter half of fiscal 2002, as plant and equipment investment has recovered mainly in digital household electronic appliances. Further recovery depends on the sustainability of the "digital boom" both in Japan and overseas, but economic growth is forecasted to slow in the second half of fiscal 2004.

The current supply condition indicates that the inventory cycle has returned to a buildup phase since September, after nearly entering an adjustment phase. Production leveled off in October-December 2002, but has started to grow again since September 2003, led by electro-devices and related manufacturing equipment. Tertiary industry activity looks weak, with mixed performance. Construction activity is bottoming out in the private sector, but remains stagnant overall with cutbacks on public works projects. In employment, the recovery among large firms has not eased the unemployment rate, which remains above 5% and is particularly severe among young people.

On the demand side, consumption has been weak since the second half of fiscal 2002, with the exception of digital household electronic appliances. Plant and equipment investment has been increasing particularly in the manufacturing sector. Leading indicators also point to healthy growth, but investment is subdued relative to cash flow, indicating a selective attitude toward investment. The sustainability of rising corporate profits will affect the future of plant and equipment investment. Residential investment remains weak. Public investment is going to decline in both central and local governments due to financial difficulties. Exports show signs of recovery mainly to China and the rest of Asia, while imports continue to rise gradually.

In finance, the continued quantitative easing policy of the Bank of Japan has had little effect, as it has been absorbed by the decline in the money multiplier and the velocity of money. Although consumer prices are likely to bottom out, the prolonged deflation indicates that the monetary easing policy will continue for some time.

III. In January 2003, the government adopted the "Reform and Perspectives – FY2002 Revision" by a Cabinet Decision. Covering the period through fiscal 2010, the "medium-term scenario" presented in Chapter III considers possible changes in financial surplus or deficit in each sector as well as in the flow of funds as a whole, if the structural reform advances as planned, ef-

fectively setting the Japanese economy on a stable growth path. Chapter III also examines how the investment behavior of financial institutions will change in response to such an external environment. The results are summarized as follows.

(1) The current practice of limiting non-residential investment within cash flow will continue in the private sector. In other words, private firms are expected to maintain a large financial surplus, barring any change in the distribution of profits. Thus, borrowings from financial institutions will continue to fall. Financing utilizing assets will also suppress financial liabilities.

(2) The household sector will maintain a financial surplus, albeit on a smaller scale due to the aging of the population. Measured at market prices, the share of cash and deposits in total household financial assets will decline, while that of stocks and securities will rise gradually.

(3) The Cabinet Office Background Paper indicates that the primary balance of the government sector will not move into surplus until at least 2010. Thus, outstanding public debts will continue to increase, from an estimated ¥637 trillion at the end of FY2003 to almost ¥900 trillion at the end of FY2010.

(4) Based on the financial surplus or deficit in each of the above three sectors, it may be concluded that private financial institutions will continue to curb corporate lending, while extending more loans to the fund-starving public sector and increasing housing loans and personal loans. With the decrease in total outstanding loans, financial institutions will have to choose between focusing on fee-based businesses or specializing in settlement operations.

(As of December 2, 2003)

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I World Economy Picking Up, Led by U.S. and Asia

1. U.S. (1): Personal Consumption Boosted by Tax Reduction, Plant and Equipment Investment Recovering

(see p. 29 for Figures)

The U.S. economy is resuming its recovery. After slowing down in October-December 2002 and in January-March 2003, real GDP growth in the U.S. (Figure 1-1) grew strongly in April-June and July-September 2003, up 3.3% and 8.2% (preliminary estimate) respectively on the previous period on an annual basis. Real GDP growth in July-September was led by personal consumption, which was also supported by rising plant and equipment and residential investment.

Personal consumption (Figure 1-2), led by buoyant automobile sales, has increased thanks to the large-scale tax reduction measures and low interest rate policy adopted by the Bush administration. Consumer confidence is finally showing some improvement, after remaining low despite the rise in share prices due to the Iraq War and difficult employment situation. This improvement is the result of the end of the Iraq War in May 2003, as well as softening pessimism about the economy and employment situation in line with the recovery in corporate profits and some improvement in employment. Attention should now be focused on the increase of personal consumption toward the second half of 2004, as the tax reduction effect is expected to subside.

Following a mild recovery, corporate profits jumped in July-September 2003 (Figure 1-3). Although plant and equipment investment declined in January-March 2003, it grew in April-June 2003, followed by an even larger increase in July-September 2003, due mainly to major hardware investment in information technology-related industries.

2. U.S. (2): Production Showing Signs of Improvement, Delayed Recovery in Employment

(see p. 30 for Figures)

The industrial production index declined once in April-June 2003, then increased again in July-September 2003 (Figure 1-4), because production rose in both consumer goods and equipment. The capacity utilization in the manufacturing sector remained low at below 75% in July-September 2003, but is showing signs of recovery and recorded a slight rise recently.

The employment situation remains harsh, although the long-term decline in the number of employees has come to a halt thanks to the growth of employment mainly in services (Figure 1-5). The slight increase in the number employed suggests that the unemployment rate, which remains around 6%, has reached its peak.

The U.S. trade deficit has been widening (Figure 1-6). In 2000, China overtook Japan as the trade partner with the largest trade surplus with the U.S. Aggregate statistics from January through May 2003 also show a significant U.S. trade deficit with China. Imports from Japan have been largely limited to automobiles in recent years, whereas imports from China include a wide range of products including toys, sporting equipment, electrical equipment, office equipment and footwear.

In the financial sector (Figures 1-7 and 1-8), share prices continued to slide as the situation in Iraq worsened, then rose when the war started. The trend of share prices is upward in line with expectations for the recovery of the U.S. economy. Recently, however, they have been holding steady at just under $10,000 due to allegations of irregular trading in investment trusts and rising concerns about terrorist attacks. The Federal Fund target rate was lowered by 0.25% on June 25, 2003 to 1.00%, the lowest level in 45 years. Concerns about deflation underlie this low interest rate policy. Any shift in the monetary policy of the U.S. Federal Reserve Board toward higher interest rates would depend on a rise in inflation. However, the insignificant rise in the core consumer price index suggests that the low interest rate policy will be maintained for some time to come.

3. Economies of Major European Countries (Germany, France, U.K.): Looking for Recovery

(see p. 31 for Figures)

This section examines the economic conditions of three European countries: Germany, France

and the U.K.

The German economy recorded the first negative growth in four quarters (real GDP, seasonally adjusted change on the previous year) in October-December 2002, followed by three straight quarters of negative growth as imports increased due to rising oil prices while exports stagnated as the euro appreciated. It was not until July-September 2003 that economic growth returned, due to the increase in exports with the stabilization of the exchange rate and recovery in external demand following the end of the Iraq War, as well as by the decline in imports due to weak domestic demand. However, the momentum of recovery may falter, as the euro has since set new highs (Figure 1-9).

The French economy turned to positive growth in January-March 2003 thanks to rising private demand, only to decline again in April-June 2003, as personal consumption slowed and exports stagnated due to the strong euro. Positive growth returned in July-September 2003 as the euro weakened and domestic demand recovered (Figure 1-9).

The growth of the U.K. economy accelerated again in April-June 2003 after slowing down to 0.7% (real GDP, seasonally adjusted change on the previous year) in January-March. The healthy growth was maintained in July-September 2003, pointing to the strength of the U.K. economy as compared with the other two countries, mainly due to personal consumption. In addition to the stable employment situation, which will be discussed later, the strong consumption is being fueled by individuals borrowing to benefit from the low interest rates (Figure 1-9).

Looking at production, the industrial production index (seasonally adjusted, quarterly annualized) alternates between positive and negative growth in all three countries (Figure 1-10). Recovery in production has been halted since early 2003 by the successive emergence of adverse factors such as the euro appreciation, rising oil prices due to the Iraq War and the decline of consumption due to the record-breaking heat wave this summer. Although business sentiments, as shown by the business survey index, have been improving in Germany, backed by the recovery of the U.S. economy, those constraints on production activities undermine the prospect of a full recovery.

The employment situation can be gauged from the unemployment rate (ILO standards, seasonally adjusted). In Germany, the unemployment rate has been rising since the beginning of 2003 mainly due to the reduction in corporate production, reaching 9.42% in April 2003, the highest level since April 1998. Likewise, unemployment in France rose gradually in 2003 to reach 9.51% in September, equaling the level of April 2000. In contrast, the unemployment rate in the U.K. has declined consistently since 1993 thanks to deregulation and other measures to increase the flexibility of the labor market. Recently, it has been stable at around 5.0% (Figure 1-11).

Price inflation in the euro area has been slightly higher than the reference value (up 2% from the previous year) of the European Central Bank since the start of 2003. Jean-Claude Trichet, the new ECB President, is likely to leave the official interest rate unchanged for the moment. In the U.K., however, the Bank of England raised the official interest rate for the first time in 45 months in November 2003 (from 3.5% to 3.75%) to dampen the appetite for personal loans (Figure 1-12).

4. Economies of Major Asian Countries (Korea, Taiwan, Singapore): From Slowdown to Upturn

(see p. 32 for Figures)

This section provides an overview of the Korean, Taiwanese and Singaporean economies.

In Korea, sudden curbs on private consumption suppressed economic growth in January-March 2003. The downturn in private consumption was triggered by checks on personal loans by financial institutions. As concerns grew about the excessive debts of credit card users and the increase in debtors with bad credit standing, the government ordered financial institutions to tighten credit risk management on personal loans. In addition to the slump in personal consumption, reduced exports due to the outbreak of SARS (severe acute respiratory syndrome) and the strike of cargo workers led to a further slowdown in economic growth in April-June 2003 (Figure 1-13).

The Taiwanese economy turned to a slightly negative growth in April-June 2003. Private consumption, which accounts for 60% of GDP,

declined as individuals refrained from going out due to the SARS outbreak. There was also a negative impact from fixed asset formation, as some of the planned construction projects and investments in plant and equipment have been postponed. The economy bounced back in July-September 2003, however, as fears over SARS subsided and exports soared with the expansion of the U.S. economy (Figure 1-13).

As in the case of Taiwan, Singapore's economy also suffered negative growth in April-June 2003. Private plant and equipment investment fell sharply due to uncertainties raised by the SARS epidemic, leading to a decline in fixed asset formation. Private consumption and service exports also slumped due to the adverse effect on service industries including hotels and restaurants. Positive growth returned in July-September 2003 as exports increased particularly in electronics and electric machinery backed by the booming U.S. economy and the expansion of global IT demand. The recovery is also supported by strong pharmaceutical exports to Europe and the upturn in private consumption in reaction to the extraordinarily weak performance in the previous quarter (Figure 1-13).

The industrial production index indicates that production activities in Korea continued to slump in July-September 2003 even after the SARS epidemic had subsided, as exports slowed due to the prolonged strike by cargo workers. In Taiwan and Singapore, production declined in April-June 2003 mainly due to the impact of SARS, but almost regained the previous level in July-September 2003 thanks to the recovery in exports backed by the expansion of economies overseas (Figure 1-14).

Prices have risen slightly in Korea, continued to decline in Taiwan, and remained almost unchanged in Singapore (Figure 1-15).

5. China: Resuming Rapid Growth with Limited Impact of SARS
(see p. 33 for Figures)

Although the Chinese economy experienced socio-economic disruption in the first half of 2003 due to SARS outbreak, it grew rapidly in July-September 2003, with real GDP growth reaching 9.1% (Figure 1-16).

Strong fixed asset formation and private consumption underlie this rapid growth. Thanks to the capital construction and real estate investments led by the government, cumulative fixed asset formation in January-September 2003 recorded a substantial increase of 30.5% on the previous year (Figure 1-17). Private consumption slowed temporarily in May due to the outbreak of SARS, but this had only limited impact. On the back of strong consumer confidence, private consumption has consistently increased by about 9% on the previous year since June (Figure 1-18).

As regards trade, exports have grown strongly since last year, led by electric machinery and textiles, rising about 30% on the previous year. Imports increased sharply in January 2003 due to tariff reductions, and again from April-June 2003, attesting to the increasingly strong linkage of the country with the world economy. In October 2003, China posted the largest trade surplus ever, backed by the buoyant exports (Figure 1-19).

The emergence of China in the world economy has fueled demands to revalue the Rmb upward from the U.S., with which China maintains a sizable trade surplus. This led to the expectation that the Rmb will be upvalued, which would stimulate the inflow of capital from overseas. Meanwhile, investment in fixed asset formation is partly financed by bank loans. The amount of outstanding bank loans has risen rapidly as a result of the government actively encouraging investment. The inflow of foreign capital and the increase in bank lending have led to the rapid growth of money stock (Figure 1-20).

Due to active investment from overseas, the real estate leasing market has been tightened in the coastal urban areas, causing domestic and foreign investors to focus investments on real estate, thus pushing up real estate prices. Consumer prices fell until 2002, due to oversupply resulting from increased investment, but rose in the latter half of 2003. Concerned about the prospect of inflation, the People's Bank of China raised the deposit reserve requirement ratio from 6% to 7% in September 2003. Consumer prices in October 2003 reached the highest level since the autumn of 1997, which led to warnings of the economy overheating (Figure 1-21).

II Japanese Economy: From Standstill to Slight Recovery

1. Sustainability of Domestic and Overseas "Digital Boom" Holds the Key to Further Recovery

(see p. 34 for Figures)

In fiscal 2003, the Japanese economy recovered slightly from a standstill in the second half of last fiscal year. As worries subsided about the Iraq War, SARS and falling share pries, recovery in plant and equipment investment was confirmed, led by digital household electronic appliances. Prospects for exports and production have also brightened with the recovery of the U.S. and Asian economies.

Real GDP[1] (Figure 2-1) turned up in January-March 2002,[2] followed by seven consecutive quarters of positive growth to July-September 2003. Looking more closely at the growth rate during this period (referring to seasonally adjusted, quarterly annualized rate for the purpose of this section unless specified otherwise), real GDP growth recovered quickly in the first half of FY2002 backed by increased exports and the completion of inventory adjustment,[3] exceeding 5% in July-September, when consumption accelerated temporarily. In the second half of the fiscal year, however, the growth stalled at around 1% as the contribution from inventories disappeared. Demand also leveled off following slowdowns in overseas economies due to the impact of the Iraq War and SARS and as share prices declined. In 2003, plant and equipment investment strengthened particularly in digital household electronic appliances as the negative impact of the Iraq War and SARS diminished and share prices rose. In April-June 2003, real GDP growth reached 3.5% (4.1% excluding the contribution of change in inventories), the largest increase in the current recovery phase. Although the growth declined to 2.2% in July-September due to slowdown in plant and equipment investment, some favorable developments including the recovery in exports suggest that the Japanese economy has got moving again after sluggishness since the second half of last fiscal year, and is recovering slowly led by exports and plant and equipment investment.

Looking at the trend of each GDP (GDE) component, consumption remains weak despite some signs of recovery in income and employment conditions. In July-September 2002, real private consumption recorded a substantial growth of over 5% from the previous quarter on an annual basis as compensation of employees bottomed out and consumer confidence improved. In the second half of fiscal 2002, however, consumption leveled off due to the uncertain economic outlook and falling share prices. Although consumer confidence has returned in fiscal 2003 with expectations for improvement in income and employment conditions, this has not restored actual consumption. As a result, real private consumption stayed almost unchanged in the past 12 months, as shown by the year-on-year increase of only 0.2% in July-September 2003 (a decrease of 0.1% in household consumption excluding imputed rent). Any recovery in consumption would require widespread improvement in income and employment conditions. However, real compensation of employees in July-September 2003 decreased from the previous period for the first time in five quarters.

Plant and equipment investment has increased, with the leading indicators holding steady. Real private plant and equipment investment is showing a healthy recovery in general, increasing for five consecutive quarters since July-September 2002, backed by the recovery in production, which has led to strong corporate profits. Largely due to the cautious attitude of businesses, the recovery in plant and equipment investment initially lagged slightly behind the increase in exports. Since the beginning of fiscal 2003, however, active investment, particularly in

[1] The following description is based on the "Quarterly Estimates of GDP: Jul.-Sep., 2003 (the 1st Preliminary Estimates)." Subsequently, the data were subject to substantial revisions with the publication of the actual figures for fiscal 2002 and the 2nd preliminary estimates for Jul.-Sep. 2003.

[2] January 2002 is tentatively defined as the most recent trough.

[3] Positive contribution from slower reduction in inventories. With the revision to the method of calculating quarterly GDP estimates (August 2002), fluctuations in private inventories have become substantially larger than in the traditional method. Since April-June 2002, inventories have made a substantially positive contribution due to buildup following the bottoming-out of the economy.

digital household electronic appliances, has led the growth of GDP. By July-September 2003, plant and equipment investment had surpassed the peak recorded in the IT boom era (October-December 2000),[4] which implies that the sustainability of the recovery will depend on further improvement in production and corporate profits. As consumption shows little resiliency, attention should be focused on the development of domestic and foreign demand for digital equipment, as well as on overall exports and the exchange rate.

Residential investment remains low. Real private residential investment has been falling slightly since fiscal 2001. In July-September 2003, it rose by as much as 11.4% from the previous quarter, thus recording the first year-on-year increase in 10 quarters. Weakness prevails however, for this sudden movement represents eleventh-hour demand for owner-occupied houses before the current housing loan tax break ends and in view of rising long-term interest rates.

Public investment is still falling, reflecting the financial difficulties faced by central and local governments. Real public investment has declined for six consecutive quarters to July-September 2003. Year-on-year change, which evens out short-term fluctuations, indicates a continued decline since October-December 1999 (except for January-March 2001 when it was flat). The decline accelerated to double digits in 2003. Public investment now only accounts for 5% of GDP (nominal basis), which is expected to decline further, given the continuation of structural reforms and financial difficulties.

Exports are recovering, and real exports have recovered rapidly to lead the Japanese economy since early 2002 with the progress of IT-related inventory adjustment in Asia and the success of monetary easing policy in the U.S. Following a respite in rapid growth that started in the second half of 2002, due to the disappearance of the IT-related inventory factor and the slowdown in the global economy induced by the Iraq War and SARS, real exports posted a double-digit increase from the previous period in July-September 2003, after three quarters of slowed growth. Exports particularly increased to the U.S., which experienced rapid economic growth largely thanks to the tax reduction, as well as to China, which overcame the impact of SARS. The world economy is likely to continue its recovery for some time, led by the U.S. and China. However, concerns persist about adverse factors such as the reaction to economic stimulus measures and the growing trade deficit in the U.S., and excess liquidity and reaction to economic overheating in China, as well as the troubles in Iraq and the risk of SARS re-emerging.

Imports are rising gently. As production activity came to a standstill, real imports began to slow in the second half of 2002, recording the first decline in six quarters in April-June 2003, but increasing in July-September. Imports are expected to continue to grow, with the progress in international division of labor in East Asia serving as a structural factor.

Thanks to the strong movement in the first half, real GDP growth for fiscal 2003 will reach 2.2% even if the year-on-year growth stays unchanged on the previous year in the remaining two quarters. Thus, the second consecutive year of positive growth is almost ensured, as well as the realization of the forecast in the government's Economic Outlook (up 0.6% in real terms).[5] Many of the recently published estimates forecast a positive growth in the 2% range.[6] Thus, the Cabinet Office Estimates in September suggest an increase of 2.1% in real terms,[7] while the majority of the policy board members forecast a growth of 2.3-2.6% in the Bank of Japan Outlook Report for October.[8]

Recently, however, real GDP tends to be estimated higher than in the past due to technical reasons such as the introduction of a new method

[4] Seasonally adjusted real value. The same is true when measured as a percentage of GDP.

[5] Cabinet Office, "Fiscal 2003 Economic Outlook and Basic Stance toward Economic and Fiscal Policy" (Cabinet Decision on January 24, 2003).

[6] The average of real economic growth forecasts for fiscal 2003 by 14 private forecast institutions based on the quarterly GDP estimate for July-September 2003 = up 2.6% (*Nihon Keizai Shimbun*, November 21, 2003).

[7] Cabinet Office, "Fiscal 2003 Economic Trend Estimates (Cabinet Office Estimates)" (September 26, 2003).

[8] Bank of Japan, "Outlook and Risk Assessment of the Economy and Prices (October 2003)," (November 4, 2003).

of estimating quarterly GDP. Some note that such estimates need to be discounted when used as an indicator of improvement in the supply-demand gap.[9] The overestimation of real growth rate (hence, overestimation of decline in the deflator) is due mainly to two reasons:

(1) With the adoption of the corporate goods price index (2000 as base year) as basic statistics,[10] the decline in the deflator due to adjustments for quality (application of the hedonic method) has been magnified, particularly in IT-related capital goods.
(2) As the base year for national accounts (1995) recedes in time, the downward bias of the deflator, a Paasche price index,[11] has become greater.

Indeed, on a graph showing real GDP on the horizontal axis and its deflator on the vertical axis (Figure 2-2), the following can be observed since the recession following the peak of April-June 1997:

(1) The deflator continued to decline even in economic expansion periods at a pace faster than in recessions, when the weight of plant and equipment investment is reduced.
(2) The deflator is falling faster during the current economic expansion (more remote from the base year) than in the similar expansion period around 2000.

As can be seen in the conceptual diagram, simultaneous progress in the expansion of output (real GDP) and decline in prices (deflator) implies the strength of deflationary pressure caused by the rightward shift of the aggregate supply curve. In this case, "deflationary pressure" includes technological progress expressed as quality adjustment and the impact of the downward bias inherent in a Paasche index.

As the limit of statistics becomes clear, data need to be checked against multiple indicators. In this light, supplementary information should be provided regarding nominal GDP and its trend by demand item. Since falling below ¥500 trillion for the first time in six and a half years in October-December 2001, nominal GDP (seasonally adjusted) has remained low with some fluctuations. Nominal private consumption has declined slightly for four straight quarters to July-September 2003. Nominal GDP and nominal private consumption both declined on the previous year in July-September 2003. As shown in Figure 2-3, nominal private plant and equipment investment is characterized by a significant decline in the deflator (falling 7.2% on the previous year in July-September 2003), with substantial divergence from the real value. Although the nominal value has increased for five consecutive quarters since July-September 2003, it only rose 6.0% on the previous year in July-September 2003 while the real value increased 14.2%. Thus, most of the increment in the real value may be explained by the decline in the deflator.

A comparison between the government's Economic Outlook in January 2003 and the Cabinet Office Estimates in September 2003 confirms this point. The difference between the two regarding real economic growth for FY2003 is as large as 1.5% (+0.6% in the former and +2.1% in the latter) while the difference in the forecast of nominal growth rate is only 0.3% (-0.2% in the former and +0.1% in the latter) although there is a difference in the direction (positive or negative). In other words, the change in the forecast of real growth rate during the eight-month period[12] largely reflects the fact that the deflator declined faster than expected. Private research institutions also concur that nominal growth will be near zero.[13]

[9] See BOX in the "Outlook Report" (Note 6) for example. Although it is difficult to measure the extent to which real GDP is overestimated as compared with the traditional method, it would be reasonable to assume the gap to be around 1%. Indeed, the Outlook Report based on the traditional method said that any improvement in the supply-demand gap requires a real GDP growth in the 1% range, while maintaining that the growth estimated by the majority of the policy board members (ranging from 2.3% to 2.6% based on the new method) will not be enough to dissipate deflationary pressure.

[10] This method is now applied retrospectively, back to January-March 2001.

[11] In general, a Paasche price index is affected by downward bias when heavy weights are given to products such as IT-related goods, for which decline in prices and increase in volume occur simultaneously.

[12] Although the Cabinet Office Estimates are not published as revisions to the government's Economic Outlook, this report considers that they represent a change in views contained in representative estimates published by official bodies. The BOJ Outlook Report does not provide any estimates by policy board members on nominal growth rate.

[13] The average of nominal economic growth forecasts for fiscal 2003 by 14 private forecast institutions based on the quarterly GDP estimate for July-September 2003 = up 0.0%

2. Production Recovering after Temporary Standstill (see p. 35 for Figures)

To confirm from the supply side the trend of GDP identified in the previous section, this chapter looks at the trends of key components for the index of all-industry activity: the industrial production index (2000 as base year, 22.4% weighting in 1995), the tertiary industry activity index (1995 as base year, 59.5% weighting in 1995) and the construction activity index (1995 as base year, 8.1% weighting in 1995) (Figure 2-4, seasonally adjusted).

With the progress of inventory adjustment in IT-related products, the industrial production index rose in January-March 2002, and recovered strongly until July-September led by the electronic device industry (semiconductors and liquid crystal elements for portable phones and digital cameras in particular) and the transport equipment industry (standard-sized cars for export and small cars for the domestic market). In October-December, the index leveled off in electronic devices as inventories increased slightly. The recovery of production halted for the whole industrial and mining sector in January-March 2003, as production slowed down in transport equipment due to the stagnation of overseas economies and a respite in the effect of new model marketing. Although the two industries experienced a slight recovery in the following April-June period, production declined in the other industries reflecting the sluggish growth of final demand. Thus, the index declined for the first time in six quarters for the whole industrial and mining sector, raising an unusual concern that inventories might enter an adjustment phase at a low level.

This downtrend continued into August. In September, however, the production index increased by 3.8% from the previous month led by electronic devices and related manufacturing equipment. Thus, the index surpassed the most recent monthly and quarterly peaks in September and in July-September, respectively. The Manufacturing Production Forecast Survey projects large production increases in October and November, particularly in electronic devices and related manufacturing equipment. If such growth materializes, the average industrial production index for October and November will exceed that for July-September by more than 6%. Even though the Forecast Survey tends to be revised slightly downward in actual figures, production is clearly recovering.

The tertiary industry activity index bottomed out in April-June 2002, rising for the first time in five quarters. Its recovery has been weak, however, with mixed performance in individual industries. Thus, the index stayed almost flat until January-March 2003, moving within a narrow range between 106.1 and 106.6. Although it has risen somewhat, exceeding 107 for two consecutive quarters since April-June with increases recorded in many of the months, it remains almost unchanged excluding the significant contribution of finance/insurance thanks to the recovery in share prices and the effect of monetary policies.[14] The relatively active service sector holds the key to future improvement, and it will be interesting to note the extent to which services will benefit from the ongoing recovery in the corporate sector.

The construction activity index is falling further in FY2003, after holding steady throughout FY2002. Related statistics suggest that this is due to further reduction in public works, although private construction activity is bottoming out.

Figure 2-5 shows developments in the inventory cycle, an important factor in forecasting future business conditions.[15] The inventory cycle

(*Nihon Keizai Shimbun*, November 21, 2003).

[14] The activity index for finance/insurance also covers the activities of the BOJ and other public financial institutions.

[15] In a graph with the year-on-year growth of inventories plotted on the abscissa and that of shipments on the ordinate, the inventory levels are empirically known to move in clockwise circles (see Figure 2-5, Concept). 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 buildup 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

entered a recovery phase in April-June 2002 and an intentional buildup phase in July-September. Subsequently, production was swiftly adjusted to shipments (demand), which continued to show little improvement. As a result, the inventory cycle is approaching the 45 ° line while inventories are staying below the previous year (crossing the 45 ° line from upper left to lower right would be a sign of recession). However, monthly data since July indicate an upward movement in September. In light of index forecasts for October and November, it is possible that shipments will increase and inventories decrease again following a respite as was observed in 1995-96.

The recovery in production from September to November may be explained by the anticipation of a world-wide growth of the digital household electronic appliance market, recovery in IT investment mainly in the U.S. and demand for related plant and equipment investment. Some even argue that the recovery owes much to anticipatory demand or stampede based on over-expectation, although this would not be comparable in scale with the IT boom in 2000. Negative effects may appear in early 2004, if the growth in demand does not meet the planned increase in production. For the moment, the Christmas sales campaign in the U.S. and the year-end sales campaign in Japan will serve as a test of the sustainability of the "digital boom," which holds the key to forecasting macroeconomic developments in the months ahead.[16]

In the economic recovery phase leading to the peak in April-June 1997 (see Reference in Figure 2-5), the recovery process after the temporary standstill lasted only about a year, even though this was largely due to the negative impact of the consumption tax hike. Views diverge on the duration of any recovery following the current mini-adjustment phase, but the inventory cycle is already at a considerably mature phase (near the first quadrant) and no industries are in a position to lead the recovery apart from IT-related ones. Therefore, any negative impact at this stage is likely to cause recession. As regards fiscal 2004, the majority forecast is slower growth in the second half mainly due to a slowdown in the U.S. economy, as the initial effect of the tax reduction will disappear.[17]

3. Harsh Employment Situation, but Improving (see p. 36 for Figures)

The ratio of active job openings to applicants has been rising since the bottom of 0.51 in January-March 2002, but only slowly (Figure 2-6). This is because the denominator of the ratio (i.e. the number of job seekers) has stayed high despite the rising numerator (i.e. the number of job offers).

The unemployment rate remains around 5%, with the number of unemployed persons reaching a record high of 3.85 million in April 2003. By age group (Figure 2-7), unemployment is particularly high among those aged 15-24, which indicates fewer job opportunities for young people as companies curtail new hiring.

The number of employees is recovering in general, despite recording a slight decline on the previous year in July-September 2003 following an upturn in April-June (Figure 2-8(1)). By industrial sector,[18] services continue to lead the

that inventories, despite the efforts of producers, continue to increase above a reasonable level (unintended accumulation phase). Further recession, causing decreases in shipments, forces producers to cut back production faster than the decline in shipments until inventories fall to a reasonable level (inventory adjustment phase). The economy 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 producers unintentionally reduce inventories (recovery phase). Once producers realize 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.

[16] However, expenditures for digital household electronic appliances might be increased to the detriment of other expenditures, as was observed in the pattern of domestic consumption when charges for portable phone calls rose rapidly. In this sense, the impact of the digital boom needs to be considered in its entirety.

[17] The average of real economic growth forecasts for fiscal 2004 by 14 private forecast institutions based on the quarterly GDP estimate for July-September 2003 = up 2.0%. The average of nominal economic growth for 2004 by the same institutions = -0.1% (*Nihon Keizai Shimbun*, November 21, 2003). On a calendar year basis, IMF forecasts a slowdown from +2.0% to +1.4%, and OECD from +2.7% to +1.8% (change in real growth rate from CY2003 to CY2004).

[18] Based on the new industrial classification (revised in March 2002).

growth of employment as the decline in manufacturing and wholesale and retail trade has been slowing.[19] Looking at the different employee classifications, the rise in temporary and daily employees has been slowing,[20] while the reduction in self-employed and family workers has come to a halt. The number of regular employees is also bottoming out (Figure 1-8(2)). By size of corporation, the number of employees in large corporations that employ 500 or more workers, which had declined substantially since the second half of 2002, rose in 2003 and boosted the total number of employees (Figure 1-8(3)). Meanwhile, the number of employees in corporations that employ less than 500 workers has been falling, possibly reflecting the difference in the pace of corporate profit improvement.[21]

Overtime hours have been increasing steadily after reaching a low in October-December 2001 (Figure 2-9), particularly in the manufacturing sector where overtime hours in July-September 2003 surpassed the values reached during the recent two peaks[22] in the economic cycle. The rise in overtime hours raises expectations for further recovery in employment, but pressure for corporate structural adjustment remains strong. The recovery in employment will continue to be weak.[23]

[19] Looking at the service sector in detail, medical care and welfare are leading the increase in employment. See DBJ, "Trend of Employment in Medical Care and Welfare: Driving Force of Job Recovery," *Monthly Economic Notes*, October 2003.

[20] Temporary and daily employees refer to those hired for a period of one year or less, and regular employees refer to executives and those hired for a period of over one year or for an undetermined period. The slowdown in the growth of temporary and daily employees also contributed to the bottoming out of wages and salaries through a respite in the shift from regular to part-time employment.

[21] For earnings performance by size of corporation, see Cabinet Office, "Annual Report on the Japanese Economy and Public Finance 2003," Section 1-1.

[22] April-June 1997 and October-December 2000 (provisional) on a quarterly basis. The amount of overtime hours also peaked in those periods.

[23] It has been noted in recent years that it takes longer for an increase in overtime hours to result in an increase in employment. See Ministry of Health, Labour and Welfare, "White Paper on Labour 2003," Section 1-3.

4. Wages Bottoming Out, Consumer Confidence Improving

(see pp. 37-38 for Figures)

The year-on-year change in total cash earnings per person based on the Monthly Labor Survey indicates that wages have been flat since July-September 2002 (Figure 2-10). In more detail, overtime pay continues to rise on the previous year with the increase in overtime hours.[24] Meanwhile, the decrease in regular wages and salaries and in bonus and special earnings has been slowing, as wages and salaries are bottoming out for both full-time and part-time workers. Also, changes in the composition of the workforce, i.e. shift from full-time to part-time employment, have eased.[25]

Bonuses are also bottoming out (Figure 2-11). The summer bonus for 2003 increased for the first time in three years, after witnessing the largest drop since 1991, for which comparable data are available. Since bonuses tend to reflect corporate profits, the increase is the result of improving corporate performance, particularly for large manufacturers. The winter bonus for 2003 is expected to show a similar trend of bottoming out thanks to continued improvement in corporate profits and as many companies have adopted the so-called comprehensive "summer-winter" bonus system, in which both the summer and winter bonuses for the year are determined during the spring wage negotiation.[26]

Against this backdrop, real private final consumption according to the GDP estimate has shown little quarter-to-quarter movement (Figure 2-12). Consumption based on the GDP estimate necessarily diverges from consumption based on the Family Income and Expenditure Survey due to such factors as the rise resulting from the increase in population and number of households,

[24] However, the increase in overtime pay has not kept pace with the increase in overtime hours.

[25] See DBJ, "Bottoming out of wages and regular wages and salaries," *Monthly Economic Notes*, November 2003. Part-time workers receive just over 20% of the wages earned by full-time workers, in part due to the difference in hours worked.

[26] According to the Ministry of Health, Labour and Welfare, "Settlements on the 2003 Summer Bonus in Selected Private Enterprises," almost 70% of the companies have adopted the comprehensive summer-winter bonus system.

as well as the inclusion of imputed rent. In fact, the real consumption of worker's households in the Family Income and Expenditure Survey continues to decline on the previous year (Figure 2-13). This trend can be broken down into three components: income, non-consumption expenditure (e.g. tax payments and social insurance premiums) and consumption propensity. Downward pressure on consumption from the decline in income has been weakening since January-March 2003, reflecting the bottoming out of wages. Meanwhile, the rise of consumption propensity, which has propped up consumption since the second half of 2002, has weakened recently.[27]

On the supply side, the retail sales index (Figure 2-14) is still declining, especially for products such as clothing, food and beverages as the sales of seasonal products slumped due to the unusually cool summer. Among home appliances, sales are buoyant for DVD players and TV sets with liquid crystal, plasma and other flat-panel displays. PC sales have also been recovering recently.[28] Overall sales are still in a slump, however, largely due to the cool summer, which affected the sales of air-conditioners.

The number of passenger car sales rose substantially in January-March 2003 due to a surge in demand before the change in environment-related taxation schemes in April 2003, which reduced the tax relief applicable to low-pollution vehicles (Figure 2-15). In reaction, sales plummeted in April-June, followed by a further slump as demand for small cars leveled off after leading the sales increase in 2002.

Looking at the year-on-year trend of tourism sales (Figure 2-16), overseas travel rose substantially in the second half of 2002 in reaction to the decline following the terrorist attacks in the U.S. a year earlier. In 2003, however, sales of overseas travel plunged again due to the Iraq war and the SARS epidemic mainly in Asia, recording a steeper decline in April-June 2003 than in October-December 2001, when the impact of the terrorist attacks was felt. Although overseas travel has been recovering gradually since the end of the Iraq War and the SARS epidemic, sales continue to decline. Meanwhile, sales of domestic tours have been rising partly due to a shift from overseas travel. Also, the downtrend in the unit price per customer has halted, as indicated by the statistics on brand sales by travel agencies.

Finally, consumer sentiment is showing signs of recovery, although with variations in individual indicators (Figure 2-17). The Living Insecurity Index has been flat, while the Nikkei Consumption Forecast Index has been deteriorating as consumers are less willing to spend on travel, recreation and durable goods. In contrast, the Consumer Confidence Index for the coming six months has improved for two quarters running. Prospects are improving in virtually all aspects, particularly in employment and income, reflecting expectations of economic recovery. It is worth monitoring the extent to which the bottoming out of employment and income conditions will stimulate consumption.

5. Plant and Equipment Investment Increasing, but Ratio to Cash Flow Still Subdued

(see p. 39 for Figures)

Plant and equipment investment is increasing, led by the manufacturing sector, while leading indicators continue to show strength in general. However, its ratio to cash flow indicates the persistence of selective investment. The sustainability of improvement in corporate profits is the key to the future growth of plant and equipment investment.

According to the Statistical Survey of Incorporated Enterprises (Figure 2-18), nominal plant and equipment investment in April-June 2003 increased on the previous year for the first time in seven quarters.[29] Plant and equipment investment in the manufacturing sector is em-

[27] However, this development has much to do with sampling changes. See DBJ Research Report No. 36, "Recent Trends in the Japanese Economy," 2003.

[28] The recovery may have been closely related to the last-minute demand before the introduction of the home PC recycling scheme in October 2003, which requires that the recycling cost be added to sales prices.

[29] In the Statistical Survey of Incorporated Enterprises, "Plant and Equipment Investment Including Software" has been taken as the official amount for plant and equipment investment since July-September 2001, but time series data before this period are unavailable. Therefore, analyses in this research report use the "Plant and Equipment Investment Excluding Software" figures.

pirically known to have a strong correlation with return on investment[30] with some time lag. Indeed, the recovery in plant and equipment investment became clear in late 2002, following the improvement in return on investment since early 2002. In April-June 2003, investment increased for the first time in two years, up 3.8% on a year earlier. Although return on investment in the manufacturing sector eased in the first half of 2003, several surveys on revisions to plant and equipment investment plans for FY2003, conducted in August and September, indicate a healthy increase not only in large-scale manufacturers (the third plot from the left), which have led plant and equipment investment since the initial stage of recovery, but also in small manufacturers (the second plot from the left), which had seemed slow to recover. This trend is comparable with the revisions in FY2000, the previous peak of plant and equipment investment. It is therefore considered that plant and equipment investment in the manufacturing sector will remain strong for the rest of the fiscal year, as long as return on investment holds steady. In the non-manufacturing sector, on the other hand, plant and equipment investment recorded a substantial increase of 7.7% on the previous year in April-June 2003. This improvement may be short-lived, as it owes much to extraordinary increases in real estate and in some services. Annual investment plans of large-sized firms still suggest cautiousness, particularly in industries under heavy pressure to reduce cost due to deregulation. Moreover, the future trend of investment by small firms remains uncertain, and it is impossible to judge the sustainability of plant and equipment investment in the non-manufacturing sector.

The ratio of plant and equipment investment to cash flow[31] (Figure 2-20), a measure of corporate propensity to invest in plant and equipment, has been declining in both the manufacturing and non-manufacturing sector, standing at 60% in manufacturing and 70% in non-manufacturing according to the most recent data. This rate may rise in the short-term in the manufacturing sector, as plant and equipment investment recovery tends to lag behind improvement in profit. Even if allowance is made for this tendency, however, investment in all industries remains highly selective. Generally speaking, the fact that plant and equipment investment stays within cash flow means that the corporate sector has excess savings. The current high level of excess savings, although unusual in developed economies, is expected to continue for some time, because average companies urgently need to improve the slumping return on capital and remedy their financial weakness as the growth rate is expected to stay low and the relative price of capital goods is continuing to decline.[32]

Thus, the current recovery in plant and equipment investment so far has stayed within the limit of a "subdued cyclical recovery phase led by the manufacturing sector." New signs of change can be observed in capital stock, however. The growth of capital stock usually rises following a recovery in plant and equipment investment. In the current recovery, capital stock in the manufacturing sector (Figure 2-21) declined for the first time in April-June 2003, as far as comparable data are available. This is a result of a rapid rise in the retirement rate[33] despite in-

[30] For the purpose of this section, return on investment is defined as operating asset profit rate (the ratio of seasonally adjusted operating profit to the sum of tangible fix assets and inventories, which represents the profitability of operating assets) minus interest cost (the average contracted interest rates on new loans). Interest cost has been stable at a low level in recent years. Operating assets, or the denominator of the operating asset profit rate, do not fluctuate widely in the short term. Therefore, the trend of return on investment is basically explained by the change in operating profit.

[31] Although cash flow may be defined as the sum of after-tax profit and cost depreciation, this report simplifies the calculating procedure by regarding ordinary profits/2 as after-tax profit, due to constraints on data presented in the Quarterly Report of Statistical Survey of Incorporated Enterprises. The figures used in this report are different from cash flow in a strict sense in that using accounting profit for calculation entails the impact of gains or losses that do not result from actual cash flow, such as profit or loss from valuation and cost allocations.

[32] The excess savings may fade gradually after the debt overhang has been cleared. However, this will take the form of increased dividends rather than increased plant and equipment investment, if the expected growth rate of the Japanese economy does not improve substantially in the near future.

[33] By definition, capital stock at current term end = capital stock at previous term end + (new investment – gross retirement + acquisition of used goods) in the current term. "Net retirement" shown in Figure 2-21 represents gross

creased plant and equipment investment. Even though this sudden movement seemingly includes a temporary fluctuation, it also suggests that the so-called "business reconstruction" is underway, including the reduction of excess capacity and withdrawals from unprofitable businesses.[34] If the accumulation of capital stock in the current stage is smaller than in the past, stock adjustment in the next recession may turn out to be milder.

6. Leading Indicators Showing Strength, Attention Focused on Corporate Profits (see p. 40 for Figures)

Machinery orders (domestic private demand excluding ships and electric power), a good leading indicator of plant and equipment investment (particularly of nominal investment in machinery), have increased on the previous year since January-March 2003, after hitting the bottom in January-March 2002 (Figure 2-22). The growth slowed in July-September, as orders from the electric machinery industry became flat. However, the Forecast of Machinery Orders for October-December,[35] published in September, indicates acceleration as a whole thanks to a substantial increase in orders from the non-manufacturing sector, although orders from the manufacturing sector will show a slight slowdown (decline on the previous quarter) for the second consecutive quarter.

Since machinery orders are usually supposed to lead plant and equipment investment by a quarter or two, plant and equipment investment will remain brisk until the first half of 2004. However, the reliability of the forecast based on machinery orders has been reduced somewhat for two reasons. First, a comparison of machinery orders with the SNA-based plant and equipment investment net of estimated construction and software investments,[36] which nearly equals investment in machinery, indicates that machinery orders have not served as the leading indicator of the latter since around 1999 (Figure 2-22). Since the recession phase in 2001, the two have fluctuated almost simultaneously. Although it is too early to draw a conclusion, any structural changes would be due to the rising weight of IT investment with a shorter time to build (from receiving order to installation).[37] Second, data appearing in the Orders Received for Machinery, particularly from the telecommunications industry or the non-manufacturing sector as a whole, fluctuate with changes in demand for portable phones, which are unrelated to plant and equipment investment.[38] This is because portable phones are counted in the statistics according to the old practice of regarding the acquisition of telephones as "plant and equipment investment." The share of portable phones in the Orders Received for Machinery cannot be estimated without considerably bold assumptions. However, the rapid growth of portable phones with camera function suggests that the recent increase in orders from telecommunications and other non-manufacturing industries may be highly overestimated (as a leading indicator of plant and equipment investment).[39]

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retirement (usually referred to as retirement) minus acquisition of used goods.

[34] According to data from the Quarterly Report of Statistical Survey of Incorporated Enterprises, basic statistics on amortization, the iron and steel industry contributed substantially to the rise in amortization rate in April-June 2003.

[35] The Forecast published by the Cabinet Office represents the simple aggregate of projections by corporations multiplied by the average ratio of achievement (actual value/simple aggregate value) over the recent three quarters. Due to the substantial upward movement of the ratio of achievement in non-manufacturing for January-March and April-June 2003, however, the Cabinet Office itself admits that the Forecast for October-December based on the traditional calculation rule is likely to represent an overestimation. This section therefore considers the simple aggregate as forecast.

[36] Based on the fixed capital matrix in the 1995 Input-Output Table, plant and equipment investment is divided into construction investment, software investment and other (machinery, etc.) investment. Using those values as benchmarks, subsequent construction and software investments are estimated with the growth of the non-housing component in the Integrated Statistics on Construction Work and the growth of intangible fixed assets in the Gross Capital Stock of Private Enterprises, respectively.

[37] Traditionally, machinery orders were considered to lead investment by two to three quarters, which is also implied in the Annual Report of Orders Received of Machinery, published by the Cabinet Office. However, the time lag of one to two quarters has been cited more often in recent years due to the "downsizing" of plant and equipment investment.

[38] Apparently, this is closely related to the first reason, i.e. reduced role of machinery orders as a leading indicator.

[39] Orders from the telecommunications industry have increased on the previous year since January-March 2003.

Figure 2-22 also shows the floor area of construction starts (private non-housing), one of the leading indicators of construction investment, which has been rising slowly since 2002 with small fluctuations. In July-September 2003, the floor area jumped sharply for the first time in a long while, up almost 10% on the previous year. However, this leading indicator essentially does not have much forecasting power as machinery orders. Also, the influence of construction investment on the short-term trend of plant and equipment has been reduced considerably in recent periods.

Thus, the general strength of leading indicators is a positive factor for plant and equipment investment in the months ahead, but is insufficient for making a judgment. This section therefore examines the future trend of corporate profits, which is the most important element among the fundamentals of plant and equipment investment. Various surveys indicate a second consecutive year of increase in corporate profits for fiscal 2003. In view of the close relationship between return on investment and plant and equipment investment, investor sentiment in the next fiscal year will depend on whether this projected increase in profits materializes.

Using break-even analysis, the change in operating profit in the Statistical Survey of Incorporated Enterprises can be broken down as follows. First, marginal profit ratio[40] is calculated back from the formula: ordinary profit ≡ sales × marginal profit ratio – fixed cost, with fixed cost defined as the sum of labor cost and depreciation cost. Then, the contribution of each component is calculated as the change in profit, assuming that the other two components remain unchanged on the previous year. Thus, the change in ordinary profit on the previous year can be broken down into three components: increased revenue, marginal profit ratio and fixed cost (Figure 2-23).[41] The result indicates that the reduction in fixed cost, which has helped increase profits since 2002, is coming to a halt in 2003, causing the growth of profits to slow. Planned profits for FY2003 according to the BOJ *Tankan* (September survey) show that the reduction in fixed cost almost solely accounts for increased profits in the first half, while the marginal profit ratio accounts for most of the planned profit increase in the second half, with a substantial decline in the contribution of the reduction in fixed cost. For those firms whose business year ends in March, the figures for the first half represent relatively accurate estimates, while the "planned" figures for the second half only represent the residuals after subtracting the results in the first half, assuming that few firms review their annual plans before the mid-term account settlement. The above analysis may therefore not properly reflect corporate attitudes. Nonetheless, sufficient margins will be required to achieve the annual plans, in view of the continued tightness in markets and stabilization of the exchange rate. In this context, the production outlook for October-December, mentioned in Section 2, is a favorable factor. The sustainability of the growth of plant and equipment investment will largely depend on continued strength in production and shipments, which lead the former by about six months.

7. Weak Residential Investment (see p. 41 for Figures)

Housing starts (seasonally adjusted annual rate) have been weak since 2001, staying below the 1.1 million mark (Figure 2-24). The year-on-year change by component (Figure 2-25) indicates that the construction of housing for rent and for sale has held steady, while that of owner-occupied houses rose in April-June 2003, after falling on the previous year since 2001. This is due to the last-minute demand before the termination of the housing loan tax break[42] and the acceleration of construction starts in anticipation of rising interest rates. Since the effects of the higher demand will disappear in the second half, housing starts will continue to slump for the

However, trends in the Current Survey of Industrial Production indicate that orders other than for portable phones may have been actually decreasing on the previous year.

[40] Also known as margin ratio (= 1 – variable cost/sales).

[41] The confounding term (composite factor) is included in the marginal profit ratio component.

[42] Since purchasers have to move into the houses before the end of 2003 to benefit from the tax reduction scheme, the stepped-up demand appeared in the first half of 2003 as increased housing starts. Discussion is currently underway to extend the deadline for the scheme.

rest of the fiscal year and beyond.

The floor area of housing starts shows a similar trend to the units of housing starts (Figure 2-26). As can be seen in the movement of housing starts, its leading indicator, real private residential investment (seasonally adjusted annual rate) has continued to fall gradually (Figure 2-27).

In the condominium[43] market, stocks accumulated by 2002 both in the Tokyo metropolitan area and Kinki area[44] have been reduced (Figures 2-28 and 2-29). Although this decline might suggest a rapid growth in condominium starts in the months ahead, the decline actually reflects fewer units marketed due to the postponement of sales.[45] Therefore, the decrease in stock may not result in an increase in housing starts for some time to come.

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

Public investment (public capital formation, seasonally adjusted, annualized nominal values) has declined almost constantly since the latter half of 1999, due to cuts in expenditures forced by financial difficulties (Figure 2-30). Consequently, public investment now accounts for only 5.3% of GDP (seasonally adjusted nominal values), down four percentage points from its peak.

Contracted public works orders, a leading indicator, fell 7.2% in fiscal 2002, the fourth straight year of decline (Figure 2-31). Public works continue to decline due to spending cuts in line with the budget reform policy of the Koizumi Cabinet. Cutbacks in spending are particularly significant in funds allocated to local regions, which account for 70% of public investment, in the face of the dire financial situation.

The decline in spending accelerated in the initial budget for fiscal 2003, with proposed reductions from the previous year of 3.7% in central government expenditures on public works projects and 5.3% in investment expenses under local finance plans. According to a document submitted to the Council of Economic and Fiscal Policy, central government expenditures on public works projects will be cut by a further 3%, so public investment looks set to continue to contract in the years ahead.

While public investment tends to decline, budget revenue has been slumping due to the sluggish economy and income and other tax reductions, resulting in major budget deficits for both central and local governments. Since the deficits have been largely financed by government bond issues and by borrowings in the special account for local allocation tax, outstanding government debts have ballooned. Indeed, the outstanding long-term debts of central and local government will total ¥686 trillion at the end of fiscal 2003, accounting for some 140% of GDP (Figure 2-32). This trend is continuing, although government debts were reduced *prima facie* at the end of fiscal 2002, with the abolition of special accounts for postal services and postal savings (outstanding debts of some ¥49 trillion as at the end of fiscal 2003).

At present, Japan has huge general government debts as compared with other developed countries, as well as a substantial deficit in the primary balance, i.e. the budgetary balance excluding bond issues, interest payments and bond redemptions (Figure 2-33). This fiscal position is in stark contrast to the financial restructuring carried out by the EU and the U.S. since the late 1990s. Although the Koizumi Cabinet had adhered to its commitment to cap new central government bond issues at ¥30 trillion, the supplementary budget for fiscal 2002 resulted in bond issues of some ¥35 trillion, effectively violating

[43] For the purpose of this report, the term "condominium" refers to a subdivided housing lot made of reinforced steel frames, ferro-concrete or steel frames.

[44] The statistics of Building Construction Started include condominiums in housing for sale. Condominiums accounted for 63.0% of housing for sale in fiscal 2002 (based on the number of new housing starts). Condominium housing starts in the Tokyo metropolitan area (Saitama Prefecture, Chiba Prefecture, Metropolis of Tokyo, Kanagawa Prefecture) and Kinki area (Shiga Prefecture, Kyoto Prefecture, Osaka Prefecture, Hyogo Prefecture, Nara Prefecture, Wakayama Prefecture) account for about three-quarters of the national total, 75.8% to be exact (FY2002). Therefore, the trend of the condominium market in these two areas is an important leading indicator for the construction of condominiums and housing for rent as a whole.

[45] The Real Estate Economic Institute calculates the units of stock at the end of the current month as the units of stock at the end of the previous month + the units marketed in the current months – the units sold in the current month. Hence, the units not marketed are not statistically counted as stock.

the commitment. New bond issues of some ¥36 trillion are projected in the initial budget for fiscal 2003.

9. Signs of Recovery in Exports and Mild Increase in Imports
(see p. 43 for Figures)

Figure 2-34 shows the trend of real effective exchange rates of major currencies. The Japanese yen depreciated to July 2003, but both the yen and euro have strengthened against the dollar since September 2003, as effective rates in the U.S. fell in view of the coming presidential election.

Figure 2-35 compares the yen/dollar exchange rate with the purchasing power parity. The rate moved upward (i.e. the yen weakened) in 2002 and approached the purchasing power parity, which continued to decline. In May 2003, however, the rate again started to diverge from the purchasing power parity, as the yen strengthened following the G8 joint statement and due to increased investment in Japan by foreign investors.

Japanese exports are showing signs of recovery, while imports are increasing gradually. Looking at the seasonally adjusted monthly indicators for export and import volumes (Figure 2-36), the volume of exports has remained almost flat as exports to Asia remain strong despite the impact of SARS, thus canceling out the decrease in exports to the U.S. Exports are likely to resume growth as the U.S. economic recovery accelerates. Meanwhile, imports are increasing after staying almost flat until early 2002.

Looking at a breakdown of export volumes by country (Figure 2-37), increased exports to Asia have been offsetting the decrease in exports to the U.S. since January-March 2003.

Figure 2-38 shows the trend of exports for each type of goods based on the "Analysis of All Industrial Activities" published by the Ministry of Economy, Trade and Industry. Exports plunged in January-March 2003, for decreases in both capital goods (video equipment to the U.S.) and consumer durables (automobiles to the U.S.). Total exports recovered, however, in April-June 2003, as exports of capital goods increased mainly to Asia.

Figure 2-39 shows the import trend for each type of goods. Total imports rose in April-June 2003, as imports of consumer durables and capital goods increased from the U.S. and Asia while the decline in imports of construction materials eased.

10. Deflation Continues but Slows
(see p. 44 for Figures)

International commodity prices (excluding crude oil) rose substantially from the second half of 2002 in view of the pending war in Iraq (Figure 2-40), and remain strong even though this pressure has subsided.

The decline in the corporate goods prices of domestic demand goods (weighted average of domestic and import prices) has been slowing. In detail, the prices of raw materials have been rising since October-December 2002 due to higher crude oil prices. The prices of intermediate goods have also been recovering, reflecting the rising prices of materials for iron/steel and chemicals.

Likewise, the decline in consumer prices (excluding fresh food) is also slowing (Figure 2-41), largely due to the increase in medical service prices copayment, which was raised from 20% to 30% of total medical cost in fiscal 2003.[46] The prices of public services, etc. also increased in April-June 2003.[47] The decline in prices has also slowed for goods, including agricultural, fishery, stock farm and industrial products.

Corporate service prices have been declining about 1% from the previous year, particularly in leasing/rental and real estate.

Thus, price deflation has been easing recently. The monthly consumer price index (excluding fresh food) for October rose on the previous year for the first time in 66 months since April 1998. Of course, this is related to special factors including the changes in taxation and social security schemes and the increase in rice

[46] The rate of copayment remains unchanged for those aged 70 or over (10%) and children under three years old (20%).
[47] Other changes in the social security and taxation systems in fiscal 2003 include tax hikes on low-malt beer (in May) and tobacco (in July). These changes have had relatively little impact on consumer prices compared with the increase in copayment rate.

prices[48] due to the poor harvest following the unusually cool summer. However, the slowdown in falling prices of electric machinery implies that prices are bottoming out as a whole.

11. Effect of Quantitative Easing Policy Yet to Materialize
(see p. 45 for Figures)

In the financial markets, the overnight-unsecured call rate has remained near 0% since March 2001, when the Bank of Japan introduced the quantitative monetary easing policy by adopting the current account balance as the direct target of its financial guidance policy (Figure 2-42). Yields on three-month CDs (bid), which represent short-term interest rates, have remained at around 0.1%.

Meanwhile, yields on 10-year government bonds, a good indicator of long-term interest rates, fell throughout 2002, as economic prospects remained uncertain due to slumping share prices both in Japan and abroad. After reaching a low of 0.4% in June 2003, however, the yields recovered quickly and exceeded 1% in July, backed by the rise in domestic share prices since April and easing concerns about worldwide deflation. Currently, yields are around 1 to 1.5%. In comparison, the movement of contracted interest rates on new bank loans has been stable, in the upper 1% range.

As regards monetary policy, quantitative easing measures are still in place. In 2003, the target for the Bank of Japan's current account balance was raised successively in April and May, and currently stands at ¥27-32 trillion, following a further increase in October. Efforts have been made by announcing that the government and the central bank will work together to fight deflation. The measure is also designed to prepare for possible disruption in the financial markets caused by the write-offs of non-performing loans. As a result, the current account balance has stayed close to the target set by the Bank of Japan (Figure 2-43).

As a means of monetary control, the monthly amount of long-term government bond buys has stayed near ¥1.2 trillion since the decision to raise the amount in October 2002. In August 2003, the Bank of Japan started buying asset-backed securities and commercial paper, with underlying assets including accounts receivable of SMEs and claimable assets arising from loans to SMEs. Furthermore, the duration of the government bond repurchasing operation was extended from six months to one year.

The monetary base, i.e. the total of the Bank of Japan's current account balance and cash in circulation, has seen double-digit increases since 2001, reflecting the monetary policy mentioned above. In July-September 2003, it recorded a substantial increase of over 20% on the previous year (Figure 2-44). Meanwhile, money stock has been growing 1-2% on the previous year in terms of M_2 + CD since the beginning of 2003. The money multiplier, i.e. money stock divided by the monetary base, reached a high of 13 in the first half of 1992, but has been falling since due to the relatively rapid growth of the monetary base to a record low of under 7 recently. Consequently, the effect of the quantitative easing policy has not materialized, as the growth of the monetary base has been absorbed by the decline in the credit multiplier. Moreover, the growth of money stock has not led to an increase in nominal GDP. The velocity of money circulation, i.e. nominal GDP divided by M_2 + CD, also continues to decline (Figure 2-45).

In terms of credit, the main reason for the increase in M_2 + CD is the growth of credits to the government including the buying of government bonds, as lending to the private sector, industrial debentures and stocks continue to decrease (Figure 2-46). This trend implies that the growth of money stock is propped up by the credits extended to the government.

[48] Since rice is not classified as fresh food, its price affects the consumer price index excluding fresh food.

III A Medium-term Scenario for the Japanese Economy—Focusing on Money Flow and Finance—

In January 2003, the Japanese government adopted the "Reform and Perspectives – FY2002 Revision" by a Cabinet Decision. Covering the period through FY2010, this chapter presents a medium-term scenario, which considers possible changes in financial surplus or deficit in each sector as well as in the flow of funds as a whole, assuming that the structural reform advances as planned in the "Reform and Perspectives – FY2002 Revision" (Cabinet Decision of January 24, 2002), effectively setting the Japanese economy on a stable growth path. It also examines how the investment behavior of financial institutions will change in response to such an external environment.

1. Long-term Trends in Financial Surplus/Deficit and Outstanding Loans (see p. 46 for Figures)

Prior to describing the medium-term scenario, this section examines long-term trends in financial surplus or deficit in each sector and outstanding private bank loans. National Accounts and Flow of Funds data used in this section are based on 68 SNA to identify the long-term trends since the 1960s. Although they differ from the statistics based on 93 SNA, which are used later in this report, in terms of the definitions of sectors and account headings, the trend of financial surplus or deficit can be readily identified. Financial surplus or deficit defines the savings-investment differential from the movement of financial assets and liabilities. Although the two coincide in theory, errors are observed in actual statistics as estimation methods differ. The analysis and medium-term scenario presented in this chapter are based on the financial surplus or deficit given in the Flow of Funds, published by the Bank of Japan. It is assumed that no errors exist between financial surplus or deficit and balance of saving and investment.

Figure 3-1 shows the long-term trend of financial surplus or deficit by sector. Personal[49] has constantly maintained a financial surplus since before fiscal 1970, and were the only sector with financial surplus until the late 1980s. The surplus reduced in the 1990s, however, as the savings ratio fell. Corporate business[50] had persistent financial deficits until the mid-1990s. Since then, however, they have maintained a financial surplus as plant and equipment investment has been confined within cash flow. Reaction to the changing financial environment and greater focus on profitability underlie this change in corporate investment behavior. The financial position of the government sector turned positive in the late 1980s, as tax revenues increased on the back of the booming economy, only to turn negative again in fiscal 1992. The financial deficit has been increasing ever since as tax revenues have fallen due to the downturn in the economy and tax reductions, as well as to increased spending to stimulate the economy.

Outstanding private bank loans increased rapidly as a percentage of GDP in the 1980s. From fiscal 1980 to fiscal 1990, lending increased to the corporate sector, which was increasingly in need of money due to active investment. Consequently, outstanding private bank loans rose some 40 points as a percentage of GDP. Although the amount continued to decline in the 1990s due to reduced lending and the write-offs of non-performing loans, it still stays at a high level from a long-term point of view (Figure 3-2). A projection presented later in this chapter indicates that outstanding private bank loans as a percentage of GDP will be adjusted throughout the projection period to the level of the early 1980s (about 90% of GDP).

2. Changing Flow of Funds in Japan since 1990 (see p. 47 for Figures)

Figure 3-3 identifies the changes in the flow of funds by showing variations in the matching relationships of financial assets and liabilities since

[49] Personal includes proprietorships and non-profit organizations as well as households.

[50] Corporate business includes moneylenders and some government-affiliated corporations as well as private and public non-financial corporations.

fiscal 1990 according to the Flow of Funds (based on 93 SNA) and various financial statements. Specifically, the financial assets held by each sector are pro-rated to other sectors according to the composition of the corresponding liabilities to clarify the matching relationships of financial assets and liabilities between sectors.[51] Hence, the figures that are not in parentheses ( ) are based on assumptions and different from actual figures. Also, it should be noted that the trend in balance reflects the change in actual market values (share prices in particular) as well as the flow of funds.

Figure 3-3 shows changes in the flow of funds since fiscal 1990. In the household sector, increase in overall financial assets led to the growth of deposits and other financial assets held in private financial institutions, as well as postal savings and public pensions. In contrast, the flow of household money to non-financial private corporations through stocks and debentures has been decreasing, suggesting that investment behavior is becoming more risk-averse. In private financial institutions, the flow of funds to non-financial private corporations has been decreasing, particularly through loans, whereas more money is flowing into the government sector mainly through the buying of government bonds. Housing loans and outward investment in securities have also increased.

The flow of funds to the government sector has also been increasing through postal savings, postal life insurance and public pensions. Meanwhile, the flow of funds to government financial institutions increased until the end of 1996, followed by a decline toward the end of fiscal 2002. This trend indicates a strong demand for money in the government sector itself.

3. Background of Medium-term Scenario
(see p. 48 for Figures)

The medium-term scenario in this report presents possible changes in financial surplus or deficit in each sector and in the flow of funds as a whole, assuming that the Japanese economy starts to grow as planned in the "Reform and Perspectives – FY2002 Revision." It also examines how the investment behavior of financial institutions will change under such circumstances. No targets are presented, however, in the "Reform and Perspectives – FY 2002 Revision" (Cabinet Decision of January 24, 2002). Therefore, the medium-term scenario uses the estimates of real/nominal GDP growth rate,[52] rise in the GDP deflator, the balance of saving and investment by sector (i.e. financial surplus or deficit by sector), outstanding government debts and long-term interest rates, presented in the "Cabinet Office Background Paper" assuming a "one-third state contribution to the basic pension." The Background Paper was submitted to the Council of Economic and Fiscal Policy on January 20, 2002. The trend of GDP by demand item and the details of the savings-investment balance in the private sector (private corporations, households, etc.), which are not explicitly shown in the Background Paper, are estimated by the DBJ in line with the Cabinet Office estimates (Figure 3-4).

In the "Recent Trends in the Japanese Economy: A Medium-term Scenario for the Sustainability of the Japanese Economy," *DBJ Research Report No. 36* (February 2003), the Economic & Industrial Research Department prepared a medium-term scenario to fiscal 2010, based on the Reform and Perspectives. Although it differs from the present medium-term scenario in terms of current growth rate and the timing of overcoming the deflation, the long-term economic growth rate and the determinants of growth by demand item are similar (Figure 3-5). In terms of aim, the analyses and projections of the medium-term scenario last February focused on the real economy, whereas this report focuses on the flow of funds, looking at a similar movement of the real economy from a financial viewpoint.

According to the Cabinet Office Background Paper, the Japanese economy, following an intensive adjustment period to fiscal 2004, will move out of the recession in fiscal 2005 and

[51] Based on the money flow matrix presented in Tsujimura and Mizoshita, *Shikin Junkan Bunseki: Kiso Giho to Seisaku Hyoka (Flow of Fund Analysis: Basic Techniques and Policy Assessment)*, Keio University Press, 2002.

[52] Data for fiscal 2003 are adjusted in accordance with "Fiscal 2003 Economic Trend Estimates (Cabinet Office Estimates)," published by the Cabinet Office on September 26, 2003.

achieve growth of 1.9% by fiscal 2010 (Figure 3-4). The projection by the DBJ Research Department in the present medium-term scenario considers consumption as the most important demand item in propping up the economic growth. Nominal long-term interest rates[53] will stay close to the nominal economic growth rate under appropriate monetary policies and public debt control policies (Figure 3-6).

4. Medium-term Outlook of Financial Surplus/Deficit by Sector (see p. 49 for Figures)

Figure 3-7 looks at the trend of GDP by demand item: the government sector (government consumption + public investment + public inventory investment), the household sector (private consumption + residential investment) and the private business sector (private non-residential investment + inventory investment). In contrast to the economic growth led by private demand in the 1980s, the government's share in economic activities increased in the 1990s. However, the financial deficit of the general government increased, while private nonfinancial corporations have built financial surpluses.

Even after fiscal 2003, the private sector will remain in surplus and the government sector in deficit. In other words, the deficit of the general government will continue to be financed by the surplus in the private sector. Although the private sector will continue to hold surplus money, the financial surplus in households will be reduced, while the corporate sector will maintain a large financial surplus. On the other hand, the general government will remain short of money, although the deficit will be reduced progressively. It is estimated that Japan as a whole will retain financial surplus, which means that the balance of payments will remain positive (Figure 3-8).

The following sections examine the trends in investment and savings behavior as well as in financing and repayment for each of the three major sectors in the domestic economy: private non-financial corporations, household and the general government. Analyses and projections are based primarily on the BOJ's "Flow of Funds" (93 SNA).

5. Private Business Sector to Maintain Financial Surplus (see p. 50 for Figures)

Financial surplus or deficit in the private business sector largely depends on the relationship between cash flow[54] and plant and equipment investment, which account for most of private investment.[55]

Looking first at the trend of private non-residential investment, real private non-residential investment by private corporations[56] will continue to rise gradually toward a stable GDP growth of 1.9% by fiscal 2010 (Figure 3-9). Throughout the projection period, however, pressure for adjustment will continue not only on new investments but also on the existing capital stock to correct the long-term slump in return on capital throughout the 1990s. This will exert a structural downward pressure on plant and equipment investment. Meanwhile, private non-residential investment deflator is expected to rise less rapidly than the GDP deflator. As a result, the ratio of nominal private non-residential investment to GDP will remain in the lower 14% range in fiscal 2010.

Moreover, efforts to improve profitability will continue to affect labor and other costs as well as plant and equipment investment. Consequently, the capital share as a percentage of GDP will rise more than seven points from 25.5% in fiscal 2001 to over 33%, thus resuming the level of the early 1990s. Even assuming that part of the increase will be offset by the growth of R&D investment, plant and equipment investment will stay within cash flow. Thus, private nonfinancial

[53] Interest rates are those projected in the Cabinet Office Background Paper.

[54] For the purpose of this chapter, cash flow refers to "savings" (including the consumption of fixed capital) in SNA.

[55] Other investment components, such as the transfer of land, used assets and home equities, are excluded from the analysis.

[56] Includes investment by financial/insurance businesses, proprietorships and non-profit organizations, as well as by private non-financial corporations. The following discussion assumes that the growth rate of plant and equipment investment by private non-financial corporations equals that of private plant and equipment investment.

corporations as a whole will maintain financial surpluses (Figure 3-10). If investment remains below profits, pressure may increase to distribute the profits to shareholders through increased dividends for example. However, this report assumes no change in the distribution of profits.

The retention of financial surplus will lead either to an increase in financial assets or to a reduction in financial liabilities. Given that financial assets will increase slowly under stable economic growth, financial liabilities are expected to continue to decrease. In particular, borrowings from private banks will continue to decline 6-7% in terms of the ratio of flow to stock (excluding loan write-offs and other factors). The balance of financing through debentures and commercial papers is expected to stay unchanged from the level of fiscal 2002 (Figure 3-11), as the share of financing from the capital markets through debentures and commercial papers in total external financing will increase relatively, particularly in large-sized businesses. Active financing through this channel will further reduce borrowings from private banks. Equity financing is expected to increase each year. However, this does not mean that equity financing will be stimulated; rather, it is assumed that the establishment of new businesses and capital increase will continue at the current pace.[57] Trade credit will serve to reduce liabilities after assets and liabilities are netted out, due to reduction in proprietorships as receivers of trade credit, as well as asset mobilization factors.

Financing through mobilization of assets such as trade credit and money deposited (guarantee charges for tenants) has been expanding rapidly. This type of financing is expected to grow even further as businesses are forced to improve asset efficiency (Figure 3-12). The increase in financing through such asset mobilization will increase the pressure to reduce financial liabilities.

[57] Equity financing amounted to some ¥20 trillion in total from fiscal 1998 to 2002.

6. Household Savings Ratio to Decline, Reducing Share of Cash and Deposits (see p. 51 for Figures)

In the household sector, the relationship between savings and financial assets is often misunderstood. Although savings in terms of flow is sometimes interpreted as a change in financial assets, SNA (System of National Accounts) defines savings in terms of flow as the difference between disposable income[58] and final consumption. The savings-investment differential in SNA, i.e. change in financial assets, represents savings in terms of flow net of real asset transactions including residential investment.[59] Hence, savings measured as flow does not coincide with change in financial assets.

Bearing this in mind, the household savings ratio based on SNA (Figure 3-13) has been contracting since the 1980s with some annual fluctuations. The trend may be explained by the reduction in provident savings due to the development of social security schemes and the calming of inflation, as well as by population aging. The decline in the savings ratio has been particularly significant in recent years, largely due to the reduction in incomes induced by recession. Some special factors also came into play. For example, fixed-amount postal savings accounts opened in the high interest period of 1990-91 reached maturity dates, leading to massive payments of interest income tax.[60] The savings ratio based on SNA has not been published for fiscal 2002, but it seems to have continued its substantial decline as income fell, judging from the financial surplus/deficit in the household sector published in

[58] Disposable income + changes in pension reserves in pension funds, to be exact. For convenience purposes, changes in pension reserves in pension funds are included in disposable income.

[59] By definition, the following expression holds:
disposable income – final consumption = savings = real asset transactions + savings-investment differential (change in financial assets).

[60] Although SNA adopts the accrual method in accounting for transactions, tax payments are recognized on a cash basis. Therefore, earned interest amounts were distributed to each period for statistical purposes, whereas the whole interest amounts were actually paid at maturity. Meanwhile, tax payments were recognized in their entirety at maturity. Some argue that this technical factor suppressed the savings ratio in 2000 and 2001.

the Flow of Funds and the condition of residential investment (Figure 3-14).

Looking ahead, the savings ratio will gradually shrink as the population ages. Based on the so-called lifecycle hypothesis, retired people will spend more than they earn by drawing from savings. Thus, aging suppresses the savings ratio. Indeed, positive analyses on national savings ratios have reported that the savings ratio has a stable negative correlation with aging.[61] In Japan, the share of population aged 65 and over is estimated to rise from 17.4% in 2000 to 22.5% in 2010 (estimate by the National Institute of Population and Social Security Research, January 2002), which largely explains the decline of the household savings ratio. Elsewhere, the number of proprietorships will continue to decline, leading to a decrease in mixed income, which is included in disposable income. This will also exert downward pressure on the savings ratio.[62]

Real private residential investment, which has been slumping due to the difficult income and employment conditions (see Chapter II), is expected to increase gradually (Figure 3-14). Consumer sentiment toward purchasing housing will start to recover, backed by improvements in income and employment conditions in the years ahead. Although residential investment per household will stay almost flat, the number of households will continue to increase, even after the total population starts to contract after peaking in 2006 (estimate of the National Institute of Population and Social Security Research, October 2003).

The downtrend in the savings ratio and the gradual increase in residential investment, which represent typical real asset transactions, will lead to a mild increase in financial assets in the years ahead (Figure 3-15). Since the Flow of Funds evaluates stocks and securities at market values, however, the balance of financial assets will be substantially affected by the fluctuation of those asset prices. In the 12-year period from fiscal 1991 to 2003, the value of assets fell ¥106 trillion due to the fluctuation of asset prices (mainly the decline in share prices). The decrement is equivalent to 7.7% of the balance of financial assets at the end of fiscal 2002 (¥1,369 trillion). Thus, the value of financial assets will largely depend on market prices. The present scenario assumes that share prices will rise with the economic recovery. In light of the expected change in asset prices, the balance of financial assets in the household sector will amount to some ¥1,600 trillion as at the end of fiscal 2010. Even in this case, however, average annual growth of financial assets will be only 1.9%, which is lower than the average annual growth in the 1990s (3.6%), when asset values shrank as share prices fell.

Finally, the composition of household financial assets is shown in Figure 3-16. The share of cash and demand deposits has been rising since the second half of the 1990s, for they were considered highly liquid and stable assets against the backdrop of a series of financial crises and the slumping economy. Looking ahead, however, as the financial turmoil ends and interest rates recover (Figure 3-6) the opportunity cost of holding less profitable financial assets will rise. Therefore, the amount of cash and demand deposits – the so-called "deposits at home" — will decrease.

Meanwhile, the share of stocks and securities has declined as share prices fell throughout the 1990s and money shifted to cash and demand deposits. As a result, the share of stocks and securities in total assets had declined by almost one-third by the end of fiscal 2002 from fiscal 1990, the tail end of the bubble economy. Looking ahead, the share of stocks and securities is expected to increase[63] due to recovery in share prices and interest rates; reductions in the amount of stock investment units; and a series of securities market reforms to encourage the participation of individuals, such as eliminating the securities exchange tax. In Japan, risk-free assets whose principal and interest are guaranteed, such as deposits, occupy a large proportion of household financial assets rather than risky assets including stocks (see international comparison in (Appendix 2)).[64] Recently, however, the volume

[61] See Cabinet Office, "Annual Report on Economy and Finance FY2002" Section 3-2, and Callen, T., and C. Thimann (1997), "Empirical Determinants of Household Saving: Evidence from OECD Countries," IMF Working Paper WP/97/181.

[62] According to 93 SNA, the household sector includes proprietorships, or unincorporated business entities.

[63] The increase includes the impact of changing asset prices, such as the rise in share prices.

[64] It has also been argued that no substantial difference in

of stock trading by individuals has been rising rapidly as stock trading on the Internet has spread.[65] Thus, more individuals are likely to participate in the stock market in the years ahead.

Nonetheless, the increase in the share of stocks and securities will be slow. Even in fiscal 1988 during the bubble when the share of stocks was largest, it was only just under 12% (based on 68 SNA).[66] This is because households shifted their money not only to stocks but also to fixed high interest-bearing products such as securities and large-sum time deposits as rising share prices were followed by rising interest rates. Since the present scenario predicts that the economic recovery will be accompanied by a rise in interest rates, time deposits are expected to maintain a certain share in household financial assets. Hence, the share of stocks will not grow so strongly.

7. Primary Balance to Improve despite Further Increase in Government Debts (see p. 52 for Figures)

Section II-8 above confirmed that government finances have deteriorated since the mid-1990s despite cutbacks on public investment. Also in the projection period, public investment will continue to decrease while social security costs including healthcare will rise, exerting pressure on government finances throughout the period (Figure 3-17).

According to the Cabinet Office Background Paper, the primary balance deficit as a percentage of nominal GDP will improve from 5.4% in fiscal 2003 to 1.3% in fiscal 2010. Thus, the balance will not turn positive in the projection period. Likewise, the financial deficit of the government sector will diminish (Figure 3-18). The difference between the primary balance and the financial deficit represents interest payments and the financial surplus or deficit of social security funds.[67] Consequently, outstanding public debts (= straight central government bonds + local government bonds + borrowings in special account for tax allocations) will continue to increase, from ¥637 trillion at the end of fiscal 2003 to ¥856 trillion at the end of fiscal 2010 (Figure 3-19).

Private financial institutions have primarily absorbed government bonds as an alternative investment to loans and as risk-free assets[68] (Figure 3-20). The holding of government bonds by financial institutions will necessarily continue to grow, subject to appropriate public debt management and financial policies to avoid any rapid rise in market interest rates through the maintenance of stable government credit. The share of the Bank of Japan in government bond holding has exceeded 10%, mainly through purchases of long-term government bonds. The increase in the share of postal savings includes the shift of money deposited with the ex-Trust Fund Bureau to fiscal loan bonds.

8. Current and Future Behavior of Private Financial Institutions (see p. 53 for Figures)

Based on the projection of financing and repayments in the three sectors examined above, this section projects changes in the fund management behavior of private financial institutions.[69] Future financial assets of private financial institutions are estimated, mainly using the growth rate of liabilities in the three sectors examined above.

Looking at actual figures regarding the investment of financial institutions, credited loans decreased throughout the 1990s mainly due to falling demand for funds in the corporate sector

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the composition of household assets exists between Japan and the U.S., if real assets, such as land and housing, are included in the analysis as risky assets. See Economic Planning Agency, "Annual Report on Japanese Economy, FY1999," for example.

[65] The volume of stock trading by individuals has risen rapidly so far in fiscal 2003. In the first section of the Tokyo Stock Exchange, the volume of stock trading by individuals in the first half of fiscal 2003 increased 130% on the previous year (Tokyo Stock Exchange, "Investment Trends by Investor Category").

[66] At the end of fiscal 1988, the Nikkei average share price was ¥32,839, the highest year-end value.

[67] In Figure 3-18, social securities are not included in the primary balance but are included in the financial deficit or surplus.

[68] Zero risk weighting for the purpose of BIS regulations.

[69] For the purpose of this section, private financial institutions refer to the total of domestic banks, Japanese branches of foreign banks, financial institutions for agriculture, forestry and fisheries, and those for SMEs, or "Banks, etc." in the Flow of Funds.

and write-offs induced by the economic slump. Since the second half of the 1990s, financial institutions have diversified their portfolios by expanding investments in government bonds, derivatives and foreign securities.

Looking at the composition of loans, whose importance as a whole has been declining, corporate[70] loans have been shrinking while individual loans are increasing, led by housing loans. Lending to the public sector is also increasing, but its share in the total is still small.

Looking ahead, corporate credits including loans will continue to decrease due to reduced flows, although write-offs will come to a halt. In contrast, credits to the fund-starved public sector (including the purchase of government bonds) will continue to increase, as well as individual loans including housing loans and consumer credits (Figures 3-21 and 3-22). The value of stockholding is expected to change little, as the rise in share prices will be offset by the matching disposal of shares to unravel cross shareholdings.

As outstanding loans decrease, private financial institutions are changing their profit structures to avoid relying too heavily on the increasing volume of outstanding loans. Means of such structural reform include the diversification of portfolios as well as regaining the profit margin, which has been shrinking due to financial liberalization measures introduced in the 1990s (Figure 2-23), while focusing on services that will bring stable commission incomes, such as the organization of project finance and syndicated loans, and commitment lines (Figure 3-24). New business models are also being developed, including the establishment of a new type of bank specialized in settlement operations.

[70] Includes proprietorships. Public corporations are included in the public sector.

(Appendix 1)
Trends in Public Finance
(see p. 54 for Figures)

The outstanding loans of government financial institutions (two banks and six financial corporations, including the international finance account only as regards the Japan Bank for International Cooperation) have been declining since the peak at the end of fiscal 2000 (Figure 3-25). The decline is particularly sharp for the Housing Loan Corporation, which accounts for 50% of outstanding loans.

Looking at public finance in a broad sense,[71] including loans provided by postal savings, postal life insurance and fiscal loan program funds, as well as government financial institutions, the amount of outstanding loans is about 2.5 times as large as the outstanding loans of government financial institutions as at the end of fiscal 2002. The government is the largest borrower with 40% of the total, followed by households (housing loans). Loans to the government have been increasing steadily, while lending to households (housing loans) and private firms has been declining recently (Figure 3-26). Figure 3-3 shows that the expansion of public sector financing through government financial institutions has been limited in scope as compared with financing through government bond issues.

The share of loans provided by public finance in financial liabilities (excluding shares and other equities) has declined in the public sector due to increased financing through government bond issues, as well as in households due to reduced housing loans. The share of public financial institution loans in the liabilities of private non-financial corporations is relatively small, and has leveled off in recent years (Figure 3-27).

(Appendix 2)
International Comparison

This section presents a comparison among Japan, the U.S., Germany and the U.K. on (1) financial surplus or deficit in each sector, (2) nonfinancial business financing and (3) household money management.[72]

International Comparison 1:
Financial Surplus/Deficit by Sector
(see p. 55 for Figures)

In Japan, as mentioned in Sections 2 and 4 above, the household sector consistently has a financial surplus, but its amount shrank throughout the 1990s as the savings ratio fell (Figure 3-28). In contrast, the nonfinancial business sector posted a positive financial balance in fiscal 1998 and the surplus has continued to grow. Japan is the only country among the four, whose nonfinancial business sector recorded a financial surplus in two or more of the recent several years. The government sector has had a consistent financial deficit, which has been financed by the nonfinancial business and household sectors. Japan continues to enjoy a financial surplus as a whole.

In the U.S., the household sector has tended to record financial deficits since 1999. The government had a financial surplus from 1998 to 2000, as the booming economy in the second half of the 1990s boosted tax revenues. However, the government sector has been in financial deficit since 2001 as tax revenues declined due to the economic slowdown and tax reduction measures. Including the nonfinancial business sector, the U.S. as a whole remains in deficit and so the country is increasingly dependent on money flows from overseas.

In Germany, the household sector continued to enjoy an increasing financial surplus throughout the 1990s. The financial balance of the nonfinancial business sector turned positive in 2002. The government sector tends to maintain a financial deficit although it enjoyed a temporary surplus. The inflow of money from overseas throughout the 1990s, mainly through the purchase of government bonds by non-residents, was reversed in 2001. Movements in the government and nonfinancial business sectors in 1995 are due to an extraordinary factor resulting from the integration into the government's general accounts of the debts of the Treuhandanstalt. Movements in the corporate, government and overseas sector in 2000 were partly due to the

[71] "Lending by public loans" in the Flow of Funds minus loans for postal savings and loans by government financial institutions.

[72] The definition of each sector and financial transaction item is based on Bank of Japan (2000) "Statistics of International Comparison Centered on the Japanese Economy."

sales of licenses for the domestic mobile phone business to German and foreign corporate groups.

In the U.K., the financial surplus traditionally maintained by the household sector has been reversed since 2001. The financial deficit in the government sector started to shrink in 1995 and finally reversed in 1999 as tax revenues increased thanks to the strong economic performance and the tax reforms implemented in 1994 and 1995. The financial deficit in the nonfinancial business sector increased in the late 1990s but has stayed almost flat since then.

International Comparison 2:
Nonfinancial Business Financing
(see p. 56 for Figures)

The large share of borrowings characterizes nonfinancial business financing in Japan. In fiscal 2002, stocks and investments accounted for around 30% of total nonfinancial business financing, while borrowings were 40% (Figure 3-29). Japanese firms have been reducing liabilities, particularly borrowings. Thus, Japan is the only country among the four to have experienced a decline in the total of liabilities and capital from fiscal 1998 to 2002 (Figure 3-30).

In the U.S., the share of stocks and investments fell in 2002 after exceeding 60% in 1997. Nonfinancial business financing in the U.S. is characterized by emphasis on stocks and investments and rather than borrowings, in stark contrast to Japan. The fluctuation in the composition of nonfinancial business financing is largely explained by changing share prices rather than by a shift in the means of financing.

In Germany, the share of stocks and investments surpassed that of borrowings in 1997, but the movement was reversed in 2002. As in the case of Japan, borrowings account for a large share – over 40% – in total nonfinancial business financing. The reduction in the share of stocks and investments in 2002 from 1997 is partly explained by the change in the variance of estimating stocks resulting from the fluctuation of share prices. In fact, the flow of stocks actually increased from 1998 to 2002.

As in the U.S., U.K. firms depend mainly on direct financing through stocks, investments and other securities. The share of non-stock securities, including commercial paper and industrial debentures, had increased to about 10% by 2002.

International Comparison 3:
Household Money Management
(see p. 57 for Figures)

As of fiscal 2002, cash and deposits dwarf stocks and investments among the assets of Japanese households. Thus, household money management in Japan is characterized by a high proportion of risk-free assets as compared with the other three countries (Figure 3-31). Trends in the composition of household assets indicate that the share of cash and deposits is increasing, reflecting an even stronger preference for risk-free assets following the financial crisis in the 1990s induced by the failures of banks and securities firms (Figure 3-32).

In contrast, U.S households typically prefer risky assets. Indeed, cash and deposits represented only about 10% of total U.S. household assets as of 2002, while non-stock securities, stocks and investments combined accounted for over 50%. The change in the share of stocks and investments is mainly caused by the variance of estimating stocks resulting from the fluctuation of share prices. In terms of flow, the amount of household investment in stocks declined in both 1993-97 and 1998-2002.

As in Japan, cash and deposits have traditionally dominated the assets of German households, but the share has been decreasing in recent years. Meanwhile, the share of insurance and annuity reserves had increased to around 30% by 2002. Also, the share of investment trusts, included in non-stock securities, reached almost 10% in 2002. Efforts to promote the securities markets by the German government have fueled household money management through investment trusts.

Household money management in the U.K. is characterized by a large share of insurance and annuity reserves as compared with the other three countries. The Tory government led by Margaret Thatcher started to reduce public pension benefits to encourage people to buy funded private pension plans. Since then, the role of public pensions has declined, stimulating asset management through private pension plans.

(Appendix 3)
Views on Medium-term Prospects for the Japanese Financial System
(see pp. 58-59 for Figures)

Different views have been expressed on the future direction of the Japanese financial system, and may be classified into two categories:

I. Arguments for transition to a market-oriented financial system through the "Japan's financial Big Bang."

II. Arguments that leave some room for the traditional role of banks in light of the unique financial structure in Japan, while recognizing that a market-oriented financial system will become increasingly important.

Various factors will facilitate the transition of the Japanese financial system to a market-oriented one. According to Baba and Hisada (2001),[73] those factors include changes in the financial environment such as (1) innovations in information technology,[74] (2) globalization, (3) financial deregulation and (4) changing demand of businesses and households for financial services. This section describes these two types of view in recent years concerning the future of the Japanese financial system.

I. Arguments stressing transition to a market-oriented financial system

(1) Hoshi and Kashyap (1999)[75]

The progressive liberalization of the Japanese financial system has reduced the dependence of large businesses on banks for financing. However, deposits still remain the most popular fund management method for Japanese households. Full liberalization of the Japanese financial sector will promote the development of the capital markets, leading to a transition to a U.S.-style savings and financing structure. Hence, the dominance of the banking sector will be undermined. The transition to the U.S.-style structure will result in a 30-50% reduction in bank loans. The process will be completed in 10 years depending on (1) the review of corporate liabilities, (2) the diversification of portfolio management for households and (3) progress in restructuring of the banking sector.

II. Arguments valuing the traditional role of banks despite the increased importance of a market-oriented financial system

(1) Roundtable Committee on the Vision of the Japanese Financial System and Future Policies (2002)[76]

The Japanese financial system needs to be transformed into a "financial system in which both industrial financing and market financing are utilized with the market function set as its core."

In the new system, intermediaries are expected to assume the following roles:

(i) In wholesale (large and medium-sized businesses), as investment banks that respond to the demand of individual companies using sophisticated financial techniques.

(ii) In retail (SMEs and individuals), reviewing a huge number of financing applications at low cost using the scoring system, while maintaining traditional lending activities through individual reviews.

Businesses are expected to become less dependent on external financing and limit their plant and equipment investment within internal reserves.

Individuals may participate in portfolio management involving the selection of financial institutions, large sums of money movement and search for higher returns, if financial services are diversified and their financial knowledge improves.[77]

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[73] "Japan's Financial System: Its Perspective and the Authorities' Roles in Redesigning and Administering the System," IMES Discussion Paper No. 2002-E-1.

[74] Innovation in information technology (1) allows the development of new financial instruments such as MBS (mortgage-backed securities) and ABS (asset-backed securities), (2) expands e-commerce and improves the efficiency of market transactions and (3) enables the use of new lending techniques such as credit scoring, which quantifies corporate creditworthiness based on financial statements to make judgments (see Institute for Monetary and Economic Studies, Bank of Japan (2001) for details). Some U.S. firms, such as Dun & Bradstreet, provide corporate information including indicators that quantify corporate risks using statistical techniques.

[75] "The Japanese Banking Crisis: Where Did it Come From and How Will it End?", NBER Macroeconomics Annual.

[76] "The Vision for the Future of the Financial System and Policy – Foundation for Japan with prosperity and diversity."

[77] Allen and Santomero (1997) note that with the development of various financial instruments due to innovations in

(2) Allen and Gale (2000)[78]

A shift toward market-oriented financial systems is underway, such as the formation of a European single market with the launch of the EU and the financial Big Bang in Japan. A trade-off exists between a market-oriented system and a banking-oriented system, and no single conclusion can be drawn as to which system is preferable.

(3) Ishida and Mio (2000)[79]

In recent years, attention has focused on non-traditional means of settlement including EDI settlements between businesses and e-money. However, such new methods have inherent problems, i.e. the asymmetric information for EDI settlements and security issues for e-money. Therefore, banks will continue to play a prominent role as providers of the most important means of settlement, namely deposit currency.

information technology, households and businesses have to pay a higher cost to understand financial products (participation cost). See Federal Reserve Bulletin (July 2003) for the efforts of the U.S. Federal Reserve System (FRS) to improve the financial knowledge of households.

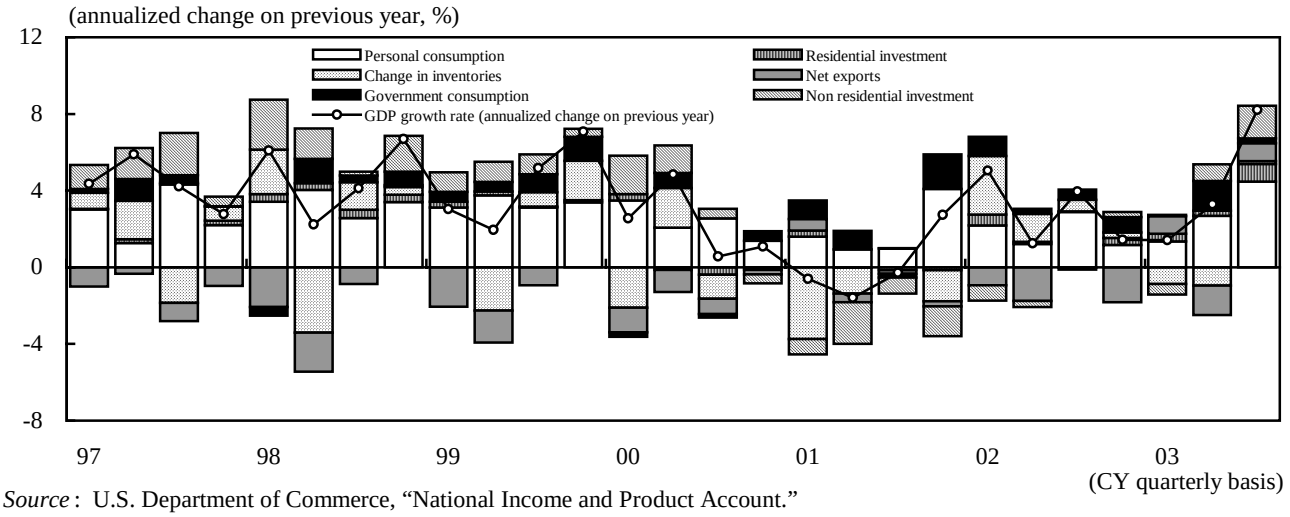
[78] "Comparing Financial Systems," MIT Press.

[79] "Vision of the Japanese Banking Sector in the Future – An Examination of its Macroeconomic Size Approached from Demand for Deposit Currency," *Monetary and Economic Studies*, Vol. 19, No. 2, Institute for Monetary and Economic Studies, Bank of Japan.

I. World Economy Picking Up, Led by U.S. and Asia

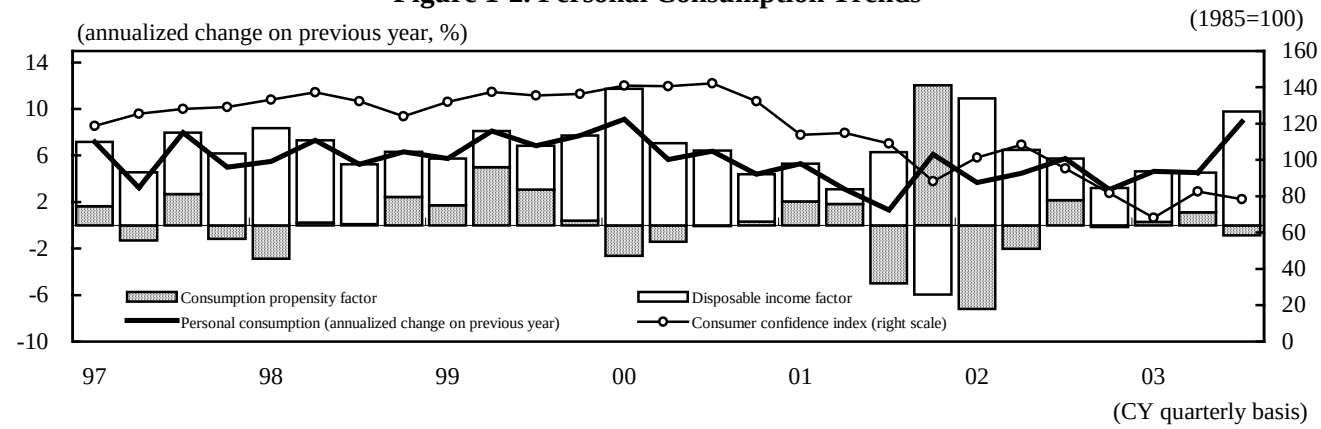
U.S. (1): Personal Consumption Boosted by Tax Reduction, Plant and Equipment Investment Recovering

Figure 1-1. Trends in Real GDP



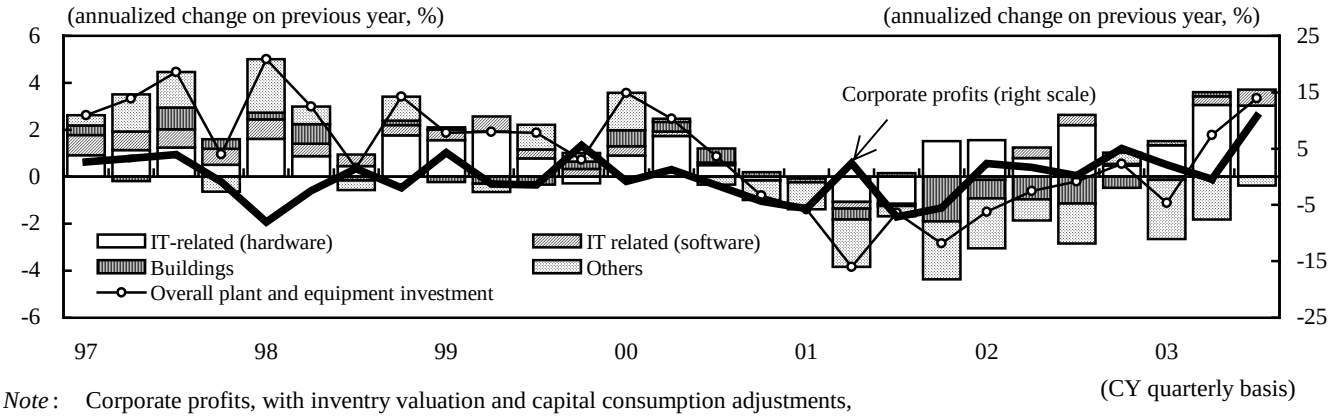
Source: U.S. Department of Commerce, "National Income and Product Account."

Figure 1-2. Personal Consumption Trends



Sources: U.S. Department of Commerce, "Personal Income and Outlays;" The Conference Board data.

Figure 1-3. Trends in Real Plant and Equipment Investment and Corporate Profits

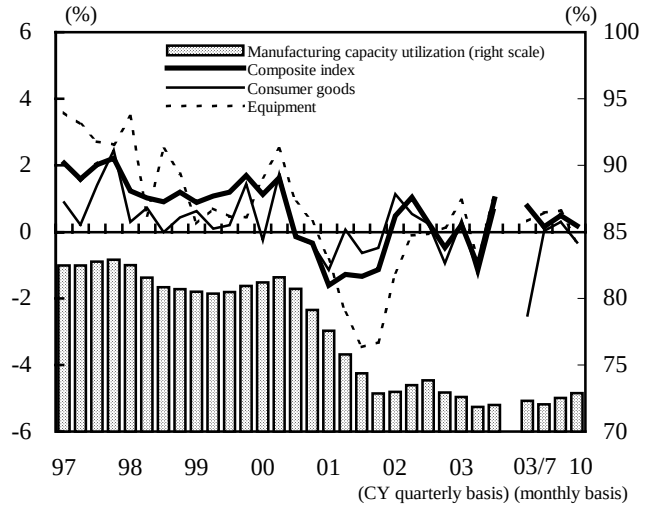


Note: Corporate profits, with inventry valuation and capital consumption adjustments, represent nominal seasonally adjusted annualized change from the previous quarter.

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

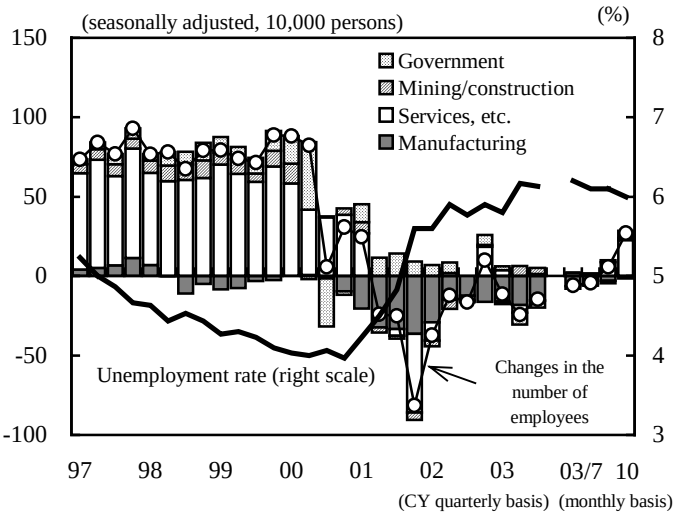
U.S. (2): Production Showing Signs of Improvement, Delayed Recovery in Employment

Figure 1-4. Industrial Production Growth (seasonally adjusted)



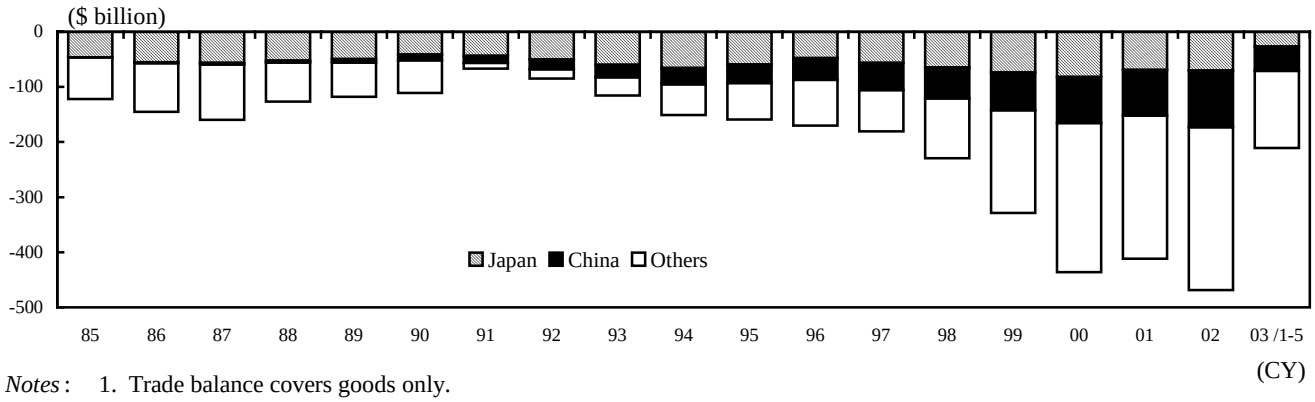
Source: FRB, "Industrial Production and Capacity Utilization."

Figure 1-5. Quarterly Changes in Number of Employees and Unemployment Rate



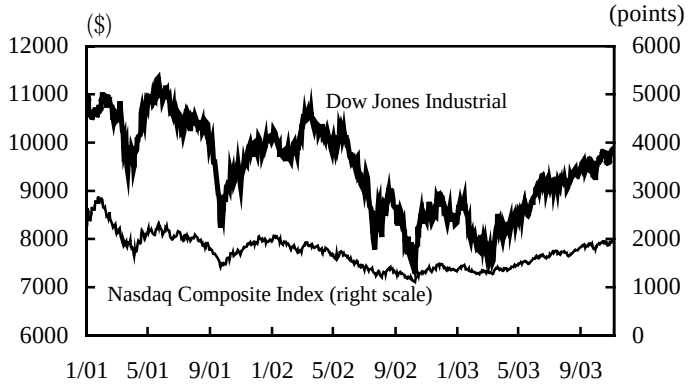
Note: The number of employees represents monthly average for the non-agricultural sector.
Source: U.S. Department of Labor, "Employment Situation."

Figure 1-6. U.S. Trade Balance (by trading partner)



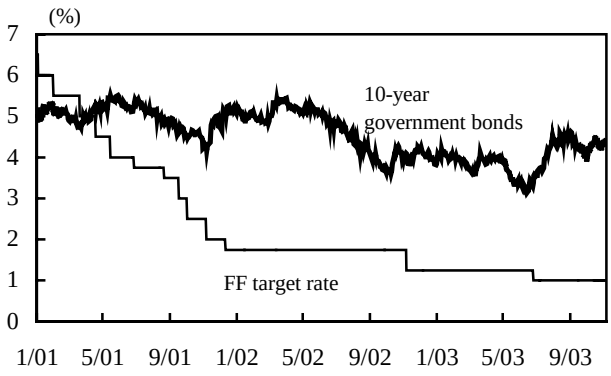
Notes: 1. Trade balance covers goods only.
2. January-May total for 2003.
Source: U.S. Census Bureau, "Foreign Trade Statistics."

Figure 1-7. Stock Market Indexes



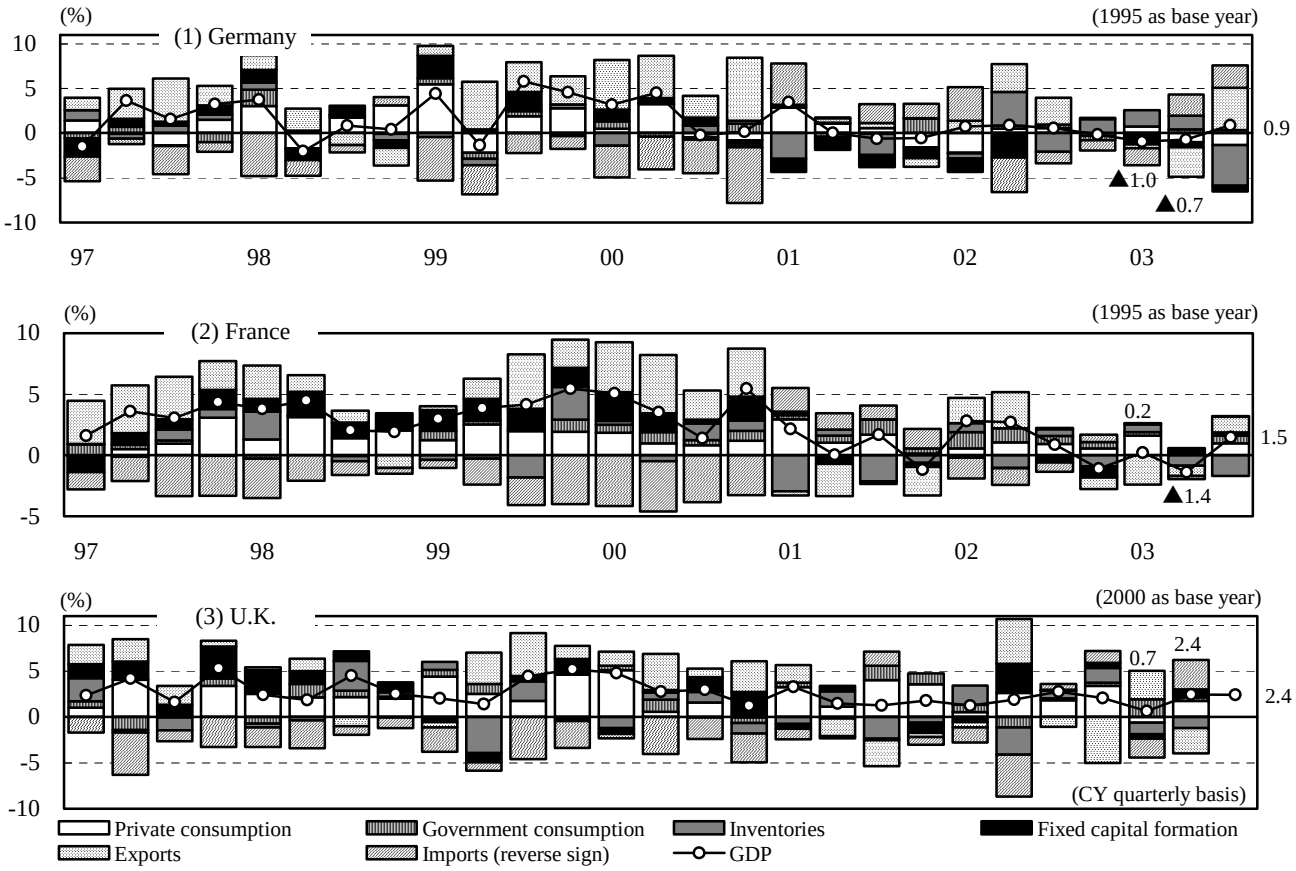
Sources: Dow Jones, National Association of Securities Dealers and DRI database.

Figure 1-8. Long- and Short-term Interest Rates



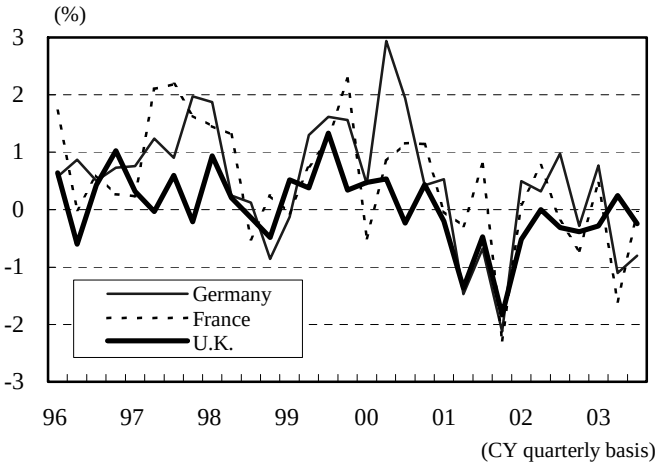
Sources: FRB data; Wall Street Journal.

Figure 1-9. Real GDP of Major European Countries
(annualized change from previous quarter by component)



Sources: Statistisches Budesamt (StBA), Direction Générale de l'Institut National de la Statistique et des Etudes Economiques (INSEE) and U.K. Central Statistical Office data.

Figure 1-10. Industrial Production Index in Major European Countries
(annualized change from previous quarter)



Notes: 1. Based on seasonally adjusted values.
2. Based on the ILO standard values for international comparisons of unemployment.

Sources: StBA, INSEE, U.K. Central Statistical Office, Eurostat and European Central Bank data.

Figure 1-11. Trend of Unemployment Rate

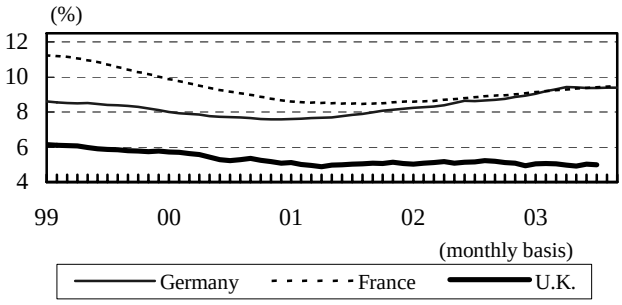


Figure 1-12. Financial Policy

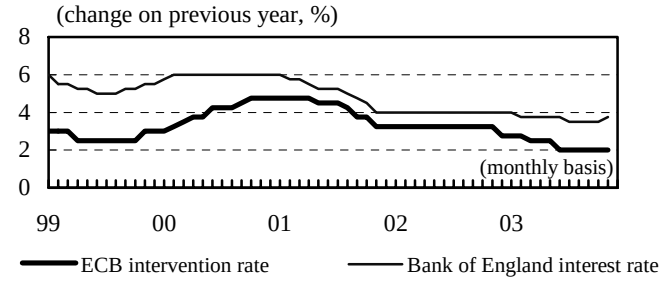


Figure 1-13. Real GDP Growth Rate

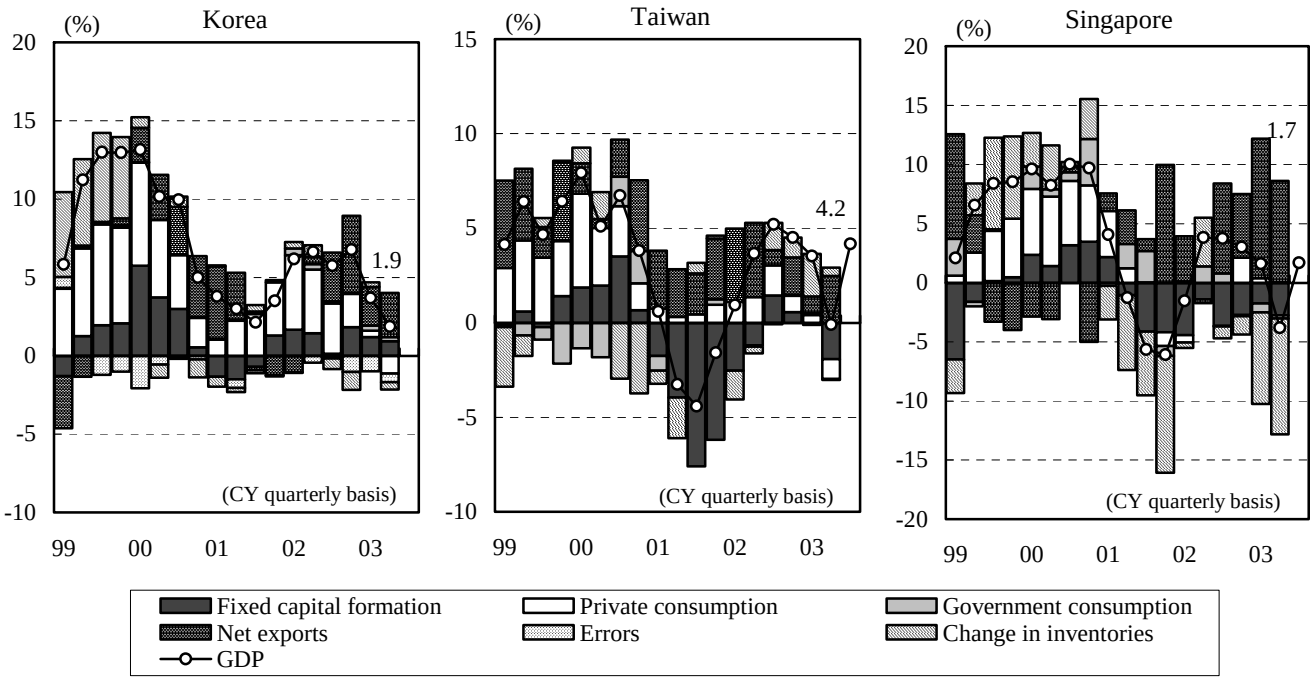


Figure 1-14. Manufacturing Sector Production Index

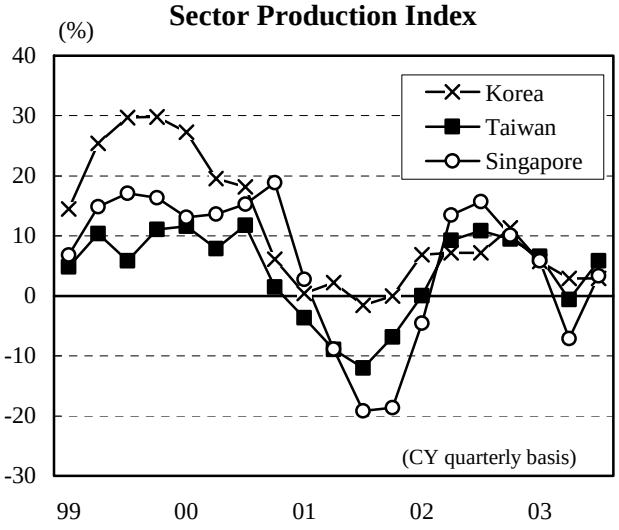
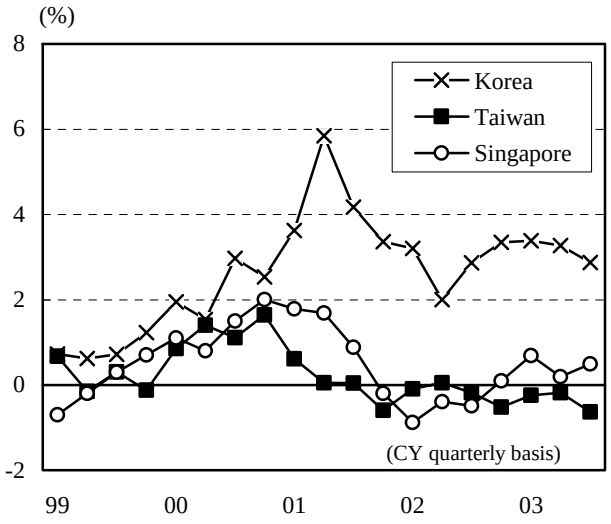


Figure 1-15. Price Inflation



Note: Growth rates represent year-on-year.
Sources: National statistics

Figure 1-16. Real GDP Growth

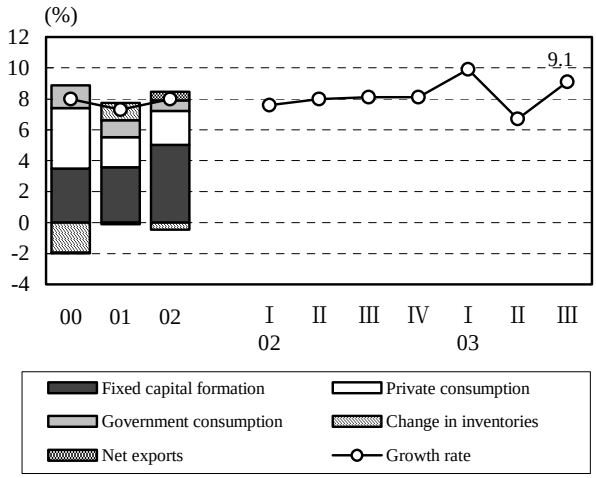


Figure 1-17. Composition of Investment Completed

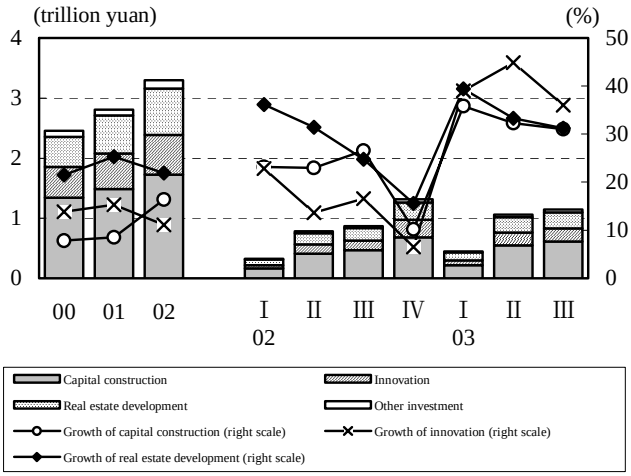


Figure 1-18. Retail Sales of Consumer Goods

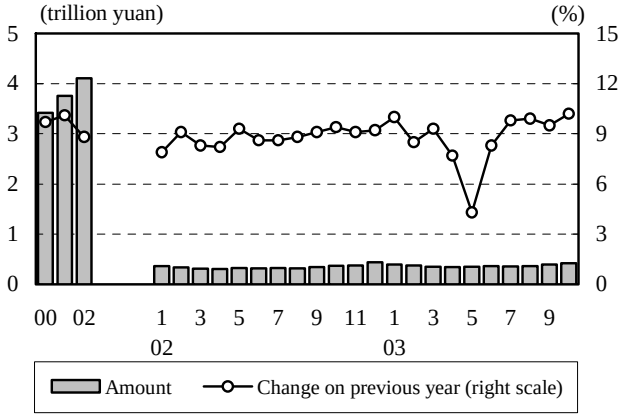


Figure 1-19. Exports and Imports

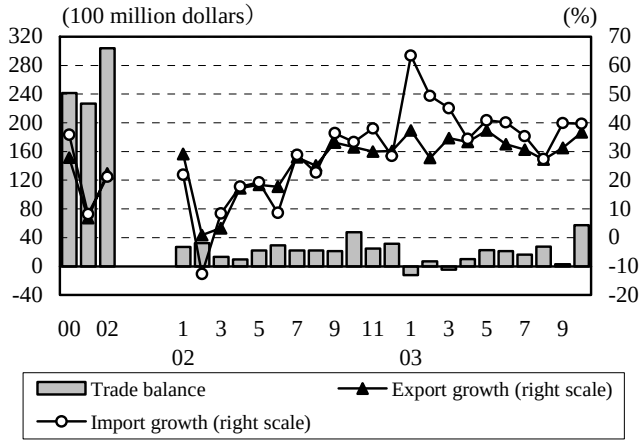


Figure 1-20. Financial Indicators

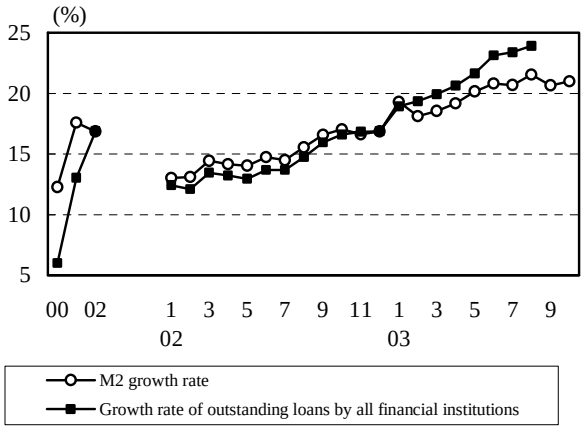
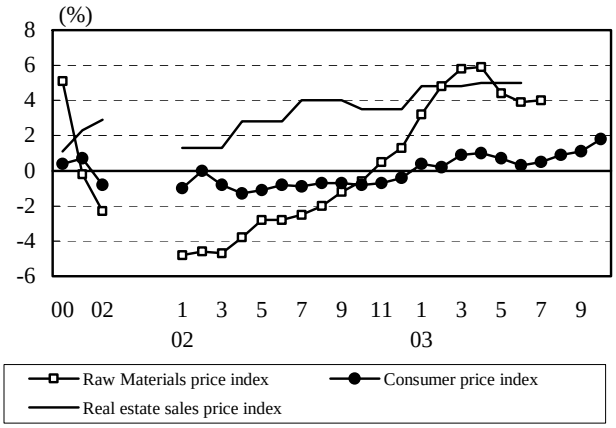


Figure. 1-21. Price Indexes



Notes: 1. The growth rate represents change on the previous year.
2. Real estate sales price index in Figure 1-21 represents quarterly data.

Sources: IMF, "International Financial Statistics", China Statistical Yearbook, China Monthly Economic Indicators and People's Bank of China data.

II. Japanese Economy: From Standstill to Slight Recovery

Sustainability of Domestic and Overseas "Digital Boom" Holds the Key to Further Recovery

Figure 2-1. Trends in Real GDP (annualized rate of change from the previous quarter by component, seasonally adjusted)

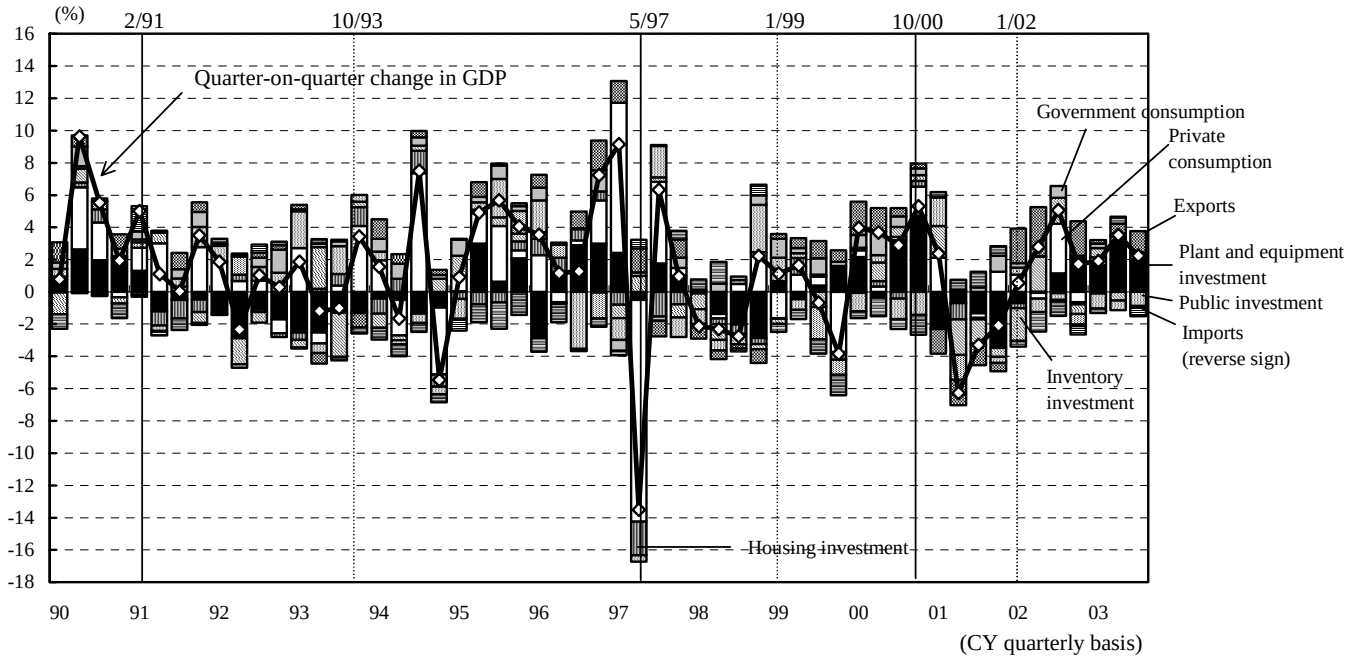
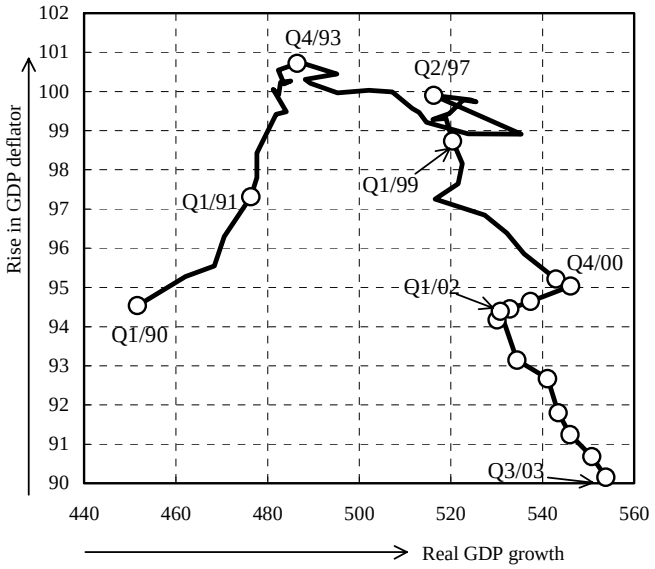


Figure 2-2. Macroscopic Change in Output and Prices (horizontal axis: real GDP (¥trillion), vertical axis: GDP deflator)



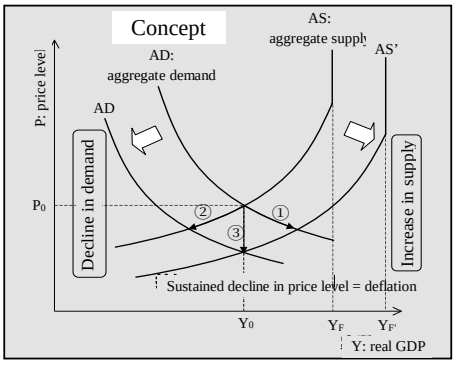
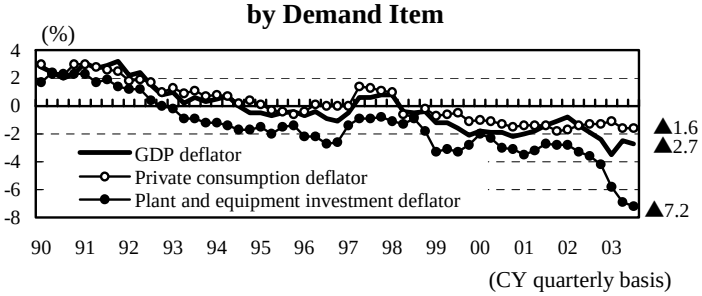


Figure 2-3. Year-on-Year Change in Deflator by Demand Item

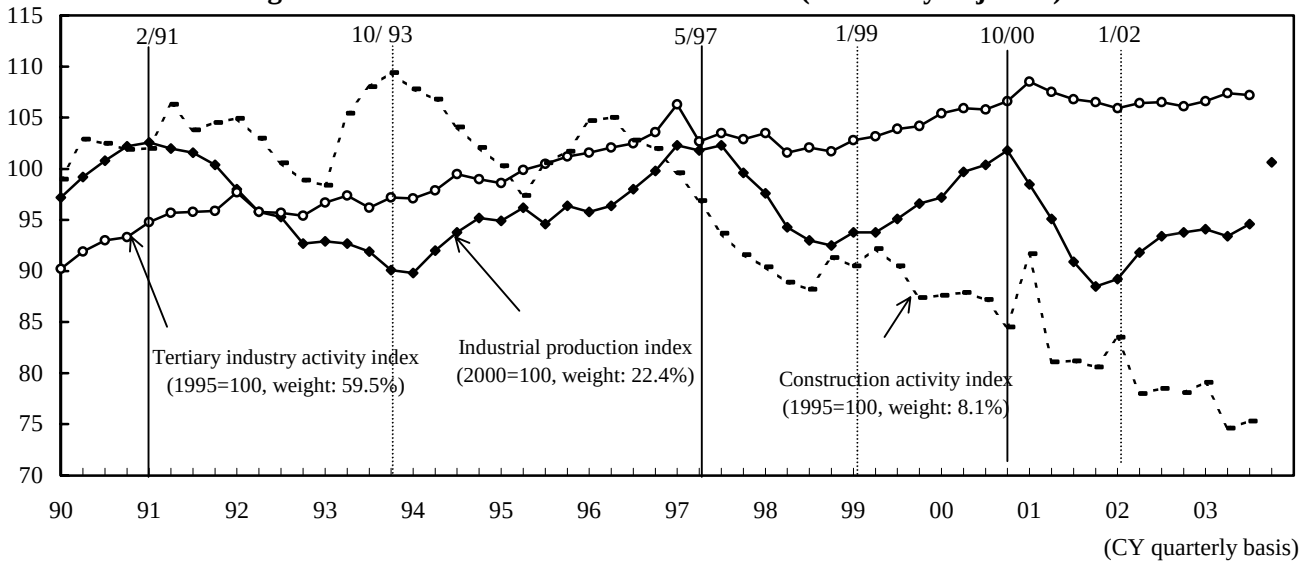


Notes: 1. 1995 as base year.
2. Contribution to annualized GDP growth in Figure 2-1 is prorated to each item based on its share in contribution before annualization. Government consumption includes the contribution of public inventories.
3. Real GDP and GDP deflator in Figure 2-2 are seasonally adjusted. (The seasonally adjusted values of the deflator are calculated back from the seasonally adjusted series of nominal and real GDP.)

Source: Cabinet Office, "National Accounts."

Production Recovering after Temporary Standstill

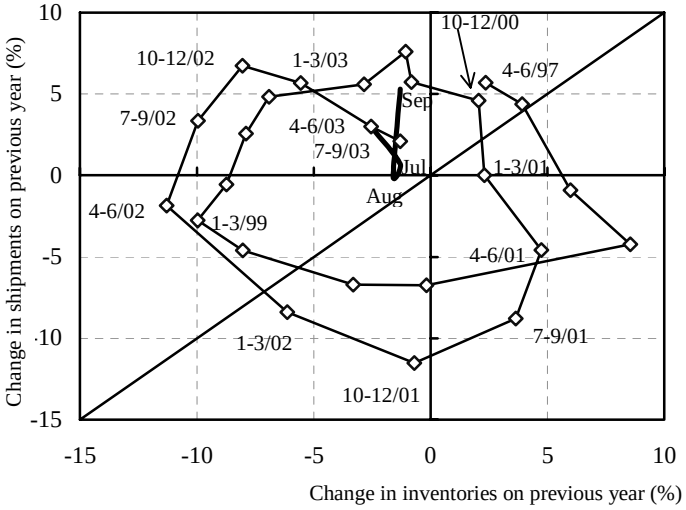
Figure 2-4. Trends in Production Indicators (seasonally adjusted)



Notes: 1. Weights represent shares in all-industry activity index (GDP from the supply side) and add up to 100 in sum with the agriculture, forestry and fishery production index (weight: 1.8%) and public service activity index (8.2%).
2 The industrial production figures for October-December 2003 represent the average of estimates for October and November based on the Survey of Manufacturing Production Forecast.

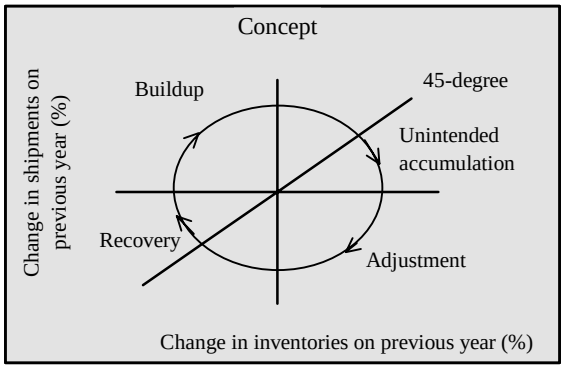
Source: Ministry of Economy, Trade and Industry.

Figure 2-5. Inventory Cycle (total of mining and manufacturing sector)



Note: The heavy line stretching from Apr.-Jun. 2003 represents monthly development from July through September.

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



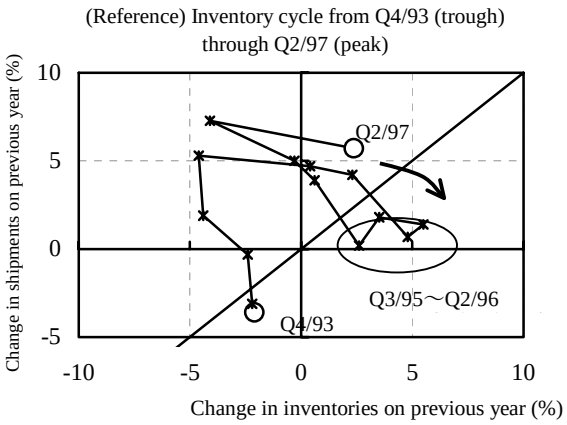
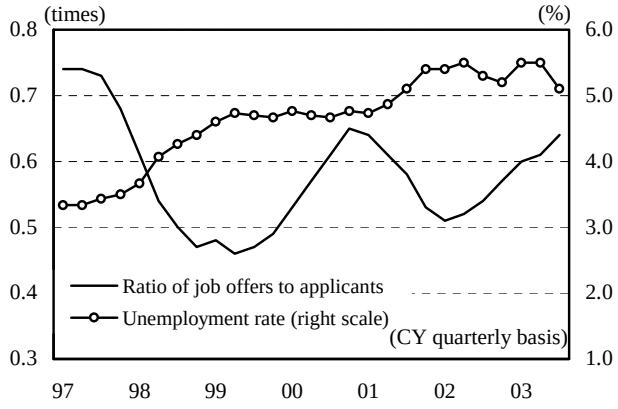
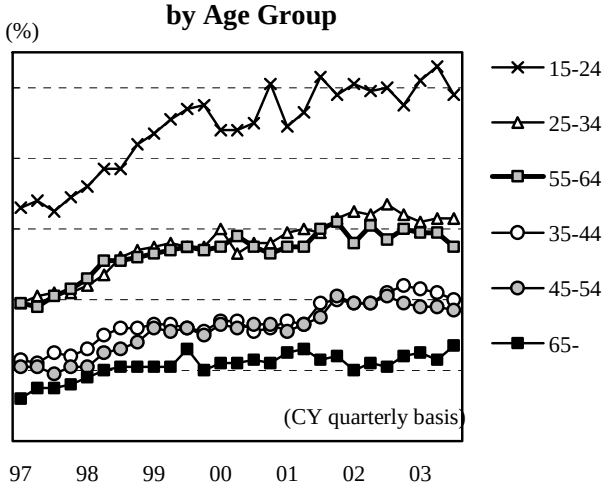


Figure 2-6. Trends in Ratio of Job Offers to Applicants and Unemployment Rate



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

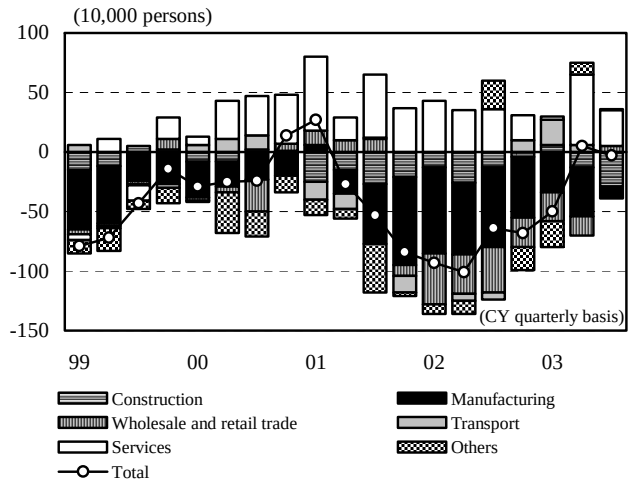
Figure 2-7. Unemployment Rate by Age Group



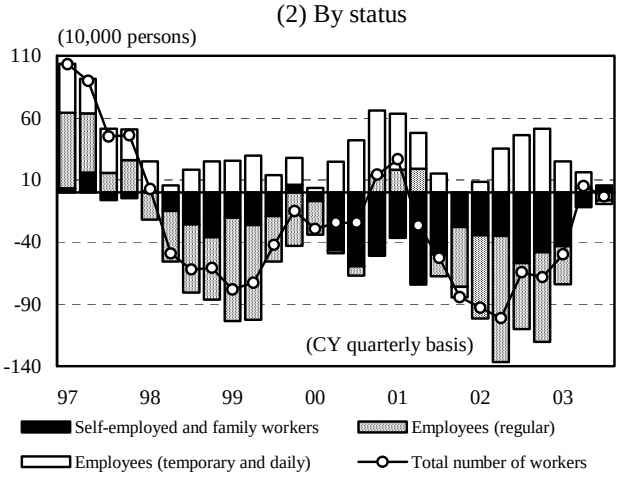
Note: Seasonally adjusted.
Source: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Labour Force Survey."

Figure 2-8. Trend of Year-on-Year Change in Number of Workers and Employees by Component

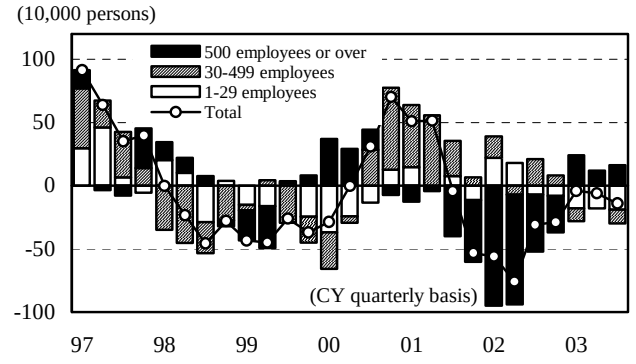
(1) By industry (new industrial classification)



(2) By status

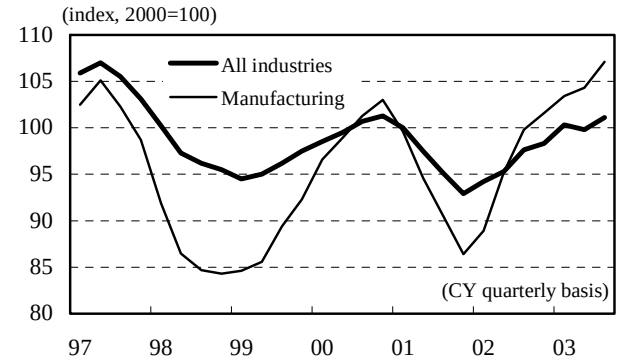


(3) By size of corporation (excluding agriculture, forestry, fisheries and government)



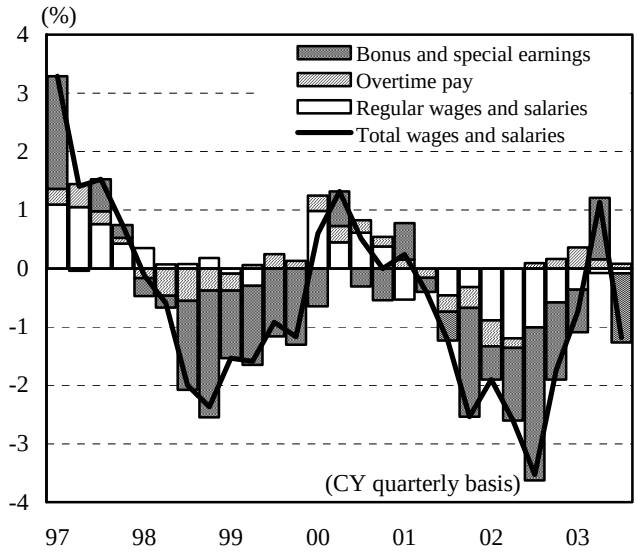
Note: Industries are classified according to the new industrial classification (revised in March 2002). The Figure covers the period since 1999, as data based on the new nomenclature are only available for 1998 and onward.
Source: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Labour Force Survey."

Figure 2-9. Overtime Hours (seasonally adjusted)



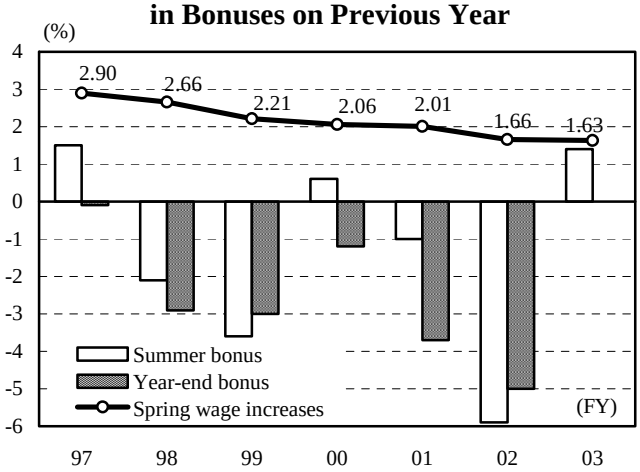
Source: Ministry of Health, Labour and Welfare, "Monthly Labour Survey."

Figure 2-10. Year-on-Year Change in Wages and Salaries per Person



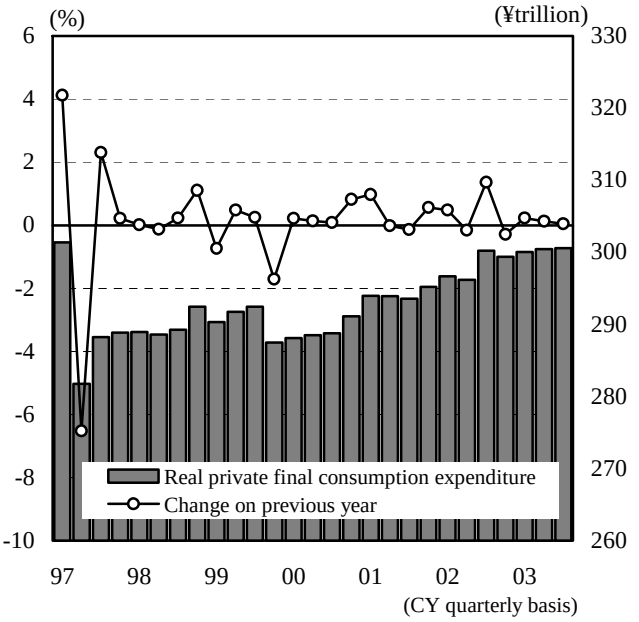
Note: Business establishments with five or more employees.
Source: Ministry of Health, Labour and Welfare, "Monthly Labour Force Survey."

Figure 2-11. Spring Wage Increases and Change in Bonuses on Previous Year



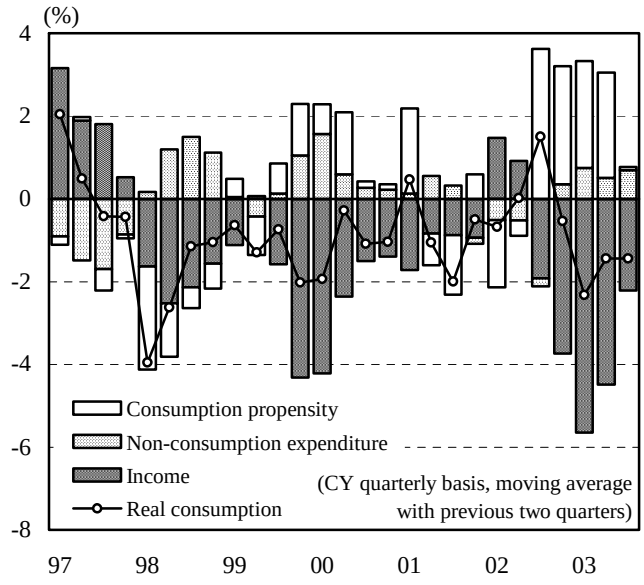
Notes: 1. Summer bonus and year-end bonus include wages and salaries paid as such in June-August and November-January respectively in business establishments with five or more employees.
2. Spring wage increases cover listed companies with trade unions employing 1,000 or more workers and capitalized at ¥2 billion or over.
Sources: Ministry of Health, Labour and Welfare, "Monthly Labour Statistics" and "Spring Wage Increase Requests and Settlement Conditions for Major Private Corporations."

Figure 2-12. Consumption on GDP Basis



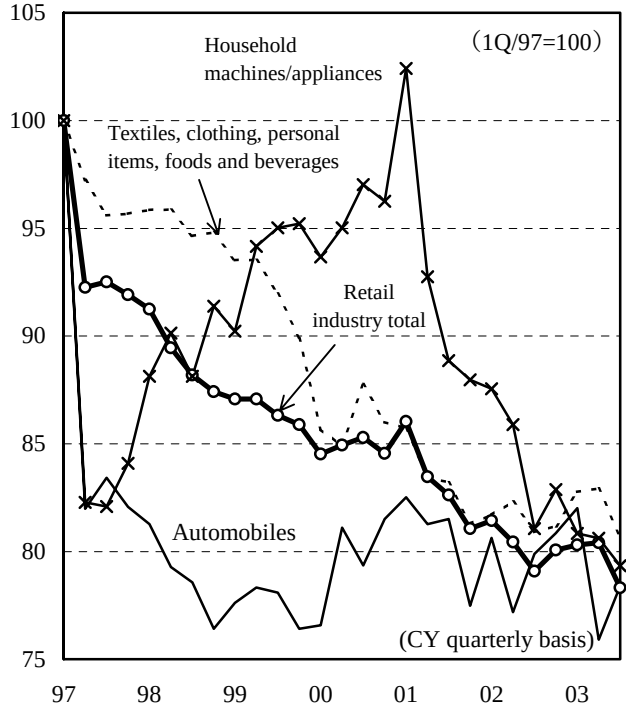
Notes: 1. Seasonally adjusted annual rate.
2. Data since January-March 2000 are calculated with the new quick estimate method. Growth rates for the periods prior to the change in calculation method are on a confirmed information basis. The levels of consumption are calculated retrogressively from the growth rates.
Source: Cabinet Office, "National Accounts," second QE for July-September 2003.

Figure 2-13. Real Consumption (year-on-year change by component)



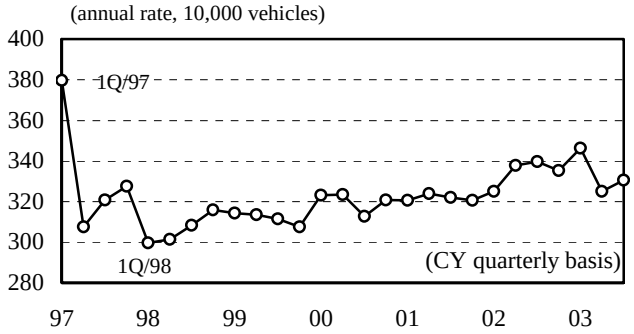
Notes: 1. Conversion into real figures uses composite consumer price index excluding imputed rent.
2. Attribution to each component is based on the following formula (all in real terms):
ΔC (factor) $=\alpha \cdot \Delta Y$ (income) $-\alpha \cdot \Delta T$ (non-consumption expenditure) $+\Delta\alpha \cdot (Y-T)$ (consumption propensity)
C: consumption expenditure, Y: income, T: non-consumption expenditure, α: consumption propensity
Sources: Ministry of Public Management, Home Affairs, Posts and Telecommunications, "Family Income and Expenditure Survey" (worker's households), and "Consumer Price Index."

Figure 2-14. Retail Sales Index (seasonally adjusted)



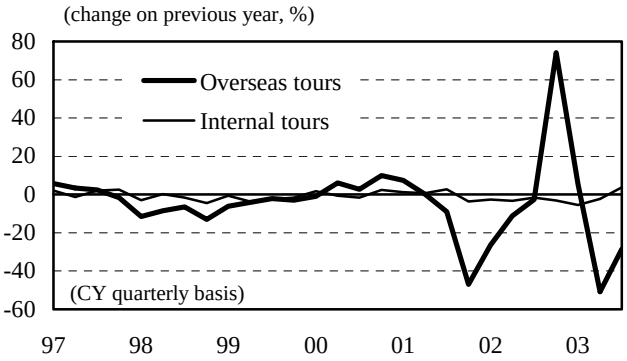
Note: Retail sales index except for total represents the average of published seasonally adjusted figures weighted by the sales of each industry.
Source: Ministry of Economy, Trade and Industry, "Report of the Current Survey of Commerce."

Figure 2-15. New Car Registrations (seasonally adjusted)



Note: Passenger cars including mini automobiles.
Source: Japan Automobile Dealers Association data.

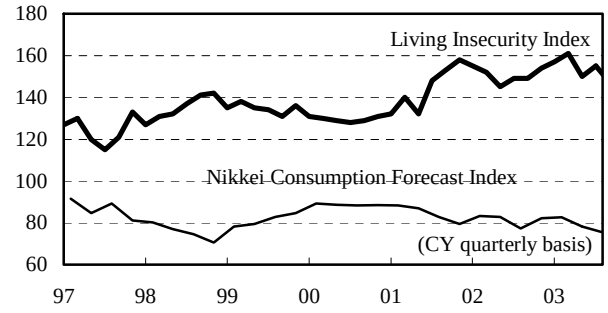
Figure 2-16. Tourism Sales



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

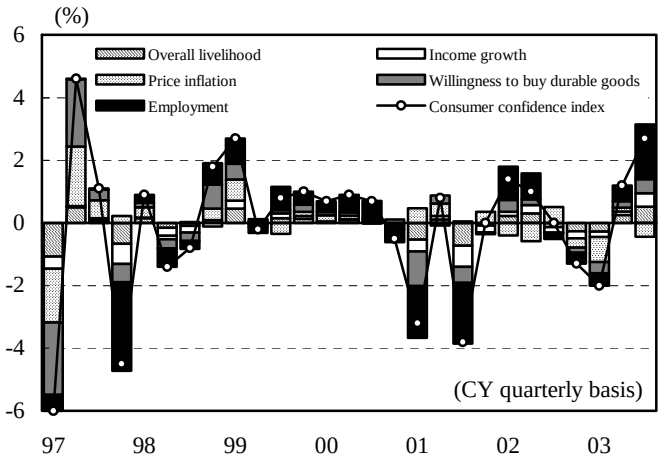
Figure 2-17. Consumer Confidence Indicators

(1) Recent trend



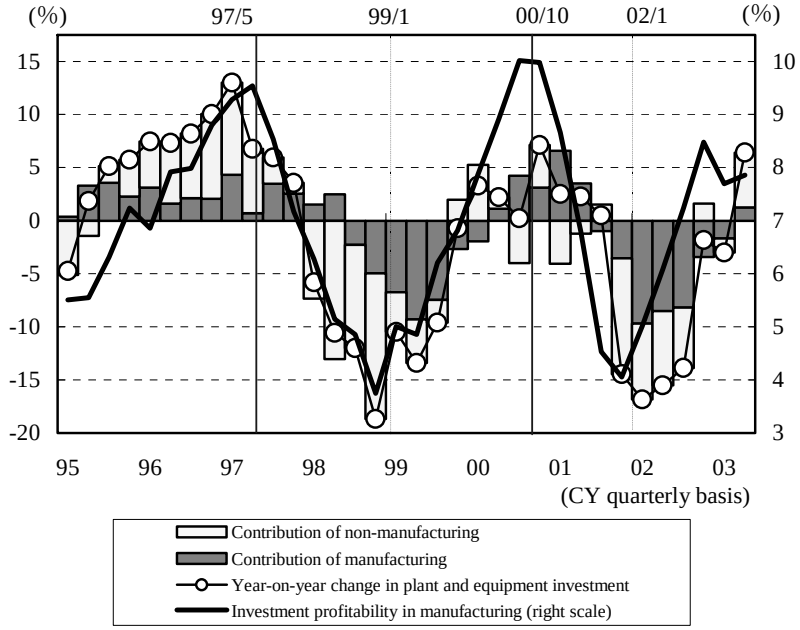
Note: Consumer confidence index is based on surveys for the coming six months. Figures for individual components were redistributed from seasonally adjusted data.
Sources: Cabinet Office, "Consumer Confidence Survey;" Japan Research Institute, "Consumer Sentiment Index;" Nikkei Industrial Consumption Research Institute data.

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



Plant and Equipment Investment Increasing, but Ratio to Cash Flow Still Subdued

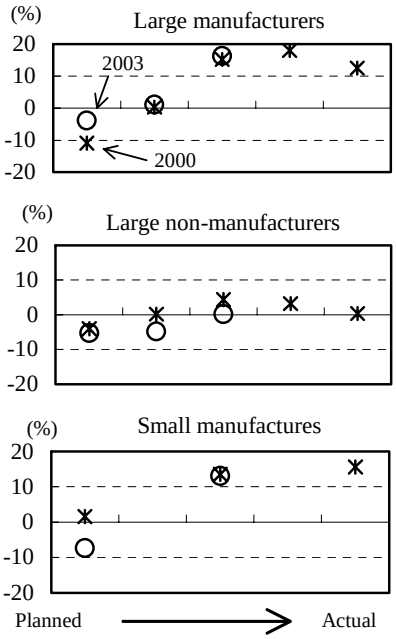
Figure 2-18. Year-on-Year Change in Nominal Corporate Plant and Equipment Investment and Investment Profitability in Manufacturing Sector (corporations of all sizes)



Notes: 1. Plant and equipment investment excludes 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).

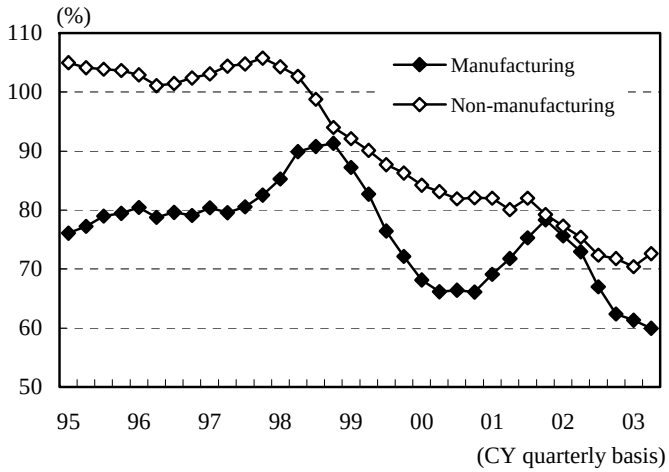
Sources: Ministry of Finance, "Quarterly Report of Statistical Survey of Incorporated Enterprises," etc.

Figure 2-19. Revisions to Plant and Equipment Investment Plans for FY 2003 (change on previous year)



Sources: Surveys conducted by DBJ for large companies and by Japan Finance Corporation for Small Businesses for small companies.

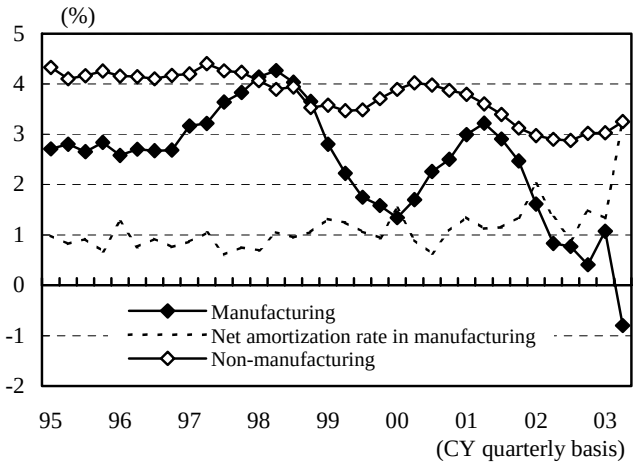
Figure 2-20. Ratio of Plant and Equipment Investment to Cash Flow (corporations of all sizes, moving average with 4 previous quarters)



Note: Cash flow is calculated with the formula: ordinary profits/2 + cost depreciation. The data represent the totals of plant and equipment investment in the recent four quarters divided by the totals of cash flow in the recent four quarters (%).

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

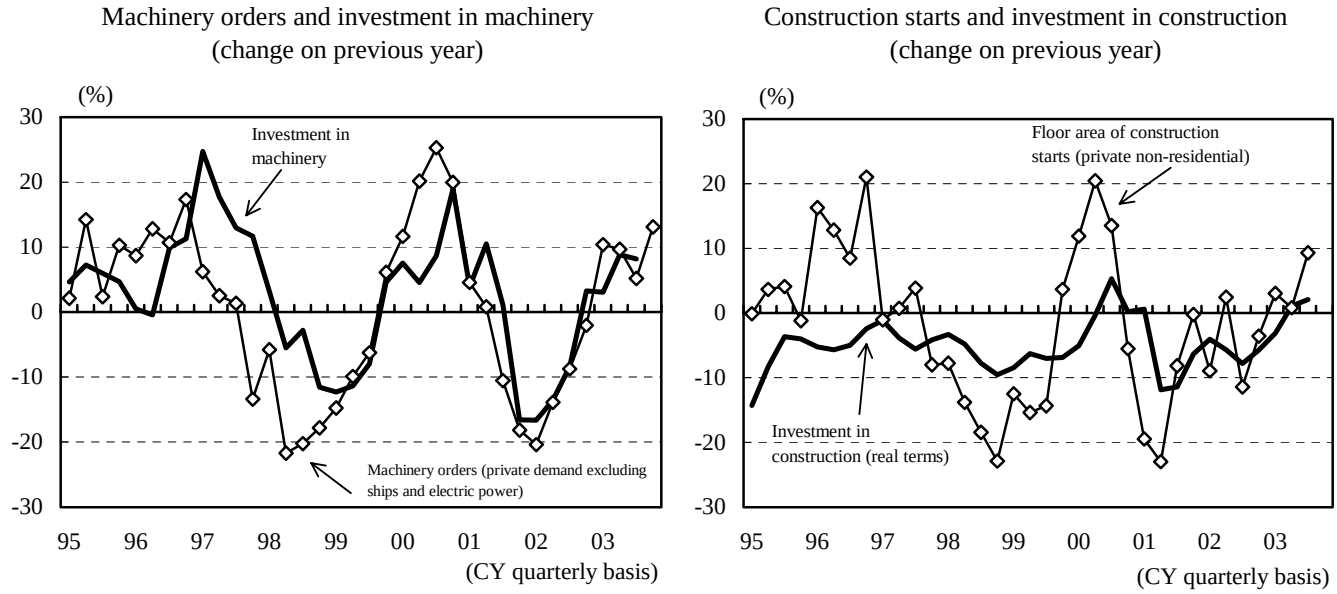
Figure 2-21. Year-on-Year Change in Capital Stock by Industrial Sector



Note: Capital stock at current term end = corresponding term-end capital stock in the previous year + (investment in new equipment + acquisition of used goods – gross retirement) in the recent four quarters.
Net retirement rate = (gross retirement – acquisition of used goods)/capital stock in the previous quarter.

Source: Cabinet Office, "Gross Capital Stock of Private Enterprises."

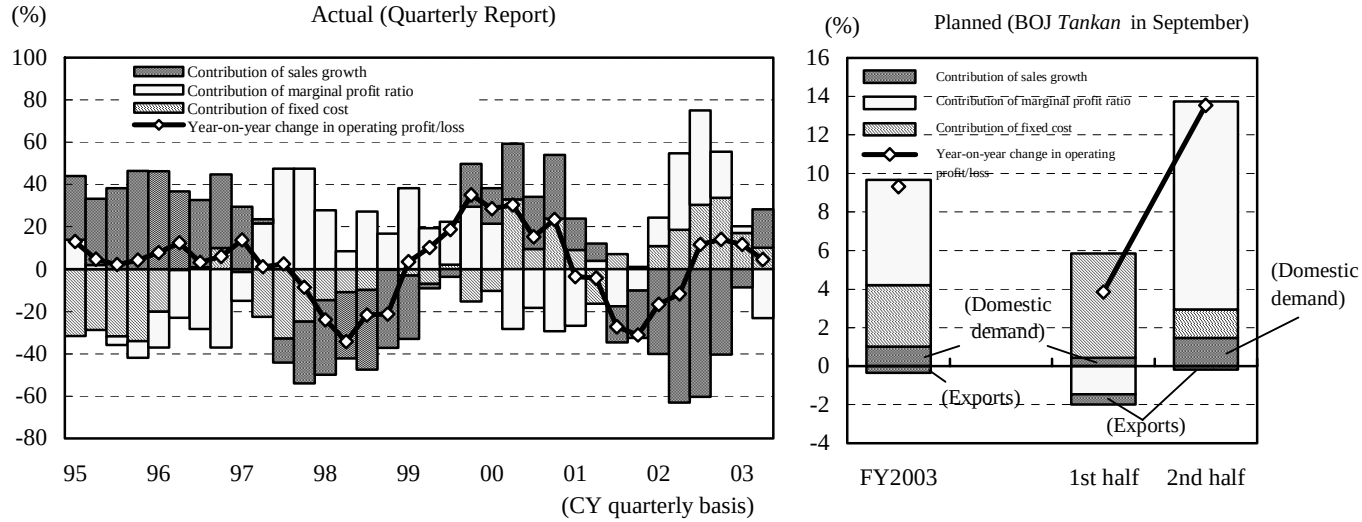
Figure 2-22. Trends in Leading Indicators and Actual Plant and Equipment Investment by Type of Goods



Notes: 1. Machinery orders for October-December 2003 represent estimates (simple aggregate basis).
2. Investment in machinery represents the residual of plant and equipment investment on a SNA basis after subtracting construction investment and software investment, each estimated from relevant statistics.

Sources: Cabinet Office, "National Accounts" and "Orders Received for Machinery;" Ministry of Land, Infrastructure and Transport, "Integrated Statistics on Construction Work."

Figure 2-23. Year-on-Year Change in Operating Profit/Loss by Component (corporations of all sizes in all industries)

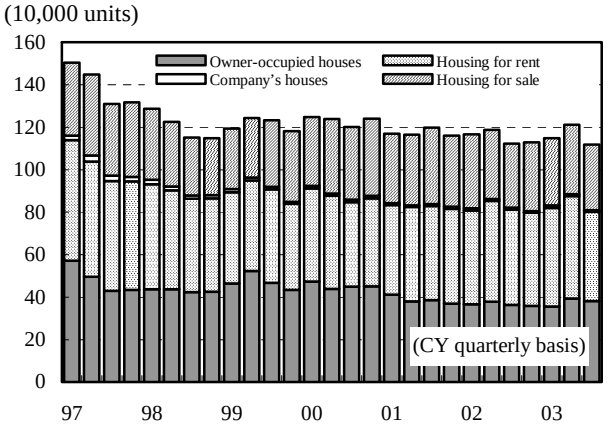


Note: Attribution to each component is based on the following formula:
operating profit/loss = sales (S)×marginal profit ratio (MPR) – fixed cost (FC).
The contributions of sales growth, marginal profit ratio and fixed cost are calculated as ($\Delta S \times MPR_0$), ($\Delta MPR \times S_0$) and ΔFC, respectively, where Δrepresent change on the previous year and 0 represents the value of the previous year.
Fixed cost = labor cost + cost depreciation.

Sources: Ministry of Finance, "Quarterly Report of Statistical Survey of Incorporated Enterprises;" Bank of Japan, "Short-term Economic Survey of Enterprises in Japan (*Tankan*)."

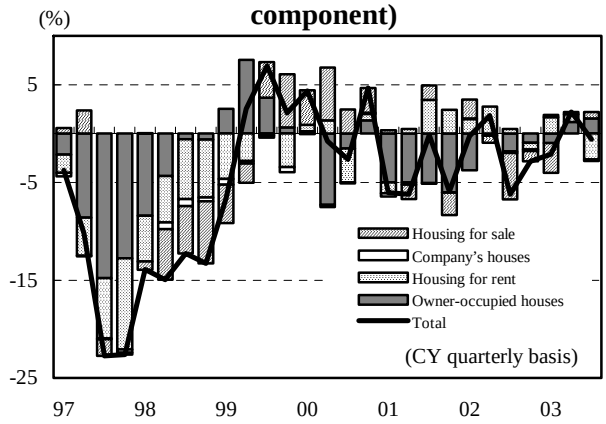
Weak Residential Investment

Figure 2-24. Trend of Housing Starts (seasonally adjusted annual rate)



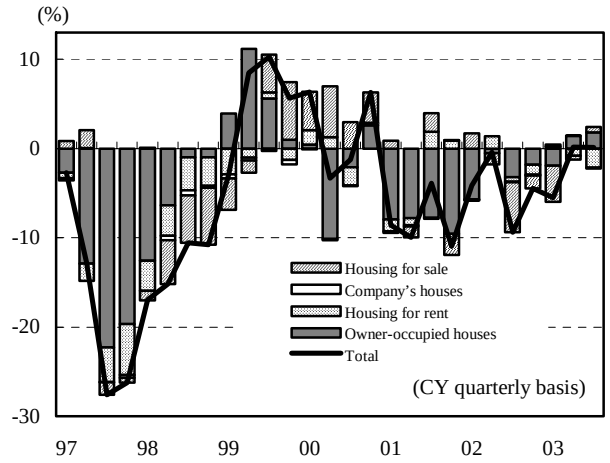
Source: Ministry of Land, Infrastructure and Transport, "Building Construction Started."

Figure 2-25. Housing Starts (trend of year-on-year change by component)



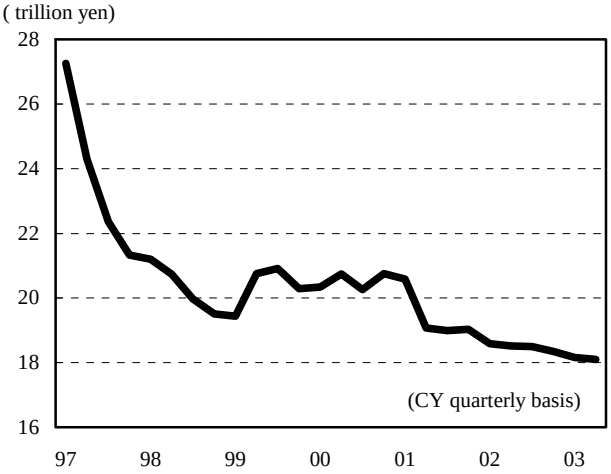
Source: Ministry of Land, Infrastructure and Transport, "Building Construction Started."

Figure 2-26. Floor Area of Housing Starts (trend of year-on-year change by component)



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

Figure 2-27. Real Residential Investment (seasonally adjusted annual rate)



Source: Cabinet Office, "National Accounts."

Figure 2-28. Contract Rate and Stock of Condominiums (Tokyo metropolitan area)

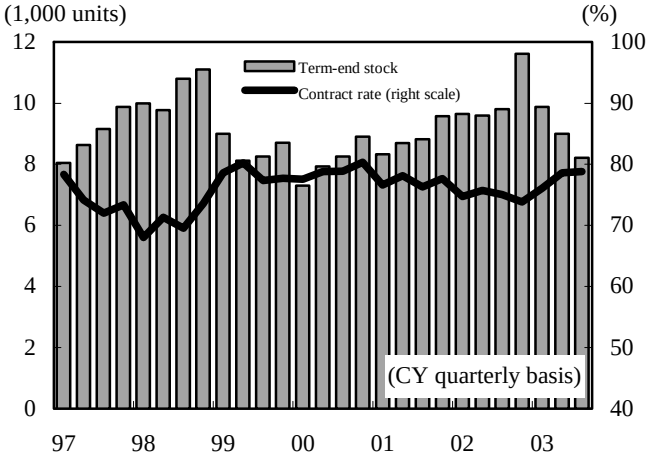
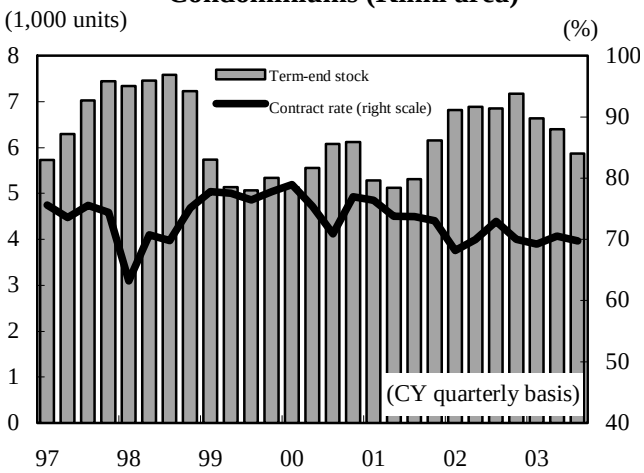


Figure 2-29. Contract Rate and Stock of Condominiums (Kinki area)

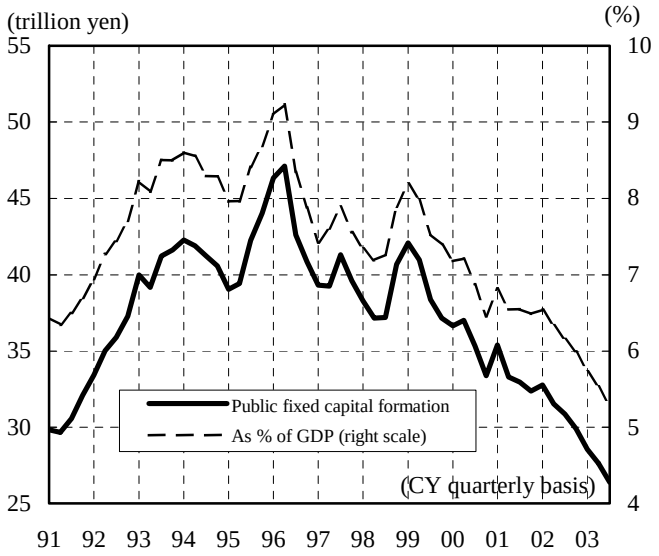


Note: Contract rate refers to the quarterly average of the percentage of housing sales contracts that were actually closed from among the total number of contracts started for any given month. Stock refers to the figure at the end of the quarter.

Source: Real Estate Economic Institute Co., Ltd.

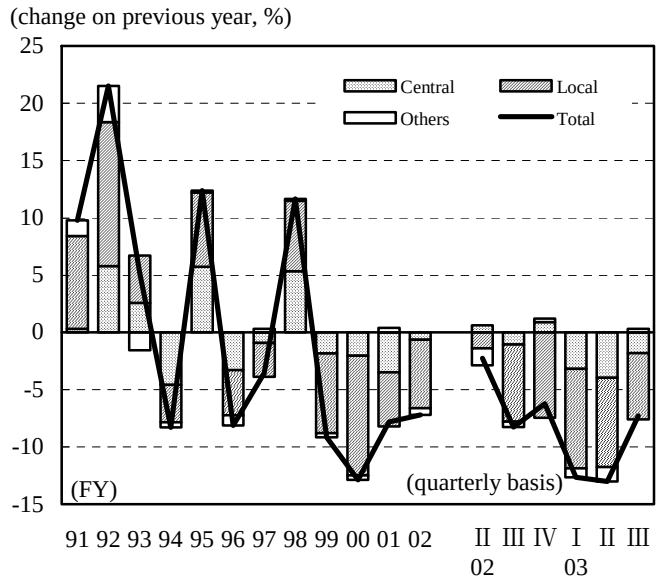
Public Investment Falling due to Difficult Financial Situation

Figure 2-30. Trend of Public Investment



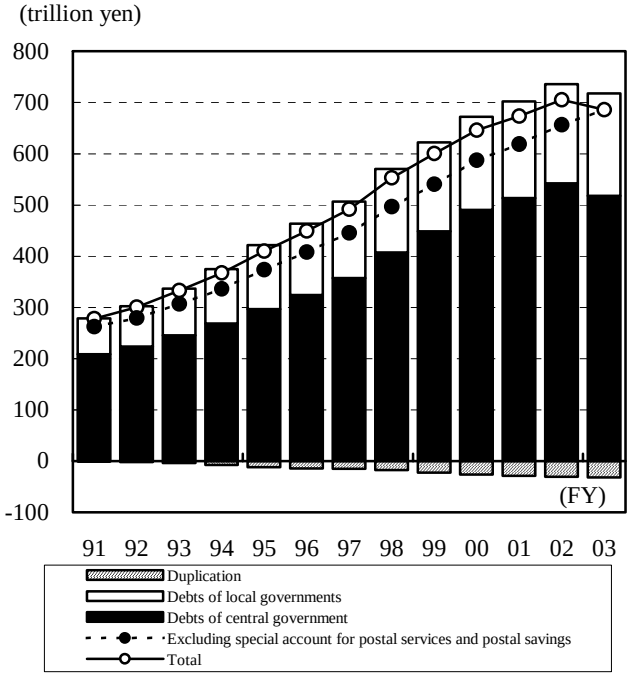
Note: Data represent seasonally adjusted annual rate.
Source: Cabinet Office, "National Accounts."

Figure 2-31. 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: East Japan Construction Surety etc., "Public Works Prepayment Surety Statistics."

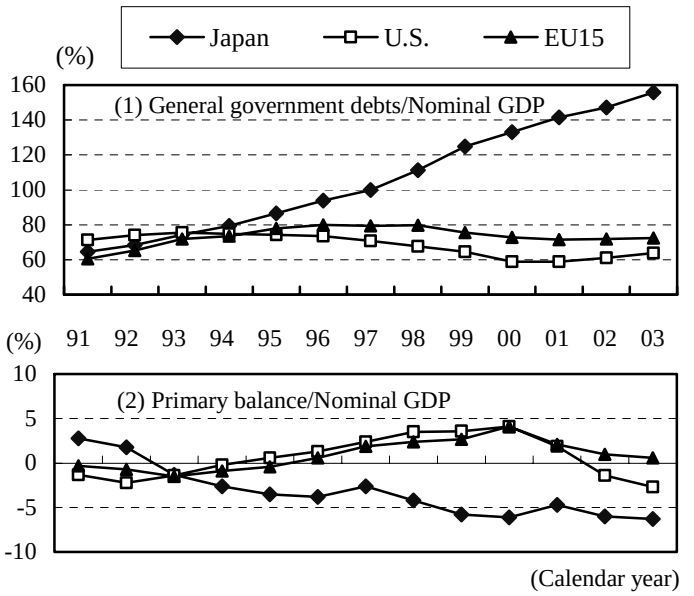
Figure 2-32. Long-term Outstanding Debts of Central and Local Governments



Notes: 1. Figures for fiscal 2002 represent estimates after supplementary budget and those for fiscal 2003 are estimates based on the initial budget.
2. The special account for postal services and postal savings (outstanding debts of some ¥49 trillion as at the end of FY2002) was abolished at the end of FY2002.

Source: Ministry of Finance, "Budgetary Data (March 2003)."

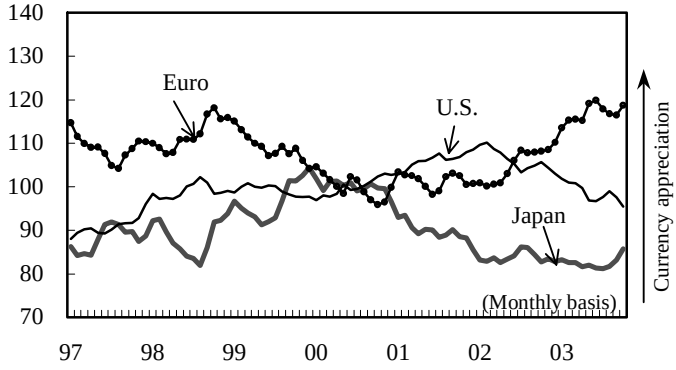
Figure 2-33. International Comparison of Financial Situations



Notes: 1. Values for 2003 are estimates.
2. Figures for some European countries in 2000 include income from the selling of cellular phone licenses (aroun 1% of the primary balance).

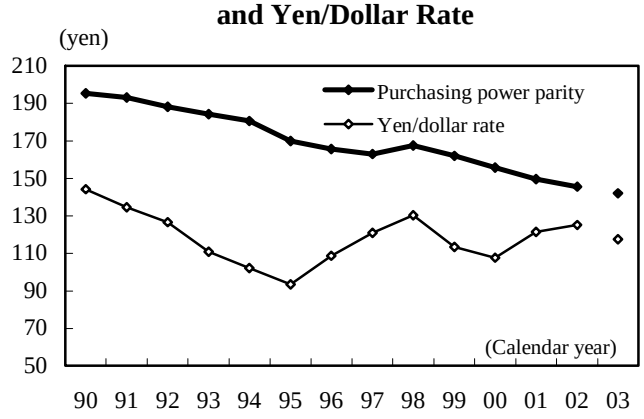
Source: OECD, "Economic Outlook 73 (June 2003)."

Figure 2-34. Trends of Real Effective Exchange Rate (2000=100)



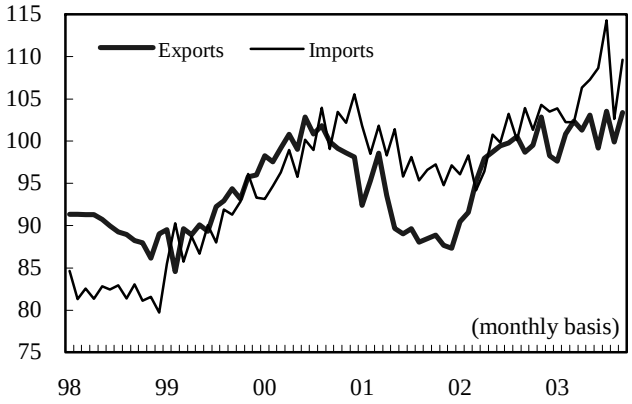
Note: Exchange rate is converted into real terms with the price levels of the country and its 44 trading partners and then weighted for trade in industrial products in 1990.
Source: J.P. Morgan, "World Financial Market."

Figure 2-35. Japan's Purchasing Power Parity and Yen/Dollar Rate



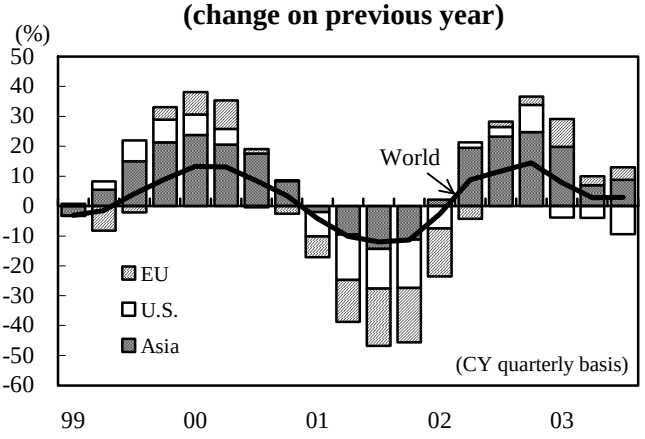
Note: Values for 2003 represent those in May.
Source: OECD, "Purchasing Power Parities and Real Expenditure."

Figure 2-36. Export and Import Volume Indices (2000=100)



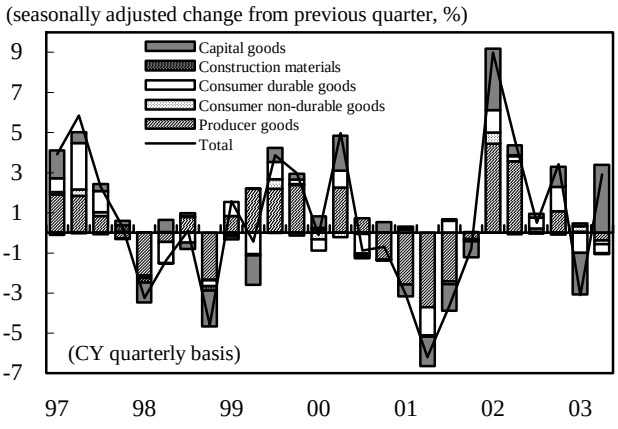
Note: Seasonally adjusted values based on X-12.
Source: Ministry of Finance, "Trade Statistics."

Figure 2-37. Export Volume Index by Destination (change on previous year)



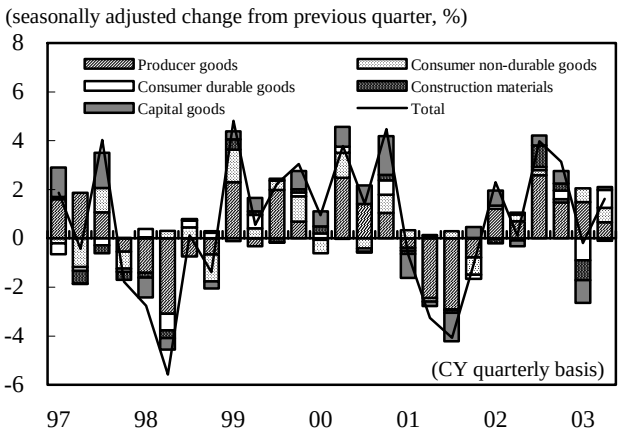
Source: Ministry of Finance, "Trade Statistics."

Figure 2-38. Export Shipment Index of Industrial Goods (2000=100)



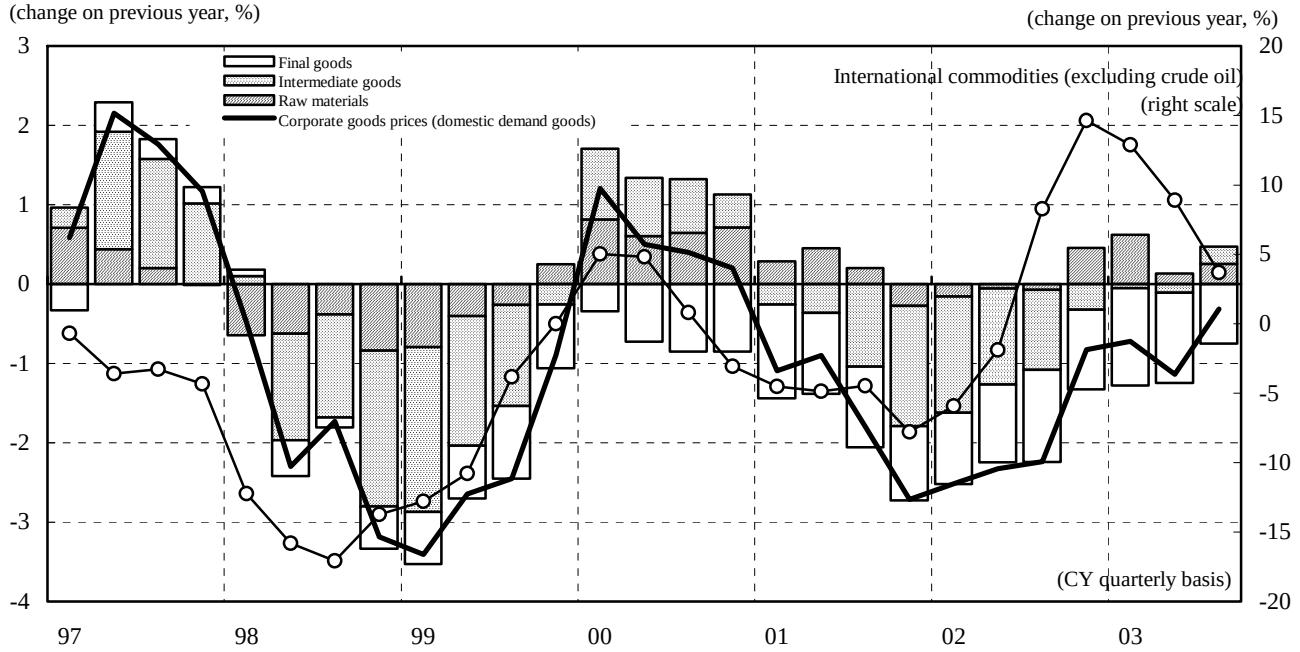
Source: Ministry of Economy, Trade and Industry, "Analysis of Industrial Production Activities."

Figure 2-39. Import Supply Index for Industrial Goods (2000=100)



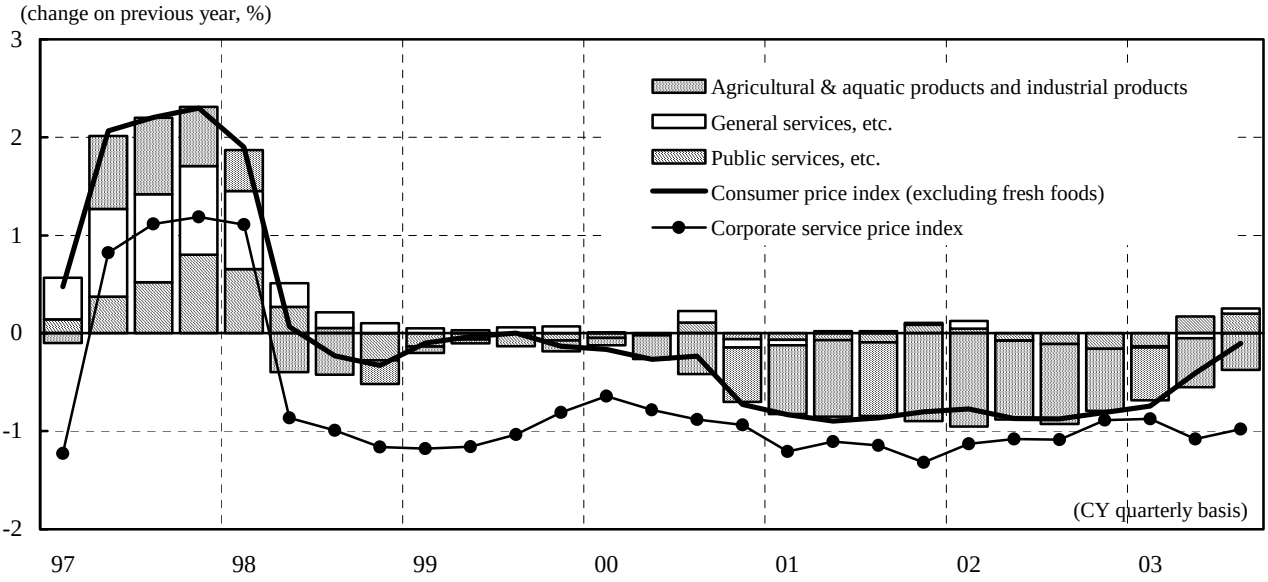
Source: Ministry of Economy, Trade and Industry, "Analysis of Industrial Production Activities."

Figure 2-40. Trends in Commodity Prices and Corporate Goods Prices (domestic demand goods)



Note : Corporate goods prices represent the average of domestic and import prices for domestic demand goods.
Sources : Bank of Japan, "Price Indexes Monthly;" IMF, "International Financial Statistics."

Figure 2-41. Trends in Consumer Prices (excluding fresh foods) and Corporate Service Prices

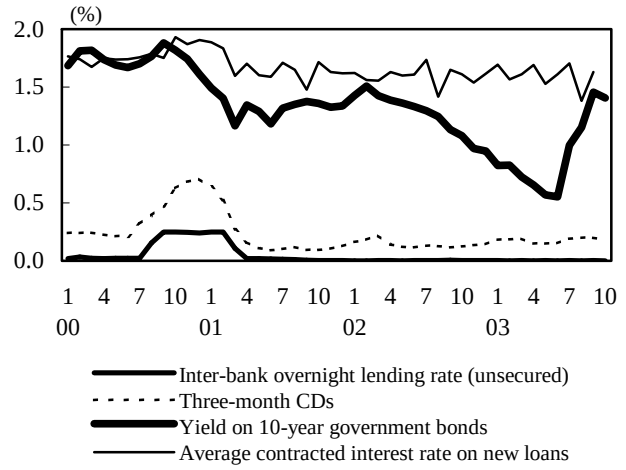


Notes : 1. "General services, etc." include publications. "Public services, etc." include electricity, gas and water charges.
2. Corporate service price index excludes ocean freight transportation, international airfreight transportation and international air passenger transportation.

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

Effect of Quantitative Easing Policy Yet to Materialize

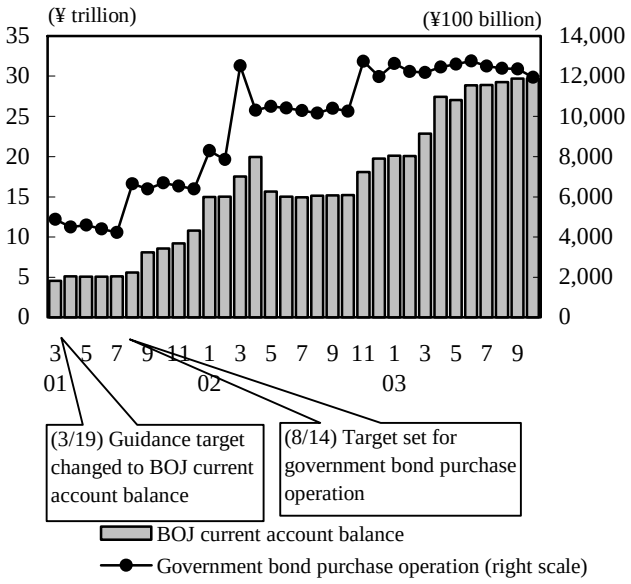
Figure 2-42. Trends in Selected Interest Rates



Note: Average contracted interest rate on new loans is based on monthly statistics. Others represent the monthly averages of daily closing prices.

Sources: Nihon Keizai Shimbun; Bank of Japan, "Financial and Economic Statistics Monthly."

Figure 2-43. Target of Guidance by Monetary Policy



Notes: 1. BOJ current account balance represents monthly average balance.
2. Government bond purchase operation represents the amount purchased in the month.

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

Figure 2-44. Trends in Monetary Base and Money Stock Rates

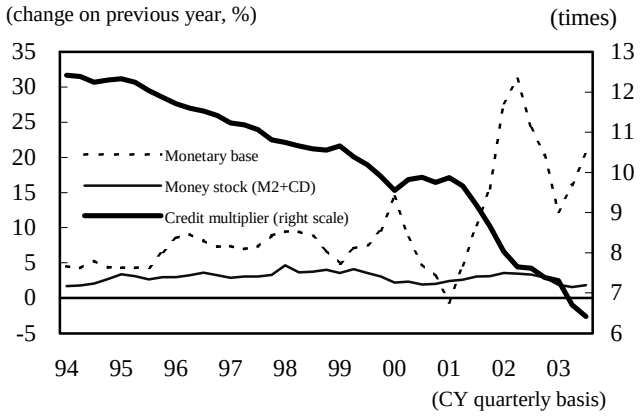
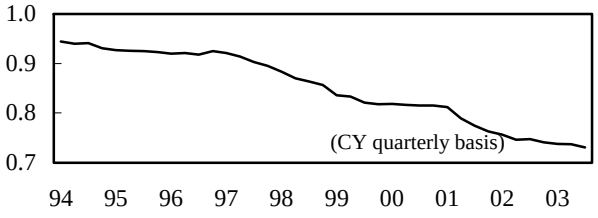


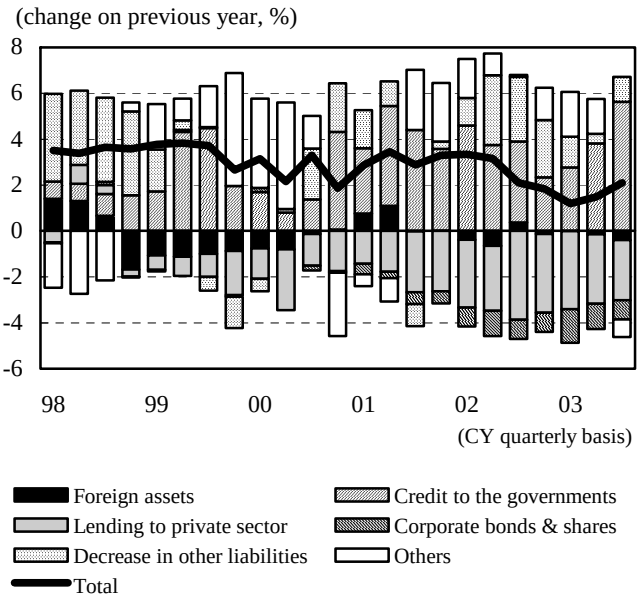
Figure 2-45. Velocity of Monetary Circulation



Notes: 1. Change on previous year in average balance.
2. Credit multiplier = (M2 + CD)/monetary base.
Velocity of circulation = nominal GDP/(M2 + CD)
Both seasonally adjusted.

Sources: Cabinet Office, "Annual Report on National Accounts;" Bank of Japan "Financial and Economic Statistics Monthly."

Figure 2-46. Money Stock (M2+CD) by Credit Component



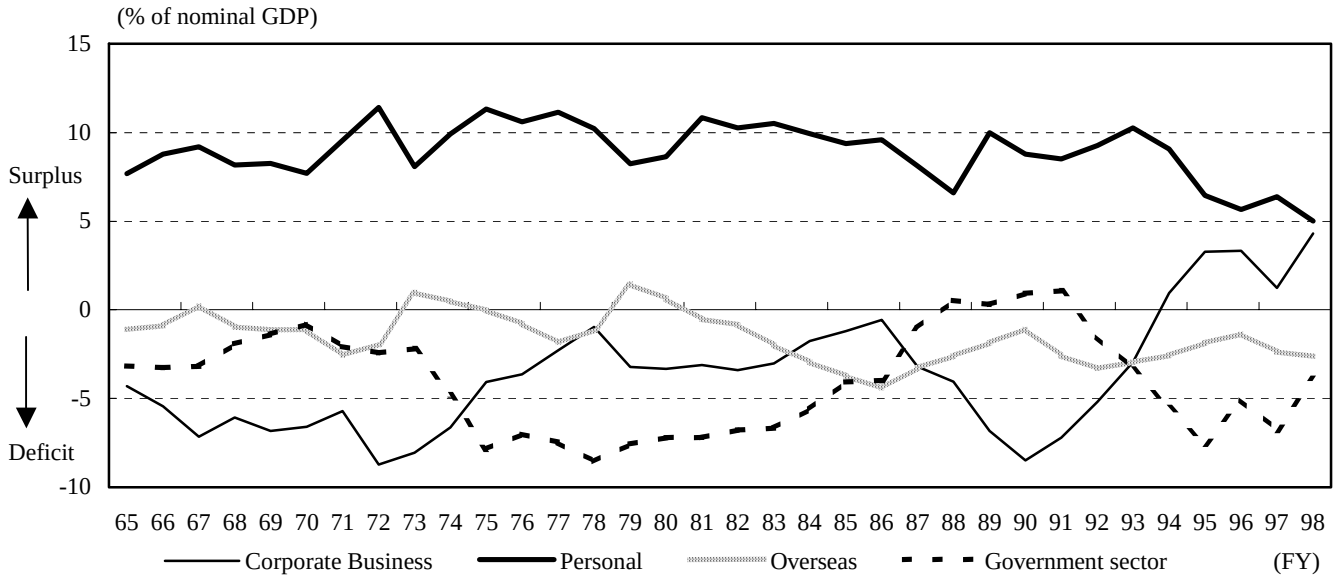
Note: Term-end balance.

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

III. A Medium-term Scenario for the Japanese Economy
－Focusing on Money Flow and Finance－

Long-term Trends in Financial Surplus/Deficit and Outstanding Loans

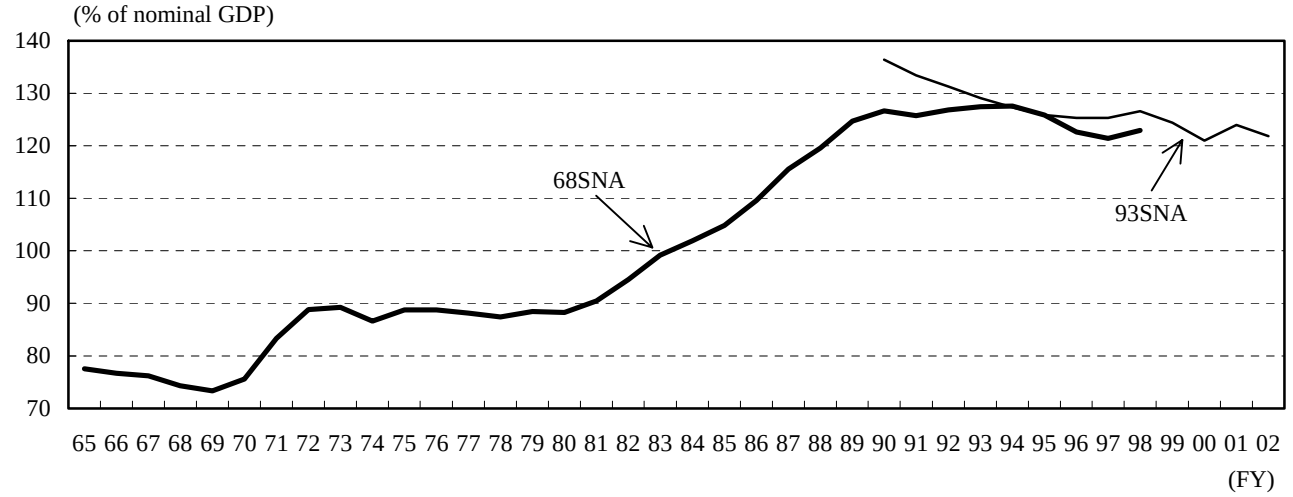
Figure 3-1. Trend of Financial Surplus or Deficit by Sector



Notes: 1. Corporate Business includes moneylenders and some government-affiliated corporations, as well as private and public non-financial corporations.
2. Personal includes proprietorships and non-profit organizations, as well as households.
3. Government sector represents the total of the central government, public corporations and local governments.
4. Adjustment is made between the government sector and incorporated enterprises for the discontinuity arising from the partial assumption of the debts left over from the JNR Settlement Corporation and the National Forest Special Accounts in fiscal 1998.

Sources: Cabinet Office, "Annual Report of National Accounts" (68 SNA); Bank of Japan, "Flow of Funds," (68 SNA).

Figure 3-2. Trend of Outstanding Private Bank Loans



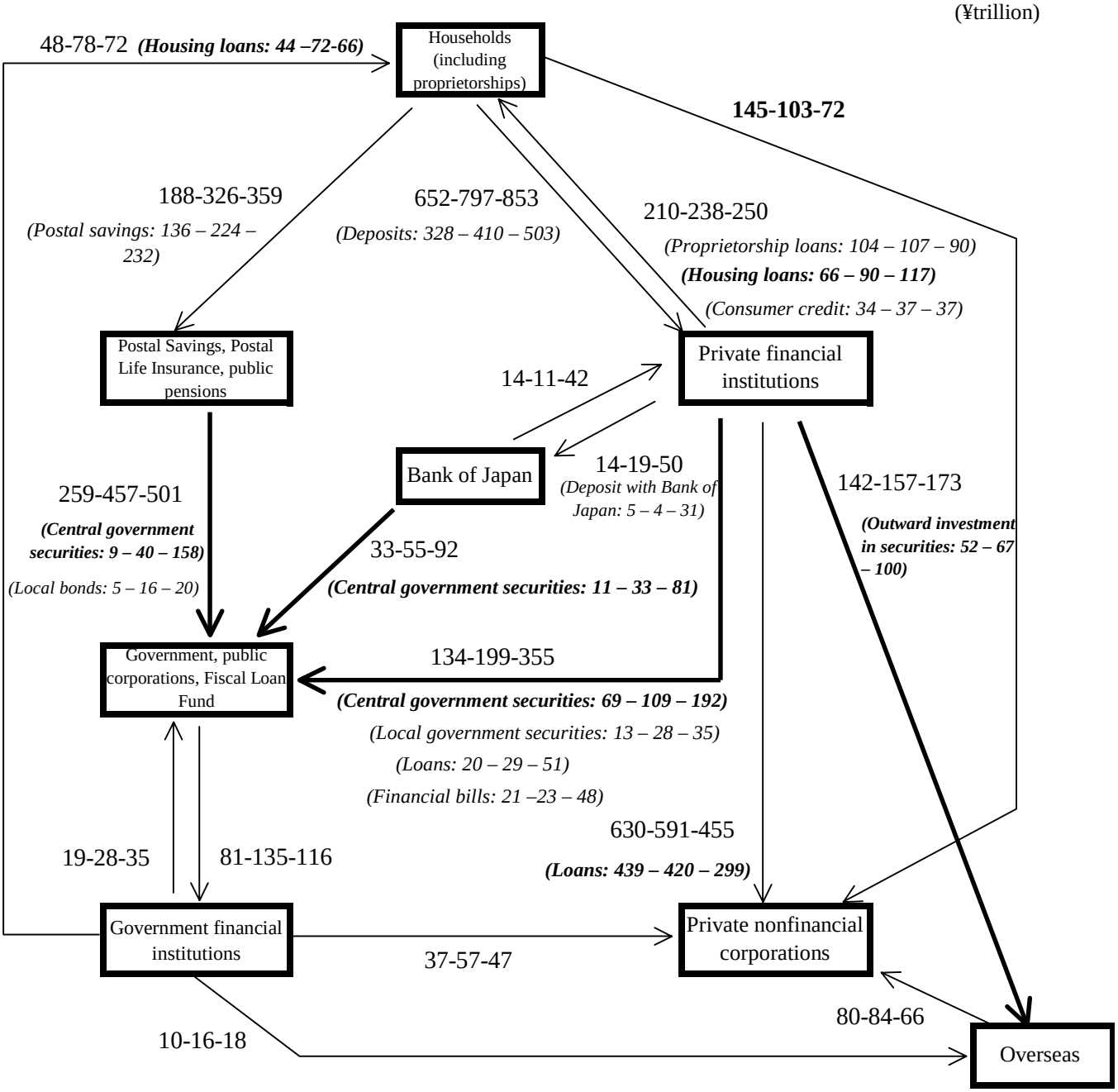
Notes: 1. Average outstanding loans of banks, etc. (total of domestic banks, Japanese branches of foreign banks, financial institutions related to agriculture/forestry/fisheries and those for SMEs) for each period (initial value + term-end value/2) divided by nominal GDP.
2. 93 SNA offsets the assets and liabilities of loans provided by private financial institutions.

Sources: Cabinet Office, "Annual Report on National Accounts;" Bank of Japan, "Flow of Funds."

Changing Flow of Funds in Japan since 1990

Figure 3-3. Changing Flow of Funds in Japan since 1990 (end FY1990 – end FY1996 – end FY2002)

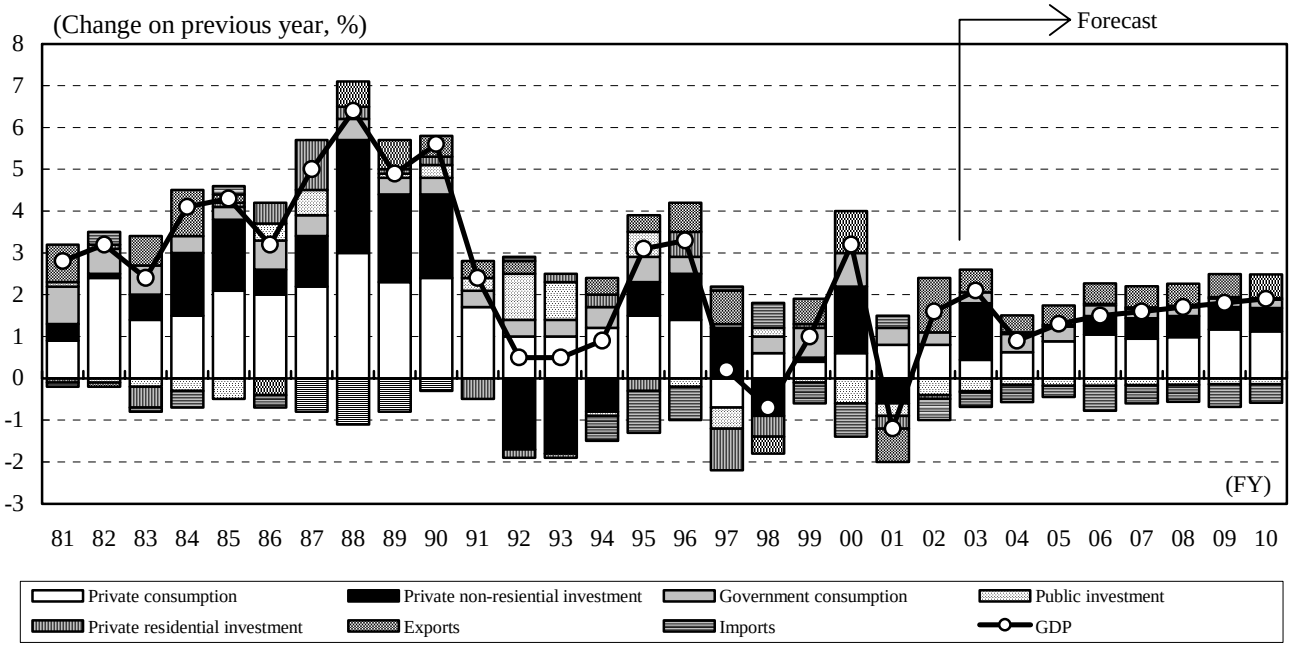
(¥trillion)



Notes:
1. Figures indicate the trend of term-end financial asset-liability balance (at market prices). (The direction of arrows indicates asset holding. Figures indicate values at the end of March 1991, the end of March 1997 and the end of March 2003 from left to right.)
2. The definition of each sector is based on Flow of Funds.
3. "Private financial institutions" include all financial institutions except the Bank of Japan, Postal Savings, Postal Life Insurance and public financial institutions.
4. "Government financial institutions" include the Industrial Investment Special Account, the Special Account for Financing Urban Development and other government-affiliated corporations involved in finance intermediation as principal business (Social Welfare and Medical Service Corporation, Japan Scholarship Foundation, etc.), as well as the two government banks and six government financial corporations.
5. Some assumptions are used in the estimation. The values have substantial margins of error.
6. Figures in italics are based on Flow of Funds and other statistics published by the Bank of Japan and are included in the corresponding figures in romans.
7. Public pension is included in household assets.
8. The Figure only shows relations between major sectors and therefore is not exhaustive.

Sources: Compiled by DBJ Economic & Industrial Research Department from Bank of Japan, "Flow of Funds" (93 SNA) and various financial statements.

Figure 3-4. Trend of Real GDP Growth by Demand Component



Note: Forecast by DBJ Economic & Industrial Research Department based on Cabinet Office Estimates "Fiscal 2003 Economic Trend Estimates" for fiscal 2003, and on Cabinet Office Background Paper for fiscal 2004 and onwards.

Sources: Compiled by DBJ Economic & Industrial Research Department from Cabinet Office, "Annual Report on National Account and Cabinet Office Background Paper (submitted to Council of Economic and Fiscal Policy on January 20, 2003).

Figure 3-5. Comparison of Projected Economic Growth and Prices

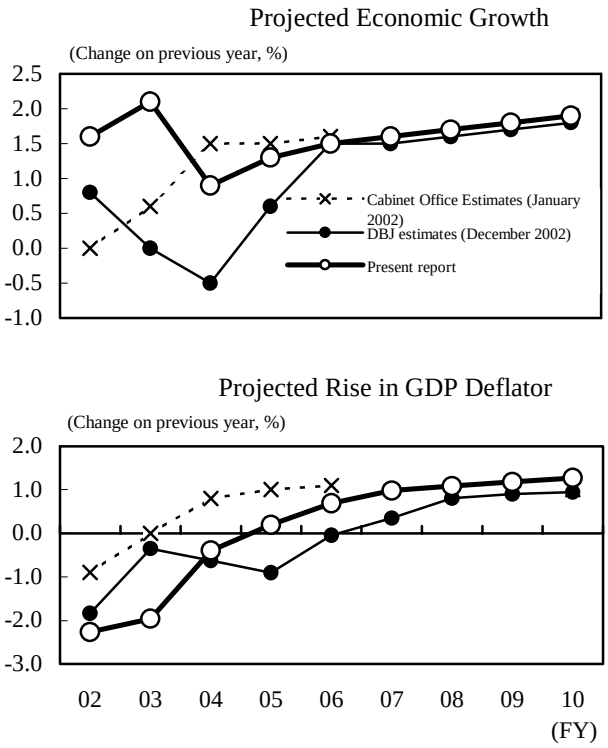
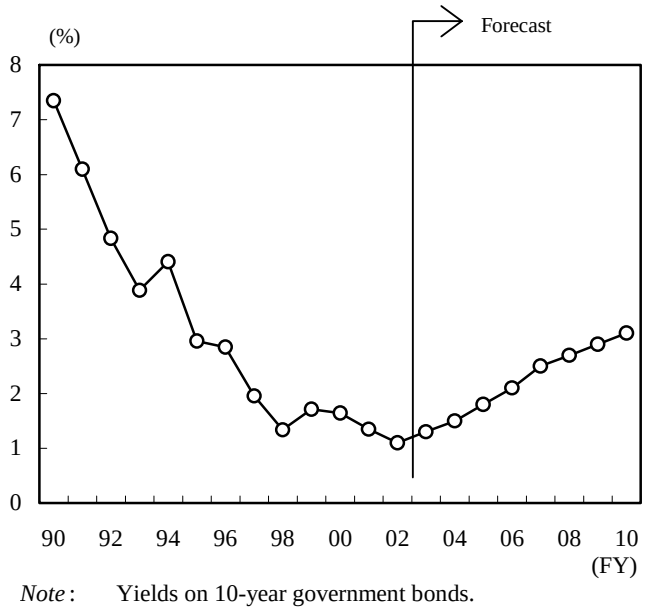


Figure 3-6. Assumption of Interest Rates



Note: Yields on 10-year government bonds.

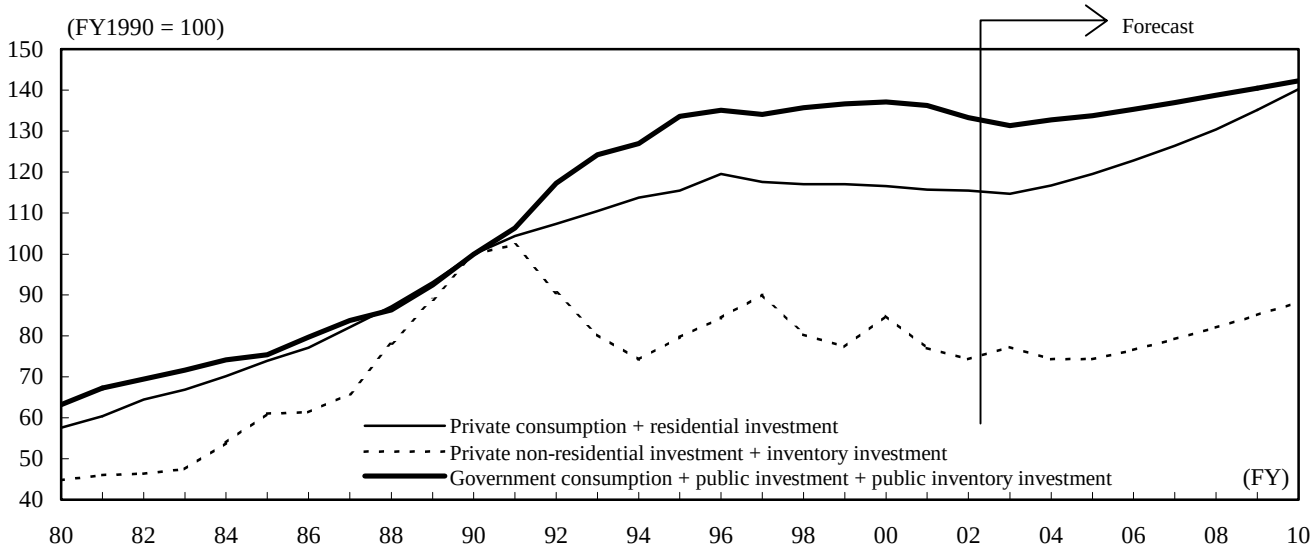
Source: Cabinet Office Background Paper.

Notes: 1. DBJ estimates (December 2002) represent the assumption made in DBJ Research Report No. 36.
2. Cabinet Office Estimates (January and September 2003) are reflected in the present report.

Sources: Compiled by DBJ Economic & Industrial Research Department from Cabinet Office Background Paper, etc.

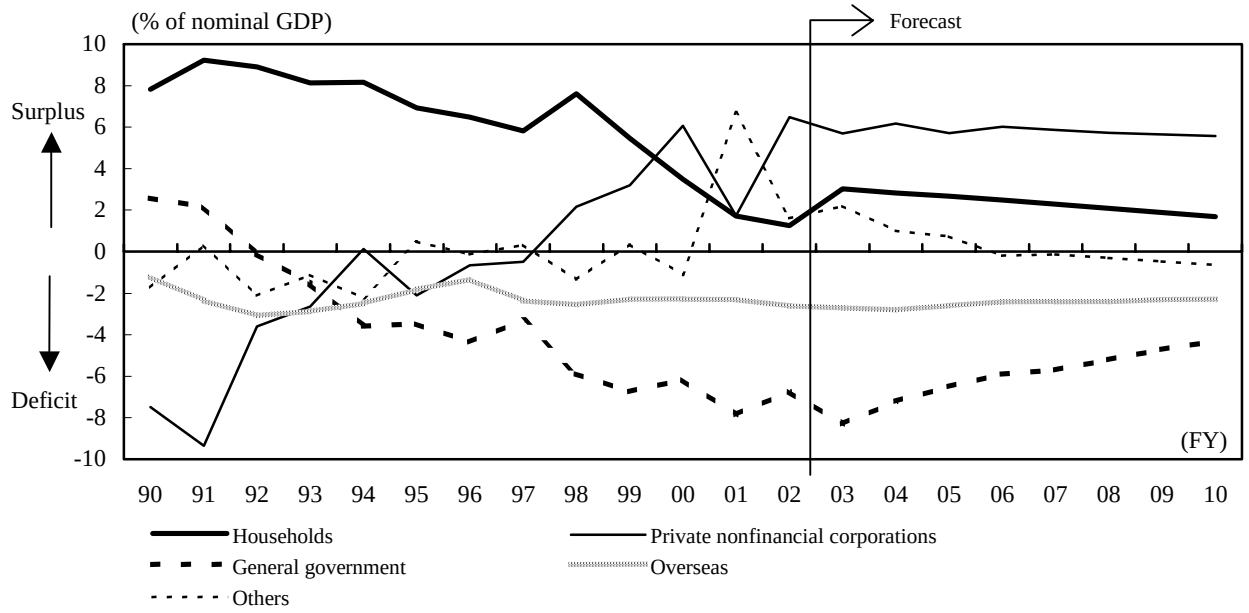
Medium-term Outlook of Financial Surplus/Deficit by Sector

Figure 3-7. Nominal GDP – Trend by Demand Item



Note: Forecast by DBJ Economic & Industrial Research Department for FY2003 and onwards.
Source: Cabinet Office, "Annual Report on National Accounts."

Figure 3-8. Financial Surplus or Deficit by Sector

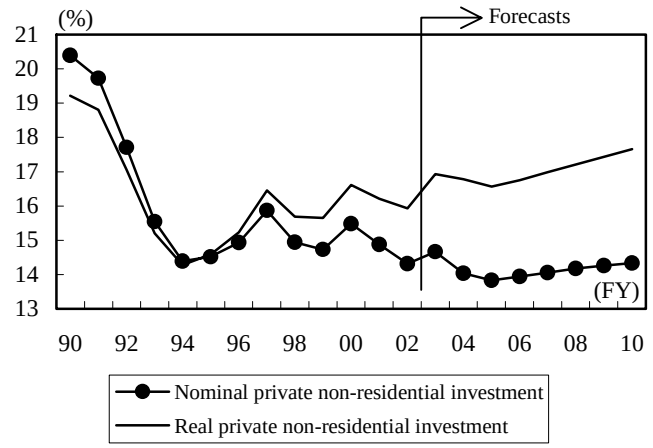


Notes:
1. Where actual data are available, financial surplus or deficit in each sector according to Flow of Funds is divided by nominal GDP. For fiscal 2003 and onwards, forecast is made by DBJ Economic & Industrial Research Department based on the Cabinet Office Background Paper.
2. By definition, financial surplus or deficit equals the savings-investment differential, but it is not actually the case due to statistical errors. It is assumed that financial surplus or deficit will be equal to the savings-investment differential in fiscal 2003 and onwards.
3. "Others" represents the total of financial institutions, public non-financial corporations and private nonprofit institutions.
4. Adjustment is made between "general government" and "others" for the discontinuity arising from the partial assumption of the debts left over from the JNR Settlement Corporation and the National Forest Special Accounts in fiscal 1998.

Sources: Cabinet office, "Annual Report on National Accounts," (93 SNA); Bank of Japan, "Flow of Funds," (93 SNA); Cabinet Office Background Paper.

Private Business Sector to Maintain Financial Surplus

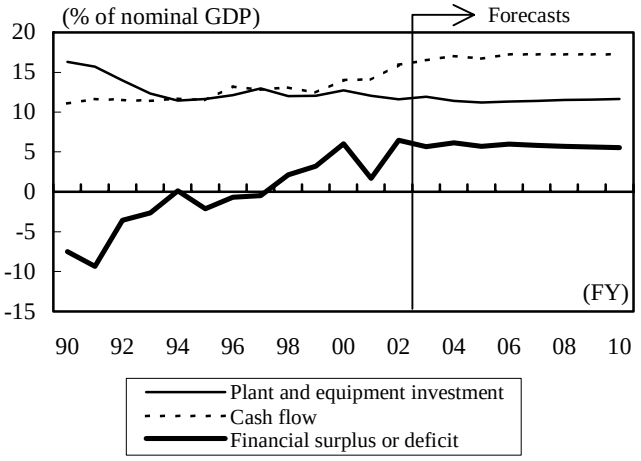
Figure 3-9. Private Non-Residential Investment of Private Corporations as Percentage of GDP



Notes: 1. Forecast by DBJ Economic & Industrial Research Department for fiscal 2003 and onwards.
2. Includes the finance/insurance industry, proprietorships and non-profit organizations, as well as private non-financial corporations.

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

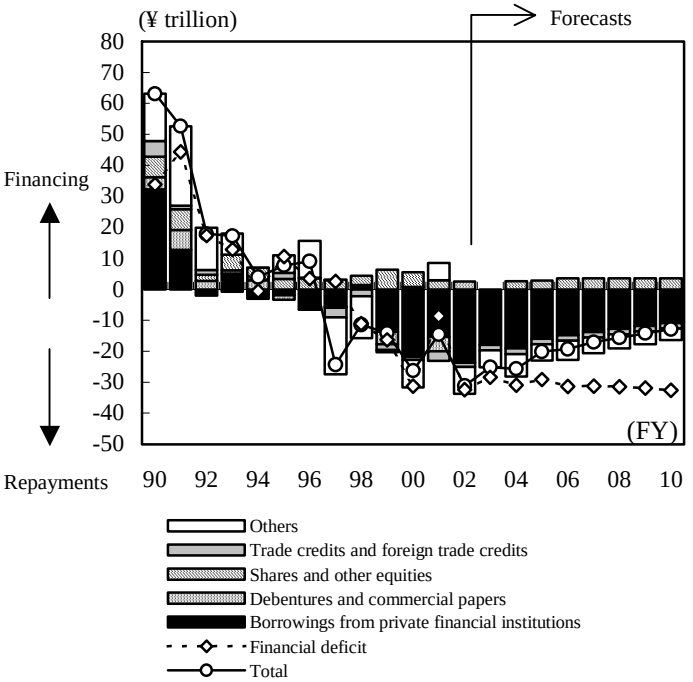
Figure 3-10. Trends in Financial Surplus or Deficit of Private Non-financial Corporations



Note: "Cash flow" represents "savings" of the sector in Annual Report on National Accounts.

Sources: Compiled by DBJ Economic & Industrial Research Department from Cabinet Office, "Annual Report on National Accounts" and Bank of Japan, "Flow of Funds."

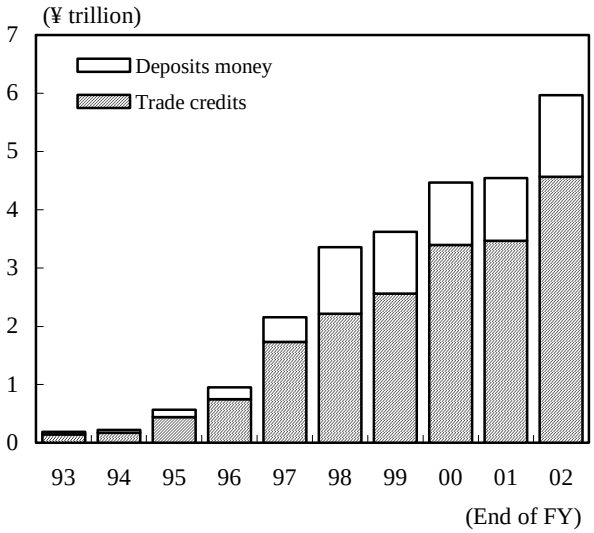
Figure 3-11. Trends in Financing and Repayments by Private Non-financial Corporations



Notes: 1. Profit or loss from the valuation of shares and other equities is not taken into account.
2. Inter-business and trade credits represent assets net of liabilities. Thus, any rise in credit offering works to increase financing.

Source: Compiled by DBJ Economic & Industrial Research Department from Bank of Japan, "Flow of Funds."

Figure 3-12. Corporate Asset Mobilization

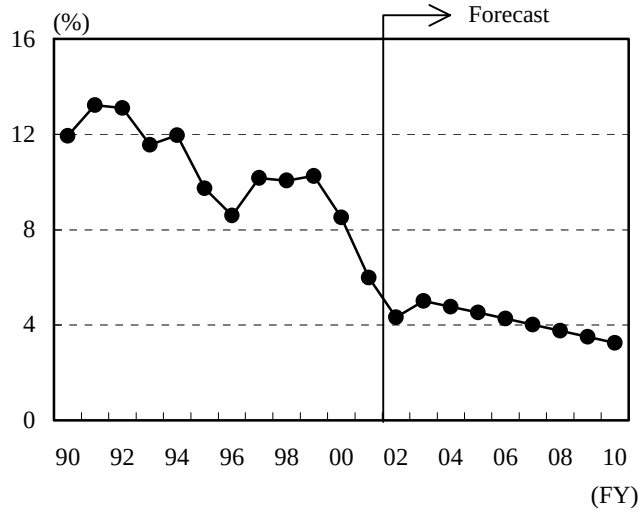


Note: Amount of underlying credits soled to SPC.

Source: Bank of Japan, "Flow of Funds."

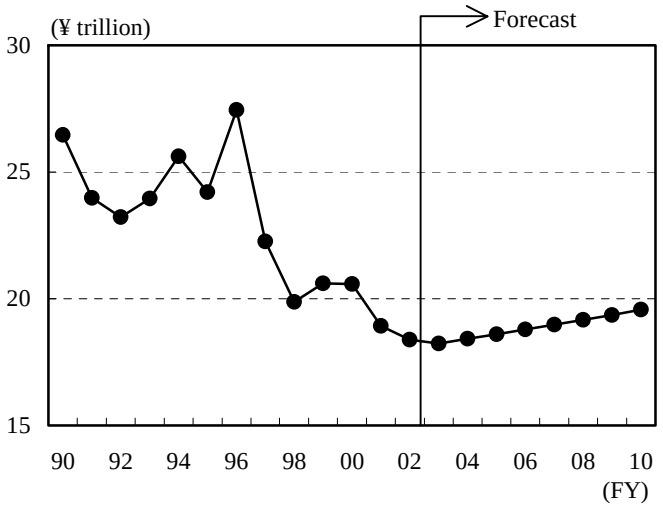
Household Savings Ratio to Decline, Reducing Share of Cash and Deposits

Figure 3-13. Forecast of Household Savings Ratio



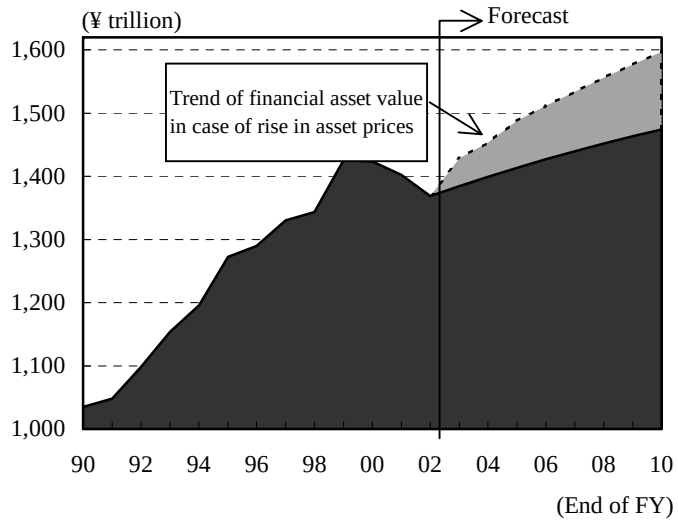
Source: Cabinet Office, "National Accounts."

Figure 3-14. Forecast of Real Private Residential Investment



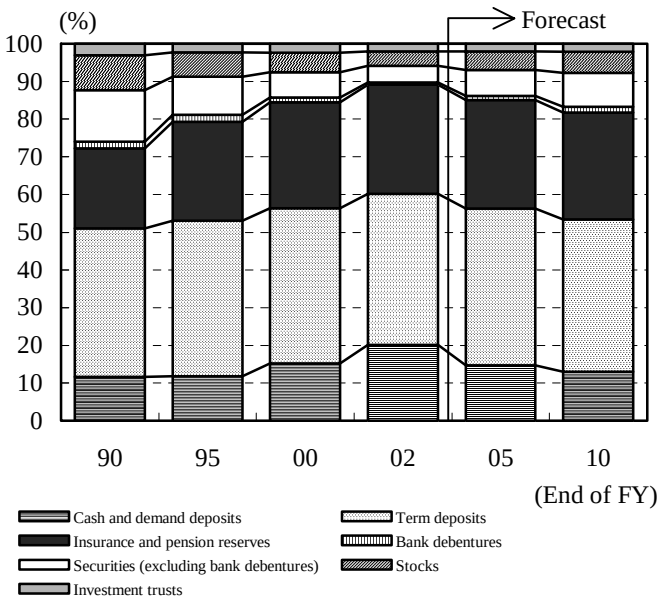
Source: Cabinet Office, "National Accounts."

Figure 3-15. Forecast of Financial Assets in Households



Note: Share prices are assumed to rise slowly.
Sources: Cabinet Office, "National Accounts;" Bank of Japan, "Flow of Funds."

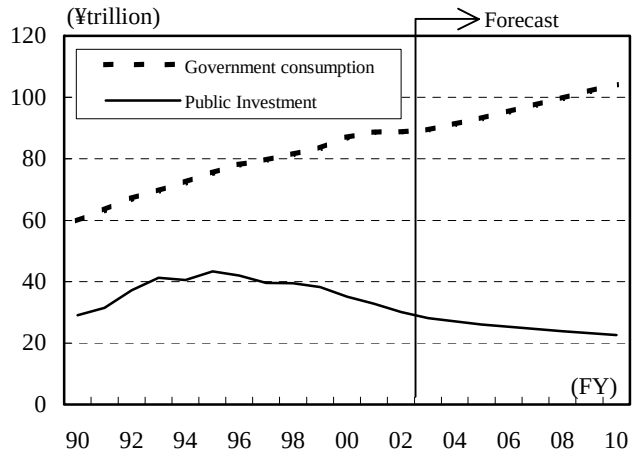
Figure 3-16. Forecast of Financial Asset Composition in Households



Notes: 1. "Cash and demand deposits" includes foreign currency deposits, money deposited, receivables and payables, as well as cash and floating deposits.
2. Share prices are assumed to rise slowly.
Sources: Bank of Japan, "Flow of Funds;" Ministry of Public Management, Home Affairs, Posts and Telecommunications, "National Survey of Family Income and Expenditure;" National Institute of Population and Social Security Research, "Households Projections for Japan."

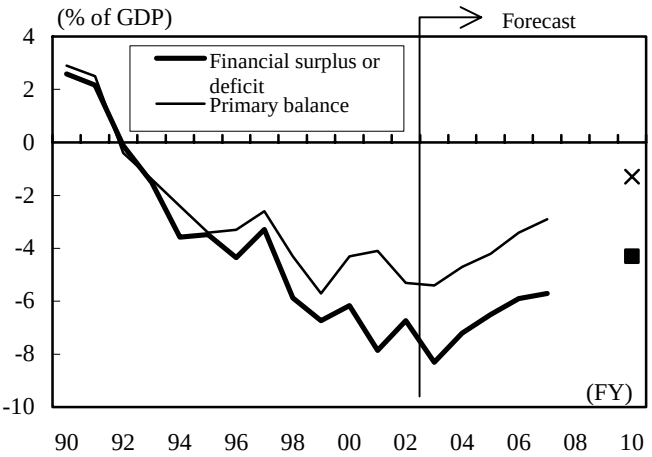
Primary Balance to Improve despite Further Increase in Government Debts

Figure 3-17. Public Investment and Government Consumption



Note: Forecast by DBJ Economic & Industrial Research Department for fiscal 2003 and onwards.
Source: Cabinet Office, "Annual Report on National Accounts."

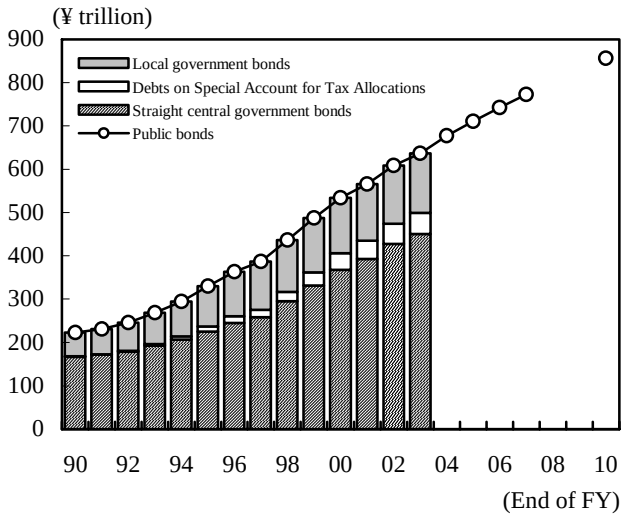
Figure 3-18. Trends in Financial Surplus/Deficit and Primary Balance



Notes: 1. "Financial surplus or deficit" is on a general government basis.
2. "Primary balance" represent the total of central and local governments.
3. Adjustment is made for the discontinuity arising from the partial assumption of the debts left over from the JNR Settlement Corporation and the National Forest Special Accounts in fiscal 1998.

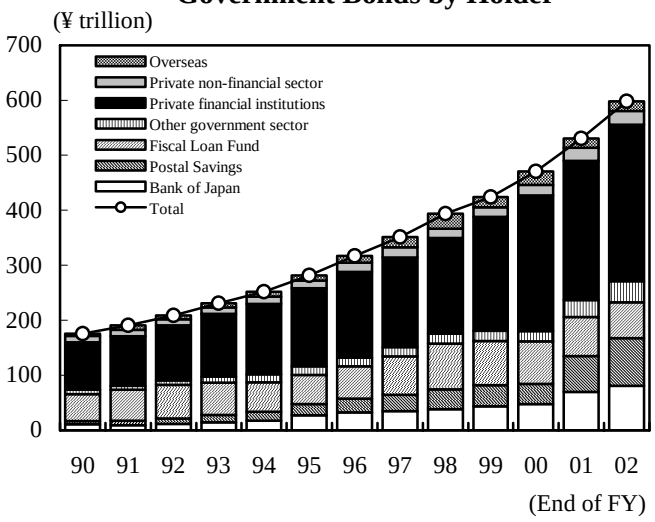
Sources: Cabinet Office, "Annual Report on National Accounts;" Bank of Japan, "Flow of Funds;" Cabinet Office Background Paper; Ministry of Finance data.

Figure 3-19. Trends in Outstanding Public Bonds



Note: Values for fiscal 2003 represent initial budget amounts or estimates in Ministry of Finance data or Ministry of Public Management, Home Affairs, Posts and Telecommunications data. Values for fiscal 2004 and onwards are based on Cabinet Office Background Paper.
Sources: Ministry of Finance data; Ministry of Public Management, Home Affairs, Posts and Telecommunications data; Cabinet Office Background Paper.

Figure 3-20. Trends in Central and Local Government Bonds by Holder



Note: Central government bonds include fiscal loan bonds.
Source: Bank of Japan, "Flow of Funds."

Figure 3-21. Trends in Assets Held by Private Financial Institutions

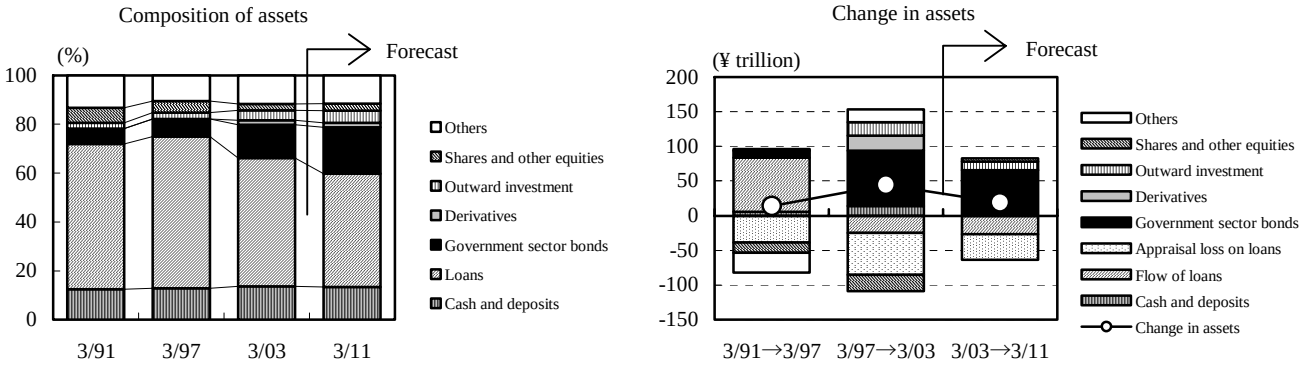
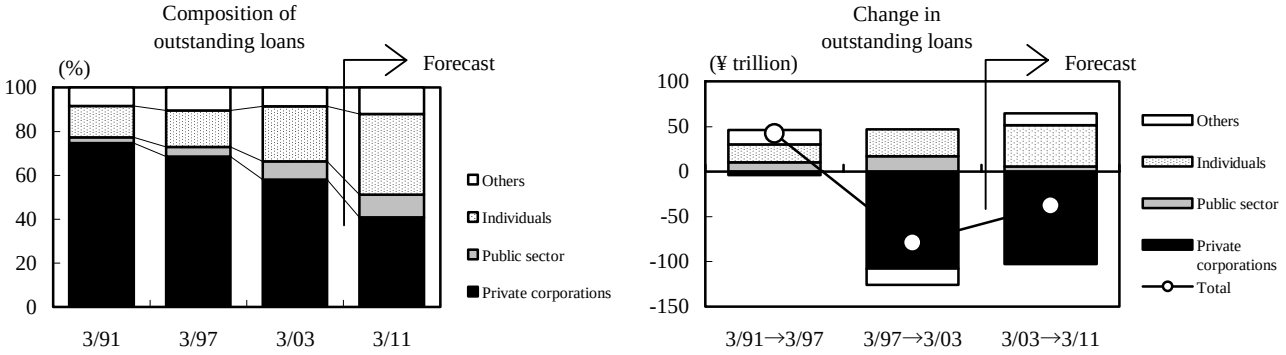


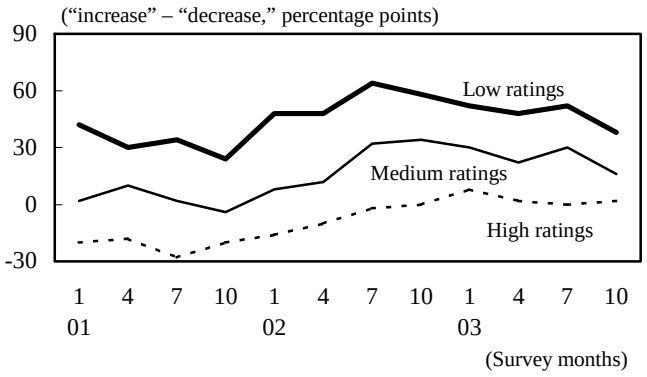
Figure 3-22. Loans to Non-financial Sector



Notes: 1. For the purpose of this section, private financial institutions refer to "bank, etc." in Flow of Funds. They include Japanese branches of foreign banks, financial institutions related to agriculture, forestry and fisheries and those for SMEs, as well as domestic banks.
2. "Government sector bonds" represent the total of financial bills, government bonds/fiscal loan bonds, local bonds and agency securities.
3. Share prices are assumed to rise slowly.

Source: Bank of Japan, "Flow of Funds."

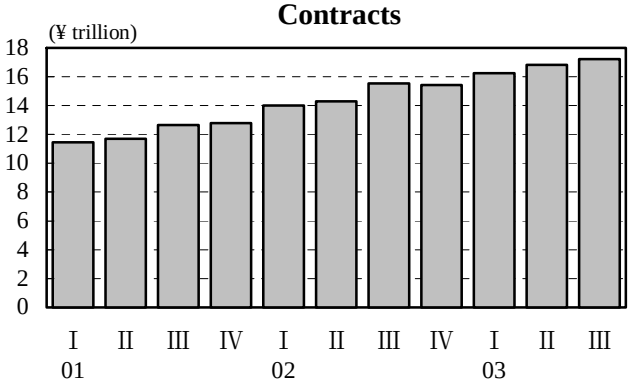
Figure 3-23. Spreads Setting by Rating



Note: In principle, domestic long-term bonds rated AAA-BBB = high rating, BB-B = medium rating, and CCC or under = low rating.

Source: Bank of Japan "Senior Loan Officer Opinion Survey on Bank Lending Practices at Large Japanese Banks."

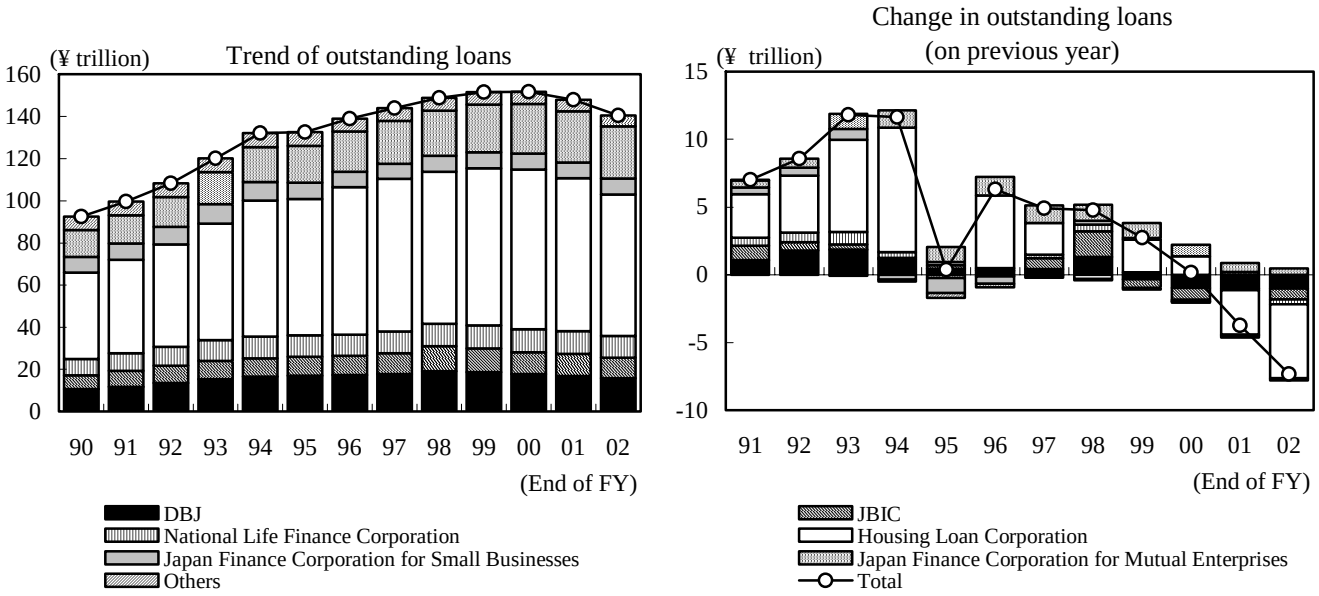
Figure 3-24. Outstanding Commitment Line Contracts



Note: Covers city banks, long-term credit banks, trust banks, regional banks and regional banks II.

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

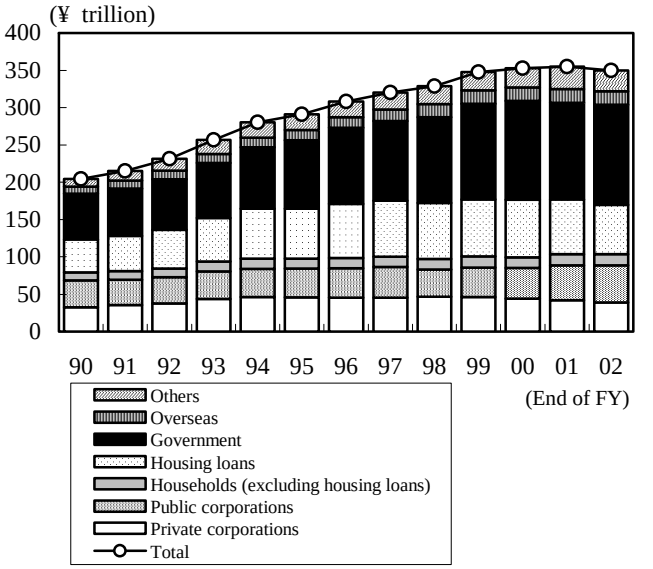
Figure 3-25. Outstanding Loans of Government Financial Institutions (two banks and six financial corporations)



Notes: 1. Until fiscal 1998, figures for DBJ and NLFC represent the total of Japan Development Bank and Hokkaido-Tohoku Development Finance Public Corporation and the total of People's Finance Corporation and Environmental Sanitation Business Finance Corporation, respectively.
2. Figures for JBIC represent those of Export-Import Bank of Japan until fiscal 1998, and those of international finance account since fiscal 1999.
3. Others represent the total of Agriculture, Forestry and Fisheries Finance Corporation and Okinawa Development Finance Corporation.

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

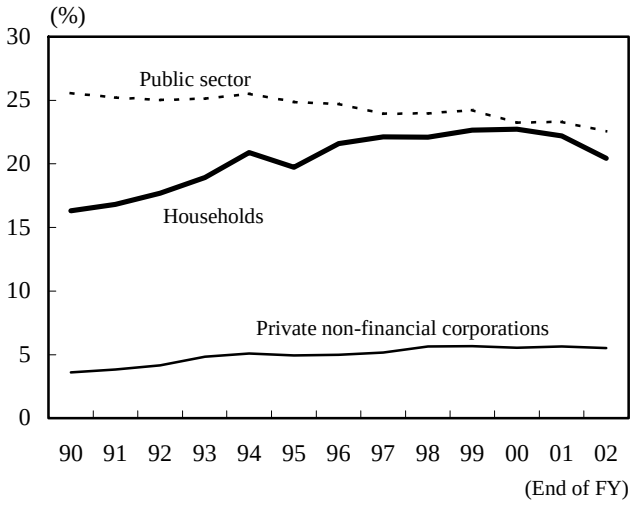
Figure 3-26. Trends in Public Loans by Borrower



Notes: 1. In Flow of Funds, lending by public financial institutions include loans granted by Fiscal Loan Funds, Industrial Investment Special Account, Special Account for Financing Urban Development, some other government-affiliated corporations, Postal Savings and Postal Life Insurance, as well as by the two banks and six financial corporations.
2. Excludes loans for Postal Savings and government-affiliated financial institutions.
3. "Government" represents the total of central and local governments.

Source: Bank of Japan, "Flow of Funds."

Figure 3-27. Share of Borrowings from Public Financial Institutions in Liabilities

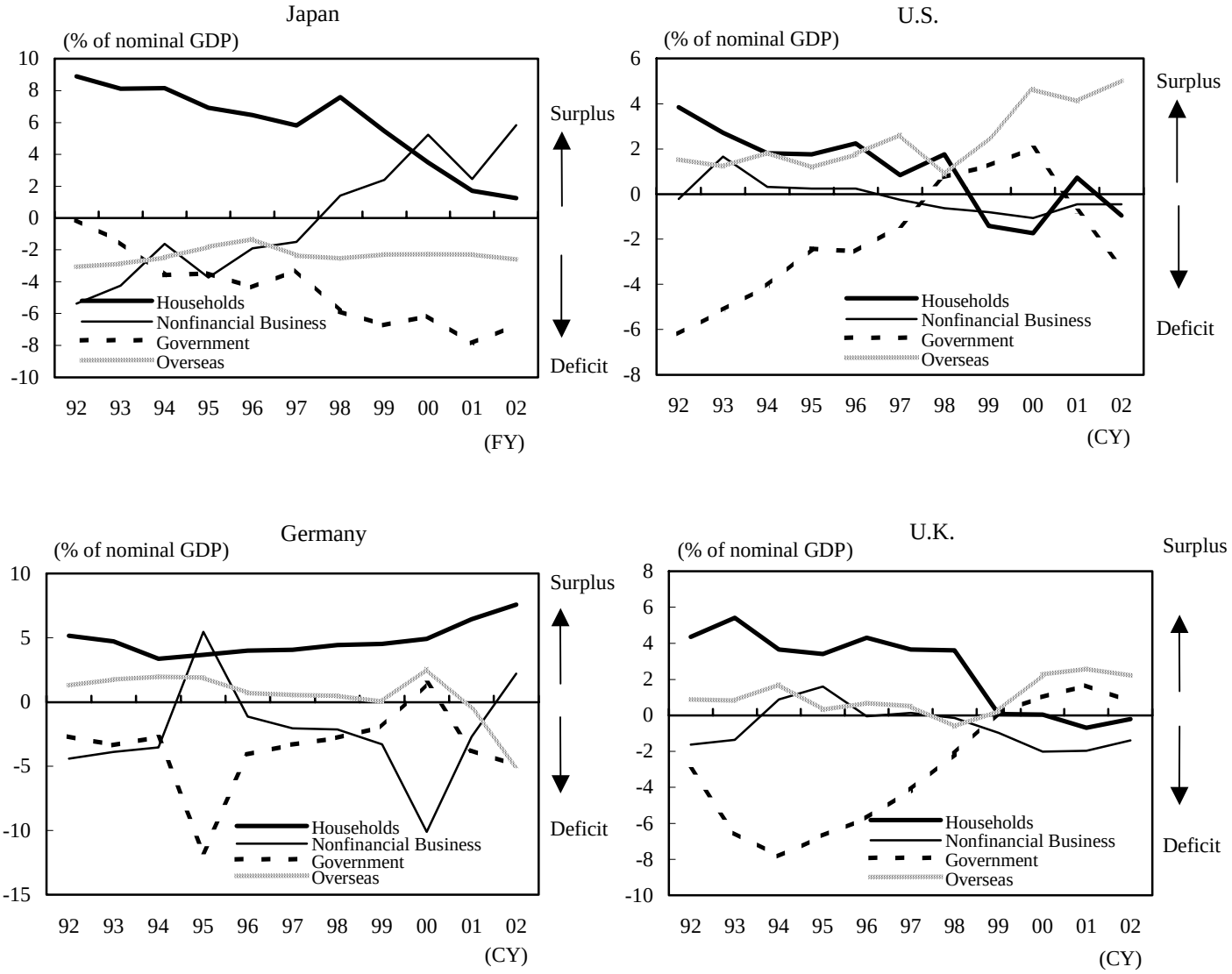


Notes: 1. Share of borrowings from public financial institutions represents the ratio of borrowings from public financial institutions to financial liabilities (excluding stocks and investments) in each sector.
2. "Public sector" represents the total of central and local governments and public non-financial corporations.

Source: Bank of Japan, "Flow of Funds."

Appendix 2 International Comparison 1: Financial Surplus/Deficit by Sector

Figure 3-28. Financial Surplus or Deficit by Sector



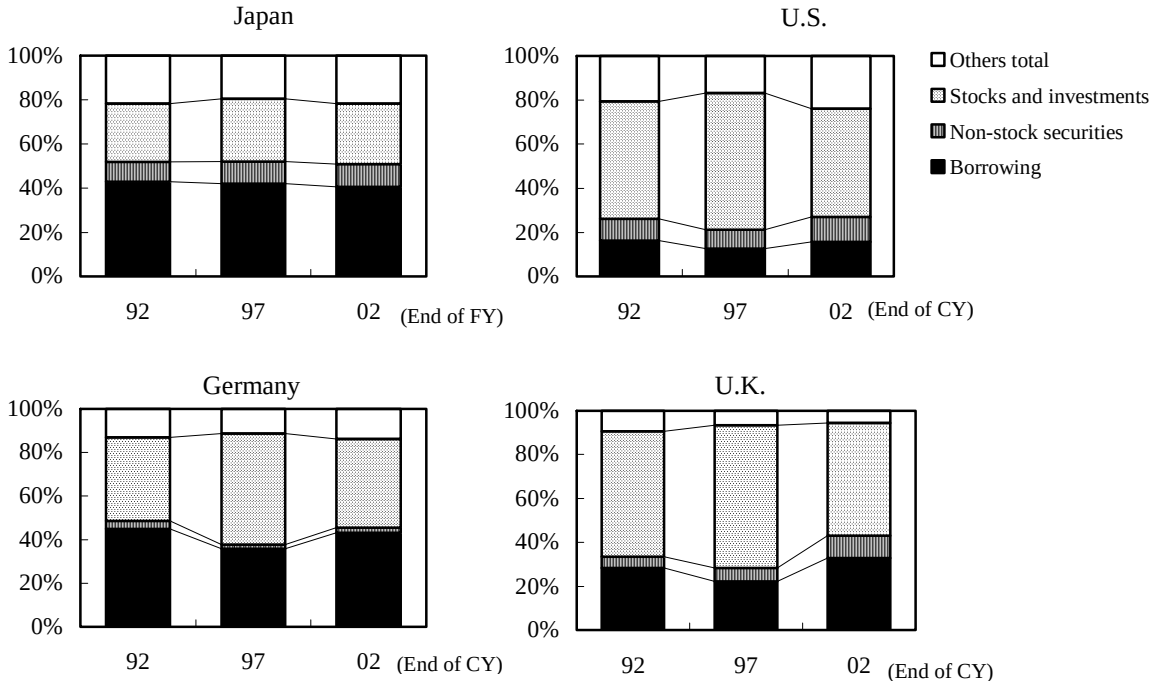
Notes: 1. Movements in the German government and nonfinancial business sectors in 1995 is due to an extraordinary factor resulting from the integration into government's general account of the debts of the Treuhandanstalt.

2. As regards Japan, adjustment is made for the discontinuity arising from the partial assumption of the debts left over from the JNR Settlement Corporation and the National Forest Special Accounts in fiscal 1998.

Sources: Bank of Japan, "Flow of Funds;" Cabinet Office, "Annual Report on National Accounts;" U.S. Federal Reserve Board, "Flow of Funds Accounts;" U.S. Department of Commerce, "Survey of Current Business;" Deutche Bundesbank, "Financial Accounts for Germany," "Monthly Report of the Deutche Bundesbank;" National Statistics of U.K., "Financial Statistics," "United Kingdom National Accounts."

International Comparison 2: Nonfinancial Business Financing

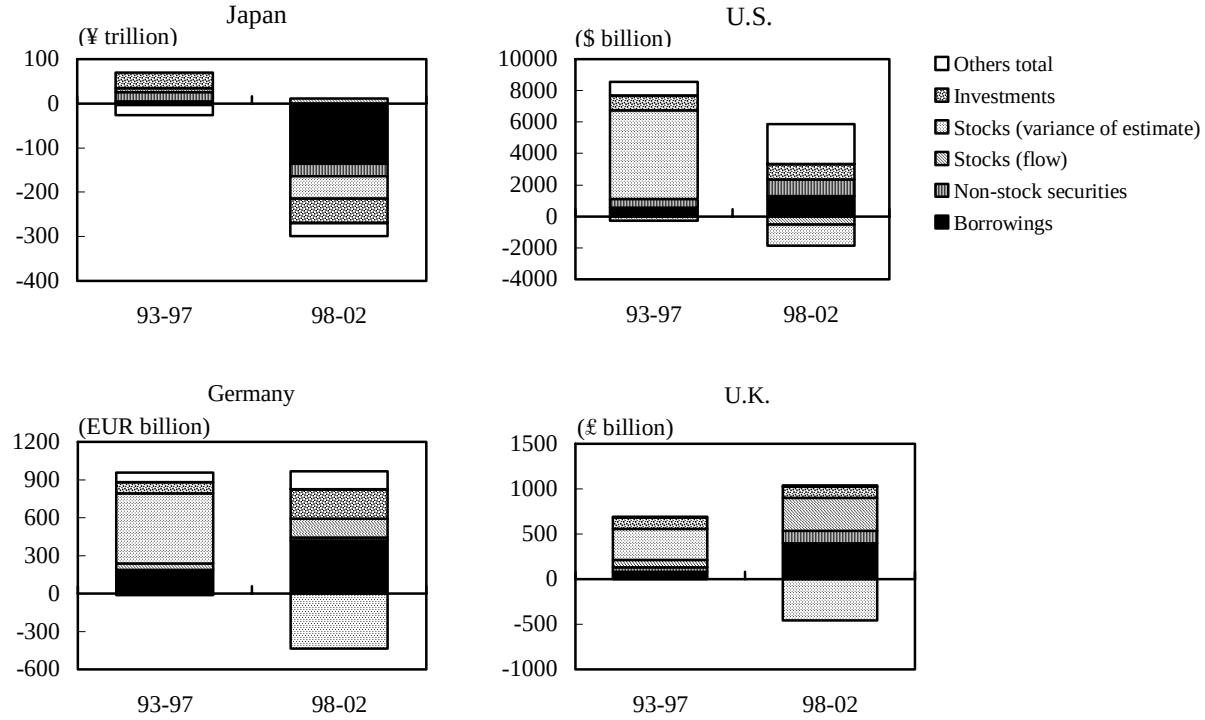
Figure 3-29. Change in Nonfinancial Business Liabilities and Capital (market value)



Note: Japan, the U.S. and the U.K. does not have a sector corresponding to insurance and annuity reserves. German insurance and annuity reserves are included in "others total."

Sources: Bank of Japan, "Flow of Funds;" U.S. Federal Reserve Board, "Flow of Funds Accounts;" Deutche Bundesbank, "Financial Accounts for Germany;" National Statistics of U.K., "Financial Statistics."

Figure 3-30. Change in Liabilities and Capital by Component

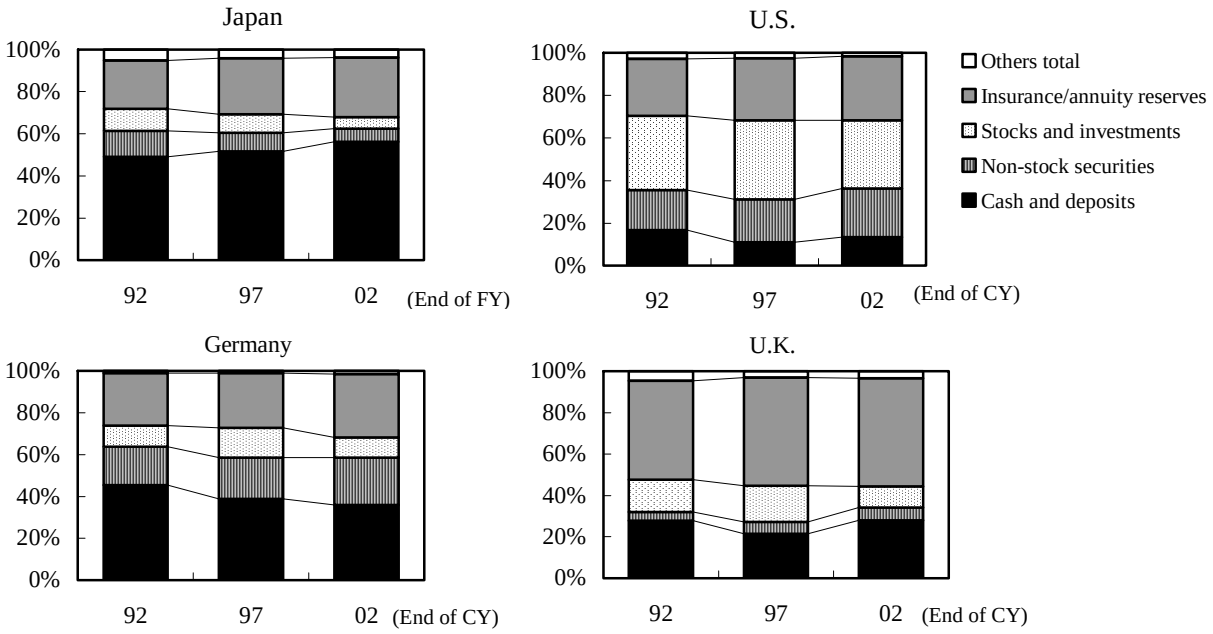


Note: 93-97 indicates change in liabilities and capital from the end of 1992 to the end of 1997 and 98-02 indicate the change from the end of 1997 to the end of 2002.

Sources: Bank of Japan, "Flow of Funds;" U.S. Federal Reserve Board, "Flow of Funds Accounts;" Deutche Bundesbank, "Financial Accounts for Germany;" National Statistics of U.K., "Financial Statistics."

International Comparison 3: Household Money Management

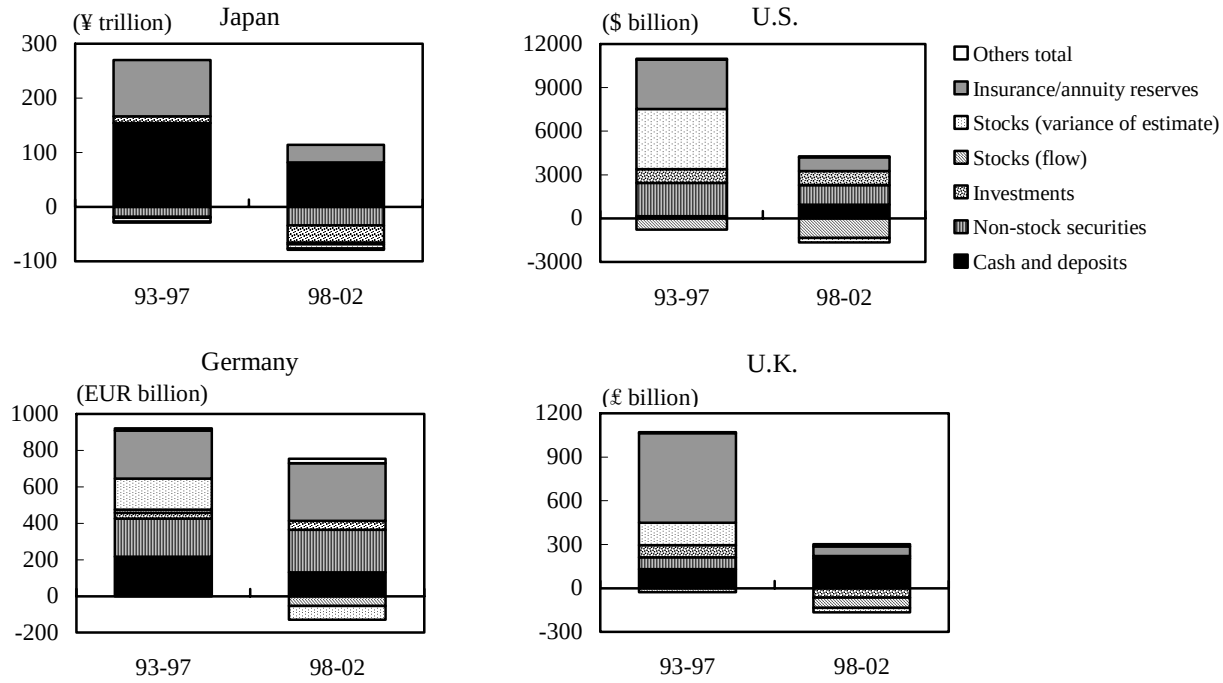
Figure 3-31. Change in Composition of Assets



Note: For the purpose of this section, Japanese households refer to the total of households and private non-profit organization serving households.

Sources: Bank of Japan, "Flow of Funds;" U.S. Federal Reserve Board, "Flow of Funds Accounts;" Deutche Bundesbank, "Financial Accounts for Germany;" National Statistics of U.K., "Financial Statistics."

Figure 3-32. Change in Composition of Assets by Component



Note: 93-97 indicates change in assets from the end of 1992 to the end of 1997 and 98-02 indicate the change from the end of 1997 to the end of 2002.

Sources: Bank of Japan, "Flow of Funds;" U.S. Federal Reserve Board, "Flow of Funds Accounts;" Deutche Bundesbank, "Financial Accounts for Germany;" National Statistics of U.K., "Financial Statistics."

Appendix 3 Views on Medium-term Prospects for the Japanese Financial System

Factors facilitating transition to a market-oriented system

Baba and Hisada (2001)
Changing financial environment generates pressure on the Japanese financial system to move toward a market-oriented system.
(Innovations in information technology, globalization, financial deregulation, changing household and corporate demand for financial services)
(See Note 1.)

I. Arguments for transition to a market-oriented financial system

Hoshi and Kashyap (1999)
The Japanese financial system will be transformed into a U.S.-style market-oriented financial system (process to be completed within 10 years).

- An imbalance exists between the reduced dependence of large businesses on banks for financing on the one hand, and the continued status of bank deposits as primary financial instruments for households on the other.
- The completion of financial liberalization will transform the forms of Japanese savings and financing into a U.S.-style structure, undermining the supremacy of the banking sector.→Bank loans will suffer a 30-50% decrease from the current level.

II. Arguments appreciating the current role of banks while recognizing the increased importance of a market-oriented financial system

(1) Roundtable Committee on the Vision of the Japanese Financial System and Policies in the Future (2000)
Japan will need a double-linear financial system centered on market functions.
- Wholesale: investment banking operations that respond to the demands of individual companies using sophisticated financial techniques.
- Retail: coexistence of banks reviewing a huge number of financing applications mechanically at a low cost using the scoring system on the one hand, and banks conducting traditional lending activities through individual reviews on the other.
- Individuals: may participate in investment activities involving the selection of financial institutions, large sums of money and search for higher returns, if financial services are diversified and their financial knowledge improves (See Note 2.)

(2) Allen and Gale (2000)
Movements toward market-oriented financial systems are currently observed, such as the progress in the formation of a European single market with the launch of the EU and the financial big bang in Japan, but a trade-off relation exists between the two systems. No general conclusion can be drawn as to which system is preferable.

(3) Ishida and Mio (2000)
Banks play a prominent role as providers of deposit currency, an important means of settlement.
- Business-to-business EDI is fraught with the asymmetry of information between traders, while e-money has security problems.

(Notes)

1. Innovation in information technology (1) allows the development of new financial instruments such as MBS (mortgage-backed securities) and ABS (asset-backed securities), (2) expands e-commerce and improves efficiency in market transactions and (3) enables the use of new lending techniques such as credit scoring, which quantifies corporate creditworthiness based on financial statements to make judgments (see Institute for Monetary and Economic Studies, Bank of Japan (2001) for details). Some U.S. firms, such as Dun & Bradstreet, provide corporate information including indicators that quantify corporate risks using statistical techniques.
2. Allen and Santomero (1997) note that with the development of various financial instruments due to innovations in information technology, households and businesses have to pay higher costs to understand financial products (participation cost).

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