Annual Report on the Japanese Economy and Public Finance 2006

- Japanese Economy Heading for New Growth Era with Conditions for Growth Restored -

Summary

July 2006

Cabinet Office Government of Japan

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This material was tentatively prepared to explain the "Annual Report on the Japanese Economy and Public Finance." For quotation and other purposes, please refer to the text of "Annual Report on the Japanese Economy and Public Finance."

Chapter 1 Japanese Economy Heading for New Growth Era and its Challenges

Section 1 Background for the Continued Economic Recovery and Future Challenges

- Since the economy got out of its adjustment phase in mid-2005, the corporate sector, the household sector and the overseas sector have been recovering in a balanced manner.
- In the corporate sector, production is increasing moderately with exports increasing. Corporate earnings saw a fourth consecutive annual increase in fiscal 2005, and business investment continues to increase.

Figure 1-1-2 Production Trends – Recovery for both IT-related and non-IT-related goods



(Quarter-to-quarter changes, %)



2. The IT-related goods are the total of "IT-related producer goods, IT-related capital goods, and IT-related consumer goods.



Figure 1-1-4 Export Trends by Region and Goods

(1) Changes in quantum index by region

(2) Contribution of region-by-region value of exports by principal items

Notes: 1. Trade Statistics, Ministry of Finance. Seasonally adjusted by the Cabinet Office

2. The region-by-region quantity index is against 100 for the export volume index for the 1st quarter of 2004 (seasonally adjusted by the Cabinet Office).

• With the economic recovery continuing, the number of employees is increasing steadily both in the manufacturing and non-manufacturing industries and the unemployment rate continues its decline.

[Analysis]

• In fiscal 2005, the number of employees in the manufacturing industry, which had been on a declining trend, began to increase. Input-output tables show that the increase in employment is high among export-oriented industries with high employment-creation effects.

Figure 1-1-14 Changes in the Number of Employed Workers by Industry, Changes in Employment in Input-output Table

(2) Relation between changes in the number of employed workers

(1) Increase in the number of employed workers



Notes: 1. Labor Force Survey, Ministry of Internal Affairs and Communications, Simplified Inter-Industry Relations Table for 2004, Ministry of Economy, Trade and Industry

2. Sensitivity of employment creation to exports is percentage change in the number of employed workers in each industry brought about by a 1% change in exports.

• An estimate on the probability of transition among the state of being employed/unemployed shows that the probability of becoming unemployed decreased in and after 2003 and that the probability of becoming employed rose in and after 2004, resulting in a decline in the unemployment rate.



Figure 1-1-15 Flow of Workforce among different states of being employed/unemployed

Notes: 1. Labor Force Survey, Ministry of Internal Affairs and Communications

- 2. The flow data were adjusted to coordinate them with stock based data (in the same way as in "Analysis of Labor Economy, 1985")
- 3. The flow data are on a 12-month cumulative total value basis. Total value of men and women
- Transition probability = Flow data of t month (12-month cumulative total value) / stock data of t one month (12-month cumulative total value)

ex. Employment -> Unemployment = Employment in t month -> Unemployment (12-month cumulative total value) / Number of employed workers in t – one month (12-month cumulative total value)

- As employment conditions are improving, personal spending on both goods and services increased moderately.
- The household savings rate continues its decline, reflecting the advancement of the aging population, etc.

[Analysis]

• A breakdown of the synthetic consumption index (nominal value) shows that service-related consumption is brisk and that consumption of goods such as clothing is increasing. On the other hand, rising petroleum prices are adding a burden to household budgets.

Figure 1-1-18 Trends of Nominal Consumption by Goods and Services



Demand side (Changes in contribution of nominal consumption from previous year, %)

(Nominal change from preceding year, %)



Supply side (Changes in contribution of nominal consumption from previous year, %)

(Nominal change from preceding year, %)



(2) Trends for characteristic items in terms of supply-side estimated value



Notes: 1. The synthetic consumption index is the estimate made by the Cabinet Office.

2. "Other personal services" include "funeral homes", "wedding parlors", "fitness clubs", "foreign language conversation classes", and "culture centers".

• A cohort analysis shows that the decline in the savings rate mainly reflects an increase in elderly households.



Figure 1-1-20 Cohort Analysis and Impact of Aging Population on Savings Rate

(2) Long-term change in household average savings rate





- 2. The standard for the age effect is the average of age effects, that for the period effect is 1980, and that for the generation effect is the generation born in 1941-45.
- 3. The estimate for 2010 is based on the five-year stratified population ratios in 2010 calculated from the estimated future population, and on the assumption that the period effect of 2010 is the same as that of 2005 and that the generation effect of the new generation of people aged 24 years or below is the same as that of the 25-29 years-old generation.

- The current economic recovery are characterized by the following factors: 1) the recovery has continued for more than four years, 2) among individual demand components, personal consumption has been making a greater contribution to the recovery, and 3) trends in the Japanese economy have restored their correlation with other countries' economies.
- Despite deflation, the economic recovery is lasting thanks to 1) prudent business management in the corporate sector, 2) improved conditions in the household sector, and 3) a buoyant world economy. In addition, financial revitalization efforts and easy monetary policies are contributing.

Figure 1-1-25 Real GDP Growth Rate during Economic Expansion and Recession Periods

The average growth rate during the current economic expansion period is almost at the same level as in the late 1991s.



Note: National Account s; National Income Statistics, annual report, Cabinet Office; Reference date of business cycle (quarterly reference day of business cycle)

Figure 1-1-26 Correlation between Business Cycle of Japan and the World

Correlation with world economic cycle recovered in and after 2000.

		Japan-U.S.	Japan-G7 (excluding Japan)	Japan-Eurozone	Japan-East Asia (excluding Japan)
1980-89		0.496	0.369	0.327	-0.102
1990-99		-0.066	0.035	-0.011	-0.365
	90-94	-0.251	-0.006	0.102	-0.973
	95-99	0.160	0.085	-0.101	0.762
2000-05		0.598	0.580	0.419	0.845

Note: 1. GDP (real) of Japan, the U.S., G7, and Eurozone are based on OECD statistics. Cyclical components were extracted from each real GDP figure by using band-pass filters to find their correlations.



Figure 1-1-27 Contribution Rates of Demand Components in Economic Expansion Period

Section 2 Prospects for Overcoming Deflation and Related Challenges

• Amid the continued economic recovery, moves toward overcoming deflation have made progress, with signs of a change of the trend in long-term price declines.

[Analysis]

• Consumer prices are almost at the previous year's level, excluding specific components, such as rising crude oil prices and other external factors.



Figure 1-2-4 Core Indicators for Consumer Price Index

• Regarding the economic environment surrounding prices, the GDP gap rose above zero. On the other hand, the unit labor cost remains in negative territory.



Figure 1-2-7 Changes in GDP Gap



Figure 1-2-8 Changes in Unit Labor Cost

• Overcoming deflation is greatly needed in order to normalize the economy. At the same time, it is necessary to keep in mind the changes in economic environment that accompany normalization. In particular, future increases in interest rates need to be implemented prudently, with their impact on each economic sector taken into account.

[Analysis]

• If the target interest rate is between 0% and 2%, the interest rate level estimated by using the Taylor Rule enters positive territory.



Figure 1-2-15 Interest Rate Trends Estimated by the Taylor Rule

• A one percentage point increase in interest rates would reduce the profits of the corporate sector by about 3 trillion yen. Although the impact is getting smaller thanks to the reduction of interest-bearing debts, it would still exert heavy downward pressure on profits of small and medium-sized enterprises and highly indebted corporations.





	Large and middle-scale enterprises	SM Es
Capital	100 million yen or more	10 million yen or more and less than 100 million yen
Earnings growth in calendar 2005 (Gains from the previous year)	3.95trillion yen	1.69trillion yen
Earnings erosion in the case of a 1% rise in interest rates (estimate)	1.67trillion yen	1.41trillion yen

(2) Large impact of rising interest rates on heavily indebted industries

(Margin of decrease in current profits in the case of a 1% rise in the borrowing rate: %)



0 5 10 15 20 25 (Number of years needed for debt retirement = Outstanding interest-bearing debts / Current profits)

Section 3 Recovering Financial Markets

- Reflecting an economic recovery, stock prices are firm and interest rates are rising moderately.
- Long-term interest rates have increased their correlation not only with domestic factors but also with overseas interest rates.

[Analysis]

• Long-term interest rates have come to be influenced by global factors, such as worldwide excessive savings (savings rate).



Figure 1-3-3 Estimated Real Long-Term Interest Rates (Japan, U.S.)

• Factors behind rising stock prices are, in addition to strong corporate performance, shrinking risk premiums on stockholdings resulting from the expansion of stock investors.



Figure 1-3-11 Stock Prices on an Upward Trend

- Banks' intermediary function was restored thanks to the normalization of the problem of non-performing loans on the lending market.
- Land prices of commercial zones in three metropolitan areas are rising partly backed by active real estate investment. On the other hand, land prices in some local cities are continuing their sharp decline.

[Analysis]

• An estimate of banks' lending supply curves show that lending volume tends to be higher than in the past even at the same yield on lending, showing that banks' lending capacity has been recovering steadily.

Figure 1-3-21 Estimation of the lending supply curve of banks

(Estimation)

 $NL_{i,t} = C_{i,t} + \alpha * NPL_{i,t} + \beta * SCR_{i,t} + \gamma * INKINRI_{i,t}$ $NL_{i,t}: \text{Growth rate of the outstanding lending of the$ *i*th bank in the*t* $th period NPL_{i,t}: Non - performing loans ratio of the$ *i* $th bank in the previous period SCR_{i,t}: Capital adequacy ratio of the$ *i* $th bank in the previous period C: Constant term
INKINRI_{i,t}: Lending rate of the$ *i*th bank in the*t*th period
(Lending rate)



(Estimation results)

	All banks
Constant term average	-0.014
Non-performing loans ratio	-0.620(-8.379)***
Capital adequacy ratio	1.216(1.183)
Lending rate	1.570(2.197)***
Adjusted coefficient of determination	0.343
Number of samples	478 (96 banks, 5 years)

- Estimated from panel date of 96 banks during the period between the end of March in 2001 and the end of March 2004.

- Figures in the parentheses are t-values

- *** indicates that the coefficient is significant at the significance level of 1%.

The result of the estimation for panel data during March 2001-March 2005 shows - If the Non-performing loans ratio decreases by 1%, the growth rate of the lending increases by 0.62%. - If the capital adequacy ratio increases by 1%, the growth rate of the lending increases by 1.22%.

(Data) Financial statements of each bank.

Figure 1-3-23 Trends in Official Land Prices (Commercial zones)

(Year-on-year change in land prices, %)



Figure 1-3-24 Land Prices in Central zones (Commercial zones)

Tokyo (Chiyoda, Chuo and Minato Wards)





Source: Land Price Publication, Ministry of Land, Infrastructure and Transport Notes: For areas with data published continuously between 2002 and 2006 in commercial districts in each region, the relationship between the level of land prices and year-on-year changes are shown. \triangle are for 2003 and \blacklozenge are for 2006.

Section 4 Trends in Fiscal Policy

• Japan's primary balance, though still in a severe condition, has been improving thanks to spending restraints and the increase in tax revenue. In order to stabilize the ratio of the public debts to GDP, it is necessary to further improve the primary balance.

[Analysis]

• The reduction in public investment has made a big contribution to the improvement in the primary balance of the central and local governments. The government revenue, mainly from corporate tax, is also increasing.

• The difference between the primary balance, which is required to stabilize the public debts-to-GDP ratio, and the actual one has remained wide in Japan, while the U.S. and European countries have already narrowed such gaps.

Figure 1-4-1 Trends in the Primary Balance of Central and Local Governments

The reduction in public investment and the increase in revenue has contributed to the improvement of the primary (%) halance



 1991
 1992
 1993
 1994
 1995
 1996
 1997
 1998
 1999
 2000
 2001
 2002
 2003
 2004
 2005
 2006

 Notes:
 1. Annual National Accounts, Cabinet Office. The values for up to fiscal 2004 are actual ones, while those for 2005 and beyond are projections.
 (FY)

2. For factor analysis, the following equation was used.

$$\Delta \left(\frac{PB}{Y}\right) = \frac{\Delta R}{\frac{Y_{-1}}{1}} - \frac{\Delta E}{\frac{Y_{-1}}{1}} - Other$$

Variation in *PB* relative to GDP Reven

 The variation factor was further broken down into public investment, social security-related expenditure; and final consumption expenditure. (police, diplomacy, defense education, health, etc.)
 The effect of current transfers between central and local governments was cancelled out.

5. "Other" factors include subsidies to private enterprises, capital transfers (net), consumption of fixed capital (deduction), etc.

6. The value for FY 1998 excludes those (about 27 trillion yen) of the Japanese National Railways and forestry that were transferred to the general account.

7. The values for FY 2000 and FY 2001 include the tax revenue increase of about 4.5 trillion yen and about 3.7 trillion ven. respectively. resulting from the maturity of postal savings.

Figure 1-4-4 Public Debt Sustainability Indicator (OECD)



: Deviation of the acrual primary balance from the balance which is required to stabilize the public debts-to-GDP ratio

Notes: 1. IFS, IMF and Economic Outlook, OECD

2. In order to calculate public debt sustainability indicators, first, the primary balance that would make the debt balance (relative to nominal GDP) in the current term equal to that in the preceding term was obtained by using the Domar Formula, and then the deviation from the actual primary balance was calculated.

Section 5 Summary

- Probability of sustained economic recovery high
 - The Japanese economy is highly likely to continue its sustainable recovery backed by the healthier corporate and household sectors and the steady recovery of the world economy.
 - The sharp rise in crude oil prices is a potentially destabilizing factor. However, if the rise stays at the current level, this would not hamper the economic recovery in view of the facts that 1) its profit-squeezing effect is offset by the strong demand growth of the world economy, which causes higher crude oil prices and that 2) malignant inflation is under control in Japan and other countries.
- The possibility of risk factors becoming real is not large, but caution is needed.
 - However, it should be noted that there is a possibility of some strains in the economy accumulating due to the long-lasting economic recovery. Business investment is mostly consistent with growth in the overall economy, and inventory is stable on the whole. However, vigilance is needed regarding the possible emergence of a sharp discrepancy between demand and production.
 - It is necessary to pay attention to world economic trends and the rise in interest rates worldwide. As a global rise in interest rates is expected, it needs to be watched carefully whether the U.S. current-account imbalances can continue to be sustained by stable capital inflows and, if such inflows stop, what will happen to the world economy.
- Overcoming of deflation now in sight
 - Judging from the price trend and its underlying factors, we are now close to breaking out of the deflationary trend. However, we should remain cautious, as consumer prices are only rising at a moderate pace.
 - In order to achieve sustained economic growth and stable price increases, it is necessary to promote effective monetary policy management.
- Impacts of rising interest rates should be kept in mind
 - The impact of higher interest rates on corporate earnings should be limited as long as the rise is in line with the economic recovery trend and is moderate. However, it should be noted that higher interest rates may adversely affect corporate earnings through the appreciation of the yen.