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Recent Trends in the Japanese Economy: The 1990s in Retrospect

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Contents

Recent Trends in the Japanese Economy: The 1990s in Retrospect

Summary

1. The Japanese economy has bottomed out and is starting to recover, supported by fiscal and financial stimuli as well as increased exports. However, the path to recovery is not smooth, as private domestic demand remains weak. Real GDP in the third quarter of 1999 increased for the second consecutive period, up 0.9% from the previous year. Private consumption remains static, and plant and equipment investment is showing the sign of bottoming out. Public investment and housing investment are leveling off, while production is rising as exports increase and inventory adjustments have been completed.

Regarding personal consumption, the continued decline in income – bonus in particular – has not prevented a slight improvement in consumption propensity in the third quarter of 1999, which increased on the previous year for the fourth consecutive period. Since the beginning of autumn, however, personal consumption as a whole has leveled off, with a decline in service consumption and automobile sales. Nevertheless, there are signs of improvement as information-related consumption continues to grow rapidly.

The sharp drop in plant and equipment investment was somewhat subdued in the third quarter of 1999, down 7.3% from the previous year. Whereas return on investment has bottomed out in the manufacturing sector and is recovering slightly in the non-manufacturing sector, plant and equipment investment still remains sluggish. Nonetheless, it is showing signs of bottoming out as the decline in machinery orders, its leading indicator, has eased somewhat.

Largely due to a reduction in housing tax, housing starts rose in the second quarter of 1999 year-on-year. Although the construction of owned houses has slowed after leading the initial recovery, the construction of condominiums has accelerated to take advantage of the tax reduction, backed by strong sales.

The growth of public investment has come to a temporary halt. Largely due to the economic stimulus package of April 1998 and the emergency economic measures of November 1998, public capital formation increased on the previous year for three quarters to the second quarter of 1999. So far in fiscal 1999, however, orders have been decreasing in local regions in particular, reflecting the difficult fiscal conditions. As a result, public capital formation declined in the third quarter of 1999, although it remains high.

Exports and imports have increased, both led by Asia. In the third quarter of 1999, exports rose for the first time in six quarters, led by a strong increase of 15.1% in exports to Asia. After starting to increase again in January 1999, imports continued to increase, up 9.3% in the third quarter of 1999. Imports of industrial products from Asia in particular have grown significantly.

After showing signs of bottoming out since the end of 1998, industrial production has been recovering, as shipments increased in the third quarter of 1999 for the first time in eight periods. Although the recovery in producers' goods has been rapid, recovery for consumer goods and capital goods has been slower, reflecting the weakness in domestic demand.

Prices are still showing a slight decline, but the decline has been slowing. Recovery in the Asian economies has stemmed the fall in commodity prices, while the decline in wholesale prices is slowing due to progress in inventory adjustment and the rise in oil prices. However, service consumption price remains sluggish.

Employment conditions remain harsh, although there are signs of improvement. Although the unemployment rate and the ratio of job offers to applicants have improved slightly, the regular employment environment remains severe, as new jobs are mainly being offered to part-time workers.

As regards finance, interest rates have remained at zero in the money market since March 1999. The yield on long-term government bonds is almost static at present. The stable growth of money supply contrasts with the continued decline in bank loans.

2. The Japanese economy grew faster than other major industrialized economies until the 1980s, but suffered a major setback in the 1990s. Since the mid-1990s, the economy has been mired in a serious slump, in contrast with the recovery in Europe and the U.S.A. This report looks back at the Japanese economy in the 1990s, with special focus on the destabilization of consumption and investment, the diversification of labor market, the increase in government debts, globalization and the progress of information technology.

The 1990s have seen the destabilization of the two major components of domestic demand: consumption and plant and equipment investment. Heightened concerns about the future made consumption responsive to the business cycle. The savings ratio stopped declining despite the progress of aging, and personal financial assets shifted to safe assets as bank deposits. Plant and equipment investment was no longer supported by the previously stable investment in the non-manufacturing sector, and became unstable due to the widespread aftershocks following the bursting of the economic bubble and the instability of the banking system. The decrease in plant and equipment investment prompted the corporate sector to cut back on borrowing, thus generating surplus funds.

As regards employment, regular employment did not experience any significant fluctuation, while the weight of part-time workers increased substantially. Changes in the demographic structure and increased participation of women in the labor force accelerated the diversification of employment style.

In the 1990s, the government deficit grew rapidly due to the sluggish economy and successive economic stimulus measures. Consequently, outstanding debts in the government sector have risen much faster than in other developed countries, and are expected to reach 120% of GNP in 2000. As there is small room for further falls in interest rates, the growing debt is causing concern about the increased burden of interest payments in future years.

The 1990s were characterized by the rapid progress of globalization and information technology. The overseas production ratio has risen to almost 14%, while the share of finished products in total imports has increased to 60%. Information-related expenditures increased rapidly in the latter half of the decade. The diffusion of IT (information technology) is expected to continue for many years.

I. The Japanese Economy: Slow Recovery with Weak Private Demand

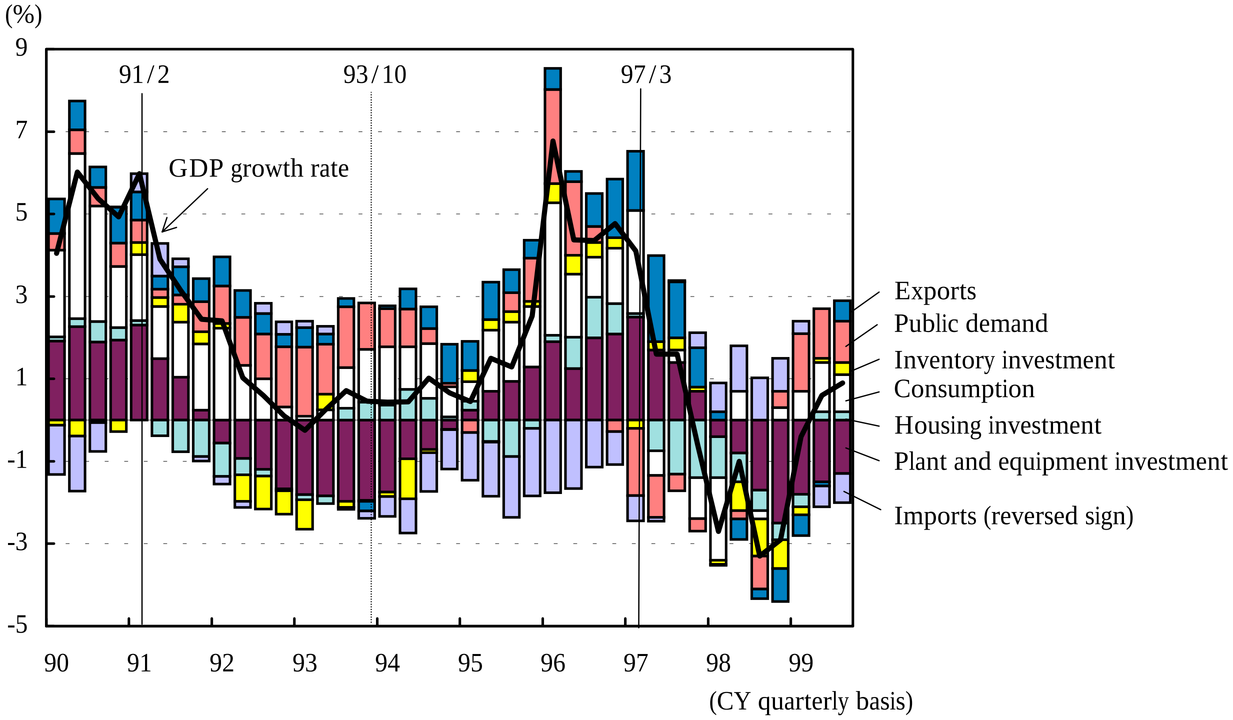
1. Production: Starting to Recover

With support from fiscal and financial stimuli as well as from increased exports, the Japanese economy has bottomed out and is starting to recover. However, the recovery is very slow, restrained by sluggish private domestic demand. Private consumption is not moving strongly due to harsh income and employment conditions. Plant and equipment investment is showing the sign of recovery. Housing investment is leveling off, whereas public investment is also leveling off after substantial growth.

Real GDP (Figure 1-1) increased for two consecutive periods after recording a positive growth for the first time in seven quarters in the second quarter of 1999. The revised government estimate of 0.6% for fiscal 1999 will be attained even if the economy shrinks by 0.3% on the previous period in each of the next two quarters.

Figure 1-1. Trends in Real GDP

(Year-on-year change by component)



Source: Economic Planning Agency, "Annual Report on National Accounts," 1990 as base year.

By demand component, growth in private final consumption expenditure accelerated on the previous year for three consecutive periods from the fourth quarter of 1998, only to slow again in the third quarter of 1999. Continued income and inhabitant tax relief measures have not compensated improve the harsh employment and income conditions; the rise in consumption propensity among workers' households turned out to be unstable.

Plant and equipment investment of private corporations declined for seven consecutive periods from the first quarter of 1998. Although the manufacturing sector has experienced a substantial decline, the decline in the non-manufacturing sector has been slowing. Furthermore, machinery orders, the leading indicator, imply that plant and equipment investment is bottoming out in both the manufacturing and non-manufacturing sectors.

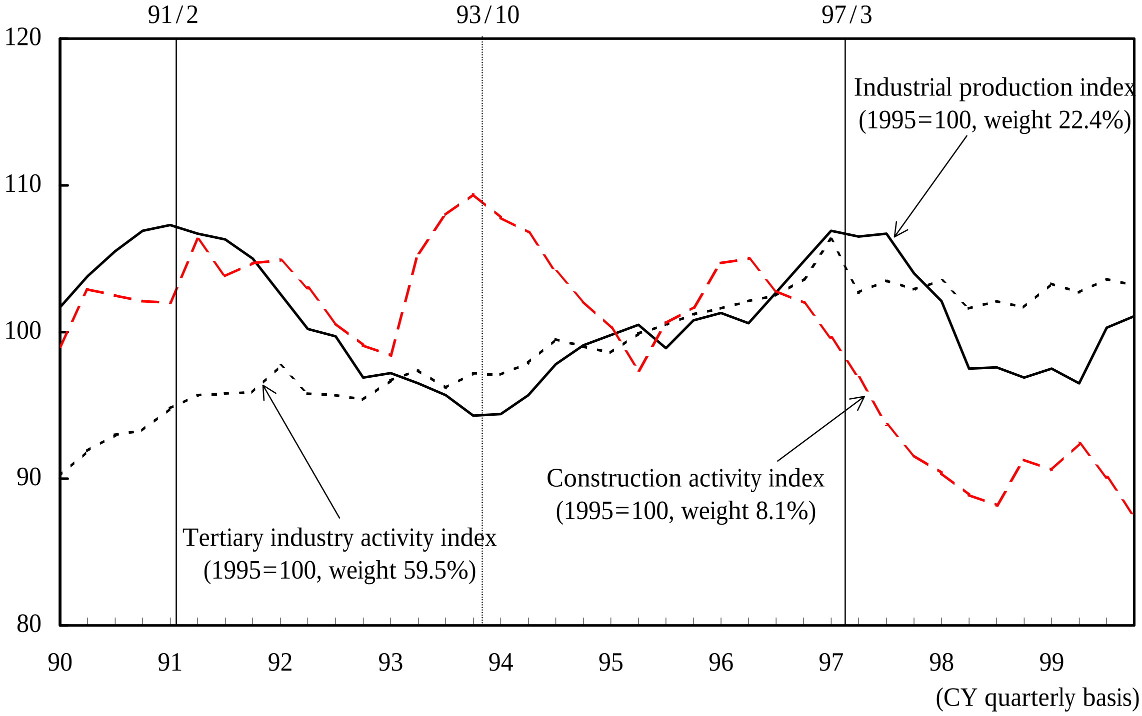
Private housing investment rose in the second quarter of 1999 for the first time in nine quarters as owned houses increased largely due to continued low interest rates and housing tax relief. Condominium construction is accelerating on the back of tax relief measures. As a result, annualized housing starts reached at around 1,200,000 units at an annual base. But the housing investment is leveling off.

Public demand including government final consumption expenditure and public fixed asset formation increased for the fourth consecutive period from the fourth quarter of 1998, supported by the two economic stimulus packages in fiscal 1998. However, the growth has been slowing recently. As the contract value of public works, its leading indicator, started to decline in the second quarter of 1999, the government agreed to economic pump-priming measures (total value of ¥18 trillion) in November 1999.

As regards exports and imports of goods and services, exports rose in the third quarter of 1999 after six quarters of decline, led by the recovery of the Asian market as well as the European and U.S. markets. Imports increased for the second consecutive quarter, led by Asia.

Figure 1-2 shows the trend of major production indicators including the industrial production index, construction activity index and tertiary industry activity index.

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



Source: Ministry of International Trade and Industry, "Industrial Statistics Monthly."

After suffering low levels since the second quarter of 1998, the industrial production index seems to have bottomed out, recording the fastest growth since the first quarter of 1976 (up 3.9% from the previous year) in the third quarter of 1999, largely due to increased production of transport equipment and electric machinery. Based on the forecast of manufacturing industry production, the index will continue to rise in the fourth quarter of 1999.

The construction activity index continued to improve from the fourth quarter of 1998 with the progress of public works projects, but has since fallen again. The tertiary industry activity index is recovering slightly, with contributions from industries such as transportation and communications.

2. Shipments: Recovering, Inventories: Adjustment Completed

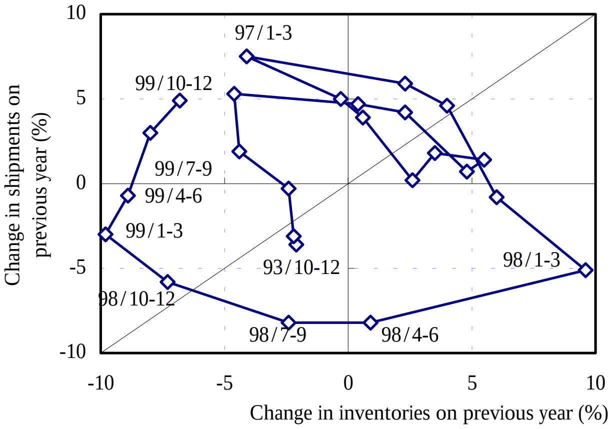
The relationship between the growth of shipments and that of inventories shows that the Japanese industry entered a “recovery phase” at the end of 1998, with the decrease in shipments tapering off. Currently, inventory adjustment has completed as shipments in the third quarter of 1999 increased for the first time in eight quarters (Figure 1-3). Although inventories have been reduced for all types of goods, the recovery in shipments owes much to the contribution from producers’ goods. On the other hand, the recovery is still weak for final demand goods.

By type of goods, shipments of capital goods (excluding transport equipment) and construction materials are still on the decline due to sluggish plant and equipment investment, but the decline has been curtailed and even reversed for the month of August (Figures 1-4 and 1-5). Although consumption goods were the first to see an upturn in shipments (4Q/98), the recovery stagnated due to the persistent harsh income and employment conditions (Figure 1-6). Shipments of producers’ goods have increased rapidly so far this year, thus leading the recovery of the whole industry (Figure 1-7). In general, the recovery of producers’ goods precedes that of final demand goods.[1] Thus, whether the current recovery of producers’ goods leads to a sustained recovery of the industry as a whole depends on the trend of final demand goods in the coming several months.[2]

[1] According to Ministry of International Trade and Industry, “Analysis of Industrial Production Activity, April-June 1999,” production trend by type of goods since 1986 indicates that producers’ goods tend to precede final demand goods by about two quarters when year-on-year change in production turns from negative to positive.

[2] If shipments of final demand goods do not recover as expected, readjustment of inventories may be required for producers’ goods.

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



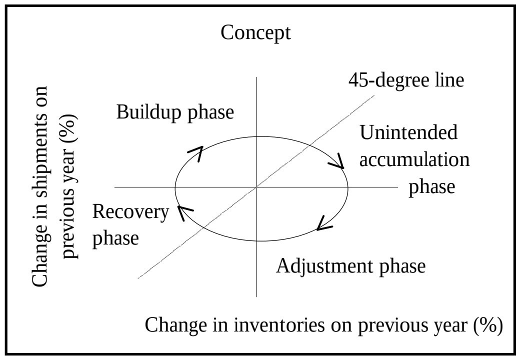


Figure 1-4. Inventory Cycle of Capital Goods (Excluding transport equipment)

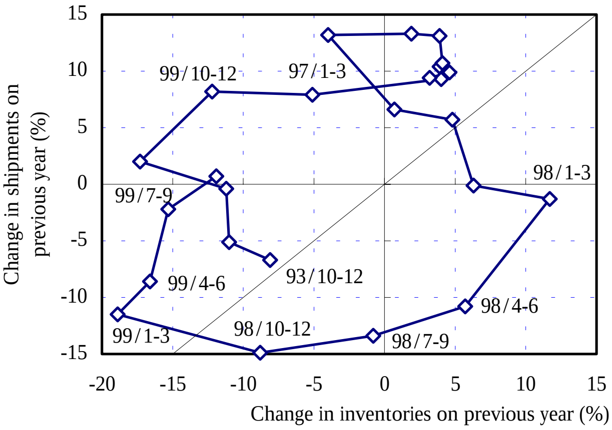


Figure 1-5. Inventory Cycle of Construction Materials

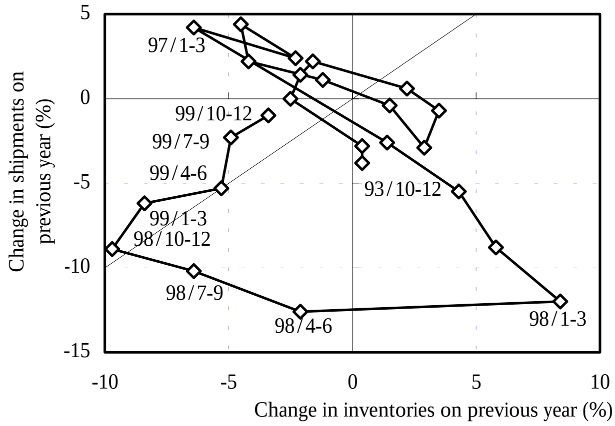


Figure 1-6. Inventory Cycle of Consumer Goods

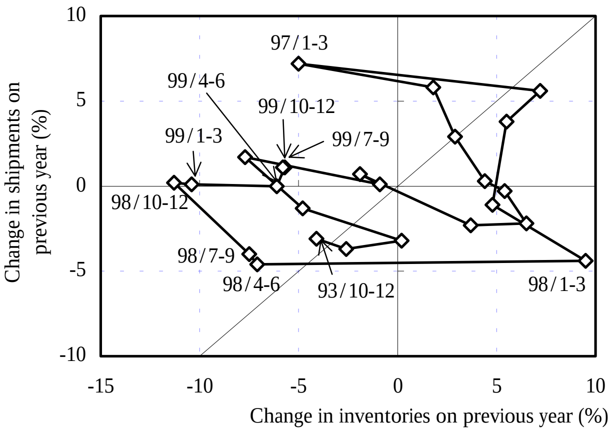
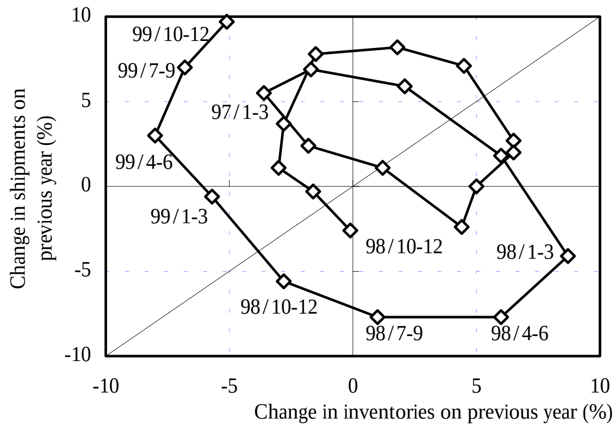


Figure 1-7. Inventory Cycle of Producers' Goods



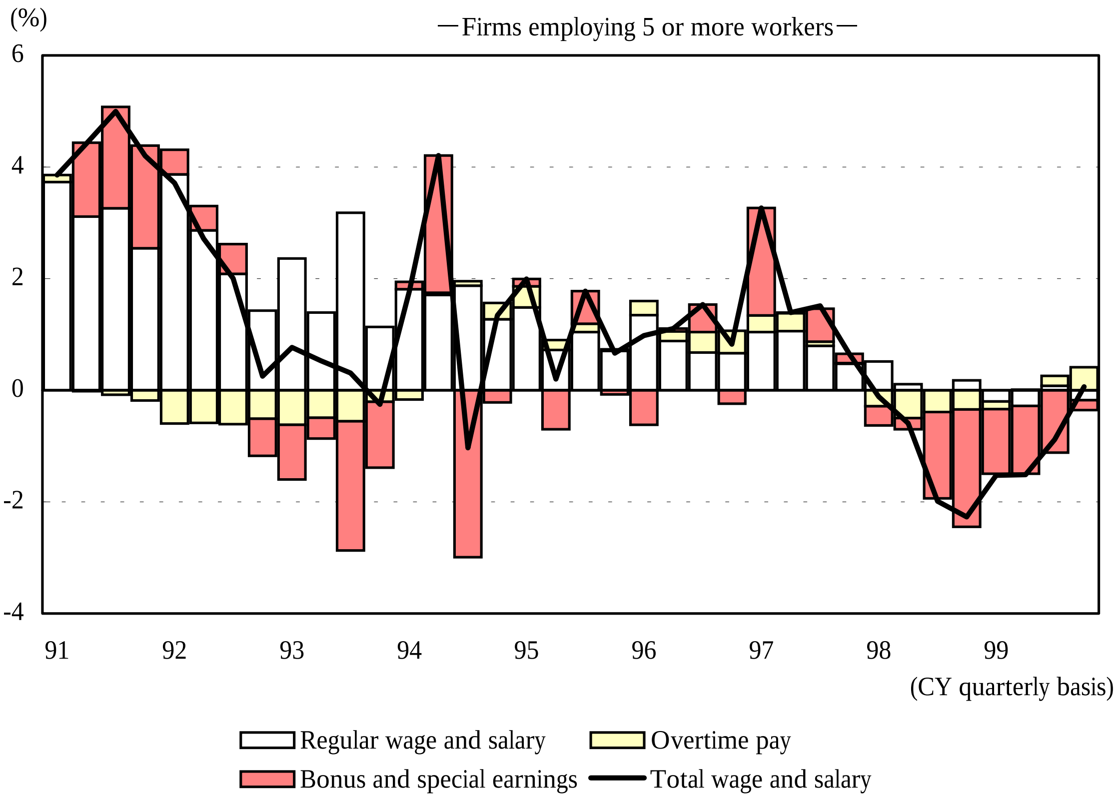
Source: Ministry of International Trade and Industry, "Industrial Statistics Monthly."

3. Consumption: At a Standstill

Income continues to decline. Wage and salary per person (Figure 1-8) have declined for eight consecutive quarters since the first quarter of 1998. As the summer and winter bonus in 1999 was again lower than the previous year, the negative contribution from bonus remains substantial. In addition, the growth of regular wage and salary has been leveling off. On the other hand, overtime pay has risen, reflecting an increase in overtime hours due to the recovery in production. Overall, the drop in income has gradually abated.

Figure 1-8. Trends in Wage and Salary per Person

(Trend of year-on-year change by component)

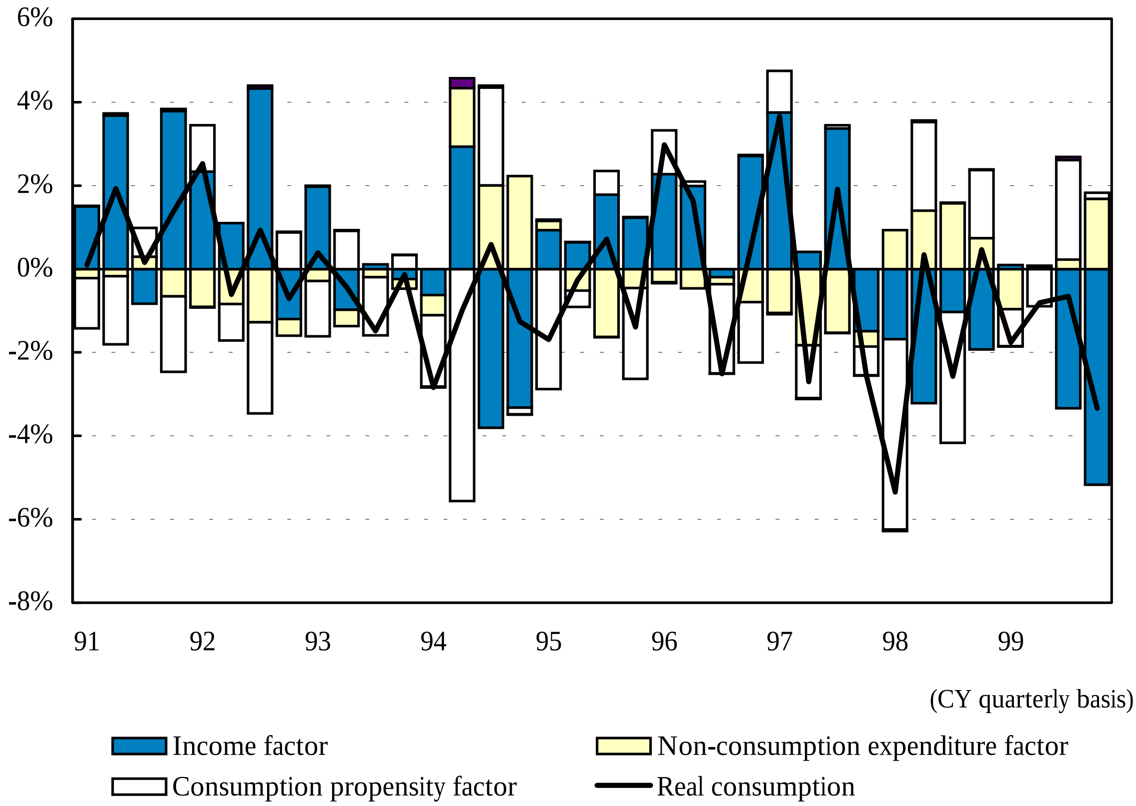


Source: Ministry of Labor, “Monthly Labor Survey.”

Figure 1-9 identifies the factors behind the slump in consumption by analyzing the trend of real consumption expenditure in workers’ households according to the Family Income and Expenditure Survey. Here, the factors influencing consumption are classified into three categories: income (pre-tax income including regular pay, overtime pay and bonus), tax and charges (income tax, inhabitant tax, social insurance premium, etc.) and consumption propensity (ratio of consumption to disposable income, which is equivalent to income minus tax and charges).

In 1998, the reduction in tax and charges due to the re-introduction of special tax relief measures propped up consumption (year-on-year contribution from the first through fourth quarter amounting to 0.9%, 1.4%, 1.6% and 0.7% respectively), while the reduction in actual income and the decline in consumption propensity acted as constraints. In 1999, the positive effect of the continued tax relief measures on the reduction in tax and charges disappeared, and income, which had been briefly boosted by the distribution of local sales promotion vouchers, again exerted substantial downward pressure (year-on-year contribution from the first through third quarter amounting to 0.1%, 0.0% and –3.3% respectively). Although consumption propensity rose in the third quarter, it has been fluctuating from quarter to quarter without a clear trend.

Figure 1-9. Factoral Resolution of Real Consumption Expenditure of Workers' Households (Change on previous year)



Notes: 1. C/P = α × (Y－T)/P is resolved according to the following formula:

$\Delta(C/P) = \alpha \times \Delta(Y/P) - \alpha \times \Delta(T/P) + \Delta\alpha \times (Y-T)/P +$ residual

(income factor) (tax and charges factor) (consumption propensity factor)

C: consumption expenditure, Y: income, T: tax and charges, α : average consumption propensity, P: consumer price

2. Contribution of local sales promotion vouchers to actual income amounts to +1.0% for 1Q/99 and +0.1% for 2Q/99.

Consumption propensity (seasonally adjusted)	
98/4Q	71.8%
99/1Q	69.4%
99/2Q	72.0%
99/3Q	71.7%
99/4Q	71.5%

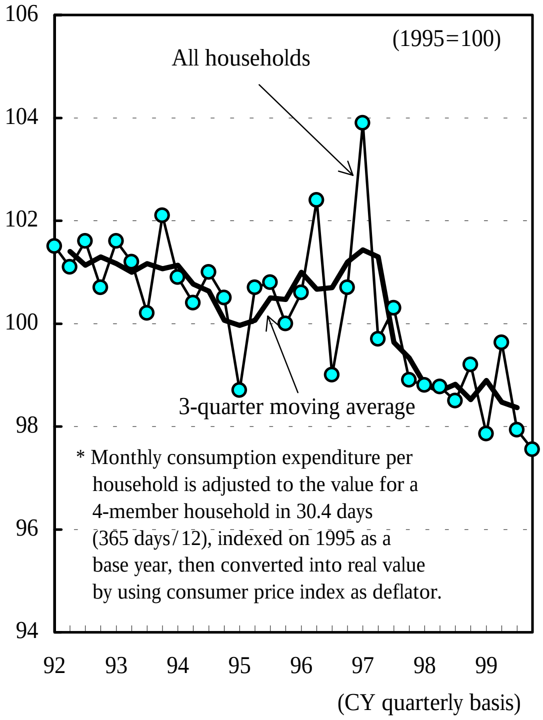
Sources: Management and Coordination Agency, "Family Income and Expenditure Survey" and "Consumer Price Index."

Figures 1-10 and 1-11 show the trend of personal consumption from the demand side (Family Income and Expenditure Survey) and the supply side (sales statistics). The real consumption level index for all households (seasonally adjusted values after adjustments for the number of household members and the number of days, 1995=100) and retail sales index (seasonally adjusted, 1995=100) both indicate that the consumption trend has been mixed in 1999, reflecting the slowness of the recovery. As regards the former index, service consumption including housing alteration, education and accommodation has been in a slump since September 1999, after recovering from April to August. The latter index fell below the post-bubble record in the third quarter of 1999, largely due to the sluggish sales of autumn and winter clothes due to the unseasonably warm autumn. In the fourth quarter, positive factors such as sales to celebrate the victory of a professional baseball team (which is owned by a major retail company) and eleventh-hour demand in preparation for possible Y2K problems should be roughly offset by negative factors including the reaction to last year's "consumption tax refund" sales. Developments in the coming months must be monitored.

Figure 1-12 shows new car registrations (seasonally adjusted), a major indicator of durable goods consumption. The new car registrations in the first quarter of 1998 (1,004,000 vehicles) fell below the previous post-bubble bottom. Subsequently, the number rose gradually for four consecutive periods largely due to the introduction of new models of sub-compact automobiles in October 1998, only to level off from the second quarter of 1999. In the fourth quarter (October-November average), it again declined substantially (down 7.2% from the previous period) and reached a record low, with the fall in new sub-compact automobiles more than offsetting the slight recovery in full size car sales thanks to the introduction of new models.

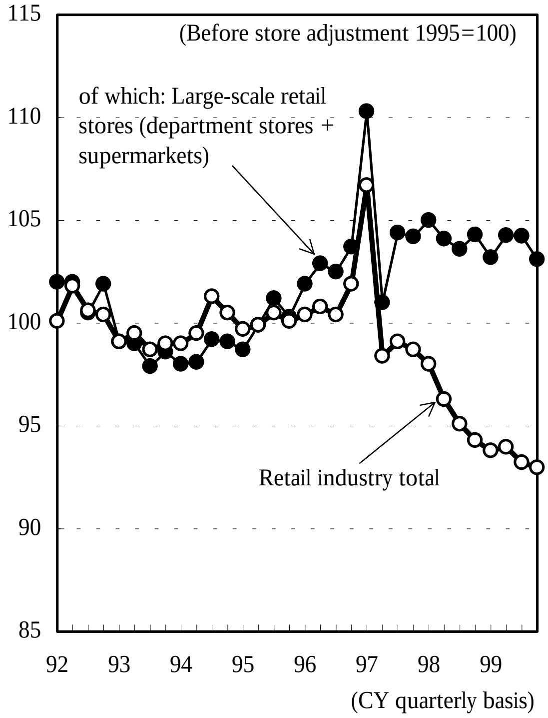
Whereas the recovery in consumption as a whole remains weak, the consumption of information-related items has been growing steadily. Based on the Family Income and Expenditure Survey, Figure 1-13 shows the trend of information-related consumption (converted into real values using consumer prices corresponding to individual items and then seasonally adjusted by Census X-11) indexed on the first quarter of 1995 (=100). The data indicate that information-related consumption has increased by 60%. During the same period, consumption of traditional home electric appliances (refrigerators, washing machines, TVs, VCRs, air-conditioners, etc.) increased by only 30%.

Figure 1-10. Trend of Real Consumption Level Index (Seasonally adjusted)



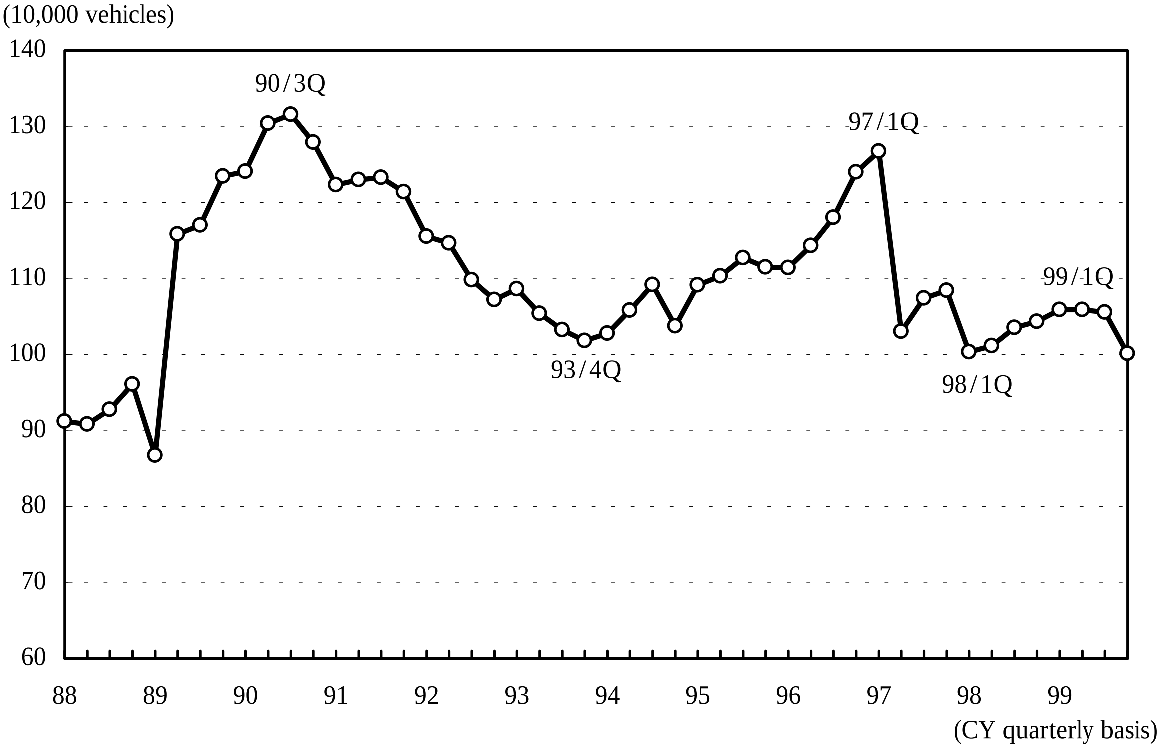
Source: Management and Coordination Agency, "Family Income and Expenditure Survey."

Figure 1-11. Trend of Retail Sales Index (Seasonally adjusted)



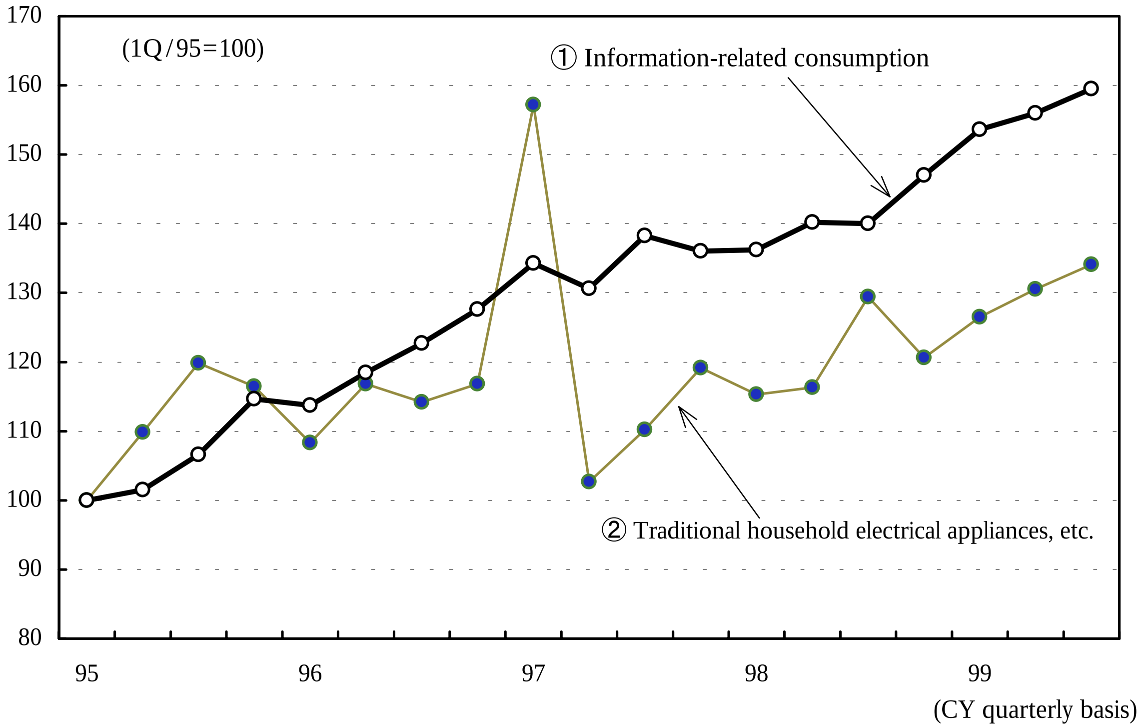
Source: Ministry of International Trade and Industry, "Report on the Current Survey of Commerce."

Figure 1-12. Trend of New Car Registrations (Seasonally adjusted)



Source: Economic Planning Agency, "Indexes of Business Conditions."

Figure 1-13. Trend of Real Information-related Consumption (Seasonally adjusted)



Notes: 1. ①= personal computers/word processors + communication equipment + telephone charges + TV games + broadcast reception fees.
② = durable goods for housework + air-conditioners + durable goods for education and recreation (excluding personal computers/word processors, desks/chairs and repair charges) + AV disks + AV tapes.
2. Converted into real values by corresponding consumer prices.

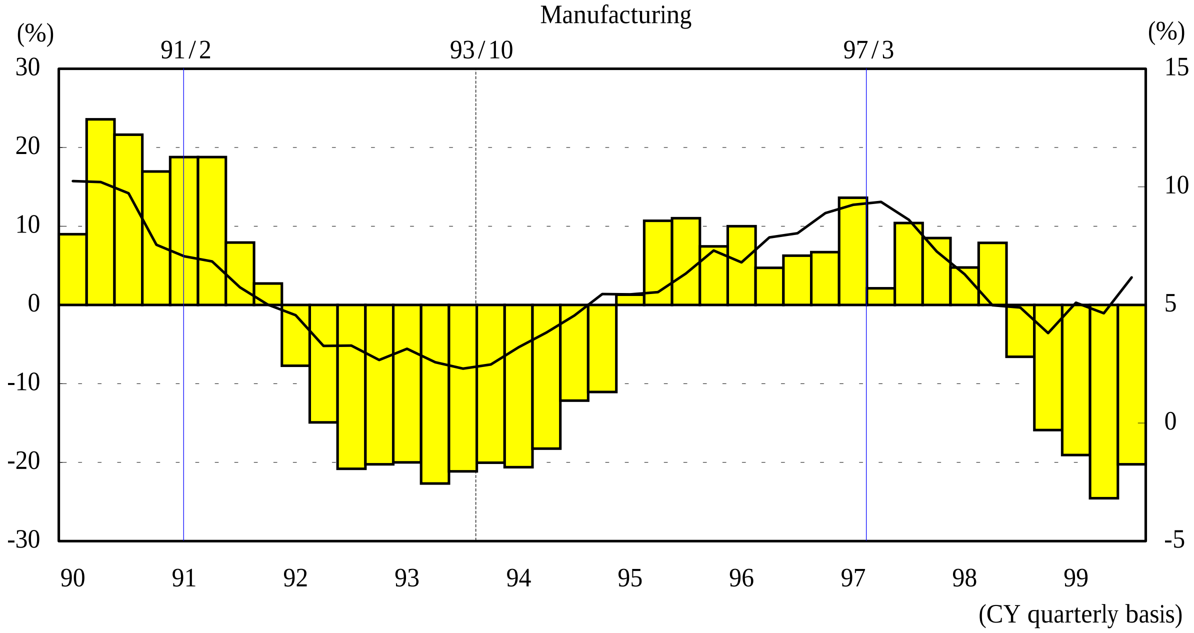
Sources: Management and Coordination Agency, "Family Income and Expenditure Survey," and "Consumer Price Index."

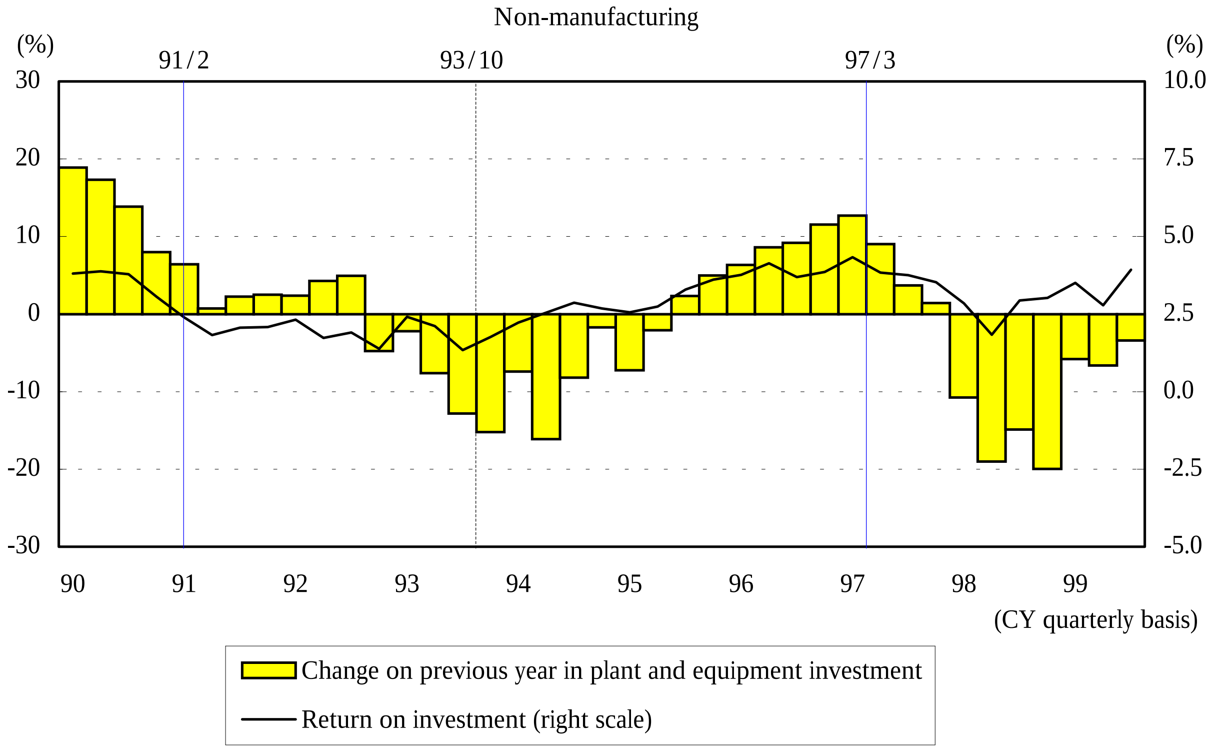
4. Plant and Equipment Investment: Sign of Bottoming Out

On a real GDP basis, plant and equipment investment dropped 7.3% from the previous year in the third quarter of 1999. Although the fall has decelerated somewhat, investment has now declined for seven consecutive quarters.

Return on investment (operating profit-asset ratio – average new lending rate: see Notes of Figure 1-14 for details) for companies (capitalized at ¥10 million or over) has bottomed out in the manufacturing sector and has been recovering slightly in the non-manufacturing sector (Figure 1-14). On the other hand, the growth of plant and equipment investment (based on the Statistical Survey of Incorporated Enterprises), which is also shown in Figure 1-14, indicates that investment is more than 20% lower than in the previous year in the manufacturing sector. Plant and equipment investment in the non-manufacturing sector also continues to fall, although less drastically. Even excluding the inflating effect from the change in accounting rules concerning business tax, which took effect in the first quarter of 1999, return on investment has reached a level that should cause plant and equipment investment to recover (approximately 5% for the manufacturing sector and 2.5% for the non-manufacturing sector according to past experience). Thus, the recovery of plant and equipment investment is long overdue, judging from the trend of return on investment.

Figure 1-14. Plant and Equipment Investment and Return on Investment (All-size corporations)





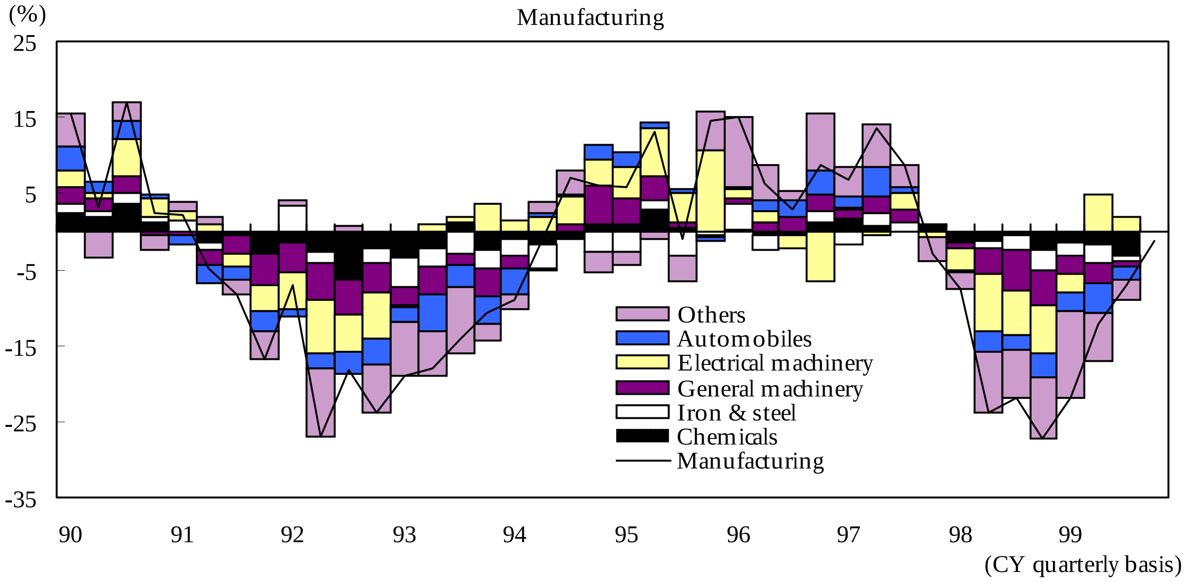
Notes: 1. Return on investment = operating profit-asset ratio – average contracted lending rate of domestically licensed banks, etc. (new loans, total), where operating profit-asset ratio = operating profit/(tangible fixed assets + inventories).

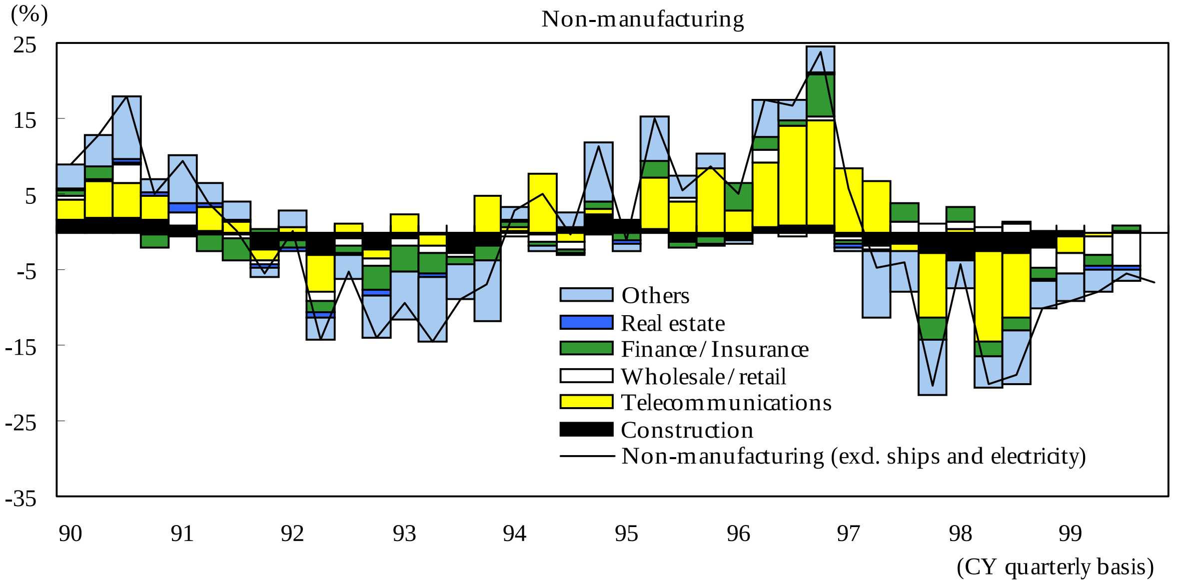
2. No adjustments are made for changes in the accounting rule on business tax (ministerial order revised in Dec. 1998).

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

The drop in machinery orders, which typically lead plant and equipment investment by two to three quarters, has been slowing mainly in the manufacturing sector (Figure 1-15). Looking at the contribution by user industry, electric machinery led the whole manufacturing sector for the second consecutive quarter. In the non-manufacturing sector, the contribution has turned slightly positive for finance/insurance, telecommunications and construction. Forecasts for October-December indicate that the decline in machinery orders on a private demand basis excluding ships/electricity will be further alleviated, down 4.7% from the previous period as compared with the actual decline of 6.2% for July-September. Thus, the leading indicator suggests that plant and equipment investment will be bottoming out in the near future.

Figure 1-15. Trends in Orders Received for Machinery
(Trend of year-on-year change by industry)



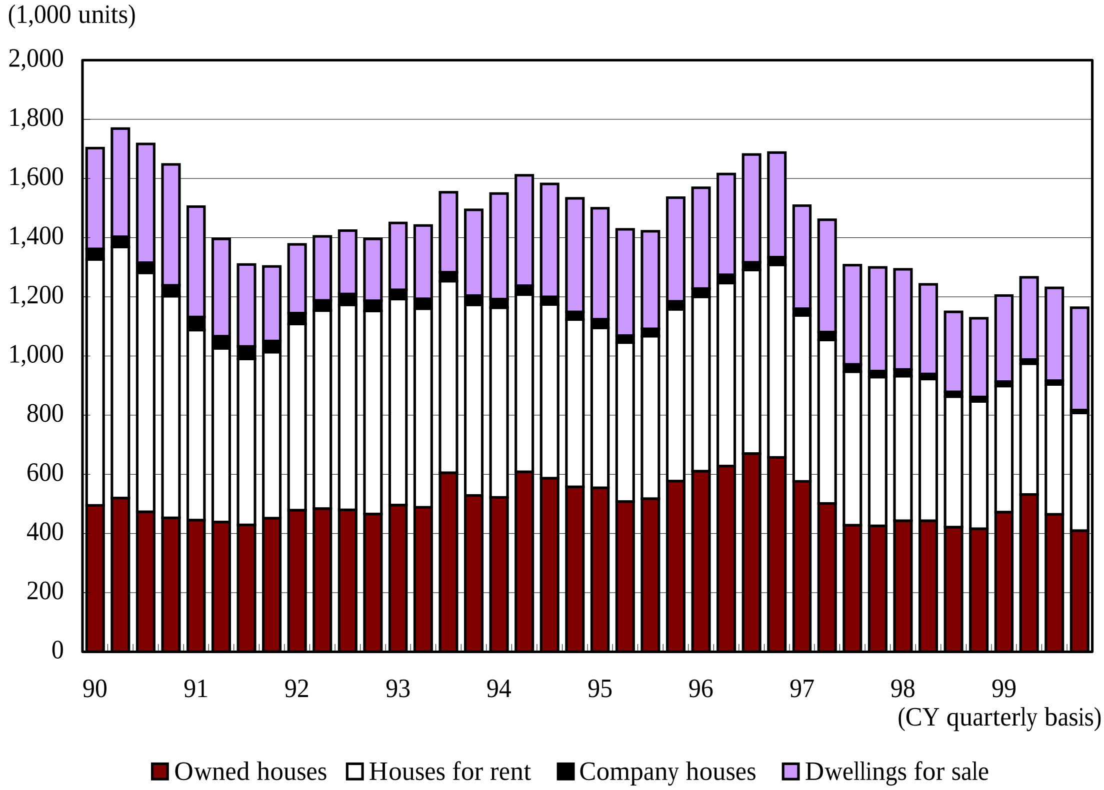


Source: Economic Planning Agency, "Machinery Orders Statistics."

5. Housing Investment: Leveling Off

After falling to around 1.2 million in fiscal 1998 (1.18 million units) for the first time in 15 years, housing starts have recovered slightly in fiscal 1999. The January-October average has reached an annualized figure (seasonally adjusted) of 1.23 million units (Figure 1-16).

Figure 1-16. Trend of Housing Starts (Seasonally adjusted annual rate)



Note: Census X11 is used for seasonal adjustment.
Source: Ministry of Construction, "Report on Statistical Survey on Construction Starts."

The recovery was at first led by owned houses. The construction of owned houses started to rise in the first quarter of 1999 in terms of year-on-year change, stimulated by fiscal and financial incentives such as extended tax breaks for housing[3] and low interest rates offered by the Housing Loan Corporation. After hitting a record low of 2.0% in November 1998, the standard lending rate of the Housing Loan Corporation has been rising gradually, although it has remained within the 2% range (Figure 1-17). Expectations of higher interest rates appear to have fueled potential demand for housing. The construction of detached houses in October

[3] The current tax relief measures for housing represent a substantial expansion of the incentives provided up to 1998. Principal features includes the following:
(i) The period of income tax reduction for housing loan was extended from six years to 15 years.
(ii) The scope of tax reduction was expanded from the loans only for buildings (up to ¥30 million) to the loans for both buildings and land (deductible up to ¥50 million).
(iii) The tax deduction scheme became applicable simultaneously with the "realized capital loss carryover scheme," under which any losses accrued from the sale of old houses are deductible from income for up to four years.
These tax reduction measures were initially made applicable to those who will have purchased a house and dwelt in that house by the end of December 2000. However, the government proposed to extend this time limit to June 2001.

declined from the previous year (down 4.9%) for the first time in nine months. The applications for the Corporation's housing loans for owned house construction, a leading indicator of housing starts, showed a decline of 47.2% from the previous year for the third invitation in fiscal 1999. These applications should result in the weak housing starts in the beginning of 2000 (Figure 1-18).

Fig.I-17. Trend of Housing Loan Interest Rates

(Unit: %)

	10	11	12	99/1	2	3	4	5	6	7	8	9	10	11
Housing Loan Corporation	2.55	2.00	→	2.20	→	→	2.40	→	2.50	2.60	→	→	→	2.80
City bank variable rate	2.50	→	→	→	→	2.375	→	→	→	→	→	→	→	→
City bank fixed rate (5 years)	2.70	2.65	→	3.15	3.10	2.90	2.55	2.40	2.60	2.70	2.85	2.70	→	2.65
City bank fixed rate (10 years)	3.20	3.15	3.20	3.80	→	3.70	3.30	3.20	3.55	→	3.75	3.60	→	3.70

Notes: 1. Interest rate of the Housing Loan Corporation represents the standard rate.
2. The rate represents that at the end of the month.

Figure 1-18. Housing Loan Applications for Owned Houses

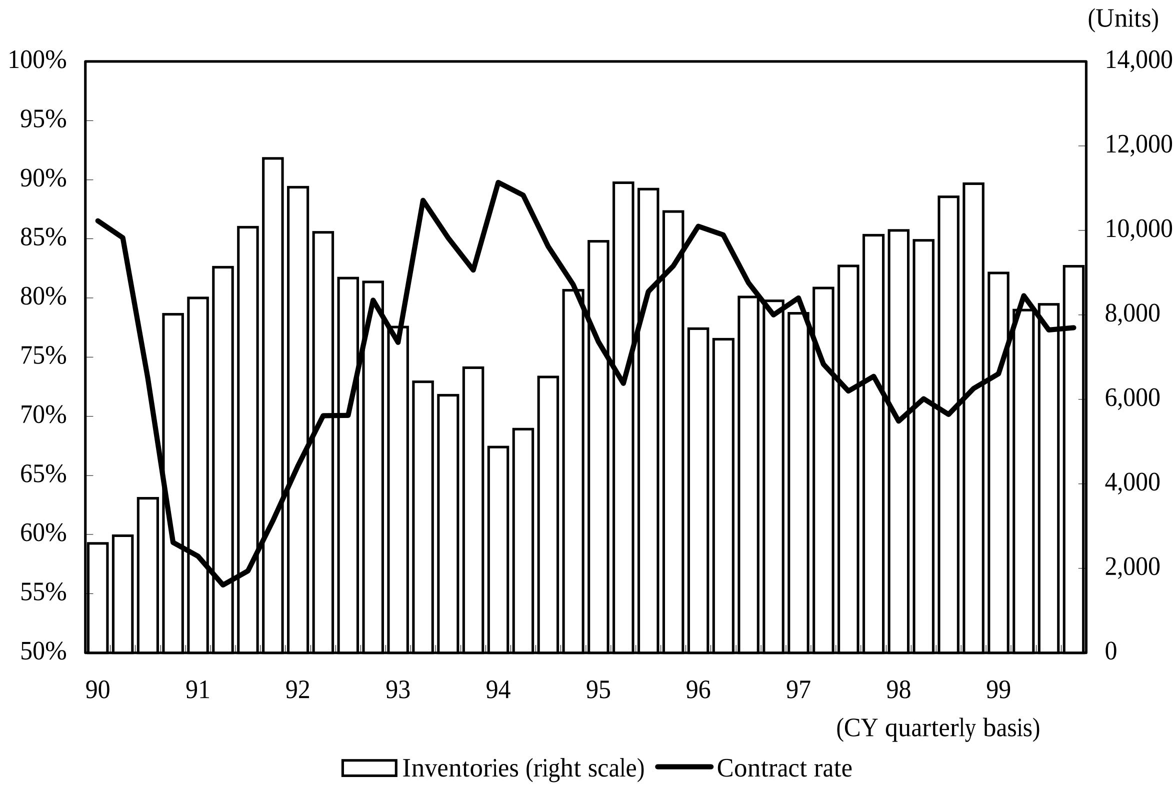
		Application deadline	Application period (days)	Change on previous year (%)	Standard rate (%)
FY1997	1	May 30	10	-47.7	3.10
	2	Sep. 12	15	-60.3	3.10
	3	Nov. 28	18	-21.9	3.00
	4	Mar. 6	19	-33.2	3.00
FY1998	1	Jun. 5	23	13.3	2.75
	2	Sep. 30	31	28.8	2.55
	3	Dec. 25	37	49.9	2.00
	4	Mar. 26	48	75.1	2.20
FY1999	1	Jun. 18	36	0.0	2.40
	2	Oct. 29	67	32.6	2.60
	3	Jan. 14	35	-47.2	2.80

Source: Housing Loan Corporation, "Monthly Report on Housing Loans."

The construction of condominiums, began to increase around last summer after recovery of the sales of detached houses. As in the case of detached houses, condominium sales have been buoyant since the beginning of 1999 largely due to the housing tax reduction and low interest rates, with the contract rate in the Tokyo metropolitan area around 80%. Although the strong sales did not immediately lead to an increase in housing starts due to excessive inventories (Figure 1-19), the construction of condominiums began to pick up around last summer, as strong sales continued and inventory adjustment progressed steadily. In addition, there is a marked housing start rush to complete construction by the end of December 2000, the initial time limit for the present housing tax relief measures. As a result, housing starts in October recorded a substantial increase of 30.0% from the previous year regarding dwellings for sale.

Unlike owned houses and dwellings for sale, houses for rent have not experienced any upsurge, since they are not directly covered by the tax relief measures. Although, rental housing starts are showing signs of bottoming out, recording a year-on-year increase in August for the first time in 33 months, they have been declining since October.

Figure 1-19. Contract Rate and Completed Inventories of Condominiums (Tokyo metropolitan area)



Note: Contract rate represents the quarterly average ratio of units sold in the months to units marketed in the month. Completed inventories are measured at the end of each quarter.

Source: Real Estate Research Institute, “Trend of Condominium Market in Tokyo Metropolitan Area.”

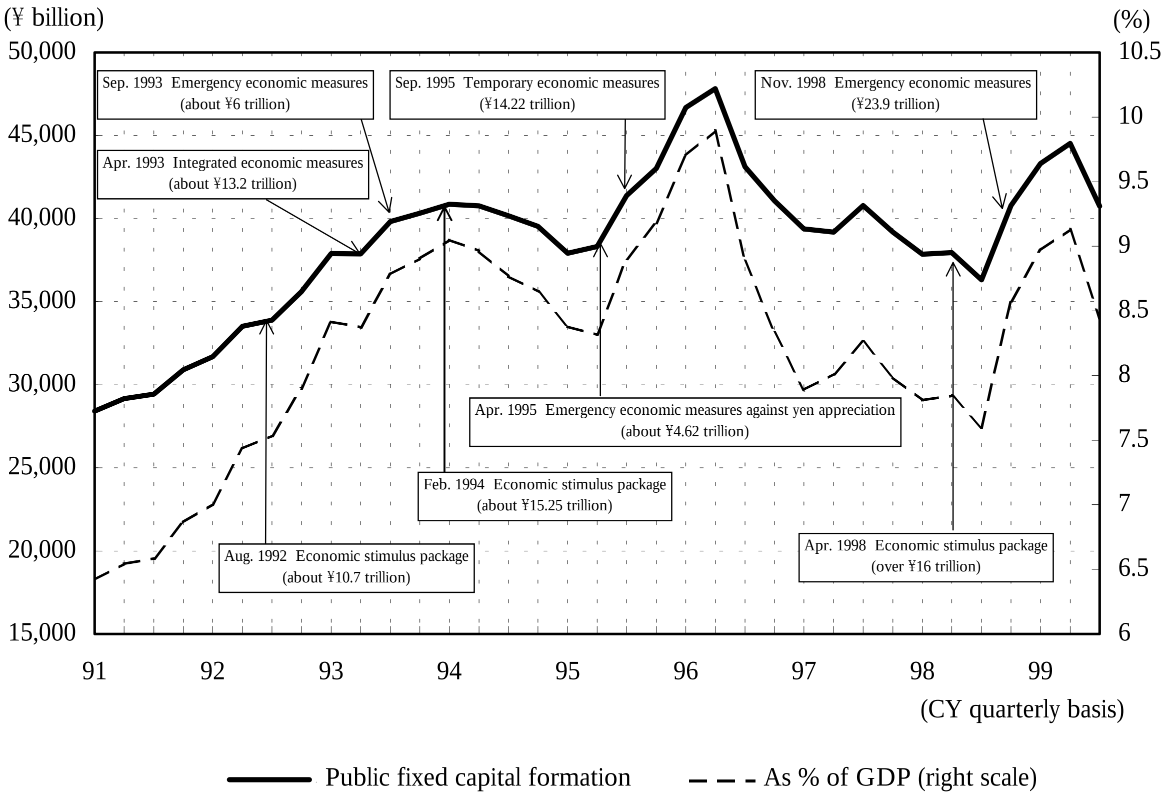
6. Public Investment: Leveling Off

Public investment (public capital formation) (Figure 1-20) was falling up to the third quarter of 1998 but has recovered since the fourth quarter of 1998, reaching 9.1% of GDP in the second quarter of 1999. Demand during this period was supported by fiscal stimulus package of April 1998 (total project cost of over ¥16 trillion) and the emergency economic measures of November 1998 (total project cost of ¥23.9 trillion). Although public investment remains high, it was 8.5% down from the previous period in the third quarter of 1999.

The contract value for public works (Figure 1-21), which is a leading indicator, started to rise in the third quarter of 1998 and recorded a substantial year-on-year increase of 52.7% in the first quarter of 1999. So far in fiscal 1999, however, it has been declining due to negative contributions from local governments reflecting their financial difficulties. The contribution from the national government has also fallen, accelerating the decline in contract value.

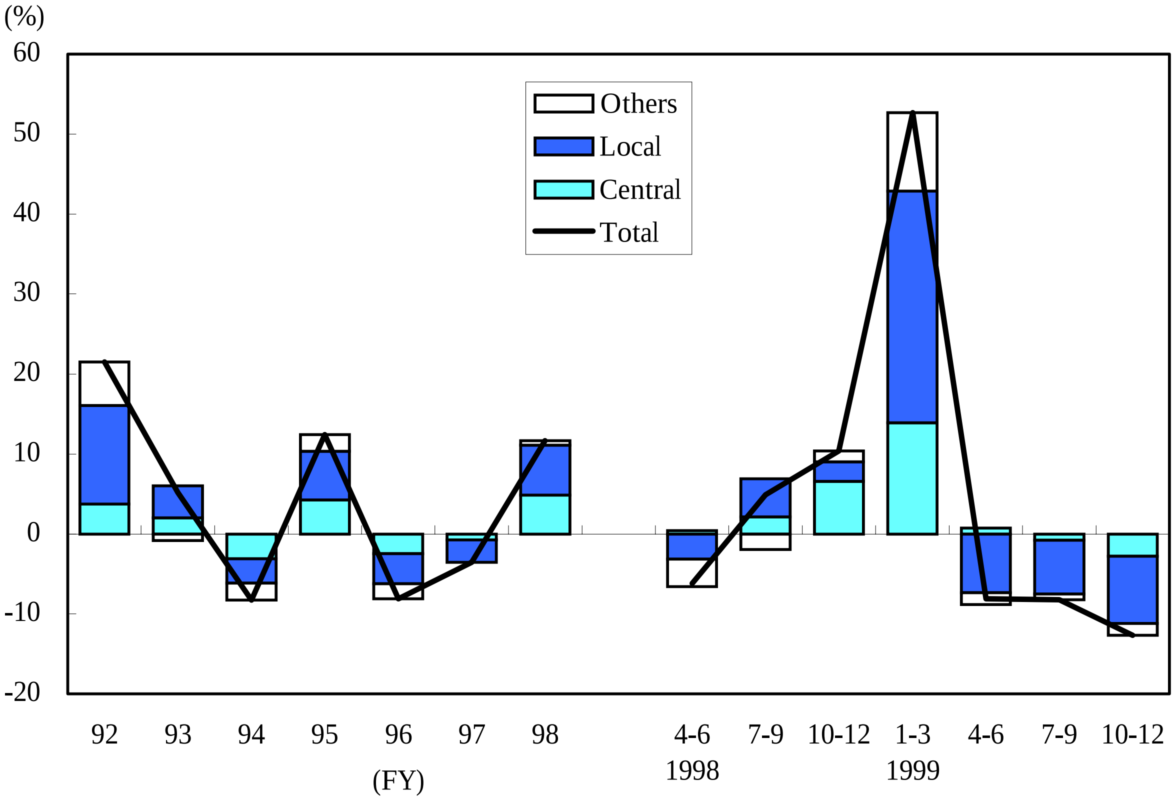
Thus, the effect of public investment in supporting demand has leveled off. However, public investment is expected to support the economy toward fiscal 2000, as the government agreed on new economic stimulus measures (with a project cost of some ¥18 trillion) in November 1999.

Figure 1-20. Trend of Public Investment



Note: Data represent seasonally adjusted annual rate.
Source: Economic Planning Agency, “Annual Report on National Accounts.”

Figure 1-21. Trend of Contract Value for Public Works (Change on previous year)



Source: Association of Surety Companies, "Table of Surety Business."

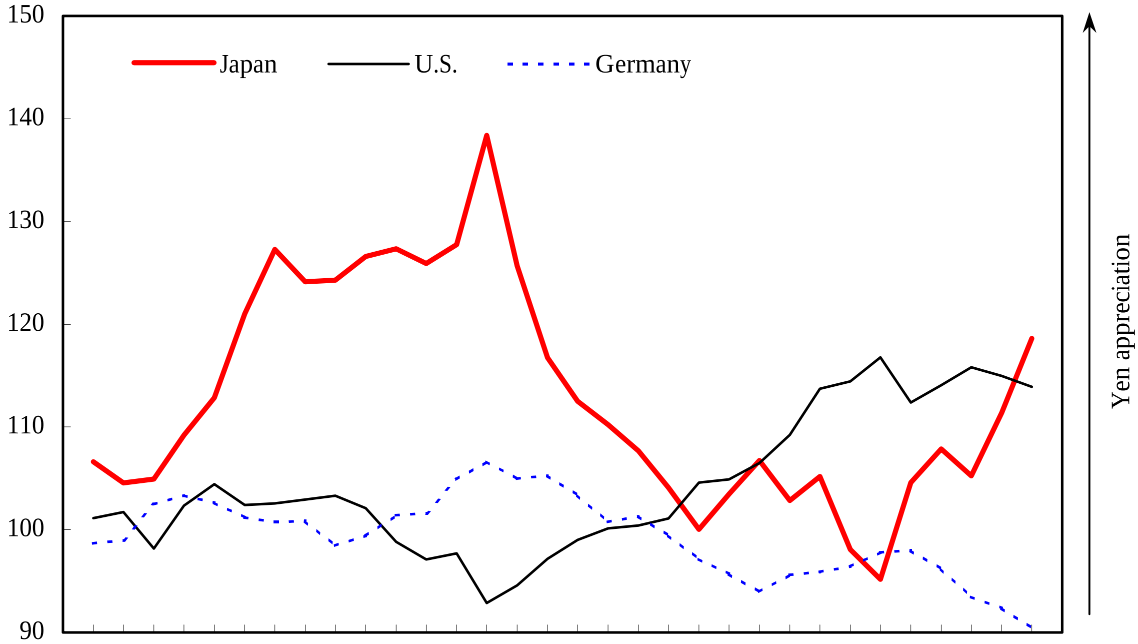
7. Exports and Imports: Growth Led by Asia

Figure 1-22 shows the trend of the real effective exchange rate of major currencies. The yen weakened after peaking in the second quarter of 1995, but began to recover in September 1998. It has remained strong against major currencies after experiencing an upsurge in September 1999.

Hit by the Asian economic crisis, the growth of export volume (Figure 1-23) slowed substantially from the latter half of 1997, bottoming in the fourth quarter of 1998 at –6.4% on the previous year, only to rise in the third quarter of 1999 after six consecutive quarters of decline (up 4.1% from the previous year). Data for fourth quarter indicate that the recovery is continuing (up 9.0% from the previous year).

By region, exports to Asia fell in the first quarter of 1998 due to the currency crisis in ASEAN countries and South Korea, and declined heavily by 17.7% in the third quarter of 1998. However, they rose in the second quarter of 1999 (up 5.7%) and led the entire exports in the third quarter, increasing 15.1% on the previous year. Backed by robust demand, exports to the United States increased substantially from the fourth quarter of 1996, and have remained strong so far. Exports to Europe recorded double-digit growth from the second quarter of 1997, supporting the otherwise sluggish Japanese exports, but the growth has been slowing of late.

Figure 1-22. Trend of Real Effective Exchange Rate (1990=100)



Note: Real effective exchange rate is a trade-weighted currency index after adjustment for inflation, covering the trading partners including 21 developed and 23 developing countries.
Source: JP Morgan, "World Financial Market."

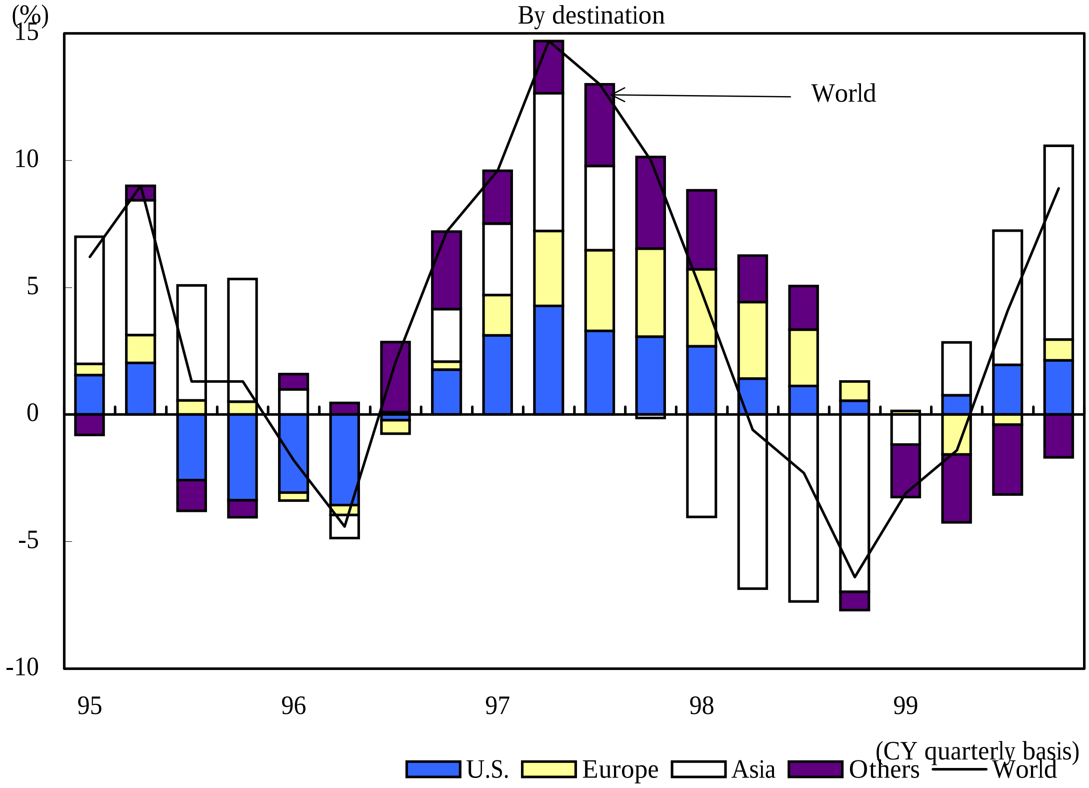
By product, exports of general machinery continue to plummet. They began to slow as early as in the latter half of 1997, and have declined for seven consecutive periods since the first quarter of 1998. Exports of electric machinery increased in the second quarter of 1999 for the first time in four quarters, and recorded a substantial increase of 19.7% on the previous year in the fourth quarter of 1999. In addition to the buoyant exports of VCRs, the substantial increase in exports of semiconductors and other electronic parts made a good contribution. Exports of transport equipment, which led Japanese exports in fiscal 1997, has been leveling off since fiscal 1998, and in the third quarter of 1999, declined 0.4% from the previous year.

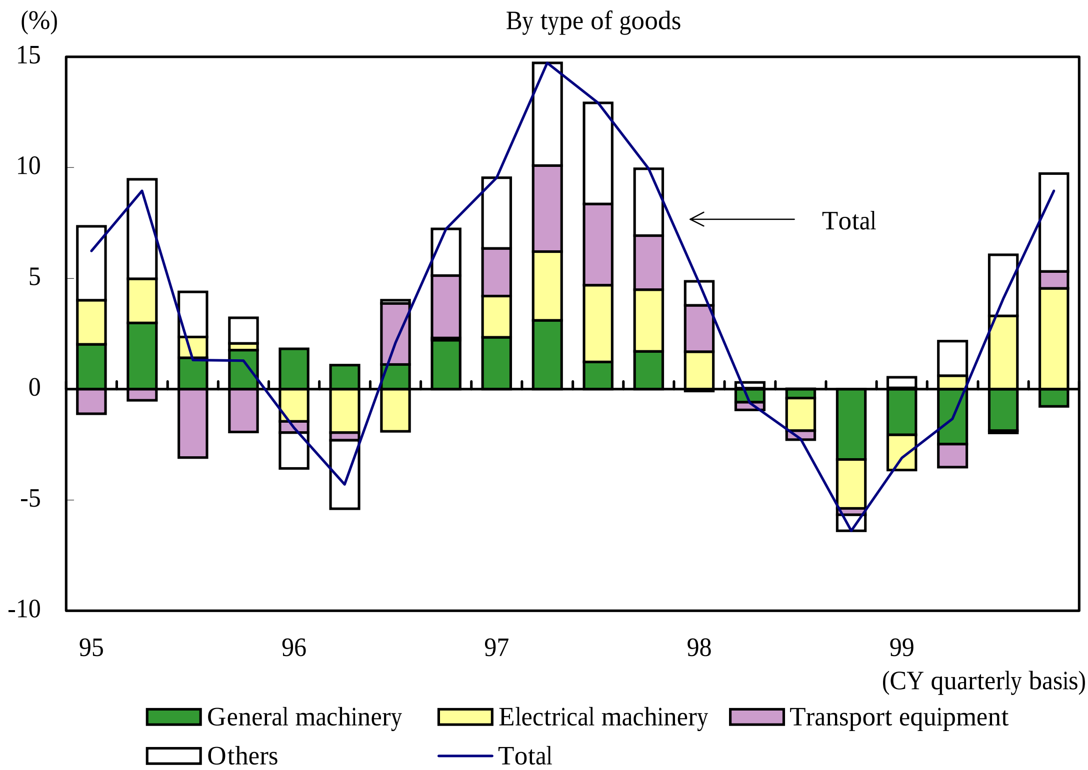
Import volume (Figure 1-24) started to decline on the previous year in the fourth quarter of 1997 due to sluggish domestic demand and bottomed out in the third quarter of 1998, dropping 6.8% from the previous year. The volume has been increasing for three quarters since starting to rise in the first quarter of 1999, when it rose 4.0% on the previous year.

By region, the large negative contribution of imports from Asia up to the third quarter of 1998 has been reversed, recording double-digit growth on the previous year in the second through fourth quarter of 1999. Meanwhile, imports from Europe and the United States have not been so active.

By product, the drop in imports started in the fourth quarter of 1997 with raw materials, then expanded to industrial products. In the first quarter of 1999, however, imports of industrial products rose 4.3%, and have led the overall increase in imports by recording double-digit growth in the second through fourth quarter of 1999.

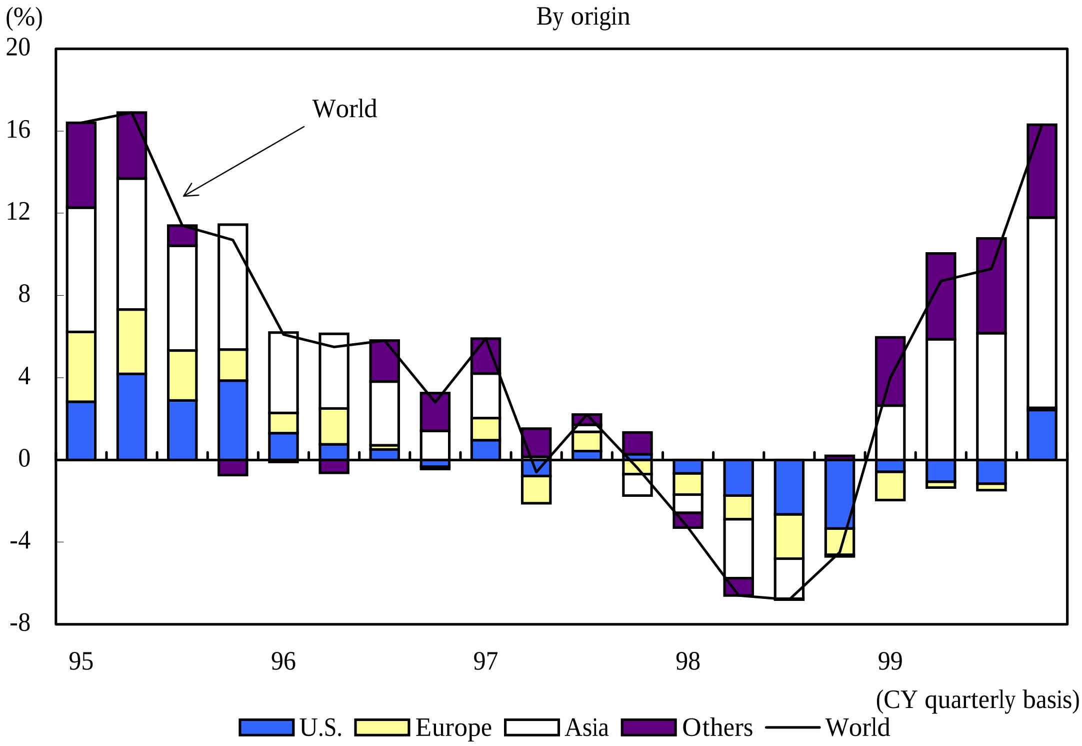
Figure 1-23. Trend of Export Volume (Change on previous year)

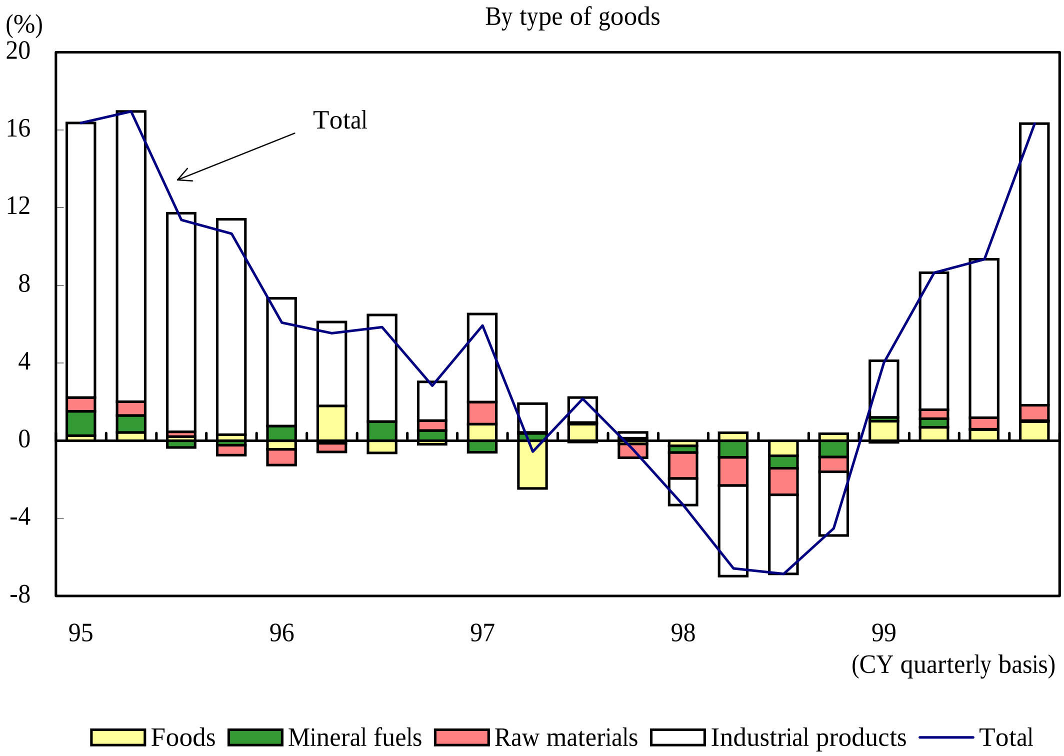




Source: Ministry of Finance, "The Summary Report on Trade of Japan."

Figure 1-24. Trend of Import Volume (Change on previous year)





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

With export volume turning up and import volume rising for four consecutive quarters, the year-on-year increase of net exports has been shrinking. Although the increase of imports continued to exceed that of exports, the trend was reversed for the first time in four quarters, with the contribution of net exports to real GDP rising to 0.4% in the third quarter of 1999. However, net exports have had limited effect in supporting real GDP. The balance of payments surplus has been shrinking recently, declining to a seasonally adjusted annualized value of some ¥12.5 trillion in the fourth quarter of 1999.

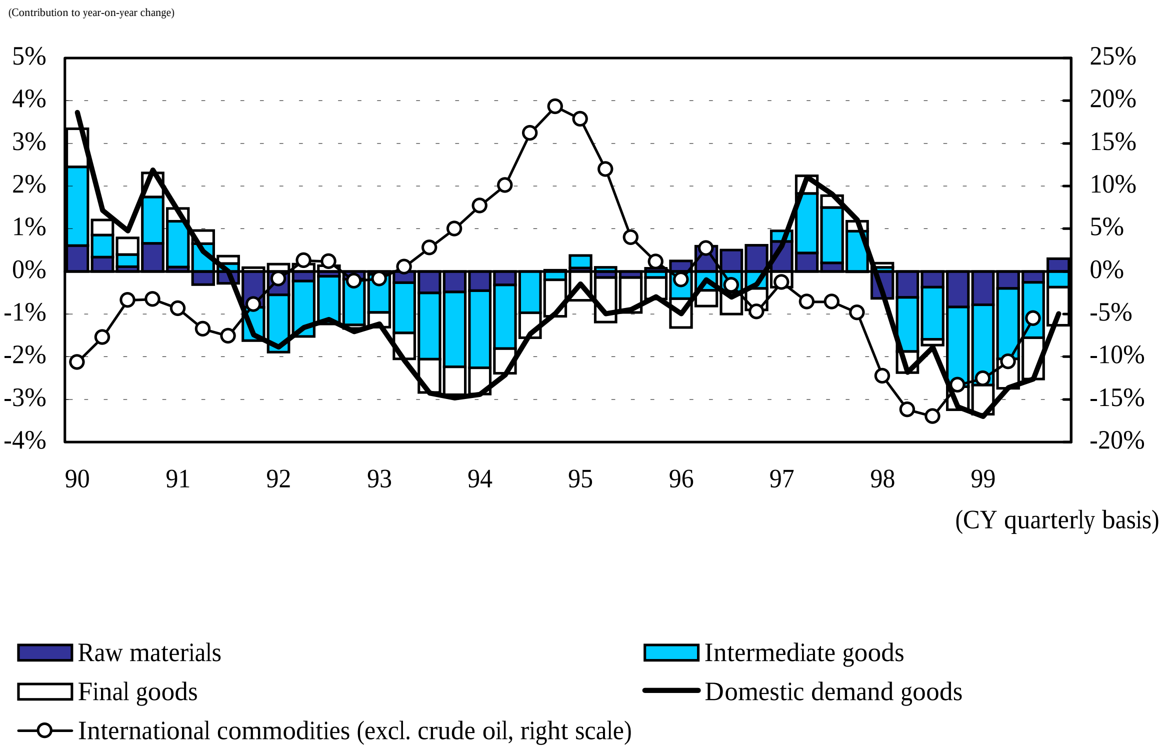
8. Prices: Weak but Subdued Decline

Prices remain weak but the decline has been subdued.

As shown in Figure 1-25, international commodity prices (primary products excluding crude oil) fell sharply in 1998 mainly due to the Asian economic crisis in latter 1997, but have stabilized somewhat on the back of the recovery of the world economy including Asia (down 17.0% on the previous year in the third quarter of 1998 and down 5.5% in the third quarter of 1999).

The decline in wholesale (domestic demand goods) prices (Figure 1-25) accelerated in 1998 reflecting the slump in domestic demand, but the decline has slowed since the second quarter of 1999 due to the progress of inventory adjustment and the rise in oil prices (down 1.0% on the previous year in the fourth quarter of 1999).

Figure 1-25. Trend of Commodity Market and Wholesale Prices (Domestic demand goods)



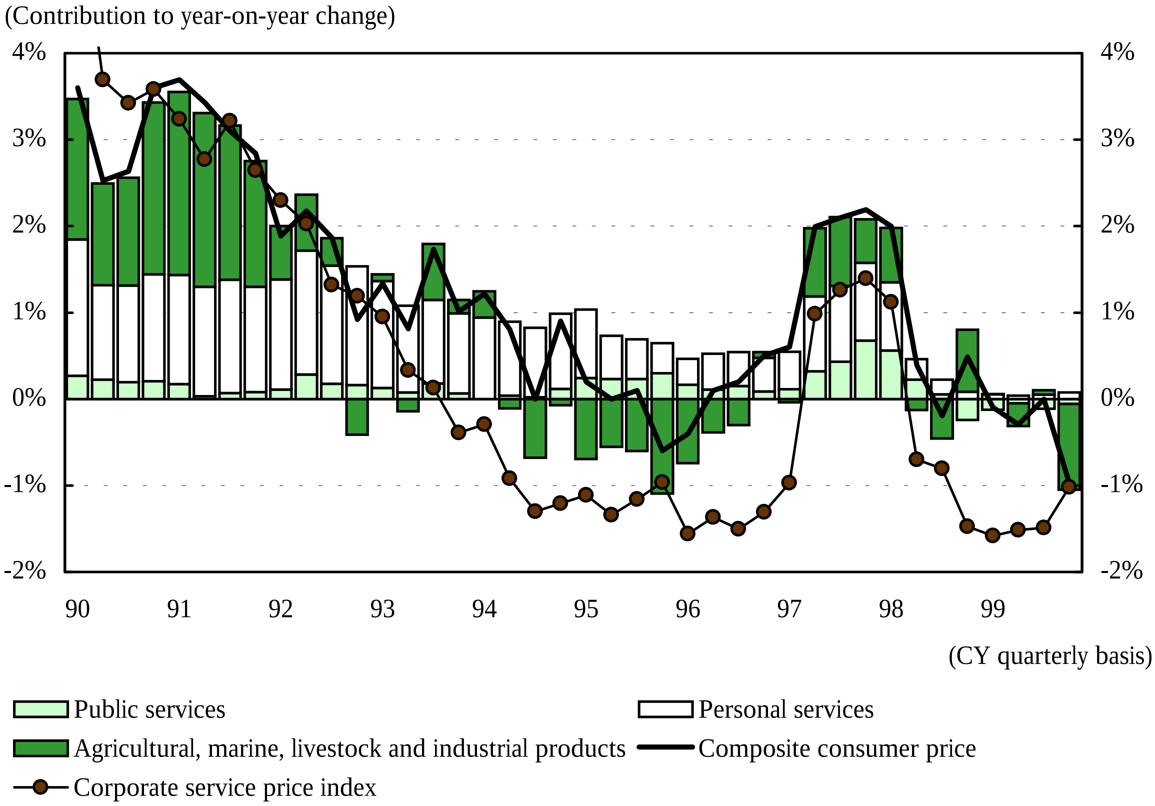
Note: Wholesale prices represent the average of domestic and import prices for domestic demand goods.
Sources: Bank of Japan, “Price Index Monthly;” IMF, “International Financial Statistics.”

Corporate service prices (Figure 1-26) have continued to decline since the second quarter of 1998 reflecting the backdrop of deregulation and corporate efforts to reduce costs. Currently, however, the decline is decelerating except in industries such as lease/rental, real estate and communications.

Figure 1-26 shows consumer prices of commodities and services. Commodity prices (agricultural, marine, livestock and industrial products) have generally been falling since the second quarter of 1998, although they increased in the fourth quarter of 1998 as fresh food prices rose due to poor weather. The sharper drop for the fourth quarter of 1999 is attributable to the decline in fresh food prices.

Meanwhile, service prices including personal and public services are becoming weaker. Apparently, this is not only due to deregulation and cutbacks in personnel costs in the labor-intensive service industry but also due to the exemption of the elderly from the payment for pharmaceuticals since July 1999. Thus, the composite consumer price index has been falling gently.

Figure 1-26. Trend of Corporate Service and Consumer Prices (Goods and services)



Notes: 1. Personal services, include publications, rents and restaurants. Public services, include electricity, city gas and water supply.
2. Corporate services include lease/rental, transport, communications, real estate rental, bank commissions, insurance premiums, etc.

Sources: Bank of Japan, "Price Index Monthly;" Management and Coordination Agency, "Price Index Monthly."

9. Employment Conditions: Still Harsh

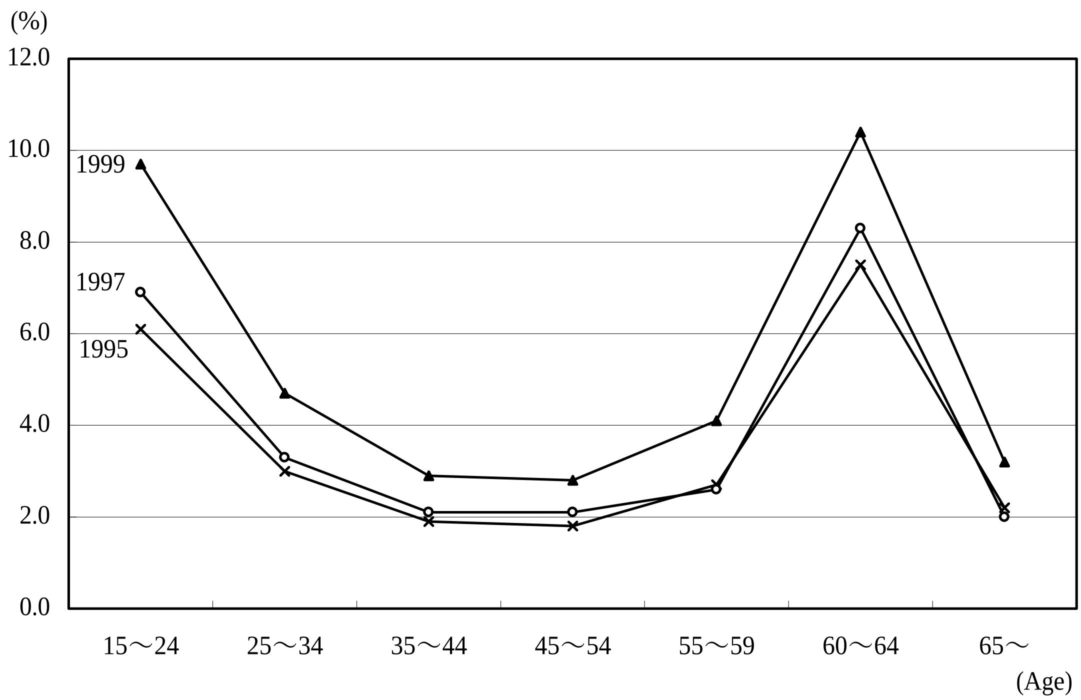
Employment conditions are still harsh but currently experiencing a lull, with some signs of bottoming out.

Although the ratio of job offers to applicants in December 1999 was still low at 0.49, this represents a slight improvement from the record low level of 0.46. This modest improvement in the labor market is largely attributable to the bottoming out of job offers. After declining on the previous year for two years from November 1997, effective job offers rose in September and recorded a 1.6% increase in December. Also, the publication of job offers has been increasing on the previous year for five months since August.

The unemployment rate in December stood at 4.6%, also a slight improvement from the record 4.9% in June and July. However, the number unemployed has remained over 3 million people for 12 consecutive months (3.15 million in December). Figure 1-29 shows unemployment among men by age group. The unemployment rate has been rising in all age groups, including the relatively unaffected 35-54 age bracket, which has experienced a 1% rise in unemployment since 1995. Unemployment has risen to almost 10% for the usually vulnerable 15-24 and 60-64 age brackets, pointing to increasing hardship.

The number employed has remained below the previous year's level since the first quarter of 1998 (Figure 1-27). The decline first occurred in the manufacturing and construction sectors, followed by the service sector, which lost labor-absorbing capacity and accelerated the decline. Recently, however, employment has been increasing in the service sector. In addition, the increase in industrial production has slowed the decline in employment in the manufacturing sector. Consequently, the decrease in the number employed has been shrinking slightly as a whole. Overtime hours have also risen again, led by the manufacturing sector.

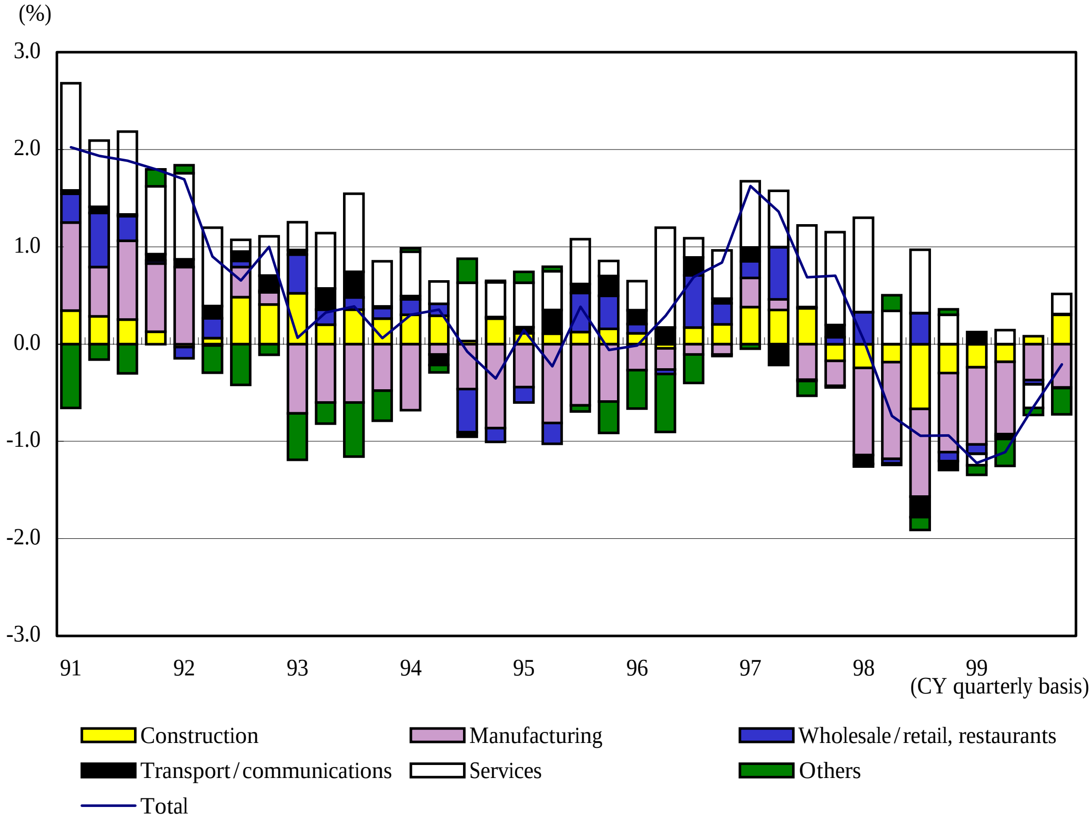
Figure 1-27. Number Employed by Industry (Change on previous year)



Source: Management and Coordination Agency, "Labor Force Survey."

Nevertheless, the increase in labor demand has not necessarily resulted in an increase in full-time employment. By form of employment (full-time or part-time/daily employment), full-time workers have continued to decrease on the previous year since the first quarter of 1998, reflecting the tough environment for full-time employment (Figure 1-28). In contrast, temporary employment has been increasing including part-time and temporary workers. The number of part-time and temporary workers recorded a year-on-year increase of 170,000 in December 1999. This indicates that demand has been rising for temporary workers, who impose lower personnel costs on firms.

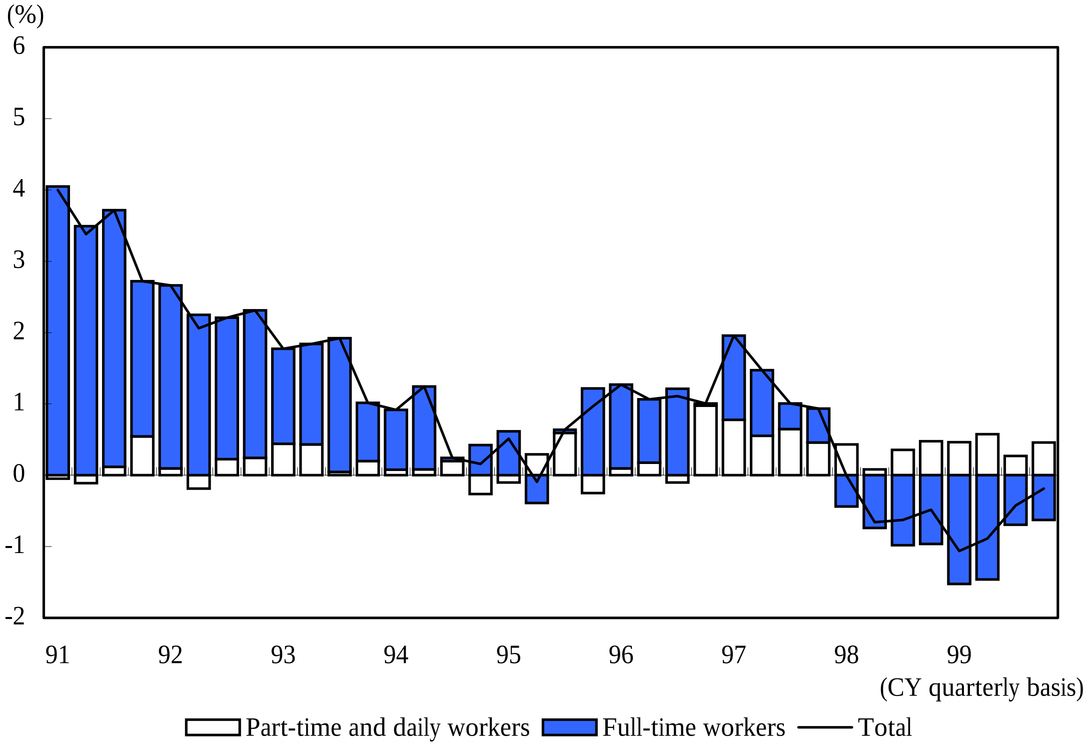
Figure 1-28. Contribution to Change in Number Employed (Non-agricultural Sector)



Source: Management and Coordination Agency, "Labor Force Survey."

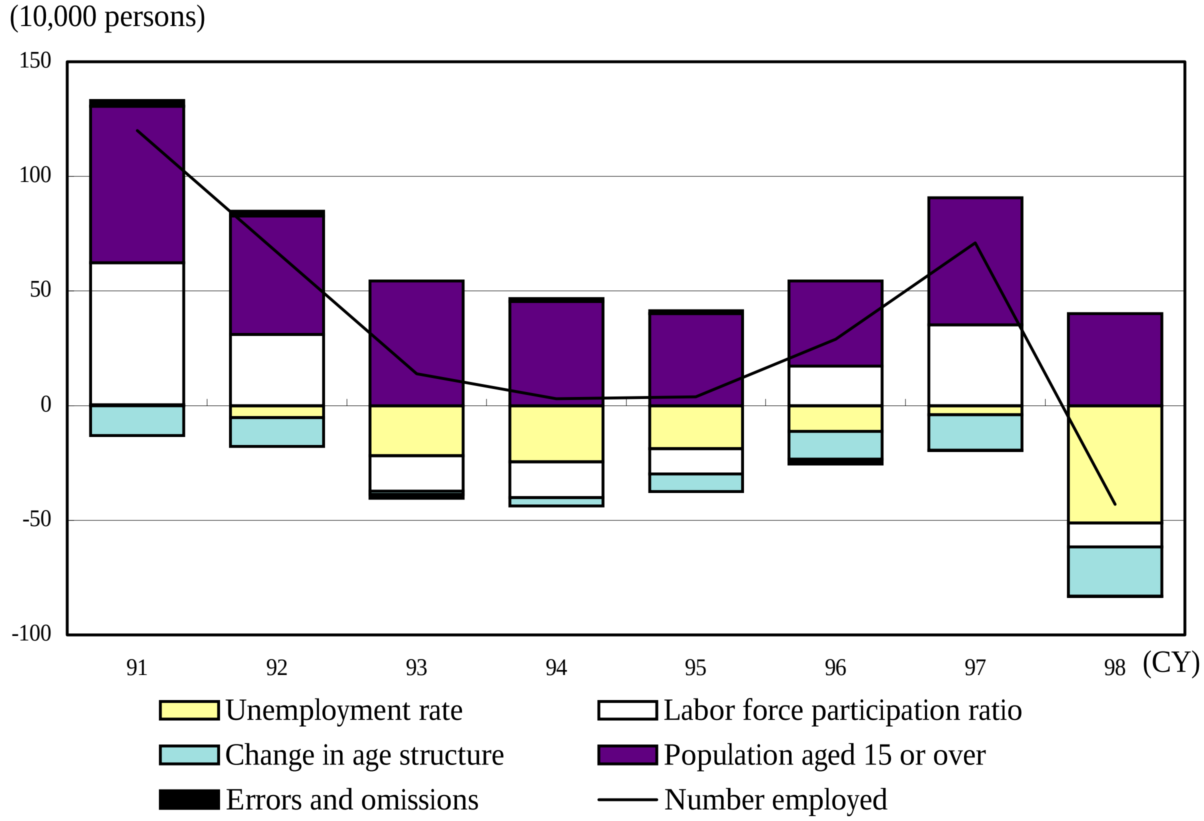
1998 saw the first decrease in the number employed in 23 years since the recession after the first oil crisis. The decline is largely attributed to the shrinking demand for labor due to the recession; nevertheless more workers are now leaving the labor market because of aging. Figure 1-30 breaks down the growth of the number employed into the contributions of four factors: change in the population aged 15 or over, change in the age structure (the two representing the population structure factors), change in the labor force participation ratio and change in the unemployment rate (the two representing the business cycle factors). The decline in the number employed in 1998 can be primarily attributed to the change in unemployment rate, which means the reduction of labor demand. If we consider the change in the labor force participation ratio as a business cycle factor on the ground that the ratio tends to decline during a recession as more people stop looking for work, we can conclude that the two business cycle factors have reduced the number employed by some 600,000 workers. In addition, the change in the population structure has had a considerable impact largely due to the aging of the population, reducing the number employed by about 200,000. While the business cycle factors including the change in unemployment rate and in the labor force participation ratio either increase or decrease the number employed according to business conditions, the change in the population structure has constantly exerted downward pressure on the number employed throughout the 1990s. As aging of the population will accelerate, such pressure will continue for some time.

Figure 1-29. Trend of Non-agricultural Regular and Temporary Workers (Contribution to year-on-year charge)



Source: Management and Coordination Agency, “Labor Force Survey.”

Figure 1-30. Contribution to Work Force Growth (Change on previous year)



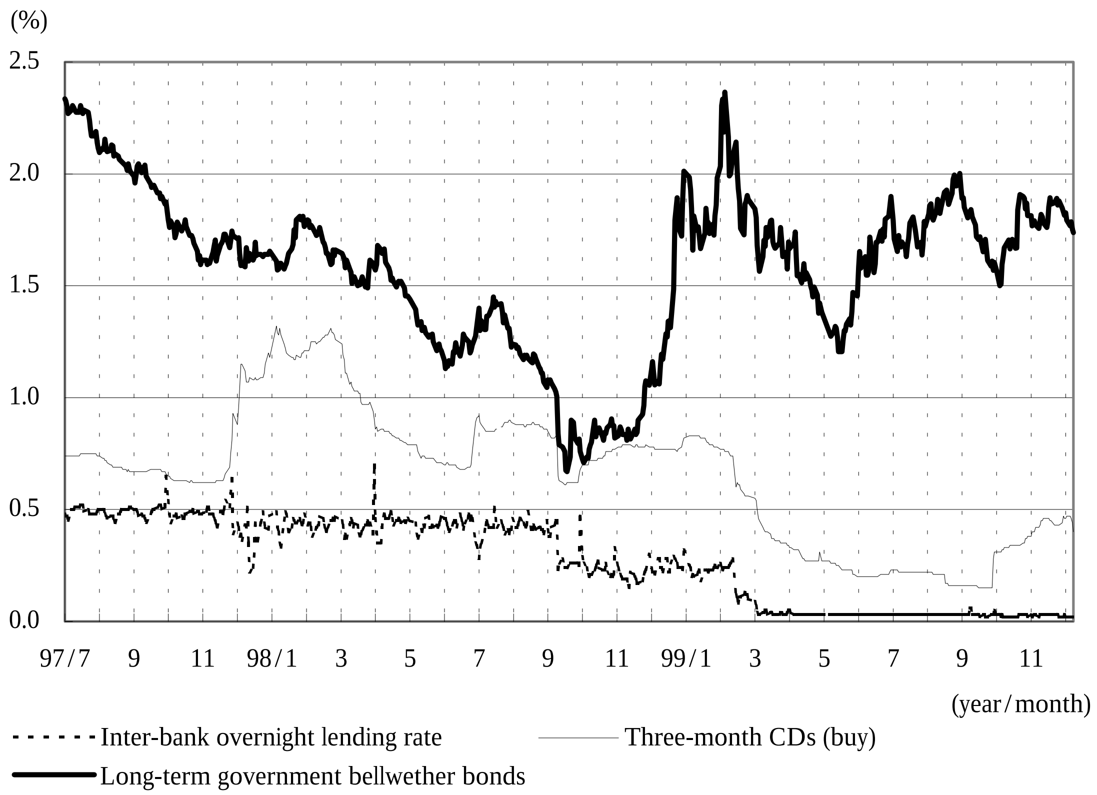
Notes: 1. Factoral resolution is according to the following formulae:
Number employed = over-15 population × Σ (share of age group × labor force participation ratio by age group × employment rate by age group).
Employment rate = 1 – unemployment rate.
2. Factoral resolution is made separately for men and women and then aggregated.
3. 15-70 year-old population is classified into age groups at an interval of five years. Those aged 70 or over constitute a single age group.

Source: Management and Coordination Agency, "Labor Force Survey."

10. Long-term Interest Rate: Stable, Continued Reduction in Lending despite Money Supply: Expanding

As the Bank of Japan continues its policy of zero interest rate, inter-bank overnight lending rates (not collateralized) have stayed near 0% since March 1999 (Figure 1-31). Although yields on three-month CDs have been rising since the end of September, the rise is explained by seasonal demand and preparations for Y2K problems. Long-term interest rates started to rise slightly in mid-May due to expectations of economic recovery and concerns about increased government bond issues, only to level off at around 1.8% with no significant fluctuation in general.

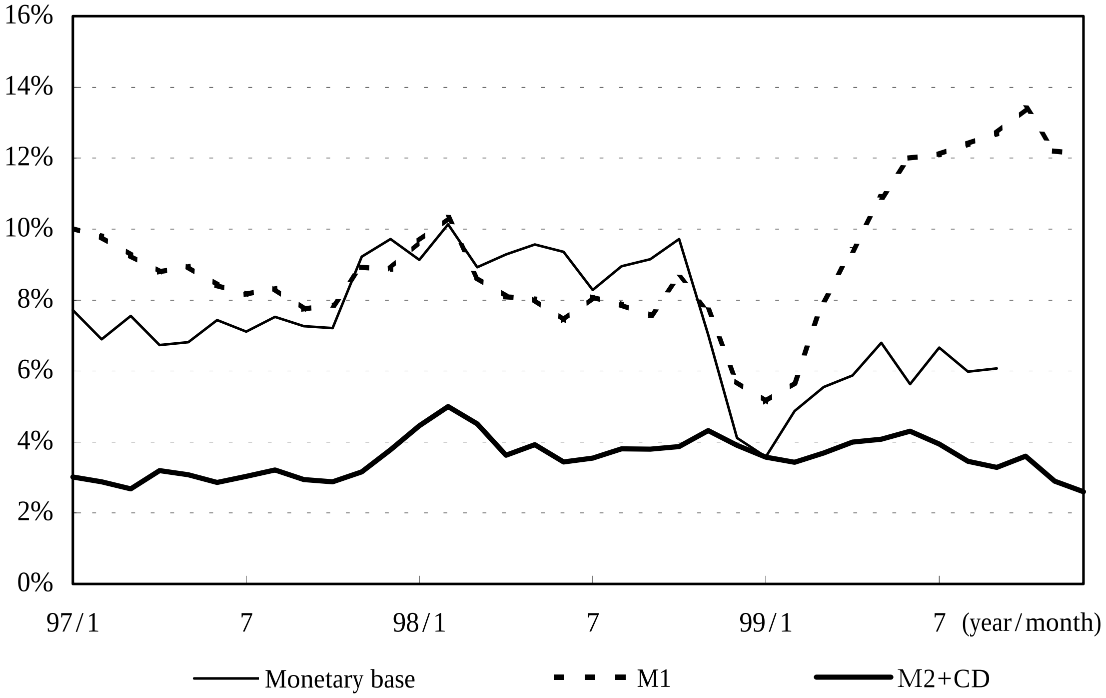
Figure 1-31. Trend of Long-term and Short-term Interest rates



Note: Three-month CDs are represented by the quotation rate on new issues.
Source: Nihon Keizai Shimbun.

The growth of money supply (M2+CD) has been stable at 3 to 4% as a whole (Figure 1-32). Under the low interest rate environment, however, money is shifting from term deposits to cash deposits in search of greater liquidity. As a result, M1 (cash deposits) has been growing by more than 10% since May 1999, while the monetary base and money supply have stabilized.

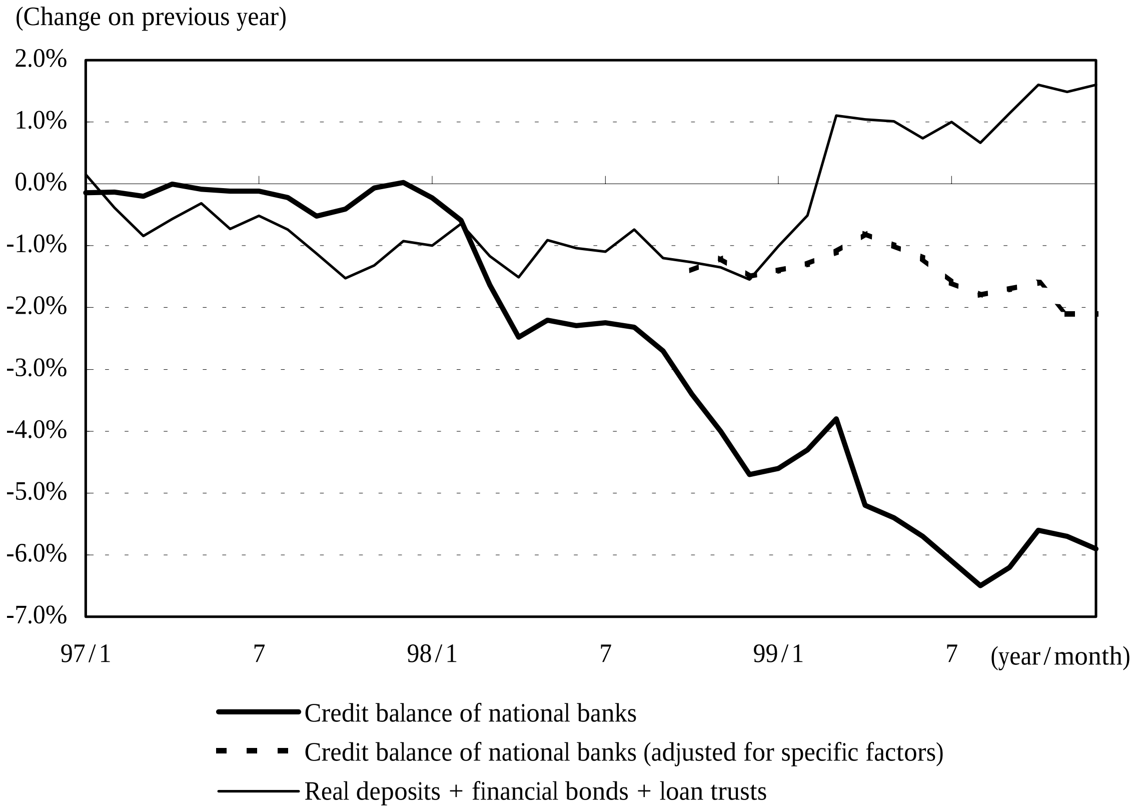
Figure 1-32. Growth of Monetary Base / Money Supply



Note: Average balance, change on previous year.
Source: Bank of Japan, "Economic Statistics Monthly."

On the other hand, outstanding bank credits continue to decline despite the increase in money supply. This can be partially attributed to the efforts by banks to shrink balance sheets by asset sales and amortization. As at the end of January, outstanding bank credits declined 6.0% from the previous year, but excluding such special factors the decrease was 2.4% (Figure 1-33). Another factor behind the weak lending is the weak corporate demand for funds, reflecting the slump in plant and equipment investment and corporate efforts to reduce debts. As deposits increase and lending stagnates, the banks are increasingly purchasing government bonds for investment.

Figure 1-33. Credit Balance of National Banks



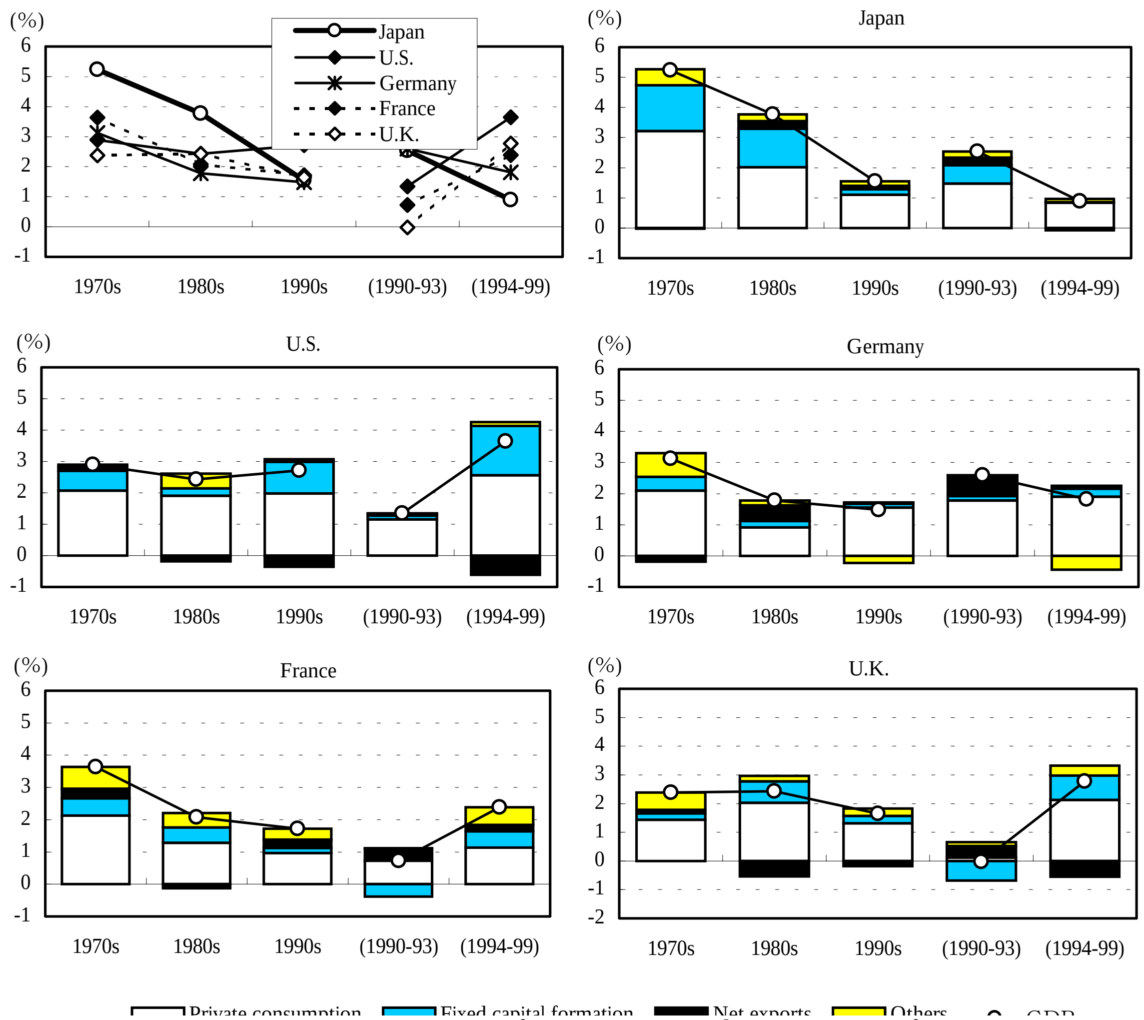
Note: Real deposits do not include money deposited with long-term trust banks or held in trust.
Source: Bank of Japan, “Trend of Credit Absorption.”

II. The 1990s in Retrospect

1. Economic Growth of Major Industrialized Countries

A comparison of real GDP growth of major industrialized countries (Japan, U.S., Germany, France and U.K.) since the 1970s (Figure 2-1) indicates that the countries experienced a slowdown in general in the 1970s and 1980s, while Japan maintained a relatively high growth rate. The growth in the early 1990s (1990-93) slowed considerably as a whole, as the countries except Japan experienced severe recessions. As described below, however, the trend since 1994 differs to some extent among those industrialized countries.

Figure 2-1. Real GDP Growth in Selected Industrialized Countries



Notes: 1. Germany represents West Germany for 1970s, 1980s and 1990-93. Data for 1990s represent average growth for 1991-99.
2. Data for 1999 are produced based on actual data for 1997 and OECD growth forecast for 1998 and 1999.

Sources: OECD, "National Accounts" and "Economic Outlook."

The United States and Europe recovered as a whole in the late 1990s from the recessions in the early 1990s. The United States in particular achieved an unprecedented economic growth in the latter half of the 1990s with substantial contribution from personal consumption and fixed asset formation including plant and equipment investment. Although Europe experienced a recession in the latter half of the decade, the economy has been recovering gradually from the trough in 1991-93. In Germany, however, real GDP growth slowed slightly in the late 1990s, and the economic recovery has not been strong since 1994.

Japan experienced a substantial slowdown in economic growth well into the latter half of the decade. Average growth in the 1990s was significantly slower than in other industrialized countries due to the serious recession in the late 1990s in particular.

2. Increased Concerns about the Future Discouraged Consumption

The consumption slump in the 1990s was all the more spectacular compared with the buoyancy during the bubble years of the late 1980s.

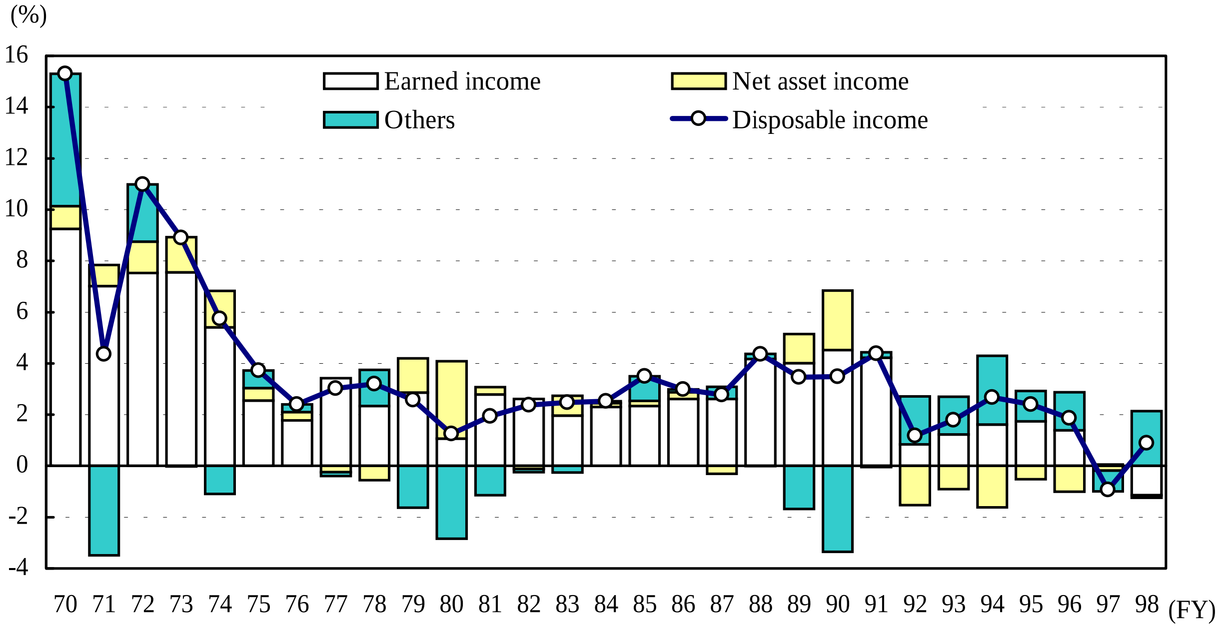
Income was limited to a slower growth than in the 1970s and 1980s. The Economic Planning Agency's "Annual Report on National Accounts" indicates that the growth of real disposable income in households slowed gradually: 6.0% in the 1970s, 2.8% in the 1980s and 2.0% in the 1990s (1990-98). In particular, fiscal 1997 saw the first decline from the previous year (down 0.9%). Figure 2-2 breaks down total income into three components: earned income, net asset income and other income (proprietorship income, net social security benefits, etc.). The growth of earned income slowed substantially from fiscal 1992 through 1997. Net asset income has declined for seven consecutive years due to low interest rates. Other income, on the other hand, grew rapidly from fiscal 1992 through 1996 thanks to the special tax relief measures which continued for three years (fiscal 1994-96) and the contribution from operating surplus on owned houses as well as to the increase in pension and medical care benefits which accompanies the aging of the population. It fell in fiscal 1997, due to the suspension of the tax relief measures and the cutback on medical care benefits following the increase in the share of medical expenses shouldered by patients, which took effect in September 1997. After that it rebounded in fiscal 1998.

As income stagnated and the aging progressed (ratio of population aged 65 or over: 7.1% in 1970 and 14.6% in 1995), the decline in household savings ratio as observed in the 1980s was expected to continue. Actually, however, it bottomed out in the 1990s, as indicated by Figure 2-3.

Three major factors underlie such developments.

The first factor concerns consumption structure. The trend of consumption is closely related to the fact that the ratio of optional consumption (the share of the expenditure of items whose expenditure elasticity exceeds 1 in total consumption expenditure, based on Management and Coordination Agency),[4] which is highly responsive to business conditions, was stagnant at around 44% throughout the 1990s (coefficient of correlation = -0.903 for 1970-98). Since optional consumption is not necessary and thus easily reduced in bad times, any increase in its weight implies the rising sensitivity to business conditions. Thus, the savings ratio bottomed out in the 1990s mainly because consumers cut back on their optional consumption.

Figure 2-2. Breakdown of Real Disposable Income Growth for Households

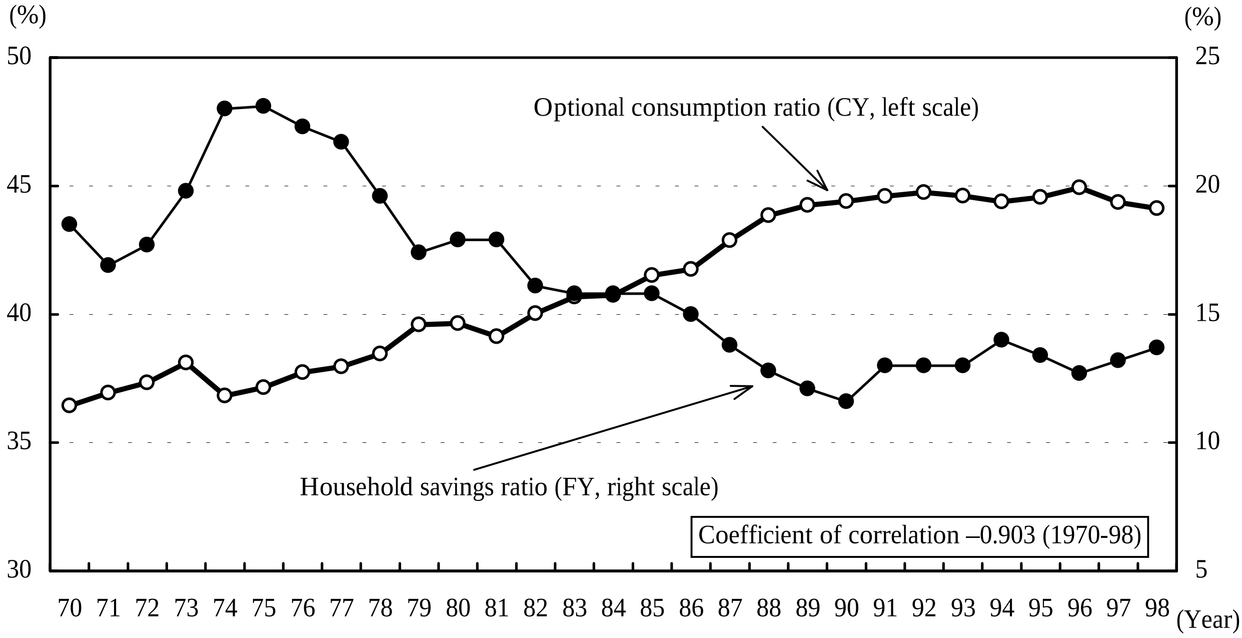


Period	1970-79	1980-89	1990-98
Average growth	6.0%	2.8%	2.0%

Note: “Others” include proprietorship income, net social security benefits, etc.
Source: Economic Planning Agency, “Annual Report on National Accounts.”

[4] See Development Bank of Japan, *Chosa* No.1, p.17.

Figure 2-3. Relationship between Household Savings Ratio and Optional Consumption Ratio

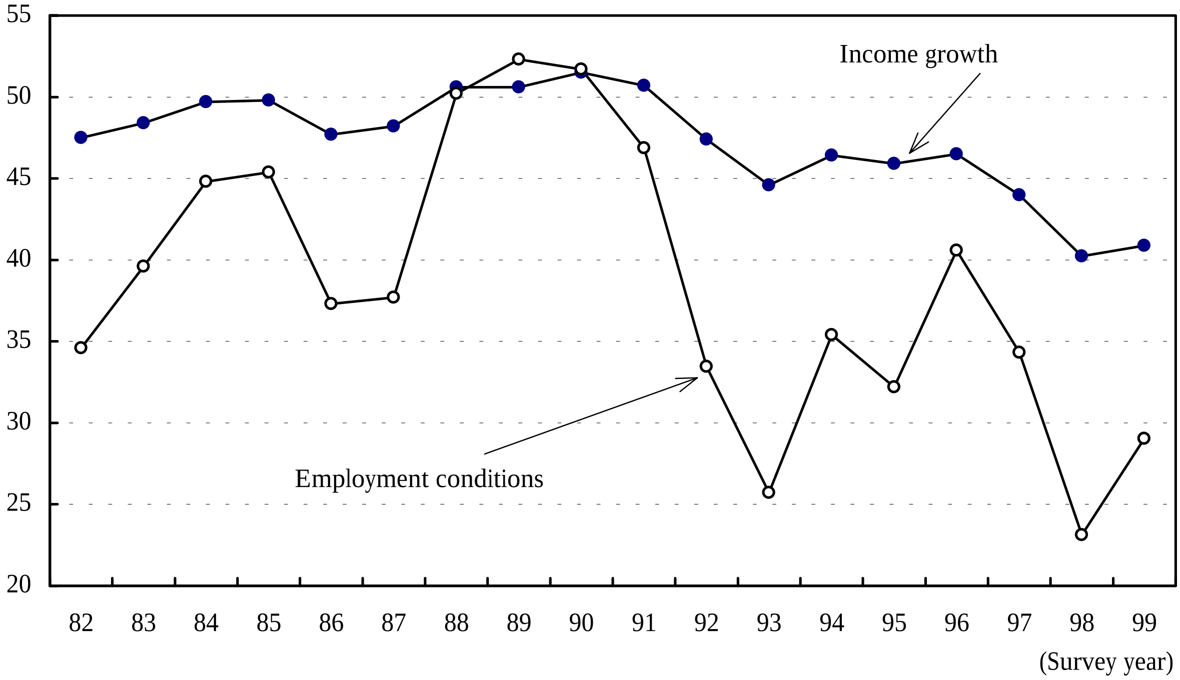


Note: Optional consumption means expenditures sensitive to business conditions (expenditure elasticity > 1) and includes durable goods for education and recreation, interior decorations, traditional Japanese clothes, outfits for men and women, eating out, automobile goods, education, educational and recreational services, housing alterations, personal belongings, transport, cosmetics, etc.

Sources: Economic Planning Agency, “Annual Report on National Accounts;” Management and Coordination Agency, “Annual Report on Family Income and Expenditure Survey” and “National Survey of Family Income and Expenditure.”

The second factor is the deterioration of consumer confidence in future prospects. According to the Economic Planning Agency's "Survey on Consumption Trend" (Figure 2-4), views on "income growth" and "employment conditions" over six months were not optimistic throughout the 1990s. Particularly since 1998, expectations for future income may have changed substantially as overtime pay and bonus were reduced and the growth of regular wage and salary stopped. Employment conditions have also deteriorated rapidly since the major financial collapses in 1997 as the unemployment rate reached a new high, thus damaging consumer confidence. Although both indicators recovered slightly in 1999, they have not yet reached the level of 1997. Consumers remain pessimistic about future income and employment.

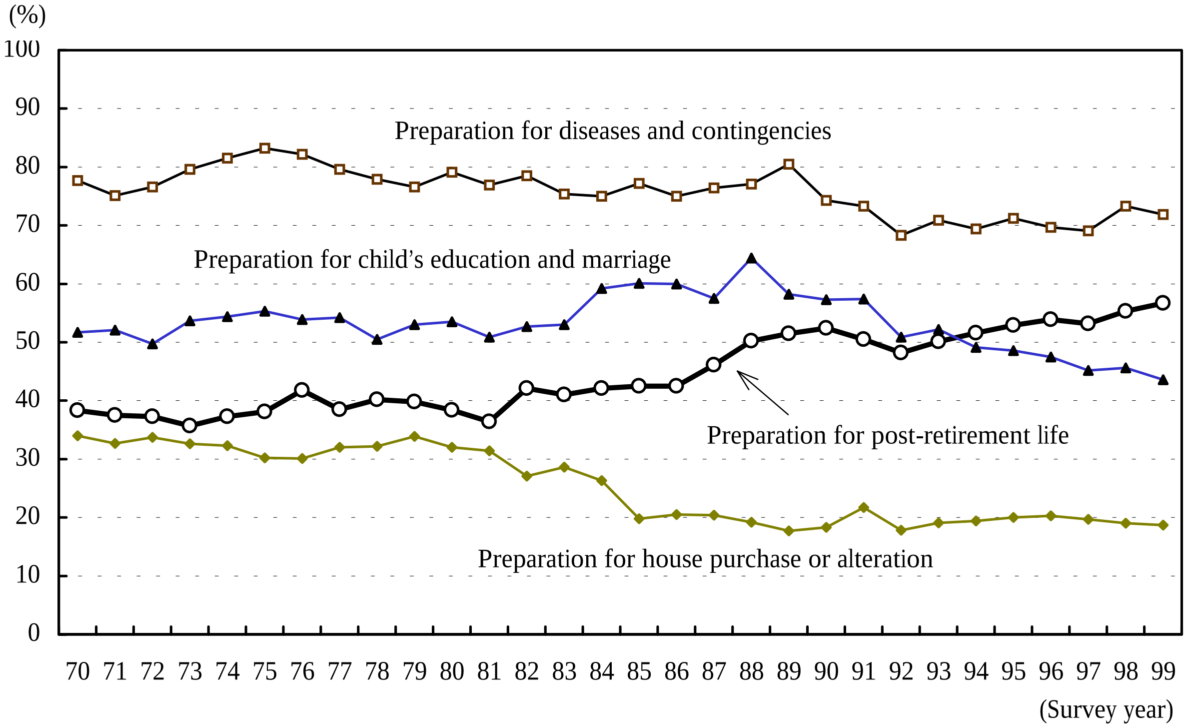
Figure 2-4. Change in Consumer Confidence



Note: Expected changes in six months are evaluated in five levels and then converted into a weighted average based on the composition of answers. 1999 represents the average of March, June and September surveys.
Source: Economic Planning Agency, "Survey on Consumption Trends."

The third factor is the increasing importance of post-retirement life as a purpose of savings. Figure 2-5 shows the four most important purposes of savings according to the Central Council on Savings Information, Bank of Japan, “Public Opinion Survey on Savings and Consumption.” Among the four items, “preparation for post-retirement life” is the only purpose that continued to increase in importance in the 1990s (38.3% in the 1970 and 56.7% in 1999). This is largely due to longer life expectancy and the need to prepare for one’s own nursing care as the number of household members dwindles. Since Japan is expected to experience the fastest population aging among the industrialized countries in the 21st century, the increased need to prepare for post-retirement life will probably cause the savings ratio to rise for some time to come. A policy response is required concerning pensions, medical care and nursing care, lest concerns about the future should lead to overemphasis on needs after retirement, thus causing excessive preference for savings.

Figure 2-5. Change in Purposes of Savings (4 main items)



Note: Multiple answers up to three items.
Source: Central Council on Savings Information, Bank of Japan, “Public Opinion Survey on Savings and Consumption.”

3. Reappearance of Instability in Plant and Equipment Investment

The two recessions in the 1990s were characterized by a substantial drop in plant and equipment investment from the latter half of the recessions into the initial stage of recovery, which amplified and prolonged the economic hardship. Plant and equipment investment on a real GDP basis experienced a double-digit drop from the second through fourth quarters of 1993 following the bursting of the bubble, for the first time since the second to third quarters of 1974 directly after the oil crisis. During the current recession, it recorded a double-digit decline again in the fourth quarter of 1998. In contrast, plant and equipment investment in the 1980s rarely declined on the previous year, let alone a double-digit drop.[5] Compared with the 1970s and 1990s, it played a greater role in stabilizing economic fluctuations. The stability of plant and equipment investment in the 1980s had several causes. In the context of the decline in average growth rate and the change in the content of investment (decreased weight of capacity expansion), a report on the trend in individual industries noted the following.[6]

(i) Investment became less volatile in individual industries.

(ii) Factors specific to individual industries had a larger impact while total demand fluctuations had less impact, thus reducing the correlation between industries.

Figure 2-6 shows the chronological trend of investment fluctuation by sector from the 1970s through the 1990s (until 1998). As regards sectoral contribution to the growth of plant and equipment investment, the non-manufacturing sector, which gave a negative contribution only once in the 1970s and 1980s (in 1974), weakened overall investment in the 1990s by making negative contribution three times (in 1993, 1994 and 1998). We therefore aggregated the annual growth of plant and equipment for each decade and calculated the average and standard deviation. The average growth rate of the 1980s rose from that of the 1970s, and then fall from that of the last decade in the 1990s. The slump in the non-manufacturing sector in the 1990s is particularly significant. Standard deviation, which indicates the level of fluctuation of the growth rate, once declined in the 1980s compared to the 1970s, rose in the 1990s and regained the level of the 1970s. This reflects the destabilization once again of plant and equipment investment, which stabilized in the 1980s as mentioned above. From the viewpoint of variation coefficient, which normalizes the standard deviation based on the level of average value, plant and equipment investment has become even more unstable than in the 1970s, particularly in the non-manufacturing sector.

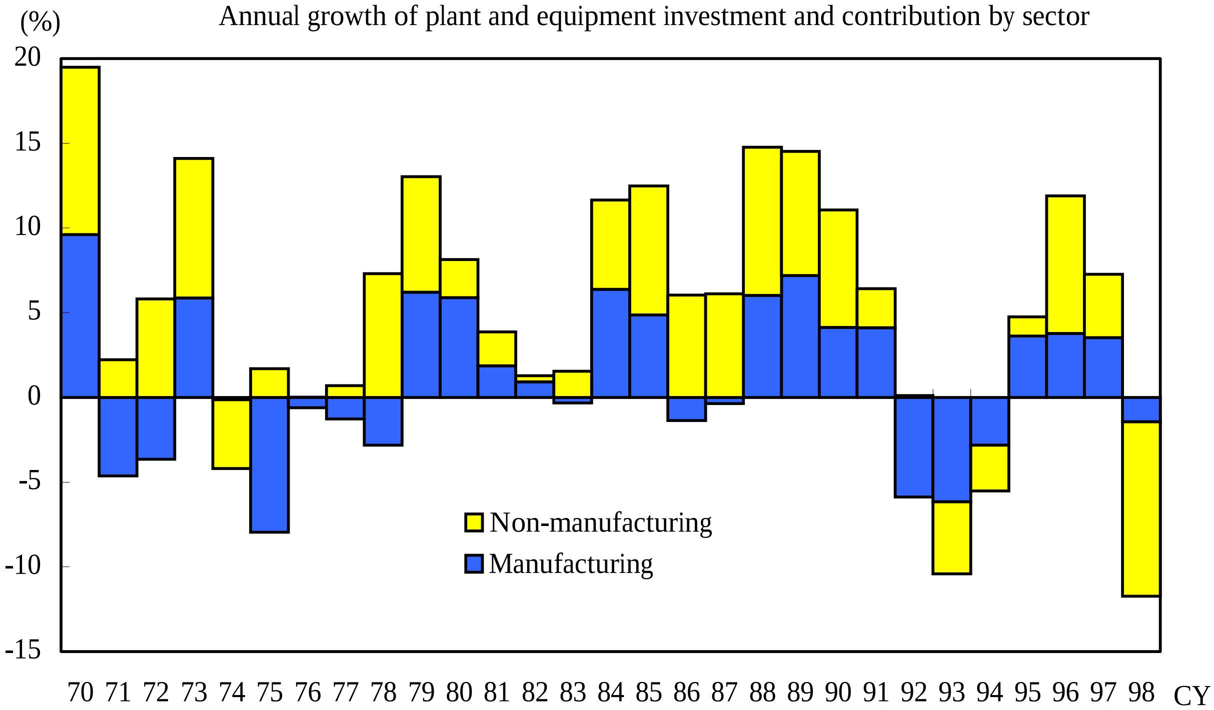
Figure 2-7 breaks down the two sectors and identifies the standard deviation of plant and equipment growth in each industry and its inter-industry correlation. The following points should be noted. First, standard deviation declined in the 1980s compared to the 1970s and rose in the 1990s in each industry except for wholesale/retail and transport/telecommunications, which corresponds to the trend for all industries combined. Second, the coefficient of correlation indicates that the growth of plant and equipment investment in each industry is more closely related to the growth of overall investment in the 1990s than in the 1980s, with the exception of agriculture/fishery/mining. Therefore, the higher standard deviation of investment growth in the 1990s is due to the increase in standard deviation in individual industries as well as to the increased correlation between industries, which is a complete reversal of the factors that helped stabilize plant and equipment investment in the 1980s. This implies that developments such as the bursting of the bubble economy, concerns about the banking system, technological innovation related to telecommunication and the escalation of global

[5] Although plant and equipment investment did decline in the first and second quarter of 1983, the decline only represented a slight adjustment and stayed within 0.9%.

[6] Kojiro Sakurai (1992). "Setsubi Toshi to Keiki Hendo kara Mita Kinnen no Nippon Keizai (Recent Japanese Economy Viewed from Plant and Equipment Investment and Economic Fluctuation)." *Chosa* No.160. The Japan Development Bank.

competition are influencing corporate behavior concerning plant and equipment investment, thus making it more responsive to fluctuations in total demand.

Figure 2-6. Chronological Trend of Plant and Equipment Investment



Change in annual growth of plant and equipment investment

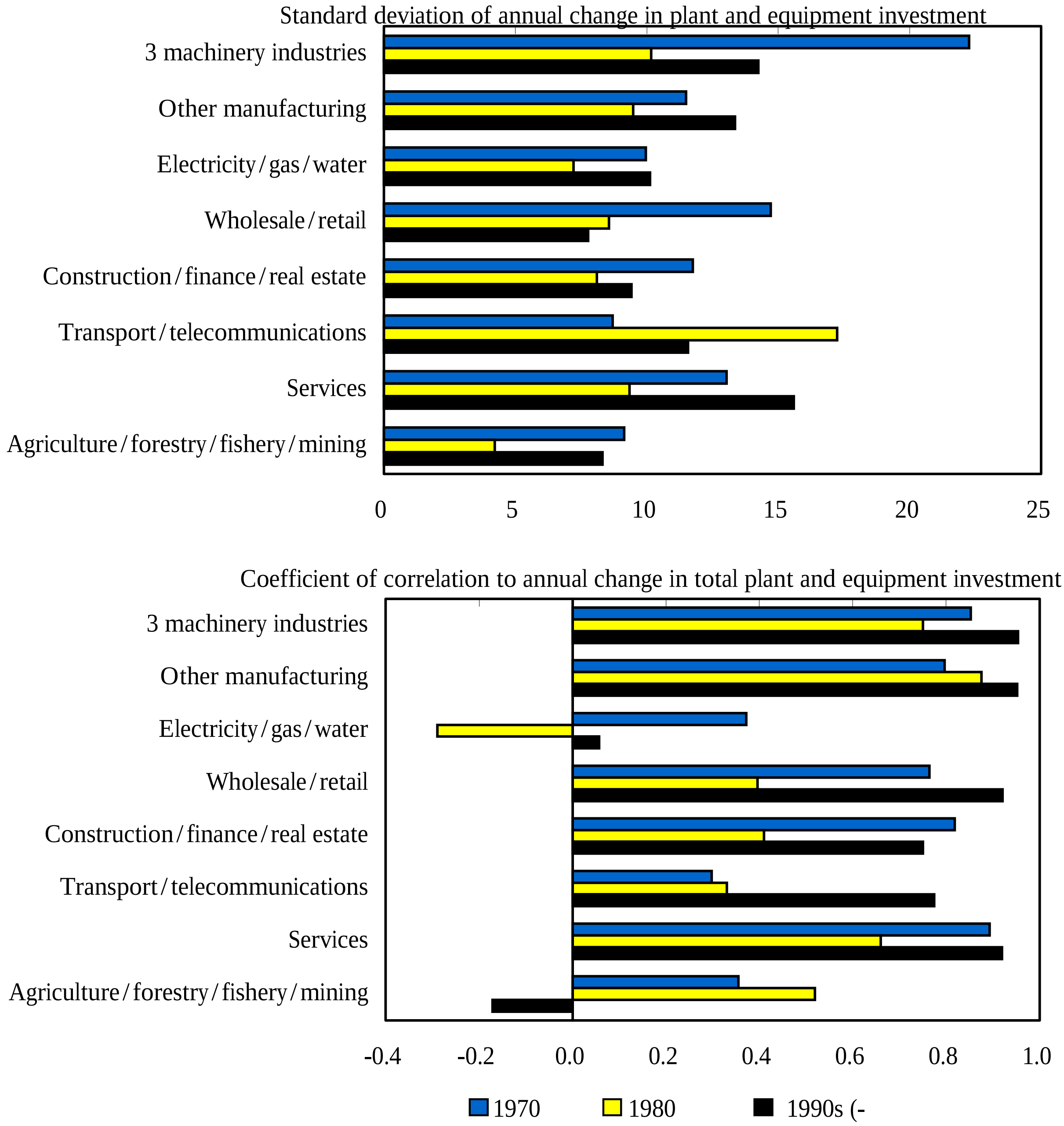
Average	All industries	Manufacturing	Non-manufacturing
1970-79	3.92	0.43	6.63
1980-89	7.84	9.03	7.33
1990-98	0.88	1.20	0.88

Standard deviation	All industries	Manufacturing	Non-manufacturing
1970-70	8.71	13.30	7.69
1980-89	5.22	9.55	4.54
1990-98	9.25	12.97	8.58

Notes:
1. 1990-based real values on a progress basis. Annual data (CY).
2. Non-manufacturing sector comprises all non-manufacturing industries including agriculture, forestry, fishery and mining.
3. Annual growth represents the simple average of growth in each year.

Source: Economic Planning Agency, “Statistics on Capital Stock in Private Companies.”

Figure 2-7. Factors for Plant and Equipment Investment Destabilization in the 1990s



Notes: 1. Data are the same as in Figure 2-6, except that values for 3 machinery industries (total of general machinery, electrical machinery and transport equipment) and other manufacturing are based on data up to 1997.

2. From the macroeconomic viewpoint, the change in the volatility of plant and equipment investment growth (change in standard deviation) can be resolved into three factors:
(i) change in the standard deviation for individual industries,
(ii) change in inter-industry correlation, and
(iii) change in the shares of individual industries.
The figure is for factors (i) and (ii) above.

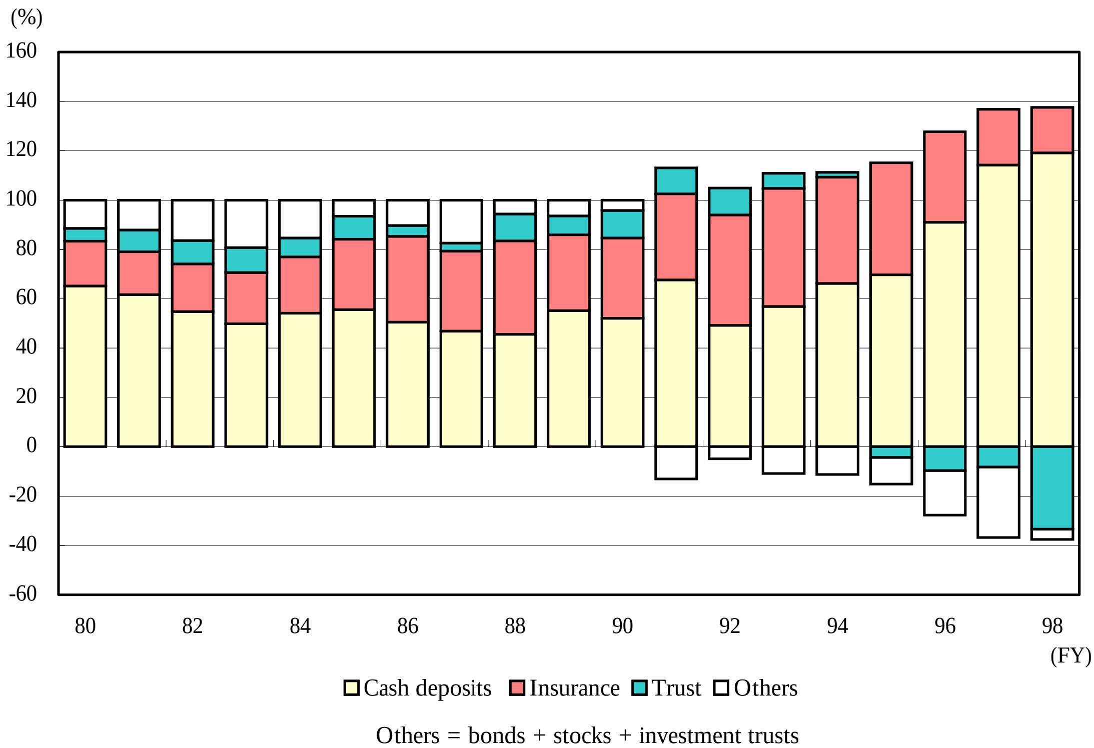
4. Preference for Safe Assets and Reduced Investment in Real Assets

Regarding money flow in the personal sector (Figure 2-8), the 1990s have seen the share of cash deposits rise. The share of deposits in personal investment fell in the 1980s as people invested more in insurance and other assets, but started to rise again in the mid-1990s. Particularly since fiscal 1997, cash deposits have been increasing while other assets such as bonds have been declining, pointing to increased preference for safer assets.

Figure 2-9 shows the surplus or shortage of funds by sector. In the 1990s, the corporate sector enjoyed fund surpluses while the government sector suffered fund shortages. From the late 1980s to the early 1990s, the corporate sector experienced a dire shortage of funds, reflecting active investment in plant and equipment, but since fiscal 1994 it has enjoyed a surplus of funds largely due to the slump in plant and equipment investment. The fund surplus of the corporate sector exceeded that of the personal sector in fiscal 1998. Although the personal sector has continuously had a fund surplus, its size has fallen slightly since the mid-1990s. The public sector, after enjoying a small surplus of funds from the mid-1980s through the early 1990s, has witnessed the largest shortage of funds among the three sectors, reflecting the deteriorating financial situation.

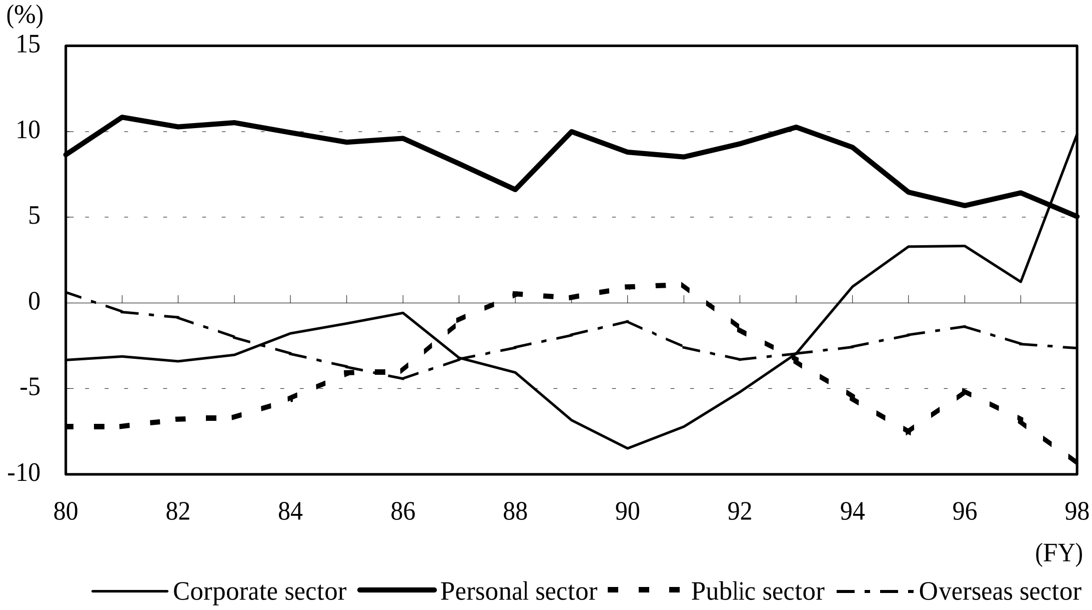
As regards investment by the corporate sector, investment in non-financial assets declined substantially in the 1990s (Figure 2-10), and total investment started to fall in fiscal 1996. The trend of corporate financing is shown in Figure 2-11. Under the bubble economy, financing through stock and bond issues increased substantially as well as through borrowing. However, total corporate financing turned down in the 1990s. Borrowing has also been decreasing since fiscal 1995, and in fiscal 1998 it decreased by more than 20% from the previous year.

Figure 2-8. Money Flow of the Personal Sector



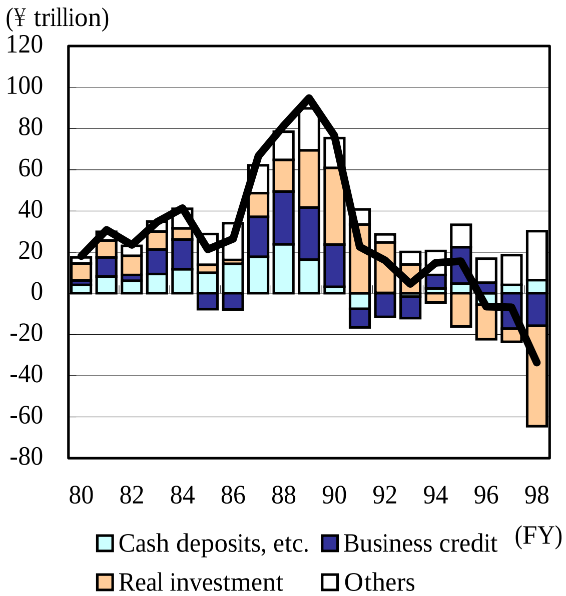
Source: Bank of Japan, "Money Flow Accounts."

Figure 2-9. Fund Surplus or Shortage by Sector



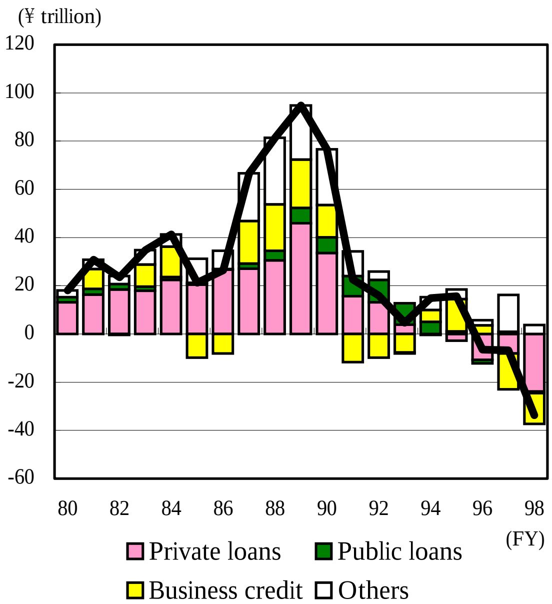
Source: Bank of Japan, "Money Flow Accounts."

Figure 2-10. Investment of the Corporate Sector



Others = stock + bonds + CP + insurance + trusts + investment trusts + external credit

Figure 2-11. Financing of the Corporate Sector



Others = stocks + corporate bonds + CP + foreign bonds + external loans + others

Source: Bank of Japan, "Flow of Fund Accounts."

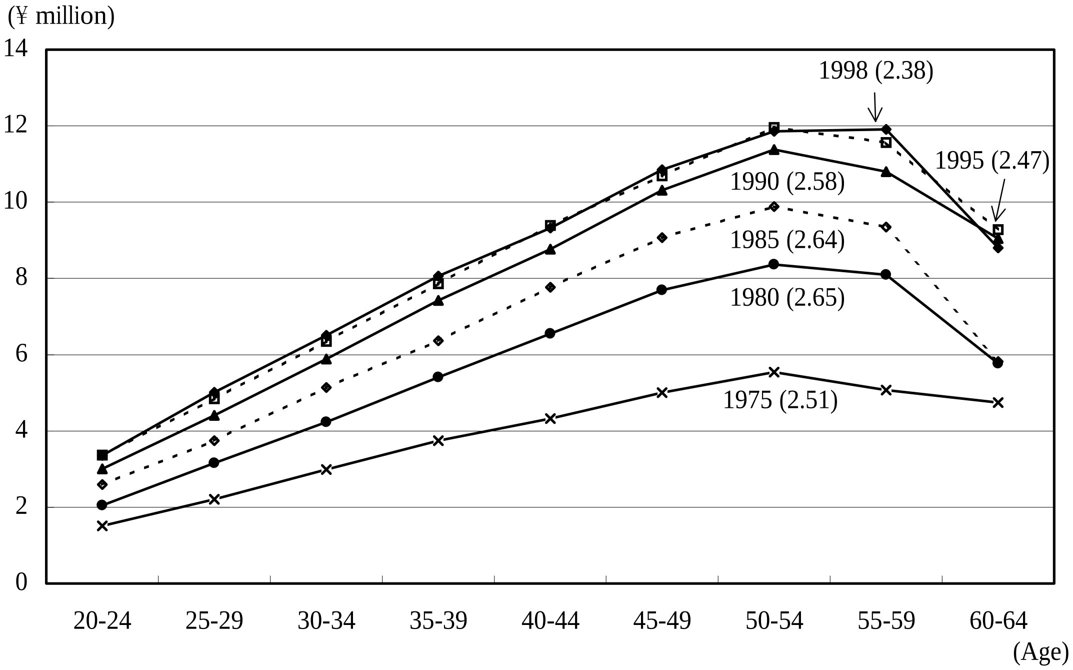
5. Diversified Forms of Employment

Following the two recessions in the 1990s, two of the most important characteristics of the Japanese employment system are under pressure to change: lifetime employment and seniority-based pay. Judging from macroeconomic statistics, however, the pace of change in these practices has been very slow.

The average annual income of men with a college degree employed by large companies (employing 1,000 or more workers) indicates that their wages are still increasing significantly as they grow old. In fact, the wage curve has remained similar since the 1970s (Figure 2-12). In the 1990s, however, the wage curve became slightly flatter. The highest income age bracket earned more than 2.6 times the annual income of the 25-29 age group in the 1980s (2.65 times in 1980 and 2.64 times in 1985), but the gap narrowed in the 1990s, at 2.58 times in 1990, 2.47 times in 1995 and 2.38 times in 1998.

The average period of service by age group has changed little since the 1970s, which indicates that the practice of long-term employment continues. However, it declined slightly in the 1990s for the late 30s-early 40s age bracket, largely due to the impact of restructuring. The steady increase in average period of service for the 55-59 age group since the 1980s is mainly attributable to the rise in retirement age.

Figure 2-12. Annual Income by Age Group (Men with college degree)

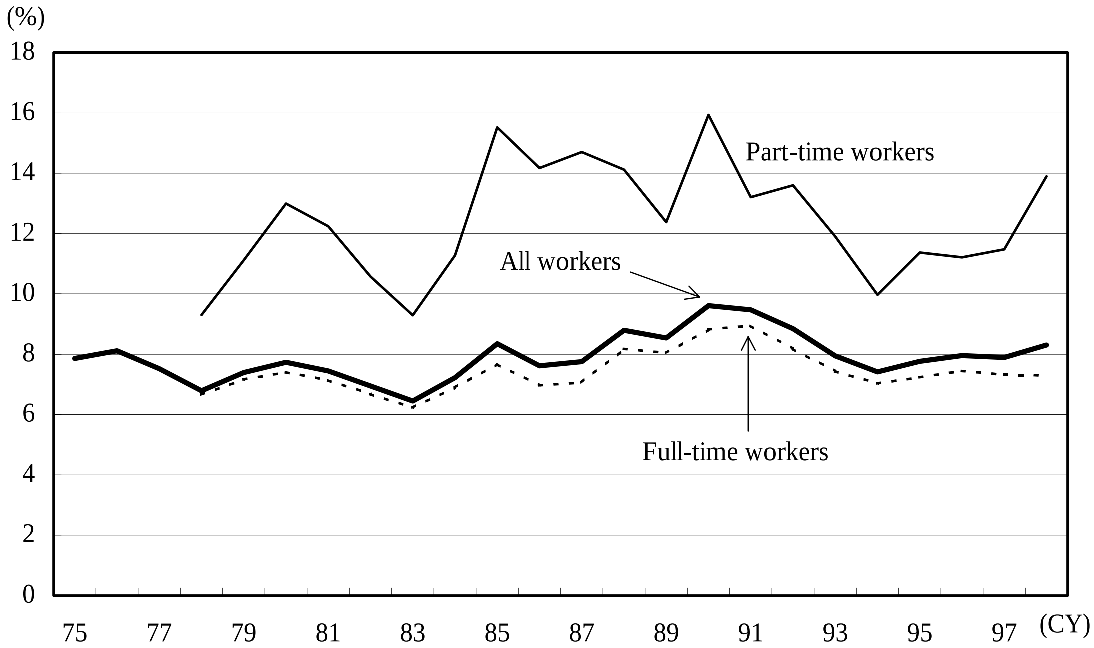


Notes: 1. Enterprises with 1,000 employees or more.
2. Annual Income = Contractual cash earnings × 12 + Bonus and Others
3. The highest annual income / the annual income of the 25-29 age group is in the parenthesis.

Source: Ministry of Labor, "Basic Survey on Wage Structure."

No substantial change can be observed in the 1990s for labor turnover ratio, an indicator of employment liquidity (Figure 2-13). Labor turnover ratio means the ratio to all workers of those who were hired by a new employer within one year of leaving their former employer. The aggregate labor turnover ratio rose in the late 1980s during the bubble years, but fell in line with the recession. Although the ratio has been rising again of late, it is not significant.

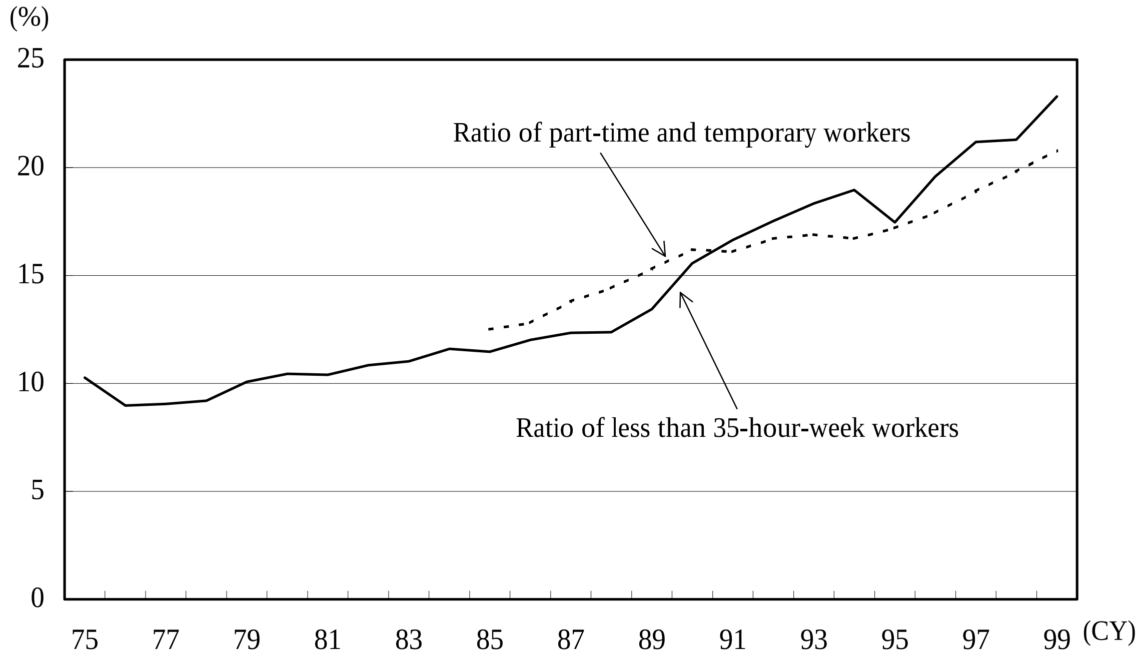
Figure 2-13. Trend of Labor Turnover Ratio



Note: Labor turnover ratio = number of job changers/number of workers.
Source: Ministry of Labor, "Survey on Employment Trends."

Rather, there have been major changes in employment forms, which have become increasingly diversified. The share of part-time and temporary workers in the total work force has been rising, exceeding 20% in 1999 (Figure 2-14). Labor turnover is higher for part-time workers than for regular employees, as the former change jobs more frequently. With the increase of part-time workers, the differential of labor turnover ratio has been widening between regular and part-time workers. Thus, the growth of part-time labor has been raising overall labor liquidity.

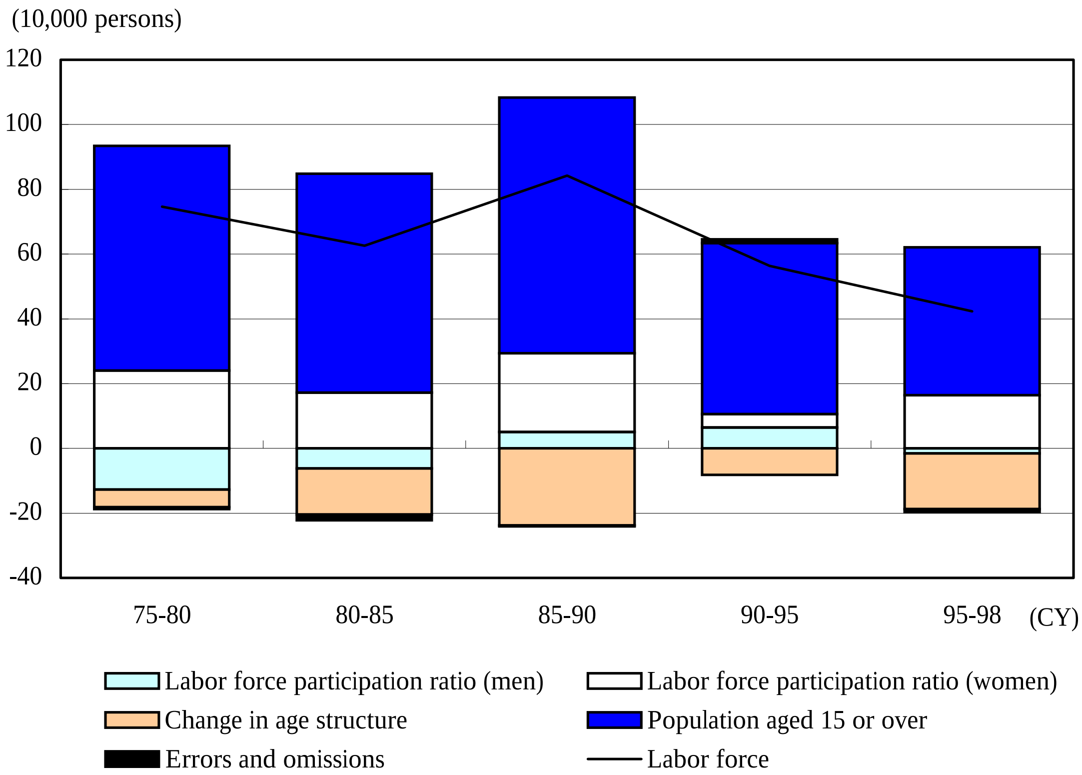
Figure 2-14. Ratios of Less than 35-hour-week Workers and Part-time and Temporary Workers



Note: The ratio of part-time and temporary workers is as of February in each year.
Sources: Management and Coordination Agency, “Labor Force Survey,” and “Labor Force Special Survey.”

Figure 2-15 breaks down labor force growth into three factors: change in over-15 population, change in age structure and change in labor participation ratio (by sex). Clearly, the change in age structure has constantly exerted downward pressure on the labor force since the 1970s with the progress of aging. In the 1990s, the decline in birth rate reduced the upward pressure of the change in population aged 15 or over. According to the National Institute of Social Security and Population Problems (median estimate as of January 1997), the over-15 population will peak in 2007, followed by a continued decline, which will also exert downward pressure on the labor force in the future. Therefore, expectations are high for women's participation in the labor force. The change in women's participation in the labor force has constantly made a substantial contribution to labor force growth by an annual average of some 200,000 workers. At the same time, employment forms have become increasingly diversified, with the increase in part-time and temporary workers. On the demand side, the demand for these workers has been rising among corporate employers seeking to cut back on personnel costs. The need for part-time and temporary employment will also increase on the supply side, as more women are expected to participate in the labor force.

Figure 2-15. Factoral Resolution of Labor Force Growth (Annual average)



Notes: 1. Factoral resolution is according to the following definition:
Labor force = over-15 population $\times$ Σ (share of age group $\times$ labor force participation ratio by age group).
2. Factoral resolution is made separately for men and women and then aggregated.
3. 15-70 year-old population is classified into age groups at an interval of five years. Those aged 70 or over constitute a single age group.

Source: Management and Coordination Agency, "Labor Force Survey."

6. Growing Budget Deficit and Increased Government Bond Issues

Tax revenues on the general account increased steadily in the 1980s (Figure 2-16), peaked in fiscal 1990 at ¥60.1 trillion and then plunged to ¥45.7 trillion in fiscal 1999 (after supplementary budget).

Government bond issues declined in the 1980s, due to budget restruction and favorable economic conditions (Figure 2-17). Since fiscal 1992, however, the drop in tax revenues and supplementary budgets accompanying economic stimulus measures have substantially inflated bond issues. Particularly, bond issues for fiscal 1999 (after supplementary budget) set a new record of ¥38.6 trillion (of which deficit-financing bonds accounted for ¥25 trillion).

Outstanding gross government debts are expected to reach 120% of GDP in 2000[7] (Figure 2-18), far higher than in the U.S. and the U.K., which succeeded in revamping their budgets, as well as the Germany and France, which have limited the ratio to 60% in view of EU integration.

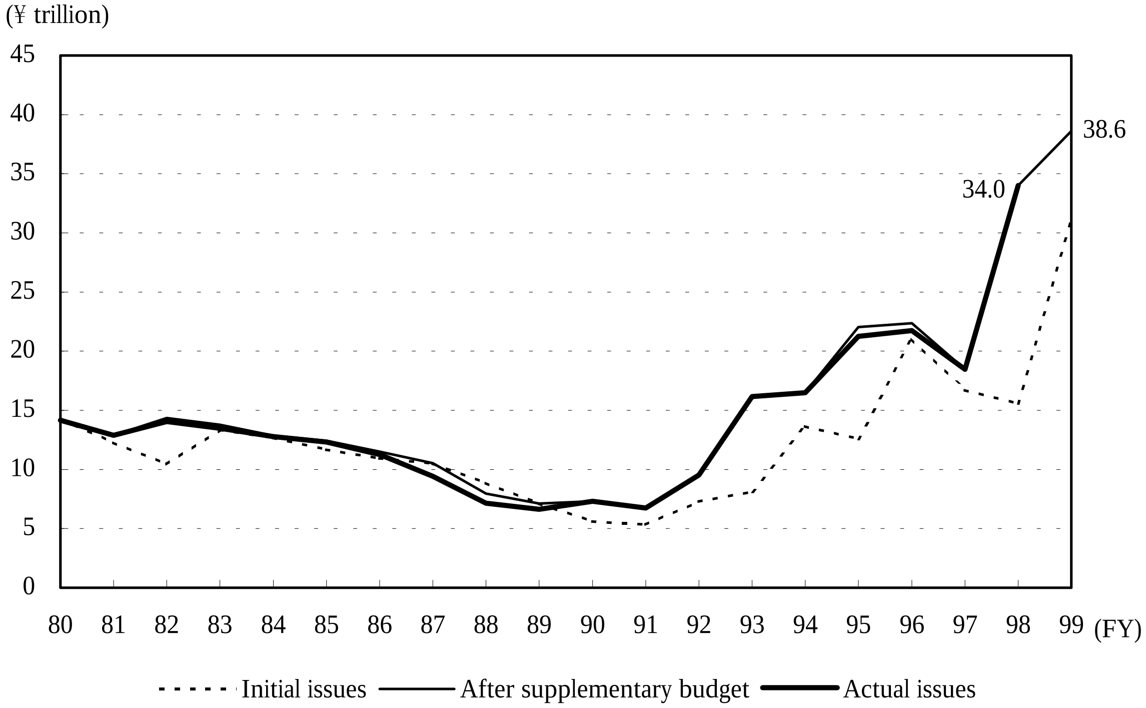
The ratio of public bond interest payments to GDP has not risen despite the increase in outstanding public bonds (Figure 2-19). This can be explained by the rapid economic growth and slow increase in debts in the 1980s, and by falling interest rates in the 1990s. However, there is smaller room for the interest rates to go lower as they have fallen to a substantially low level. Consequently, the increase in debts is expected to result in increased interest payments in the future.

Figure 2-16. Trend of Tax Revenues

Note: Tax and stamp revenues on the general account.
Source: Ministry of Finance.

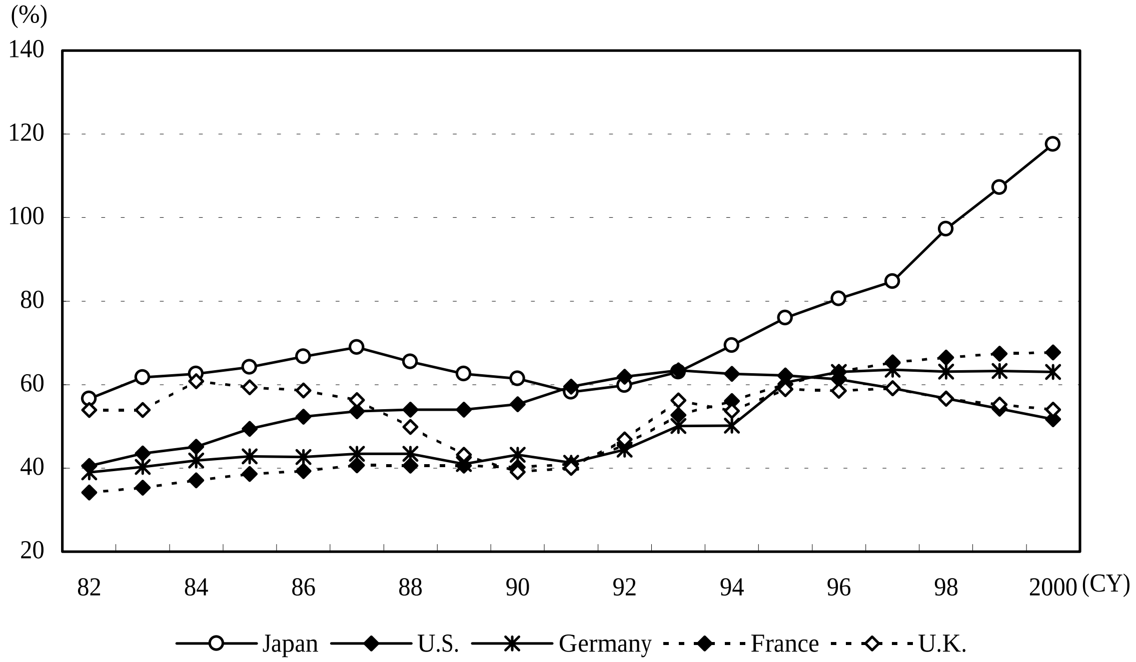
[7] According to the governmental announcement after the 1999 supplementary budget, outstanding debts of the national and local governments combined are expected to exceed 120% of GDP as at the end of fiscal 1999.

Figure 2-17. Trend of Government Bond Issues



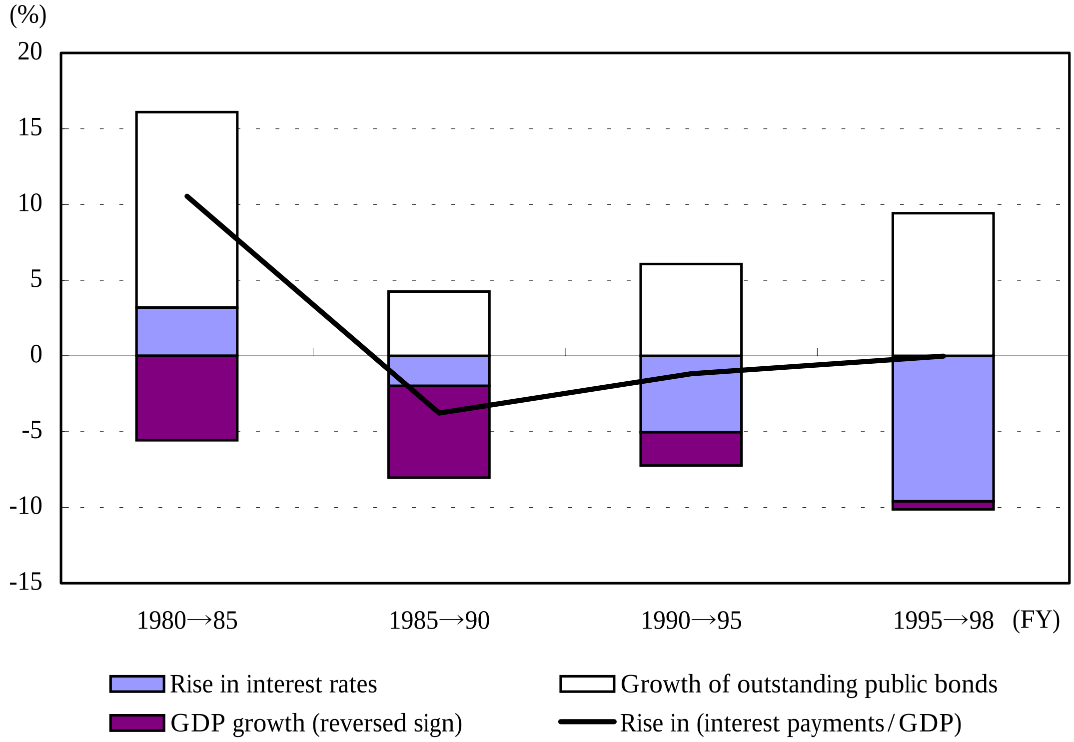
Source: Ministry of Finance.

Figure 2-18. Outstanding Debts of General Government as % of GDP



Notes: 1. Data for 1999 and 2000 are forecast by OECD.
2 Outstanding debts represent gross amounts.
Source: OECD, “Economic Outlook.”

Figure 2-19. Factors for Change in Interest Payments on Public Bonds / GDP Ratio



Sources: Economic Planning Agency, "Annual Report on National Accounts;" Ministry of Finance, "Public Finance Data Book."

7. Increased Trade with Asia and Import Dependency

The weight of Asia in Japanese trade increased in the 1990s. As Asian countries achieved rapid economic growth, their relations with Japan became increasingly strong. This section considers Japan's relationship with Asia in terms of the change in exports and imports by country (region) and by product, the trend of finished goods imports, the increase in the overseas production ratio and the rise in import dependency.

Figure 2-20 shows Japanese exports and imports by country and region. Asia has had a considerable share in exports, but the United States alone accounts for 25% of total exports and its share exceeded that of the whole of Asia in the 1970s. In the 1980s, the U.S. accounted for 32% of Japanese exports, single-handedly surpassing Asia and EU. In the 1990s, however, the share of Asia increased to almost 40% as it became an increasingly important trading partner.

Since mineral fuels have accounted for a substantial part of Japanese imports, "other" regions have maintained a preeminent position. As in the case of exports, however, the importance of Asia in imports has been increasing: in the 1990s, Asia came to enjoy a 34.5% share in Japanese imports. This surge was largely due to Japanese manufacturers transferring plants overseas (primarily to Asia) in search of cheaper labor following the rapid appreciation of the yen.

As regards exports by product (Figure 2-21), the share of machinery including electrical and general machinery rose constantly from the 1970s through the 1990s. Automobiles and other transport equipment have seen their share in exports decline as overseas production increased.

Looking at the change in imports by product at an interval of five years, imports of capital goods, particularly electrical and general machinery, have been increasing since the late 1980s. Thus, electrical machinery and general machinery have emerged as primary items both in exports and in imports.

Figure 2-20. Exports and Imports (Destinations and origins)

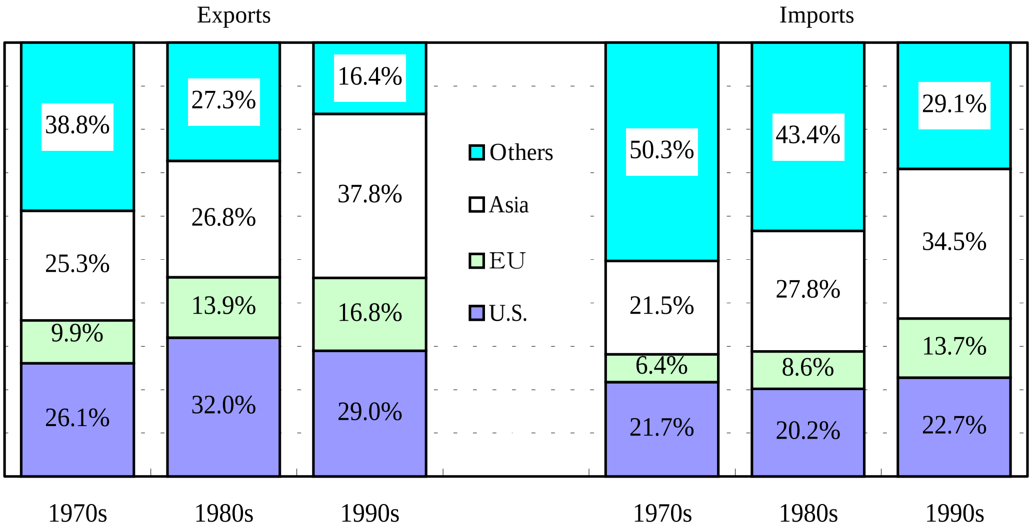
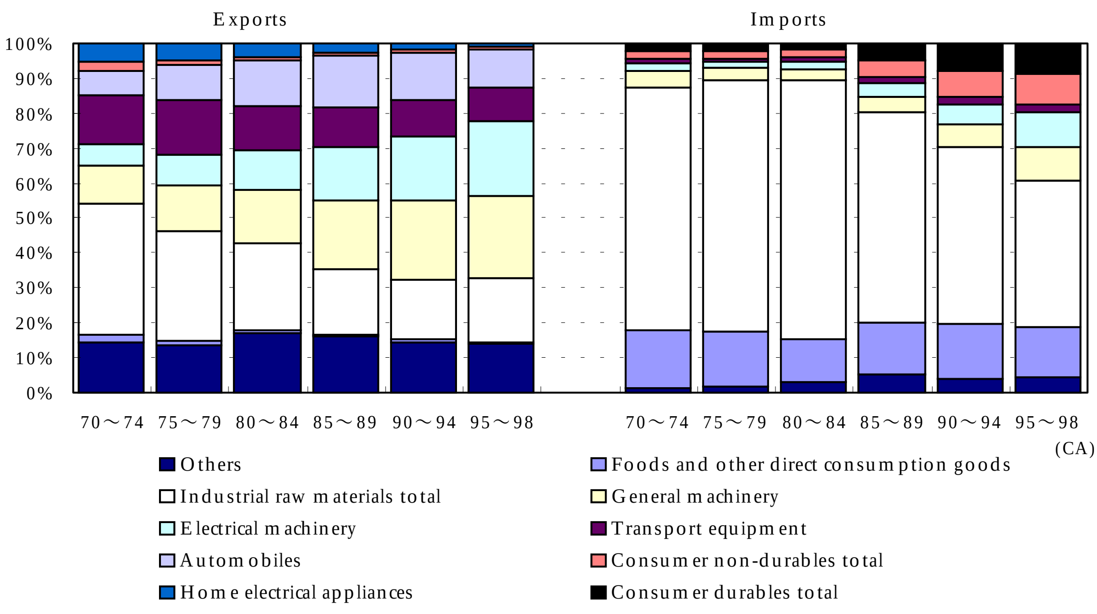


Figure 2-21. Exports and Imports (Composition)



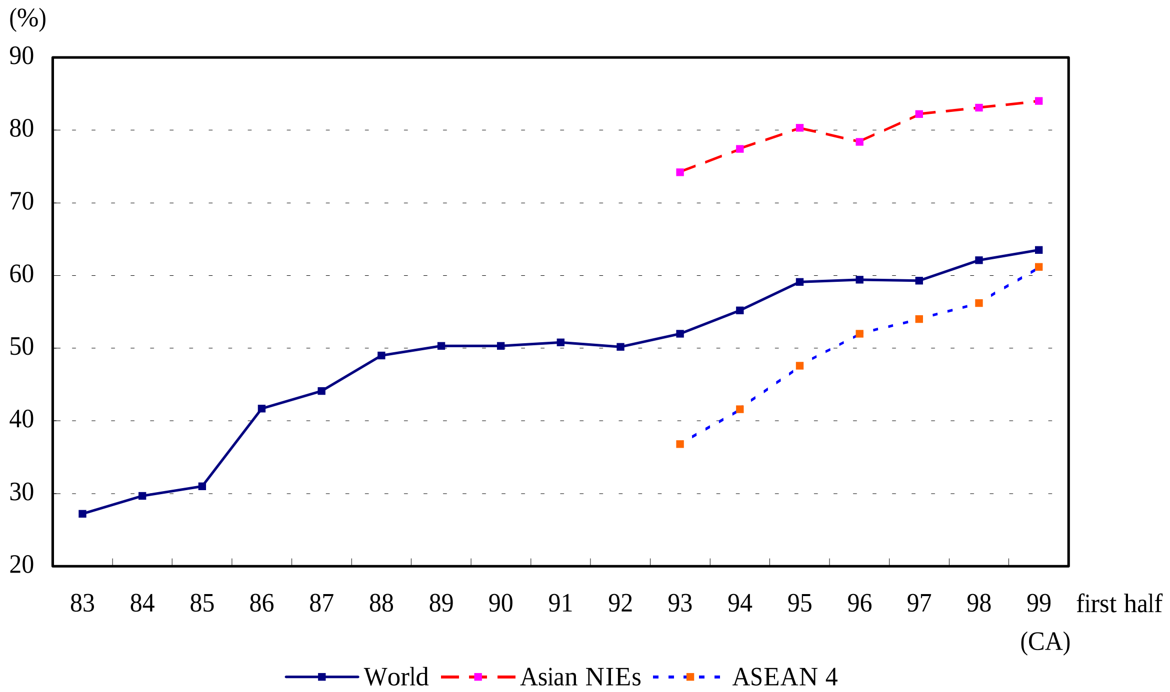
Note: 1970-82 data for Asia are estimated customs clearance values of exports and imports. Export and import items are defined according to the special classification of commodity.
Source: Japan Tariff Association, "The Summary Report on Trade of Japan."

Figure 2-22 shows the share of finished products in total Japanese imports. The share increased throughout the 1980s and 1990s, and has exceeded 80% for Asian NIEs. The share has also been surging for the ASEAN 4 since the early 1990s. The rising share of finished products in total imports is largely the result of Japanese manufacturers transferring production centers to combat rising production costs due to the rapid yen appreciation following the 1985 Plaza Agreement.

The trend of the overseas production ratio is shown in Figure 2-23. By 1998, the ratio had risen to almost 14% in the whole manufacturing sector. The transfer of production facilities to Asia became prominent in the 1990s, subsequently increasing capital goods exports to, and final product imports from Asia.

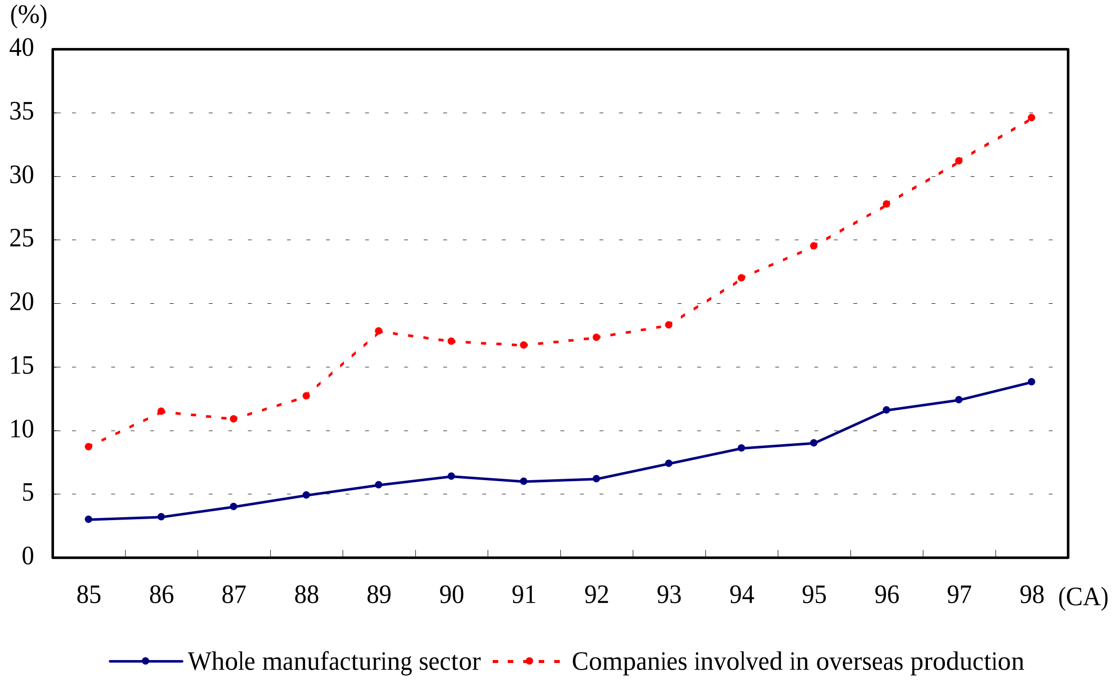
As the weight of Asia in Japanese trade increases, import dependency also continues to rise. Figure 2-24 indicates that import dependency is rising rapidly for capital goods in particular. Reflecting the progress of international division of labor, the 1990s have seen a substantial increase in the weight of Asia in Japanese trade.

Figure 2-22. Trend of Finished Product Imports



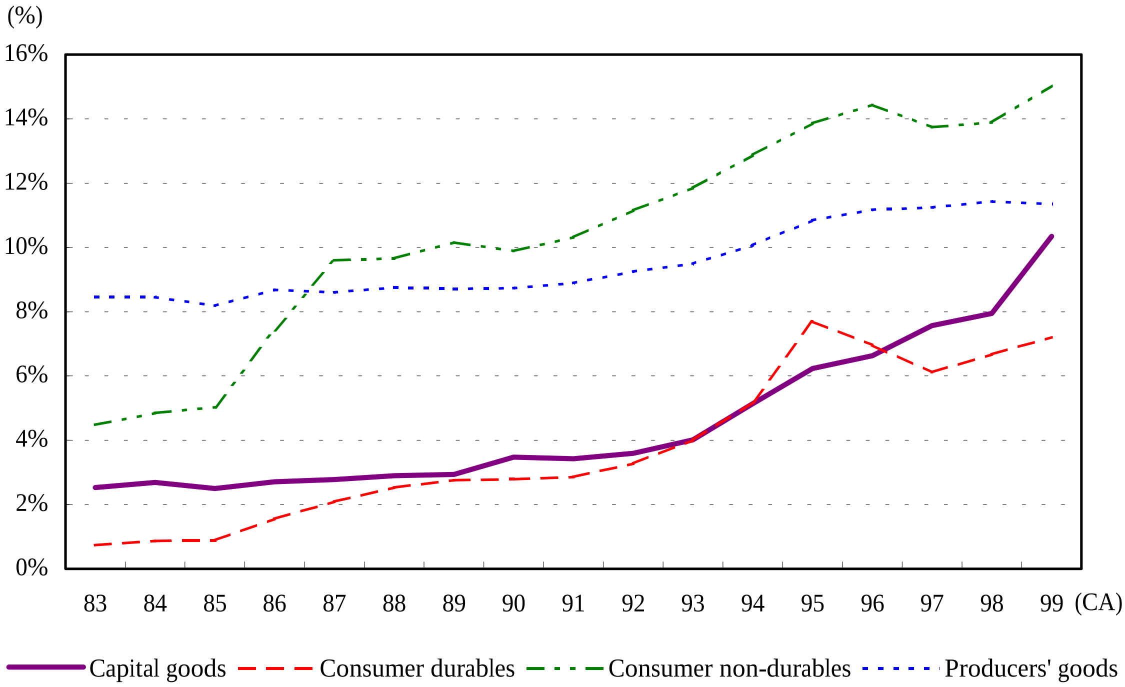
Source: JETRO "International Trade of Japan."

Figure 2-23. Trend of Overseas Production Ratio



Sources: Ministry of International Trade and Industry, "Basic Survey on Overseas Business Activities," and "Statistical Survey of Incorporated Enterprises."

Figure 2-24. Trend of Import Dependency



Note: Import dependency = (import index × weight of imports)/(total supply index × weight of total supply). Constant at 1995 price. 1999 represents estimate based on data for the first two quarters.

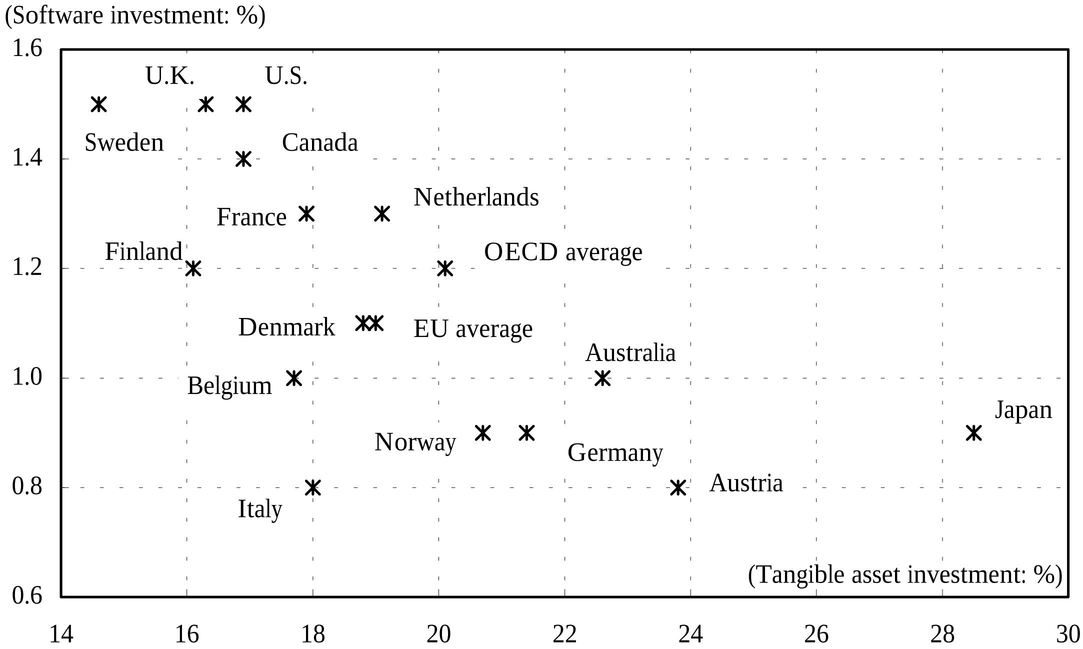
Source: Ministry of International Trade and Industry, "Industrial Total Supply Table."

8. Progress of Information Society

Structurally, the 1990s have seen a rapid progress in information technology. This section examines the development of the information society in Japan in comparison with other countries.

Figure 2-25 compares expenditures for software and tangible asset investment in 1995 as a percentage of GDP among OECD countries. Expenditures for software can be considered as investment in intangible assets because their utility continues for several years. In countries like the United States, the United Kingdom and Sweden, the ratio of tangible asset investment to GDP is not high, ranging from 14% to 18%, but software investment accounted for as much as 1.5% of GDP. Contrary, the ratio of tangible asset investment is higher in Japan, while that of software investment is lower at 0.9%.[8]

Figure 2-25. Tangible Asset Investment and Software Investment in Selected Countries (1995)



Note: Software investment represents estimate by OECD. Total of private corporations and government.
Source: OECD, "Science, Technology and Industry Scoreboard 1999."

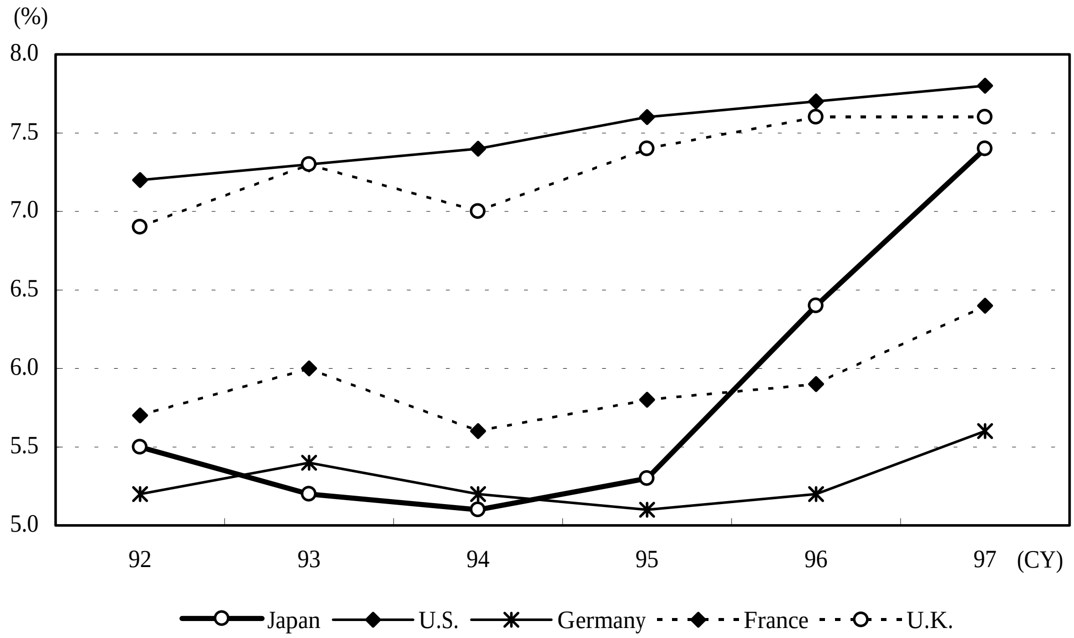
An OECD estimate indicates that expenditures on information and communication in Japan[9] rose rapidly from 5.3% in 1995 to 7.4% in 1997 (Figure 2-26).

In Japan, about 10% of the population had access to the Internet as of 1998. This percentage is as high as over 30% in such countries as the United States and Canada (Figure 2-27). In this context, there is much room left in Japan for further increases in information-related expenditures.

[8] In Japan, a revision to SNA statistics slated for fiscal 2000 will include software investment of private companies in GDP. According to Ministry of International Trade and Industry, "Survey on Specific Service Industries," sales of the software development industry rose 28.7% from the previous year in fiscal 1998. It is therefore estimated that software investment has increased correspondingly.

[9] According to the international standard industry classification, seven hardware items and four service/software items are defined for the manufacturing sector.

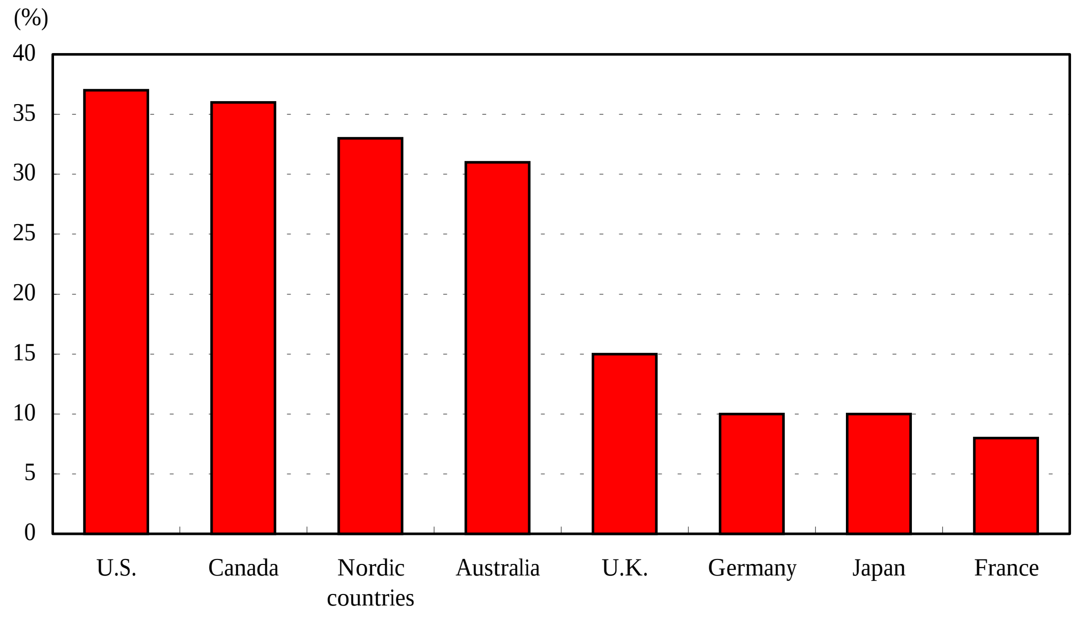
Figure 2-26. Information and Communication Expenditures as % of GDP



Note: Information and communication expenditures include purchases of hardware, services and software related to information and communication.

Source: OECD.

Figure 2-27. Share of Population with Internet Access (1998)



Source: U.S. Department of Commerce.

(as of February 18, 2000)

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

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