

Chapter 3 Human Capital and Innovation

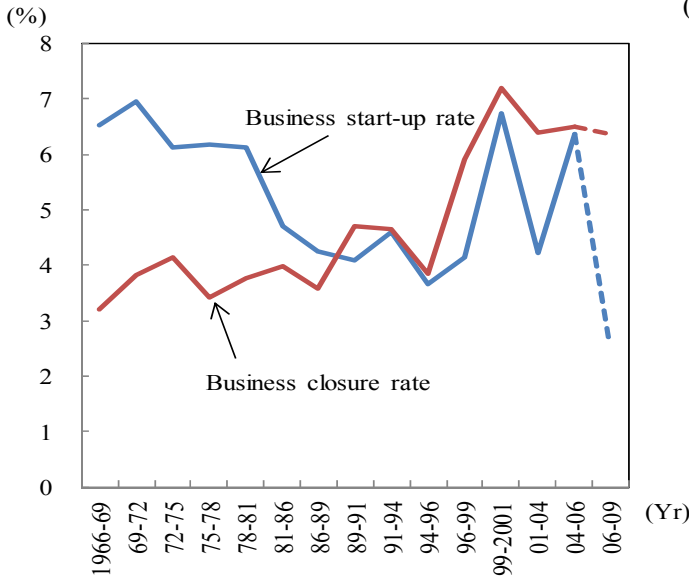
Section 1 Entrepreneurship Activity and Diverse Working Arrangements

- In recent years, the business closure rate has been higher than the business start-up rate.
- Behind the sluggishness of entrepreneurship activity in Japan is a lack of skills and opportunities, and there are institutional impediments as well.

Figure 3-1-5 Changes in the business start-up and closure rates

In recent years, the business closure rate has been higher than the business start-up rate.

(1) Based on the Establishment and Enterprise Census (private establishments)



- (Note) 1. The above data represent the average numbers for 2003 to 2010.
 2. The "share of entrepreneurs" is the share of people who engage in entrepreneur activity of the population of people aged 18 to 64 (limited to those who have not yet started a business and those who have started a business in the past three and a half years). "Entrepreneurs" are defined as people who have taken a chance by starting a business or are planning to do so despite the availability of other options.

Figure 3-1-3 Determinants of the share of entrepreneurs:

Institutional factors

The fewer the number of days required for starting business in a country, the more businesses are started there.

(1) Share of entrepreneurs and the number of days required for starting business

(Share of entrepreneurs, %)

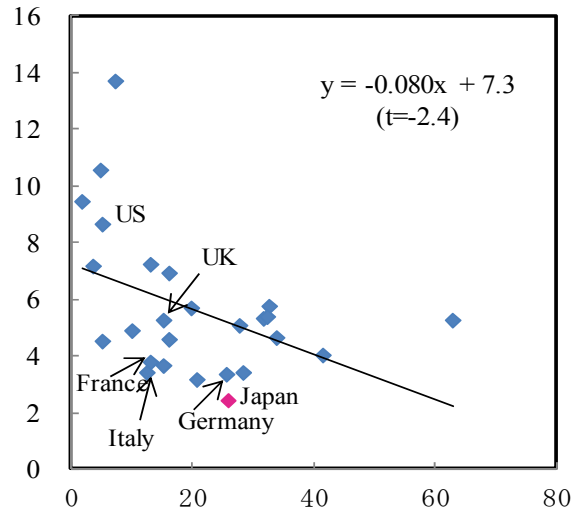
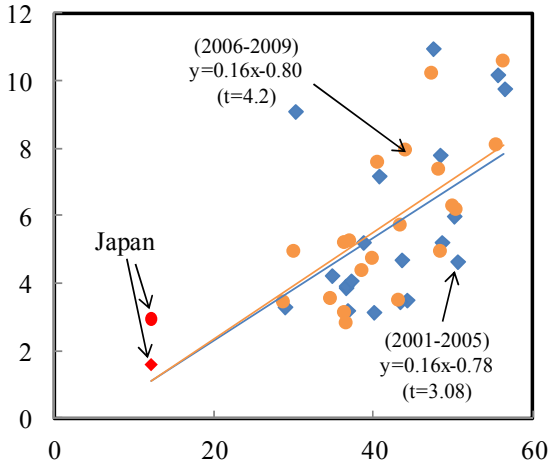


Figure 3-1-4 Perception of entrepreneurship and entrepreneurship activity

Entrepreneurship activity is affected by skills, knowledge and the perception of entrepreneurship opportunity.

(1) People who possess entrepreneurship skills and engage in entrepreneurship activity

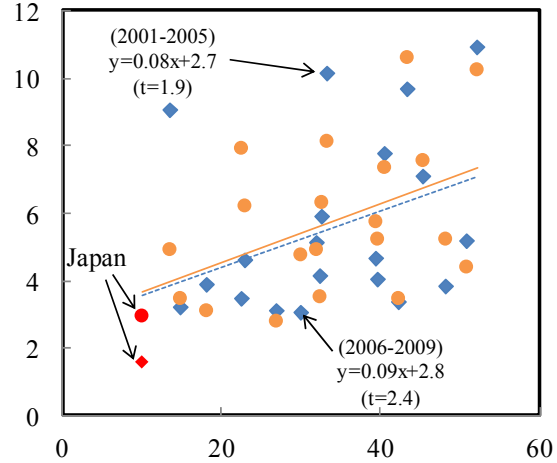
(Share of entrepreneurs, %)



(Share of people who believe they have skills and knowledge necessary for entrepreneurship, %)

(2) People who recognize entrepreneurship opportunity and activity.

(Share of entrepreneurs, %)



(Share of people who believe there are entrepreneurship opportunities in their countries, %)

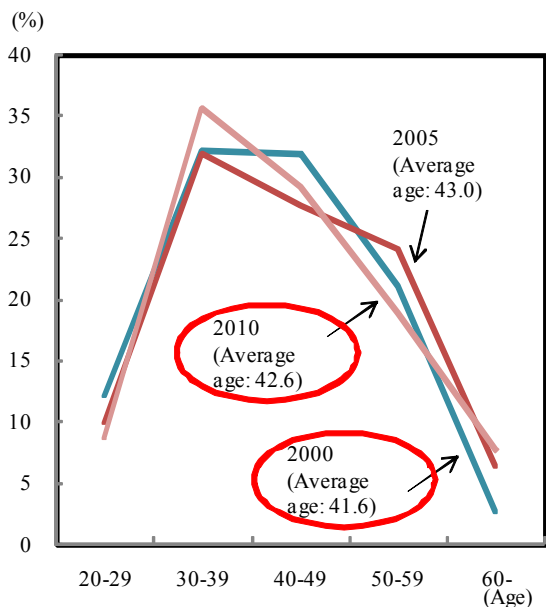
(Note) The dotted line represents 10% significance.

- The average age of people starting a business has not changed significantly.
- The ratio of venture businesses is high among businesses started by elderly people.

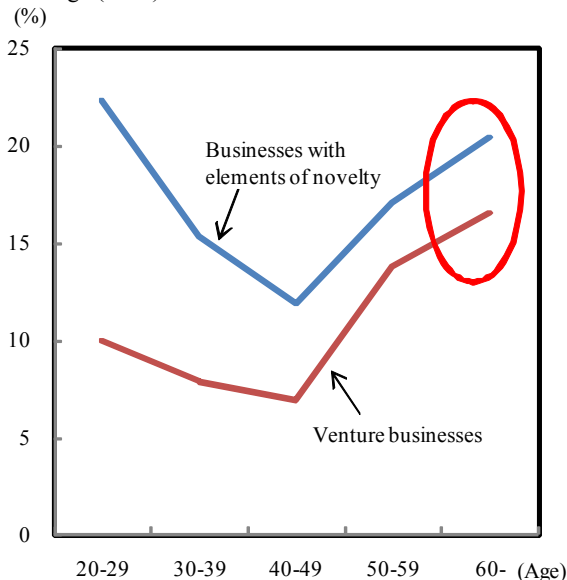
Figure 3-1-6 Age of people starting business and elements of novelty and venture

The ratio of venture businesses and businesses with elements of novelty is high among businesses started by elderly people.

(1) Changes in the mix of people starting businesses by age



(2) The ratio of businesses with elements of novelty by age (2009)



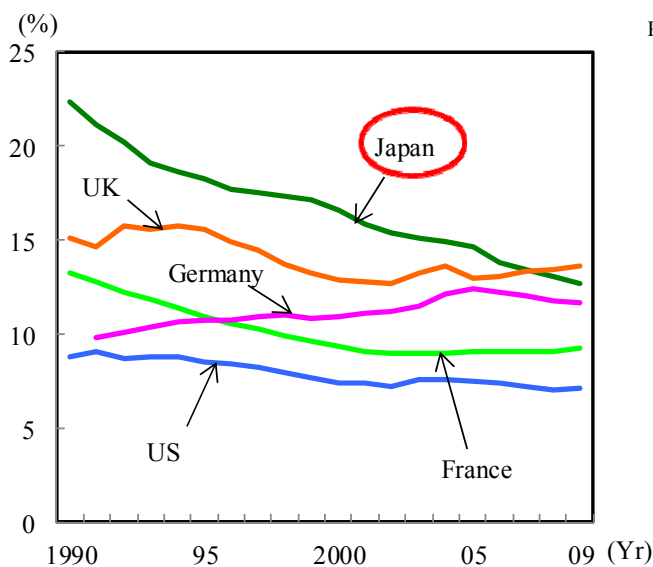
(Note) Compiled from the Survey on New Business Start-Ups, Japan Finance Corporation

- The self-employment rate in Japan has been declining rapidly.

Figure 3-1-8 Changes in the self-employment rate

In major developed countries, the self-employment rate has been declining.

(1) Changes in the self-employment rate

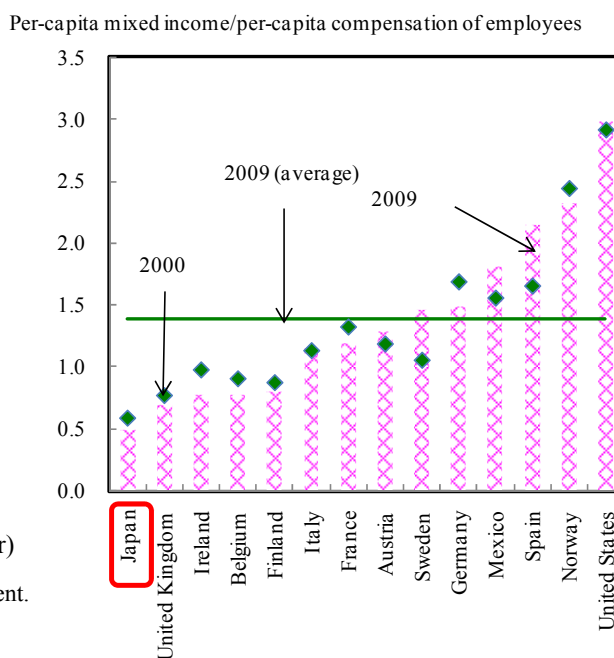


(Note) The self-employment rate = Self-employment/civilian employment.

Figure 3-1-11 Compensation of employees and mixed income

In Japan, the level of income for self-employed people is relatively low.

(1) Comparison of per-capita compensation of employees and mixed income



Section 2 Corporate Management and High-Quality Human Resources

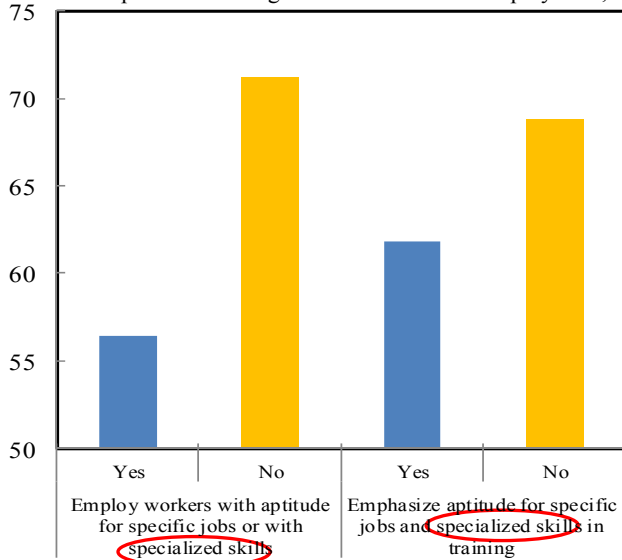
- Although lifetime employment and emphasis on specialization are not so compatible, there are signs of future change.

Figure 3-2-2 Correlation between personnel with specialized skills and corporate employment systems

Among companies emphasizing aptitude for specific jobs and specialized skills, the ratio of those intending to maintain lifetime employment is small.

(1) Approach to lifetime employment

(Ratio of companies intending to maintain lifetime employment, %)

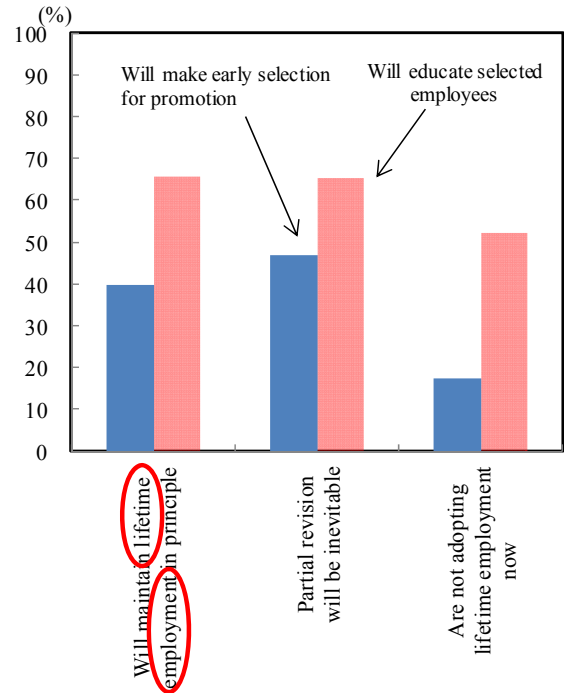


(Note) Compiled from the "Survey on Future Employment Portfolio and Personnel Management Strategy" (conducted in September 2009), Japan Institute for Labour Policy and Training

Figure 3-2-6 Lifetime employment and employee training policy

Even companies adopting lifetime employment plan to conduct selective education in the future.

(2) Future approach to lifetime employment and employee training policy

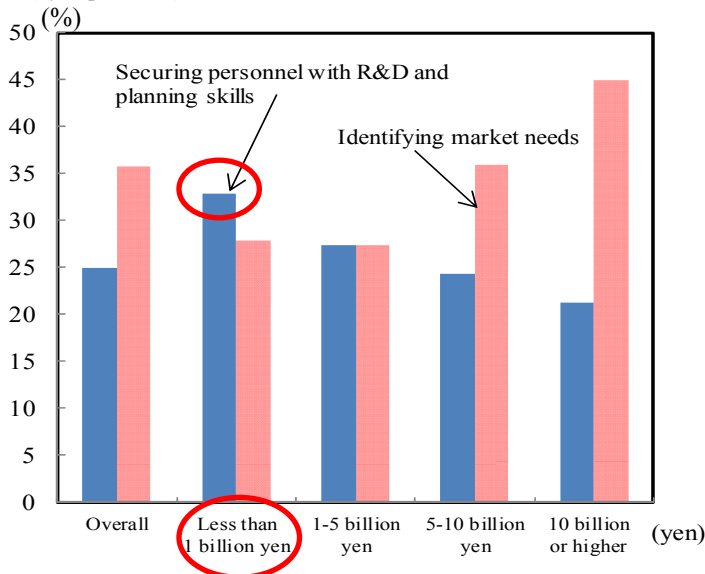


- Securing R&D personnel is a challenge, mainly at small and medium-size companies.

Figure 3-2-7 Lack of R&D personnel

The smaller a company is, the greater challenge it is to secure R&D personnel.

(1) Challenges related to product and service development (by capital size)

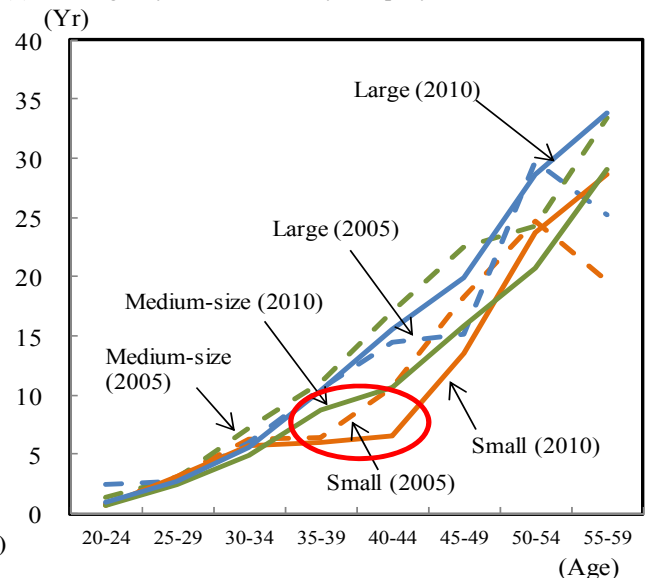


(Note) Multiple replies were allowed. The above figure shows the ratios of the greatest challenges. Other challenges cited by many respondents are "Securing personnel capable of providing high-quality products and services" and "lack of sales capabilities."

Figure 3-2-8 Wages and job longevity of R&D personnel

At small factories, the retention rate of mid-level researchers is low.

(2) Job longevity of researchers by company size



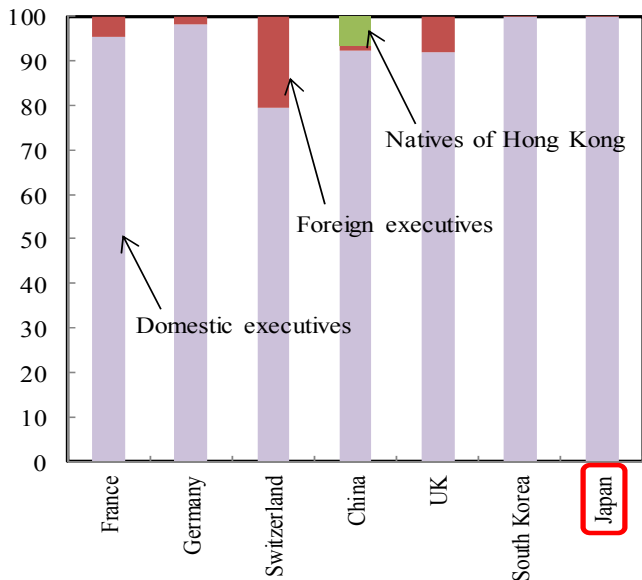
(Note) The above data show the wages and the job longevity of natural sciences-related researchers (male). "Large," "medium-size" and "small" refer to workforces of 1,000 or more, 100 to 999 and 10 to 99, respectively.

- Although the ratio of foreign executives is small, Japanese companies, mainly those which are positive about advancing abroad, are planning to increase foreign senior managers.

Figure 3-2-16 Current status of appointment of foreign senior managers

In Asian countries, the ratio of foreigners to overall executives is small.

(1) The ratio of foreign executives at companies in various countries (%)

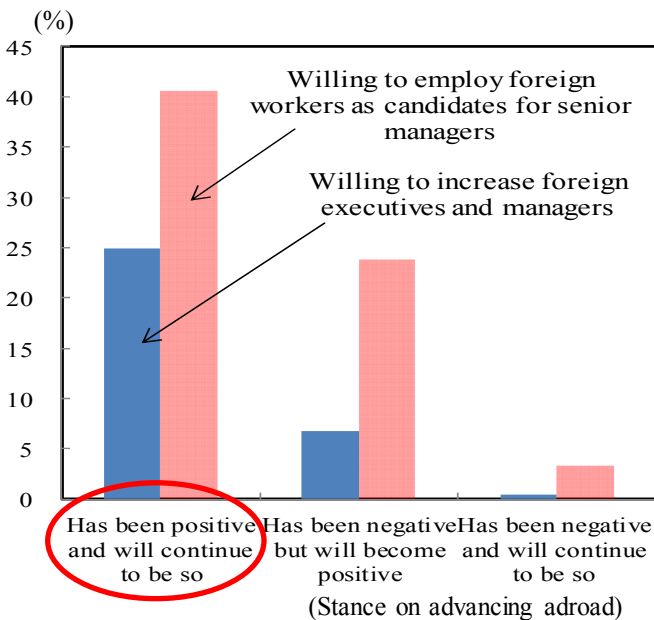


(Note) The above data are for 2011.

Figure 3-2-17 Stance on appointment of foreign senior managers and impediments thereto

The more positive a company is about advancing abroad, the more willing it is to increase the number of foreign senior managers.

(1) Stance on advancing abroad and foreign senior managers



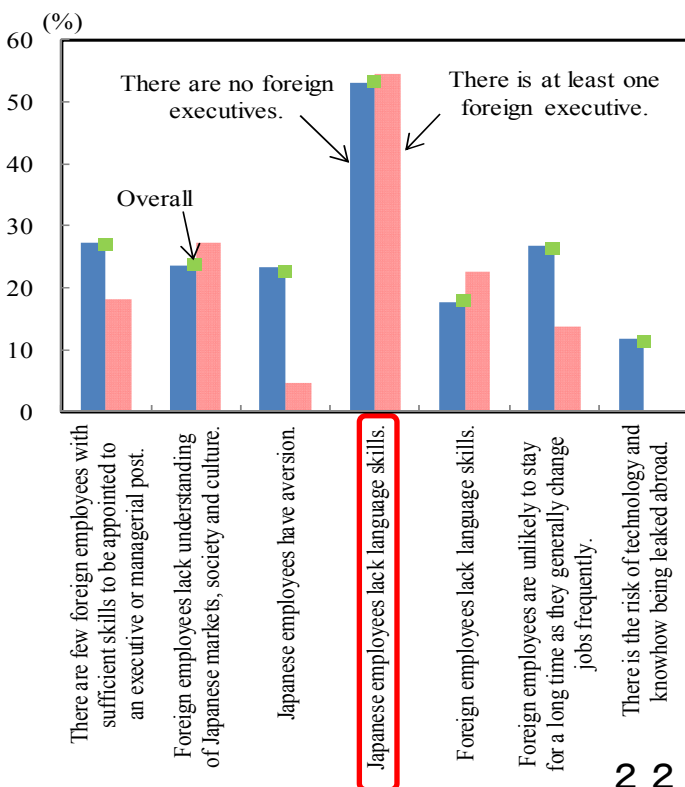
(Note) February 2011 survey

- A lack of foreign language skills on the part of Japanese employees is impeding the appointment of foreign senior managers.

Figure 3-2-17 Stance on appointment of foreign senior managers and impediments thereto

A lack of foreign language skills on the part of Japanese employees is impeding the appointment of foreign senior managers.

(2) Impediments to the appointment of foreign executives and managers



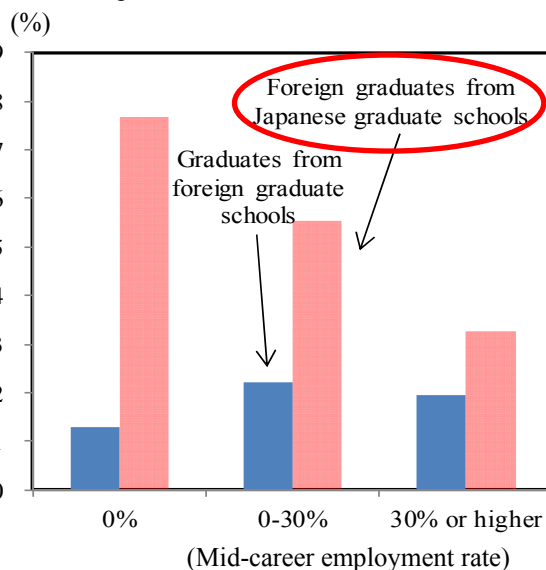
(Note) February 2011 survey

Figure 3-2-18 Stance on employment of foreign graduates from graduate schools

Employment of foreign students is harmonious with the maintenance of long-term employment.

(2) Mid-career employment rate and policy for employment of foreign workers

(Ratio of companies that intend to increase



(Note) February 2011 survey; The mid-career employment rates are the figures for the past one year.

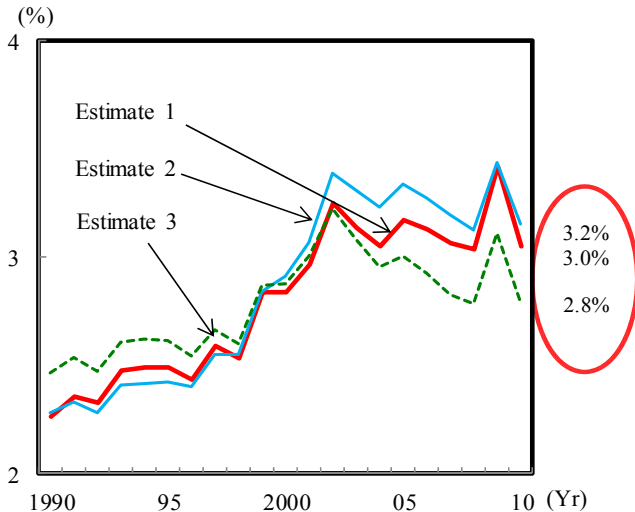
Section 3 Effective Utilization of Personnel and Economic Systems

- The structural unemployment rate has stayed at around 3% and the ratio of long-term unemployed people has remained high.

Figure 3-3-1 Changes in the structural unemployment rate

The structural unemployment rate in Japan rose sharply around the year 2000.

(2) Changes in the structural unemployment rate

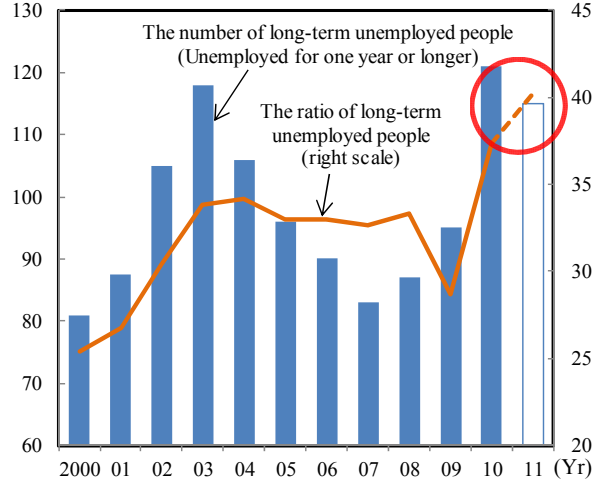


(Note) "Estimate 1" is based on the vacancy rate and the ratio of elderly employees as indicated in the Employment Security Statistics, Ministry of Health, Labour and Welfare.
 "Estimate 2" is based on the vacancy rate and the ratio of non-regular workers as indicated in the Employment Security Statistics, Ministry of Health, Labour and Welfare.
 "Estimate 3" is based on the vacancy rate and the ratio of elderly employees as indicated in the Survey on Employment Trends, the Ministry of Health, Labour and Welfare

Figure 3-3-4 Changes in the number of long-term unemployed people by factor.

The ratio of long-term unemployed people has remained high.

(1) Changes in the number of long-term unemployed people (10,000 people)



(Note) The data for 2011 cover the January-March quarter (excluding the results in Iwate, Miyagi and Fukushima Prefectures).

- The high ratio of long-term unemployed people reflects the low mobility of the labor market.

Figure 3-3-4 Changes in the number of long-term unemployed people by factor

The number of people who remain unemployed for a long time due to a demand shortage is increasing.

(2) Breakdown of long-term unemployed people

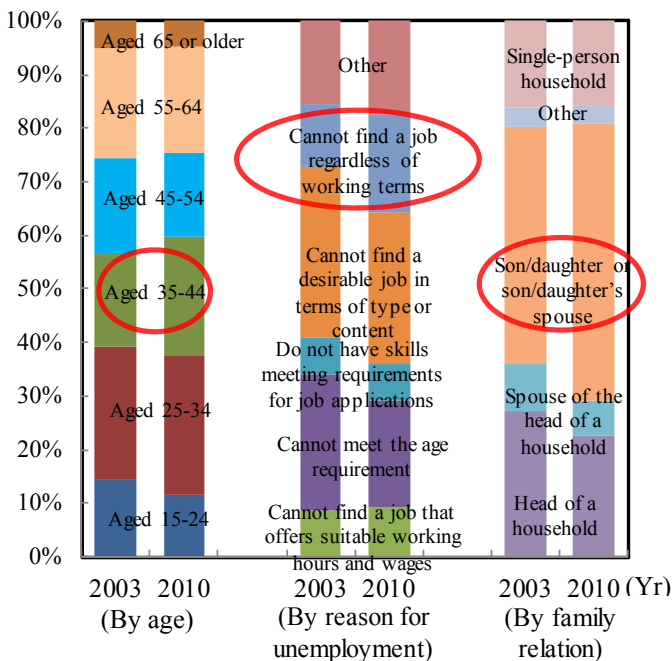
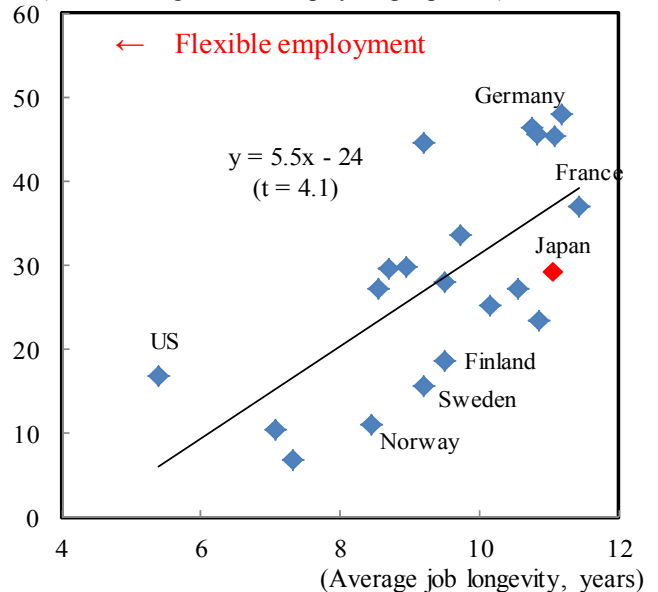


Figure 3-3-6 Labor market mobility and long-term unemployment

The less mobility a country's labor market has, the higher its ratio of long-term unemployed people.

(2) The job longevity and the ratio of long-term unemployed people

(Ratio of long-term unemployed people, %)



(Note) The figures for the ratio of long-term unemployed people and the average job longevity are those covering people aged 25 to 54.

- Although Japanese markets have become more flexible than before, there has been no change in the country's innovation system, which is led by major companies.

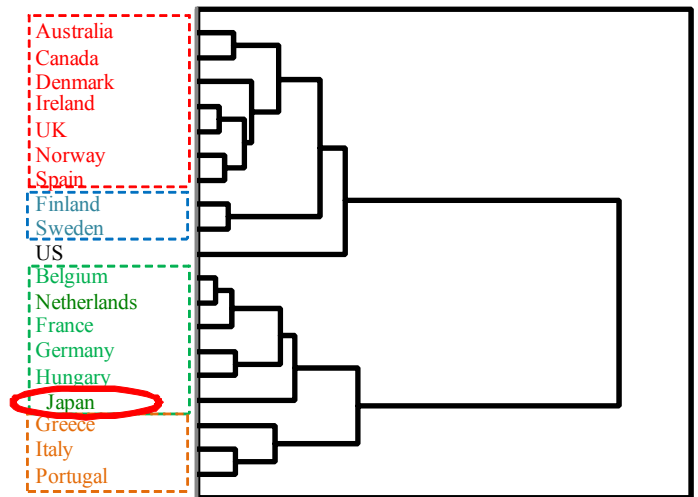
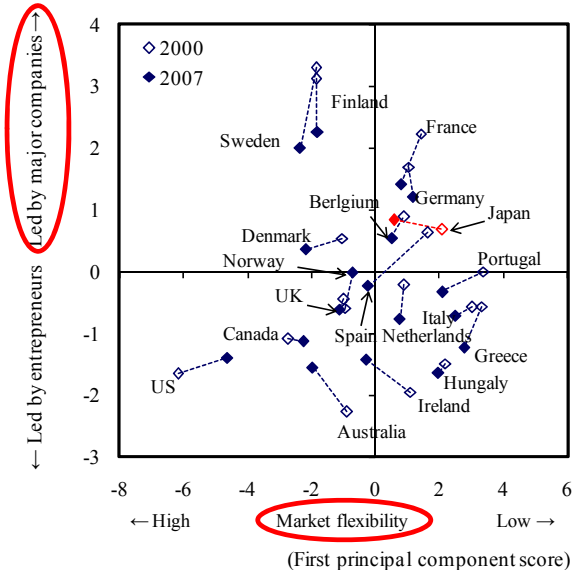
Figure 3-3-14 Changes in innovation systems in the 2000s

Innovation systems of developed countries converged during the 2000s.

(1) Changes in the 2000s as indicated by principal component analysis

(2) Grouping by cluster analysis (2007)

(Second principal component score)



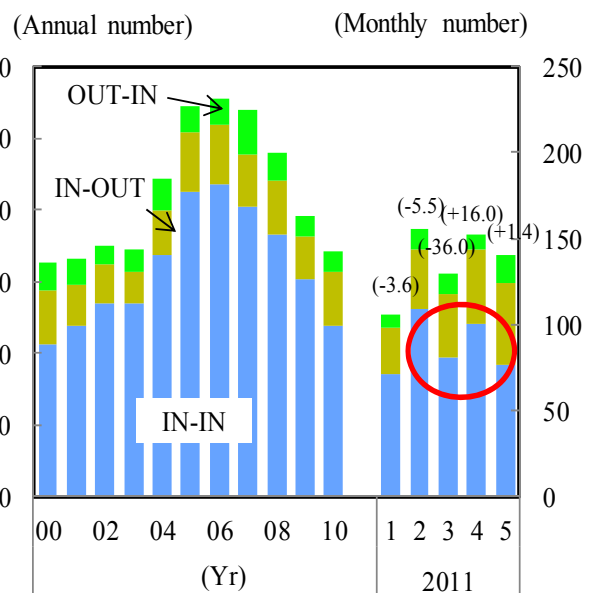
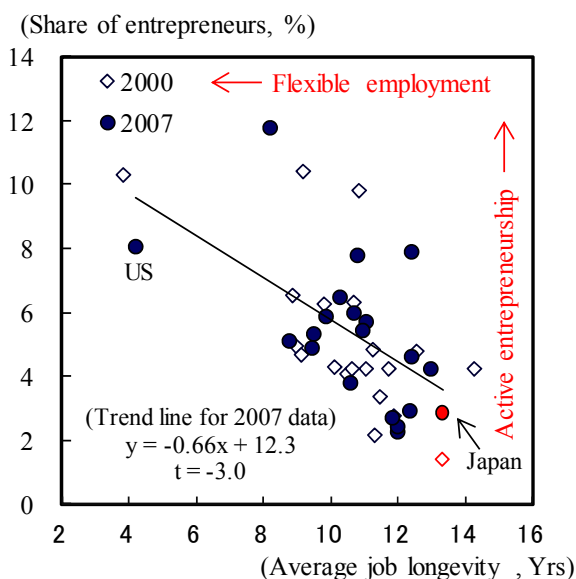
- While there are high expectations for M&As as a means to make up for a lack of entrepreneurship and to increase resource allocation efficiency, M&A activities other than the acquisition of foreign companies by domestic companies have recently been sluggish.

Figure 3-3-17 Trends in the average job longevity, entrepreneurship activity and M&A

The less labor mobility a society has, the smaller the share of entrepreneurs is.

(1) Average job longevity and the share of entrepreneurs

(2) Number of M&A involving Japanese companies



- (Note) 1. The average job longevity is the average for men of all ages.
 2. The "share of entrepreneurs" refers to the share of people who engage in entrepreneur activity of the population of people aged from 18 to 64 (limited to those who have not yet started a business and those who have started a business in the past three and a half years). "Entrepreneurs" are defined as people who have taken a chance by starting a business or are planning to do so despite the availability of other options.

(Note) The figures for 2011 in parentheses indicate year-on-year changes in the number of M&As.

Conclusion

○ Economic outlook and risks

Scenario of economic recovery

(1) Recovery in production activity

Progress in restoration work and rebuilding of supply chains

(2) Growth in demand

Continued recovery in overseas economies; improvement in sentiment; and expansion of investment demand resulting from the rebuilding of stocks

Future risks

(1) Power supply constraints (2) Delay in efforts to bring the nuclear disaster under control

(3) Delay in income recovery (4) Impact of high resource prices

(5) Slowdown of recovery in overseas economies (easing of the supply-demand condition for IT-related goods)

○ Existing medium- and long-term challenges will continue to confront Japan after the Earthquake.

Securing the sustainability of government finance and social security

Securing growth potential through innovation

(1) Creating new value by further opening Japan to the outside world

(2) Improving the quality of human resources

○ Additional challenges due to the Earthquake: Shifting to an economy resilient to crises

Realizing a flexible economic structure

Robust government finance and strong social security systems

Importance of investment in intangible assets

*Intangible assets: R&D stocks, brands, achievements of organizational reform, human capital, etc.

○ Challenges for innovation to be made through investment and management of intangible assets

Activities conducted with globalization in mind

Open innovations, including international partnerships

Brand building and organizational reform → Leading R&D results to earnings

Development and allocation of high-quality human resources

Early selection of employees and employment of foreign personnel; Re-allocation of personnel through increased M&A activities; promotion of entrepreneurship, and enhancement of human capital formation at universities (predicated on a revision of the system of employing new graduates at a time)

Protection of intangible assets damaged or likely to be damaged by the Earthquake

Preserving Japanese brands by containing damage from harmful rumors, building new brands,

Dedicating policy resources to the prevention of damage to human capital from long-term unemployment,

Strengthening R&D centers, and improving the environment for accepting investment from abroad.