

Japanese Economy 2004

-Prospect for Continuous Recovery and Risks-

(Summary)

December 2004

Directorate General for Economic Research

Cabinet office

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Chapter I Recent Economic Trend

Section 1 Recovery Continuing

(Development of the Japanese Economy in 2004)

- The economy continues to recover with an improvement in the business sector leading to better employment condition, which, in turn, supports the sentiment of the household sector. Output gap has been shrinking with the recovery lasting for nearly three years.
- GDP growth decelerated in latter half of 2004, reflecting the slower growth of the world economy and a stock adjustment in the information and communication technology (ICT) related goods. Nonetheless, the recovery continues, while some risks remain as follows.

i) Prospect of the world economy

Although the world economy is expected to recover continuously in 2005, attention needs to be paid to concerns over the sustainability of financing the current account deficit in the US, which could generate pressure to weaken the US dollar, and possible consequences of the monetary tightening in China.

ii) Stock adjustment in the ICT related goods

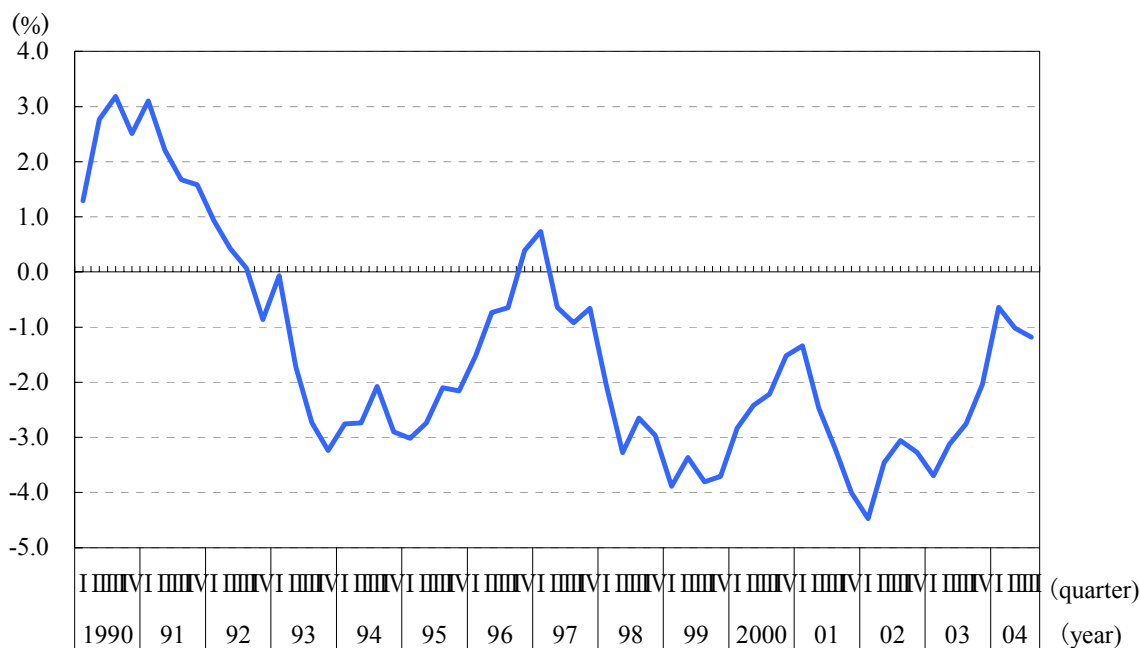
The ICT related companies remain to be cautious as they have started reducing their production immediately, responding to the increase in inventories. The duration of the stock adjustment process depends on how quickly demand could recover both in domestic and overseas markets.

iii) Impact of the hike in oil prices

The impact of the hike in oil prices on corporate profit has been offset by an increase in sales and a high productivity growth.

Figure 1 – 1 – 2 Trend of Output Gaps since 1990's

Though Output gaps had continued to diminish, it recently spread a little,



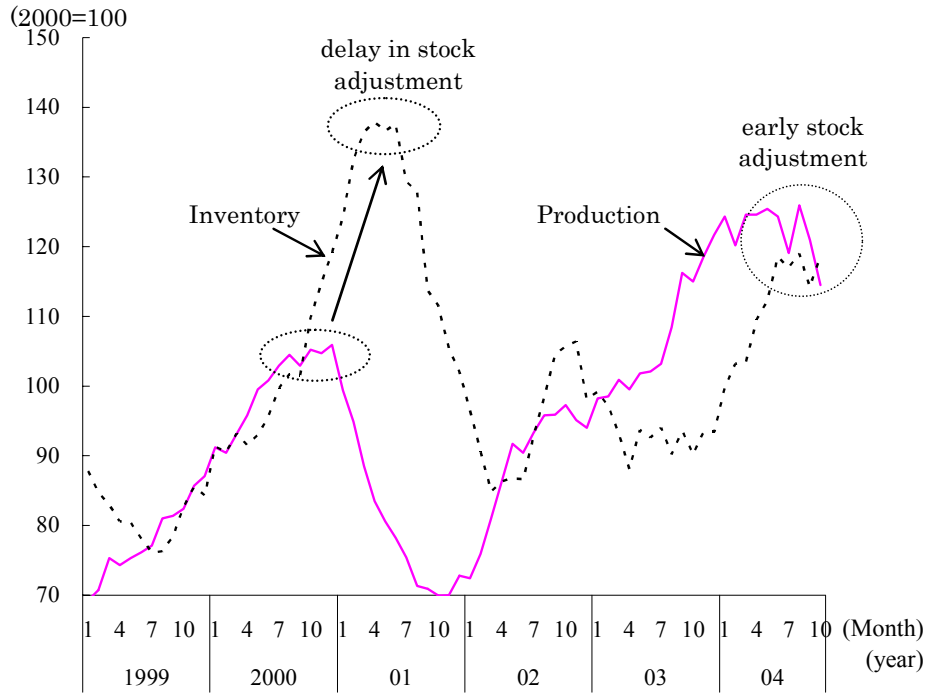
Note: Output Gaps = (actual "G D P" - potential "G D P") / Potential "G D P"

(Stock Adjustment in the ICT Related Goods)

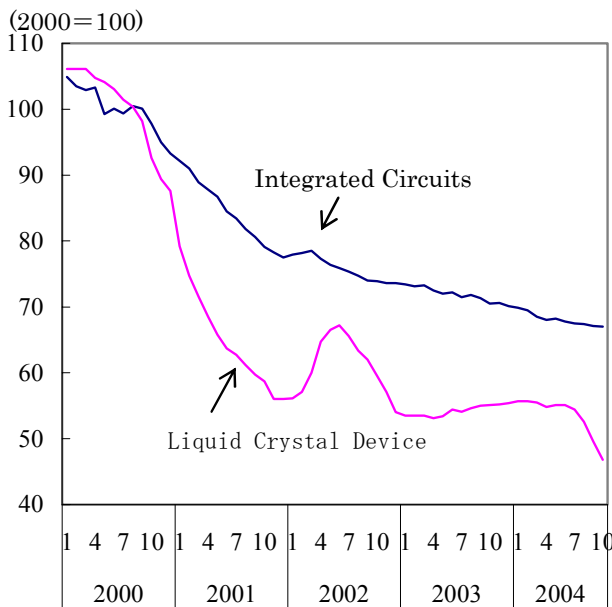
- Adjustment in production and inventories has continued in the ICT related goods, triggered by a decline in exports of digital home appliances and semi-conductors.
 - The following observations suggest that there are some differences between the current adjustment phase and the burst of the ICT bubble in 2001. The duration of the stock adjustment process depends on how quickly demand could recover both in domestic and overseas markets.
- i) Manufacturers have begun to cut their production aggressively even at an early stage of the adjustment despite the fact that the level of inventories has been much lower than that in 2001.
 - ii) A recent drop in prices for electronic parts and devices, which is gradually leading to lower prices for end products such as digital home appliances, could stimulate demand.
 - iii) During the current recovery phase, the industrial production has been driven not only by the ICT-related goods but also by non-ICT goods. The expected recovery of the world economy could lead to a recovery in non-ICT goods as their inventories remain at a low level.

Figure 1 – 1 – 9 Trend of the ICT-related goods

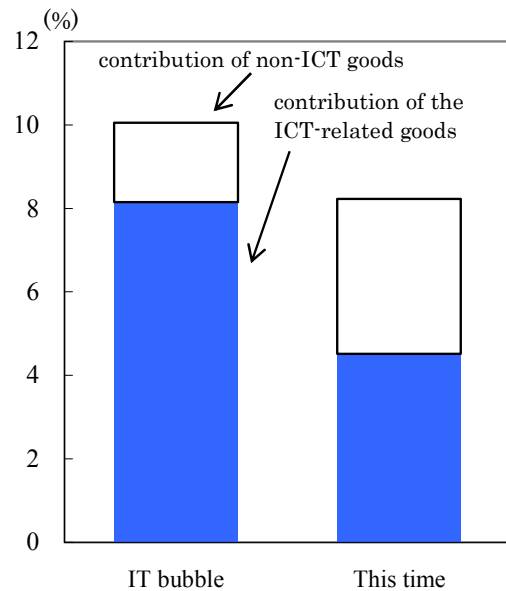
(1) Early stock adjustment in the ICT-related goods compared with the time of the ICT bubble



(2) The fall of prices continues in integrated circuits and liquid crystal device



(3) Compared with the ICT bubble, contribution of non-ICT goods is large



(Sources) METI:Indices of Industrial Production seasonally adjusted, BOJ:Corporate Goods Price Index

(Notes) Figure (3)

IT bubble : %change from the 4th quarter in 1998 to the 4th quarter in 2000

This time : %change from the 2nd quarter in 2003 to the 2nd quarter in 2004

Information-related goods here is adding semiconductor products machinery, household electronic machinery, etc. to Information-related goods in Indices of Industrial Production

(Corporate Profit and Fixed Capital Investment)

- Corporate profit is increasing rapidly. The negative impact of the deterioration in terms of trade due to higher material costs and a hike in oil prices on corporate profit has been offset by a higher growth of sales.
- Sales breakeven point has declined to the level, which is as low as in early 1990s. It reflects the reduced personnel costs and interest payments on debts as well as the effect of economy of scale with sales starting to grow fast.
- Fixed capital investment is expected to increase in FY2004, though it decelerated slightly in the middle of 2004. However, some leading indicators such as machinery orders suggest that investment by electronics industry could slow.

Figure 1-1-12 Break-even ratio

Break-even point ratio has fallen to the level of the first half of 90s

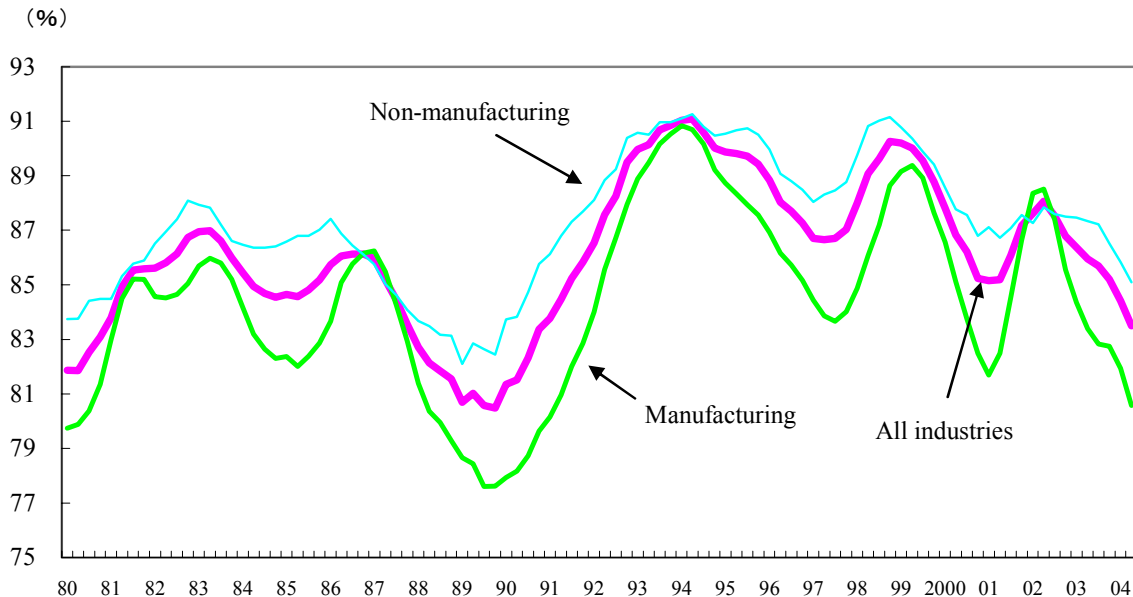
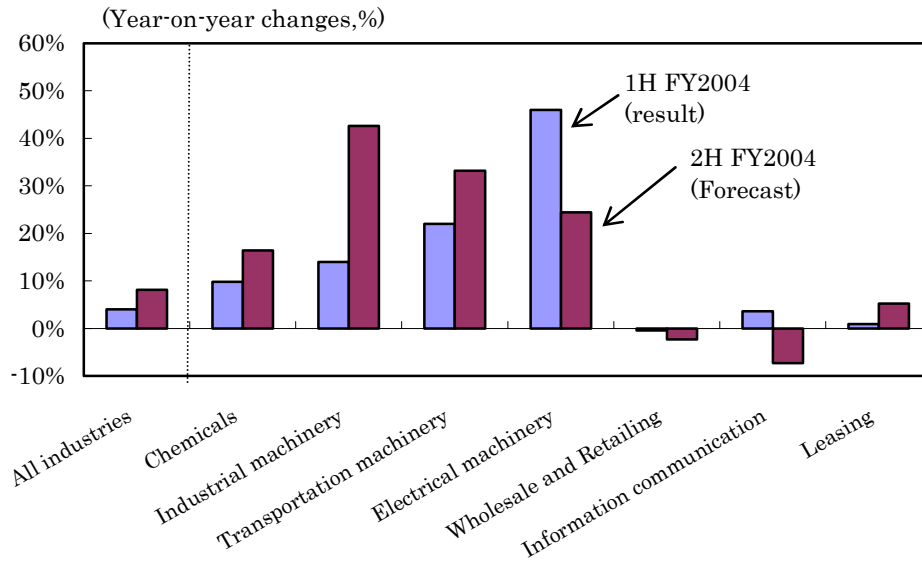


Figure 1-1-13 Business Investment Trends

Business investment is expected to remain on an increasing trend in the second half FY2004.

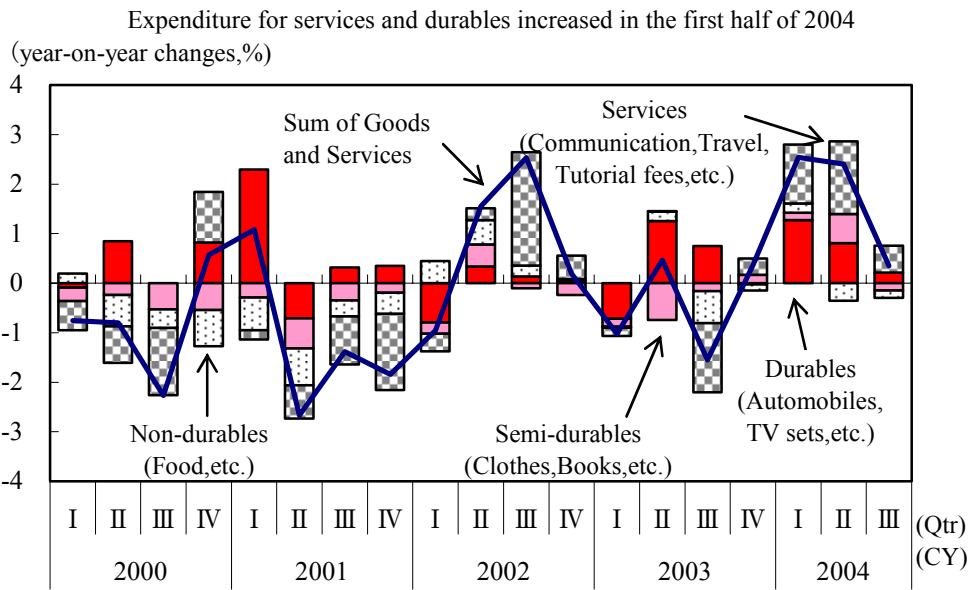


(Source) Short-term business sentiment survey (tankan) ,Bank of Japan

(Employment and Consumption)

- Unemployment rate has declined reflecting the increase in the number of employees and the decline in unemployed persons with labour force remaining constant. Wages have not risen yet though the rising trend of part-time workers, which has been a major contributor to lowering wages, has almost stopped.
- Consumption has been increasing modestly, led by higher sales of durable goods, which are sensitive to the improvement in consumer sentiment. The growth of consumption decelerated slightly in the later half of 2004.

Figure1-1-20 Composition of Living Expenditure



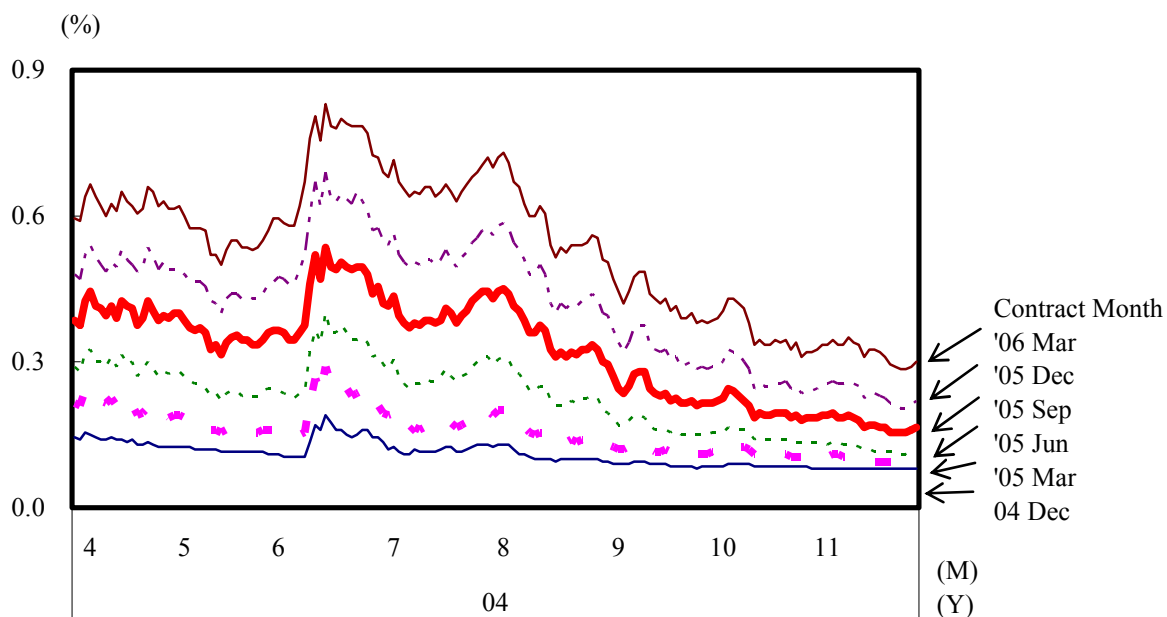
Source: Family Income and Expenditure Survey (two-or-more person households (except for households in agriculture, forestry and fisheries sectors)) and Consumer Price Index, Ministry of Internal Affairs and Communications.

(Monetary Policy and Financial Sector)

- With the targeted amount of the banks' current accounts at the Bank of Japan left unchanged, the growth of monetary base has decelerated. M2+CD is increasing slightly faster as precautionary cash holding in proportion to deposits has declined.
- Forward rates jumped up in June 2004 as an increasing number of people started to expect an exit from deflation in the near future. However, they fell in the later half of 2004. The BOJ released "Outlook for Economic Activity and Prices" in October 2004, in which slight positive inflation rate in terms of yoy change in CPI was expected by policy board members. However, the report did not have much impact on forward rates.

Figure 1 – 1 – 27 Trend of short term forward rates trend

After a hike in '04 June, short-term rates stabilized



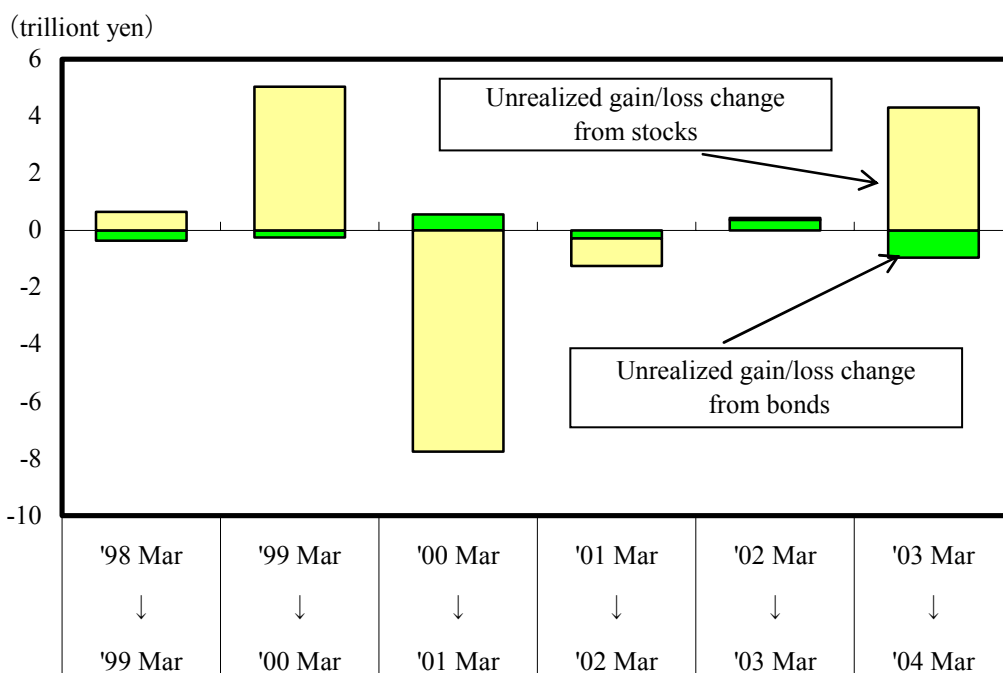
Sources: Tokyo International Financial Futures Exchange Inc. "Three-month Euroyen Futures"

(Financial Sector)

- The ratio of non-performing loans (NPLs) to total lending in major banks was almost halved, declining from more than 8% in March 2002 to 4.7% in September 2004. Losses from disposal of NPLs stayed below the level of operating profits. Shares held by major banks declined substantially, amounting to 64.5% of their Tier I capital.
- Banks hold a large amount of JGBs whose price will fall as long-term interest rates rise during an economic recovery. The fall of JGB prices will not affect bank profits as much as the fall of equity stock prices. The fall of JGB prices will not affect bank capital adequacy ratio to any significant extent.

Figure1 – 1 – 31 Unrealized gain/loss from securities of major banks

Relatively small gain/loss fluctuation from bond, compared to stocks



Source: Financial Statements of Japanese Banks, Bank of Japan.
Financial statements of each bank ('04 Mar)

Note: Aggregate total of securities with market value.
Major banks are 14 banks;

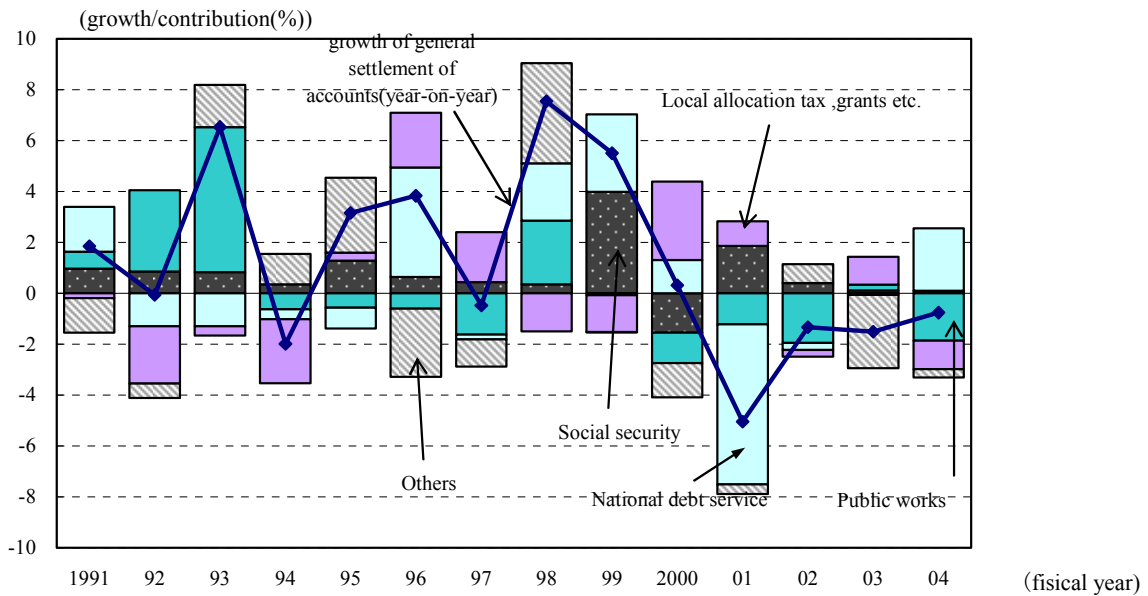
Mizuho Bank, Mizuho Corporate Bank, Mizuho Trust and Banking, Bank of Tokyo-Mitsubishi, Mitsubishi Trust and Banking Corporation, UFJ Bank, UFJ Trust Bank, Sumitomo Mitsui Banking Corporation, Resona Bank, The Chuo Mitsui Trust and Banking Company, and Sumitomo Trust and Banking, Shinsei Bank, Aozora Bank.

(Fiscal policy: government revenue and expenditure)

- An increase of expenditure is contained by austere fiscal measures including the reduction of public works.
- An increase of revenue is fueled by an increase of corporate tax revenue, followed by an increase of consumption and income tax revenues, during an economic recovery.
- Given the bad fiscal condition, local governments are reducing public works. They are also reducing personnel expenses through the reduction of government staff.

Figure 1-1-32 Trends in general account expenditures

Contribution in public-work related expenditures has contributed to reduce general expenditures



Note:From Ministry of Financ.Based on Settlement of accounts(Budget for FY2004)

(How will an economic recovery influence government debt?)

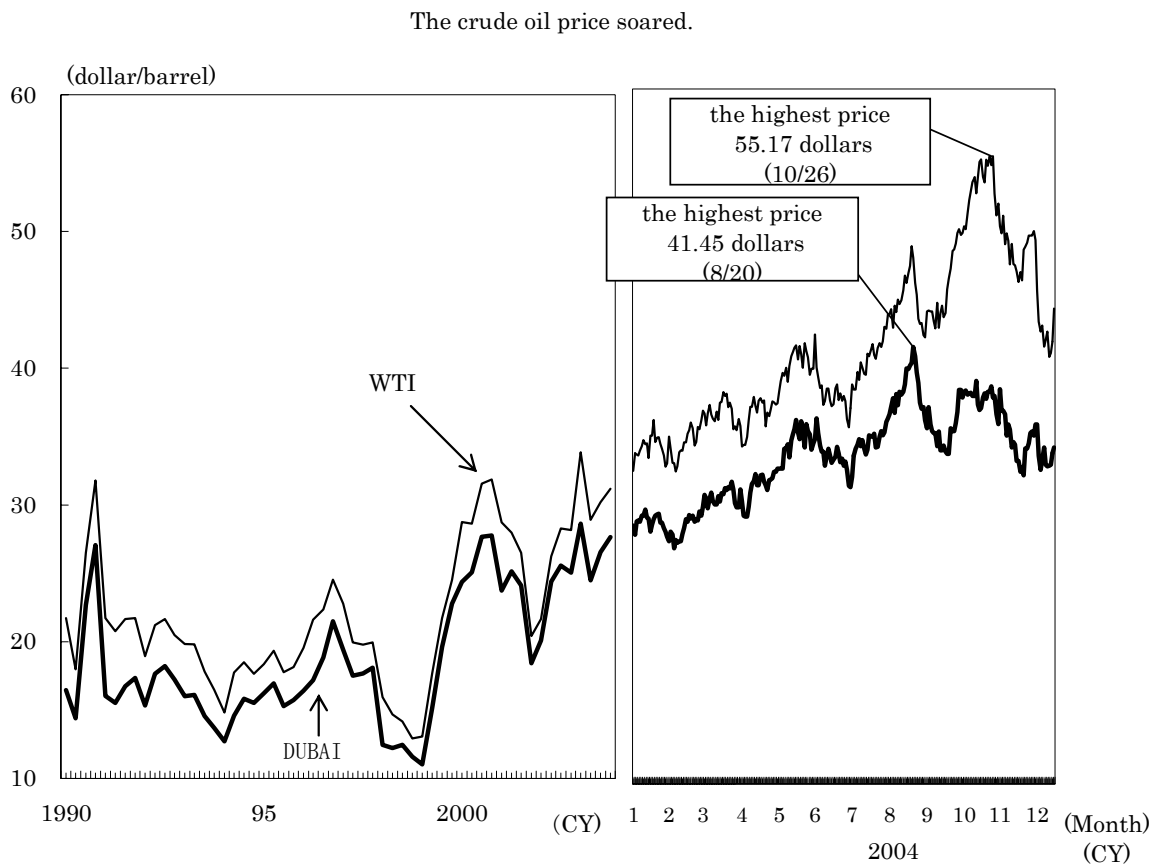
- In order to check an increase of government debt to nominal GDP ratio, deficit in the primary balance must be reduced.

Section 2 Rise in Crude Oil Price and its Economic Impact

(Crude oil price continuously soared)

- Crude oil price (WTI future price) soared in 2004 and reached the record high in October. Dubai price, Japanese index price of crude oil, also rose until summer in accordance with WTI. Though the price turned to decline toward the end of 2004, the level is still high relative to the past.
- What lie behind the crude oil price jump are: (i) the expansion in the world demand for crude oil especially in the US and China, (ii) the drop in spare capacity and the anxiety about supply shortage, which let the price be volatile, (iii) the inflow of speculative money into the futures market.

Figure1-2-1 Price transition of WTI and DUBAI

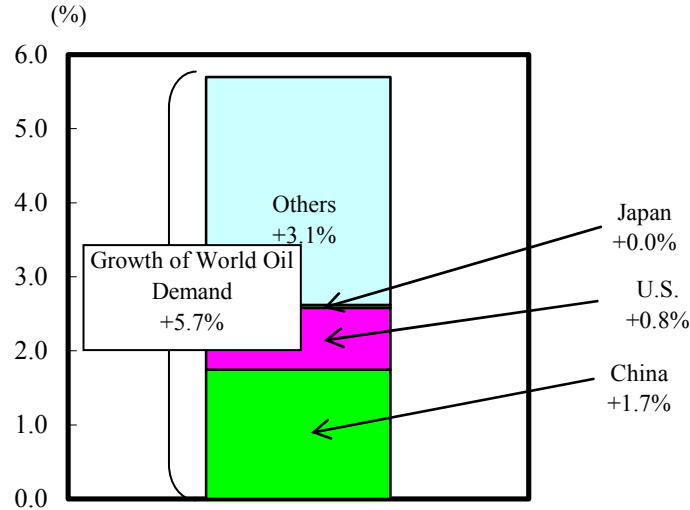


Notes :Daily price for 2004, otherwise quarterly price.

Figure 1 – 2 – 2 World Oil Demand

The U.S. and China are largely responsible for world oil demand increase

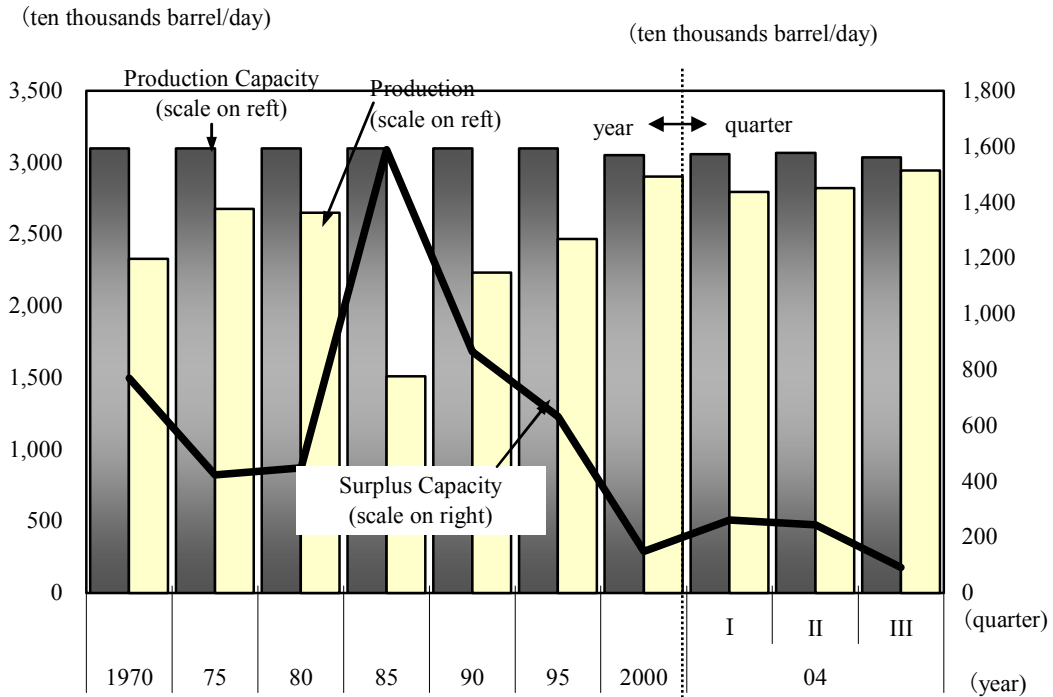
(Contribution to World Oil Demand Increase from 2002 to 2004)



Note: From I E A "Oil Market Report".

Figure1-2-3 OPEC's Crude Oil Production Capacity and Surplus Capacity

Surplus Capacity has declined



Note: 1. Surplus capacity is deduction of production from production capacity.
 2. From I E A "Oil Market Report".

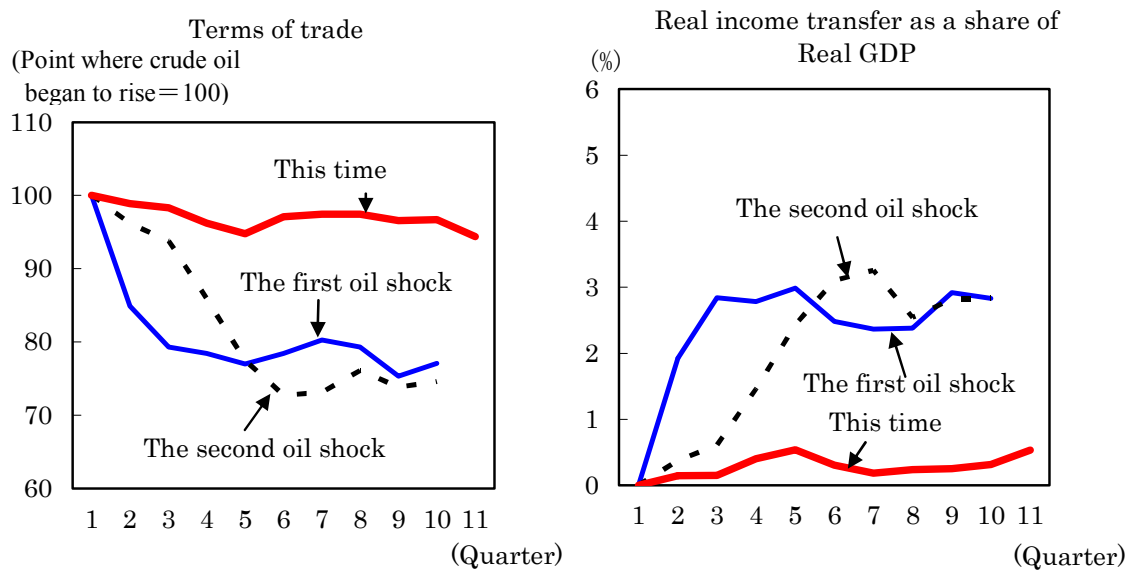
(The economic impact of rise in oil price)

- In theory, a rise in oil price possibly has the following impacts on an economy: (i) real income transfer to oil exporting countries, (ii) rise in domestic price, (iii) downward pressure on corporate profit until oil price shifts to downstream price, (iv) drop in external demand due to economic slowdown in other oil consuming countries, (v) deterioration of final demand through all those impacts. Nonetheless, the impacts have been limited because of high energy efficiency and steady economic recovery.

(Real income transfer is limited compared with the past)

- While crude oil price pushes up the import price, the deterioration of terms of trade and the real income transfer have been limited, relative to those of the past oil shock episodes.

Figurer 1-2-7 Change in Terms of trade and Real income transfer



Sources : System on National Account, Cabinet Office, Trade Statistics, Ministry of Finance.

Note : Estimation of Real income transfer was follow :

$$\frac{(P_x \cdot X - P_m \cdot M) / P_d - (P_{x0} \cdot X - P_{m0} \cdot M) / P_{d0}}{(P_x \cdot X - P_m \cdot M) / P_d - (P_{x0} \cdot X - P_{m0} \cdot M) / P_{d0}}$$

Px : Export deflator Px0 : Export deflator (Point where crude oil began to rise)
 Pm : Import deflator Pm0 : Import deflator (Point where crude oil began to rise)
 X : Export
 M : Import
 Pd : Domestic demand deflator Pd0 : Domestic demand deflator (Point where crude oil began to rise)

Import deflator is estimated under the assumptions that exchange rate is unchanged and that only crude oil price rises.

(While the crude oil price raised upstream prices, the shift to downstream prices is limited)

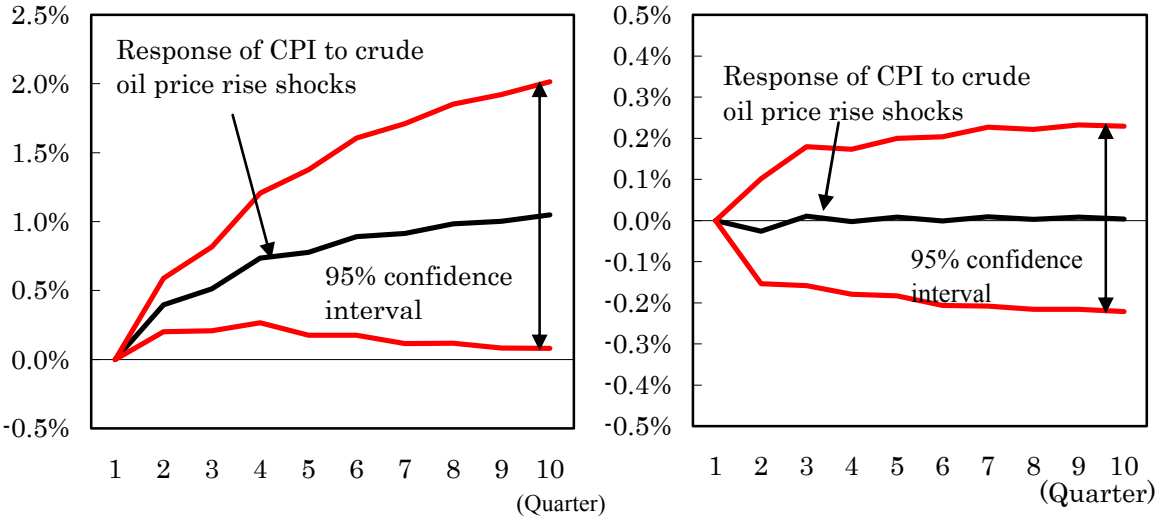
- The rise in oil-related product prices has contributed to the rise in Corporate Goods Price Index (CGPI) since the second quarter of 2004.
- The spillover of the rise in crude oil price to final goods price or Consumer Price Index (CPI) is still weak, except for gasoline price etc. The spillover effect became lower after the 1990s than prior to the 1980s, owing to the improvement of energy efficiency and the intense competition in the final goods market.

Figure 1-2-10 VAR Analysis of Crude Oil Prices and Consumer Price Index (Impulse Response)

Consumer price index(CPI) sensitivity to crude oil price rise have diminished

(1) From 1970 to 1989

(2) After 1990



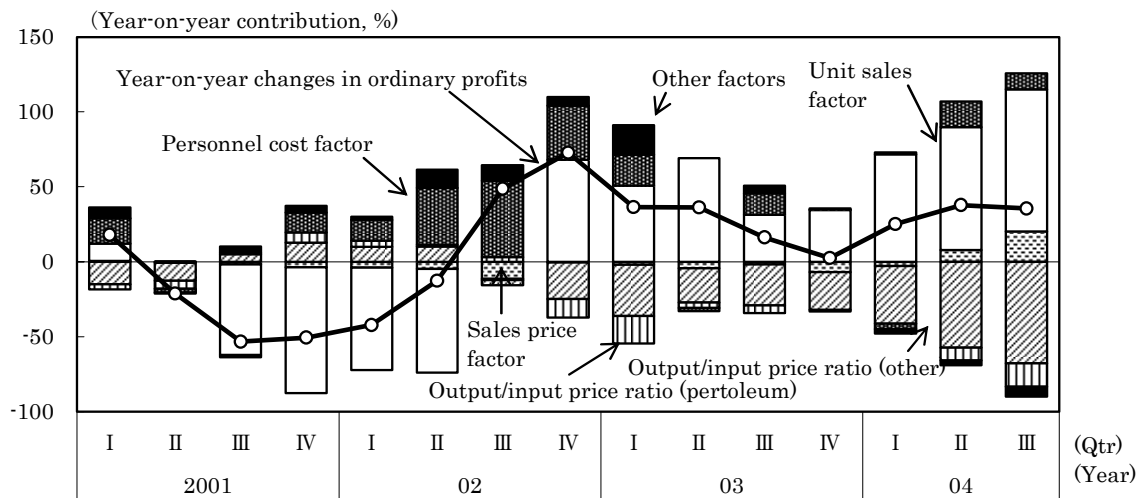
Sources: Trade Statistics, Ministry of Finance, Consumer Price Index, Ministry of Internal Affairs and Communications.

Note: See Appended Note 1-5 for estimation methods etc. Aggregate impulse response functions.

(Economic recovery makes the impact on corporate profit modest so far)

- While the output/input price ratio is deteriorating partially reflecting the rise in crude oil price, the impact of oil price rise on corporate profit of manufacturing sector has been absorbed because of (i) the decline of the energy input ratio including crude oil in manufacturing sector, and (ii) the increase in sales due to the economic recovery and the improvement in productivity.

Figure 1-2-11 Factor-by-Factor Contribution to Year-on-Year Changes of Ordinary Profits(Manufacturing)

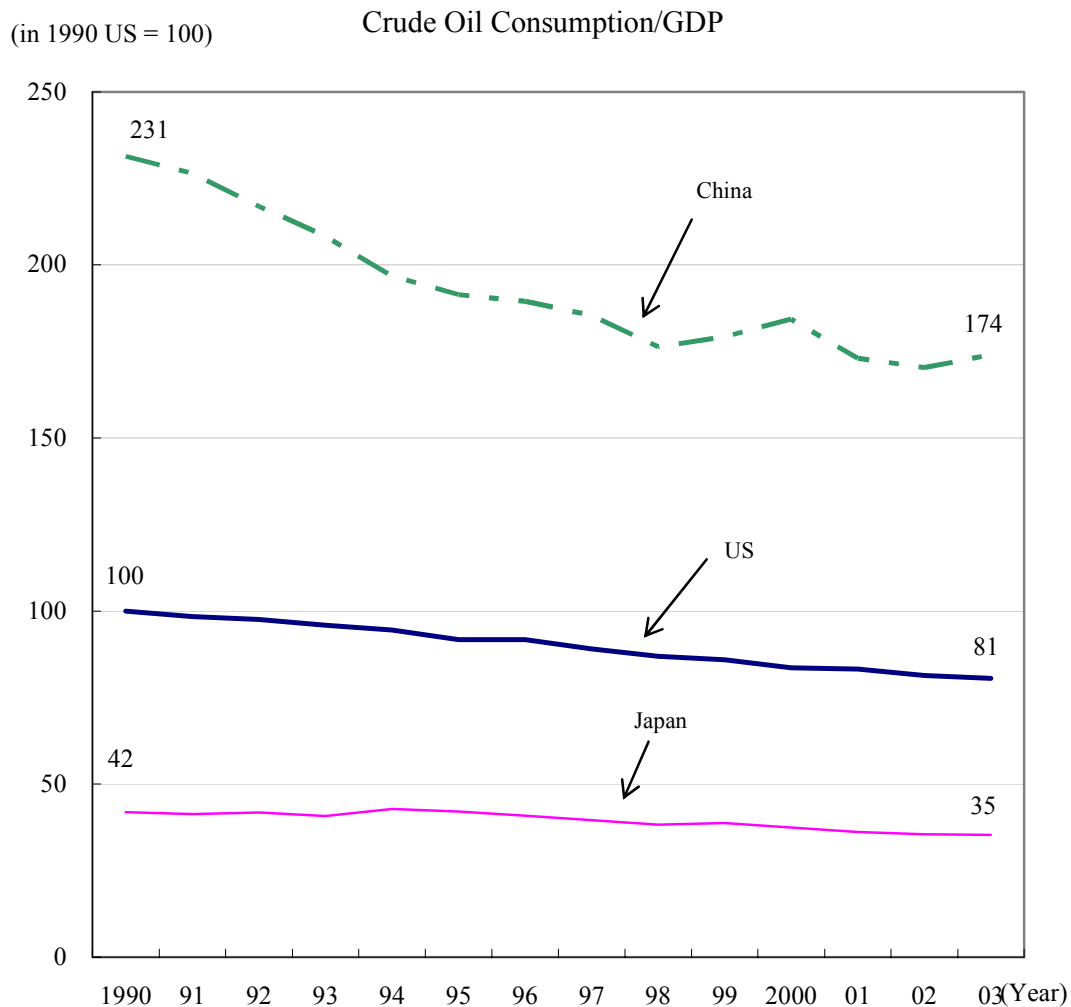


(Source) Financial Statement Statistics of Corporations by Industry, Ministry of Finance ,
 Input-Output Price Index of Manufacturing Industry by Sector , Bank of Japan ,
 2000 Input-Output Tables for Japan , Ministry of Internal Affairs and Communications and
 Trade Statistics , Ministry of Finance

(Macroeconomic impact: smaller domestic impact but some concerns for external channel)

- The direct influence of the sudden rise in crude oil price is restricted owing to the higher energy efficiency. On the other hand, the indirect impact via its influence on the US and China is possible, whose oil consumptions per unit of GDP are much higher than Japan.

Figure 1-2-13 Oil Consumption per unit of GDP of Japan, US and China



Sources: British Petroleum Statistics, World Bank "World Development Indicators"

Notes: 1. Calculated using GDP on dollar basis in 1995.

2. The of the United States in 1990 as 100.

(Conclusion)

- So far, the impact of oil price rise in 2004 on the Japanese economy is generally modest.
- The oil price, however, still remains high though the recent price is slightly declining. Judging from the supply and demand, some points out that oil price will continue to be high to some extent. Thus, the development of oil price should be continuously paid attention to.

Chapter II Prospect for Continuous Recovery

Section 1. Features of Business Cycles and Their Changes

(1. Features of Japanese Business Cycles)

- Average duration of the Japanese business cycles is around 50 months, which is relatively short in comparison with other developed countries where an average cycle lasts for 6 years. Average duration of the recessions in Japan is around 17 months, which is longer than in other developed countries whose recessions last only one year on average.
- Expansionary phases in developed countries tended to last longer in the 1990s. Although the expansion in Japan also became longer from the 1980s to early 1990s, it has been shortening since the later half of 1990s. According to the past experiences, countries which suffer from high rigidity in markets or fragility in financial sector tend to have shorter cycles.
- Contribution rate of personal consumption to GDP growth dropped in the 1990s. Instead, contribution of fixed capital investment rose substantially, explaining 60% of the changes in GDP in late 1990s. However, the trend has changed slightly during the current recovery phase as personal consumption plays a bigger role in supporting the recovery.

Figure2-1-2 Comparison of Average Business Cycles between Japan and G 7
Japan: Shorter business cycle and relatively longer recession period

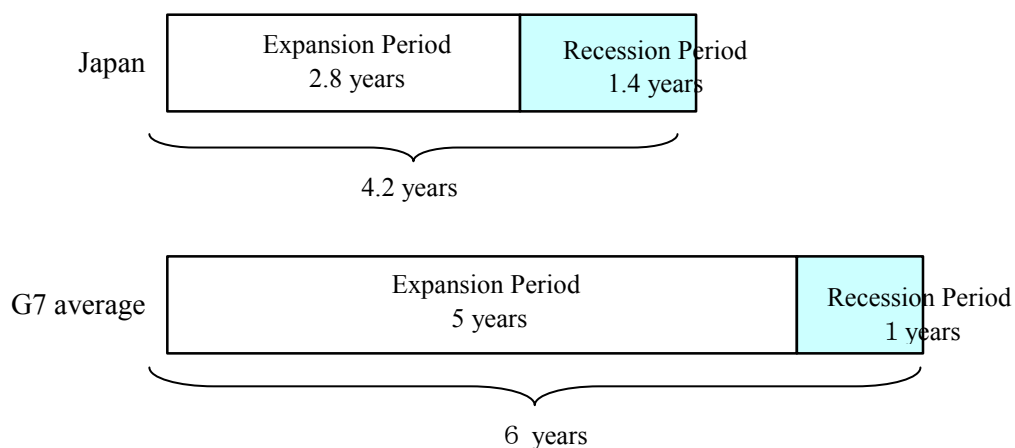
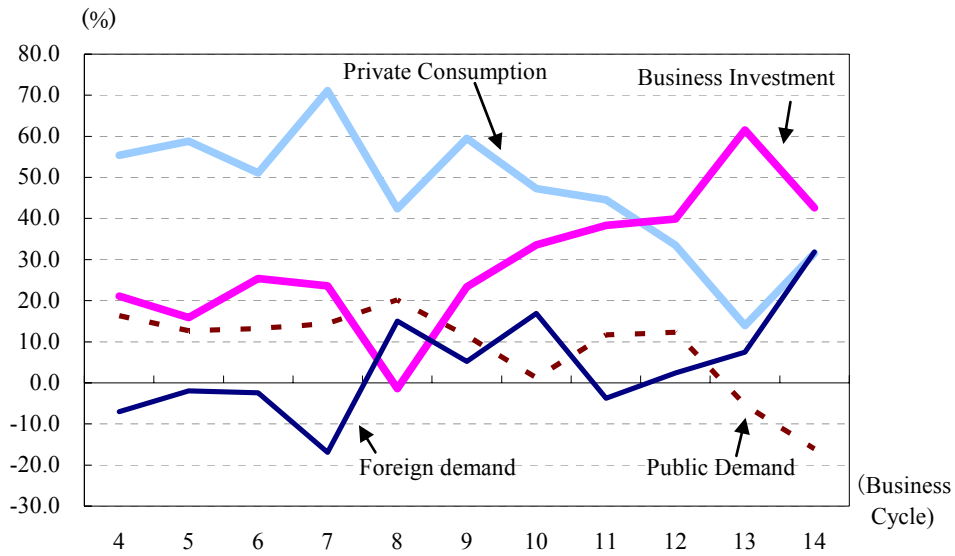


Figure 2 – 1 – 7 Contribution rate of Demand in phase of Economic expansion
 Contribution rate of Consumption declined in 1990's, but Private Investments increased



Sources: National Accounts, The Determination of Business-Cycle Peak and Trough, Cabinet Office

Notes : 1. We used 68SNA by Expansion Phase in 9th cycle from Expansion phase in 4th, and used 93SNA since Expansion Phase in 10th. And, We used chain-Index since recession phase in 12th.

2. This figure doesn't involve Private inventory and Private residential investment.

So, Sum of them is not equal 100%.

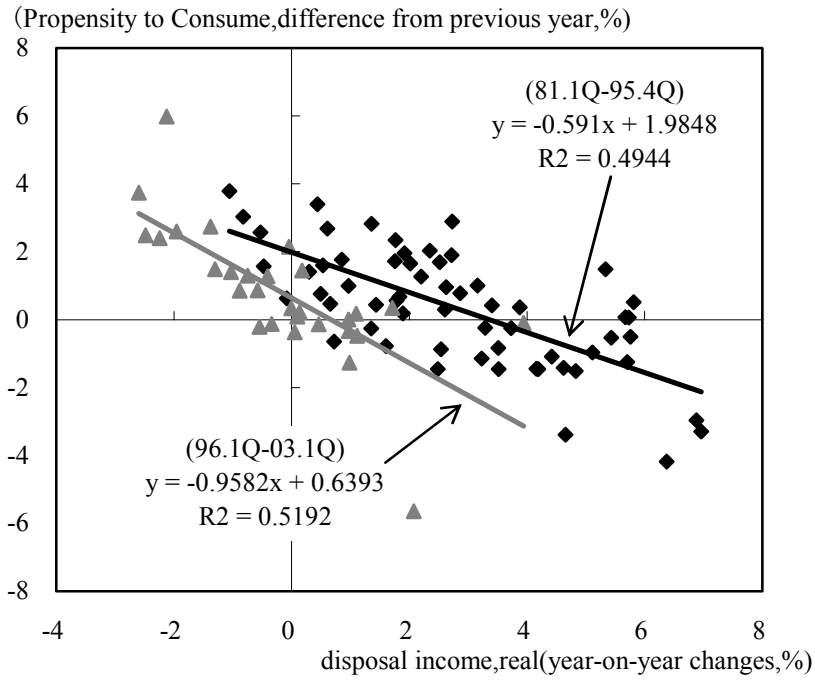
2. Features of cyclicity of major economic indicators and their changes

(Consumption and business cycles)

- Correlation between real GDP and personal consumption declined in the 1990s. This reflects the following factors.
 - i) lower correlation between income and business cycles
 - ii) lower correlation between income and consumption
 - iii) bigger weight of services which are insensitive to business cycles.

Figure2-1-11 Ratchet Effect

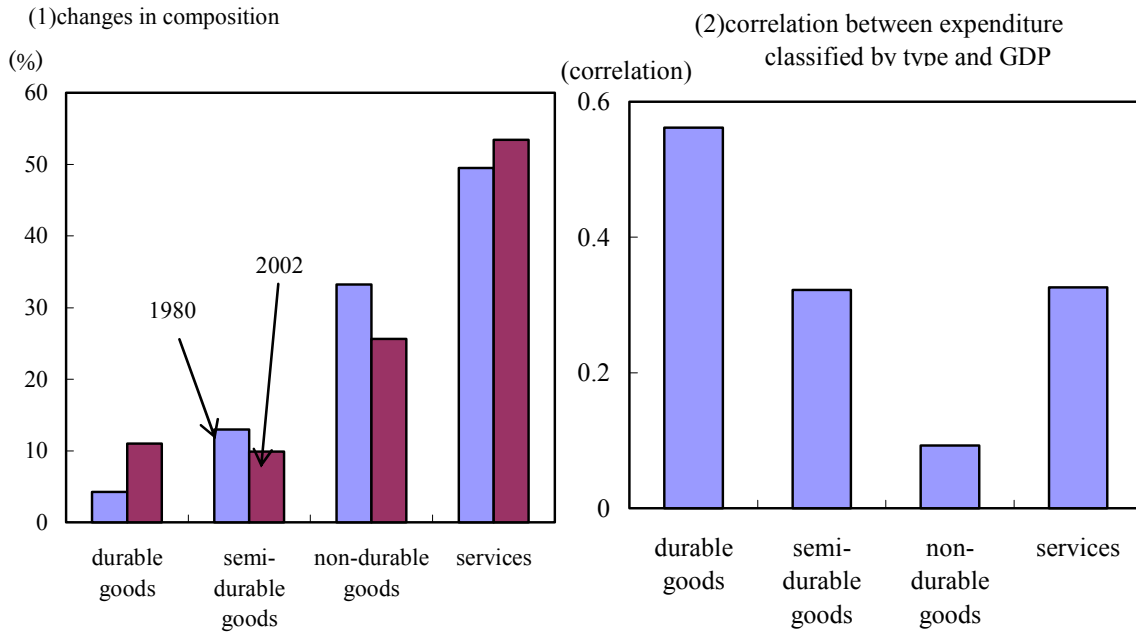
Since the late 1990s,Ratchet effect has increased



Source:National Accounts,Cabinet Office

Figure2-1-12 Composition of Final Consumption Expenditure of Households classified by Type

Bigger weight of services which are insensitive to business cycles caused the decline of correlation between GDP and final consumption expenditure



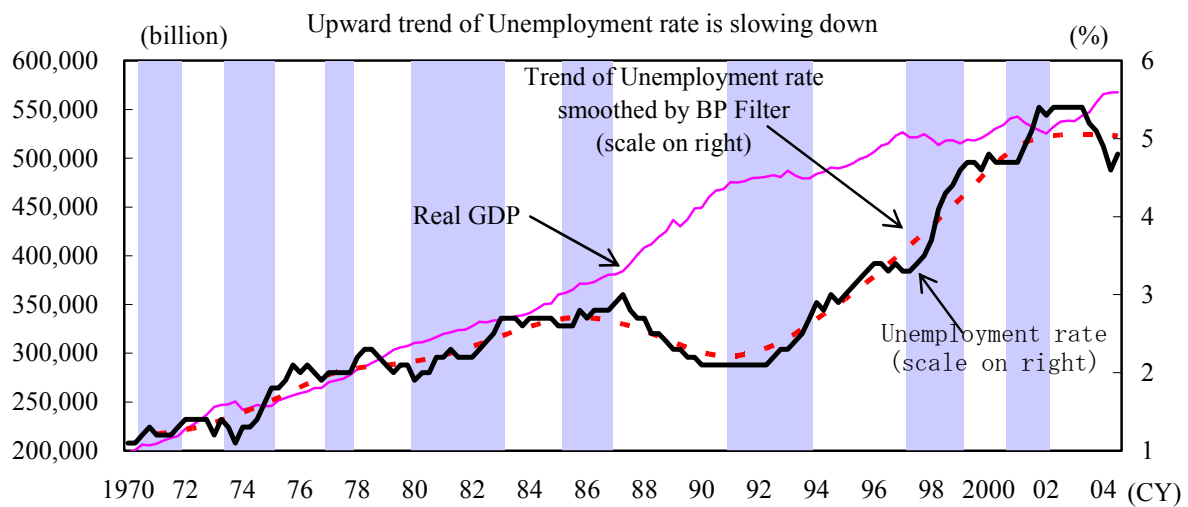
Source:National accounts,Cabinet office

Notes: Correlation is estimated for cyclical movement extracted by BP filter.Estimation period is from 1980 to 2002.

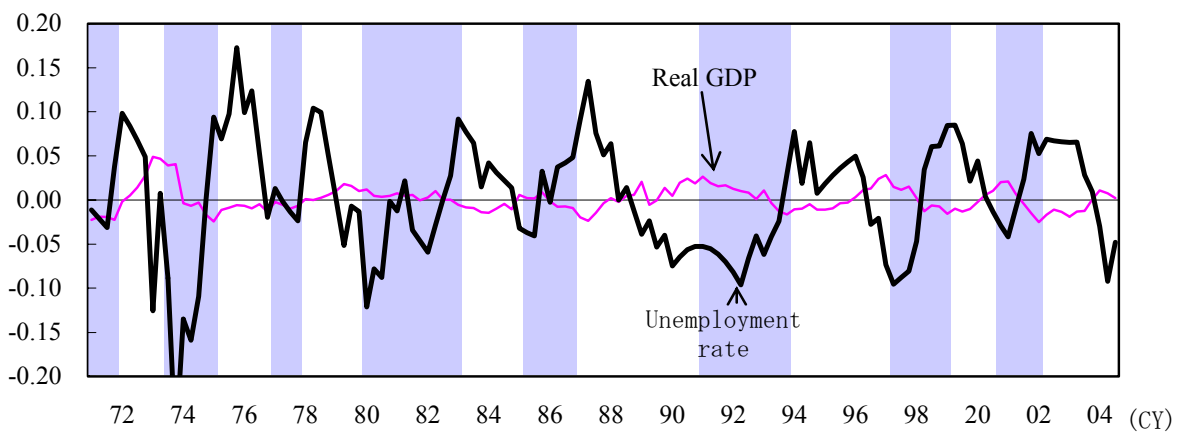
3. Structural Changes in Labour Market and Corporate Sector

- A trend unemployment rate, which is obtained by extracting cyclical components from actual unemployment rate, had risen continuously through the 1990s. However, the trend unemployment rate seems to stop rising, judged by the fact that a recent drop in unemployment rate cannot be explained fully by cyclical components.

Figure 2 – 1 – 19 Correlation of Unemployment rate with GDP



Cyclical movement extracted by BP filter
(The difference between actual number and trend)



Interrelation	70-	70-79	80-89	90-99	95-
GDP and Unemployment rate	0.818	0.864	0.247	0.853	0.666
Cyclical movement	-0.571	-0.380	-0.710	-0.756	-0.802

Sources: National Accounts, Cabinet office and Labor Force Survey, Ministry of Internal Affairs and communications

4. Features of the Current Recovery Phase

- A recent improvement of the health of corporate and banking sector could strengthen ability to resist external shocks.
- Although consumption tends to be smoothed out over the cycles, its contribution to GDP growth has risen in the current cycle with employment condition improving. However, recovery in income is essential to its sustainability.
- Contribution of net exports has become larger, reflecting strong growth in export markets and a stabilisation of the world market share of Japanese exports, which had declined over the past decade. A momentum of the recovery is likely to be maintained as the world economy is expected to continue to grow.
- A recent drop in unemployment rate, which could reflect a change in the long-term trend, would contribute to the growth of personal consumption.

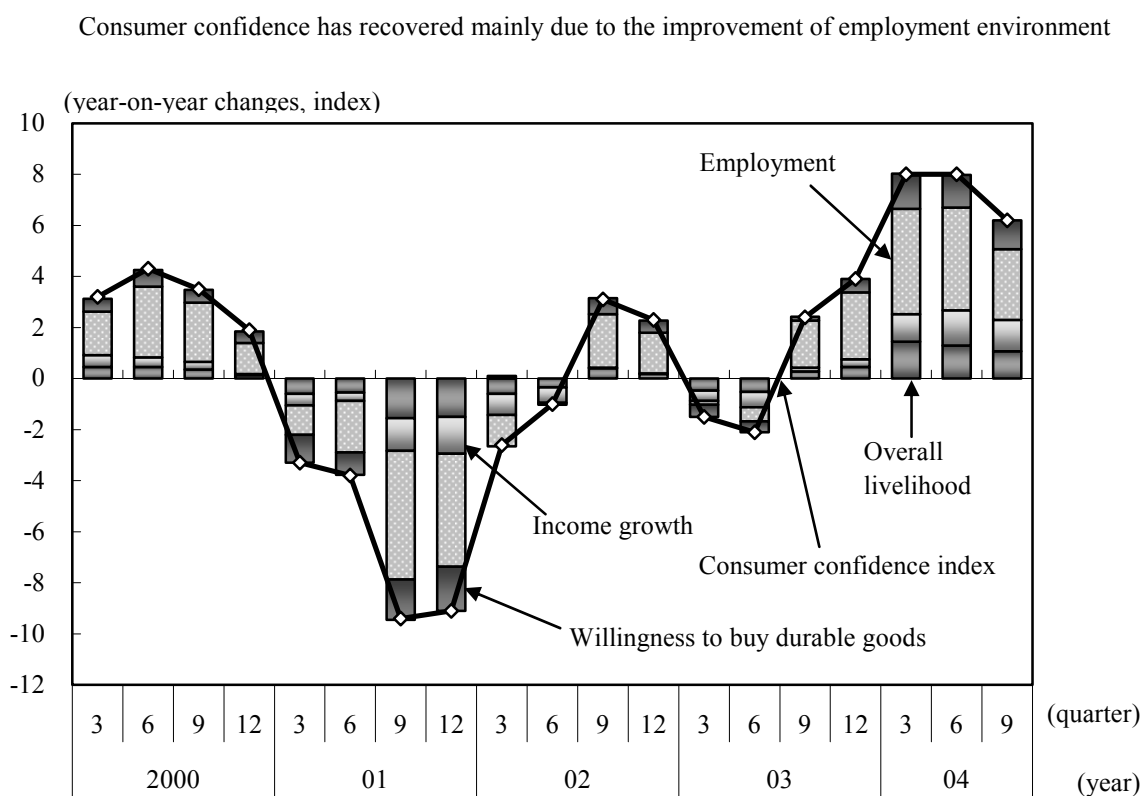
Section 2 Consumer Confidence and its Impact on Private Consumption

1 The Recent Development of Consumer Confidence and How it is Determined

(Consumer confidence is in declining trend, though it recently recovers mainly due to the improvement in employment environment)

- Consumer confidence index is generally low even in the economic expansion phase, except for the “bubble” era, and in declining trend. Since the latter half of 2003, however, the index has recovered to the level of the mid-90s mainly due to the improvement in households’ prospect of “employment environment.” By age group, the prospect of “income growth” is improving especially among the 20s.

Figure 2-2-2 Decomposed contribution of consumer confidence



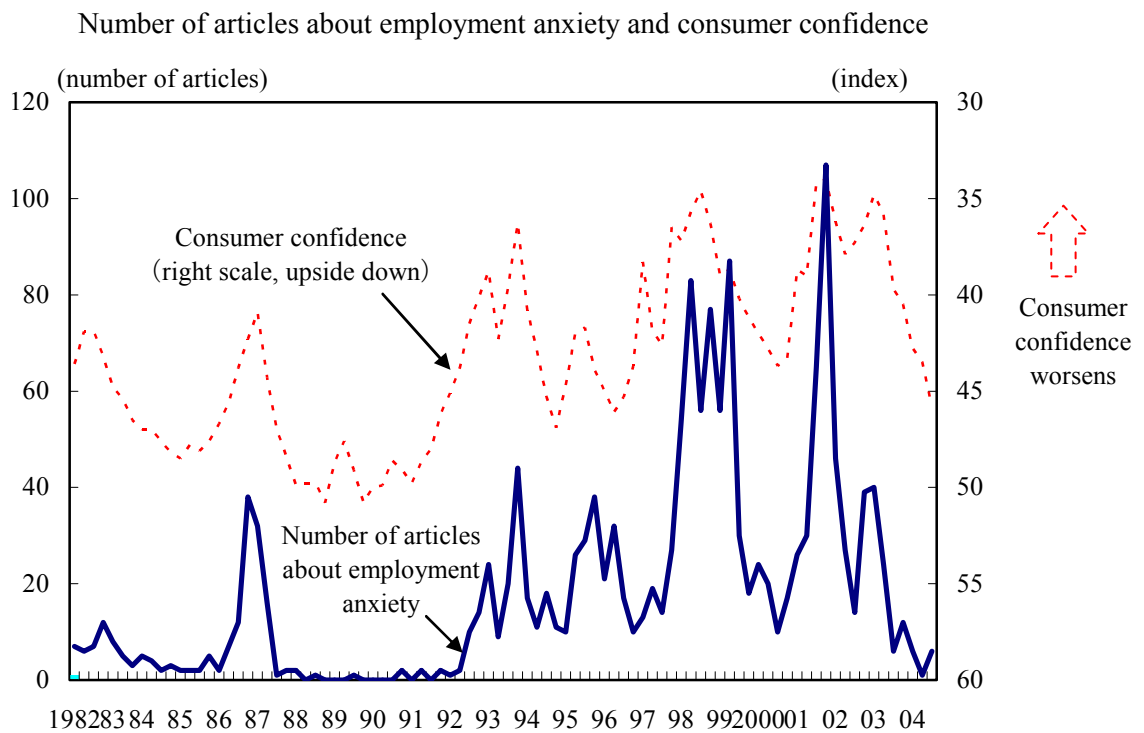
Sources: Consumer confidence survey, Cabinet office

(What determine consumer confidence)

- Employment-related and asset-related indicators (such as new job offer and stock price) as well as the information other than statistics (e.g. the volume of news on employment anxiety) principally cause consumer confidence index.

- Adverse shocks in society does not necessarily have statistically significant negative impact on consumer confidence index, though it is possible that the impact of the Niigata-Chuetsu Earthquake (October 2003) is reflected in the short term development of other confidence index (e.g. Economy Watchers Survey).

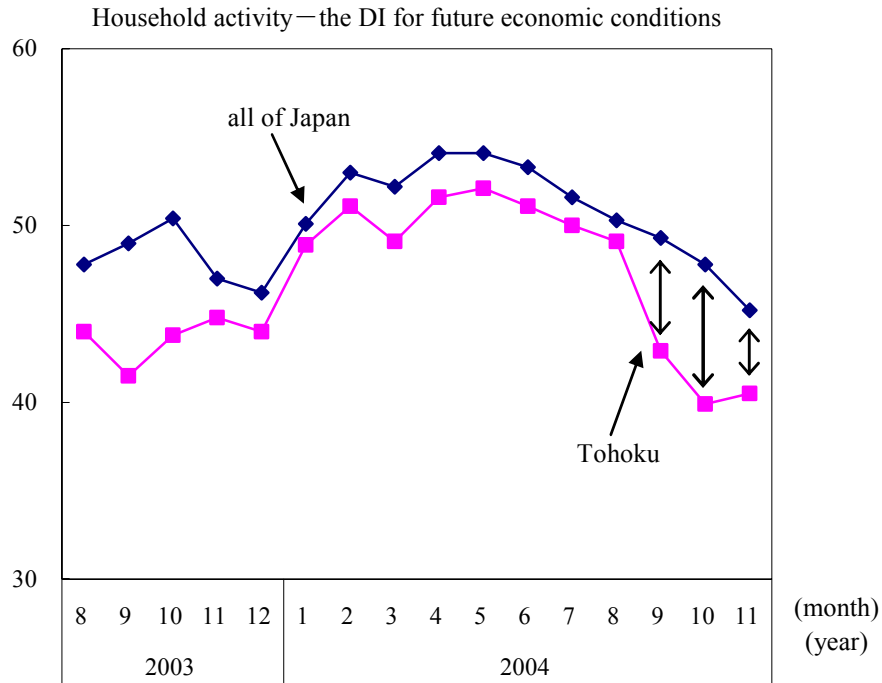
Figure 2-2-5 Number of articles about employment anxiety



Notes: "Number of articles about employment anxiety" is the number of articles regarding deterioration of employment and unemployment appeared in the main national newspapers and the weekly economic magazines.

Figure 2-2-6 Changes in Economy Watchers Survey

Significant deterioration of consumer confidence in Tohoku in Oct.2004 and widening internal disparities



Source: Economy Watchers Survey, Cabinet Office.

2 Consumer confidence contributes to private consumption to some extent

(Consumer confidence has impact on the actual consumption through durable good expenditures)

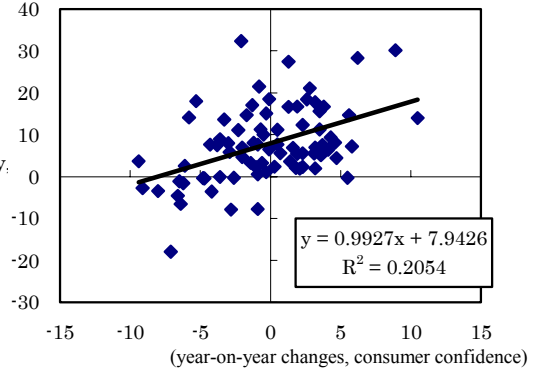
- The improvement in consumer confidence has a positive impact on durable good expenditure at least in the short run. Since the share of durable goods in total expenditure is in increasing trend, it is likely that the amelioration in confidence index so far has led to the increase in overall private consumption.

Table 2-2-8 Relations between Consumer confidence and Consumption
by Granger causality test

There is a Granger causality from consumer confidence to consumption.

	Consumer confidence to Consumption	
	F value	P-VALUE
Private consumption	4.2	0.043
Durable goods	10.9	0.001

(Reference) Durable goods and Consumer confidence
(year-on-year changes, consumption)



Sources: System on National Account, Consumer confidence survey,
Cabinet office

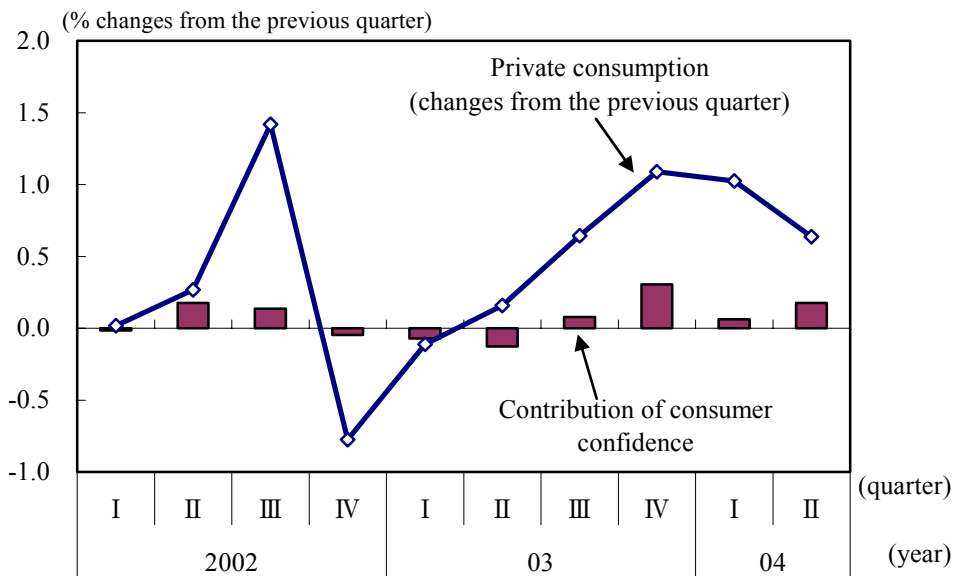
Note: 1983 2Q-2004 2Q for Private consumption.
1983 2Q-2003 1Q for Durable consumption.

(Consumer confidence influences the short-run fluctuation of consumption expenditure)

- Controlling disposable income and elderly population ratio etc. that affect consumption in the longer term, the change in consumer confidence index yet has some impact on short-run fluctuations of private consumption. Indeed, the rise in consumer confidence index during the latter half of 2003 to the first half of 2004 possibly contributes to consumption expenditure growth.

Figure 2-2-9 Contribution of consumer confidence to consumption

Consumer confidence contributes to consumption growth since the third quarter of 2003



Sources: National accounts, Consumer confidence survey, Cabinet office

Note: Contribution of consumer confidence is calculated by the error correction model of Appended figure 2-9 in original report.

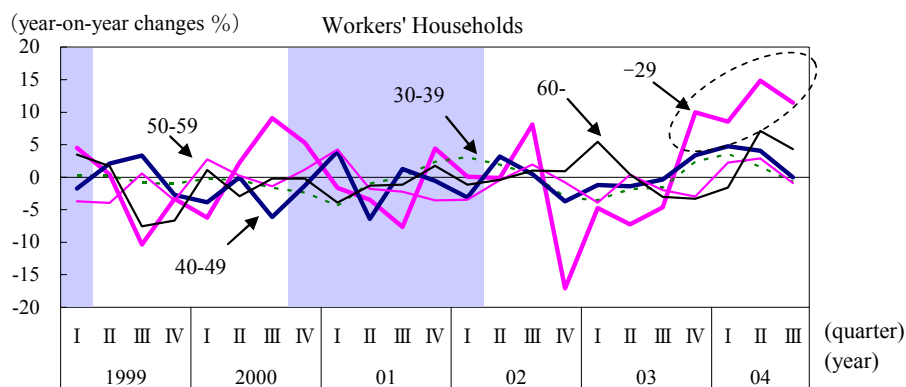
(In addition to elderly consumers, young households, the 20s, supports private consumption through the improvement in their confidence)

- In this economic recovery phase, the growth of young households' consumption (i.e. 20s) is remarkable as well as that of elderly households. The expenditure of the young consumers is possibly influenced by the improvement in their confidence.
- Consumer confidence also has some positive influence on anew purchase of digital home appliances.

Figure 2-2-11 The relation between the Consumer Confidence Index and expenditure by age group of Household

(1) Expenditure by age group of Household head

The expenditure in their 20s becomes marked after latter half of 2003.



Source: Family Income and Expenditure Survey, Consumer Price Index, Ministry of Internal Affairs and Communications

Notes: The part covered with shadow is recession period.

(2) The relation between the Consumer Confidence Index and expenditure by age group of Household head

There are strong relations between the Consumer Confidence Index and expenditure in their 20s.

years	whole period	in late '90s
-29	0.368 (2.136)	0.519 (2.252)
30-39	0.111 (1.815)	0.109 (1.138)
40-49	0.156 (1.765)	0.135 (0.891)
50-59	0.050 (0.619)	0.294 (2.663)
60-	0.055 (0.366)	0.038 (0.245)

():t-Statistic

Source: Family Income and Expenditure Survey, Consumer Price Index, Ministry of Internal Affairs and Communications

Monthly Consumer Confidence Survey, Cabinet Office

Notes: For details to Appended Figure 2-11.

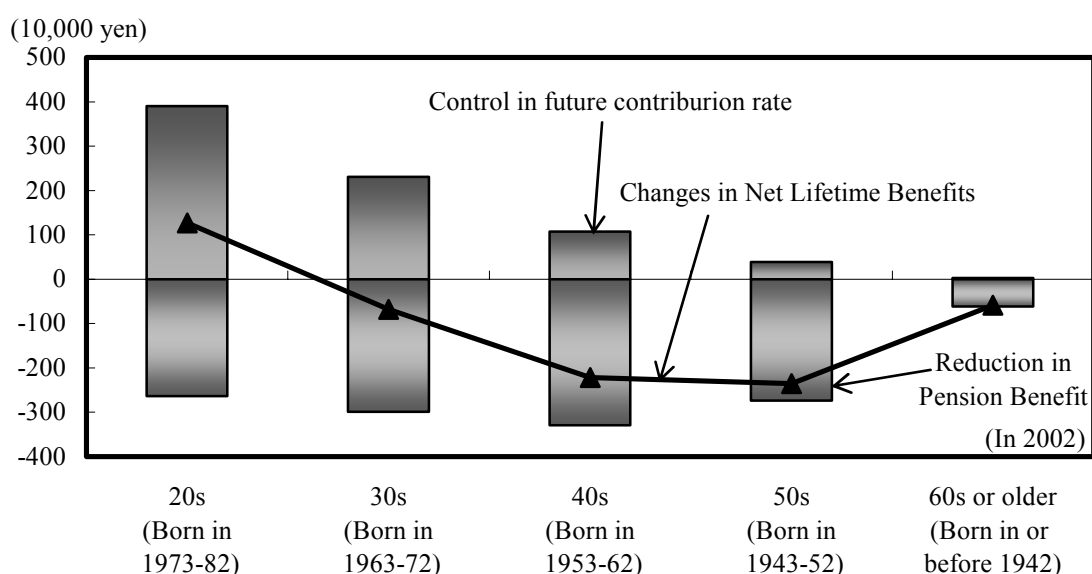
3 Lifetime benefit and contribution and Confidence toward social security

(2004 amendment of public pension system slightly improved the benefit-contribution balance between generations)

- 2004 public pension amendment slightly improved the lifetime net benefit of the younger generations because it restrains the rise in premium contribution by introducing of fixed premium contribution rate rule.
- Money's worth of public pension (present discounted value of lifetime pension benefit divided by PDV of lifetime premium contribution) has not been altered that much after several public pension amendments, which has hardly redressed the generational imbalance.

Figure 2-2-14 Impact of 2004 Pension System Reform on Net Lifetime Benefits

Slight Improve in a Balance of Benefits and Contributions between generations

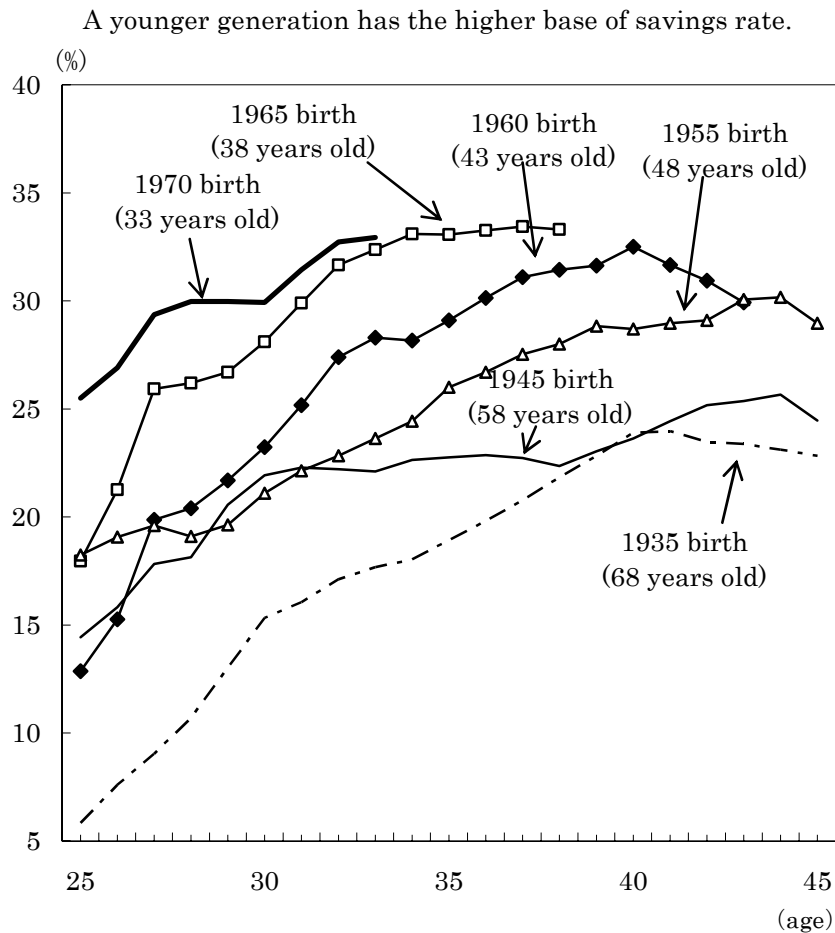


Note. See Figure 2-2-13 and Appended Note 2-3.

(The younger the generation, the higher “anxiety about pension” and saving rate)

- Among those who are anxious about the post-retirement living, the proportion of people who refer to “insufficient pension benefit etc.” as a reason had risen year after year and remains high since the end of 1990s.
- Compared with the earlier cohorts, the later cohorts (e.g. the present 30s) have both higher proportion of those anxious about post-retirement and pension and higher saving rate at the same age. Although the percentage of those with savings is declining among young generation, precautionary saving motive brought about by “anxiety about pension” likely affect the behavior of those with savings.

Figure2-2-18 Transition of savings rate by cohort



Notes: 1. Savings rate is [100-propensity to consume].
 2. 3 years moving average.
 3. The parenthesis shows the age in the 2003 time.
 4. Annual report on the family income and expenditure survey,
 Ministry of Internal Affairs and Communications

4 Conclusion

- Although the improvement of consumer confidence could continue to some extent if the employment situation ameliorates further, it is difficult to excessively expect the further increase in private consumption under that condition.
- While the increase in public contributions such as pension premium rate is inevitable to some extent, it is important to pay sufficient attention to the economic condition