

Chapter 3 Economic Strength to Support Well-Being

Section 1 High-Quality Employment and Productivity Improvements

- While employment is increasingly shifting to the services industries, mismatches have been expanding as well.

Figure 3-1-3 Trends in the Employment Rate by Gender and Age Group (2002-2007)

The employment rates for elderly males and females of all age groups rose.

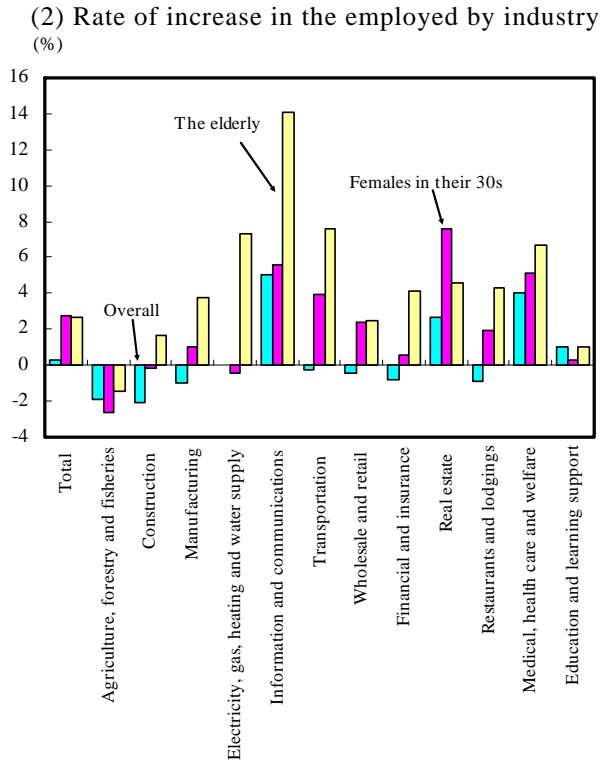
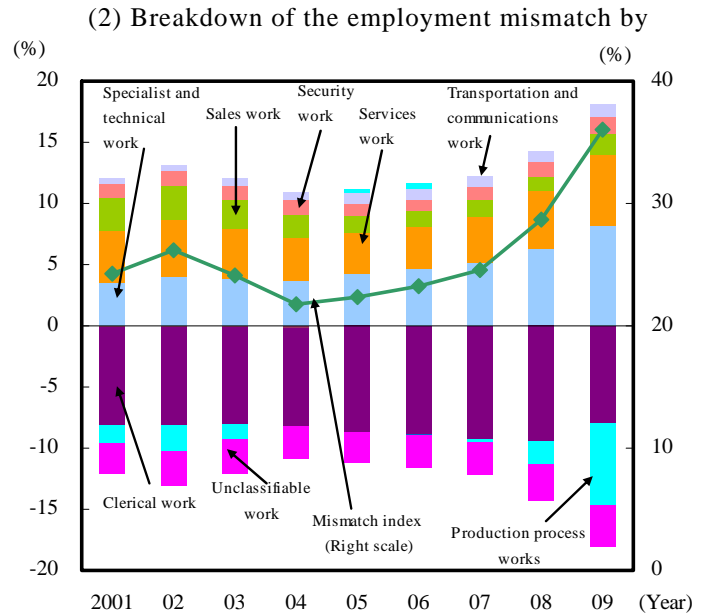


Figure 3-1-4 Mismatch Index

Employment mismatches (excess job offers) have expanded for specialist, technical and services work.



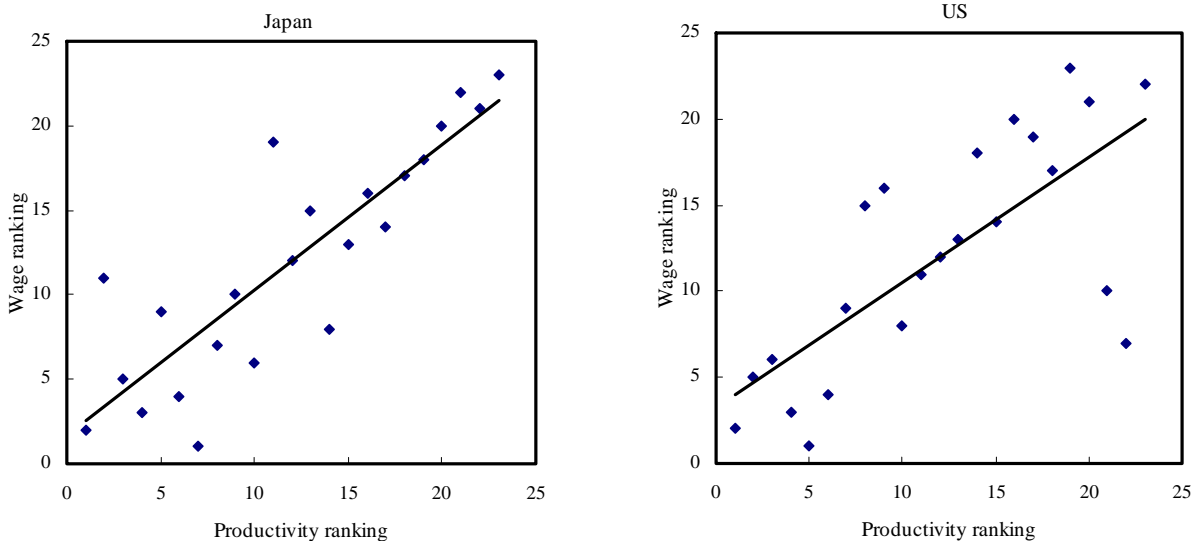
(Note) Employment mismatches by occupation are calculated by subtracting the share of effective job seekers from the share of effective job offers.

- The higher labor productivity an industry enjoys, the higher the wages it tends to offer.

Figure 3-1-9 Wages and Productivity by Industry in Major Countries

The higher the productivity, the higher the wages.

(2) Relationship between productivity and wages in major countries



(Note) Average data for 2001-2006 is used.

- An increase in labor productivity makes a significant contribution to raising the GDP per capita.

Figure 3-1-10 Factors Contributing to Real Per Capita GDP Growth Rate of Japan and the US

With the working-age population decreasing in Japan, the employment rate rises, while the number of working hours per worker is cut.

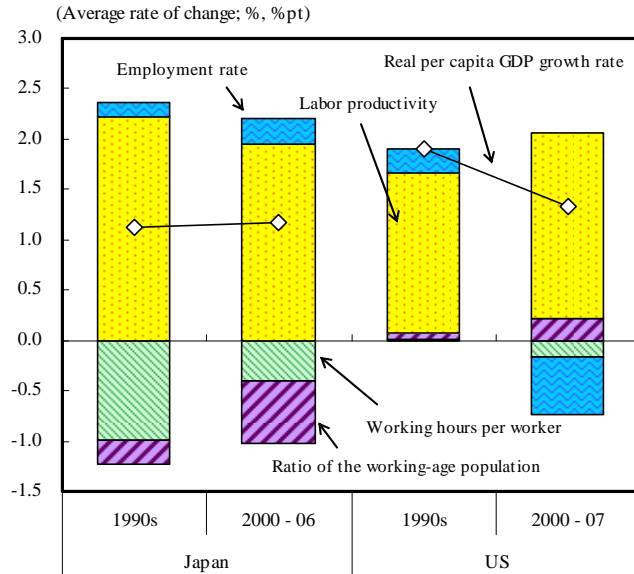
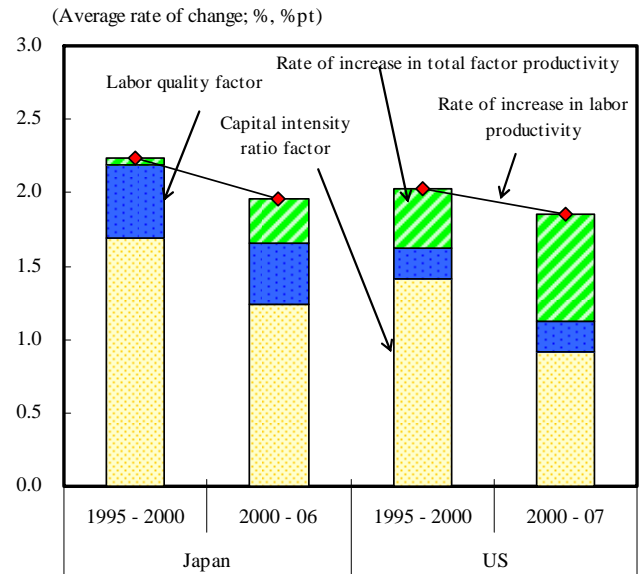


Figure 3-1-11 Factors Contributing to the Rate of Increase in Labor Productivity in Japan and the US

Japan's rate of increase in total factor productivity is relatively low.



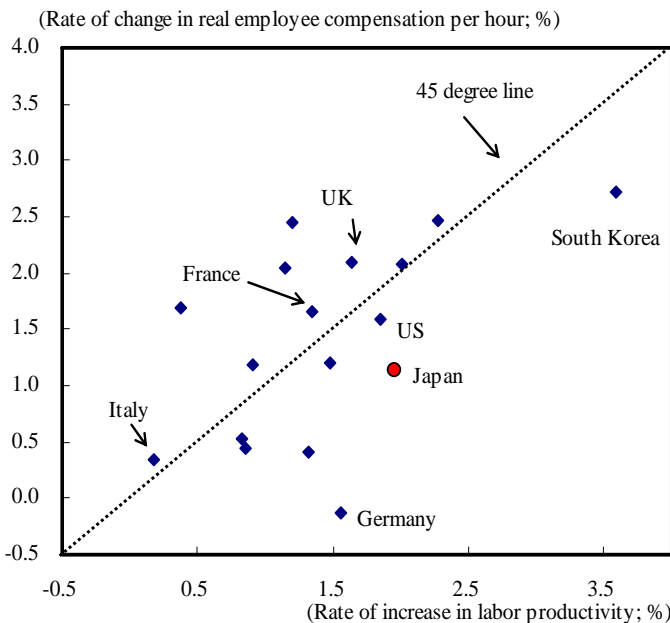
(Note) Labor productivity is on a person-hour basis.

- The increased productivity has benefited the household and foreign sectors.

Figure 3-1-14 Trends in Labor Productivity and Real Employee Compensation

The higher the labor productivity a country enjoys, the higher the rate of increase in wages it tends to have.

(2) Average of 2000-2007



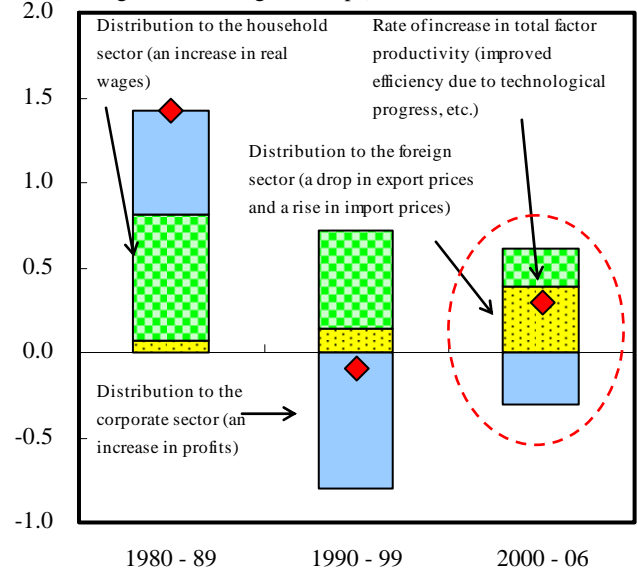
(Note) Labor productivity is on a person-hour basis. Meanwhile, employee compensation, which is based on the labor force employed, is deflated through the use of the CP deflator. Data for Japan, Belgium and Portugal is that up to 2006.

Figure 3-1-15 Factors Affecting Rate of Increase in Total Factor Productivity (by Distribution Destination)

It was the foreign sector that benefited from Japan's increasing total factor productivity in the 2000s.

(1) Distribution destinations of the rate of increase in total factor productivity for all industries

(Average rate of change; %, % pt)



- Competitive and dynamic industries tend to see their productivity increasing.

Figure 3-1-16 Distribution of the Rates of Increase in Total Factor Productivity (1985-2005)

The more widely the rates of increase in productivity vary in an industry, the higher the productivity growth on average it tends to enjoy.

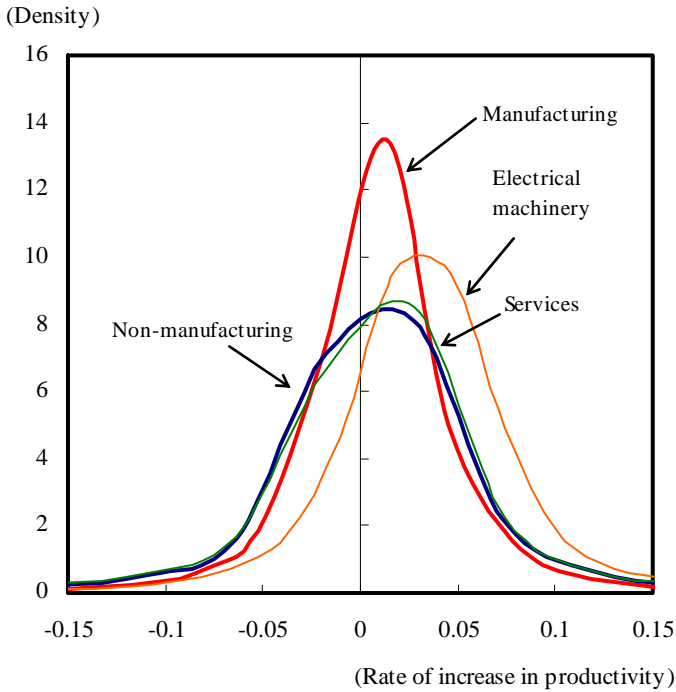
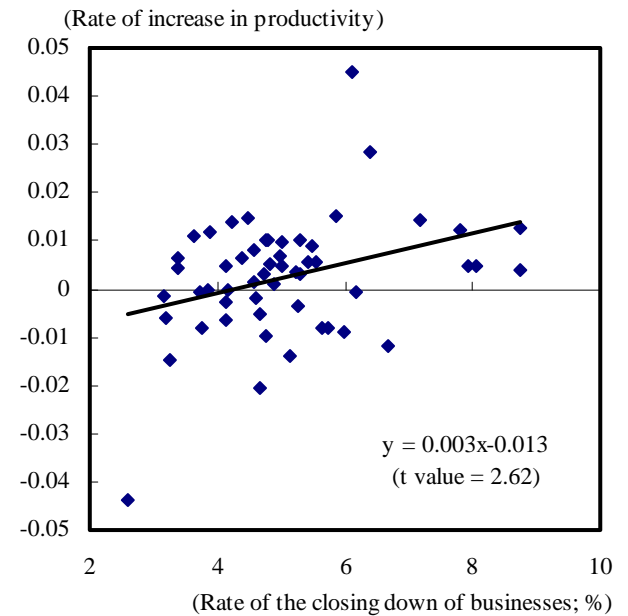


Figure 3-1-18 Rate of the Closing Down of Businesses and Productivity

In the manufacturing industry, businesses whose closing down rate is high are likely to see their productivity increase faster.

(2) Relationship to the rate of the closing down of businesses



- (Notes) 1. Surveys were conducted in FY1994, FY2001, and FY2006.
2. The year-on-year difference in the logarithmic value of each company's productivity during the period is referred to as the increase in productivity. The average increase during the period is used as the rate of increase.

- A key challenge is to secure and create employment in areas with high potential demand, such as IT and nursing care.

Figure 3-1-20 Comparison of Wages for IT Personnel between Japan and the US

Relative wages for IT personnel in Japan are lower than those in the US.

(1) Wages for IT personnel in Japan and the US

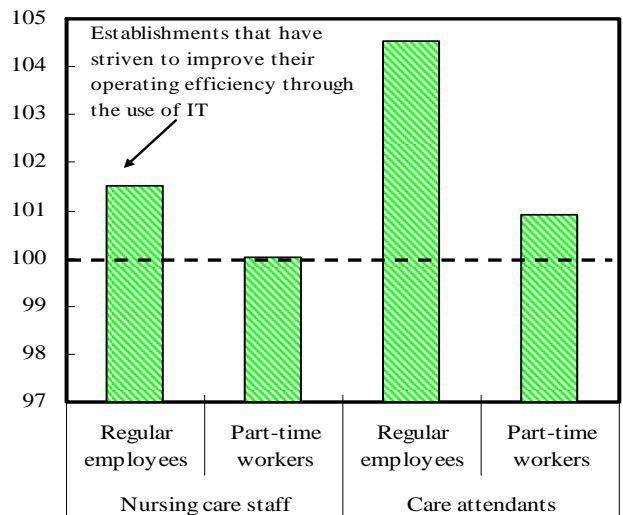


Figure 3-1-24 Nursing Care Services Industry and IT Use

In the nursing care services industry, establishments that have striven to improve their operating efficiency through the use of IT tend to offer higher wages.

(2) Salary and IT use in the nursing care services industry

Salary paid by establishments that have not striven to improve their operating efficiency through the use of IT = 100



Section 2 Productivity Improvements and Employment Creation through Addressing Environmental Issues

- Efforts to save energy and reduce dependence on oil improve CO₂ emissions efficiency.

Figure 3-2-5 Breakdown of CO₂ Emissions and the Oil Import Volume per Unit of GDP

The share accounted for by oil of primary energy has been on a declining trend.

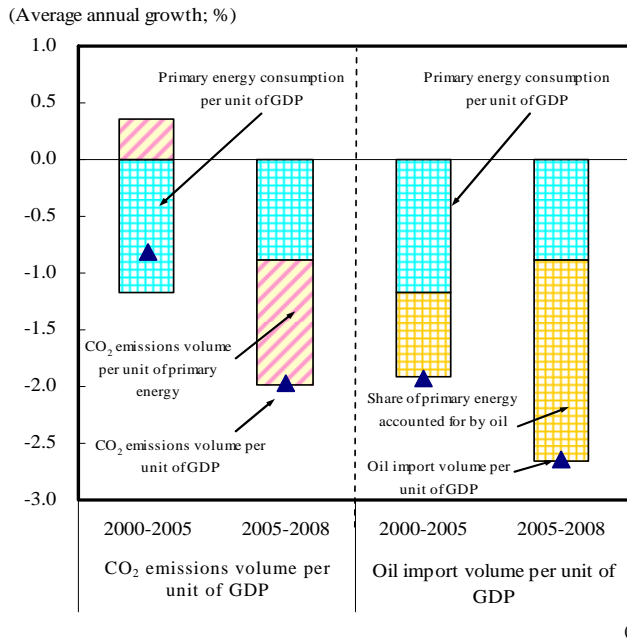
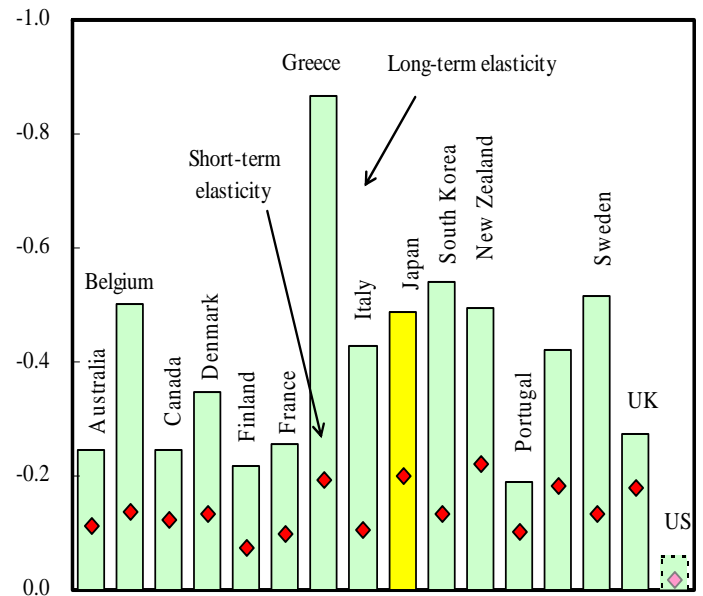


Figure 3-2-6 National Income and the Price Elasticity of Final Energy Consumption for Various Countries

Japan's price elasticity is relatively high.

(2) Price elasticity



- The lower emissions efficiency than that in Europe is attributed to an industrial structure that is highly dependent on oil and coal.

Figure 3-2-7 Industrial and Non-Industrial Basic Unit for Energy and Greenhouse Gas Emissions per Basic Unit for Energy (2007)

Greenhouse gas emissions efficiency per unit of GDP of Japan's industrial sector are relatively low.

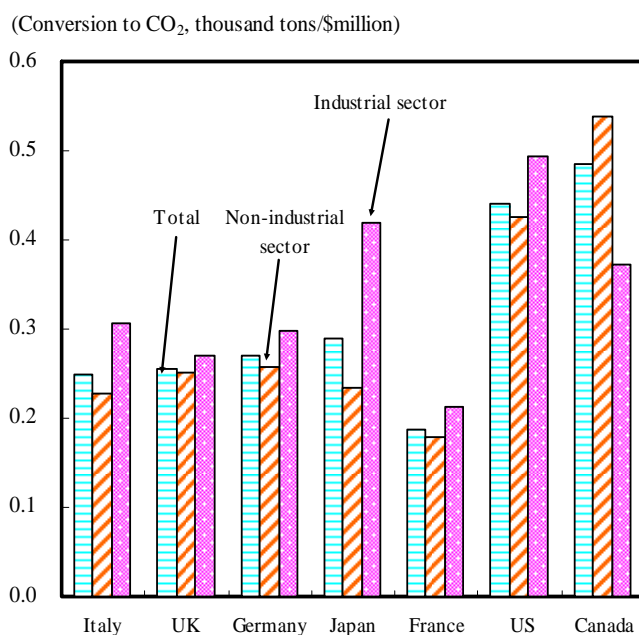
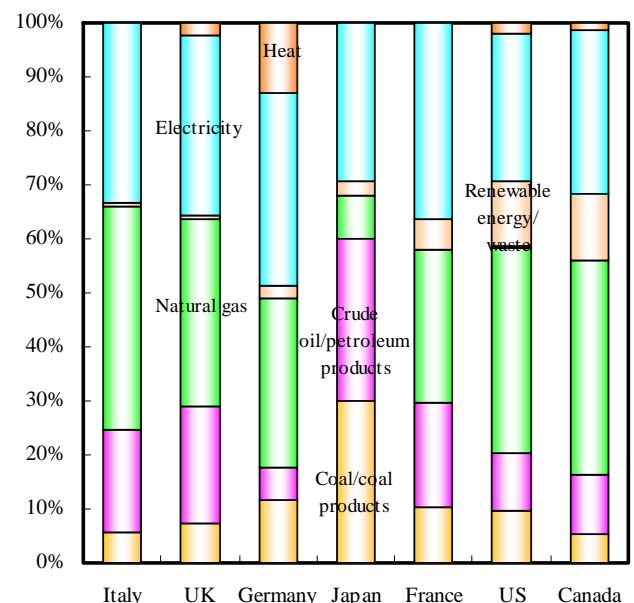


Figure 3-2-8 Forms of Final Energy Consumption in the Industrial Sector (2007)

The proportion accounted for by coal and oil of the final energy consumption in Japan's industrial sector is relatively high.

(1) Percentage of the total by energy



- Additional investments are required to meet the environmental standards.
- Innovation produced through the promotion of R&D for environmental protection may benefit macro productivity.

Figure 3-2-10 Proportion of Total Capital Investment Accounted for by Environment and Energy-Related Investment

The ratio of environment and energy-related investment to total capital investment is high, centering on the basic materials industry.

(1) Proportion of capital investment for environmental protection by industry (FY2008)

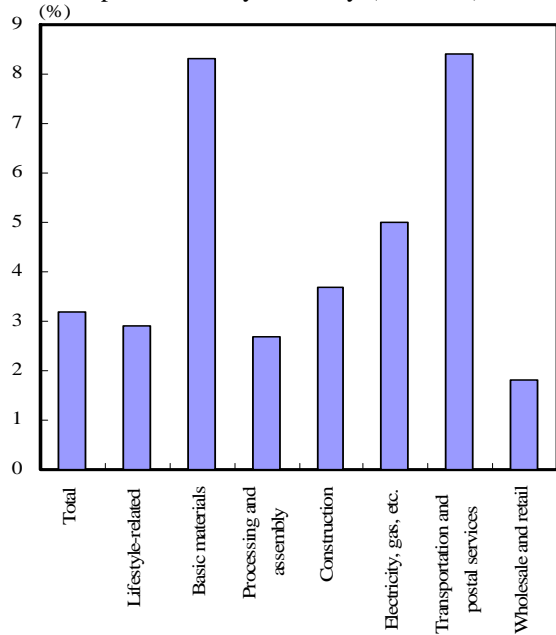


Figure 3-2-12 Proportion and Number of Patents Related to the Environment and Energy Registered in Japan, the US and Europe

The ratio of environment and energy-related patents to the total number of patents registered in Japan has been on the rise since 2001.

Number of environment and energy-related patents and their ratio to the total number of patents in Japan, the US and Europe

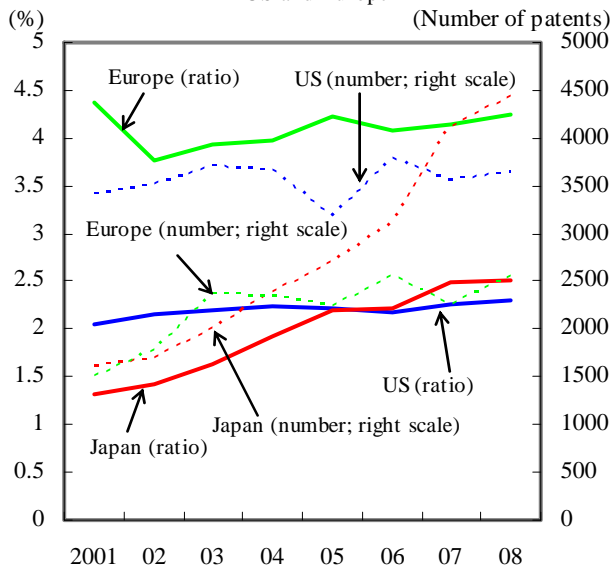


Figure 3-2-11 Proportion of Total R&D Accounted for by Environment and Energy-Related R&D

The ratio of environment and energy-related R&D to total R&D expenditures has been on the rise.

(1) Proportion of environment and energy-related R&D expenditures

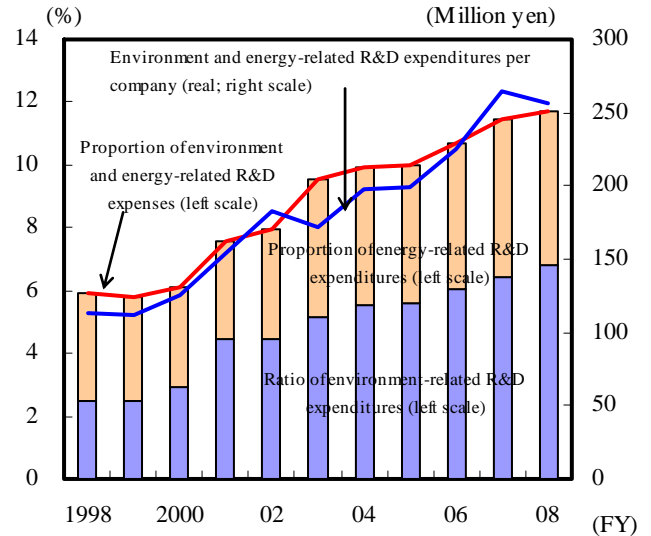
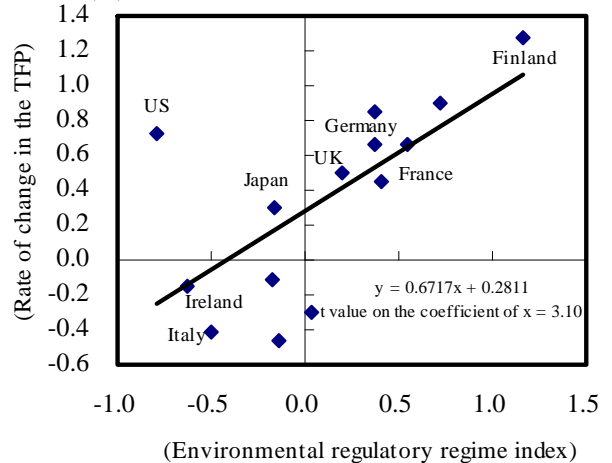


Figure 3-2-14 Correlation between the Environmental Regulatory Regime Index and the Rate of Change in the TFP in Major Countries (2000-2007)

The relationship between environmental regulation and productivity is not clear.

(2) In the case of the use of the environmental regulatory regime index that takes each country's economic development stage into consideration

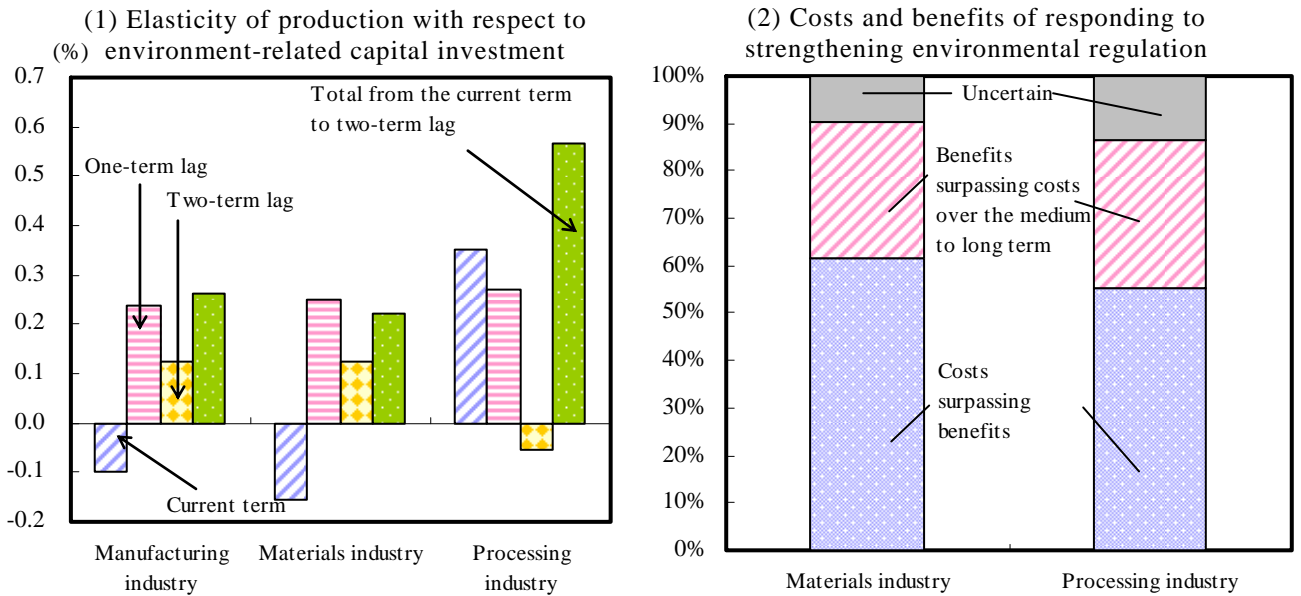


(Note) Of the OECD member countries, 14 high income countries (with an income of \$ 23,000 or more per capita) are the objects of the correlation survey.

- Although environmental regulations have a negative impact on productivity over the short term, they may produce more benefits than disadvantages over the medium to long term.

Figure 3-2-15 Impact of Environment-Related Capital Investment on Productivity and the Response to Environmental Regulation and the Reasons behind It

A certain number of companies think that by complying with environmental regulations, they have received more benefits than the costs they have incurred.

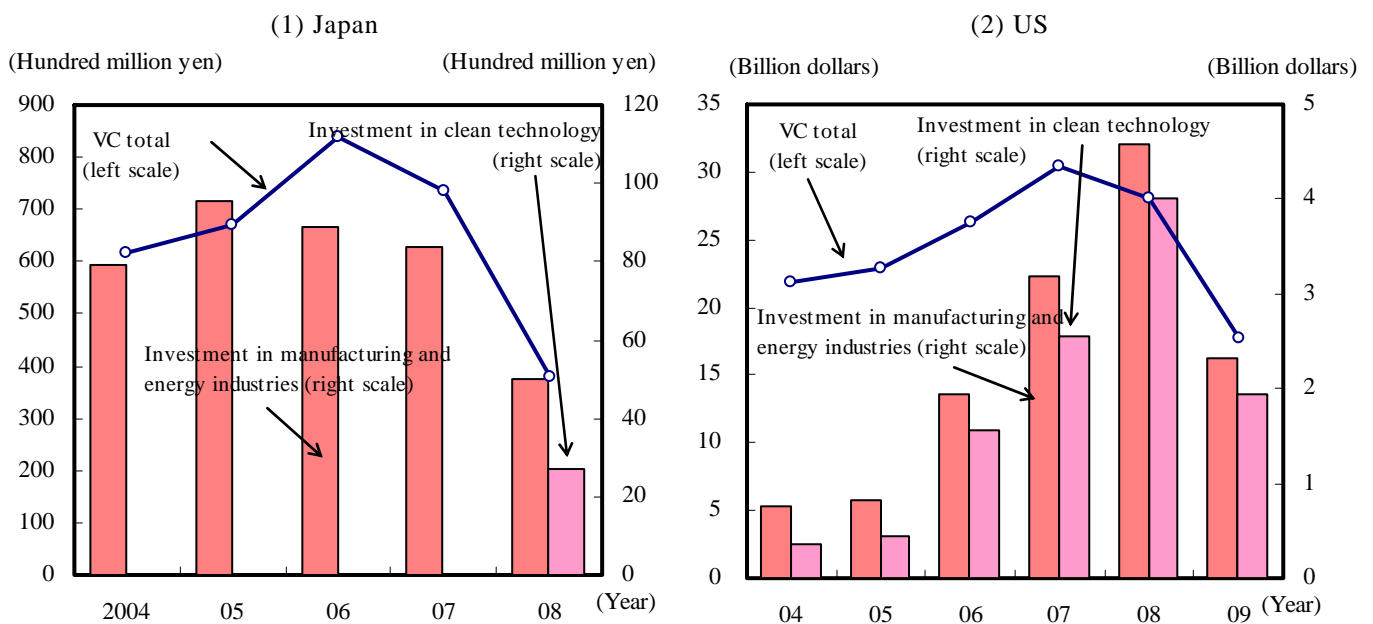


- (Notes) (1) Elasticity indicates the rate of change in productivity due to a 1% increase in the ratio of environment-related investment to the total investment. 1994-2005.
 (2) The proportion of corporations that responded to questions about the relationship between the costs they incurred to comply with environmental regulations of the government and local public agencies and implement voluntary measures for environmental protection and the benefits they received from such actions. 2010.

- It is important to supply risk money to facilitate R&D in environment and energy-related industries.

Figure 3-2-18 Environment-Related Venture Investment

There is a wide gap between Japan and the US in terms of the value of environment-related venture capital investment.

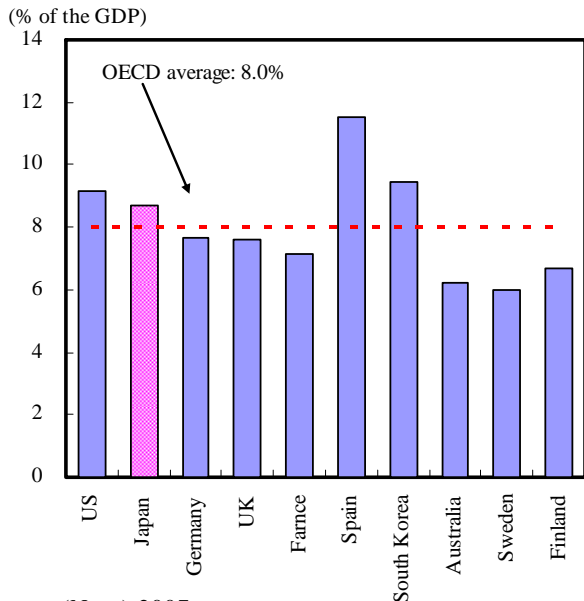


- Although environmental regulations are expected to create new markets, environment-related markets entail the risk of a high dependence on policies.
- In order to expand green employment, it is crucial to improve wages in labor-intensive industries through such approaches as increasing productivity.

Figure 3-2-20 Size of the Global Environment Markets

The size of Japan's environment market is at a standard level in terms of the percent of the GDP.

(2) Market size as % of the GDP



(Note) 2007

Figure 3-2-21 Volume of the Introduction of Solar Power Generation

The volume of the introduction of solar power generation in Spain expanded sharply, but then dwindled rapidly.

(2) Introduction volume and the number of installations in Spain

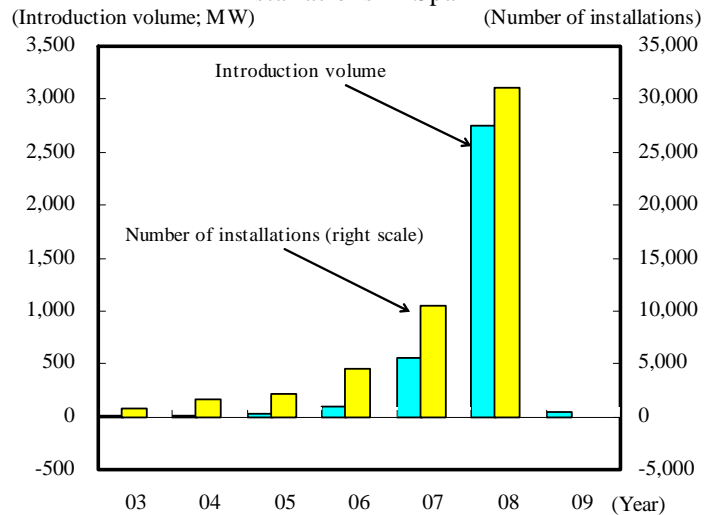
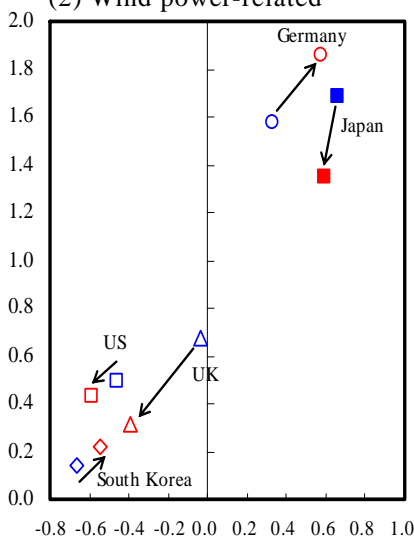


Figure 3-2-22 Trends in the Revealed Comparative Advantage (RCA) Index of Environment-Related Products in Major Countries

The advantages of wind energy and solar-related products has decreased.

(2) Wind power-related



(3) Solar-related

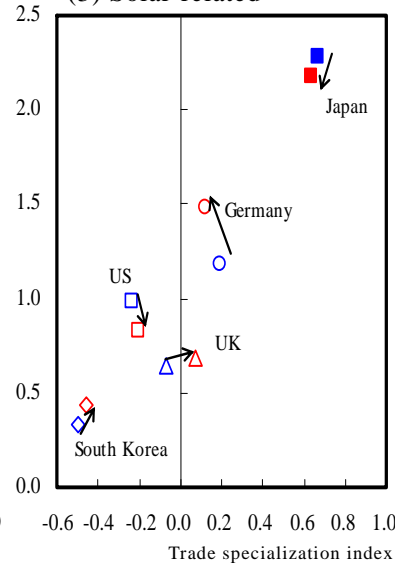
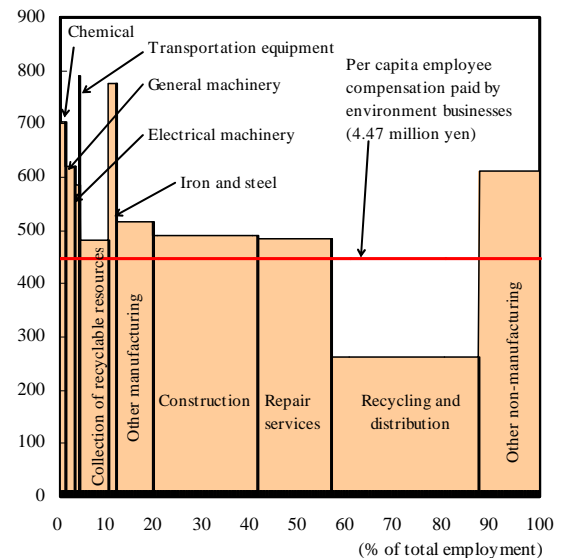


Figure 3-2-24 Contribution from Environment Businesses to per Capita Employee Compensation

Labor-intensive industries depress wage levels.

(Per capita employee compensation; ten thousand yen)



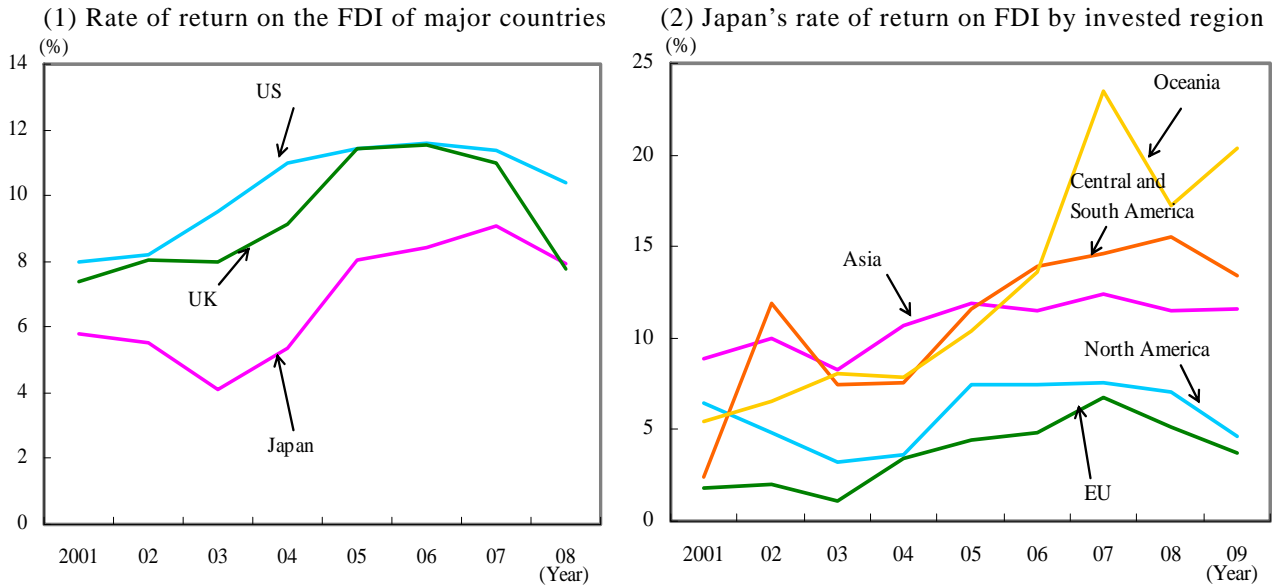
- (Notes) 1. Trade specialization index = (export value - import value)/(export value + import value)
 2. RCA index = (export value of a relevant item in a relevant country/export value of the country)/(export value of the item in major countries/export value of major countries)

Section 3 The New International Division of Labor and the Japanese Economy

- Although Japan's rate of return on foreign direct investment (FDI) has been said to be low, investments in resource-rich countries as well as those in Asian countries have recently produced a higher rate of return.

Figure 3-3-6 Rate of Return on the FDI of Major Countries and Japan

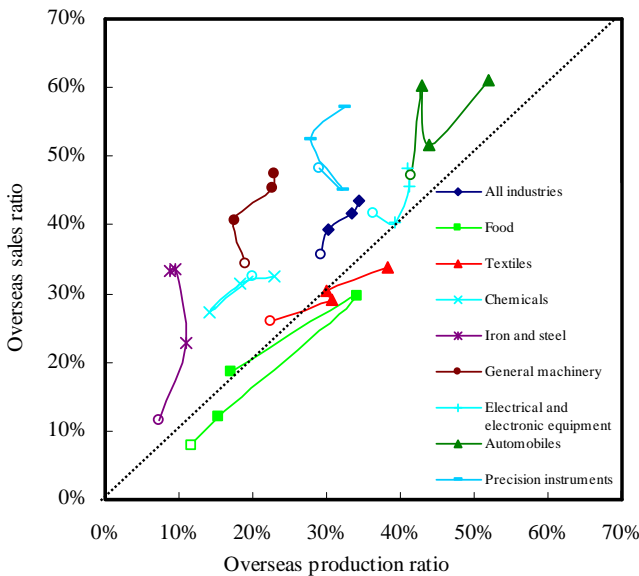
The FDI in emerging countries in Asia, etc., and resource-rich countries produces a high rate of return.



- While many industries have seen their overseas production and overseas sales ratios consistently rising, it has become increasingly evident that operations in and with emerging countries in Asia and other regions are now an important source of earnings.

Figure 3-3-7 Overseas Production and Overseas Sales Ratios

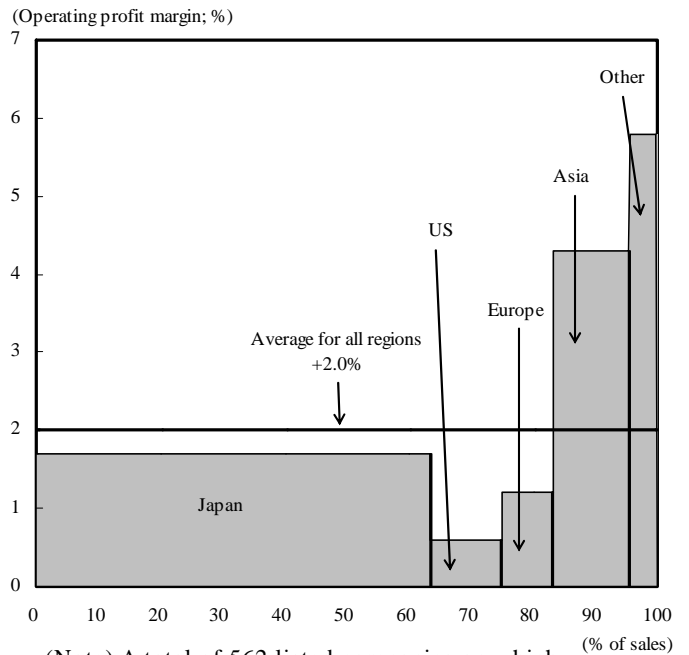
Many industries see both of their overseas production and overseas sales ratios increasing.



(Note) The white legends in the figure indicate data for 2002. Data for 2002, 2004, 2006 and 2008 is plotted. Overseas sales include overseas production and exports.

Figure 3-3-8 All-Industry-Basis Profits by Profit-Generating Region (2008)

It is evident that Asia and emerging countries and regions have become an important source of earnings.



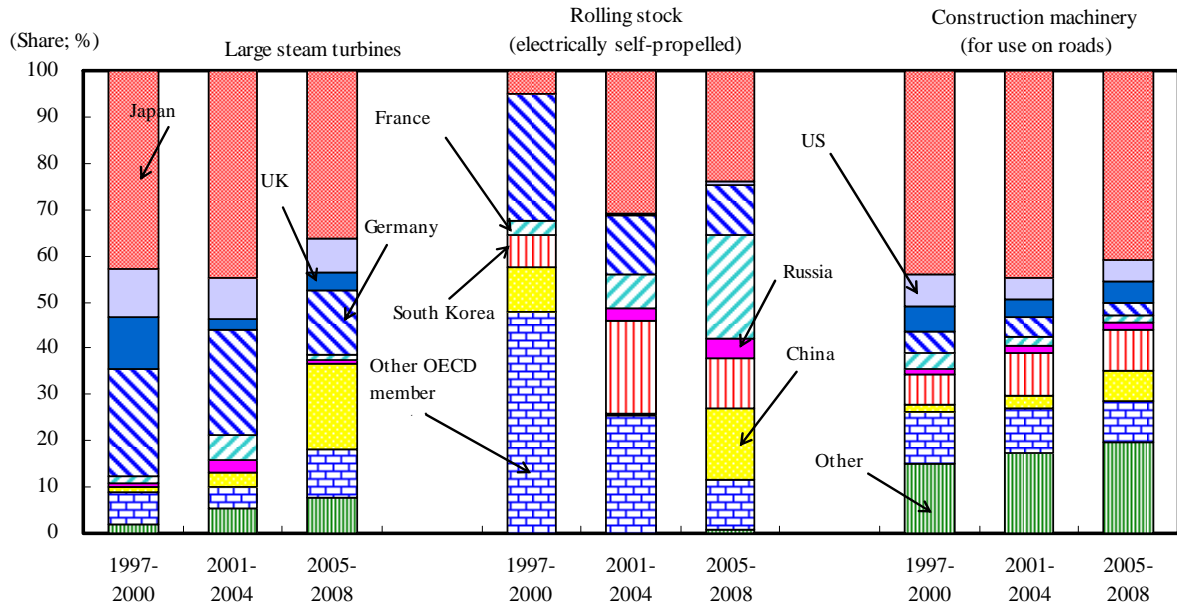
(Note) A total of 562 listed companies on which segment information by location for FY2005 and FY2008 is available are the objects of the survey.

- Japan's share of infrastructure-related exports to Asia has peaked out.

Figure 3-3-16 Export Share of Infrastructure-Related Products

Japan's share of infrastructure-related exports to Asia has peaked.

(3) Japan's share of exports to Asia (including the Middle East)



(Note) The share indicates the ratio of the country's exports to the total exports during the relevant period.

- Overseas affiliates setting up operations in countries such as China have increasingly become locally independent. Expansion of their operations has made these countries more important than ever as destinations for Japan's exports.

Figures 3-3-18, 19 Ratio of Exports to their Overseas Affiliates to the Total Exports of Companies Setting Up Operations Overseas

The ratio of exports to overseas affiliates has been on the rise. The local procurement rate of affiliates in Asia has increased.

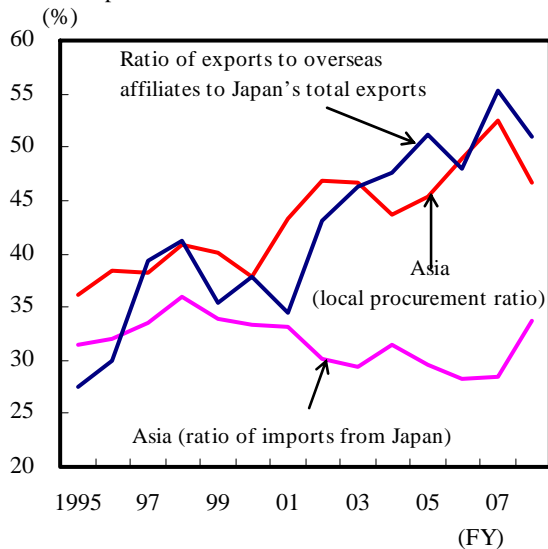
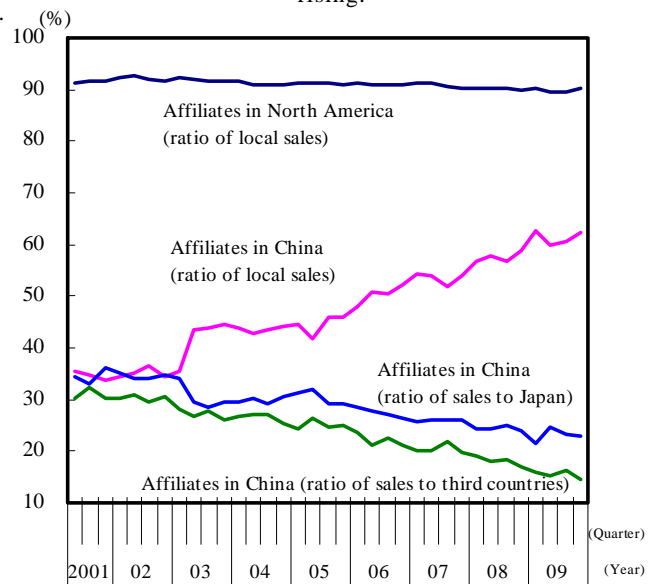


Figure 3-3-19 Regional Sales Ratio of Japanese Affiliates Overseas

Affiliates in China see the ratio of local sales rising.

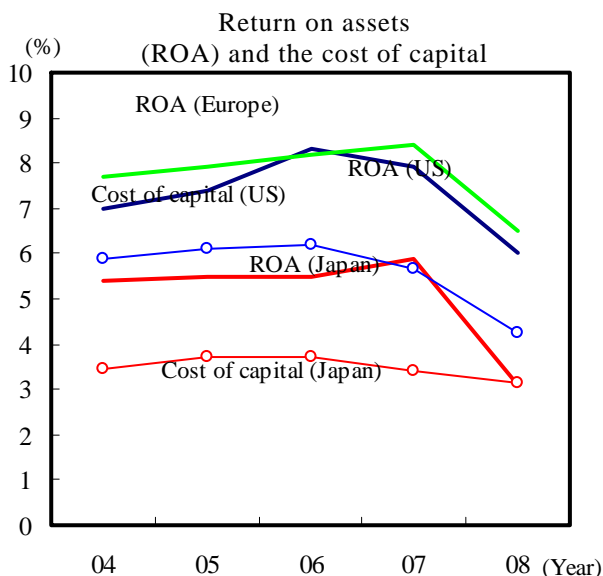


(Note) Samples of responses vary across the survey years.

- Due partly to the low cost of capital, the profitability of Japanese corporations has remained low compared with that of their US and European counterparts.

Figure 3-3-20 Profitability and Total Asset Turnover of Japan, the US and Europe

The profitability of Japanese corporations is low compared with that of their US and European counterparts.

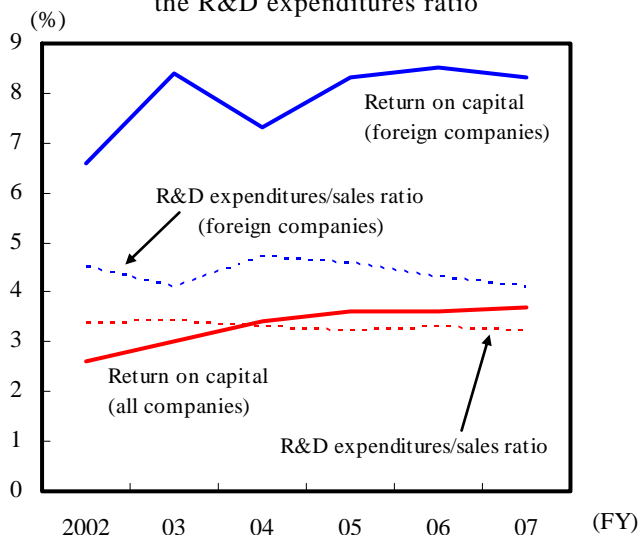


(Note) Corporations not in the financial and insurance industries on which consolidated financial data that does not lack data for essential items for the period of 2000-2008 and which is available from the database, are subject to the survey.

Figure 3-3-24 Inward Direct Investment and Increases in Productivity

An increase in inward direct investment may boost the productivity of the country that was invested in.

(1) Ratio of operating income to total assets and the R&D expenditures ratio

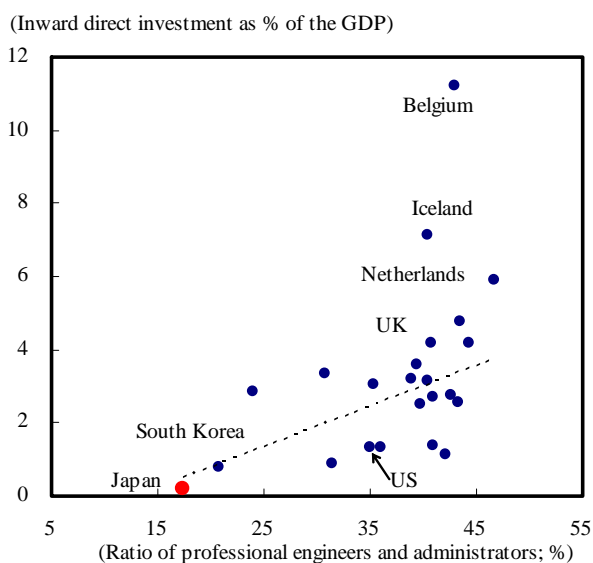


- It is imperative to improve the profitability of Japan's corporate sector through such measures as securing inward direct investment and professionals and specialists.

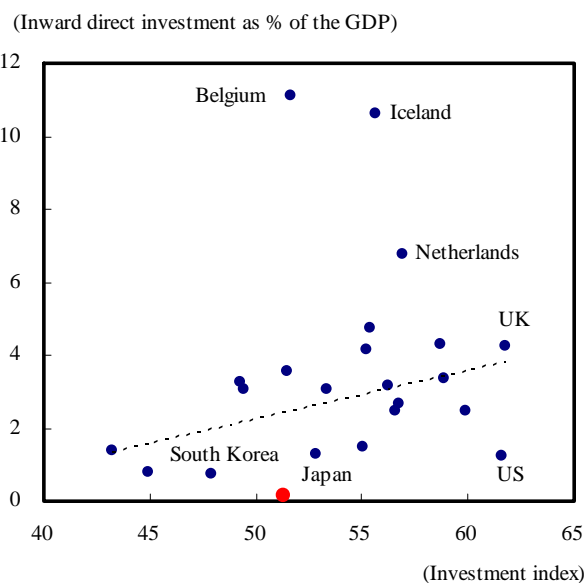
Figure 3-3-25 Inward Direct Investment and Investment Costs and the Ratio of Professional Engineers

The possibility that barriers to investment, etc. may affect the low level of inward direct investment

(1) Ratio of professional engineers and administrators and inward direct investment



(2) Investment cost and inward direct investment



(Notes) (1) Average of 2001-2008 for (1) and that of 2001-2007 for (2). The approximate linearization excludes Belgium and Iceland.
 (2) The figure indicates that the higher the investment index, the lower the investment costs. The investment index is determined comprehensively taking into consideration limits on the acquisition of a controlling interest in domestic companies, the employment potential of foreign workers, the joint venture negotiation potential, etc.

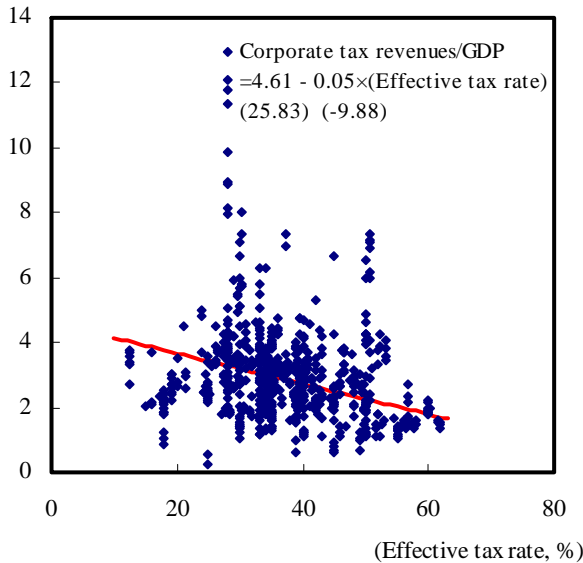
- From this point onward, it is necessary to implement measures including non-physical (software) approaches such as reviewing the tax burden and securing human resources with advanced skills to transform Japan into a country suitable for corporate activities.

Figure 3-3-27 Corporate Tax Paradox

There is an inverse correlation between the corporate tax rate and corporate tax revenues as a percent of the GDP.

(3) Relationship between corporate tax revenues as a percentage of the GDP and the effective tax rate

(Corporate tax revenues as a percentage of the GDP, %)

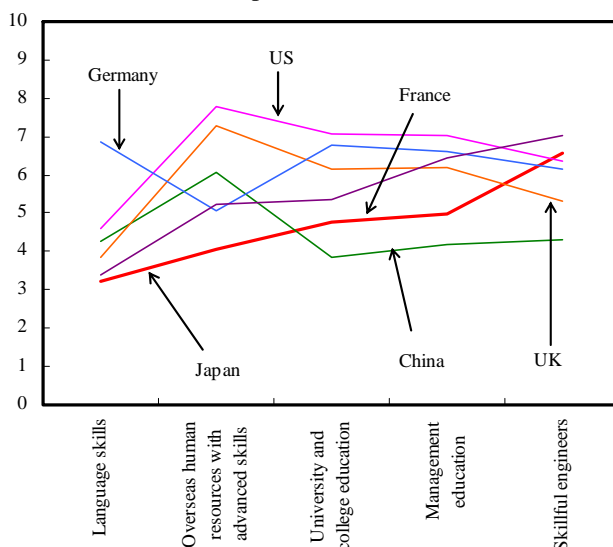


(Note) 1981-2007. A total of 28 OECD countries are surveyed.

Figure 3-3-29 International Comparison of Business Personnel

A challenge for Japan is to develop business personnel.

(3) Assessment of the human resources and human resources development in various countries

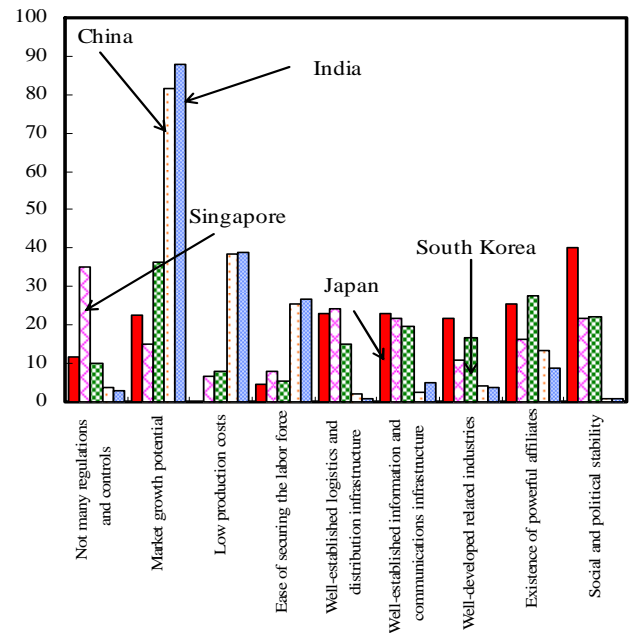


(Note) 2009. Questionnaire surveys of the managers and administrators of the countries and surveys of public opinion compiled by OECD.

Figure 3-3-28 International Comparison of the Business Environment

The Japanese business infrastructure is almost at the same level as that of other Asian countries.

(2) Reasons why foreign companies consider Asian countries important from a business strategy point of view

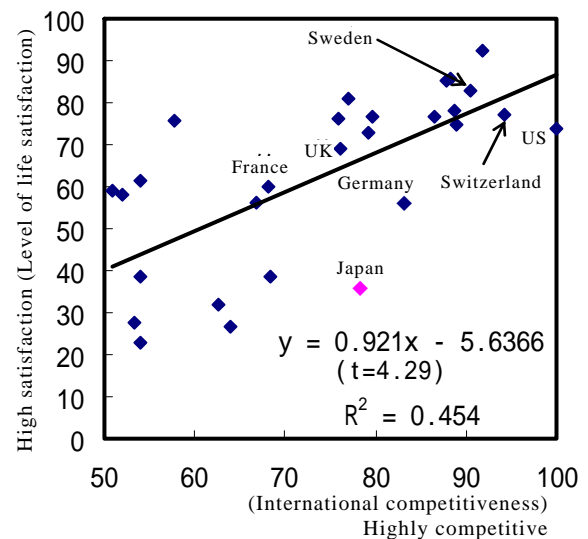


(Note) 2008. Foreign companies having set up operations in Japan are surveyed.

Column Figure 3-5 Business Environment and People's Lives

There is a certain relationship between the business environment and life satisfaction.

(1) International competitiveness and life satisfaction



Conclusion

○ Economic outlook and risks

>> The foundation for a self-sustained recovery is being laid.

Given that an increasing number of companies have stopped feeling that they have excess of facilities and labor, and earnings and income remain on an upward trend, capital investment and household demand are expected to grow steadily.

It has become less likely that the economic growth will lose steam in line with the tapering off of the effects of stimulus measures.

>> After the shift in the growth to a self-sustaining stage

A solid future vision held by corporations and households is essential for the economy to gain a sufficiently strong recovery momentum to make people feel that it is really recovering.

>> Downside risks to the economy

- Overseas economies
- Prices of crude oil and others
- Influence of deflation, etc.

○ The influence of the collapse of the bubble economy has not disappeared yet - This longstanding problem will be solved by achieving economic growth driven by the expansion of demand.

>> Deflation

Of all major economies, only Japan is suffering from deflation due to a decline in the expected inflation rate resulting from a persistent lack of demand as the post-bubble economic adjustment has been protracted.

>> Money not flowing freely

A low appetite for new investment opportunities due to liquidity preference has caused the stagnant risk money supply.

>> Chronically deteriorating public finances

While the framework of public finances based on the economic structure prior to the burst of the bubble has remained unreformed, debts have rapidly accumulated and have also been affected by reduced tax revenues stemming from the deflation.

It is crucial to address the chronic demand deficiency without placing a burden on public finances.

Aiming at “economic growth driven by demand expansion” by directly encouraging demand.

- Economic recovery by placing the emphasis on household
 - To stimulate consumption and demand for housing and house reform investment by supporting household budgets, including an increase in “real” disposable income

- >> Innovation through free choice by households
 - A virtuous circle is created by increasing “growth items”
- >> Bright future prospects in terms of income
 - To secure corporate earnings bases; to raise the employment rate
- >> Utilization of household assets worth 1,400 trillion yen
 - To encourage consumption by the elderly; trust in social security

- Creation of new industries and jobs
 - To stimulate potential demand and create new demand in areas such as environment and energy and medical and nursing care

- >> Review of the rules in areas where “queues” exist
 - Social security, land use, etc.
- >> Innovation in the environment area
 - Supply of risk money; sustainable regulatory frameworks
- >> Humane and meaningful work (decent work)
 - In the context of the population decline, it is important to improve the quality of employment, including dealing with the wages issue.

- Growth on the back of robust domestic demand in Asia
 - To seize earnings opportunities by responding to structural changes in the global economy

- >> Establishment of a global supply chain by corporations setting up operations in Asia
 - To pay close attention to regions other than Asia
- >> Concerns about the intensifying price competition
 - Leadership capability based on global standards; compliance with intellectual property protection, etc.
- >> To capitalize on the dynamics of Asia and other regions
 - Mutual exchanges of people, goods and money including inward investments
 - A country where corporations can operate comfortably must be a comfortable place for households as well.