The current state of the Japanese Economy and mid- to long-term challenges it faces

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1. Recent developments and outlook on the Japanese economy

(1) The rise of raw material imports (value) and decline of corporate profits

○ It now appears certain that the value of raw material imports will rise sharply due to the surge of raw material prices.

- Iron ore and coal prices are set to rise sharply and crude oil prices are surging.
- Imports of major raw materials (crude oil, iron ore, coal and nonferrous metals) are expected to reach JPY25 trillion (slightly less than 5% of GDP) in 2008.

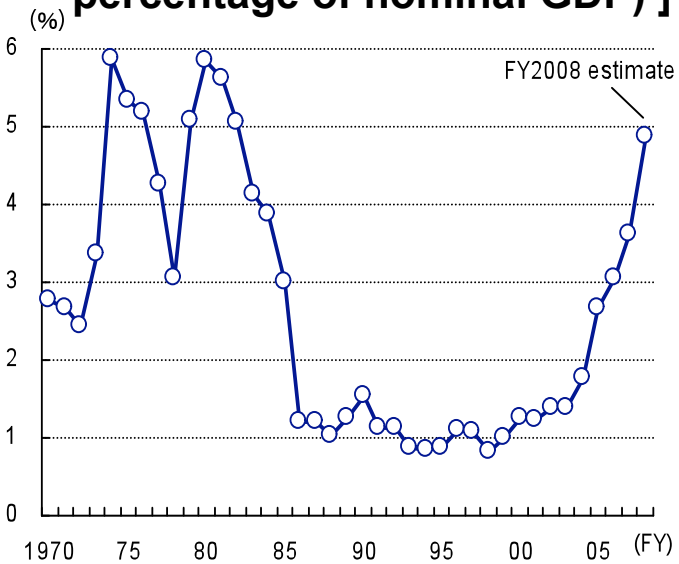
[Imports of major raw materials (estimate)]

(JPY trillion)

Fiscal year		2003 (Actual)	2004 (Actual)	2005 (Actual)	2006 (Actual)	2007 (Actual)	2008 (Estimate)
Imports (value)	Crude oil	5.1	6.4	10.0	11.4	13.7	*17.5*
	Iron ore	0.4	0.4	0.7	0.9	1.1	*1.6*
	Coal	0.8	1.2	1.6	1.6	1.8	*4.2*
	Nonferrous metals	0.5	0.8	1.2	1.8	2.0	*2.0*
	Total	6.8	8.8	13.5	15.7	18.6	*25.4*
Imports (change)	Crude oil	0.0	1.2	3.6	1.4	2.3	*3.8*
	Iron ore	0.0	0.1	0.2	0.2	0.2	*0.5*
	Coal	0.0	0.4	0.4	0.0	0.2	*2.5*
	Nonferrous metals	0.1	0.3	0.4	0.7	0.2	*0.0*
	Total	0.1	2.0	4.7	2.2	2.9	*6.8*

Note: Premises:
FY2008 WTI = USD118/bbl. USD-based per unit import price of iron ore will rise 65% y
USD-based per unit import price of coal will rise 167% y-o-y. Quantity of imports of cru
iron ore and coal will remain flat from the previous year. USD/JPY rate = USD102/JPY.
Imports (value of nonferrous metals will remain around the level in FY2007.
Sources: Compiled by MHRI based upon Ministry of Finance, *Trade Statistics.*

[Imports of major raw materials (as a percentage of nominal GDP)]



Sources: Ministry of Finance, *Trade Statistics*,
Cabinet Office, *National Accounts.*

○ The strong yen and surge of raw material prices will lead to the fall of corporate profits in FY2008.

- Corporate profits will fall by 2.8% due to the rise of iron ore & coal prices and by 4.2% due to higher crude oil prices.
- The appreciation of the yen will also squeeze corporate profits by approximately 1.7% (estimates based upon macro-econometric model).

[The impact of iron ore and coal prices upon corporate profits]

	Iron ore	Coal	Total
Petroleum & coal products	0.0	-219.0	-219.0
Electricity	0.0	-34.9	-34.9
Iron & steel	-23.9	-6.7	-30.5
Textile products	0.0	-12.8	-12.8
Chemical products	0.0	-9.1	-9.1
Construction	-1.1	-6.9	-8.0
Ceramic, stone & clay products	-0.1	-5.4	-5.5
Pulp, paper & paper products	0.0	-5.4	-5.4
Metal products	-2.9	-2.3	-5.3
Transport	0.0	-5.0	-5.0
Plastic products	0.0	-4.2	-4.3
Nonferrous metals	0.0	-3.9	-3.9
Transportation equipment	-1.6	-2.3	-3.8
Gas & heat supply	0.0	-3.6	-3.6
Electrical machinery	-0.4	-1.9	-2.3
General machinery	-1.1	-1.1	-2.2
All industries	-0.4	-2.4	-2.8

[The impact of the rise of crude oil prices upon corporate profits]

Petroleum & coal products	-401.1
Gas & heat supply	-39.2
Textile products	-27.5
Chemical products	-22.6
Construction	-21.9
Transport	-16.7
Electricity	-15.7
Iron & steel	-8.4
Pulp, paper & paper products	-7.4
Ceramic, stone & clay products	-6.9
Nonferrous metals	-5.3
Plastic products	-4.6
Metal products	-3.4
Transportation equipment	-2.9
Lumber, wooden products & furniture	-2.5
Personal services	-2.5
Electrical machinery	-2.2
Commerce	-2.2
Precision instruments	-2.1
Communication & broadcasting	-2.0
All industries	-4.2

[The impact of the appreciation of the yen]

Real GDP		-0.4
	Personal consumption	0.03
	Capital investment	-1.3
Corporate profits		-1.7
Domestic CGPI		-1.6
CPI		-0.4

Note: The impact of the appreciation of the yen from JPY114.2/USD to JPY101/USD, based upon estimates by the Mizuho Macroeconometric Model.

Source: Estimates by MHRI, based upon the *Input-Output Table* (Ministry of Economy, Trade and Industry).

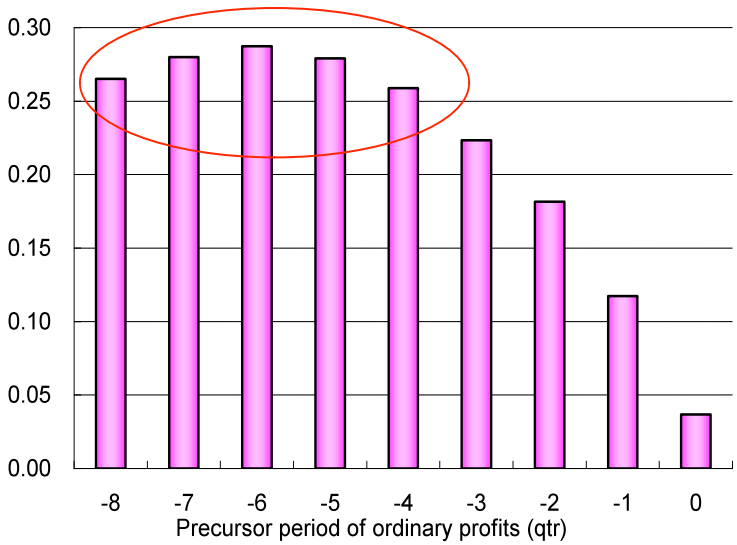
(2) The possibility of a slide into recession, judging from the correlation between corporate profits and capital investment.

○ The odds are high that capital investment will track the downturn of corporate profits.

・Capital investment lags movements in corporate profits by approximately 4 to 8 quarters. Judging from the fact that corporate profits have been falling since last summer, there is a large possibility that capital investment will also soften from this summer.

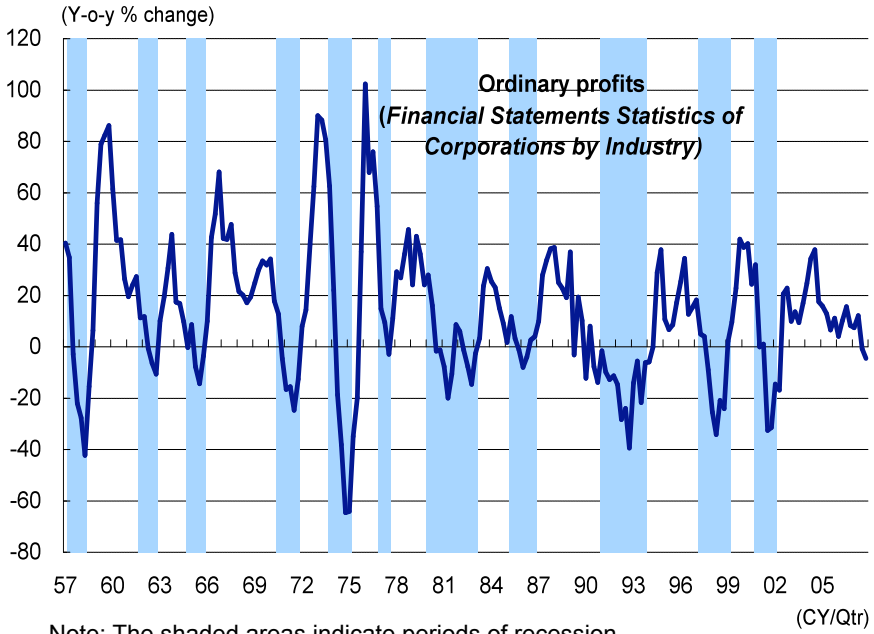
・Note also that past downturns of corporate profits were invariably followed by recessions.

[Time lag coefficient of ordinary profits and capital



Note: Based upon the seasonally adjusted ordinary profits and investment in pla equipment in the Financial Statements Statistics of Corporations by Indust
Source: Ministry of Finance, *Financial Statements Statistics of Corporations by Quarterly.*

[Ordinary profits and business cycles]



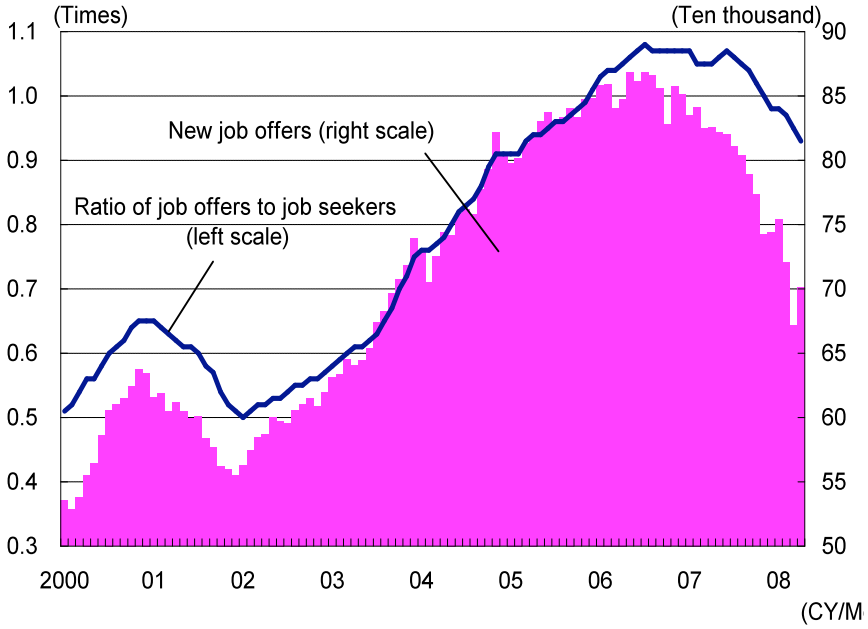
Note: The shaded areas indicate periods of recession.
Source: Ministry of Finance, Financial Statements Statistics of Corporations by Industry,
Quarterly.

(3) The household sector's economic environment is deteriorating.

○ Labor market conditions are softening. Labor market conditions - along with higher prices - are serving as downward pressures upon consumer confidence.

- Note that labor market supply and demand is easing at the moment, due to restraints upon hiring of new workers mainly among small and medium sized companies.
- Consumer confidence is slumping reflecting the deterioration of the employment and wages environment.

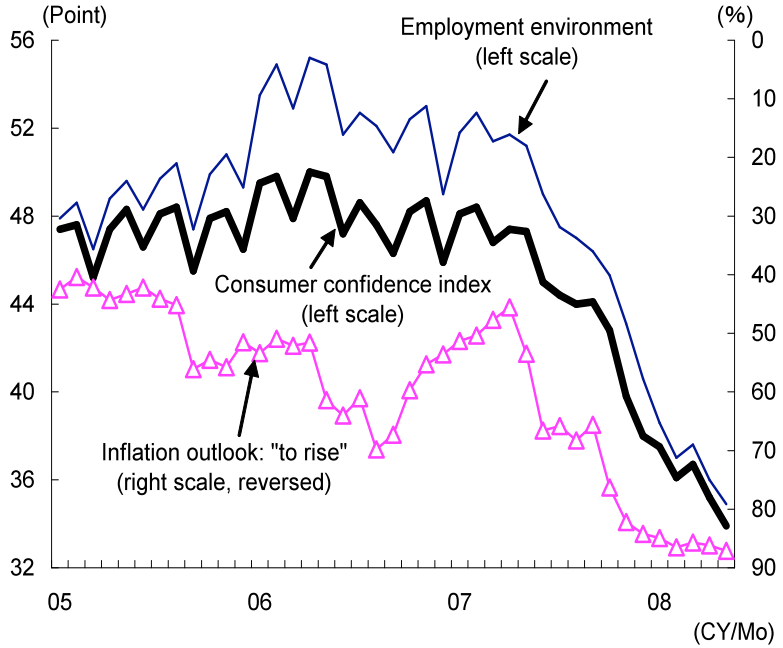
[New job offers and the ratio of job offers to job seekers]



Note: Adjusted for seasonal factors.

Source: Ministry of Health, Labor and Welfare.

[The consumer confidence index]

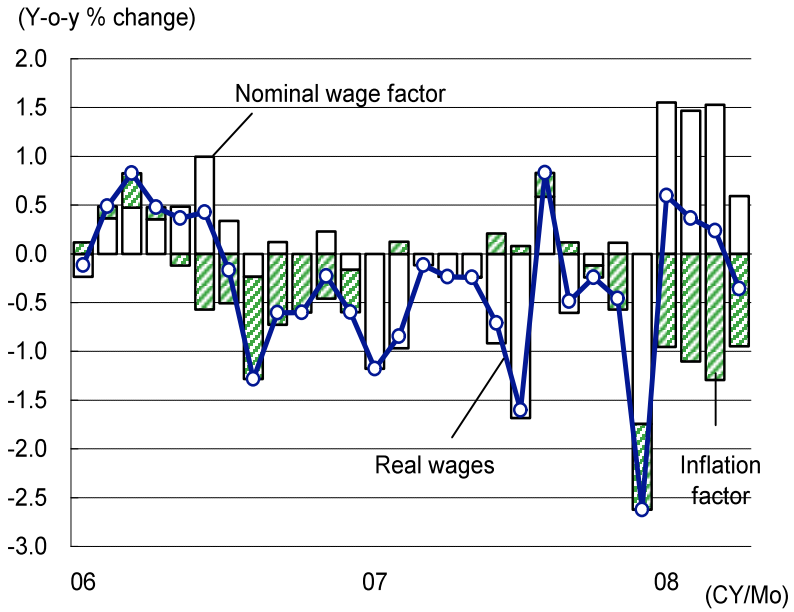


Source: Cabinet Office, *Consumer Confidence Survey.*

○ Wages in real terms are declining and consumer spending is continuing to stall due to the rise of prices.

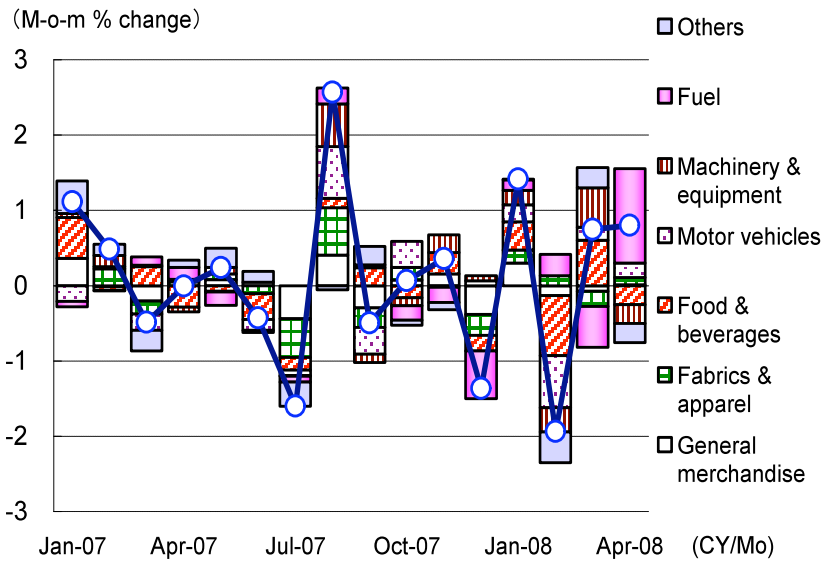
- Real wages - which had hovered in positive territory since January - took a dip in April due to higher prices.
- Even though retail sales rose 0.8% m-o-m in April, rising for the second month in a row, the upturn was due largely to a one-month tax break due to the delay in passing a tax bill.

[Real wages]



Source: Ministry of Health, Labor and Welfare, *Monthly Labor Survey.*

[Real retail sales]



Note: Converted into real terms and adjusted for seasonal factors by MHRI.
Sources: Ministry of Economy, Trade and Industry, *Current Survey of Commerce,* Ministry of Internal Affairs and Communications, *Consumer Price Index.*

(4) MHRI's outlook on the Japanese economy is 1.4% in FY2008 and 1.1% in FY2009

○ MHRI's outlook on Japan's real GDP growth is 1.4% in FY2008 and 1.1% in FY2009.

- The economy is predicted to come under more adjustment pressures in the second half of FY2008 amid (1) the stagnation of domestic demand stemming from worsening corporate business performance and inflation, and (2) a smaller contribution by external demand. Growth in FY2008 should stand at 1.4% .
- In FY2009, the economy should gradually pick up due to (1) a pause in the rise of crude oil prices and the improvement of corporate profits, and (2) a gradual slowdown of the rise of the CPI. Considering that it will take slightly longer for the recovery of capital investment and the small carry-over of growth (-0.1%) to FY2009, the rate of real GDP growth will decline to 1.1% in FY2009 .

[Outlook on the Japanese economy in FY2008 and FY2009]

(%)

	FY2007 (Actual)	FY2008 (Forecast)	FY2009 (Forecast)	FY2007 1H (Actual)	FY2007 2H (Actual)	FY2008 1H (Forecast)	FY2008 2H (Forecast)	FY2009 1H (Forecast)	FY2009 2H (Forecast)	FY2007 (Contribution) (Actual)	FY2008 (Contribution) (Forecast)	FY2009 (Contribution) (Forecast)
GDP (real)	1.6	1.4	1.1	0.1	2.7	1.4	0.2	0.9	2.5	-	-	-
Domestic demand	0.4	0.6	0.8	-1.1	1.1	0.8	-0.1	0.8	1.7	0.4	0.6	0.8
Private sector demand	0.4	0.8	0.9	-1.3	1.0	1.2	-0.3	0.8	2.2	0.3	0.6	0.6
Personal consumption	1.4	0.9	1.3	1.0	1.6	0.8	0.5	1.4	2.0	0.8	0.5	0.7
Residential investment	-13.3	2.1	-0.5	-17.3	-20.7	15.2	3.8	-1.4	-2.8	-0.4	0.1	-0.0
Capital investment	0.0	0.6	-1.0	-3.7	3.4	1.3	-3.0	-2.2	3.3	0.0	0.1	-0.2
Public sector demand	0.2	-0.1	0.5	-0.4	1.2	-0.8	0.4	0.8	0.2	0.0	-0.0	0.1
Government consumption	0.7	0.7	1.0	0.7	1.3	0.1	1.4	0.9	1.0	0.1	0.1	0.2
Public investment	-1.8	-3.6	-2.2	-5.7	1.1	-4.9	-4.3	-0.4	-3.8	-0.1	-0.1	-0.1
Net exports (contribution)	1.2	0.8	0.5	1.1	1.6	0.7	0.3	0.5	0.9	1.2	0.8	0.5
Exports	9.5	6.0	5.0	8.9	12.6	4.7	2.3	4.5	8.7	1.4	1.0	0.8
Imports	2.1	1.3	2.7	2.0	3.2	0.7	0.6	2.5	5.3	-0.2	-0.1	-0.3
GDP (nominal)	0.6	0.0	1.4	-0.6	0.4	0.2	-0.7	1.9	2.6			
GDP deflator	-1.0	-1.4	0.3	-0.5	-1.4	-1.7	-1.1	0.1	0.5			
Industrial production	2.6	0.5	1.4	1.2	1.4	-0.2	0.1	0.8	1.2			
Unemployment rate	3.8	3.8	3.7	3.8	3.8	3.8	3.8	3.8	3.7			
Current account balance (JPY trillion)	24.6	18.7	24.3	25.4	23.7	18.0	19.3	21.2	27.1			
as a percentage of nominal GDP	4.8	3.6	4.7	4.9	4.6	3.5	3.8	4.1	5.1			
Domestic corporate goods prices	2.3	4.5	1.0	1.6	3.0	4.5	4.5	1.6	0.3			
Consumer prices	0.3	1.0	0.3	-0.7	0.7	1.3	0.8	0.3	0.2			
Long-term interest rate (%)	1.59	1.63	1.68	1.70	1.48	1.70	1.55	1.60	1.75			
Nikkei stock average (JPY)	16,000	14,000	15,000	17,300	14,700	14,100	13,900	14,700	15,300			
Exchange rate (JPY/USD)	114.2	102	104	119.3	109.2	103	101	103	105			
Crude oil price (WTI/barrel)	82.2	118.8	100.3	70.2	94.3	124.6	113.0	103.1	97.6			

Notes: 1. FY = rate of change from the previous year. Half-year GDP = rate of change from the previous term p.a. (the GDP deflator = rate of change from the previous year).
2. Half-year corporate goods prices and half-year consumer prices = rate of change over a year ago. Consumer prices = nationwide (excluding fresh foods).
3. Half-year industrial production = rate of change from the previous term. The half-year unemployment rate and half-year current account balance are adjusted for seasonal factors and the figures on current account balance are converted into annualized rates.
4. Crude oil price = near-term contract for WTI crude futures. The long-term interest rate = yield on newly-issued 10-yr government bonds.

Sources: Cabinet Office, *National Accounts*, Ministry of Economy, Trade and Industry, *Indices of Industrial Production*, Ministry of Internal Affairs and Communications, *Labor Force Survey, Consumer Price Index*, Ministry of Finance, *Balance of Payments*, Bank of Japan, *Corporate Goods Price Index*.

2. Mid- to long-term challenges

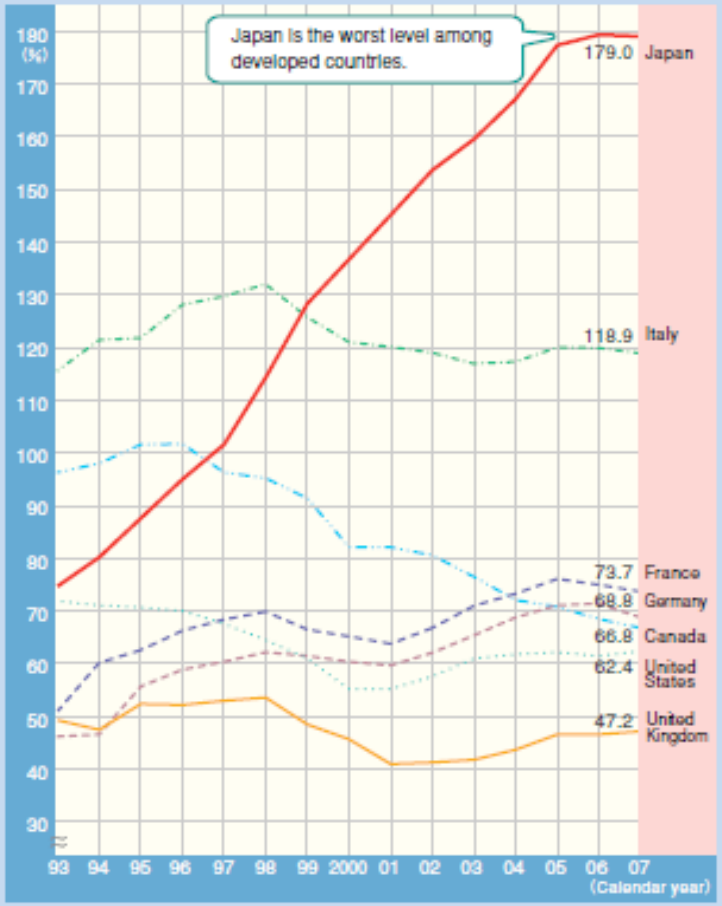
(1)Reduction of the budget deficit

○ **Japan faces a challenging task to reduce its budget deficit and raise productivity.**

・The general government gross debt reached 179% of GDP, the highest among developed countries

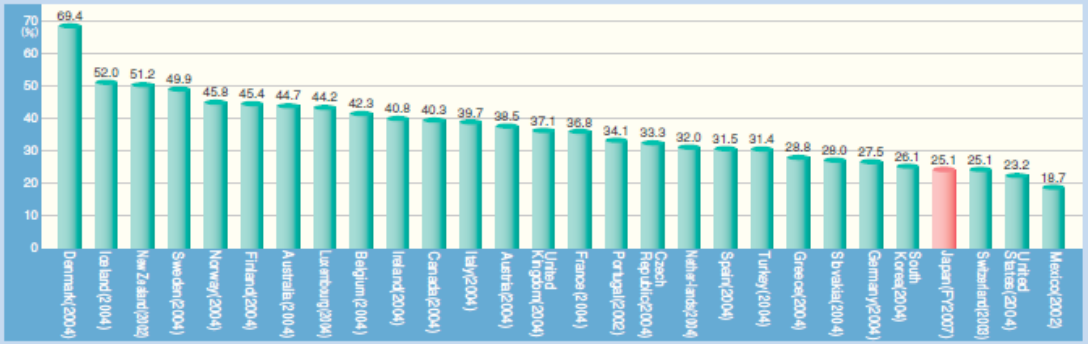
・The surge of social security expenditures and low tax burdens are the main reasons for the rising budget deficit.

International comparison of general government gross debt (as a percentage of GDP)



(Source) OECD Economic Outlook (No. 81, June 2007)
(Note) Figures are for general government based on SNA (national, regional, and social security funds).

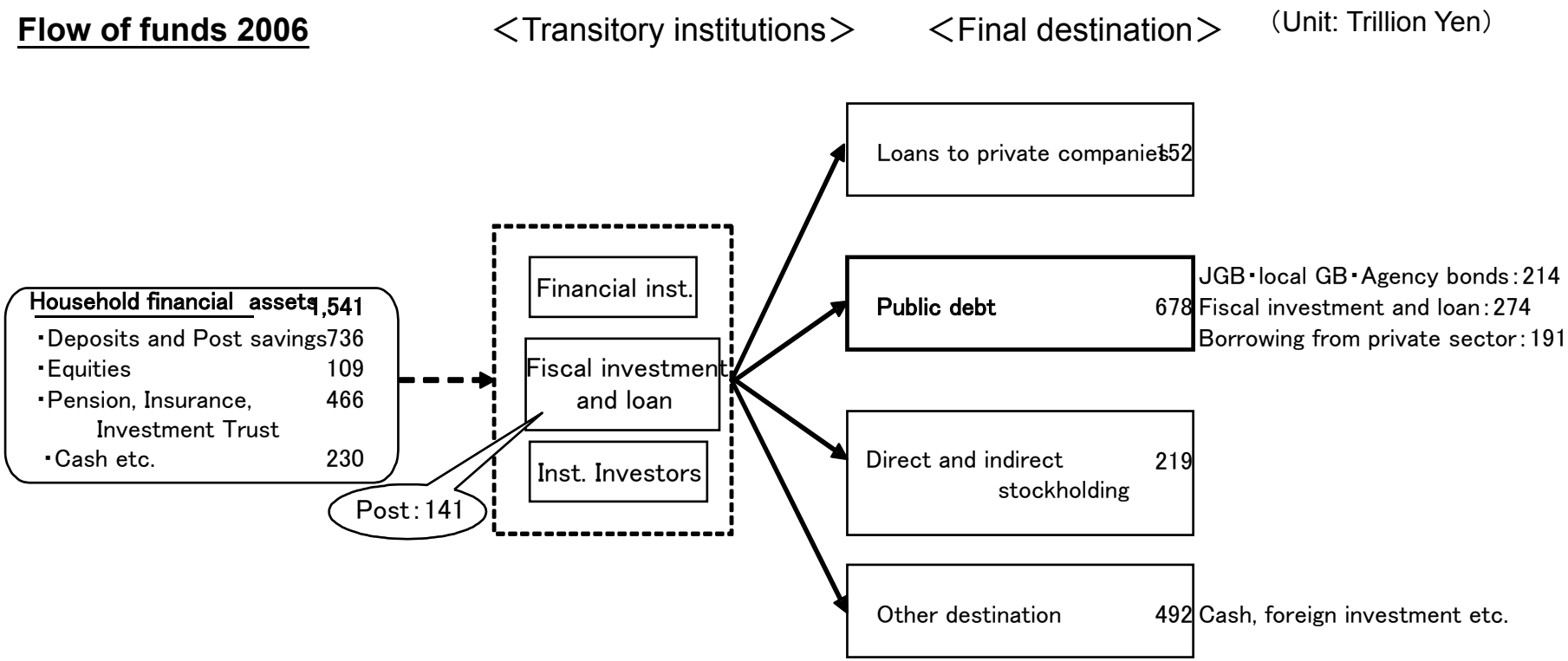
Tax burden ratios of the OECD countries (percentage of national income)



(Source) Japan: Based on FY2007 budget; other OECD countries: "National Accounts 1993 - 2004" and "Revenue Statistics 1965 - 2005", OECD
(Notes) 1. FY2007 figure for Japan is an estimate.
2. Hungary and Poland are not included in the chart as their tax burden ratios could not be calculated due to lack of figures.

・A balanced budget is necessary in order to avoid passing the financial burden to the next generations. It is also indispensable to vitalize the flow of the money in the country to raise the economic growth.

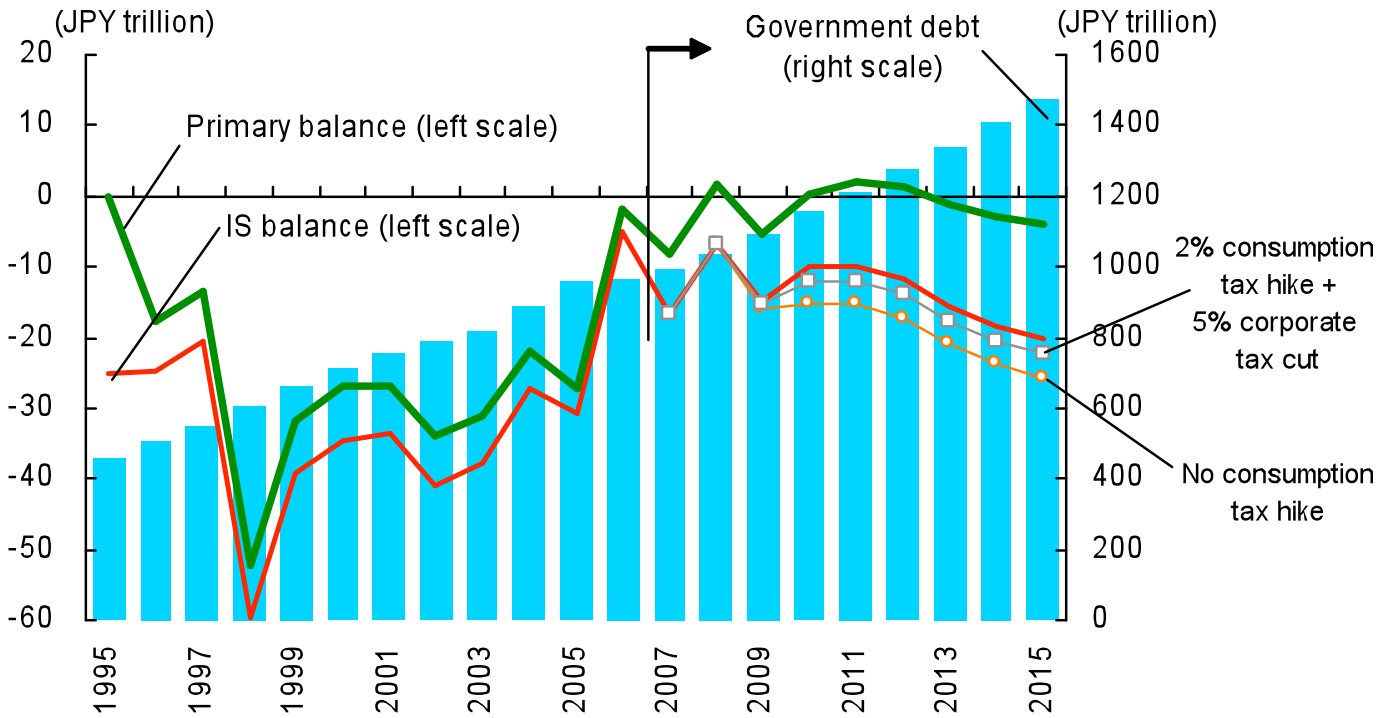
[The flow of household financial assets (2006)]



○ **However, the achievement of the budget deficit reduction and productivity growth is dependent upon strong economic growth. Also, a VAT hike is necessary to cover the rise of social security expenditures accompanying the ageing population.**

- If the VAT is not raised in 2009 to offset the increase of public fund portion in the public pension, the primary balance will not recover by 2011.

[General account primary balance]



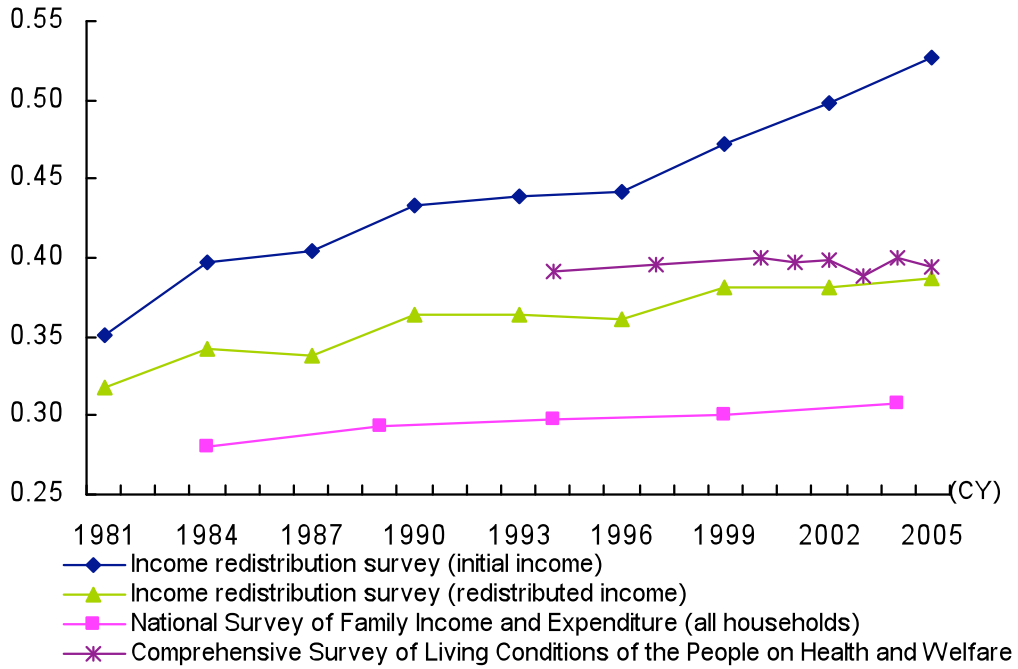
Source: Compiled by MHRI, based upon data releases by the Cabinet Office and others.

(2) Income disparity

○ **Even though Japan's income disparity (Gini coefficient) turns out to be different depending upon sources, the overall trend reveals a widening of the income gap.**

・After redistribution, the income disparity remains quite stable.

[National Survey of Family Income and Expenditure (all households)]

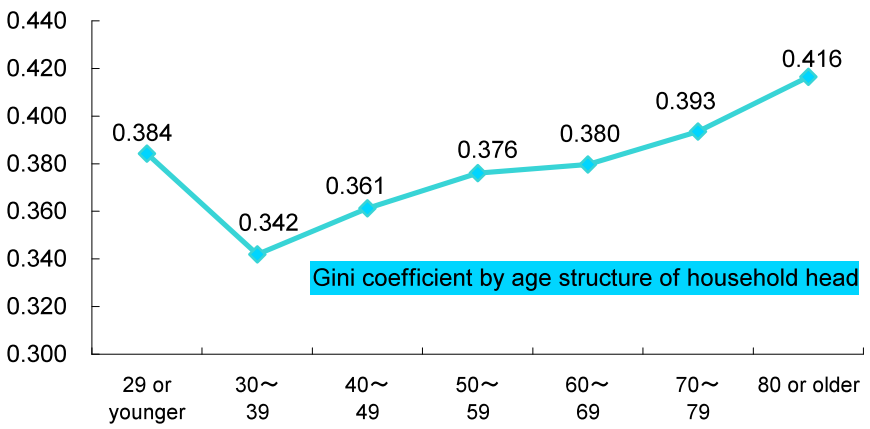


Note: There are divergences in the level of the gini coefficient ifference statistics due to differences in survey subjects and samples.
Sources: Ministry of Health, Labor and Welfare, Shotoku saihaibun chosa (Income redistribution survey), Comprehensive Survey of Living Conditions of the People on Health and Welfare, Ministry of Internal Affairs and Communications, National Survey of Family Income and Expenditure.

○ **The main reason of the widening income disparity is the wide disparity of income over 70 years old.**

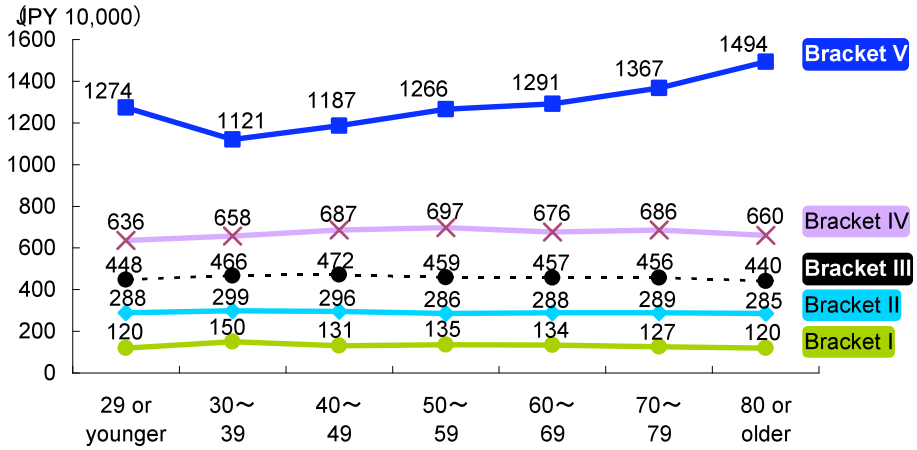
- For approximately 60% of the elderly household (over 60 years old) , the public pension is their only source of income.
- On the other hand, the average income of the highest income bracket (top 20%) is higher for elderly people than other ages, thus contributing to a wide disparity of income among the elderly.

[Gini coefficient by age structure of household head]



Note: The gini coefficient is computed by MHRI on the basis of the average income (by age structure and income structure of household heads).
Source: Ministry of Health, Labor and Welfare, Comprehensive Survey of Living Conditions of the People on Health and Welfare.

[Average income by age structure and income bracket of household head]

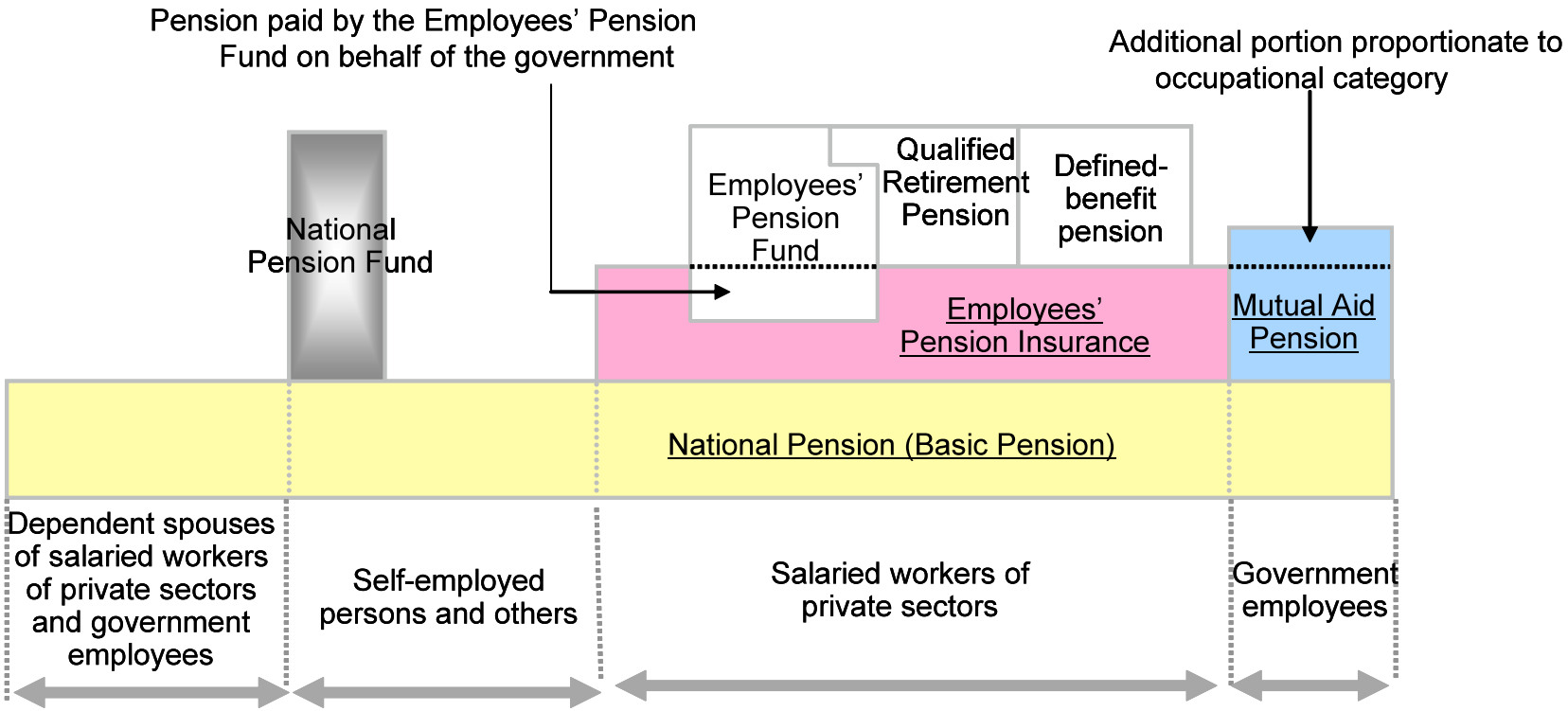


Source: Ministry of Health, Labor and Welfare, Comprehensive Survey of Living Conditions of the People on Health and Welfare 2006.

○ **To soften the disparity of income, the free attribution of the National Pension (Basic Pension) to all persons above 60 years old is one solution.**

- The funding should be done by the increase of VAT to share the burden by all the citizen.

[The Pension System of Japan]

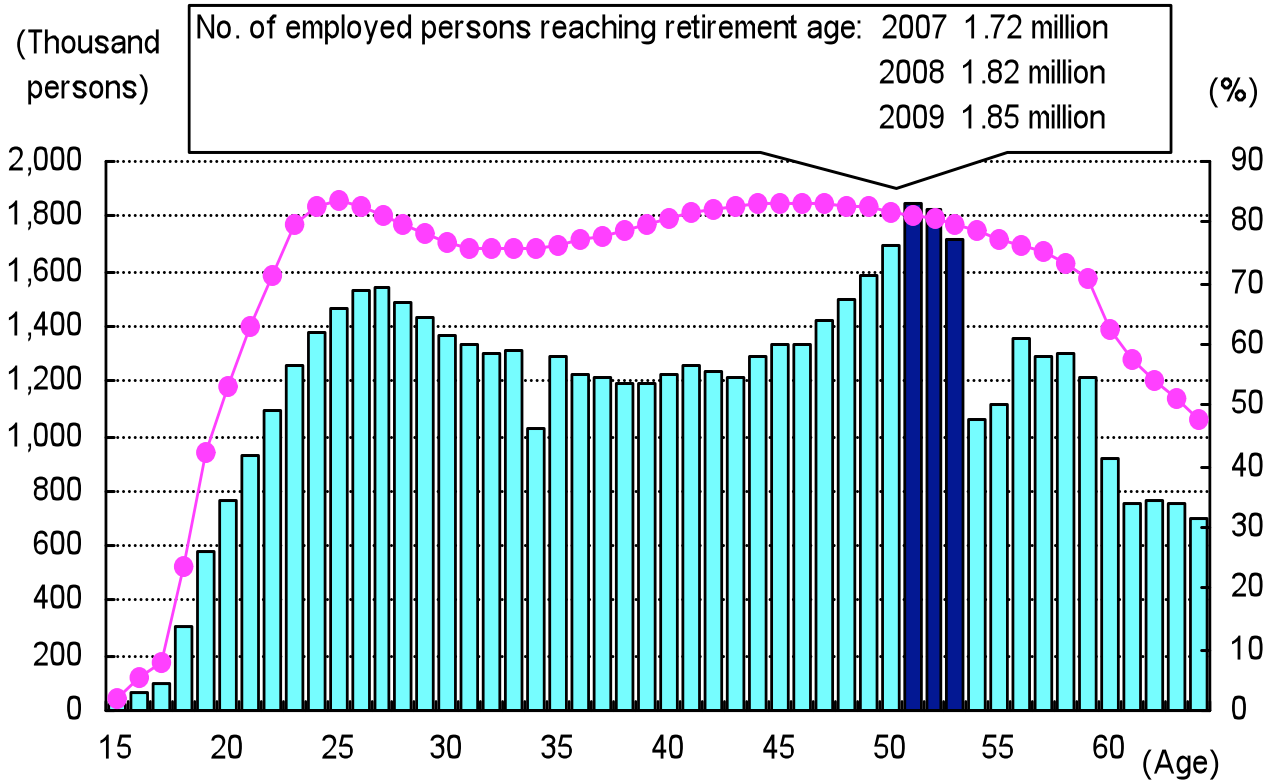


Source: MHRI, based upon source material released by the Ministry of Health, Labor and Welfare.

(3) Demographic changes

○ **After the retirement of the baby boom generation of workers, Japan will face a reduction of its labor force and an economic slowdown.**

[The number of baby-boom generation retirees]

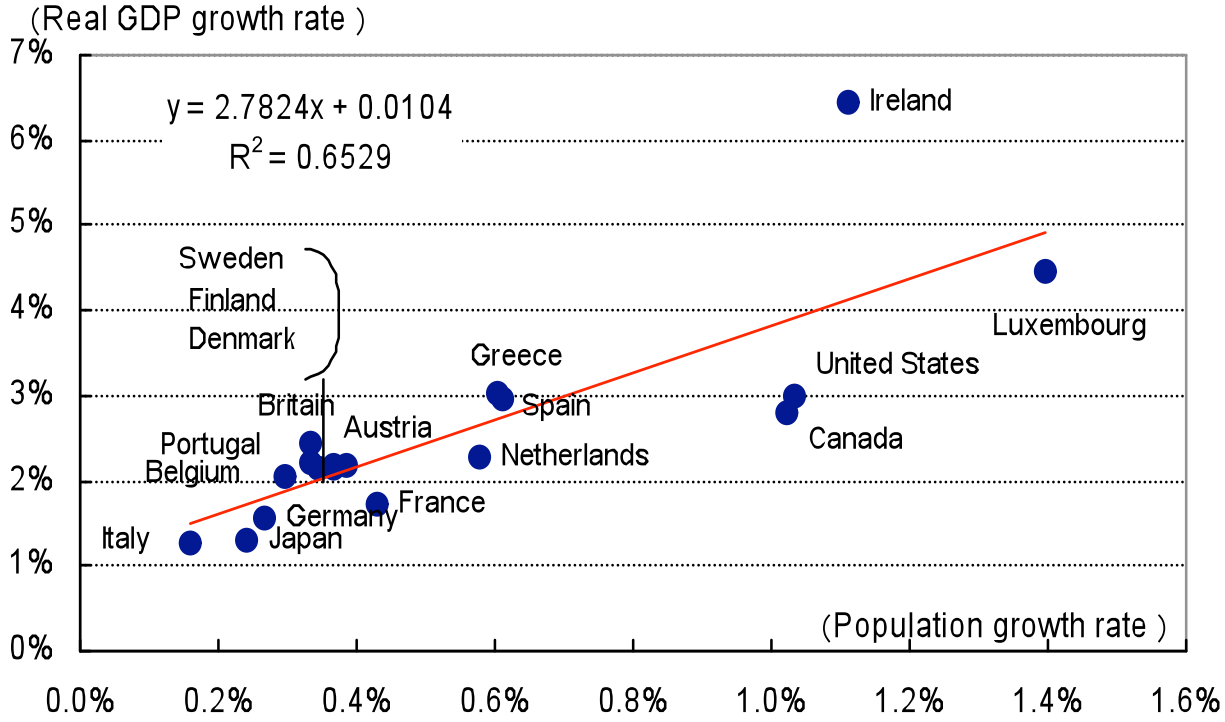


Source: Ministry of Internal Affairs and Communications, *Population Census*, 2000.

○ **There is a correlation between the rate of economic growth and the rate of population growth.**

・Countries such as Japan and Italy with a low birthrate, are faced with a lower rate of economic growth compared to countries with higher birthrates.

[Relation between the population growth rate and the rate of economic growth rate (major countries in OECD)]



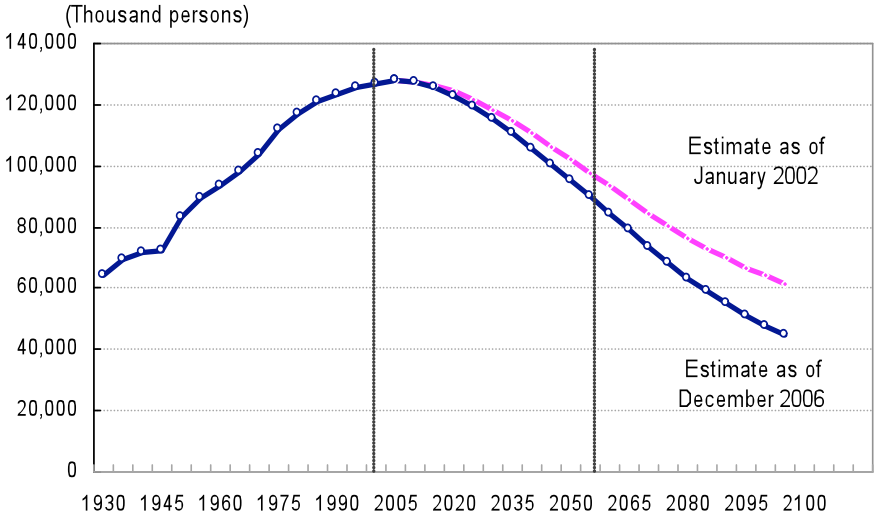
Note: The rate of population growth and the rate of real GDP growth rate are expressed as annual average values for 15 years from 1990 to 2005.

Source: IMF, *World Economic Outlook Databases.*

○ **The demographic shift will be a great threat to the Japanese economy.**

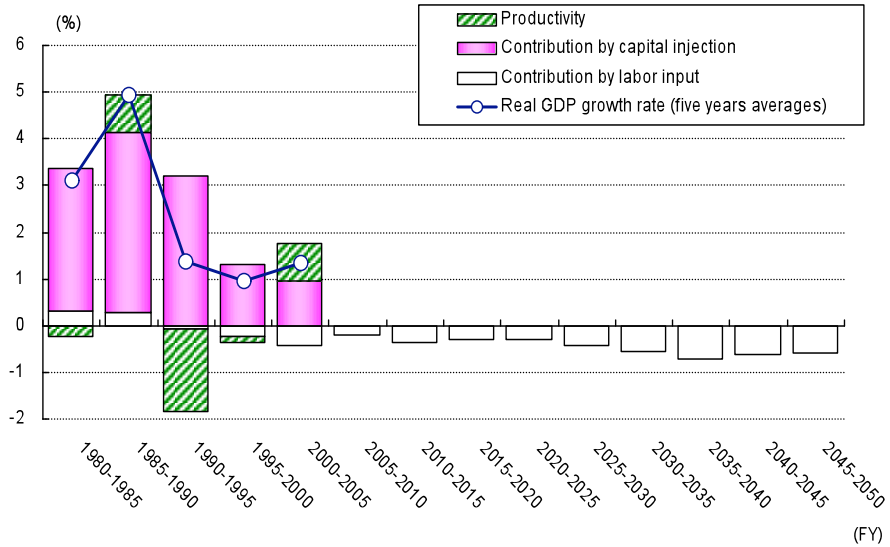
- According to the government's estimation, Japan's population may fall by approximately 37 million by 2050.
- The reduction of labor input will reduce Japan's economic growth by 0.6%-0.7% p.a. beyond 2030 (MHRI estimates).

[Future estimation of population]



Note: Medium variants.
Sources: Compiled by MHRI, based upon Ministry of Internal Affairs and Communications, National Institute of Population and Social Security Research.

[Japan's economic growth potential by the reduction of labor input]



Note: Productivity is TFP (total factor productivity).
Source: Cabinet Office, *Annual Report on National Accounts*, estimation by MHRI.

3. Government policy stance to overcome the economic challenges

○ **The former Abe Administration has set forth a strategy for growth of the Japanese economy.**

・The strategy consists of using “productivity growth” “technological innovation” and “overseas dynamism of countries such as those in Asia” as leverage for growth.

[The Basic Principles of the Strategy for Economic Growth (abstract)]

1. Basic philosophy

- The strategy for economic growth and fiscal reform are "twin pillars" creating a mutually virtuous cycle, which lead to a "strong economy and a secure society".
- Using "productivity growth", "technological innovation" and "overseas dynamism of countries such as those in Asia" as leverage, the basic philosophy is to achieve a "Japanese-type growth model" enabling high economic growth even with a shrinking population.
- Japan will serve as a role model for other countries facing the same difficulties, while providing its own citizens with a future vision that there is a rosy future after the reforms.
- A "time schedule" will be formulated (divided in to the short-term, medium-term and long-term). The time frame: ten years up to 2015 when Japan enters a full-scale population decline.
- Each of the measures will be inspected and revised every fiscal year on the basis of quantitative goals set forth for each measure.

2. The goals for economic growth

- The Basic Principles will be carried out in a bid to raise real GDP growth to 2.2% p.a. or above in the next decade.
  - Raise growth rate by 0.2% or more by raising competitiveness and productivity growth through technological innovation.
  - Raise growth rate by 0.4% or more by improvement of management power and expansion of the contents market through IT technological innovation.
  - Raise growth rate by 0.4% or more through productivity growth and market expansion of priority service markets through reforms of the services industry.
  - Raise growth rate by 0.4% or more by raising the labor participation ratio of youths, women and the elderly population and the qualitative improvement of human resources.

3. The specific measures

(1) Reinforcement of global competitiveness
Measures for Japan's growth into the world's leading innovation center and to contribute to - and grow along with - Asia. Establish and achieve resource & energy strategies.

(2) Productivity growth (reform of IT and services industry)
Expansion of the contents market by raising competitiveness through IT reform and innovation and upgrading the management of small enterprises. Create a "dual-engine mechanism" (services and manufacturing) through fundamental overhuals to upgrade productivity of the services industry.

(3) Vitalization of local areas and small enterprises (regional vitalization strategy)
Development of local industries utilizaing local resources and the promotion of small enterprises which comprise the major component of regional economies. The strategic and prioritized promotion of urban redevelopment and central area vitalization.

(4) Creation of new demand through continuation of reforms
In addition to the creation of demand through innovation, create new demand through reforms such as privatization and bold deregulation.

(5) The five institutional infrastructures for productivity growth
Build global top-level institutional infrastructures in the following five areas: "human rsources", "physical infrastructure", "money", "technology" and "knowledge" (including IT reforms).

- Japan's major challenge is how to offset the negative economic impact stemming from the decline of its population by productivity gains and innovation.
- However, labor input factor is more important than investment and TFP (Total Factor Productivity) factors in the real GDP growth components.

[Factors of economic growth: Japan-U.S. comparison]

(%)

	Japan			U.S.		
	1980-90	1990-95	1995-03	1973-89	1989-95	1995-03
Real GDP growth rate	3.97	1.64	1.28	2.99	2.43	3.56
IT investment	0.44	0.29	0.54	0.38	0.49	0.88
Non-IT investment	1.08	0.77	0.62	1.11	0.71	1.01
Labor input	1.19	-0.22	-0.32	1.18	0.93	0.67
TFP	1.25	0.80	0.45	0.31	0.31	0.99
I T	NA	0.32	0.36	0.20	0.23	0.46
Non-IT	NA	0.48	0.10	0.11	0.08	0.53

Source: Jorgenson, Dale W.and Kazu Motohashi, *Information Technology and the Japanese Economy*, NBER Working Paper 11801, November 2005. Table 4 and 5.

○ **Innovation and immigration hold the key to offset the negative growth due to the shrinking population.**

- However, its effects are uncertain or relatively limited and also require audacious measures.

[Assumption]

1 **Minimum eligible age for pension benefits**
- Starting age of pension to 70 years old by 2030
- Raise of labor participation for people between 65 to 69 years old as the same level as for the people between 55 and 64 years old

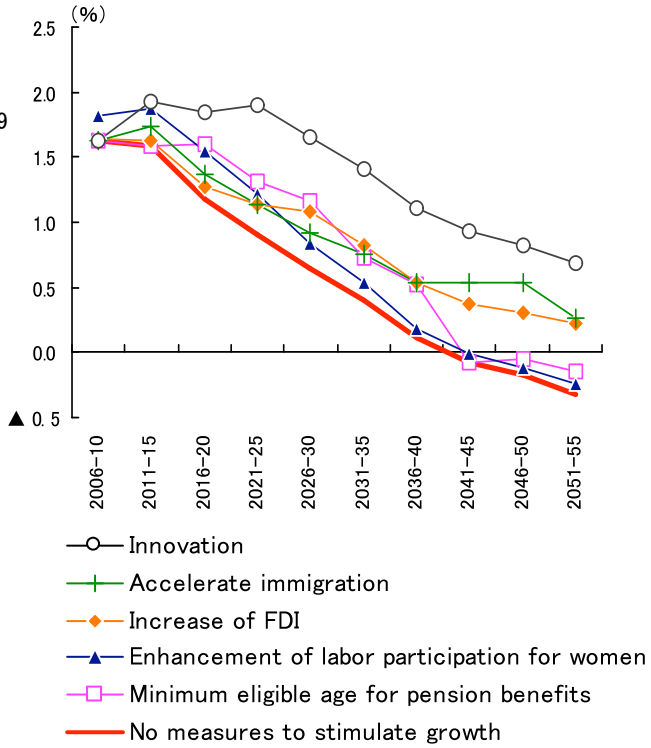
2 **Enhancement of labor participation for women**
Labor participation of women between 25 and 64 years old among the top 10 ranking in OECD

3 **Increase of FDI**
Net capital outflow will become 0 by 2025

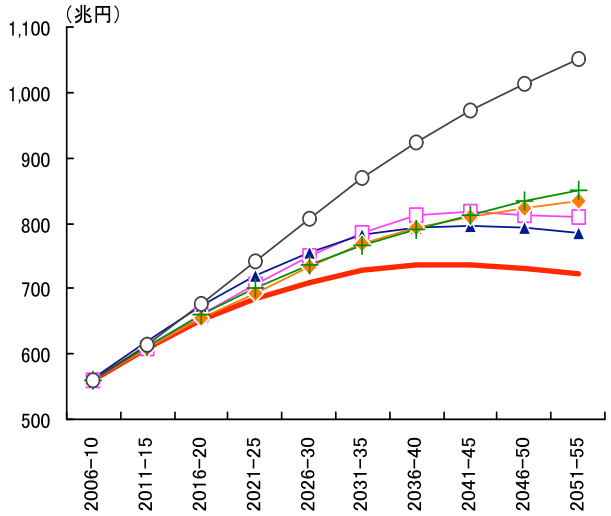
4 **Accelerate immigration**
The ratio of foreign people among the population Becoming among the top 5(18.2%) in OECD by 2025

5 **Innovation**
Realization of TFP raise of 1% p.a.

[Potential GDP growth by cases]



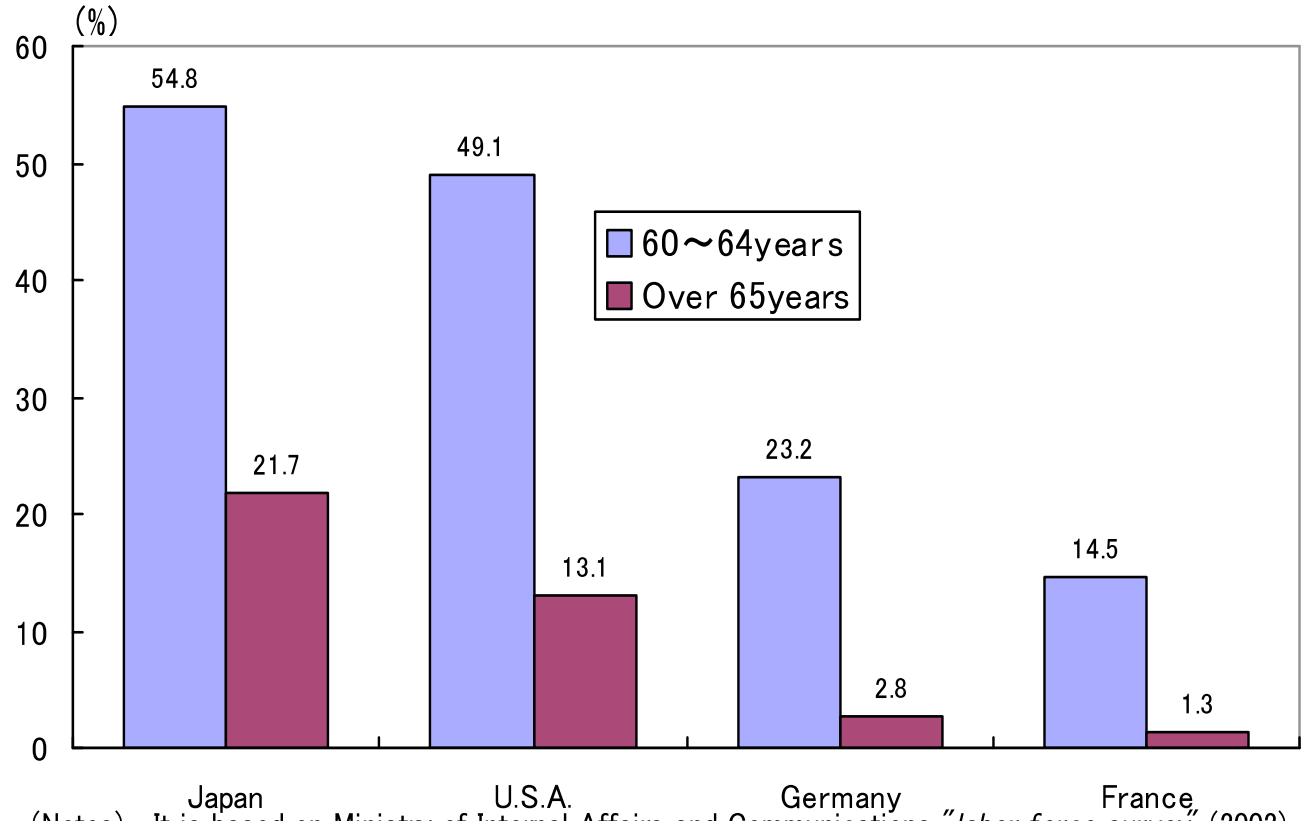
[Potential GDP raise by cases]



Source: Cabinet Office

○ **The medium-term solution is to raise the labor force participation of elderly people.**

[A global comparison of the labor force participation rate of elderly people]

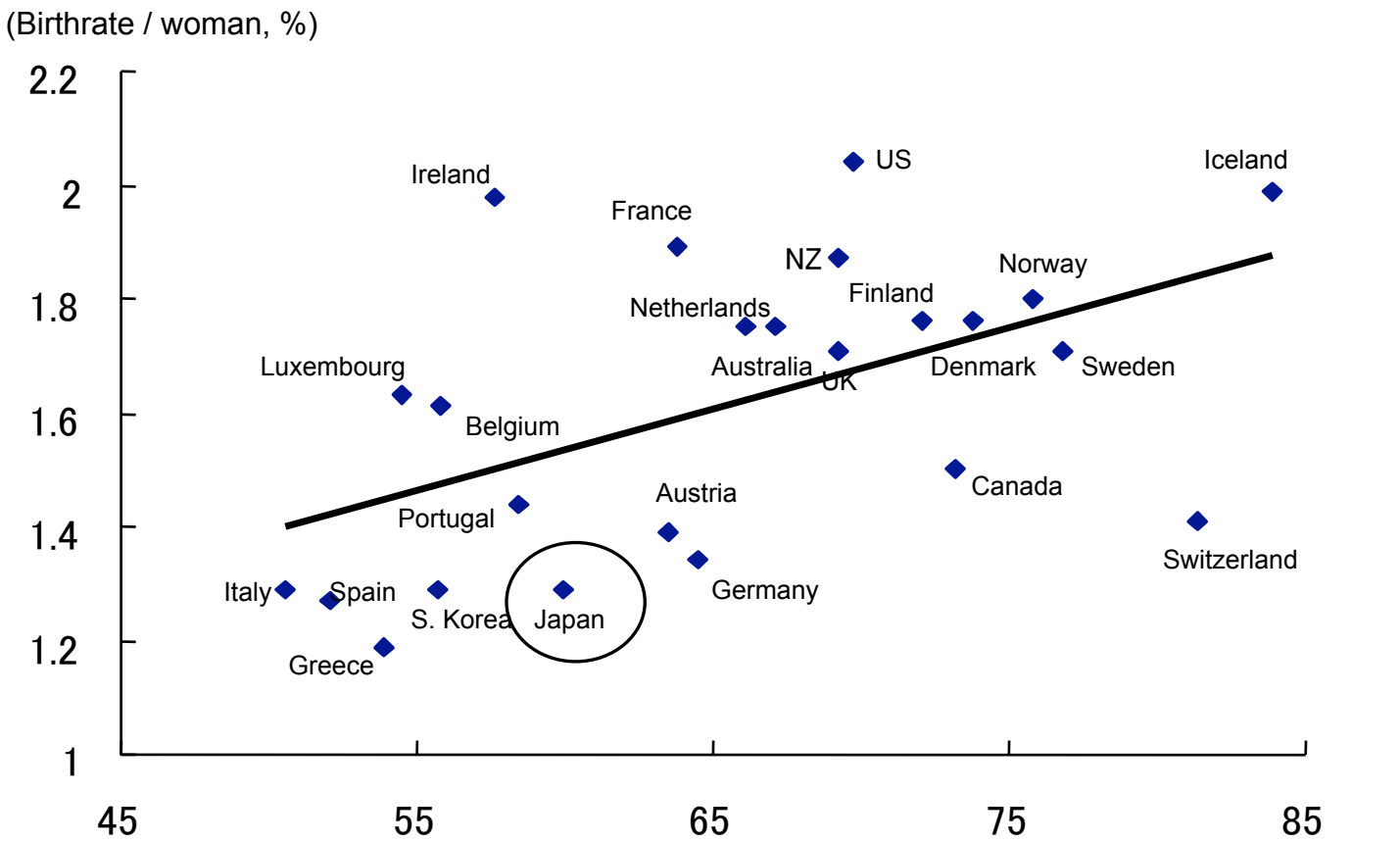


(Notes) It is based on Ministry of Internal Affairs and Communications *"labor force survey"* (2002)
ILO *"Year book of Labour Statistics"*.
The value of France is 2000. The value of U.S. Germany is 2001.

Source: Cabinet Office, *Annual economy financial report Heisei 15 editions*

○ **The improvement of women's labor force participation is also a solution over the medium term. Nevertheless, the ultimate solution is to raise the birthrate.**

[Social advancement of women and the total fertility rate (TFR)]



Note: OECD countries with income per capita of more than 10000 US dollars
Source: OECD、Eurostat、etc

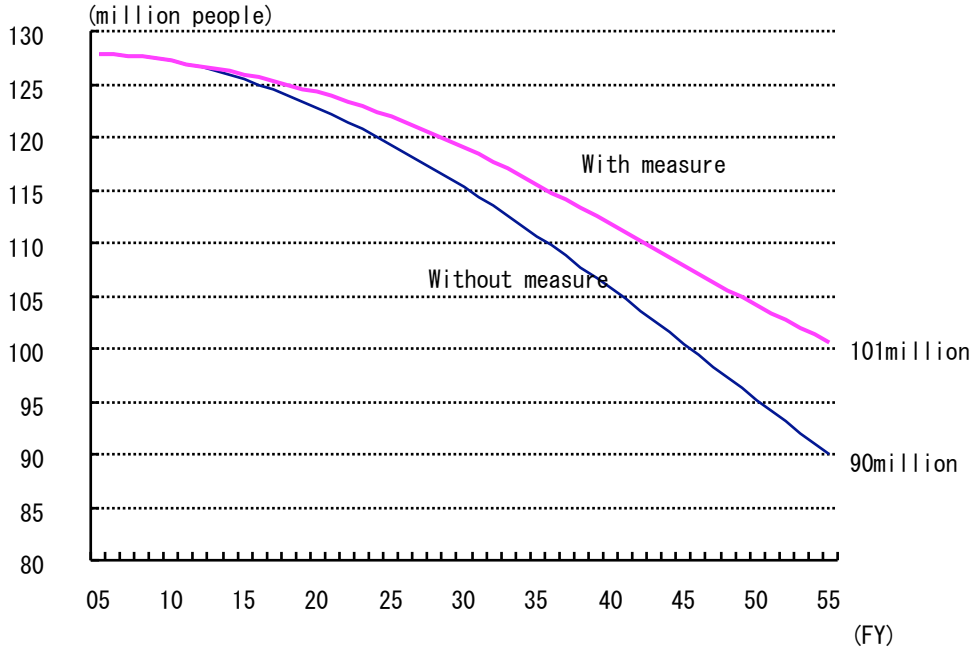
○ **However, the ultimate solution to overcome the shrinking population is to improve the fertility ratio and population growth.**

- In view of France's experience in the 1990s, the rise of the fertility ratio would raise Japan's by 10.7 million and push up real GDP by 14.5% compared to the base line with a budget of JPY2.5 trillion.

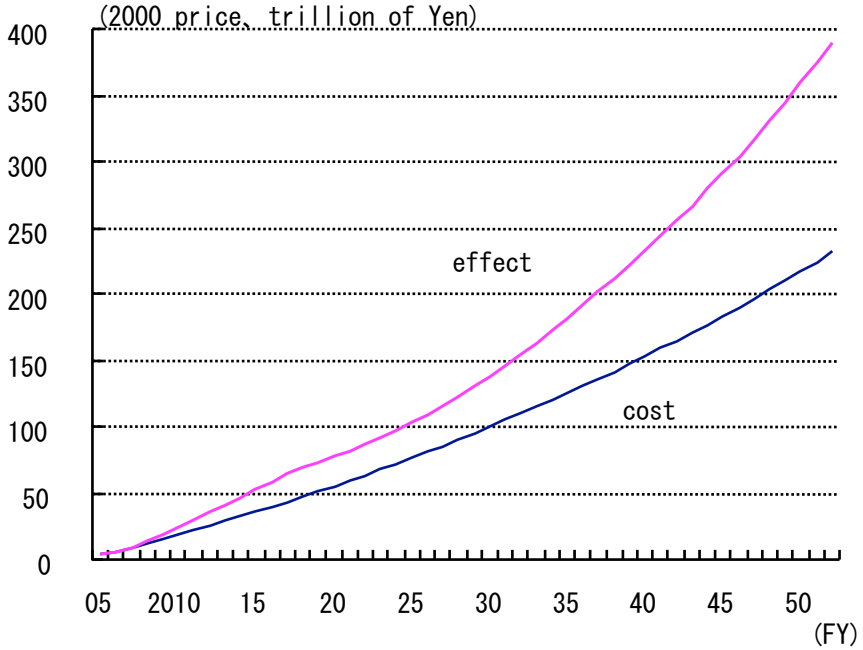
○ **It is time for the Japanese people to choose either a large government with a large budget to provide generous social security with a high VAT rate, or a small government with a low VAT rate and relatively limited social security.**

【 The cost benefit of measures to raise the fertility ratio 】

〔 Population 〕



〔 Real GDP 〕



(source) Ministry of Internal Affairs and Communications, National Institute of Population and Social Security Research