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Quarterly Economic Outlook

Summary

1. Japan's economic growth has been decelerating since April, partly reflecting the impact of the consumption tax hike. Corporate sentiment has also weakened somewhat. However, the recovery trend in corporate profits, employment and income conditions has not been undermined, supported by the rise in exports and business fixed investment.

Among final demand items, public-sector investment has been declining, and housing investment has also dropped significantly, mainly reflecting the decline after the surge in demand prior to the consumption tax hike. Personal consumption has continued to be sluggish on the whole, although the impact of the consumption tax hike has gradually subsided. However, net exports and business fixed investment have been increasing. In these circumstances, excessive inventories are seen in some industries such as in consumer durables, and industrial production has stayed virtually unchanged. Employment and income conditions have continued to improve, although the pace of recovery has moderated somewhat.

Prices remained stable on the whole, excluding the effect of the consumption tax hike. Domestic wholesale prices (adjusted for seasonal electricity rates) have been relatively weak, reflecting easy supply and demand conditions for construction-related goods. The year-to-year decline in corporate service prices has slowed steadily, and the year-to-year growth in consumer prices (nationwide, excluding perishables) has been stable at around 0.5 - 0.6 per cent. Meanwhile, changes in land prices varied by type, and have not stopped declining on the whole.

2. In the financial markets, the overnight call rate (uncollateralized) stayed at the level slightly below the official discount rate of 0.5 per cent. The long-term government bond yield temporarily rose to near 2.7 per cent at the end of May, but it followed a declining trend since then, reflecting the uncertainty about future economic growth. It has been moving at around the record low level of around 1.7 per cent since early October. Stock prices also moved at a low level of around 17,000 - 18,000 yen. Meanwhile, the yen depreciated somewhat against the U.S. dollar as the contrast between Japan's and U.S. economic growth gained more attention. The yen has recently moved at around 120 - 122 yen to the U.S. dollar.

Growth in bank lending continues to be lackluster. Fund-raising activities through capital markets fell below the previous year's level. Growth in monetary aggregates in terms of M2 + CDs year-to-year average outstanding has continued at around 3 per cent.

3. With respect to the outlook, public-sector investment is expected to continue declining, judging from the government's budget. On the other hand, net exports are expected to follow an increasing trend, reflecting firm overseas demand and the depreciation of the yen to date, although the pace of increase will be slower than that recorded up to the second quarter.

According to the Bank of Japan's *Tankan -- Short-term Economic Survey of Enterprises* of September 1997, the increase in corporate profits overall is expected to be maintained, albeit at a slower pace. While profits of small-nonmanufacturing firms are expected to decline owing to the decline in demand in addition to structural factors, those of large manufacturing firms are projected to continue on an increasing trend, largely supported by exports. In these circumstances, the pace of increase in business fixed investment may slow down somewhat as investment in telecommunications is expected to remain unchanged after surging in the previous fiscal year. However, given that stock accumulation is not excessive and demand for information-related investment is strong, business fixed investment will continue a steady increase.

As for the household sector, the growth in bonus payments and overtime payments has been slowing. This may suggest that the economic deceleration since spring 1997 has started to affect household income. However, the significant deterioration of household confidence is unlikely to be triggered by these developments, as the current employment conditions are very different from those of around 1993 when the risk of severe employment adjustment was large. Also, the recent weaknesses in personal consumption and housing investment partly reflect the temporary factors, such as the reaction to the front-loading of demand before the consumption tax hike. The downward pressure from fiscal policies is likely to weaken gradually in the near future. Therefore, once the impact of the consumption tax hike subsides, an early recovery of household expenditure may translate into the positive cycle of production, income and expenditure. Still, there are uncertainties about the recovery in personal consumption, as consumer confidence is susceptible to psychological elements.

4. With respect to price developments, domestic wholesale prices are likely to continue to be weak for the time being. This is because inventory adjustment pressures are being exerted, and the downward pressure from electrical goods prices caused by technological innovation remains strong, although the downward pressure coming from import prices has been subsiding. Meanwhile, corporate service prices will stay virtually unchanged, and consumer prices are likely to continue a similar moderate rise.

5. In sum, fiscal policies, including the consumption tax hike, continue to affect Japan's economy, and the slowdown in domestic demand seems to have influenced corporate profits, employment and income conditions gradually through a deceleration in production activity.

However, corporate profits and employees' income have maintained their growth, although at a somewhat slower pace. Also, labor adjustment and capital stock adjustment pressures are not so large, and the risk of deflation is negligible. In light of this, the basis for economic recovery has not been undermined. If household expenditure picks up and inventory adjustment pressures subside steadily, the economic recovery is likely to gather momentum again, albeit gradually. Given the cautious corporate sentiments and the uncertainty about future developments in demand, it is essential to monitor closely future economic developments, particularly the pace of recovery in household expenditure, and the progress in inventory adjustment.

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I. Recent Economic Developments

Japan's economic growth has been decelerating since April, partly reflecting the impact of the consumption tax hike (Chart 1, 2). Corporate sentiment has also weakened somewhat. However, the recovery trend in corporate profits, employment and income conditions has not been undermined, supported by the rise in exports and business fixed investment.

Among final demand items, public-sector investment has been on a decreasing trend reflecting the restrained budget for fiscal 1997. Housing investment has been stagnant owing mainly to the decline after the surge in demand in the second half of 1996 ahead of the consumption tax hike. Personal consumption has continued to be weak on the whole, although the impact of the consumption tax hike has gradually been subsiding. Meanwhile, net exports have continued to rise owing to steady overseas economic growth and the yen's depreciation to date. Business fixed investment has increased as capital stock adjustment pressure has been weak, and profits have maintained their growth on the whole.

Inventories are somewhat excessive, particularly in consumer durables and construction-related goods (Chart 3). Reflecting these developments in final demand and inventories, industrial production has probably stayed virtually unchanged in the third quarter 1997, as it did in the second quarter. Industrial production in the fourth quarter is also likely to stay virtually unchanged as a result of inventory adjustment pressures. In these circumstances, the ratio of job offers to job applications and the unemployment rate remained virtually unchanged. Meanwhile, employment growth has continued its moderate growth and the nominal wage per worker has continued to rise, although the pace has slowed somewhat (Chart 4).

Prices remained stable on the whole, excluding the effect of the consumption tax hike (Chart 5).[1] Domestic wholesale prices (adjusted for seasonal electricity rates) have weakened somewhat reflecting the easy supply and demand conditions for construction-related goods. Corporate service prices remained virtually unchanged month-to-month, and the decline has slowed significantly year-to-year. The year-to-year increase in consumer prices (nationwide, excluding perishables) has been stable at around 0.5 - 0.6 per cent.[2]

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[1]In this article, price developments are described on an ex-consumption tax basis. This is because the price rise reflecting the consumption tax hike is temporary in nature, which differs from a persistent upward pressure on prices that reflects macroeconomic disequilibrium.

[2]Original data before adjusting for the consumption tax hike shows that the GDP deflator rose significantly in the second quarter, particularly in the personal consumption deflator (Chart 6). However, judging from the various price indices, the underlying trend is stable. (Unlike other price indices, composition of which are available in detail, the GDP deflator is difficult to adjust for the consumption tax hike).

With respect to commercial land prices, prices of plots near the city center, suitable for major developments, have more or less stopped declining against the background of a decline in office vacancy rates. Prices of small, irregular-shaped land parcels have continued to decline. Residential land prices have not stopped declining, partly reflecting weak condominium sales, although the decline has moderated significantly, particularly in Tokyo.

II. Recent Monetary Developments

1) Financial Markets

Regarding money market rates (Chart 7, top), the overnight call rate (uncollateralized) stayed at the level slightly below the official discount rate of 0.5 per cent. The 3-month CD rate has recently moved at around 0.5 - 0.55 per cent. With respect to Euro-yen futures, the slope of the curve plotted against each delivery month temporarily became steep at the end of May 1997 (Chart 8, top). However, the slope has since flattened, which indicates that the market expectations of higher interest rates are weak.

The long-term government bond yield temporarily rose to near 2.7 per cent at the end of May (Chart 7, top). However, it has followed a more or less constant declining trend since then, reflecting growing uncertainty about future economic growth, and moved at the record low level of around 1.7 per cent since early October. While the one-year IFR (implied forward rates) as calculated from swap rates for short-term zones has shown larger declines, those for all periods have declined significantly compared to the end of May (Chart 8, bottom).

Various factors may have caused the decline in long-term government bond yields. An estimated equation for long-term government bond yields shows that in the long-term perspective, a decline in the expected inflation rate is the major cause of the interest rate decline (Chart 9 (1)).[3] In addition, the recent short-term fluctuations seem to have been caused mainly by economic developments since April such as the industrial production which stayed virtually unchanged after having shown strong increase since the second half of 1996.[4] The rise in the risk premium also seems to have forced down the yield of government bonds which are considered to be a safe asset.[5]

These developments are reflected in bank lending rates (Chart 7, bottom). The short-term prime lending rate has stayed at the record low level of 1.625 per cent since September

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[3]The expected inflation rate is assumed to be adjusted gradually to the actual inflation rate. Thus, the rate of change in consumer prices (excluding perishables adjusted for the consumption tax hike) over the previous three years is used as a proxy.

[4]To estimate an equation for each zone, the long-term interest rates (ten-year government bond yield) are broken down into short-term zones (government bond yield of two years to maturity), medium-term zones (IFR calculated from government bonds of two years and six years to maturity), and long-term zones (IFR calculated from government bonds of six years and ten years to maturity) (Chart 9, (2)). An estimate shows that the quarter-to-quarter change in industrial production, a variable which indicates the short-term economic developments, is statistically significant as an explanatory variable for the IFR of both medium- and long- term zones.

[5]Chart 9 applies the differential between CD and TB yields as the proxy for the risk premium. The rapidly expanding gap between BBB-rated corporate bond yields (mainly construction companies) and government bond yields since summer also shows that investors are selecting financial assets to avoid credit risk.

1995. The long-term prime lending rate had been lowered since June and reached a record low of 2.3 per cent in October. Both the short-term and long-term contracted interest rates on new loans have remained at record low levels.

On the stock exchange, the Nikkei 225 Stock Average moved at around 20,000 - 21, 000 yen between May and July (Chart 10, top). However, it declined to around 18,000 yen in September reflecting uncertainty about future economic growth and the failure of some general construction companies, and has recently moved at around 17,000 - 18,000 yen. Price difference has become wider across individual stocks, and the yield spread (long-term bond yield minus stock yield) has been declining further (Chart 10, bottom). Together with the decline in the expected growth rate of corporate profits, this may imply that the risk premium is rising.[6]

On the foreign exchange market (Chart 11, top), the yen appreciated to 110 yen to the U.S. dollar in the first half of June. However, the yen reversed course and depreciated somewhat with some fluctuations, as the contrast between Japanese and U.S. economic growth gained attention. Recently, the yen has moved at around 120 - 122 yen to the U.S. dollar. The yen has also been depreciating against the Deutsche mark since summer and has recently moved at around 67 - 69 yen. As a result of the currency turbulence in ASEAN, the yen has appreciated approximately 30 per cent against ASEAN currencies since summer 1997. The real effective exchange rate (Chart 11, bottom), which shows aggregate movements in the currencies of the major countries to which Japan exports, the yen is almost at the level recorded in 1991.

2) Monetary aggregates

Growth in bank lending by city banks, long-term credit banks, trust banks, regional banks, and regional banks II, continues to be lackluster (Chart 12). The year-to-year changes were -0.2, -0.1, and -0.3 per cent in the first, second, third quarter 1997, respectively. This basically reflects the fact that business fixed investment is generally financed by firms' cash flows.[7] The fund-raising activities through capital markets (in gross terms) continue to be below the previous year's level. This is because equity financing has been subdued against the background of weak stock prices, although issues of straight bonds have exceeded the level of the previous year (Chart 13, top). Lending to the household sector shows that although housing loans have been steady, consumer credit has continued to decline (Chart 13, bottom).

[6] The yield spread, when simplified, is equivalent to the medium-term nominal expected growth rate minus the risk premium between stock and government bonds. Thus, the decline in the yield spread would suggest a decline in the medium-term nominal expected growth rate, and/or a rise in the risk premium.

[7] Firms' savings - investment balances in the *Corporate Business Statistics Quarterly* show that somewhat excess investment in the nonmanufacturing sector has been offset by excess savings in the manufacturing sector. Thus, the net balance in the corporate sector as a whole is not stimulating the demand for funds.

Growth in monetary aggregates in terms of M2 + CDs year-to-year average outstanding continues at around 3 per cent (Chart 14, top), with 3.0, 3.0, and 3.0 per cent in the first, second and third quarter, respectively. The change in growth of M2 + CDs over the last three months (seasonally adjusted, annual rate) has been stable almost within the range since the beginning of the economic recovery in 1994 (Chart 14, bottom). Broadly defined liquidity average outstanding recently grew at around 3.0 - 3.5 per cent, a slightly slower pace compared to the average growth around 1995 - 1996 of 3.5 - 4.0 per cent. The year-to-year average outstanding growth in M1 has continued to be high at around 8 per cent, although the pace has slowed significantly. The growth of M2 + CDs year-to-year average outstanding in the fourth quarter 1997 is expected to be around 3 per cent.

III. Economic Outlook

1) Japan's economy

With respect to public-sector investment, the nominal public fixed investment in GDP increased in the second quarter 1997, but this is likely to have been a temporary rise owing to the government's supplementary budget for fiscal 1996 (Chart 15). The amount of public-works contracted, which closely reflects orders, picked up temporarily in spring, but has recently weakened again. Shipments of public works-related goods have also continued to decline. Over the longer term, public-sector investment is expected to follow a declining trend. This is because the fiscal 1997 budget is restrained, particularly for local government-financed projects. Also, based on the final report on Conference on Fiscal Structure Reform, the fiscal 1998 budgetary draft requested for public works in the general account shows a 7 per cent decline from the fiscal 1997 budget.

With respect to overseas economic conditions surrounding Japan's exports, domestic demand is slowing down in ASEAN economies owing to the currency turbulence. In particular, Japan's exports to Thailand have declined significantly, mainly in automobile-related goods (Chart 16, top). Economic adjustment policies are likely to continue for some time in these countries in order to recover the confidence in their currencies. Developments in these countries should thus be watched closely. However, Japan's export conditions are unlikely to deteriorate drastically as the share of exports to ASEAN economies is not so large,[8] and as countries in other areas such as the U.S. will continue to show solid economic growth on the whole (Chart 16, bottom). Meanwhile, the real effective exchange rate has continued to be at the level recorded in 1991 reflecting the yen's depreciation to date, which suggests that export conditions are favorable in terms of price competitiveness.

In these circumstances, real exports are likely to continue increasing. However, considering that the U.S. economy will maintain its expansion but at a more sustainable pace,[9] and that the stimulative effects of the yen's depreciation to date will gradually subside, the pace of export growth is expected to be moderate compared to that between the second half of 1996 and the second quarter 1997 (Chart 17, top).

Real imports have remained virtually unchanged from mid-1996 (Chart 17, top). After having increased rapidly around 1994-1995, real imports have since remained virtually unchanged mainly because of two factors. First, overseas production by Japanese firms, which had expanded rapidly until around 1995, has slowed its pace against the background of

[8]Exports in 1996 on customs clearance basis show that while Thailand takes 4.5 per cent, that towards four countries of Indonesia, Malaysia, the Philippines in addition to Thailand take 12.3 per cent.

[9]According to the IMF's World Economic Outlook, published in September, real GDP growth in the U.S. is expected to slow from 3.7 per cent in 1997 to 2.6 per cent in 1998.

the depreciation of the yen. This development has dampened imports from Japanese affiliates and purchases of parts overseas. Second, the rapid expansion of Japan's information-related market around 1995 had pushed up imports of information-related goods.[10] Recently, however, the expansion of domestic demand for information-related goods has slowed, as is evident in the pause in that for home computers. Basically, Japan's trade structure is considered to have become more favorable to imports against the background of further internationalization of the trading structure and the progress in deregulation. However, owing to slow domestic demand growth and the depreciation of the yen, imports are unlikely to start rising significantly and are expected to remain virtually unchanged for some time.

Reflecting these developments in exports and imports, <u>net exports</u> are expected to follow an increasing trend, although at a slower pace than that of the period to the second quarter. The current-account surplus is expected to follow a trend similar to that of net exports (Chart 17, bottom).[11]

Turning to the domestic private sector, it is convenient to look at developments in <u>profits</u> to obtain a general picture of corporate activities. Profits of large manufacturing firms, which are the driving force of the current economic recovery, has been following an increasing trend reflecting restructuring efforts and sales growth (Chart 18). Although the slowdown in domestic demand that has occurred since early fiscal 1997 has begun to affect profits, this has been largely offset by the rise in exports, particularly in volume. On the other hand, profit conditions of nonmanufacturing firms, which are not supported by exports are relatively severe as indicated in the weaker tertiary industry activity index compared to industrial production (Chart 19, top). This is because the declines in public-sector investment and weak household expenditures directly translate into lower sales. In more detail, a relatively large share of the large nonmanufacturing firms sector consists of corporate service-related industries, such as information services, leasing and advertising. The activity of these industries has been relatively strong (Chart 19, bottom), and are pushing up overall profits of large manufacturing firms. However, profit conditions for small nonmanufacturing firms, of which a large share consists of wholesalers, retailers and construction companies, are particularly severe, reflecting the decline in demand as well as the structural factors.

According to the Bank of Japan's *Tankan -- Short-term Economic Survey of Enterprises* of September 1997, the increasing trend in profits has continued, particularly for

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[10]As the production of information-related goods is highly diversified between the U.S., Asian economies and Japan, the impact of domestic demand on imports is larger compared to other goods.

[11]Although the real trade surplus in Chart 17, bottom, does not equal net exports in strict terms, (i.e., 1) the real trade surplus is on a customs clearance basis, not on a Balance of Payments basis, and 2) does not include services), the difference is insignificant. Advantages of using the real trade surplus figures are that they are prompt and are available on monthly basis.

the large manufacturing firms, and the economic recovery that flows from corporate profits seems to have been sustained (Chart 20). However, forecasts of current profit growth have been revised downwards since the June survey, particularly by nonmanufacturing firms and small firms, and profits of small nonmanufacturing firms are projected to decline for the first time in four years. The pace of profit growth has thus slowed on the whole.

Given these developments in corporate profits, the growth in business fixed investment will be examined by the investment plans for fiscal 1997 in the September *Tankan.* While the investment growth in the principal nonmanufacturing firms is projected to be lower than that in the previous fiscal year, as investment in telecommunications is expected to remain unchanged after having surged in the previous fiscal year,[12] the growth in the principal manufacturing firms is planned to be higher than that in the previous fiscal year, particularly in motor vehicles, information-related industries (electrical machinery, nonferrous metals, petrochemicals) (Chart 21, top). This makes the growth of investment plans in principal firms overall marginally higher compared to the previous year. Judging from the experience in recent years, however, electricity companies which have pushed up investment plan in the overall principal nonmanufacturing firms, are likely to revise down their investment plan, bringing the investment growth by all principal firms down to a figure similar or lower than that for fiscal 1996 (Chart 21, bottom). Meanwhile, overall investment plans for fiscal 1997 by small firms were somewhat weaker than those for fiscal 1996, because investment plans of nonmanufacturing firms, which have a larger share, remains stagnant, although plans by manufacturing firms at this time of the fiscal year are relatively strong compared to those in the past few years.

These suggest the pace of increase in business fixed investment may slow slightly in fiscal 1997. However, the firmness in the business fixed investment will be maintained, as stock accumulation is not excessive and the potential demand for information-related investment is strong. In more detail, the production capacity DI in the *Tankan* survey for principal manufacturing firms suggest that excess capacity has continued to decline. The office vacancy rates in major cities have also declined (Chart 22). The stock cycle position for all industries indicates that accumulation of capital stock is not excessive (Chart 23), as the recovery in business fixed investment in the past few years has been in line with the medium-term growth rate of around 2 per cent. As firms have already been cautious about investment activities, the recovery trend of business fixed investment is fairly unlikely to be disrupted by the recent deceleration in domestic demand.

[12] According to a survey by the Ministry of Posts and Telecommunications which has a wide coverage of the telecommunications industry, the investment value of Type I telecommunications business, including NTT, increased by 24.6 per cent in fiscal 1996, owing mainly to the surge in mobile telecommunications. However, growth in investment value in fiscal 1997 is expected to remain virtually unchanged at 2.1 per cent. This change in growth is large enough to lower the growth rate of total business fixed investment by one per cent.

Meanwhile, the balance-sheet adjustment continues to restrain investment by firms. A regression analysis was conducted using panel data by industry from fiscal 1980 to 1996 to measure the impact debt burden on investment activities. In this analysis, the ratio of debt outstanding to land-holding outstanding at market value is used as the debt-burden indicator which takes the deterioration of own capital into account (Chart 24). The results show that the debt-burden indicator has a negative impact on investment across all industries of all sizes. Also, the magnitude of the negative impact is larger on small firms than large, and on nonmanufacturing firms than manufacturing firms. On the other hand, the net debt to sales ratio in time series shows that the debt burden overall has alleviated, although it is still heavy in industries such as real estate (Chart 25). It is suggested, therefore, that the restraining pressure on investment from the balance-sheet problem is expected to be mitigated gradually, especially so if further measures are implemented to facilitate liquidation of land.

With respect to employment and income conditions, the growth in employees' income has recently slowed, particularly in bonus payments and overtime payments, which are more sensitive to developments in production and corporate profits (Chart 26, top). While growth in bonus payments has marginally risen in the manufacturing sector, that in the nonmanufacturing sector has slowed on the whole, particularly in the construction industry where the decline in public-sector investment and housing investment has had negative effects (Chart 26, bottom). This implies that the slower growth in corporate profit has started to affect household income. Partly owing to restructuring efforts, however, the proportion of personnel costs in relation to corporate profits has been declining steadily. The employment DI in the *Tankan* survey also suggests that excess employment has been declining (Chart 27, top). Reflecting the decline in labor adjustment pressure, recruiting plans for new graduates in spring 1998 show an increase as in 1997 (Chart 27, bottom). All of the above indicate that the employment conditions are clearly better than those at around 1993 when adjustment risks were large. This, together with an increasing flexibility in the labor market, is likely to keep supporting consumer confidence.

Personal consumption has continued to be weak on the whole, although it has recovered gradually from the impact of the consumption tax hike (Chart 28).[13] Weak personal consumption is caused by three factors; 1) the continued weakness following the surge in demand ahead of the consumption tax hike (the reaction factor), 2) the decline in real purchasing power owing to fiscal consolidation measures including the consumption tax hike, discontinued special tax cuts, and increased medical expenses (fiscal policy factor), and 3)

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[13]Economic indicators related to household expenditures are usually shown in year-to-year terms. Owing to the surge in demand ahead of the consumption tax hike, many figures for the previous year showed large increases between autumn and the fiscal year end. Thus, it seems more appropriate to look at those figures in terms of the seasonally-adjusted basis in order to assess economic developments. (With respect to automobiles for which a surge in demand ahead of the consumption tax was particularly large, the year-to-year figures may continue to be negative until the fiscal year end even after data on seasonally-adjusted basis recovers.)

slower income growth (income factor).[14] Of these, the reaction factor will subside eventually although its effect has lingered. Furthermore, the additional downward pressure on household expenditure from the fiscal policy factor is likely to weaken, as the planned institutional changes have already been implemented. That is, the effects of these two factors have passed their peak. The income factor, however, is endogenous in nature, and therefore is the result, as well as the cause, of economic fluctuations.

Therefore, the sustainability of the economic recovery depends on whether personal consumption will pick up promptly as the impact of the consumption tax hike subsides, before income growth slows further. If the recovery in household expenditure including housing investment helps lift inventory adjustment pressures at a relatively early stage, the fiscal policy factor will subside, and the positive cycle between production, income and expenditure will come into effect again. However, there are uncertainties as to the recovery in personal consumption, since consumer confidence is susceptible to psychological factors. Passenger car sales, which had been boosted ahead of the consumption tax hike by particularly a large magnitude, and have a significant effect on manufacturing sector overall, should be watched closely.

With respect to housing investment, another component of the household sector, housing starts declined drastically after peaking in the fourth quarter 1996 when demand surged ahead of the consumption tax hike[15] (Chart 29). Movements in housing starts are broken down into "fundamental fluctuations"[16] which reflect potential demand for new housing and rebuilding, and "short-term fluctuations" which is derived from cyclical or temporary factors. In this context, a large short-term fluctuation has been observed since 1996. Applying an equation using interest rates, rate changes, and land price changes to short-term fluctuations (Chart 30) shows that the increase in housing starts in 1996 has by far exceeded a level explicable by these factors, indicating a large contribution from the surge ahead of the consumption tax hike. Thus, the rapid decline in housing starts since early 1997 is basically a reaction to this increase in demand.

[14] These three factors partly overlap, and when a psychological element is considered, the cause of weak consumption may not necessarily be categorized into these three factors. The categories are used here only for the purpose of conceptual clarity.

[15] With respect to housing, a provision allowed the application of the old tax rate for housing which was contracted by the end of September 1996, including that which became available for use only after April 1997. Stepped-up contracts were thus stimulated by September 1996, and led to a rapid increase in housing starts in the fourth quarter.

[16] Potential demand for new housing has been calculated from data such as the increase in the number of households. Potential demand for rebuilding has been obtained from the estimated age of housing stocks (see footnote on Chart 29 for details).

Also, in the short-term, expectation of higher interest rates or higher land prices increases housing starts while expectation of lower interest rates or lower land prices decreases them (Chart 30). Thus, stagnant housing starts of the summer may partly reflect the fact that land prices have not bottomed out, and that expectations for lower interest rates had increased reflecting the decline in long-term interest rates. In these circumstances, housing investment in fiscal 1997 is likely to fall significantly below fiscal 1996. However, it is expected to pick up toward the end of fiscal 1997 from the significantly low level which reflects the impact of the consumption tax hike.

2) Prices

With respect to price developments, import prices in yen terms showed large fluctuations. They rose rapidly between the second half of 1996 and early 1997, and declined substantially in the first half of 1997, reflecting movements in crude oil prices and the yen's exchange rate (Chart 31, top, middle). Import prices have recently stabilized on the whole, however, and neither upward nor downward pressure from import prices on domestic prices is likely to be of any significance. Also, as a result of the rapid increase in the import penetration rate during 1993 - 1995 (Chart 31, bottom), downward pressure had been exerted on domestic prices through intensified competition. However, considering that the penetration rate has stayed virtually unchanged since mid-1996, the downward pressure from this factor is also insignificant.

Domestic supply and demand conditions, which continued to improve moderately until early 1997, have eased somewhat (Chart 32, top). This appears to reflect inventory adjustment pressure. The domestic commodity market is also easing, particularly in construction goods, prices of which are sensitive to excess inventories. Meanwhile, firms' views on prices both of products and materials have recently eased marginally (Chart 32, bottom).

With respect to the outlook, <u>domestic wholesale prices</u> are likely to continue declining somewhat for some time. This is because, while downward pressures from the imports have decreased, inventory adjustment pressure is being exerted and the downward pressure from technological innovation in electrical goods prices remains strong.

The year-to-year declines in <u>corporate service prices</u> have slowed significantly. In more detail (Chart 33), while prices of "leasing and renting" have continued to decline, those of "general services", which include information services, have begun to rise somewhat. The decline in "real estate rents" has also slowed substantially, reflecting the improvement in supply and demand conditions for office buildings. The decline in leasing prices reflect such factors as technological innovation. On the other hand, the steady demand for information-related services and the moderate decline in office vacancy rates of metropolitan areas are likely to continue. Thus, corporate service prices will remain virtually unchanged for some time both in quarter-to-quarter, and year-to-year terms.

With regard to consumer prices (nationwide, excluding perishables), the decline in "goods" prices has stopped slowing, and the rise in "private-sector services" stopped increasing (Chart 34). In these circumstances, consumer prices are likely to continue the current moderate rise for some time,[17] as domestic wholesale prices decline somewhat and the supply and demand conditions in the labor market is virtually unchanged.

3) Conclusion

In sum, fiscal policies, including the consumption tax hike, continue to affect Japan's economy, and the slowdown in domestic demand seems to have influenced corporate profits, employment and income conditions gradually through a deceleration in production activity.

However, corporate profits and employees' income have maintained their growth, although at a somewhat slower pace. Also, labor adjustment and capital stock adjustment pressures are not so large, and the risk of deflation is negligible. In light of this, the basis for economic recovery has not been undermined. If household expenditure picks up and inventory adjustment pressures subside steadily, the economic recovery is likely to gather momentum again, albeit gradually. Given the cautious corporate sentiments and the uncertainty about future developments in demand, it is essential to monitor closely future economic developments, particularly the pace of recovery in household expenditure, and the progress in inventory adjustment.

[17]The rise in medical charges that resulted from the medical insurance reform is likely to contribute an increase in the September consumer prices by about 0.4 per cent. (The index for Tokyo shows that medical charges have pushed up total consumer prices by 0.5 per cent in September.) See Footnote 1 on the consumption tax hike for an evaluation of this kind of price increase.

Charts

Main Economic Indicators

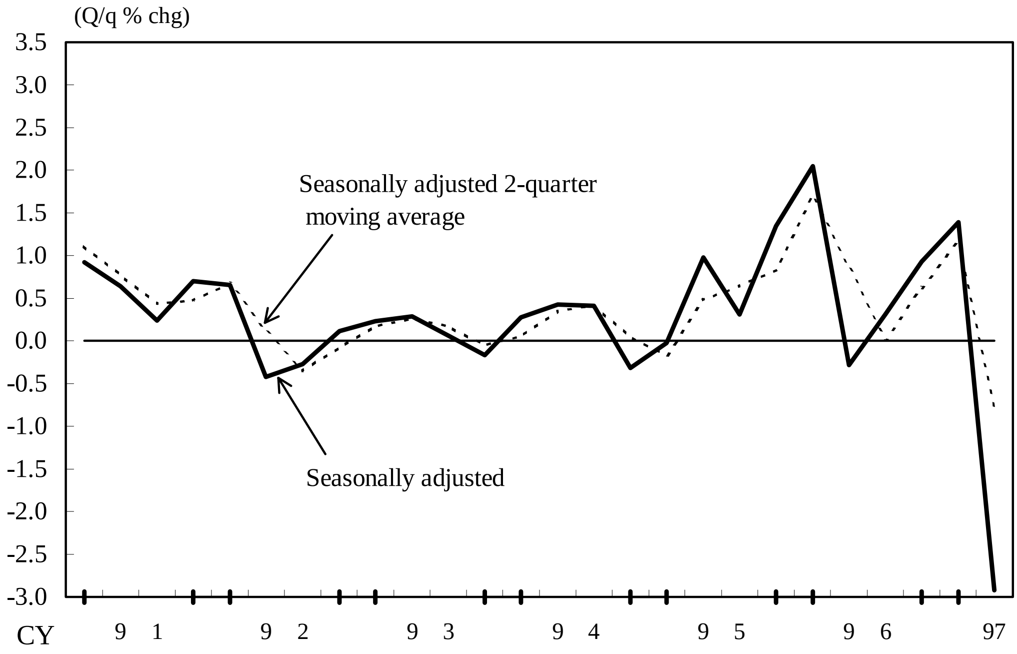
	1996/1Q	2Q	3Q	4Q	1997/1Q	2Q	3Q
Industrial production							(Jul-Aug)
(Q/q % chg, S.A.)	0.6	-0.4	2.1	2.1	2.4	0.0	-0.6
(Y/y % chg)	1.1	0.7	3.9	4.9	6.4	6.7	4.2
Business conditions ("favorable" - "unfavorable" % points)	-15	-6	-5	-2	-1	0	-6
Index of expenditure level (all households) (Y/y % chg)	2.1	1.6	-1.7	0.5	3.5	-2.7	(Jul-Aug) 1.0
Sales of large-scale retail stores (Y/y % chg)	1.8	-0.1	-2.1	-0.8	4.2	-5.0	(Aug) -0.7
Sales of household electric appliances (Y/y % chg)	14.8	13.9	6.7	3.9	14.9	-8.3	(Jul-Aug) -4.7
New passenger car registrations (excl. mini vehicles) (Y/y % chg)	-1.0	-0.4	6.0	15.3	16.2	-9.2	-10.3
<S.A., annualized 10,000 units>	358	345	373	413	418	313	334
New housing starts							(Jul-Aug)
(Y/y % chg)	4.4	13.2	17.9	10.8	-3.8	-10.2	-23.0
<S.A., annualized 10,000 units>	158	161	167	171	152	144	127
Machinery orders (Y/y % chg)	8.7	12.8	10.7	17.3	6.2	2.5	(Jul-Aug) 1.4
Construction floor area (Y/y % chg)	16.3	12.8	8.5	21.0	-1.0	0.7	(Jul-Aug) -2.9
Public works contracts (Y/y % chg)	46.0	-2.0	-1.9	-4.7	-26.3	-1.2	-1.7
Ratio of job offers to applications (S.A., times)	0.66	0.69	0.72	0.75	0.74	0.73	(Jul-Aug) 0.73
Real exports (Q/q % chg, S.A.)	-3.6	1.0	1.7	5.0	-0.3	7.5	-0.4
Real imports (Q/q % chg, S.A.)	0.2	2.3	1.8	-1.0	0.6	-2.2	3.0
Wholesale Price Index (Domestic, Y/y % chg)	-1.0	-0.9	-0.7	-0.6	-0.2	-0.1	-0.1
Consumer Price Index (Excluding perishables, Y/y % chg)	0.0	0.2	0.2	0.3	0.4	0.6	(Jul-Aug) 0.6
Money Stock (M_2+CDs) (Averages of daily figures, Y/y % chg)	3.0	3.4	3.6	3.4	3.0	3.0	3.0

Notes: 1. Figures for business conditions are for principal enterprises of all industries.
2. Figures for machinery orders are those from the private sector excluding electric power companies. Shipbuilding orders are also excluded.
3. Figures for construction floor area are for private non-residential use.
4. Figures for WPI and CPI of 1997/2Q are adjusted by the Research and Statistics Dept. to exclude the effects of the rise of the consumption tax rate in April 1997, on the assumption that prices of taxable goods and services fully reflect this tax rise.

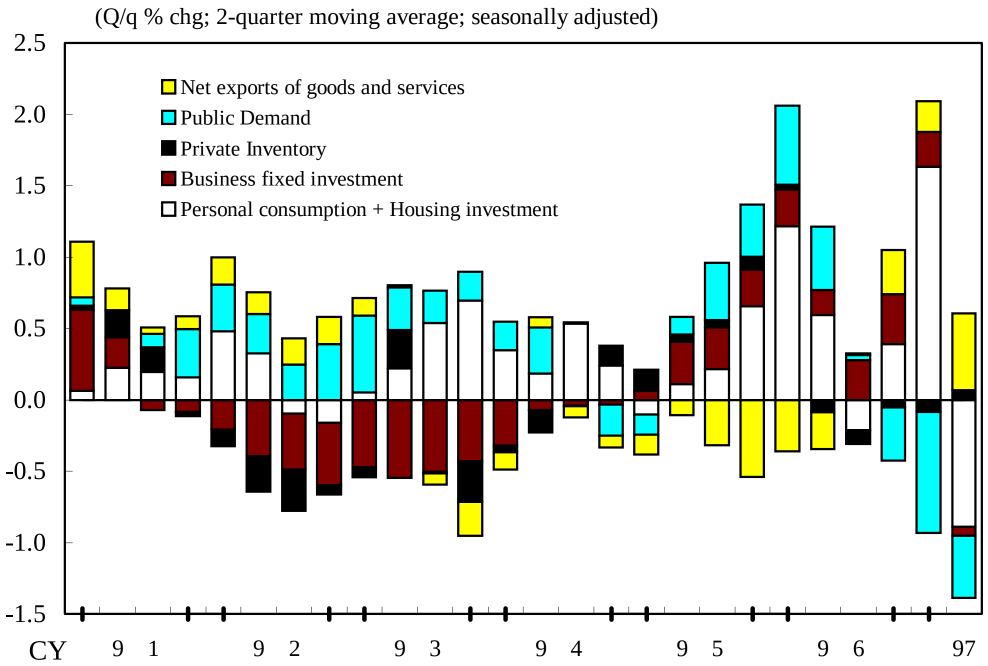
Sources: Ministry of International Trade and Industry, Bank of Japan, Management and Coordination Agency, Nippon Electric Big-stores Association, Japan Automobile Dealers Association, Ministry of Construction, Economic Planning Agency, Surety Association for Construction Companies, Ministry of Labor, Ministry of Finance.

Real GDP

(1) Real GDP Growth Rates



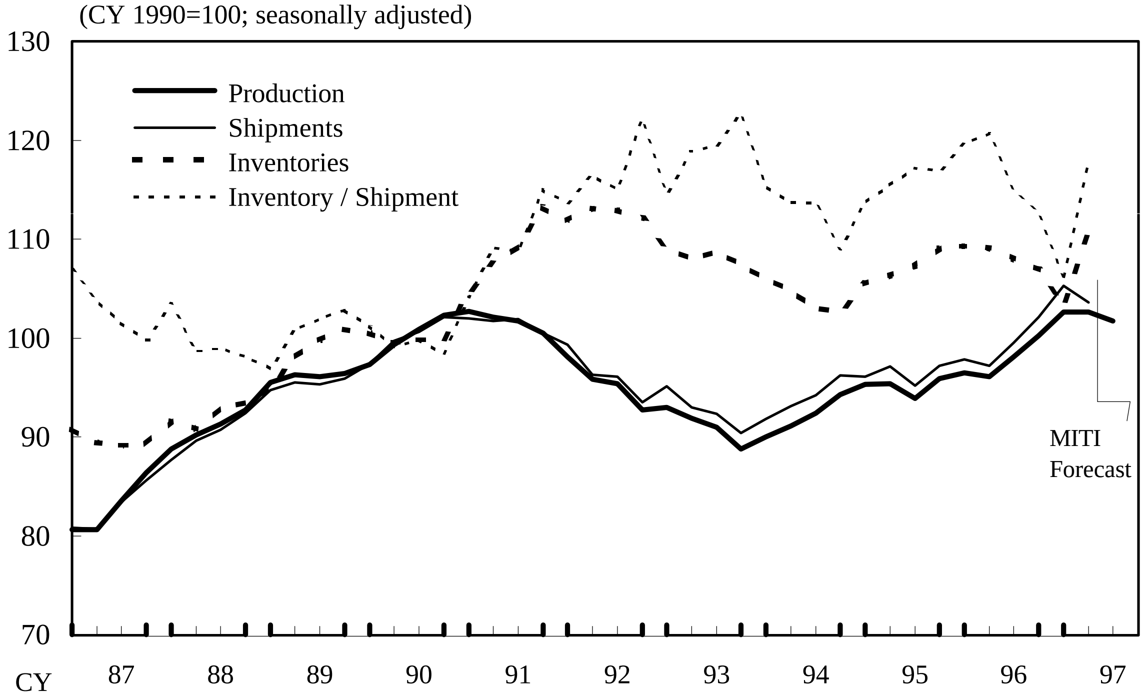
(2) Contribution by Components



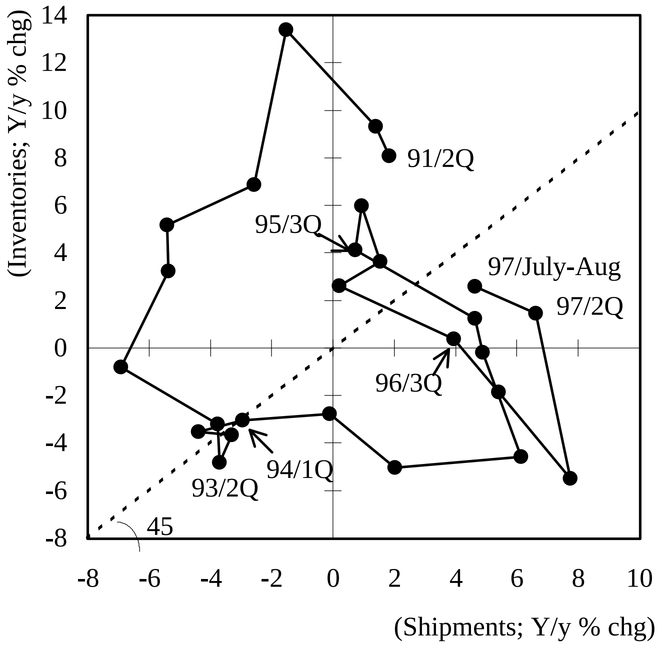
Source: Economic Planning Agency "National Income Statistics."

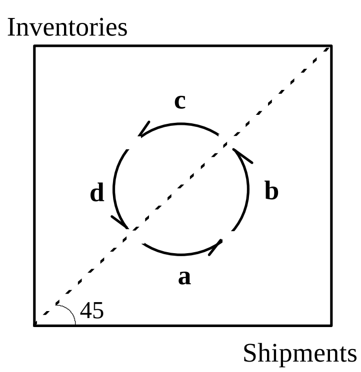
Production, Shipments, and Inventories

(1) Production, Shipments, and Inventories



(2) Inventory Cycle



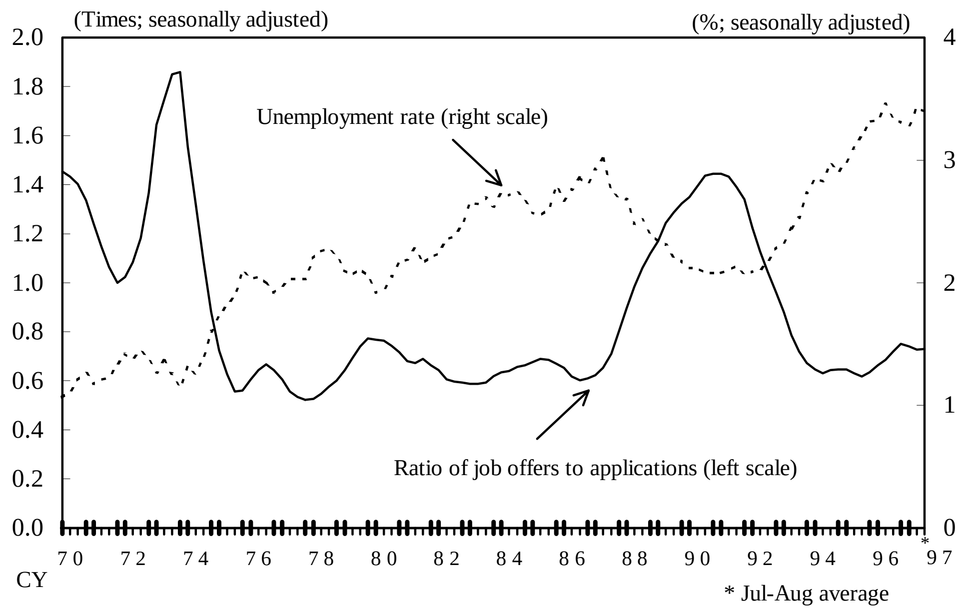


a Shipment recovery
b Intended inventory accumulation
c Unintended inventory accumulation
d Inventory adjustment

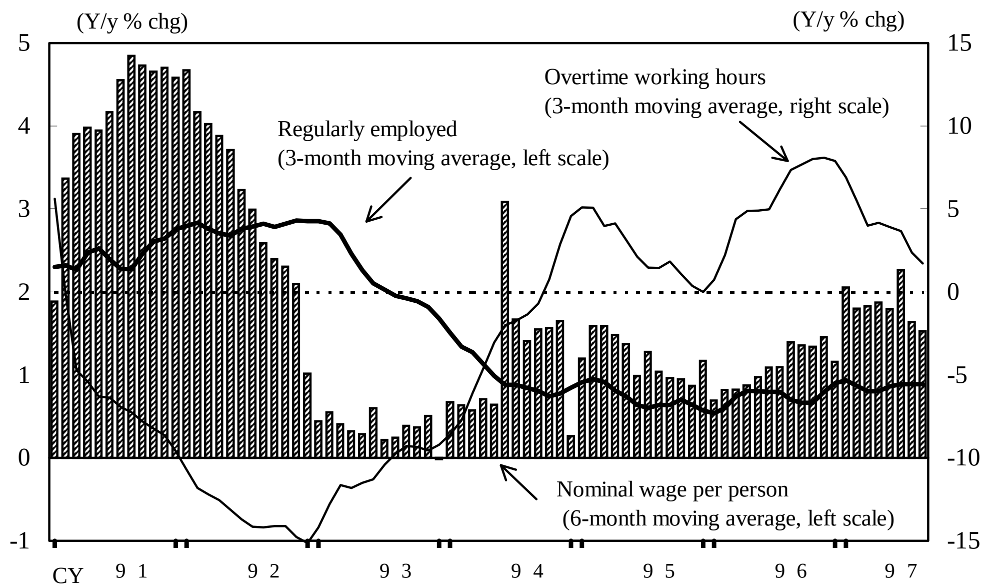
Source: Ministry of International Trade and Industry "Indices of Industrial Production."

Labor

(1) Labor Market



(2) Income Conditions

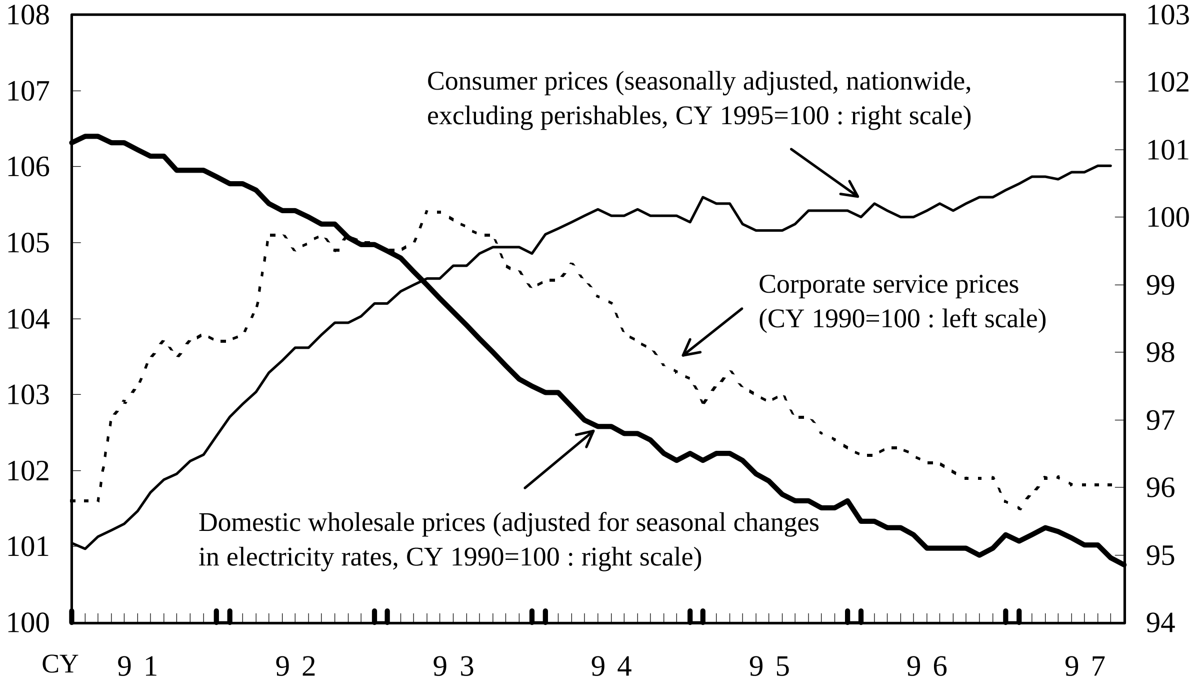


Note: Data for firms with 5 employees or more.

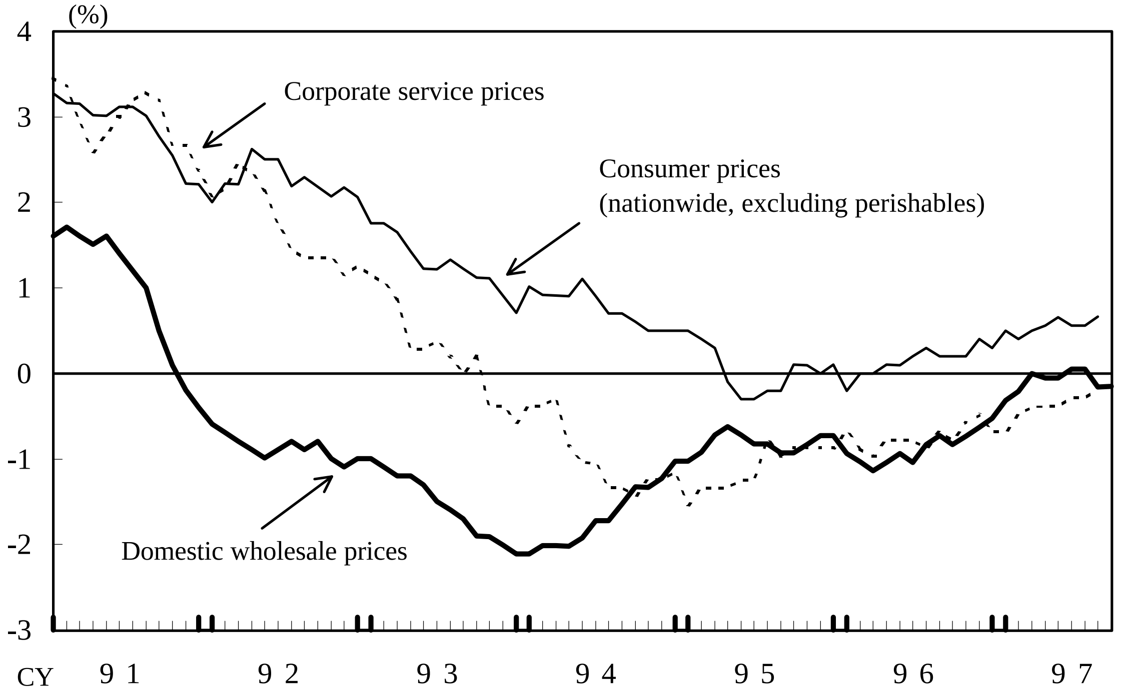
Sources: Ministry of Labor "Monthly Labor Survey",
"Report on Employment Service";
Management and Coordination Agency "Labor Force Survey."

Prices

(1) Level



(2) Change from a year earlier

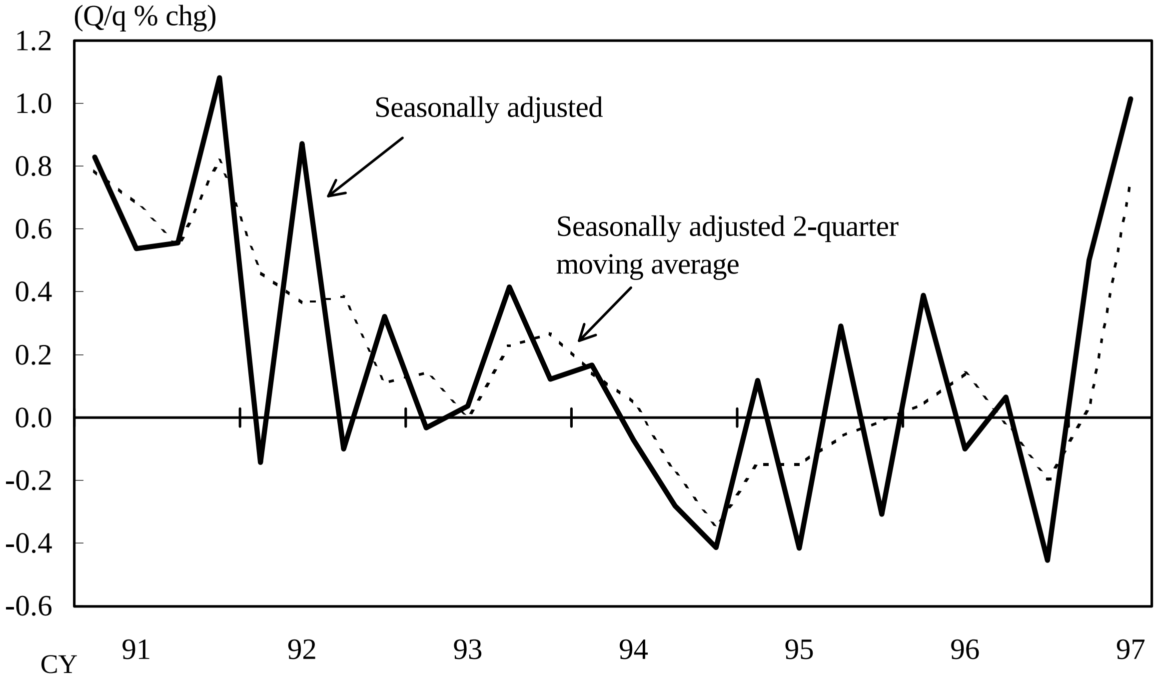


Notes: 1. Excluding the rise of the consumption tax rate from 3% to 5% in and after April 1997 (prices are adjusted on the assumption that prices of all taxable goods are fully raised in April 1997).
2. The 1995-base seasonally adjusted CPI is spliced to the 1990-base seasonally adjusted CPI at January 1995.

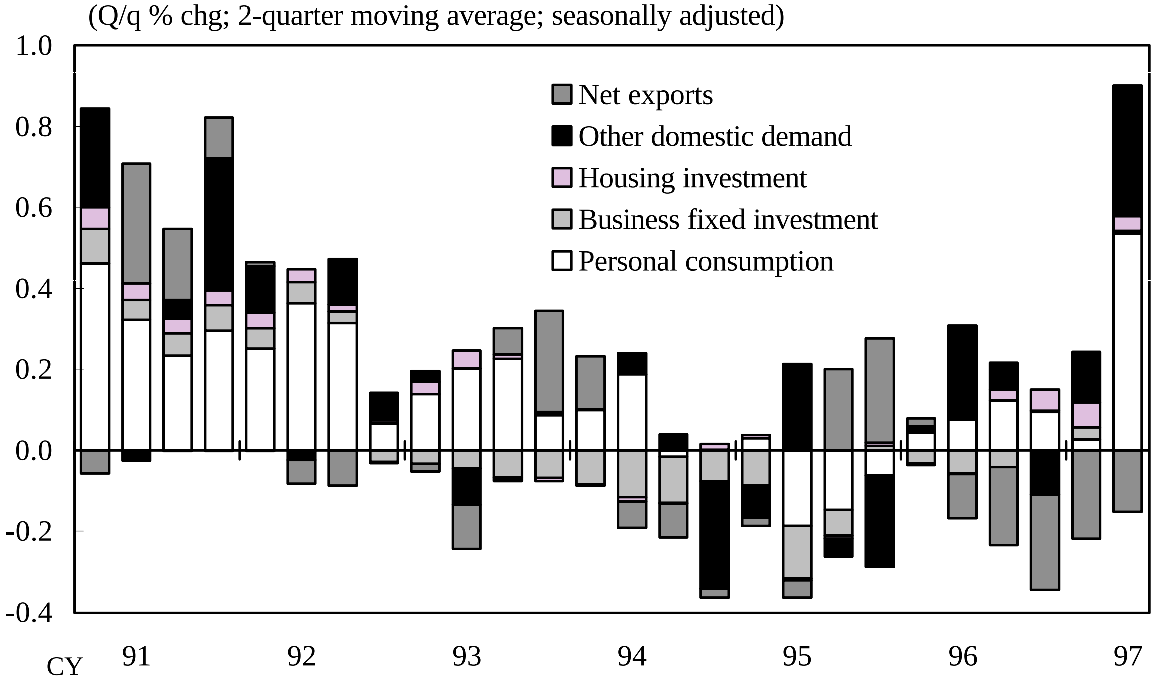
Sources: Management and Coordination Agency "Consumer Price Index"; Bank of Japan "Wholesale Price Indexes", "Corporate Service Price Index."

GDP Deflator

(1) GDP Deflator



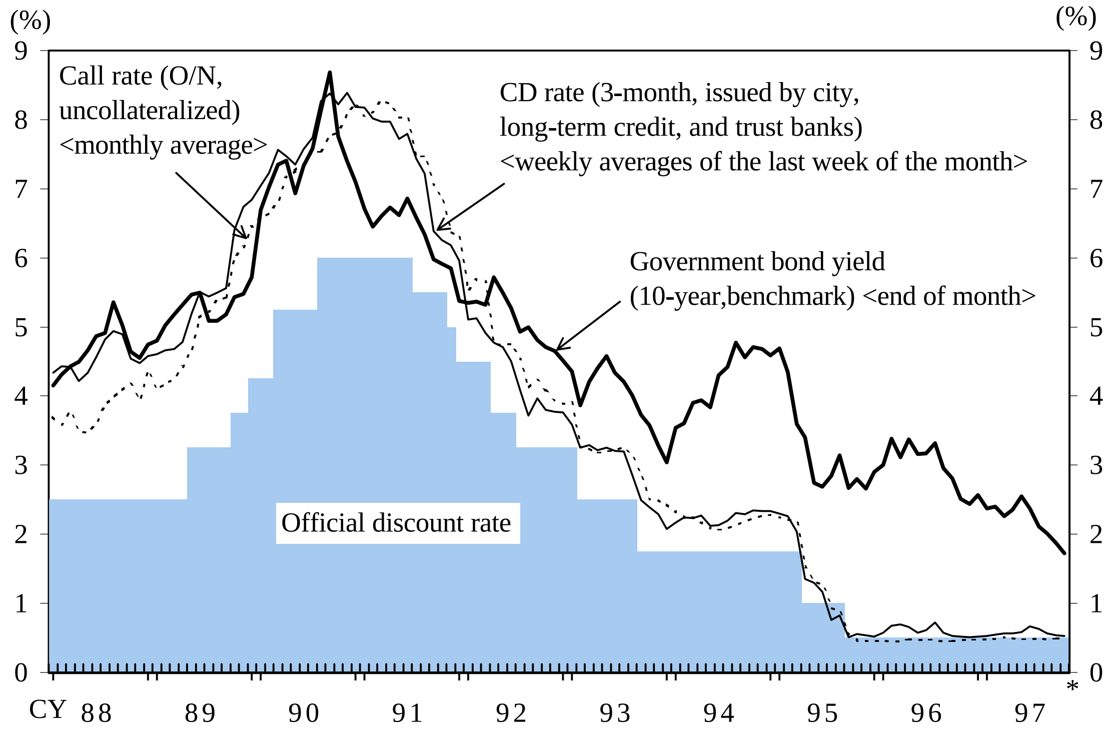
(2) Contribution by Component



Note: Other domestic demand = Inventories + Government consumption + Public-sector investment.
Source: Economic Planning Agency "National Income Statistics."

Interest Rates

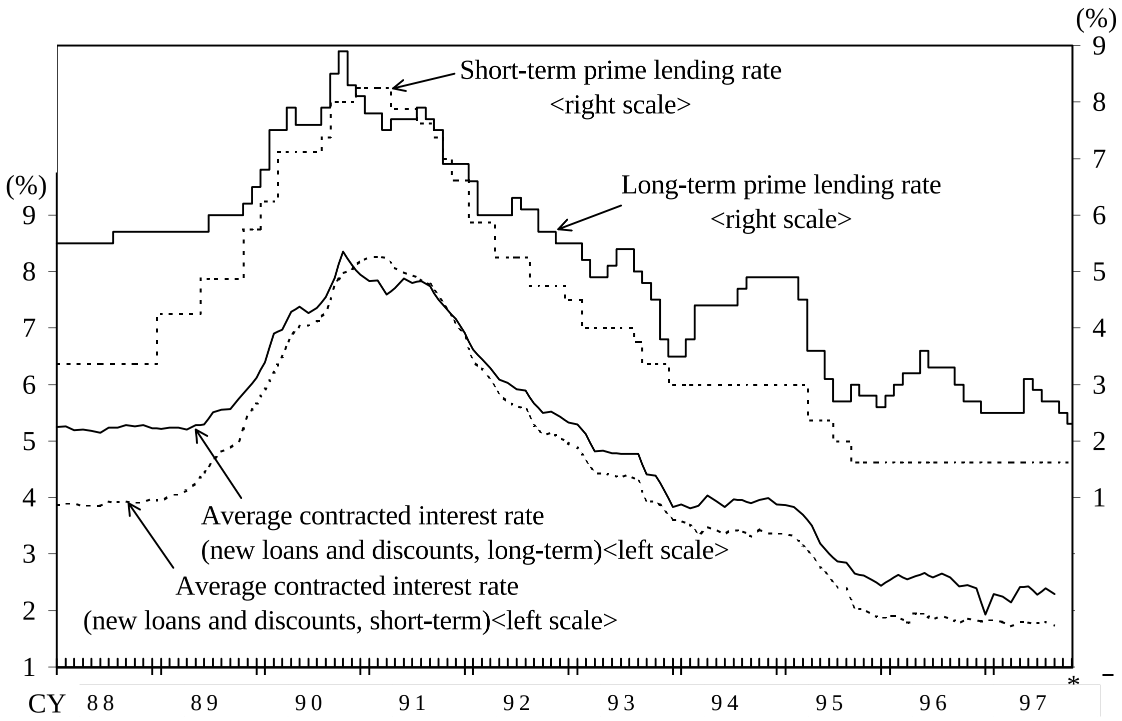
(1) Official Discount Rate and Market Rates



Note: October '97 figure for CD rate is Oct 13 - 17 average.

* Oct 21, '97

(2) Lending Rates



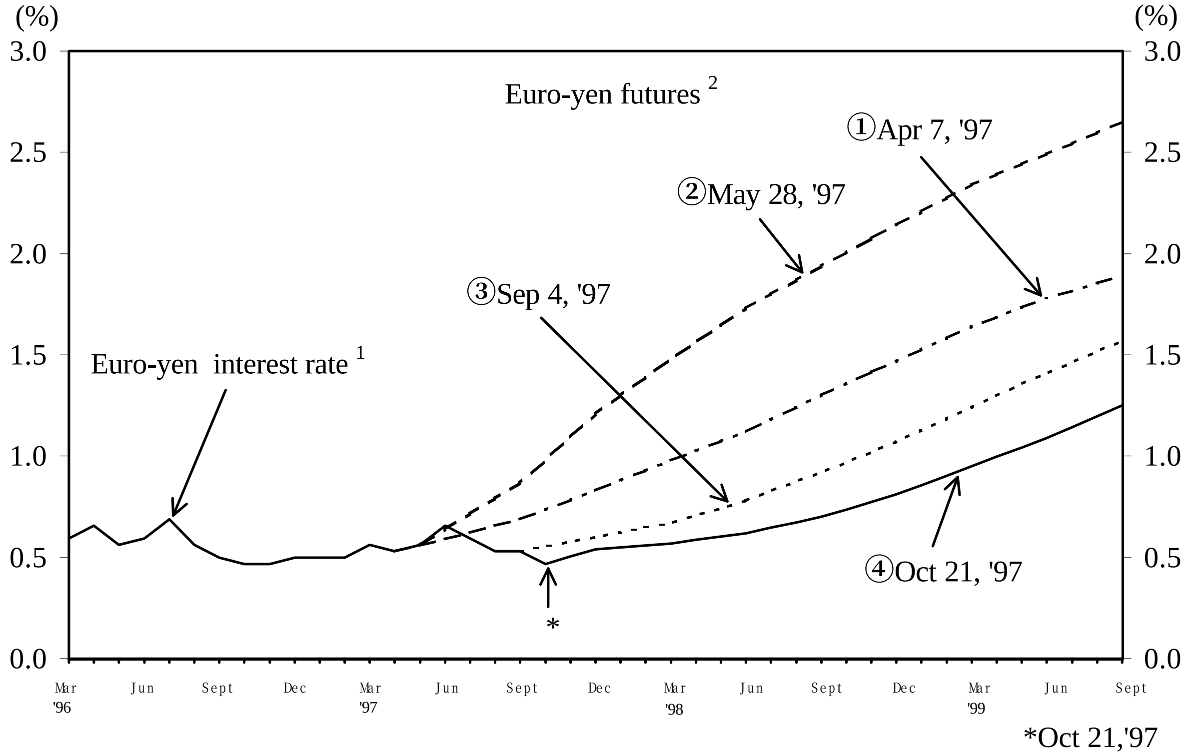
* Oct 21, '97

Note: Average contracted interest rate: prior to Sep 93, figures are based on the member banks of Bankers Association of Japan; after Oct 93, they are based on the domestically licensed banks.

Source: Bank of Japan "Economic Statistics Monthly."

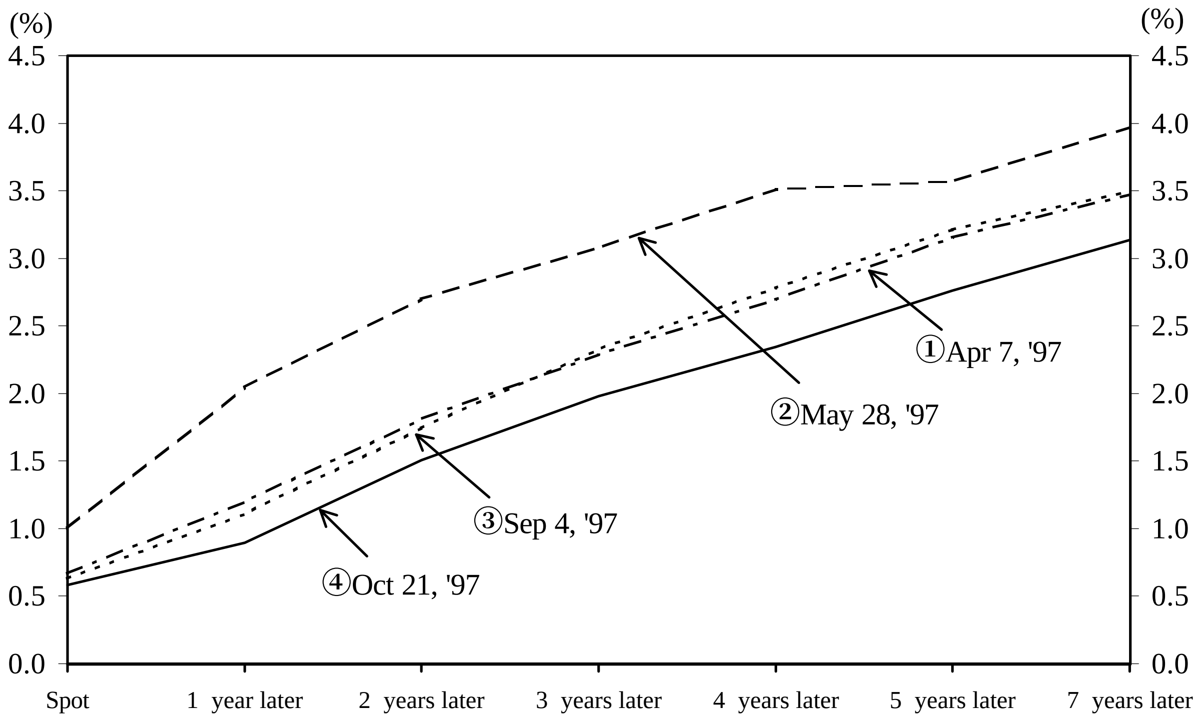
Futures and Forward Rates

(1) Euro-yen Futures (3-month)



Notes: 1. End of month (London Market).
2. Euro-yen futures rates for the corresponding delivery months.

(2) Implied Forward Rates



Note: One-year forward rates calculated from swap rates.
Sources: Nihon Keizai Shimbun, Inc "Nihon Keizai Shimbun"; Yamaichi Securities Company "Yamaichi TIS."

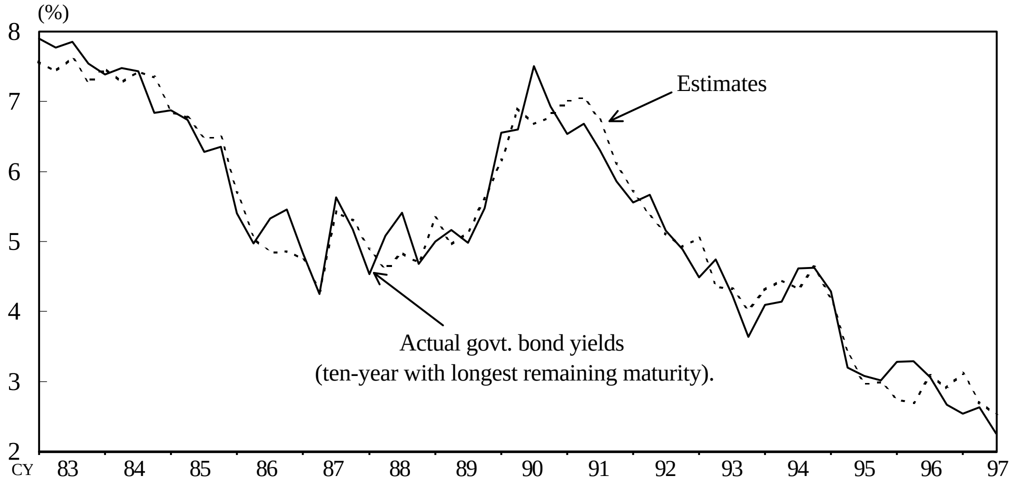
Long-term Interest Rates

(1) Regression Analysis of Government Bond Yields (ten-year with longest remaining maturity).

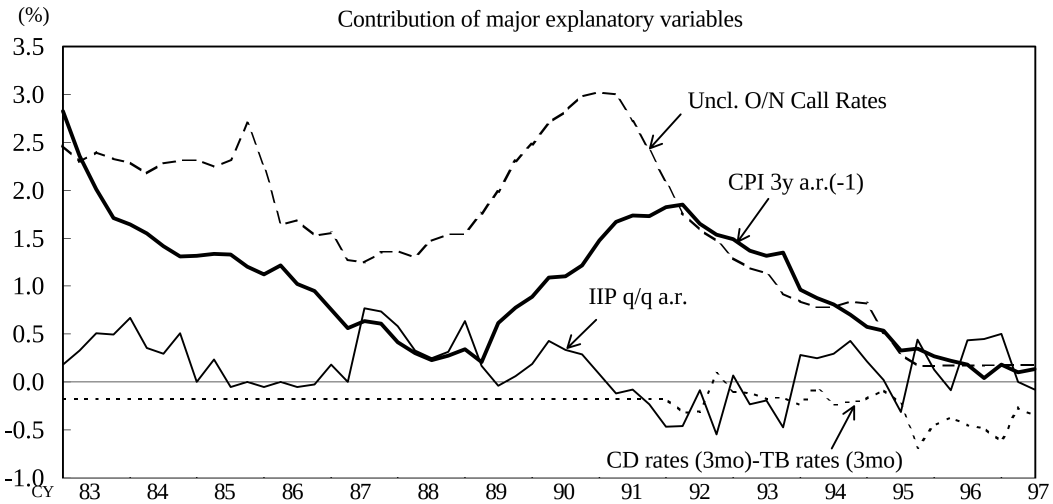
explanatory variables	CPI 3y a.r. (-1)	IIP q/q a.r.	\/$ q/q a.r.	Uncl. O/N Call Rates	U.S. Long-term Real Int. Rates	CD rates (3mo) -TB rates (3mo)
estimated coefficients (t-stats.)	0.61 (9.18)	0.05 (5.33)	0.005 (2.19)	0.37 (11.82)	0.20 (4.57)	-2.44 (-2.05)

$\bar{R}^2$=0.95, S.E.=0.35, D.W.=1.61, Sample period=1983/1Q - 1997/3Q a.r.=annual rate

Notes: 1. CPI 3y a.r.: Annualized percent changes of Consumer Price Index (adjusted for Consumption Tax) over previous three years.
2. For Index of Industrial Production, MITI's projection is substituted for September 1997.
3. U.S. long-term real interest rates: U.S. T-Note (10 year) yields-Annualized percent changes of U.S. Consumer Price Index (Core) over previous three years (for 1997/3Q, the September data is substituted by the August data.)
4. CD rates (3 month) - TB rates (3 month) : the figures prior to 92/1Q are substituted by the average of the data between 92/2Q and 94/4Q (0.07%).



Contribution of major explanatory variables



(2) Regression Analysis of the Interest Rates for Short, Medium and Long-term Zones.
(Upper Row: estimated coefficients, Lower Row: t-stats.)

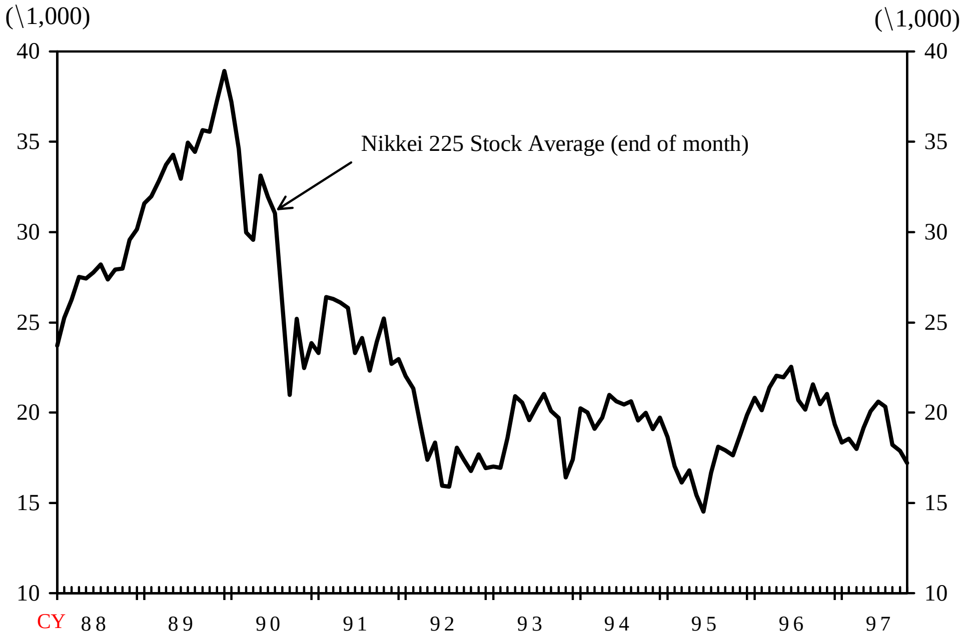
Sample period=1983/1Q - 1997/3Q

	CPI 3y a.r. (-1)	IIP q/q a.r.	\/$ q/q a.r.	Uncl. O/N Call Rates	U.S. Long-term Real Int. Rates	CD rates (3mo) -TB rates (3mo)	$\bar{R}^2$	S.E.	D.W.
Short-term Zone Rate (Govt.Bond yields w/2yr maturity)	0.18 (2.16)	0.04 (3.87)	0.002 (0.92)	0.79 (24.42)	0.13 (2.85)	-2.46 (-2.00)	0.97	0.36	1.51
Medium-term Zone Rate (4yr IFR starting from 2yrs later)	0.82 (10.02)	0.05 (4.59)	0.004 (1.43)	0.32 (8.15)	0.15 (2.79)	-0.70 (-0.48)	0.92	0.43	1.48
Long-term Zone Rate (4yr IFR starting from 6yrs later)	0.65 (6.00)	0.06 (3.80)	0.009 (2.12)	0.12 (2.29)	0.30 (4.34)	-4.54 (-2.31)	0.79	0.57	1.18

Note: See the notes of the regression (1) for the explanatory variables.
Sources: The Bond Underwriters Association of Japan "Bond Review"; Bank of Japan "Economic Statistics Monthly."

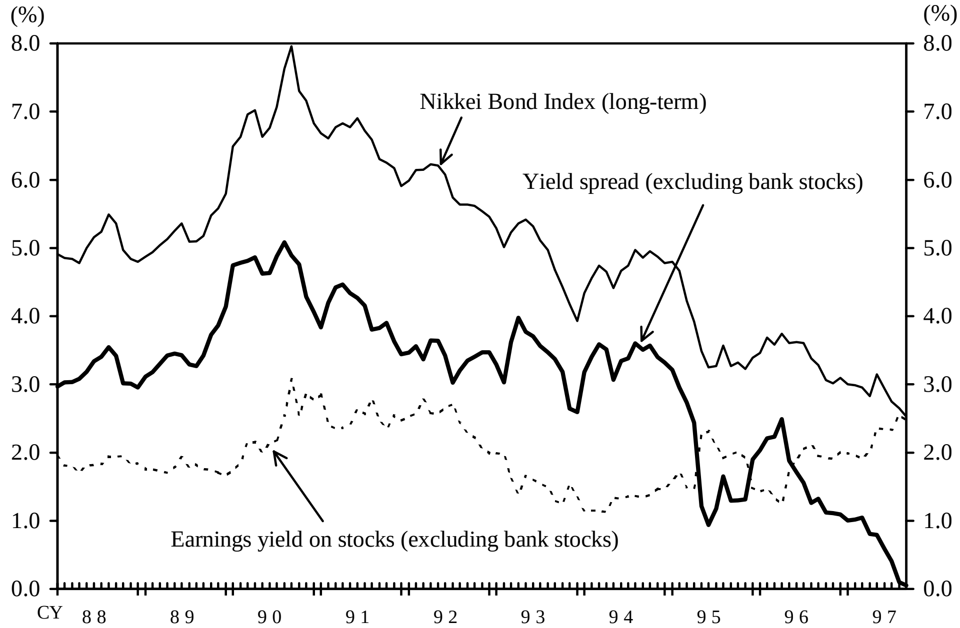
Stock Prices

(1) Nikkei 225 Stock Average



Note: Figure for Oct 1997 is that for Oct 21, 1997.

(2) Yield Spread

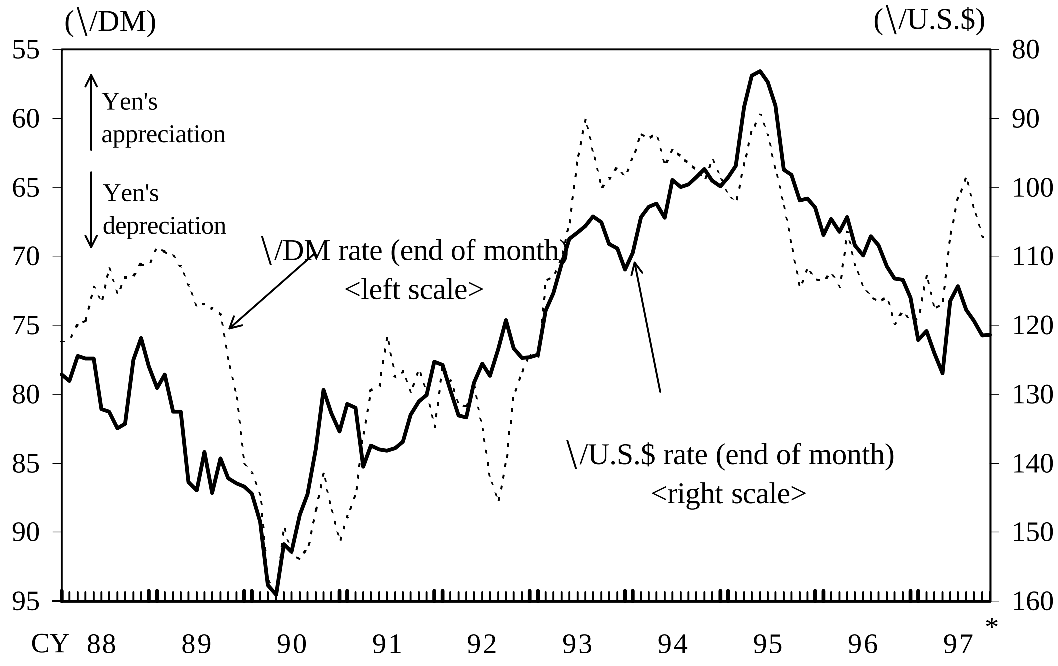


Notes: 1. Figures for end of months.
2. Yield spread = Nikkei Bond Index-earnings yield on stocks (where earnings yield on stocks = 1/ (Expected PER)).
3. Earnings yield on stocks (excluding bank stocks) are based on a survey by Daiwa Research Institute.

Sources: Nihon Keizai Shimbun, Inc "Nihon Keizai Shimbun", etc.

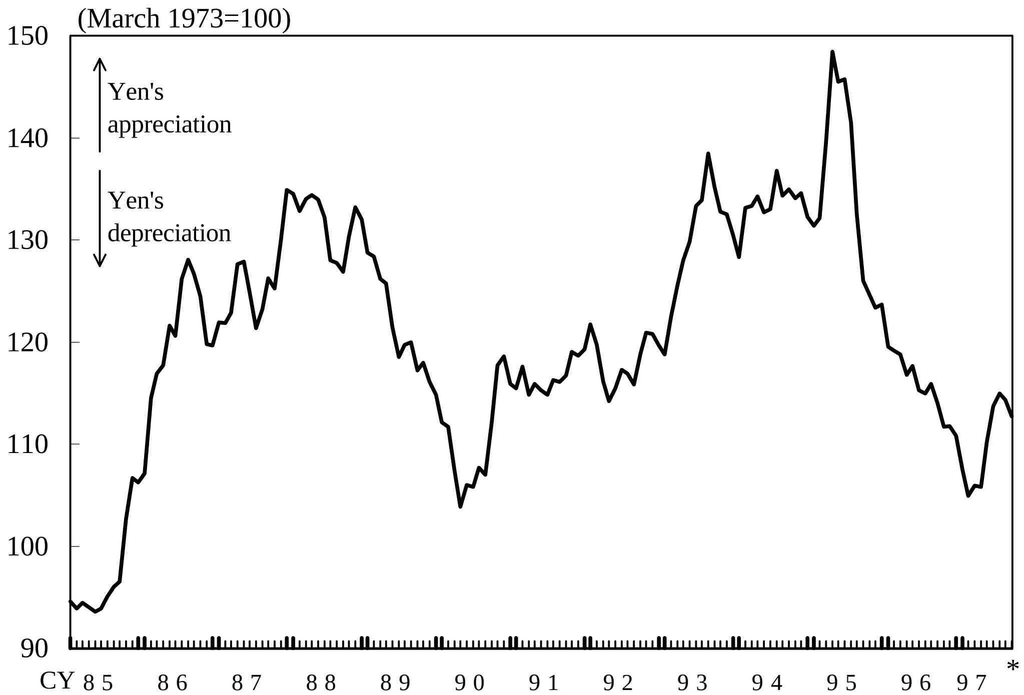
Exchange Rates

(1) Exchange Rates



* Oct 20, '97

(2) Real Effective Exchange Rate



* Oct 20, '97

Note: Figures are calculated as follows.

(1) Define real exchange rates of the 24 major trading partners for Japan's exports as nominal exchange rates adjusted for the ratio of the respective country's price indexes against Japan's WPI.

(2) Calculate the weighted geometric average of the above real exchange rates, where the weights are Japan's export volumes to each country on customs clearance basis.

(3) Convert the above to an index with March 1973 as the base month.

Source: Bank of Japan "Economic Statistics Monthly."

Sources of Funds (1)

(1) Lending by Domestic Commercial Banks

(Y/y % chg; average outstanding)

	1996	1997			1997			
	4Q	1Q	2Q	3Q	Jun	Jul	Aug	Sep
City banks	0.0	0.4	0.5	0.1	0.5	0.3	0.2	-0.2
Long-term credit banks	-4.1	-2.0	-1.4	-2.2	-1.5	-1.5	-2.1	-3.0
Trust banks	-4.2	-5.1	-5.2	-5.7	-5.2	-5.3	-5.7	-6.0
Regional banks	2.0	1.5	1.3	1.5	1.3	1.5	1.6	1.5
Regional banks II	-1.4	0.1	0.4	0.6	0.2	0.5	0.6	0.8
Total	-0.4	-0.2	-0.1	-0.3	-0.1	-0.1	-0.2	-0.5
Yen loans	-0.6	-0.4	-0.2	-0.3	-0.2	-0.2	-0.3	-0.5
Impact loans	1.7	2.2	1.7	0.3	0.9	0.7	0.5	-0.4

(2) Lending by Other Financial Institutions

(Y/y % chg)

	1996	1997			1997			
	4Q	1Q	2Q	3Q	Jun	Jul	Aug	Sep
Foreign banks [1]	17.2	14.4	23.8	18.5	26.7	22.9	17.2	15.7
Shinkin banks [2,3]	1.0	0.4	0.3	0.7	0.3	0.9	0.8	0.7
Life insurance companies [2]	-1.1	-3.0	-3.5	n.a.	-3.5	-3.8	n.a.	n.a.
Government Financial Institutions [2]	3.9	4.8	4.7	n.a.	4.7	4.7	4.6	n.a.

Notes: 1. Yen loans, average amounts outstanding.
2. Amounts outstanding at end of period.
3. Includes impact loans (foreign-currency-denominated and Euro-yen untied loans).

Sources: Bank of Japan "Principal Figures of Financial Institutions";
Zenshinren Bank "Principal Accounts of Shinkin Banks", etc.

Sources of Funds (2)

(1) Private-sector Funding in the Capital Market

(\100 mil)

	Total	Straight bonds	Convertible bonds	Bonds with warrants	New equity issues
FY 1995	96,057	64,712	14,602	6,923	9,820
	(10.7)	(53.8)	(-49.6)	(2.8 times)	(-25.6)
FY 1996	134,878	74,975	32,955	3,585	23,363
	(40.4)	(15.9)	(2.3 times)	(-48.2)	(2.4 times)
1997/1Q	19,851	16,305	1,150	173	2,223
	(-35.5)	(-9.8)	(-83.2)	(-94.3)	(-21.1)
2Q	32,396	27,113	2,723	106	2,454
	(-4.7)	(36.5)	(-72.5)	(-91.8)	(-17.4)
3Q p	31,629	22,342	5,037	158	4,092
	(-19.7)	(30.6)	(-58.7)	(-90.2)	(-51.7)

Notes: 1. Figures in parentheses are Y/y % chg.
2. Bank debentures (except for subordinated bonds) are not included.
3. Figures for new equity issues include initial public offerings.
4. Figure for new equity issues in September 1997 includes only those publicly offered at market price and initial public offerings.

(2) Loans to Individuals

(Y/y % chg, outstanding, end of period)

	Total	Housing credit: Domestically-licensed Banks *	Housing credit: Government Housing Loan Corporation	Consumer credit by Domestically-licensed Banks * Figures in parentheses are Y/y % chg of new loans
1996/2Q	7.1	15.5	0.4	-6.4 (6.1)
3Q	7.3	11.7	3.5	-5.3 (-15.1)
4Q	7.6	7.9	7.4	-5.4 (-9.1)
1997/1Q	8.5	7.6	9.4	-5.5 (-5.7)
2Q	8.4	7.7	9.1	-5.3 (-7.7)
Outstanding at end FY 1996 (\ tril)	118.2	56.5	61.6	15.1

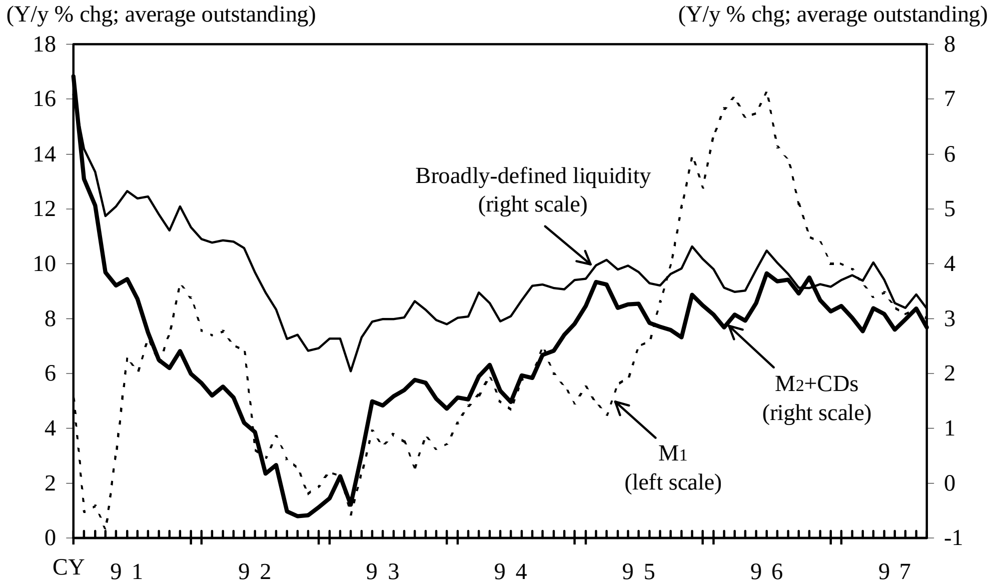
* Banking Accounts and Trust Accounts of Domestically-licensed Banks.

Note: Domestically-licensed Banks are the banks which are established and licensed under Japanese legislation.

Sources: The Bond Underwriters Association of Japan "Bond Review";
Bank of Japan "Economic Statistics Monthly", etc.

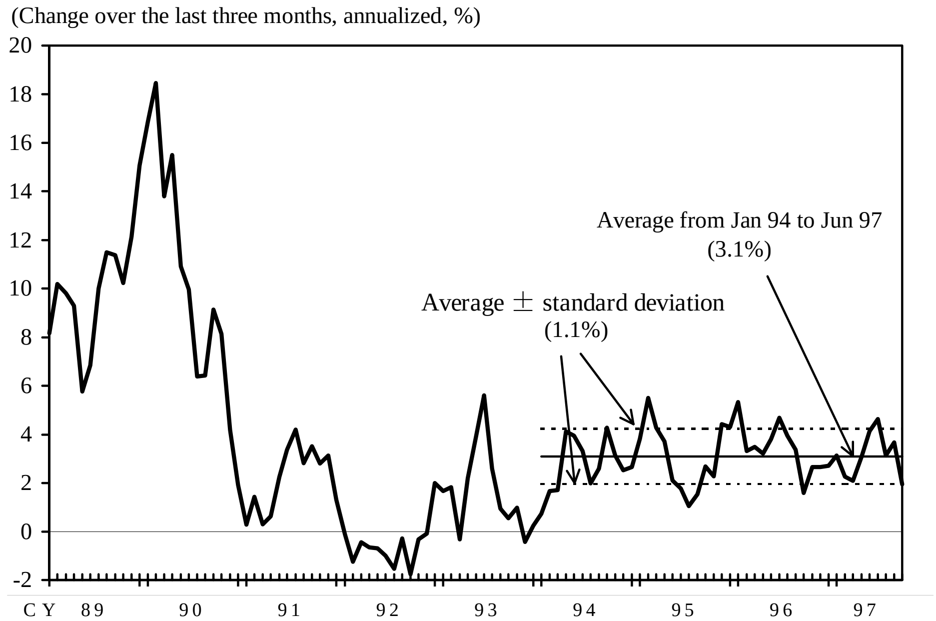
Monetary Aggregates

(1) Monetary Aggregates



Note: Broadly-defined liquidity = M2+CDs + the deposits of post offices + the deposits (including CDs) of agricultural cooperatives, fishery cooperatives, credit cooperatives and labor credit associations + money trusts and loan trusts of domestically-licensed banks (excluding foreign trust banks) + bonds with repurchase agreement + bank debentures + government bonds + investment trusts + money deposited other than money in trust + foreign bonds.

(2) Change of M2+CDs over the Last Three Months

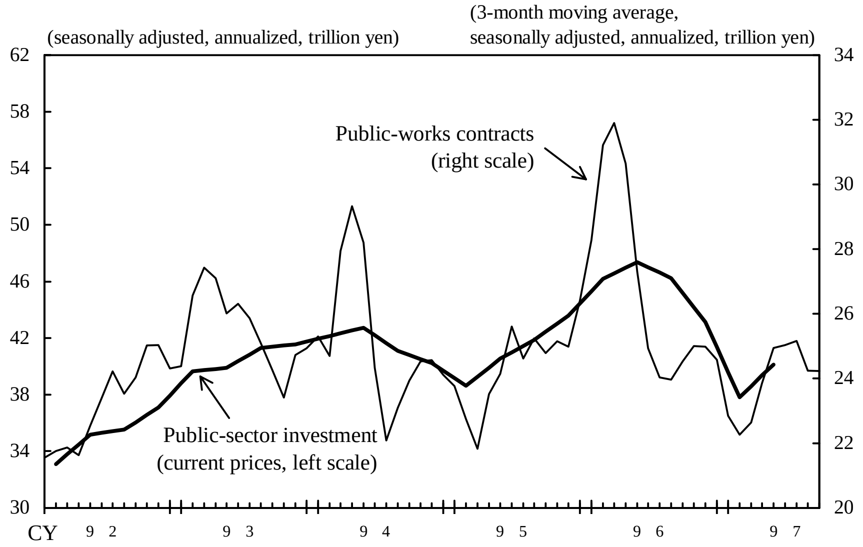


Note: Seasonally adjusted.

Source: Bank of Japan "Economic Statistics Monthly."

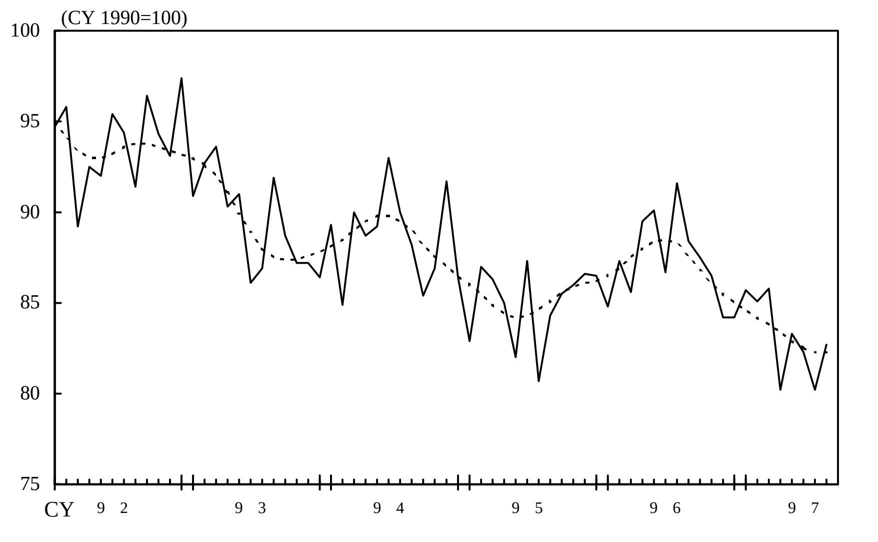
Public-sector Investment

(1) Public-works Contracts



Notes: 1. Quarterly basis public-sector investment is plotted at the middle month of each quarter.
2. Public works contracts are seasonally adjusted by X-12-ARIMA (b version).

(2) Shipments of Public Works-related Goods

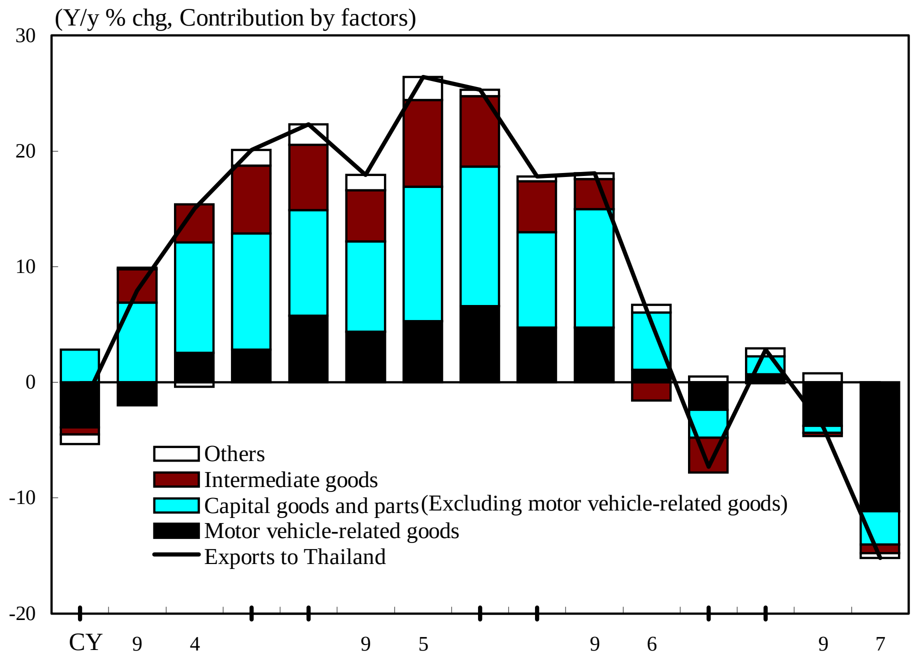


Notes: 1. Public works-related goods=asphalt+concrete pipes+concrete blocks+concrete paving pro
+ordinary steel pipes+iron pipe and tube fittings.
2. Seasonally adjusted by X-12-ARIMA (b version).
The solid line is the seasonally adjusted series (=TC¥I) and the dotted line is
the trend cycle component (=TC),where Y=TC¥S¥D¥I (assuming a multiplicative model)
Y: original series, TC: trend cycle component, S: seasonal component,
D: trading day component, I: irregular component.

Sources: Economic Planning Agency "National Income Statistics";
Surety Association for Construction Companies "Public Works Prepayment Surety Statistic
Ministry of International Trade and Industry "Indices of Industrial Production."

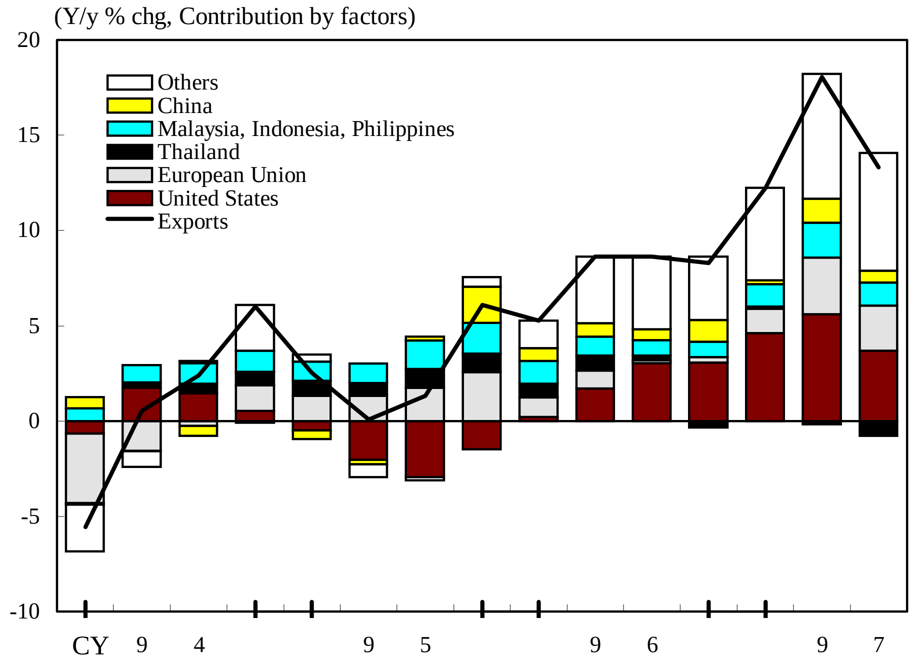
Exports

(1) Nominal Exports to Thailand



Note: Figures for 1997/3Q are Jul-Aug average converted to quarterly amount.

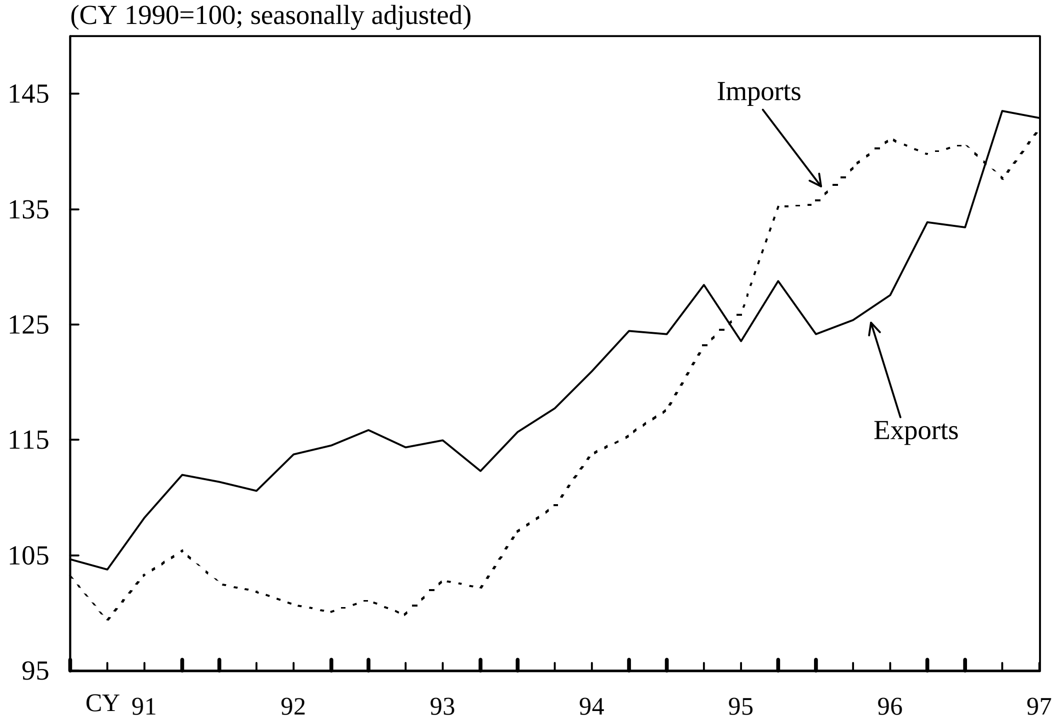
(2) Nominal Exports by Region



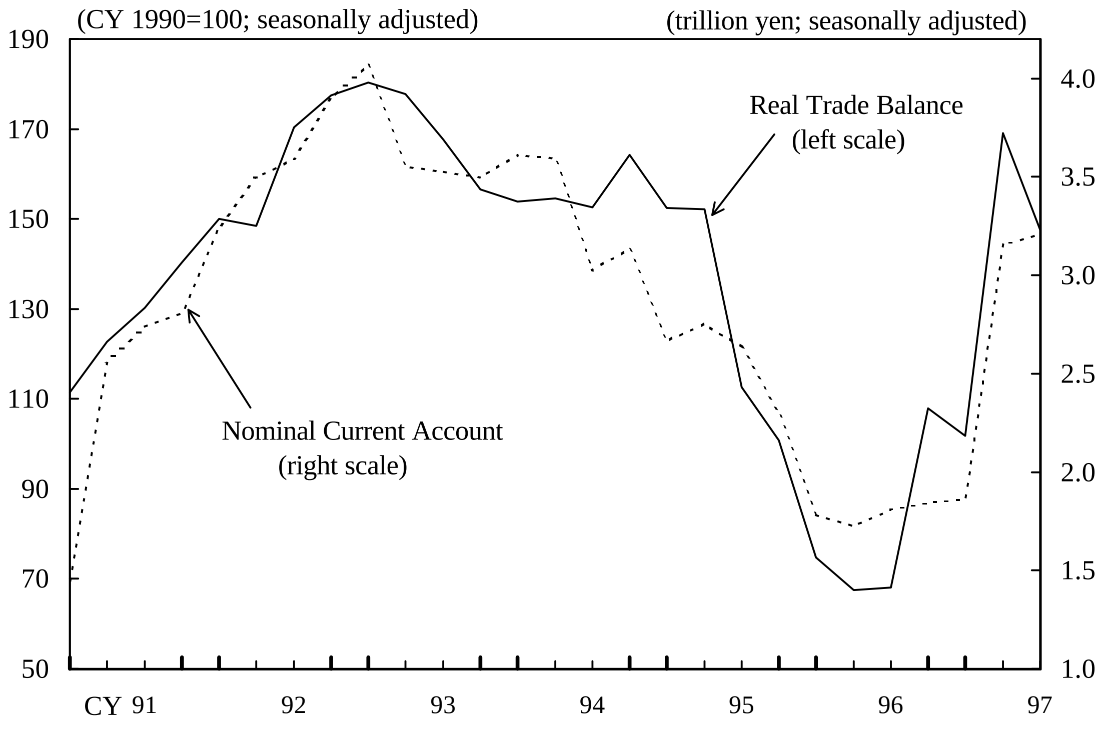
Source: Ministry of Finance "The Summary Report on Trade of Japan."

External Balance

(1) Real Exports and Real Imports



(2) Real Trade Balance and Nominal Current Account

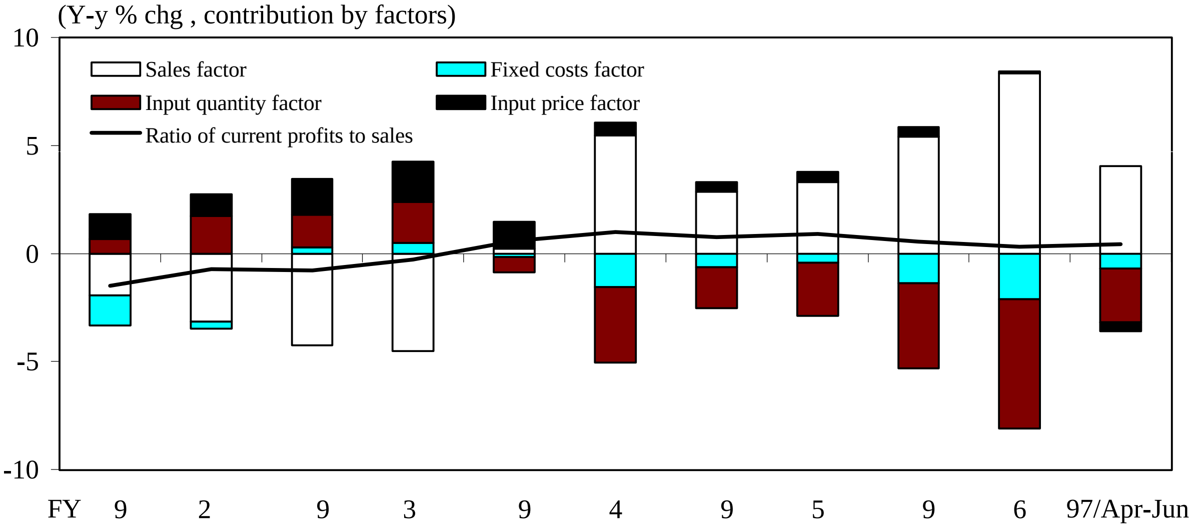


Note: 1997/3Q figure for Nominal Current Account is Jul-Aug averages converted to quarterly amount.

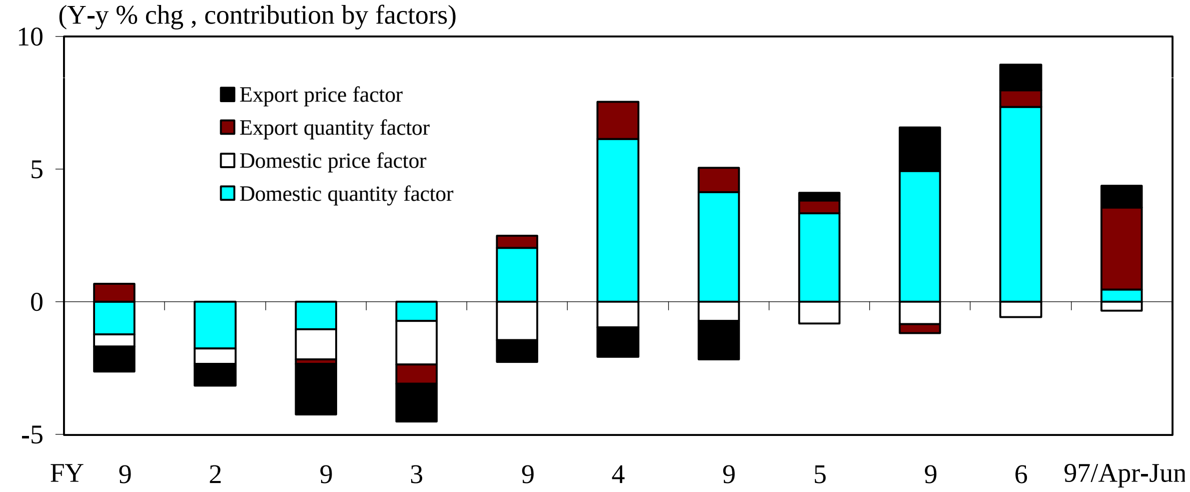
Sources: Ministry of Finance "The Summary Report on Trade of Japan";
Bank of Japan "Balance of Payments Monthly", "Wholesale Price Indexes."

Corporate Profits (Large Manufacturing Firms)

(1) Ratio of current profits to sales



(2) Sales factor



Notes: 1. Large firms with owners' equity of 1 billion yen or more.
2. Manufacturing firms excluding oil and coal.
3. Contribution of each factor is calculated as follows;

$$\Delta \frac{p}{S} = \underbrace{\frac{FC+VC}{S} * \frac{\Delta S}{S}}_{\text{Sales factor}} \underbrace{- \frac{VC}{S} * \frac{\Delta Pi}{Pi}}_{\text{Input price factor}} \underbrace{- \frac{VC}{S} * \frac{\Delta Oi}{Oi}}_{\text{Input quantity factor}} \underbrace{- \frac{\Delta FC}{S}}_{\text{Fixed costs factor}}$$

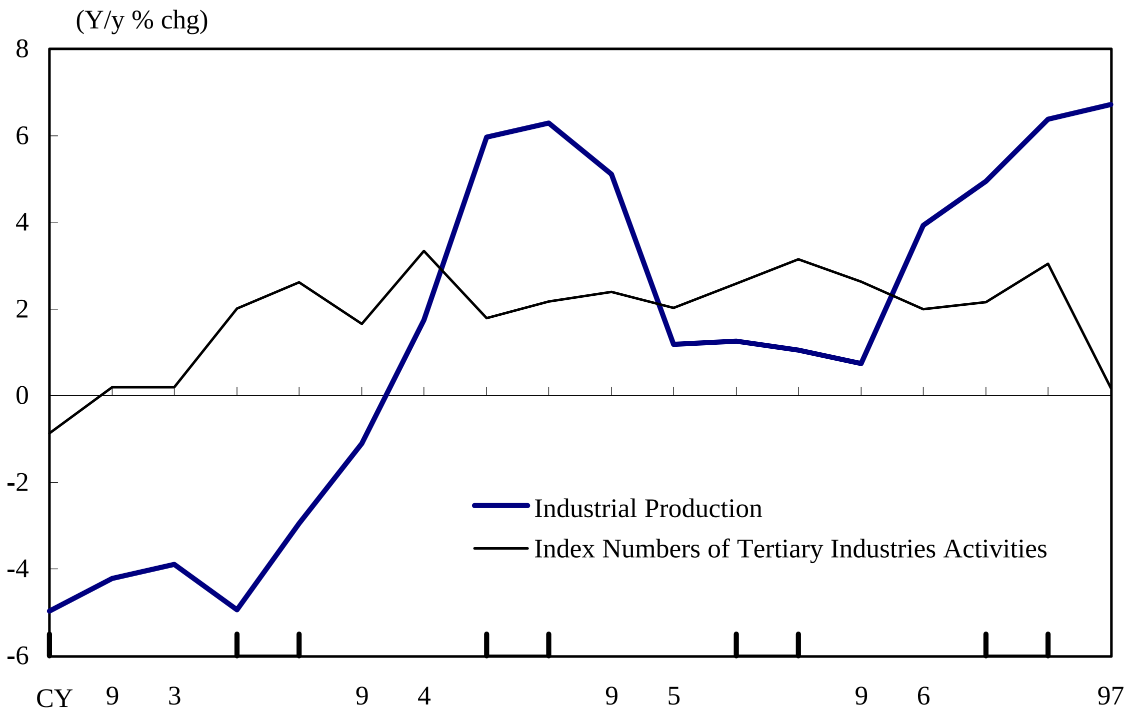
$$\frac{FC+VC}{S} * \frac{\Delta S}{S} = \frac{FC+VC}{S} * \left(\underbrace{\frac{PdOd}{S} * \frac{\Delta Pd}{Pd}}_{\text{Domestic price factor}} + \underbrace{\frac{PeOe}{S} * \frac{\Delta Pe}{Pe}}_{\text{Export price factor}} + \underbrace{\frac{PdOd}{S} * \frac{\Delta Od}{Od}}_{\text{Domestic quantity factor}} + \underbrace{\frac{PeOe}{S} * \frac{\Delta Oe}{Oe}}_{\text{Export quantity factor}} \right)$$

p: Current profits, S: Sales, FC: Fixed costs, VC: Variable costs,
Pd: Domestic price, Pe: Export price, Pi: Input price,
Od: Domestic quantity, Oe: Export quantity, Oi: Input quantity.

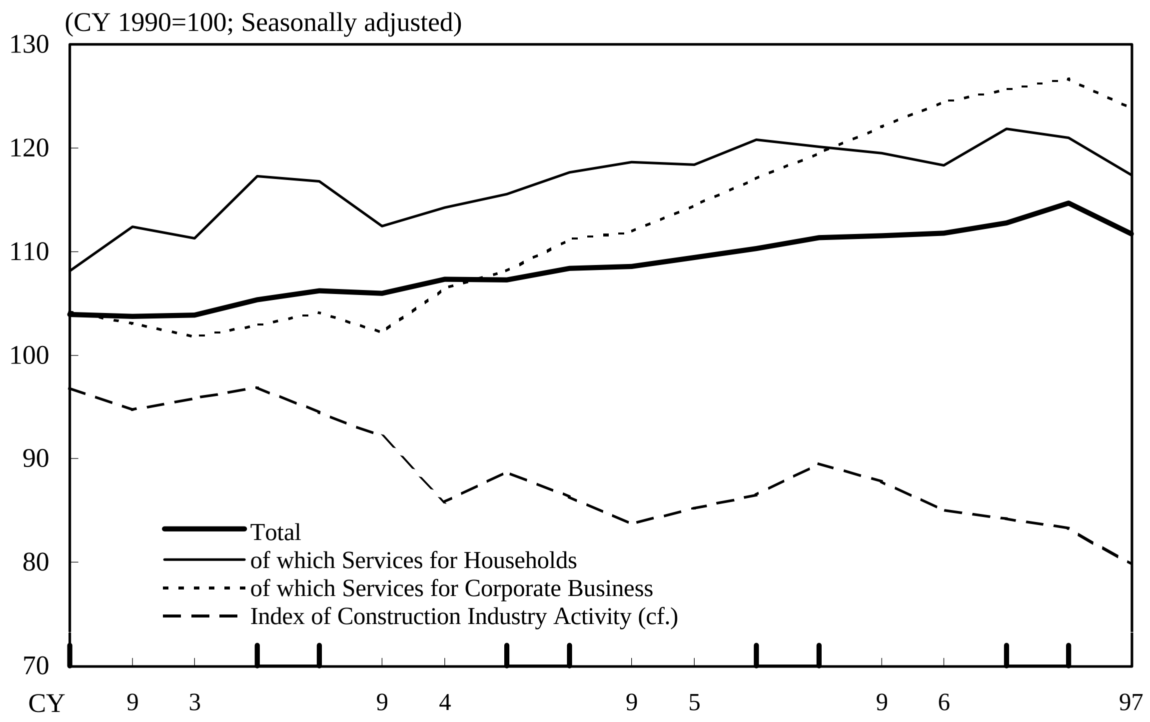
Sources: Ministry of Finance "Corporate Business Statistics Quarterly";
Bank of Japan "Input-Output Price Indexes of Manufacturing Industry by Sector", etc.

Manufacturing Industries and Nonmanufacturing Industries

(1) Industrial Production and Index Numbers of Tertiary Industries Activities



(2) Index Numbers of Tertiary Industries Activities

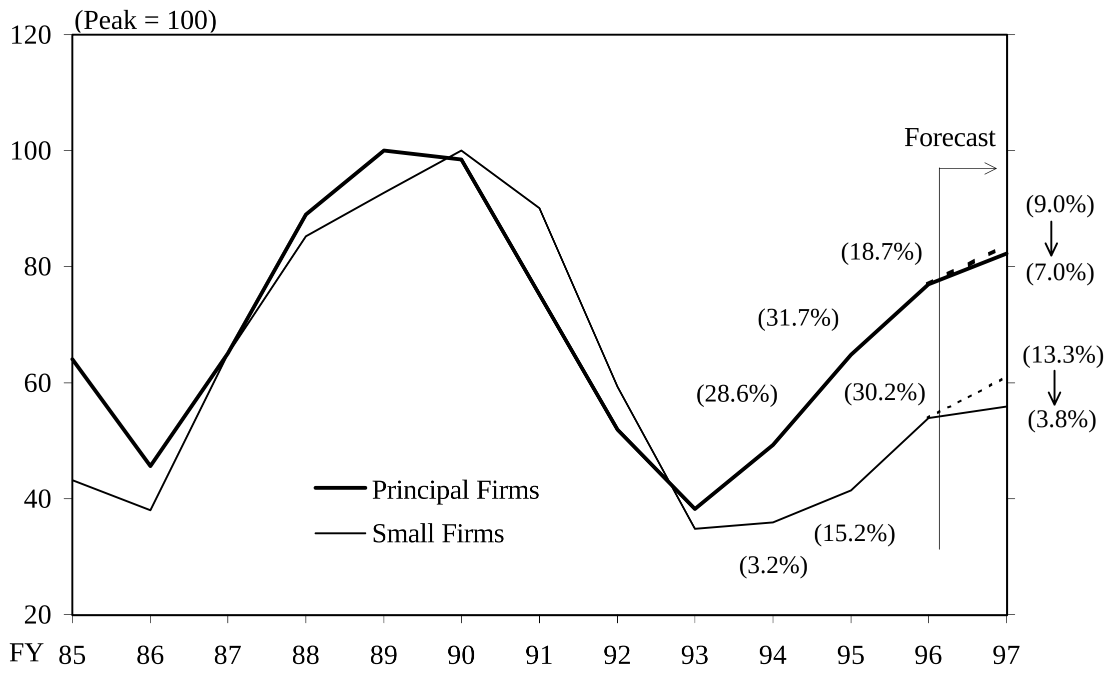


Note: Index of Construction Industry Activity is estimated by Ministry of International Trade and Industry using Ministry of Construction's "Construction Statistics." It is not included in Index Numbers of Tertiary Industries Activities.

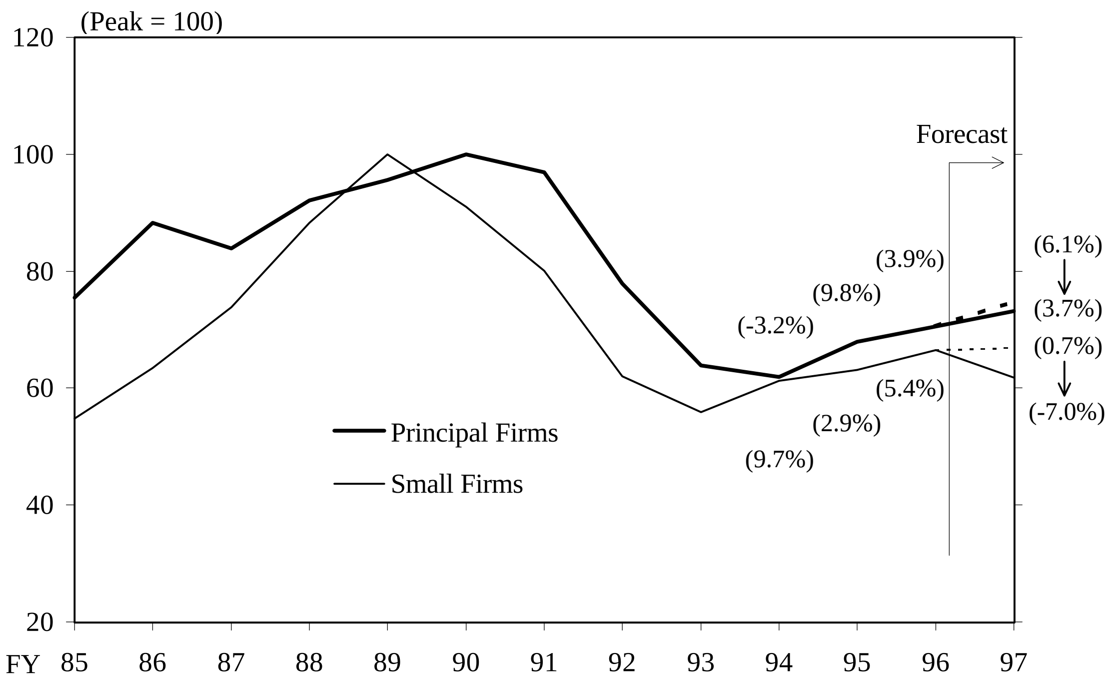
Sources: Ministry of International Trade and Industry "Indices of Industrial Production", "Index Numbers of Tertiary Industries Activities"; Management and Coordination Agency "Inter-industry Relations Table."

Forecast of Current Profits (*Tankan*)

(1) Manufacturing



(2) Nonmanufacturing

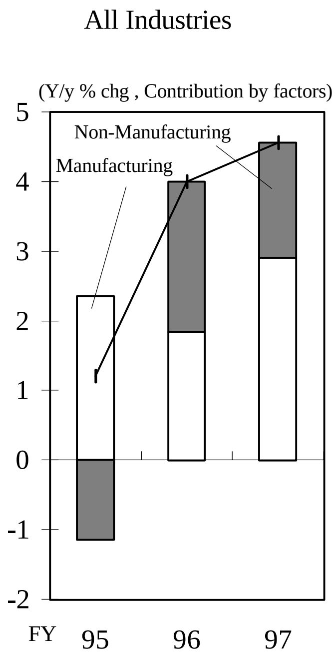


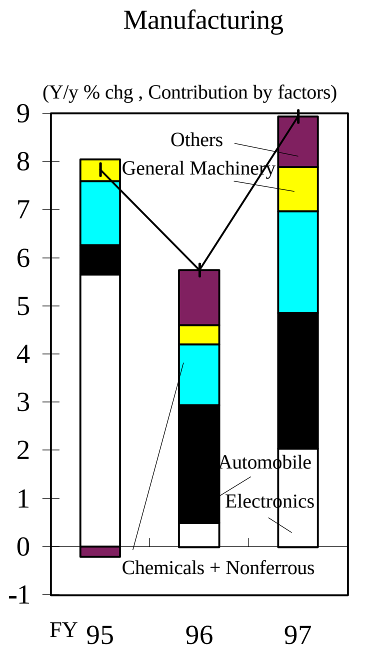
Notes: 1. Figures in parentheses are percent change from a year earlier.
2. The dotted lines are the projections in June 1997.

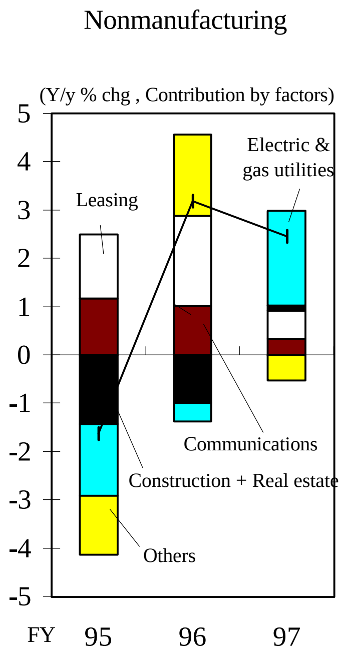
Source: Bank of Japan " *Tankan* Short-term Economic Survey of Enterprises."

Business Fixed Investment Plan for Fiscal 1997 (*Tankan*)

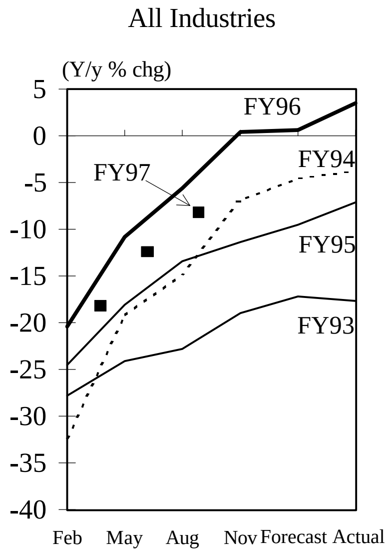
(1) Principal Firms

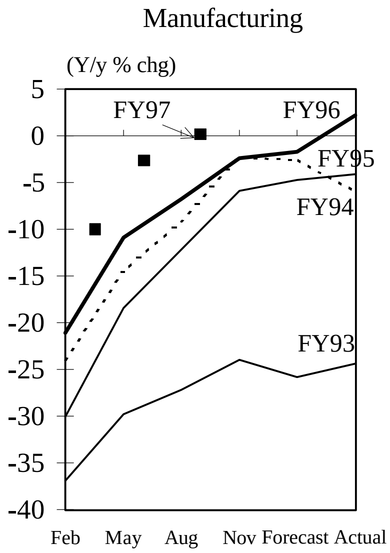


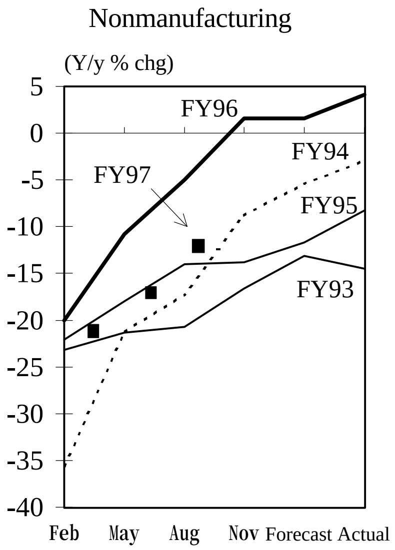




(2) Small Firms



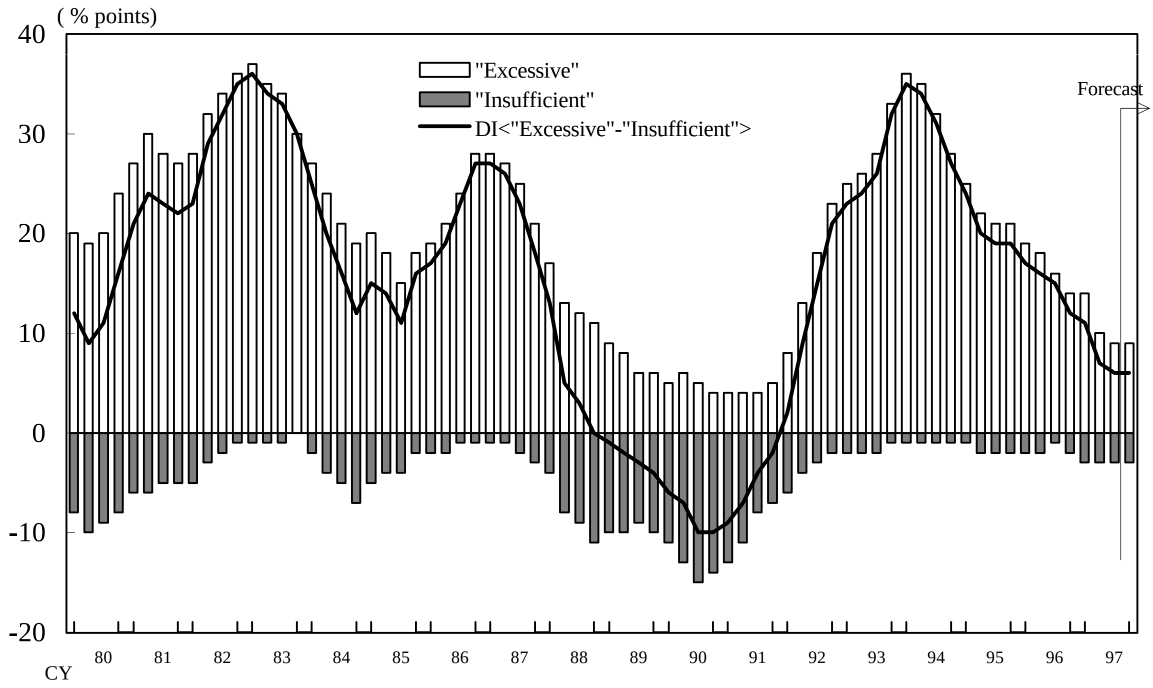




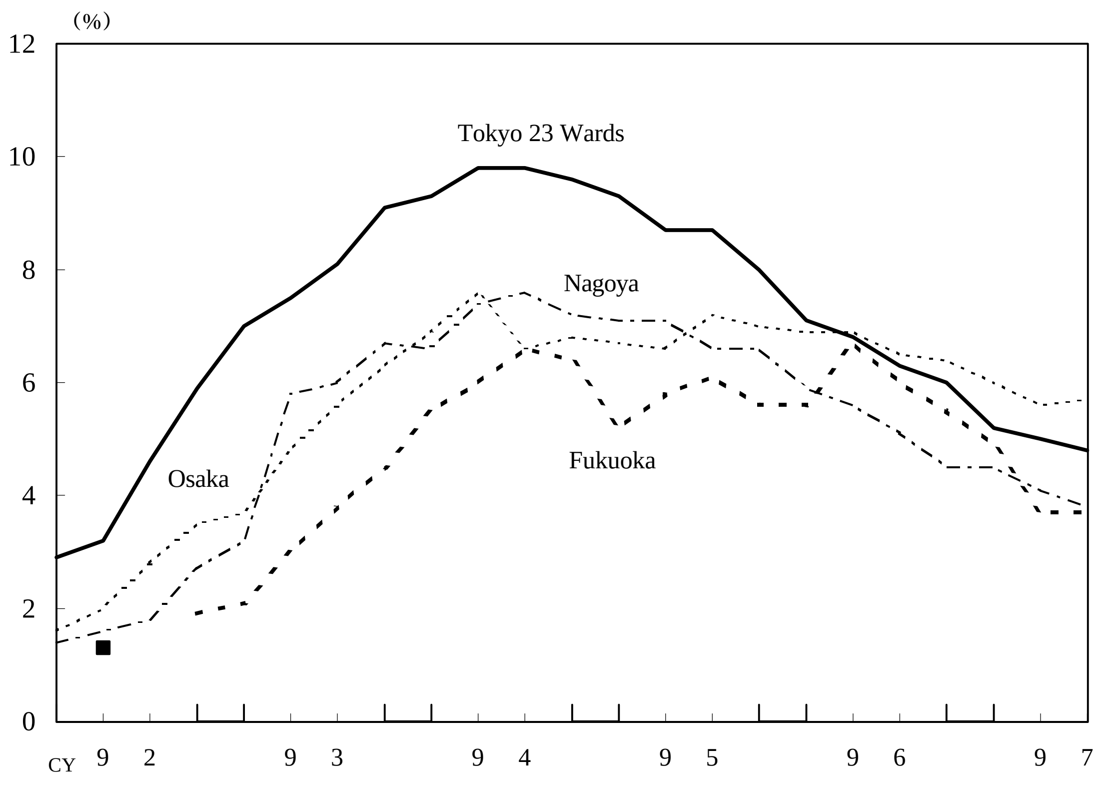
Source: Bank of Japan "*Tankan* Short-term Economic Survey of Enterprises."

Capital Stock Adjustment

(1) Production Capacity DI (Principal Firms, Manufacturing)



(2) Office Vacancy Rates

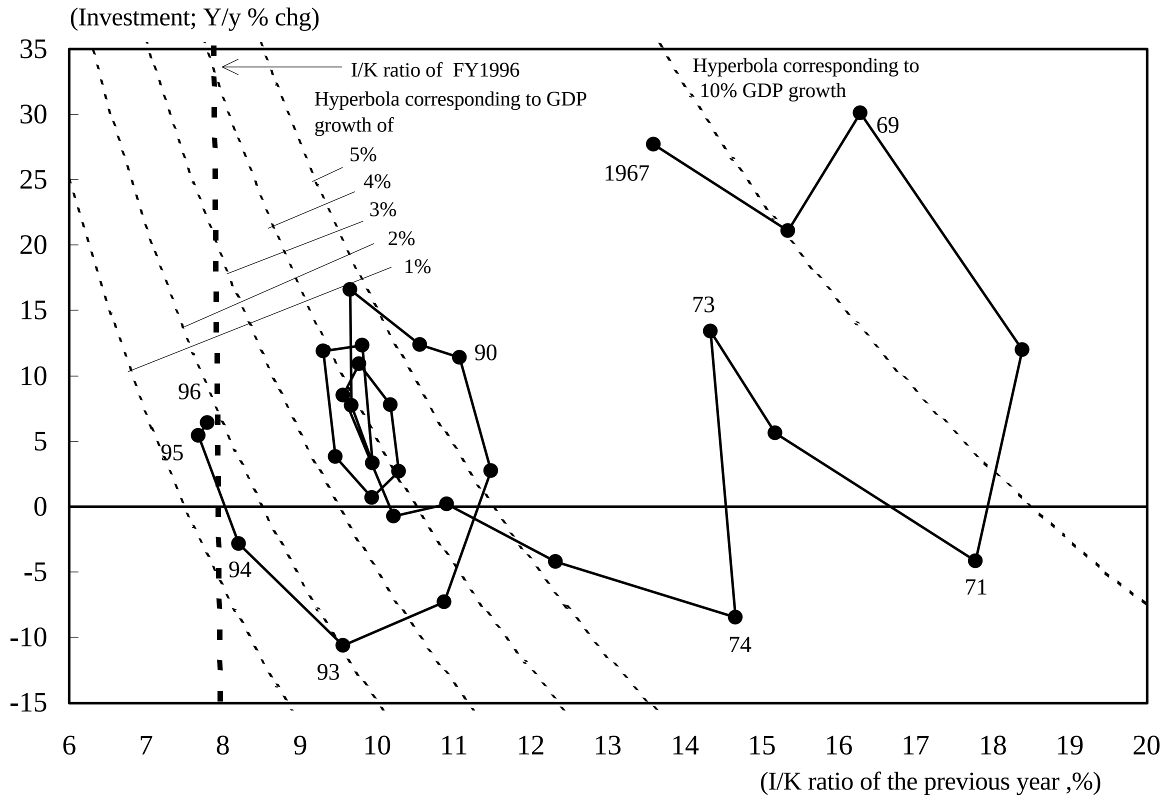


Note: Figures for Fukuoka in 1992 were surveyed in 2Q (June) and 4Q (December).

Sources: Bank of Japan "*Tankan* Short-term Economic Survey of Enterprises"; *Ikoma* Data Service System Inc. "Office Market Report."

Capital Stock Cycle

All Industries



Note: Based on fiscal year data.

Suppose ƒÂ is a ratio of capital stock retired to the total capital stock in one year, the rate of increase in capital stock (dK/K) is

(dK/K)=(I-ƒÂK)/K=(I/K)-ƒÂ..(1).

As capital to output ratio (K/Y) has a tendency to rise, we assume the rate to increase at an annual rate of ƒÁ constantly, then

(dK/K)-(dY/Y)=ƒÁ

When the expected growth rate is $(dY/Y)^e$, with the desirable rate of capital stock growth being $(dK/K)^*$,

$(dK/K)^*=(dY/Y)^e$+ƒÁ...(2).

I^* is investment corresponding to $(dK/K)^*$, then from (1)

$(dK/K)^*=(I^*/K_{-1})$-ƒÄ=$(I^*/I_{-1})\times(I/K)_{-1}$-ƒÄ...........................(3).

From (2), (3)

$(I^*/I_{-1})\times(I/K)_{-1}=(dY/Y)^e$+ƒÁ+ƒÄ.....................................(4).

Equation (4) shows that there is such a relationship in the mid-term between I/K ratio and the rate of change in investment under an expected growth rate of $(dY/Y)^e$ as indicated by the hyperbola when an assumption of ƒÁ and ƒÂ being constant holds.

Sources: Economic Planning Agency "Gross Capital Stock of Private Enterprises", "National Income Statistics."

Chart 24

Balance Sheet and Business Fixed Investment (The Effect of Balance Sheet Deterioration)

[The function formula]

$$\frac{I_{i,t}}{K_{i,t-1}} = a \frac{CF_{i,t}}{K_{i,t-1}} + b \frac{B_{i,t}}{LAND_{i,t}} + g \frac{1}{K_{i,t-1}} + c_i + e_{i,t}$$

$I_{i,t}$: Business fixed investment, $K_{i,t}$: Capital stock, $CF_{i,t}$: Cash flow,
$B_{i,t}$: Debts outstanding (borrowings from banks and corporate bonds),
$LAND_{i,t}$: Land holding outstanding (market value)
$_i$ = Industry, $_t$ = year, c_i = Dummy variable of industry, $e_{i,t}$ = Error term

The Result of Estimation

	Parameter for Profitability of Investment: α	Parameter for Debts Outstanding: β	$\bar{R}^2$
Manufacturing Large Firms	0.078 (7.43)	-0.014 (-3.13)	0.16
Nonmanufacturing Large Firms	0.225 (6.42)	-0.026 (-6.70)	0.60
Manufacturing Small Firms	0.452 (14.96)	-0.061 (-5.48)	0.59
Nonmanufacturing Small Firms	0.433 (4.70)	-0.075 (-3.95)	0.56

Notes: 1. The period of estimation: from FY 1980 to FY 1996
2. Large Firms with owner's equity of 1 billion yen or more.
Small Firms with owner's equity of less than 1 billion yen.
3. Manufacturing includes 17 industries: Foodstuffs & Beverages & Tobaccos, Textile, Pulp & Paper, Chemicals, Petroleum & Coal, Ceramics & Stone & Clay, Iron & Steel, Nonferrous Metals, Processed Metals, Industrial Machinery, Electrical Machinery, Transportation Machinery, Precision Machinery, Clothing & others associated with clothing, Lumber & Lumber Products, Printing & Publishing and Mining.
Nonmanufacturing excludes Electric & Gas Utilities, and includes following 5 industries: Construction, Wholesaling & Retailing, Real Estate, Transportation & Communication and Services.
4. For land holding outstanding, book value is converted to market value by the following formula, using data from "Land Price Indices of Urban Districts" .

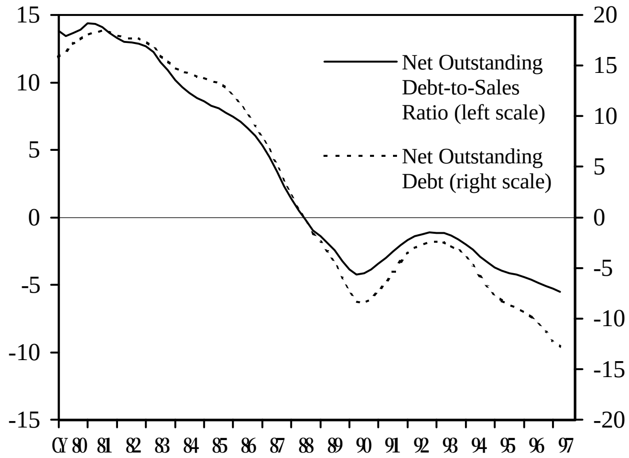
$$ML_t = \frac{PL_t}{PL_{t-1}} ML_{t-1} + (BL_t - BL_{t-1})$$

ML_t: Land holding outstanding based on market value
BL_t: Land holding outstanding based on book value
PL_t: Land price index of urban districts (average of 6 largest cities)
The initial figure (1980) for land holding outstanding (market value) is estimated using the ratio of the land holding outstanding (market value, held by Non-financial corporate business sector, showed in the table of "Closing Balance-sheet Account" of "Annual Report on National Accounts"), to the land holding outstanding of all firms (book value, showed "Quarterly Report on Financial Statements of Incorporated Business").

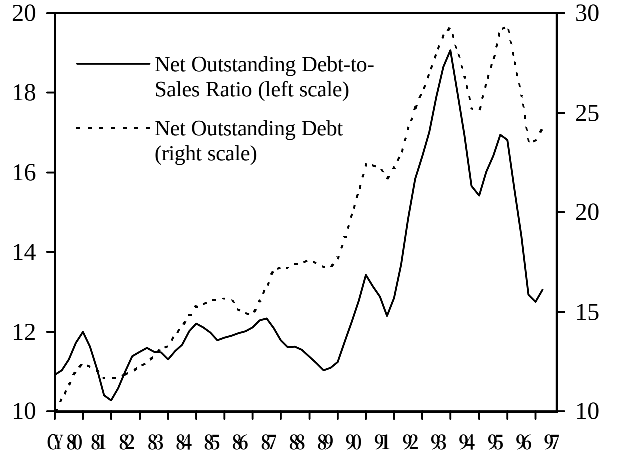
Sources: Ministry of Finance "Financial Statements of Incorporated Business";
Japan Real Estate Institute "Land Price Indices of Urban Districts."

Net Outstanding Debt-to-Sales Ratio

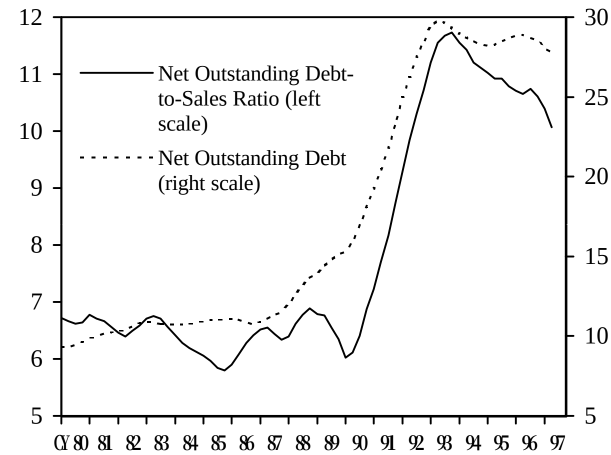
(1) Large Manufacturing Firms



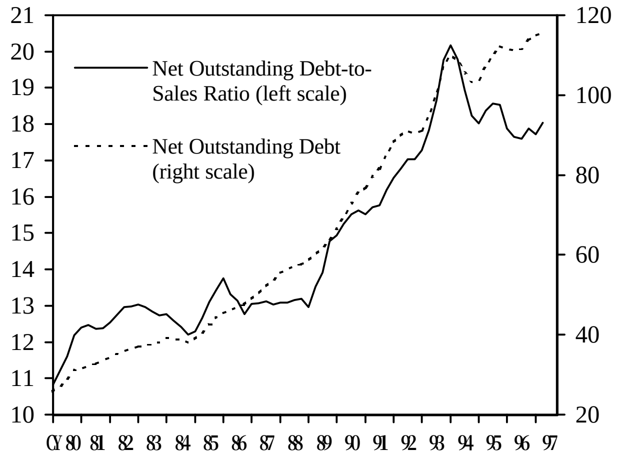
(2) Small Manufacturing Firms



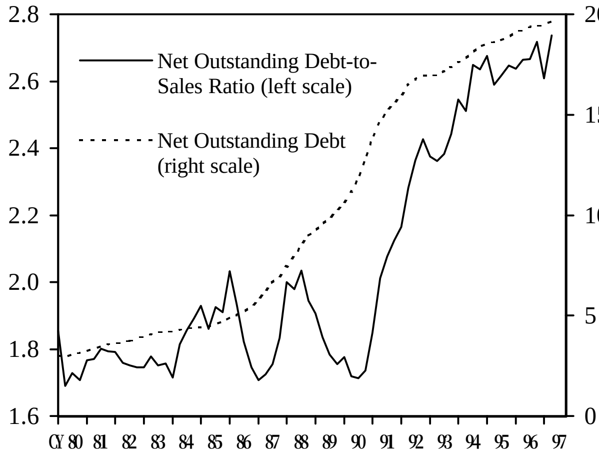
(3) Large Nonmanufacturing Firms (excluding Real Estate, Electric Power, Transportation & Communications)



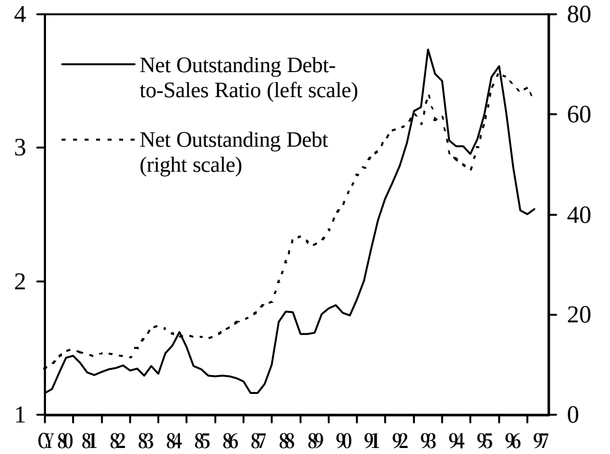
(4) Small Nonmanufacturing Firms (excluding Real Estate)



(5) Large Real Estate Firms



(6) Small Real Estate Firms

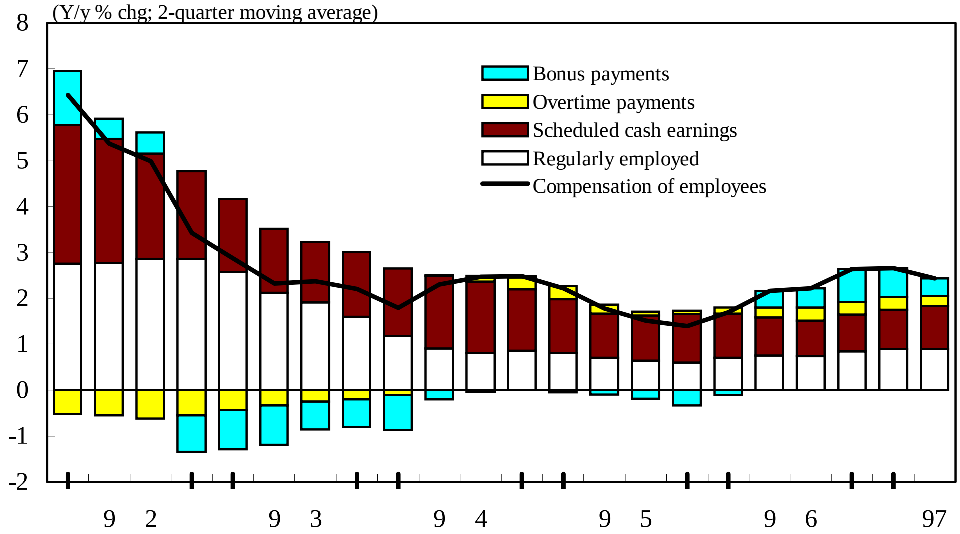


Notes: 1. Figures are in terms of 3-quarter moving average of seasonally adjusted data from 1980/1Q to 1997/2Q.
2. Net Outstanding Debt = (accounts payable + short-term borrowings + other current liabilities + corporate bonds + long-term borrowings + other fixed liabilities) - (cash and deposits + accounts receivable + short-term securities + other current assets + investment securities + long-term loans + other investments)
3. Sales are annualized.
4. Large firms have owner's equity of 1 billion yen or more. Small firms have owner's equity of less than 1 billion yen.

Source: Ministry of Finance "Corporate Business Statistics Quarterly."

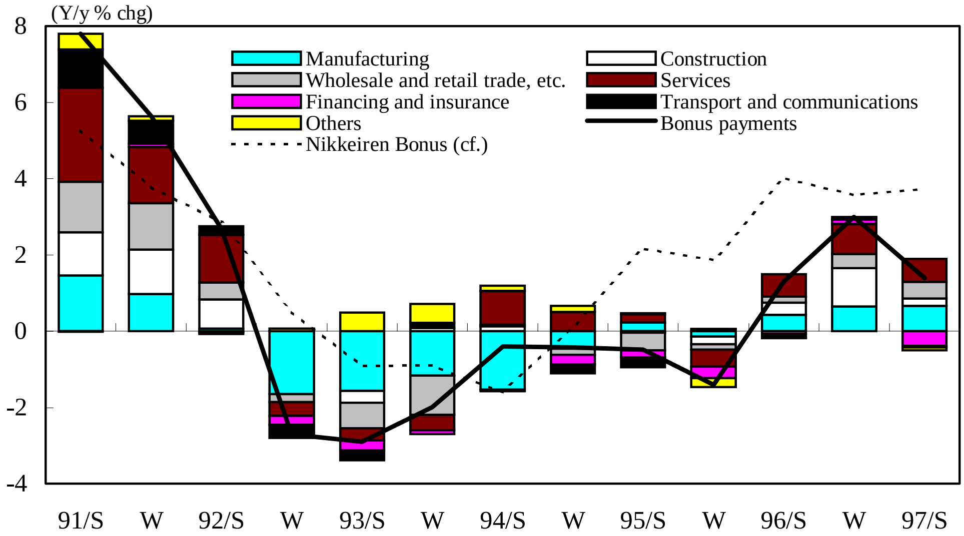
Compensation of Employees

(1) Compensation of Employees (Monthly Labor Survey)



Notes: 1. 1Q= Mar-May, 2Q= Jun-Aug, 3Q=Sep-Nov, 4Q= Dec-Feb.
2. Figures for firms in all industries with 5 employees or more.

(2) Bonus Payments by Industry

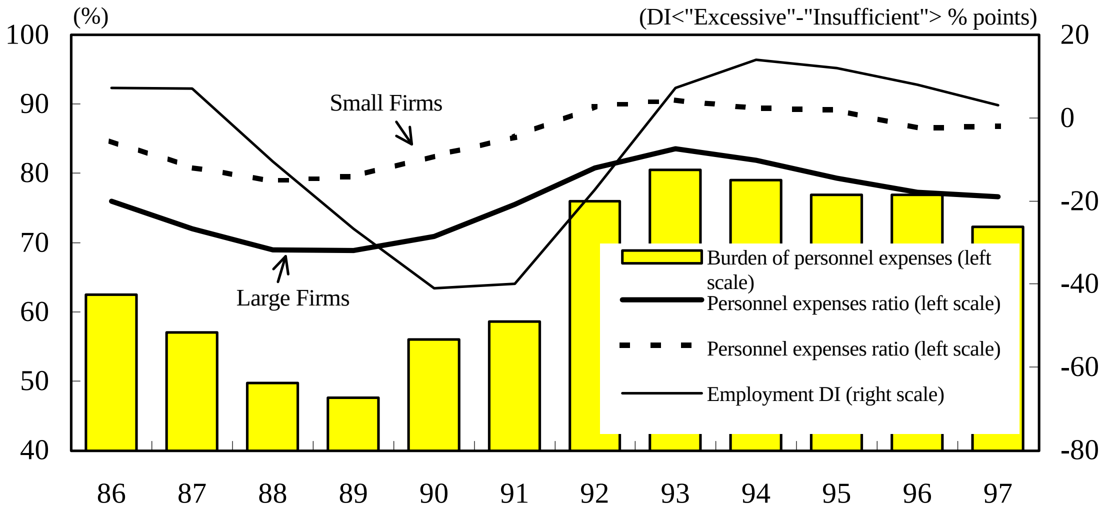


Notes: 1. S= Summer (Jun-Aug), W= Winter (Nov-Jan).
2. Figures for Nikkeiren Bonus are based on the survey conducted by the Japan Federation of Employer's Associations.
3. Factor contributions are derived by calculating the amount of special cash earnings in each industry weighted by its share among the regularly employed, and that of a year ago.

Sources: Ministry of Labor "Monthly Labor Survey";
The Japan Federation of Employers' Associations "Prompt Report on Labor-Management Negotiations on Bonus."

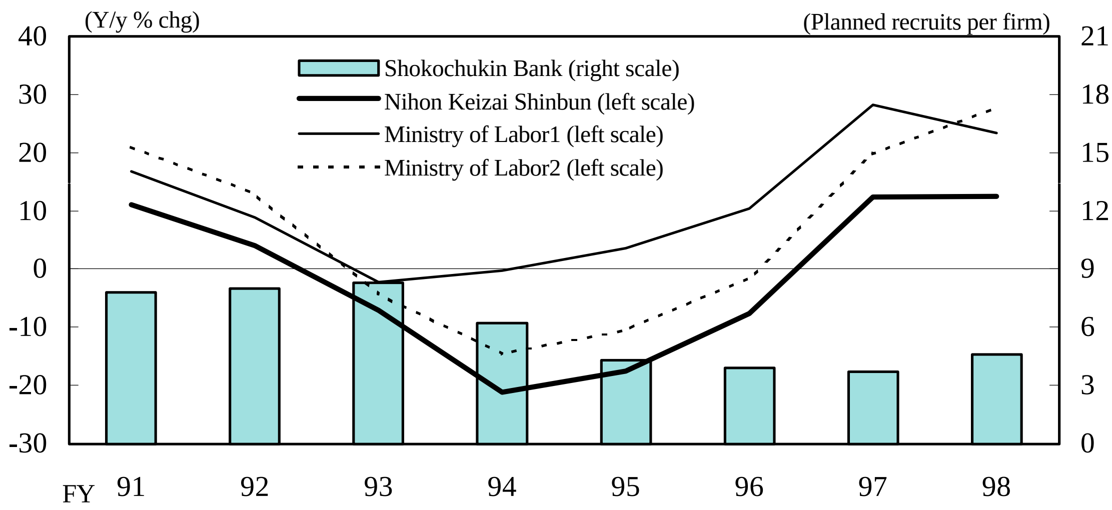
Adjustment Pressures on Employment

(1) Burden of Personnel Expenses



Notes: 1. Burden of personnel expenses is based on a survey conducted by the Japan Federation of Employer's Association, asking the top management of surveyed firms how they see the burden of personnel expenses after the annual wage negotiations in spring (the survey is usually conducted around May-Jun). It is the share of those who answered "Burden of personnel expenses is heavy", and "Burden of the personnel expenses is no longer bearable".
2. Personnel expenses ratio = Personnel expenses / (Personnel expenses + Current profit), fiscal year basis. Large Firms have owner's equity of 1 billion yen or more, Small Firms have that of less than 1 billion yen. Figures for 1997 are substituted by those for 1997/2Q (seasonally adjusted).
3. Figures for Employment DI are based on all firms and all industries, annual average. Figure for 1997 is substituted by that for 1997/3Q.

(2) Recruitment Plans Survey

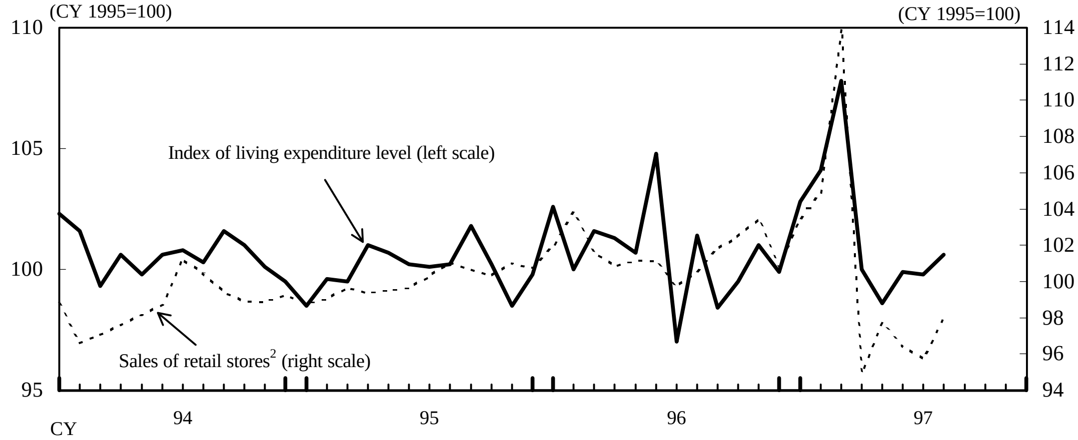


Notes: 1. Figures for Nihon Keizai Shinbun are taken from its annual survey (usually conducted in June). Recruitment plans for university, college, and high school graduates combined.
2. Figures for Ministry of Labor1 and for Ministry of Labor2 are recruitment plans for university graduates, and junior-college graduates respectively. The survey was conducted in July.
3. Figures for Shokochukin Bank are number of planned recruits per firm, based on the survey covering 1,152 small firms (including 597 manufacturing firms).

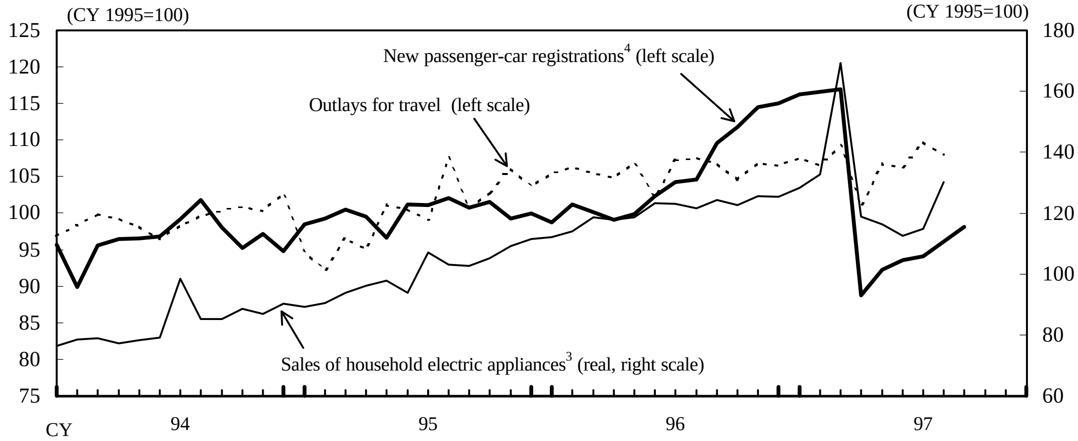
Sources: Japan Federation of Employer's Associations "Survey on Top Management concerning Spring Wage Negotiation"; Ministry of Finance "Corporate Business Statistics Quarterly"; Bank of Japan "*Tankan* Short-term Economic Survey of Enterprises"; Ministry of Labor "Report on Recruitment Plans for 1998"; Shokochukin Bank "Survey on Recruitment Plans of Small Firms"; The Nihon Keizai Shinbun, various issues.

Personal Consumption (Seasonally Adjusted)

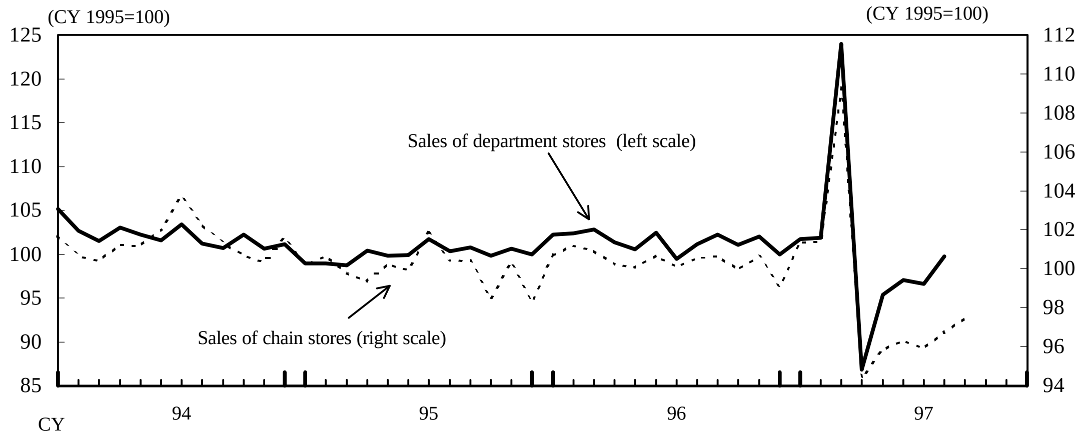
(1) Family Income and Expenditure Survey, Current Survey of Commerce (in real terms)



(2) Sales of Durable Goods, Outlays for Travel



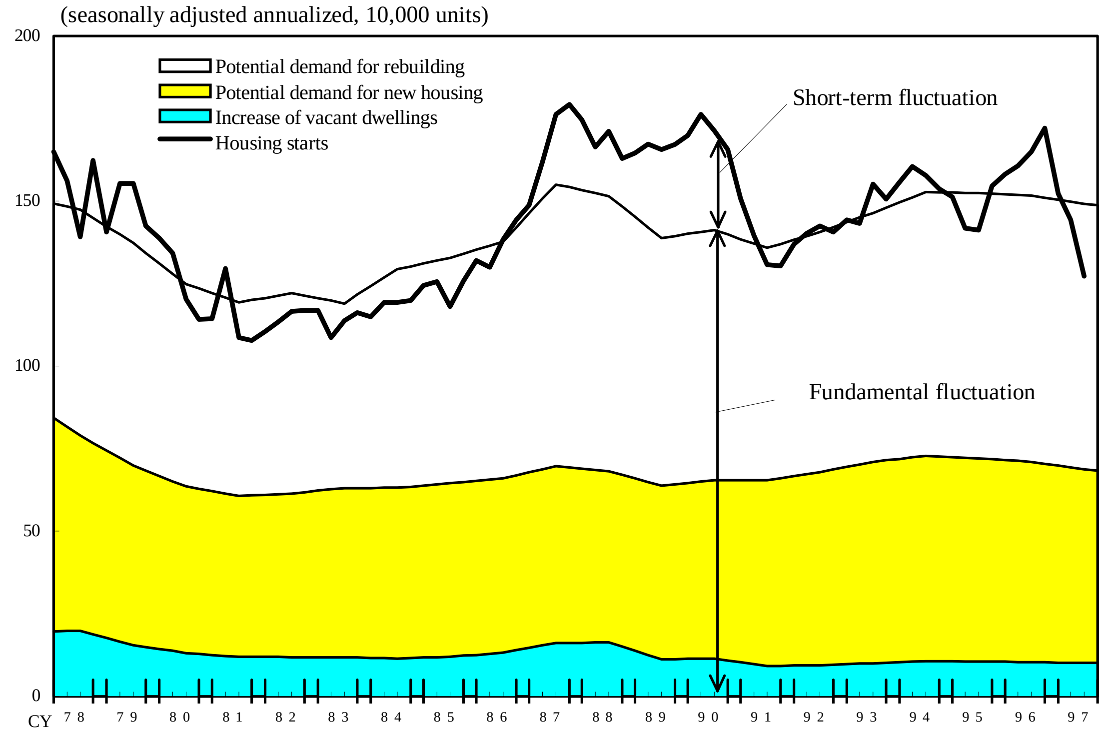
(3) Sales of large-scale retail stores[5,6]



Notes: 1. Seasonally adjusted by X-12-ARIMA (b version).
Index of living expenditure level is seasonally adjusted by X-11.
2. Sales of retail stores is deflated by the Consumer Price Index for commodities.
3. Sales of household electric appliances is deflated, using Wholesale Price Index (for personal computer) and Consumer Price Index (other electric appliances).
4. Excludes small cars with engine size of 660 cc or less.
5. Adjusted to exclude the effect of the rise of the consumption tax rate.
6. Adjusted to exclude the effect of the increase of stores.

Sources: Management and Coordination Agency "Monthly Report on the Family Income and Expenditure Survey";
Ministry of International Trade and Industry "The Current Survey of Commerce";
Japan Automobile Dealers association "Domestic Sales of Automobiles";
Nippon Electric Big-Stores Association (NEBA) "Sales of Electric Appliance";
Ministry of Transport "Ryokou Toriatsukai Jyoukyou (Major Travel Agents' Revenue)";
Japan Chain Stores Association "Sales of Chain Stores."

Housing Starts



Notes: 1. "Fundamental fluctuation" = "Potential demand for rebuilding" + "Potential demand for new housing" + "Increase of vacant dwellings".

(1) "Potential demand for new housing" is based on five-year moving average of increase of the number of households. Data in 1997 uses estimated figures by the Ministry of Welfare.

(2) "Potential demand for rebuilding" is obtained by regressing estimated demand for rebuilding* by assumed demand for rebuilding**.

*Estimated demand for rebuilding each year is obtained by dividing rebuilt units in five years (sum of housing starts in five years minus increase of dwelling stocks in "Housing Survey of Japan" from five years earlier) by removed units each year.

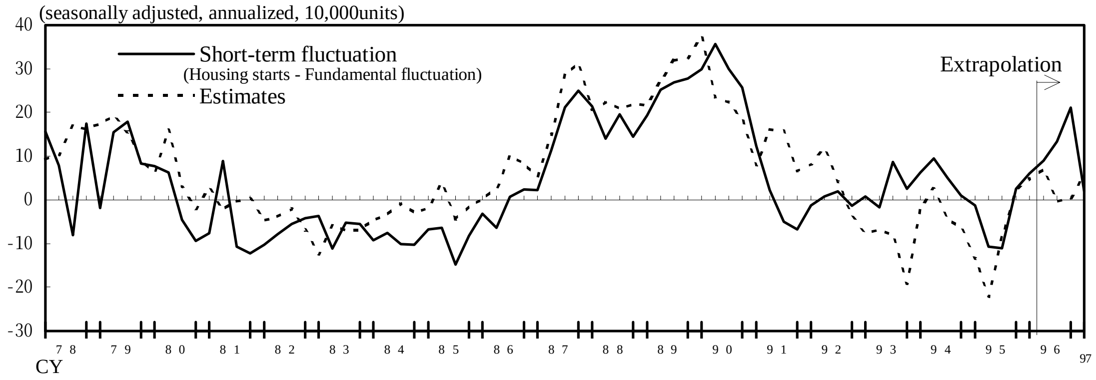
**Assumed demand for rebuilding is calculated, assuming that (i) 25% of existing stocks built 15 to 19 years ago, (ii) 50% of them built 20 to 24 years ago, (iii) 25% of them built 25 to 29 years ago, are removed and rebuilt each year. For reference, the depreciation period for housing is 22 or 24 years according to the tax law.

(3) "Increase of vacant dwellings" in five years is obtained from "Housing Survey of Japan". The figure for "Increase of vacant dwellings" each year is obtained by dividing increase in vacant dwellings from five years earlier by number of housing starts each year.

2. Figure for housing starts in 1997/3Q is Jul-Aug average.

Sources: Ministry of Construction "Monthly of Construction Statistics"; Management and Coordination Agency "Housing Survey of Japan", etc.

Regression of Housing Starts



Notes: 1. The estimates are obtained by the following regression.

Short-term fluctuation=-73.32+0.89*Rent-house Profitability Index
(-6.06) (8.24)
+14.8*Long-term Prime Lending Rate differential from previous quarter
(4.81)
+1.37*Percent changes from a year earlier of Land Price Index of Urban Districts
(5.46)
- 2.76*Real Interest Rates
(-2.86) ():t-statistics

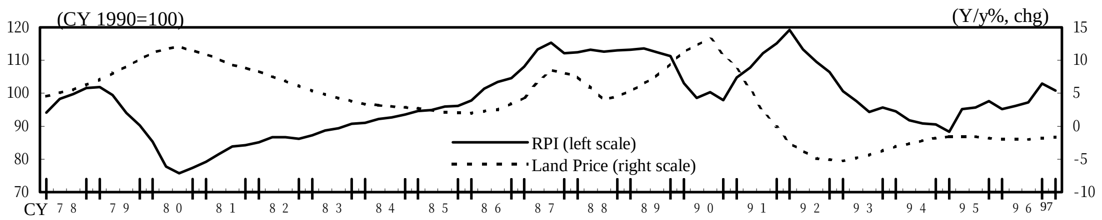
Sample period:78/1Q-96/1Q , $\bar{R}^2$=0.64 , S.E.=9.56 , D.W.=0.90

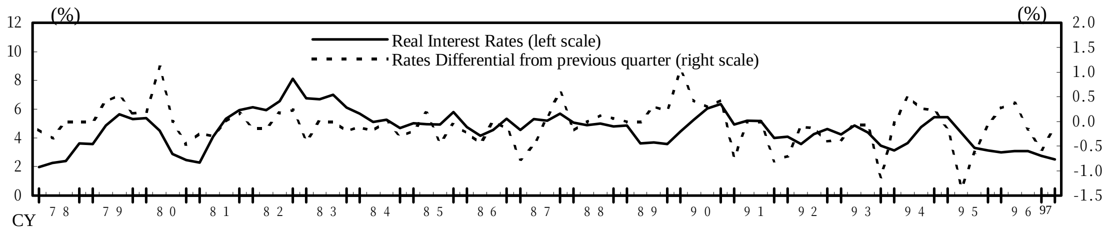
2. Fundamental fluctuation = Potential demand for rebuilding + Potential demand for new housing + Increase in vacant dwellings.
3. Rent-house Profitability Index (RPI) =(Rent/Construction Cost)/ $\frac{i \cdot (1+i)^n}{(1+i)^n - 1}$

i :Average contracted Interest Rates on New Long-term Loans and Discounts.
n:Term of Repayment (n=20).

4. Rent=data from CPI (before1990), data compiled by *at home.* Inc (after 1990).
5. Construction Cost=Repairs and maintenance in CPI.
6. Real Interest Rates=Long-term Prime Lending Rates
- Percent changes from a year earlier in GDP Deflator.

<Changes of Explanation Variables>

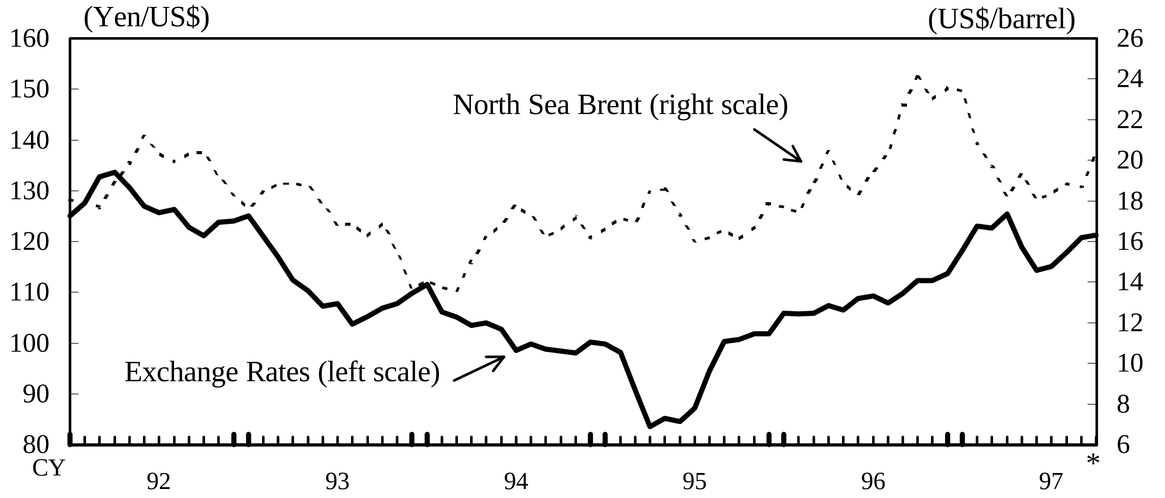




Sources: Ministry of Construction "Monthly of Construction Statistics";
Management and Coordination Agency "Housing Survey of Japan", etc.

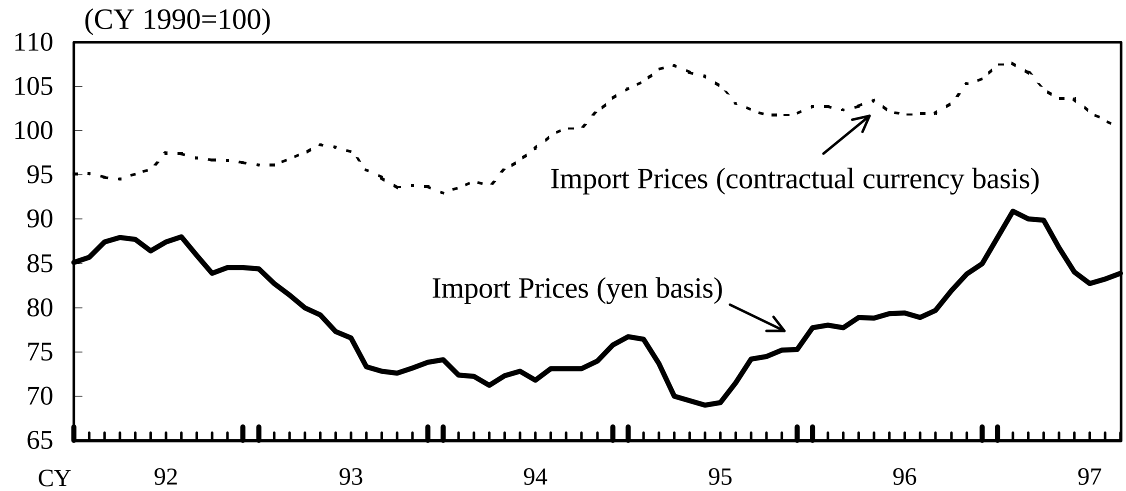
Upward Pressure on Domestic Prices from Import Prices

(1) Crude Oil Price and Exchange Rates

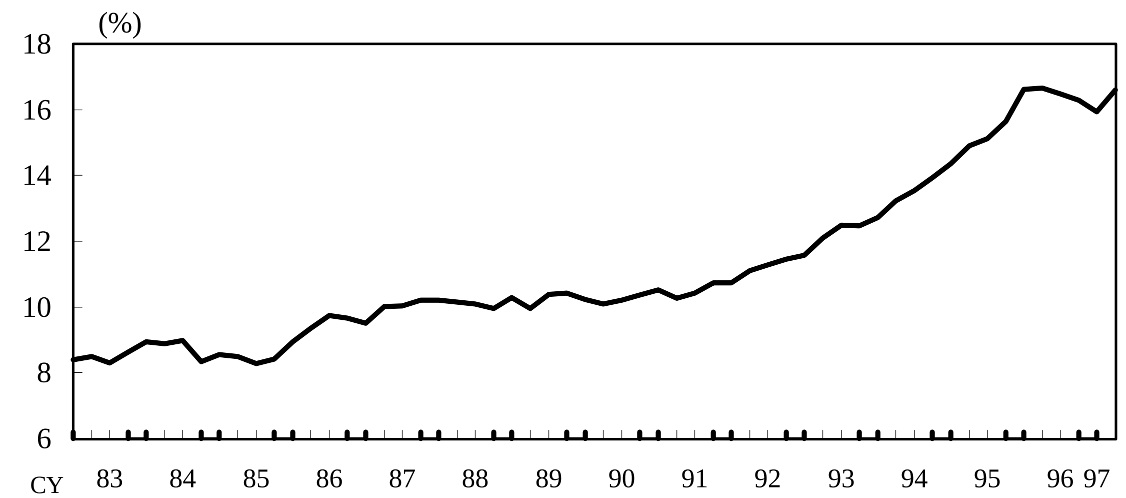


* Oct 1-21 average

(2) Import Prices



(3) Import Penetration Ratio of Industrial Products

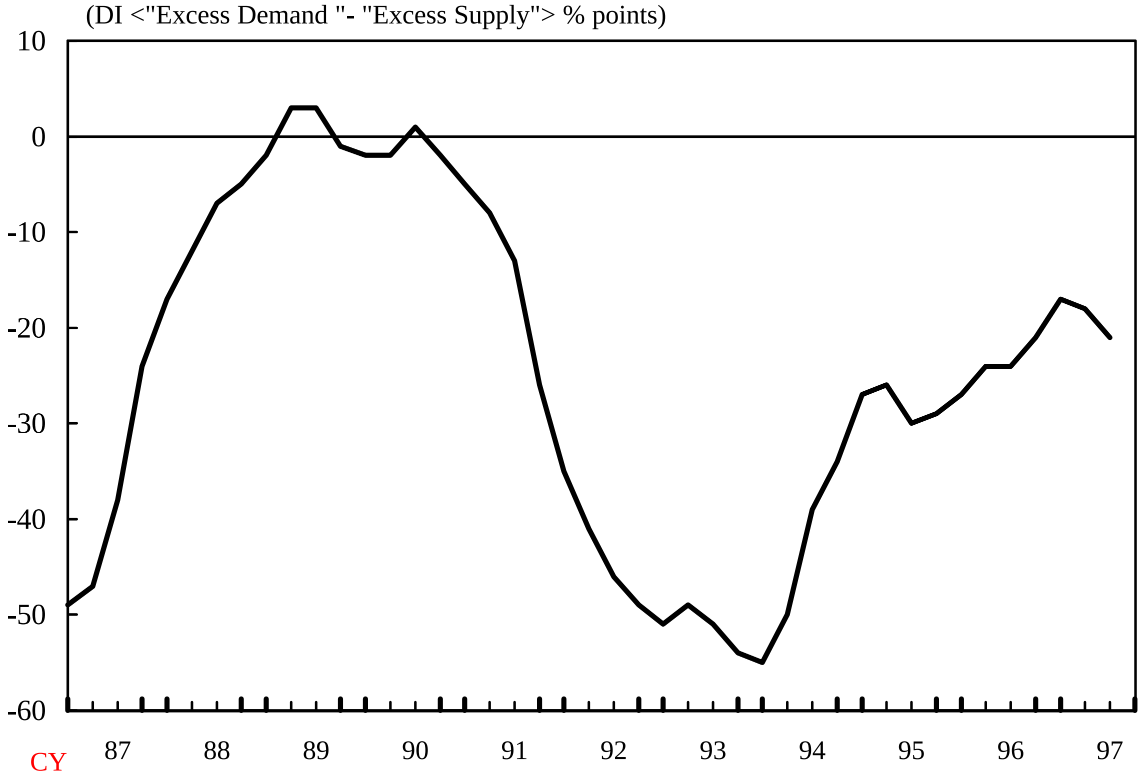


Note: Import penetration ratio = imports / (domestic shipments + imports).

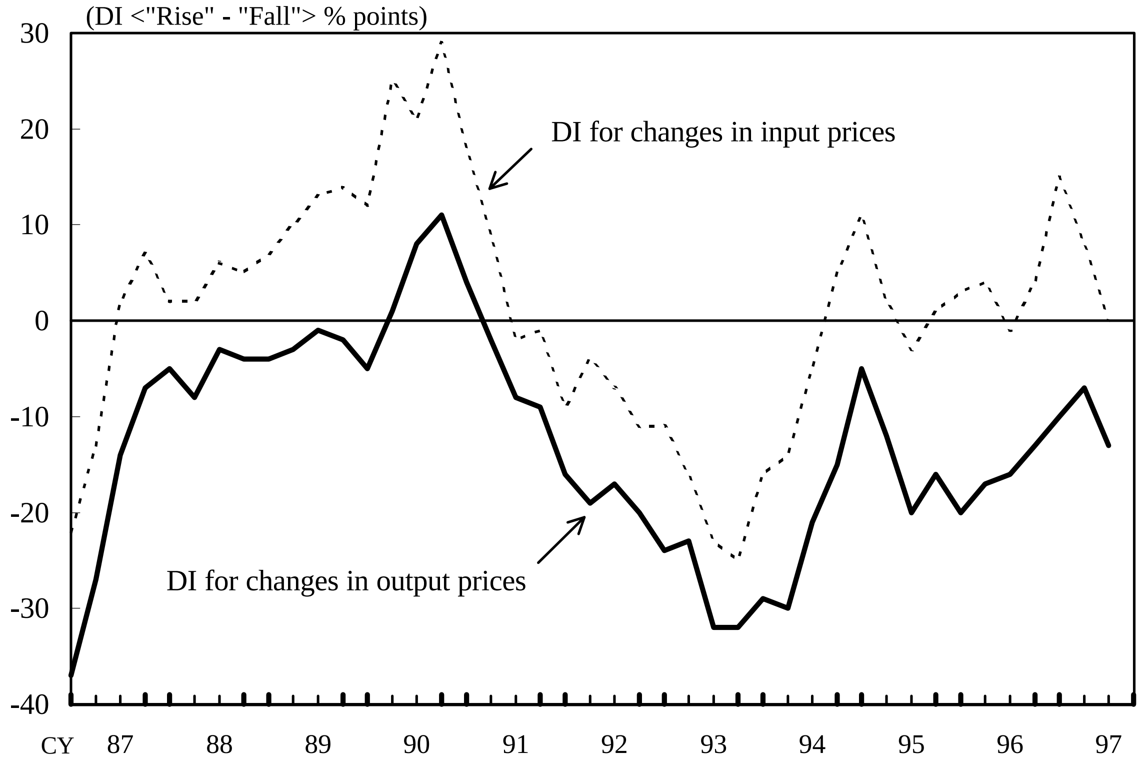
Sources: Ministry of International Trade and Industry "Indices of Industrial Production"; Bank of Japan "Wholesale Price Indexes", "Economic Statistics Monthly."

Supply and Demand Conditions

(1) Supply and Demand Conditions for Products (Principal Firms, Manufacturing)

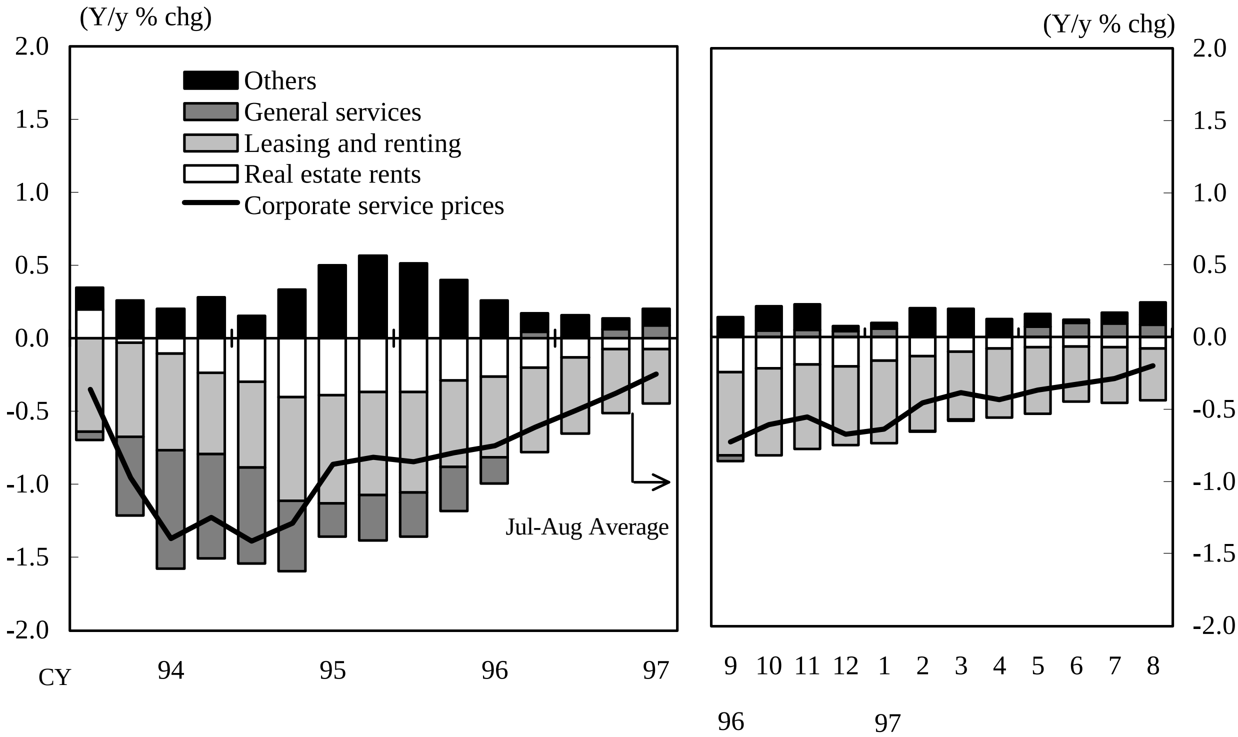


(2) Changes in Input and Output Prices



Source: Bank of Japan "*Tankan* Short-term Economic Survey of Enterprises."

Corporate Service Prices



Notes: 1. General services = finance and insurance + transportation + information services + communications + advertisement + building maintenance and construction planning + temporary worker services + machinery maintenance etc. (excluding items in "others").

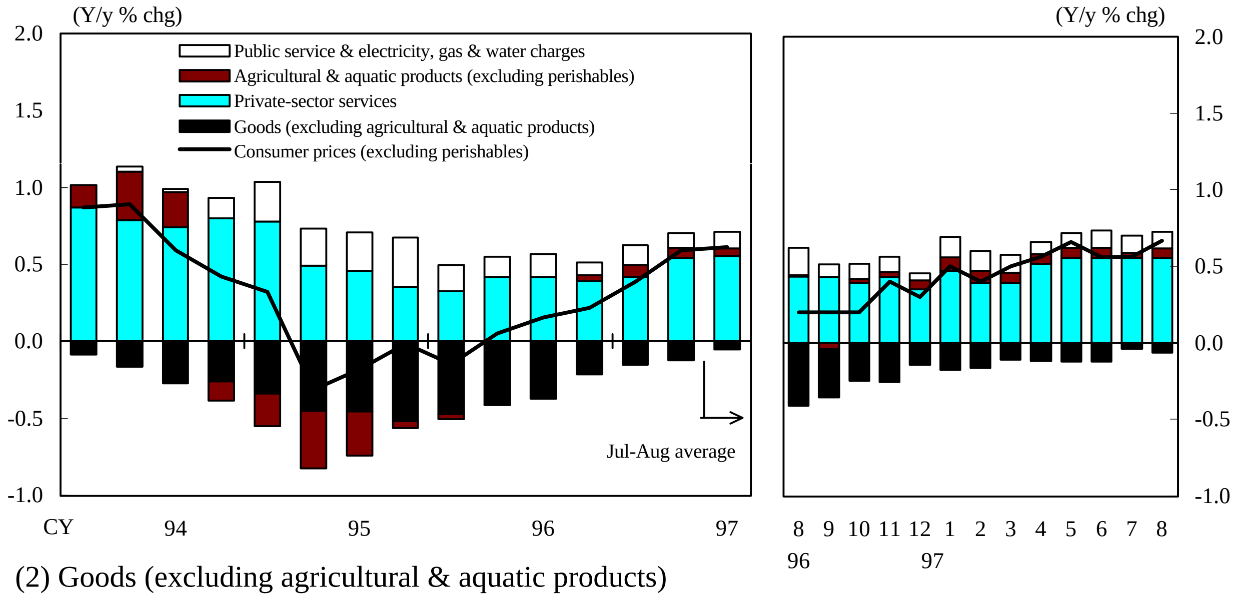
Others = automobile insurance + fire insurance + railroad fares + road fares + domestic air fares + tolls + postal services + telephone charges + sewerage disposal + ocean freight + international air freight + international air fares.

2. Excluding the rise of the consumption tax rate from 3% to 5% in and after April 1997 (prices are adjusted on the assumption that prices of all taxable goods are fully raised in April 1997).

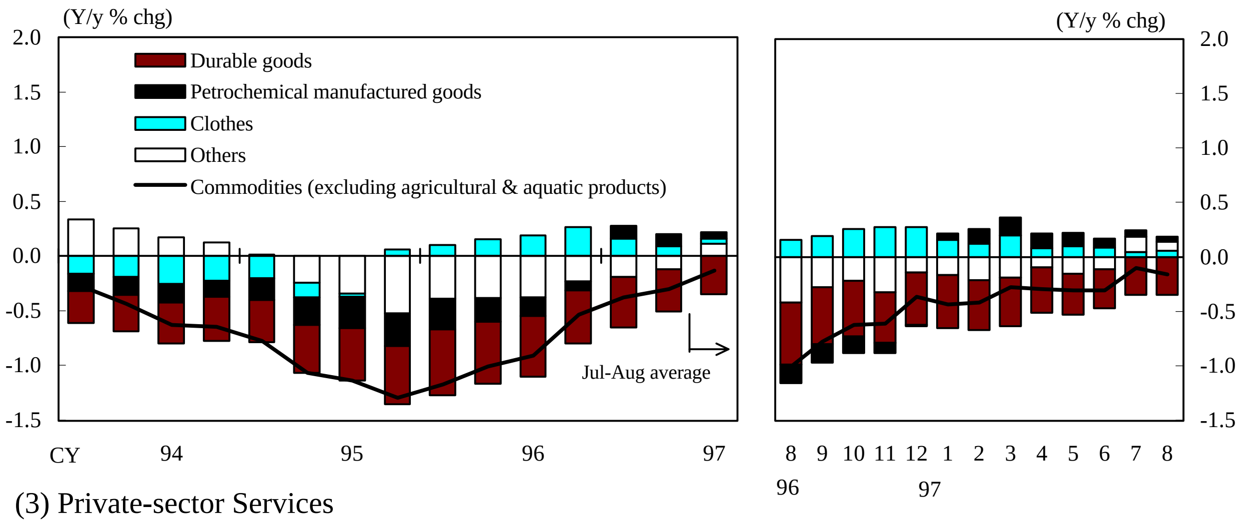
Source: Bank of Japan "Corporate Service Price Index."

Consumer Prices

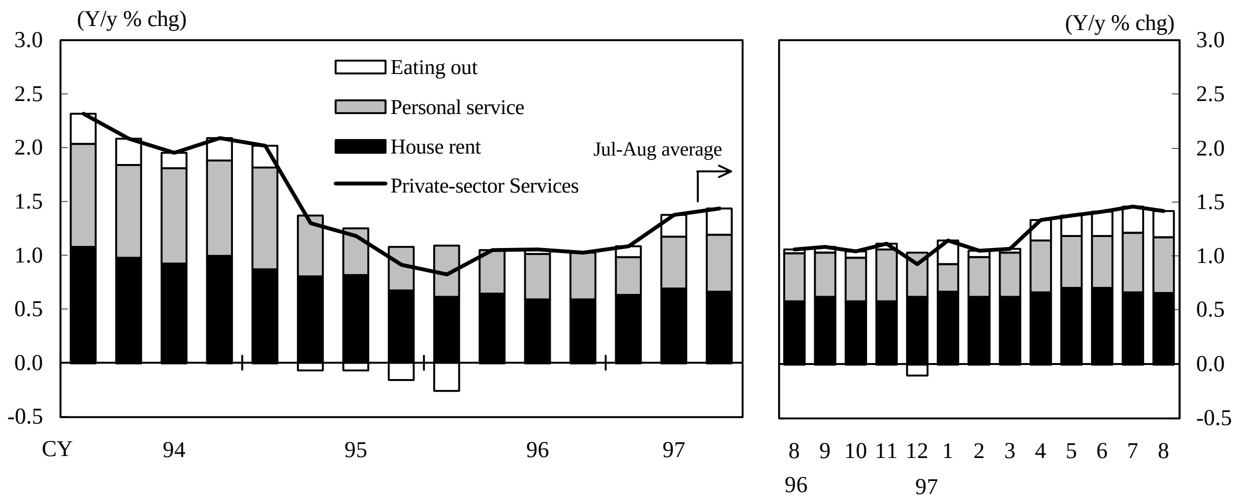
(1) Consumer prices (excluding perishables)



(2) Goods (excluding agricultural & aquatic products)



(3) Private-sector Services



Notes: 1. Petrochemical manufactured goods = propane gas + kerosene + gasoline (regular).
2. Excluding the rise of the consumption tax rate from 3% to 5% in and after April 1997 (prices are adjusted on the assumption that prices of all taxable goods are fully raised in April 1997).

Source: Management and Coordination Agency "Consumer Price Index."