

Chapter 3 The foundation that supports economic activities

Section 1 Three viewpoints of human resources

- Among young people, the ratio of non-regular employees is on an upward trend.
- A large percentage of the young males working in non-regular employment are “reluctant” non-regular workers.

Figure 3-1-2 Shares of non-regular employees

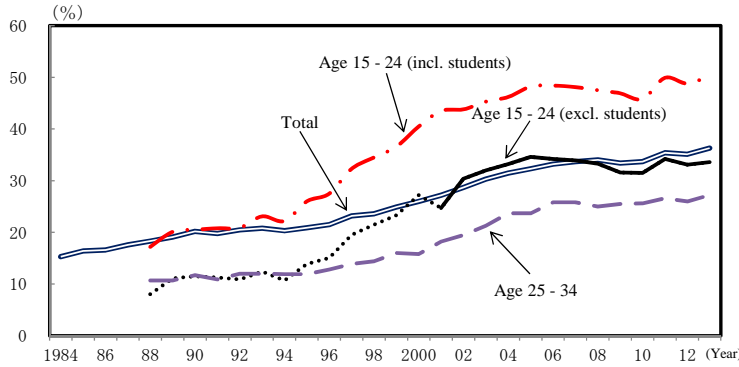


Figure 3-1-3 (3) Numbers of non-regular employees by major reason for accepting a job in their current type of employment (aged between 25 and 44)



(Note) Compiled based on the Special Survey of the Labour Force Survey, and the Labour Force Survey (detailed compilation). Numbers in the figure on the right are for the January - March quarter of 2013.

- Career education at high schools or other institutions has an influence on what type of employment graduates work in.
- The ratio of companies that provide their young non-regular employees with off-the-job training is around half of that of those which offer their regular employees that type of training.
- There is room for improvement in programs of universities and other institutions for relearning.

Figure 3-1-4 Influence of career education at high schools, etc.

(Ratio of a percentage of regular employees who answered yes to the question to a percentage of non-regular employees who did so)

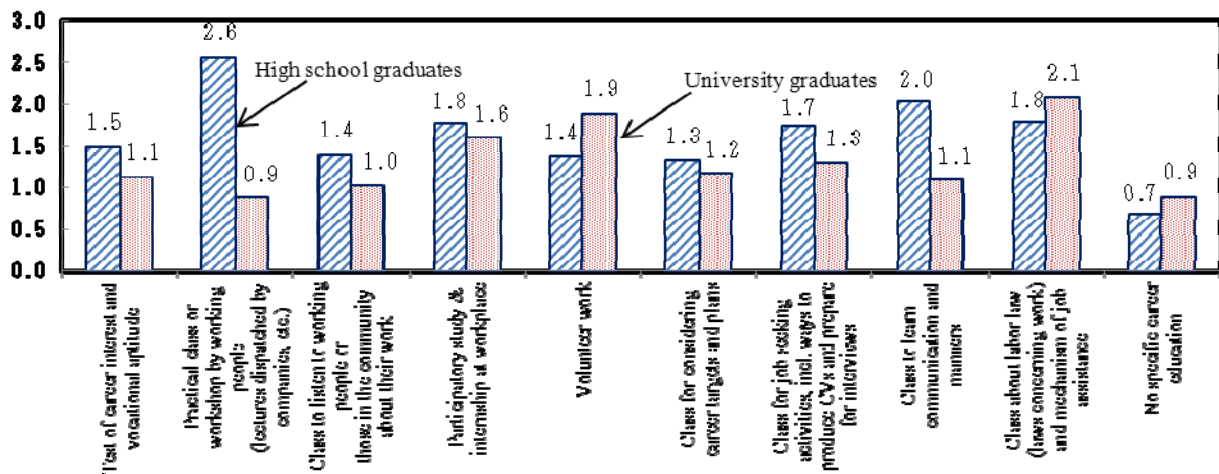


Figure 3-1-6 Opportunities for human resource development by type of employment

(1) Ratio of companies providing off-the-job training for regular and non-regular employees, and participation of employees in their 20s.

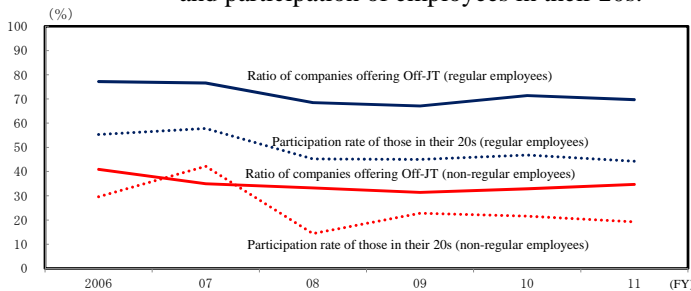
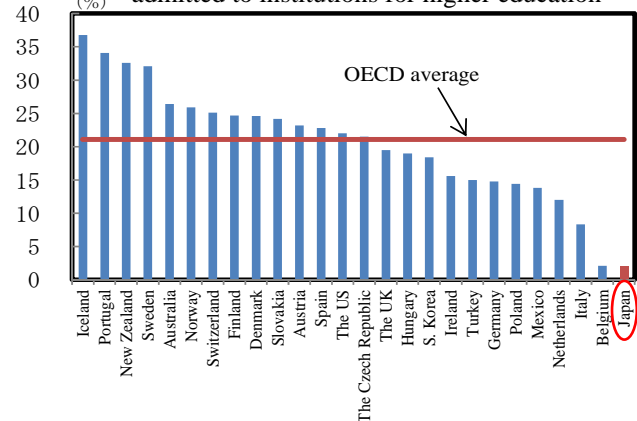


Figure 3-1-9 Trend of adult education at universities

(3) Share of people aged 25 or older among those admitted to institutions for higher education



(Note) Compiled based on: (upper) research commissioned by the Cabinet Office; (left) the Basic Survey on Human Resources Development, the Ministry of Health, Labour and Welfare; and (right) OECD.

- The information communication industry, including information services, is short of labor.
- For ICT-related jobs, wages are higher, while working hours are also longer, resulting in a less attractive wage per hour.

Figure 3-1-14 Supply and demand of ICT-related jobs
(1) Employment conditions DI (comparison with all industries)

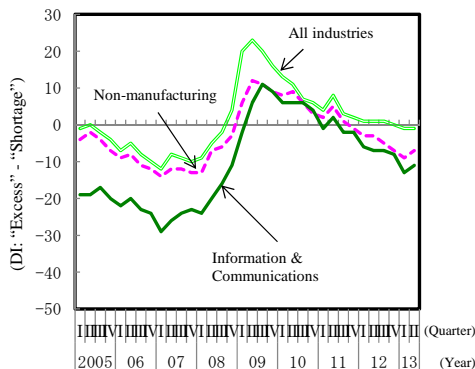
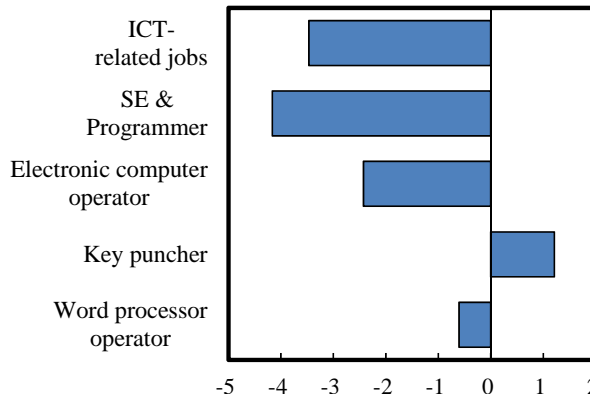


Figure 3-1-15 (3) Comparison between wages (hourly wage) for ICT-related jobs with those for all industries (2012)



(Note) (Left) The Tankan Survey, the Bank of Japan; and (Right) The Basic Survey on Wage Structure, the Ministry of Health, Labour and Welfare.

- In the United States, ICT-related jobs are paid double that of the wage in Japan.
- In Japan, the number of system engineers and programmers in their 30s and older is sharply declining.

Figure 3-1-15 (4) Comparison of wages for ICT-related jobs in Japan and US (annual income, 2012)

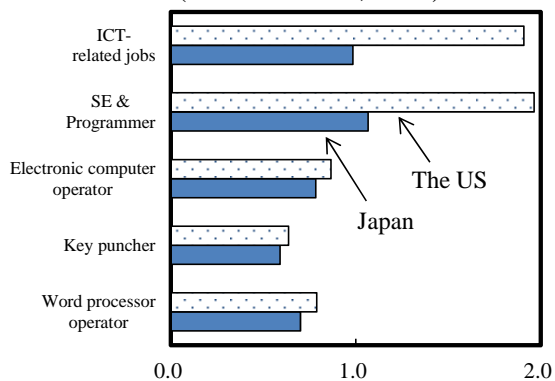
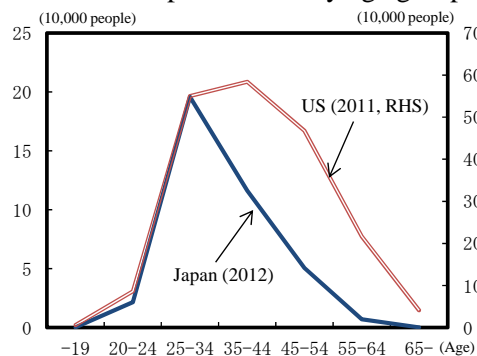


Figure 3-1-16 (4) Number of SEs and Programmers in Japan and US by age group



(Note) Compiled based on: (Left) the Basic Survey on Wage Structure, the Ministry of Health, Labour and Welfare; and Occupational Employment Statistics, the U.S. Bureau of Labor Statistics; and (Right) Current Population Survey, the U.S. Census Bureau.

- In Japan, adoption of ICT for education is insufficient.

Figure 3-1-17 (1) Number of graduates of ICT-related courses

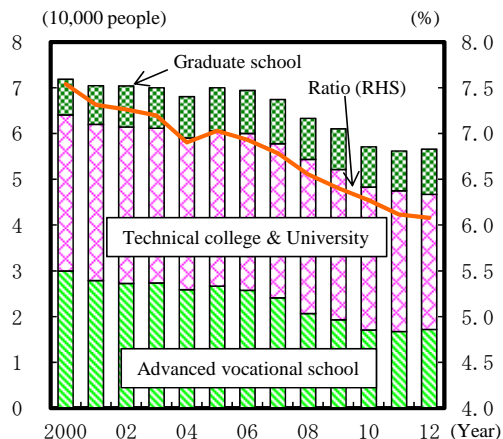
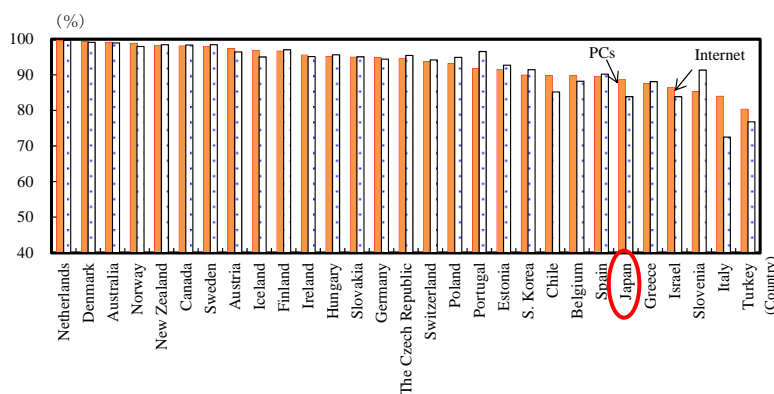


Figure 3-1-18 (3) Development of ICT environments in schools



(Note) Compiled based on: (Left) the School Basic Survey, the Ministry of Education, Culture, Sports, Science and Technology; and (Right) PISA 2009 Students On Line, OECD.

- Japan's rate of foreigner inflow is significantly lower than the average of major developed countries (around 0.5% of the population).
- In the United Kingdom, around 30% (30,000 people) of skilled immigrants settle down there.

Figure 3-1-19 International flows of labor in OECD countries

(1) Percentage of foreigner inflows to the population

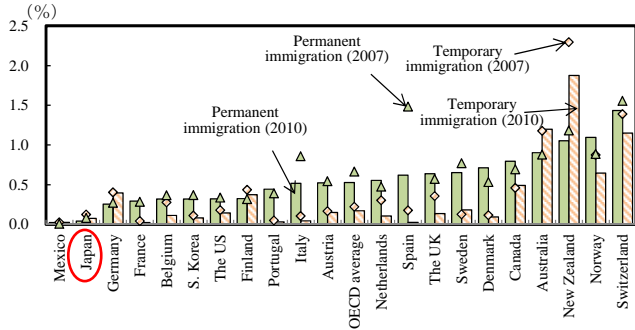
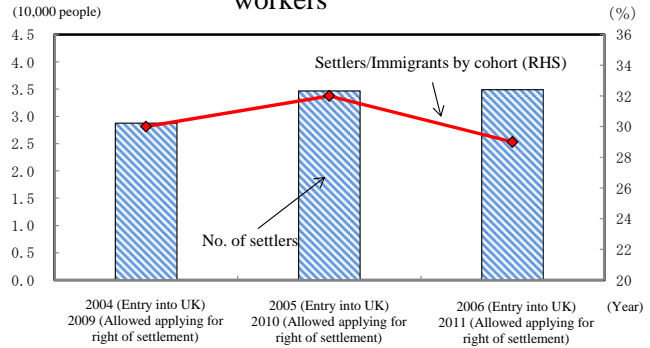


Figure 3-1-21 Foreign workers in the United Kingdom

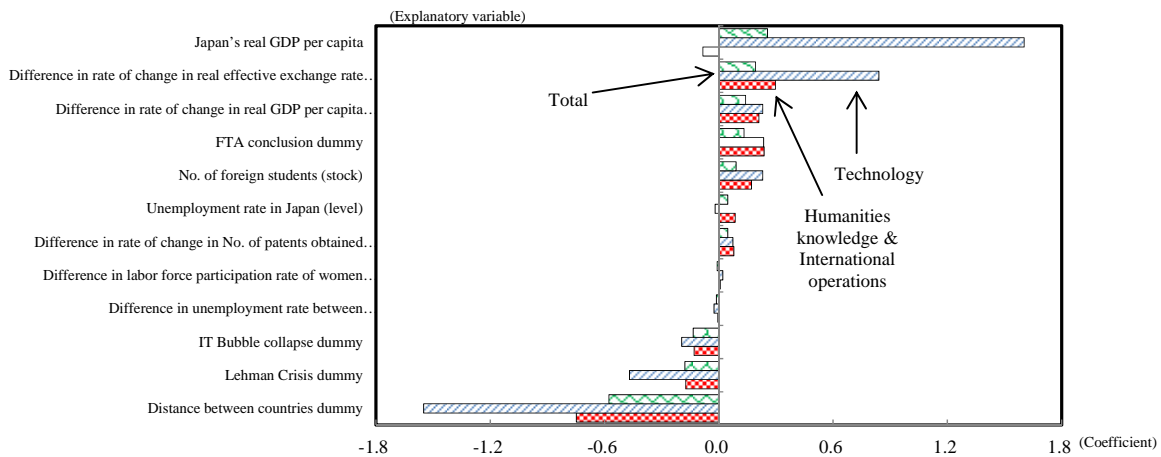
(2) Shares of settlers among skilled workers



(Note) Compiled based on: (Left) OECD; and (Right) The UK Office for National Statistics.

- Conclusion of FTAs and the number of foreign students have an influence on the inflow of skilled foreigners.

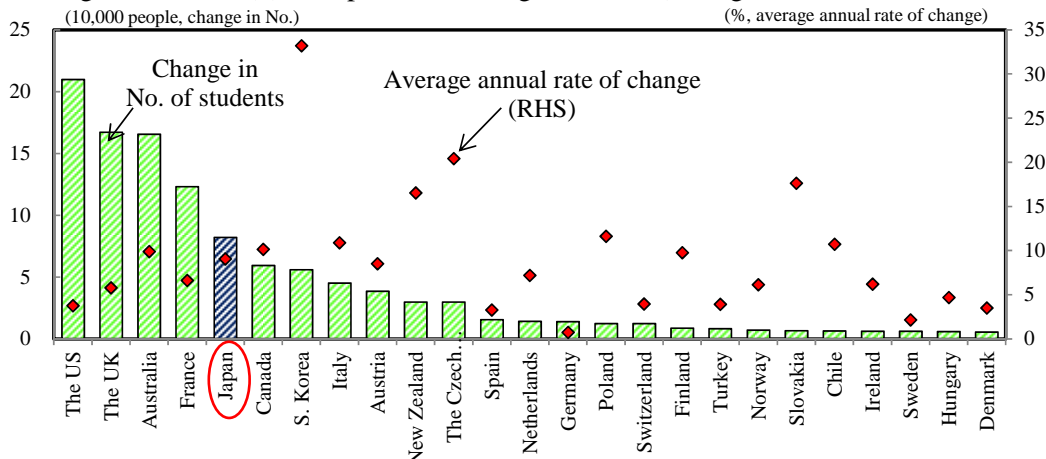
Figure 3-1-24 Determinants of inflow of foreign professionals (gravity model)



(Note) Estimated by the Cabinet Office

- Students studying overseas still go mainly to the United States and the United Kingdom, but Japan is accepting an increasing number of foreign students.

Figure 3-1-25 (2) Acceptance of foreign students (Changes between 2000 and 2010)

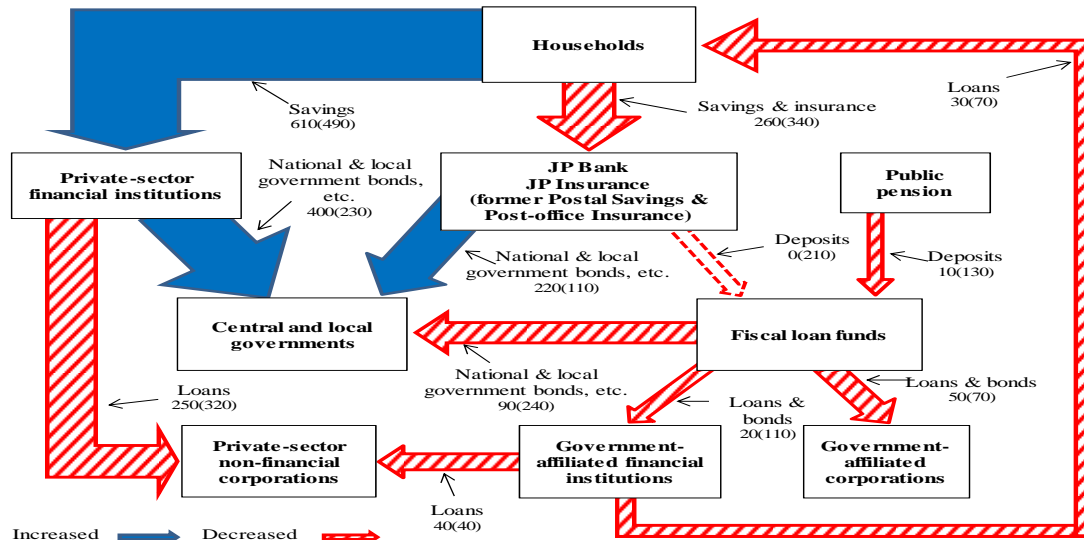


(Note) Compiled based on UNESCO Institute for Statistics "data base".

Section 2 Foundation for supply of funds for investment

- An increased flow of funds into private-sector financial institutions flowed out to finance the government.

Chart 3-2-1... Change in the flow of funds over the past 10-years



(Remark) Unit: 1 trillion yen (rounded to the nearest ten). For stocks, parenthesized numbers are as of the end of FY2001.
 (Notes) 1. Compiled based on the Flow of Funds Accounts, the Bank of Japan, financial statements, and other data, in reference to Naosumi Atoda & Yoichi Takahashi (2005).
 2. Private-sector financial institutions include "Banks etc., excl. Postal Savings (JP Bank)", "Insurance, excl. Post-office Insurance (JP Insurance)", "Pension funds (company pension funds etc.)" and "Other financial intermediaries, incl. securities investment trusts".
 3. Stocks are all represented in gross.
 4. "Government-affiliated corporation" refers to legal persons established under a special law with funds contributed only by the state, government-affiliated institutions, and local governments, such as the Urban Renaissance Agency, and Japan Railway Construction, Transport and Technology Agency.
 5. The arrow starting from "Government-affiliated financial institutions" to "Households" represents housing loans.

- Companies use surpluses of their savings to decrease debts.
- Loans have hardly grown, with the ratio of loans to deposits (loan-to-deposit ratio) on a downward trend.

Figure 3-2-2 (2) Debts outstanding and the financial surplus and deficit of private-sector non-financial corporations

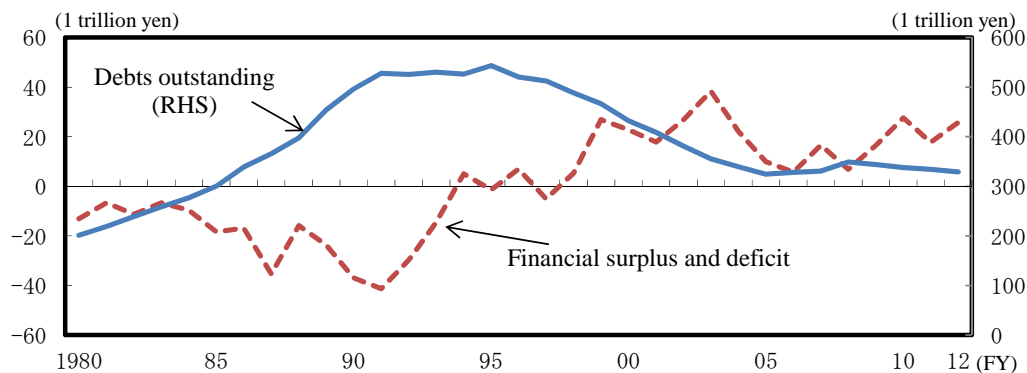
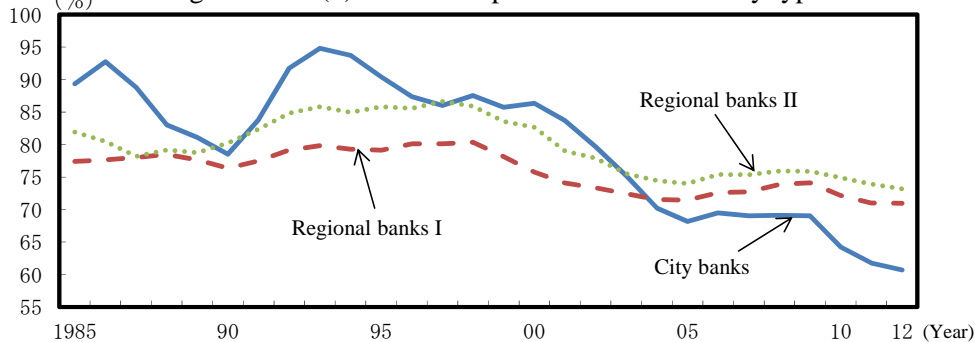


Figure 3-2-3 (2) Loan-to-deposit ratios of banks by type



(Notes) 1. Compiled based on the Flow of Funds Accounts, and Assets and Liabilities of Private-sector Financial Institutions, the Bank of Japan.
 2. [Loan-to-deposit ratio] = [Loans] / ([Deposits]+[Transferable deposits]+[Securities])

- A remarkable shift to government bonds is also seen in the asset structure of insurance companies.
- The public pension fund (GPIF) manages its portfolio mainly in securities.

Figure 3-2-7 (3) Asset management of insurance companies

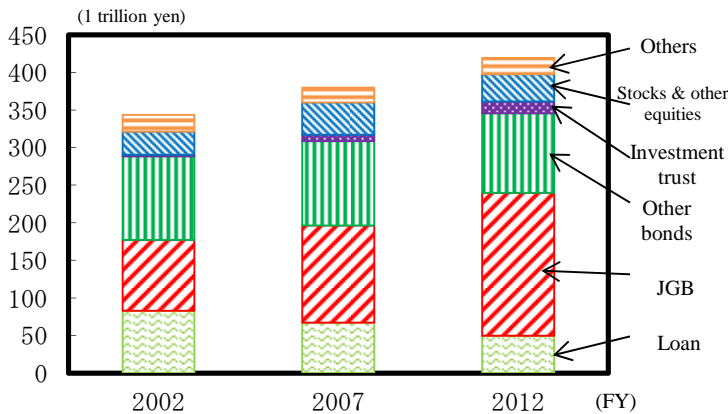
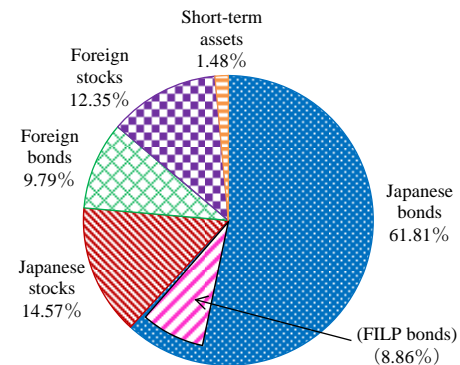


Figure 3-2-9 Asset management of the public pension fund (GPIF)



(Note) Compiled based on: (Left) the Flow of Funds Accounts, the Bank of Japan; and (Right) Review of Operations in Fiscal 2012, GPIF.

- After the Lehman Crisis, deleverage (loan contraction) was underway.
- A lower leverage was one of the factors that weighed down capital investment.
- The ratio of credit guarantee is staying at a high level, while that of subrogation is on a downward trend.

Figure 3-2-11 Deleverage ratios of major countries

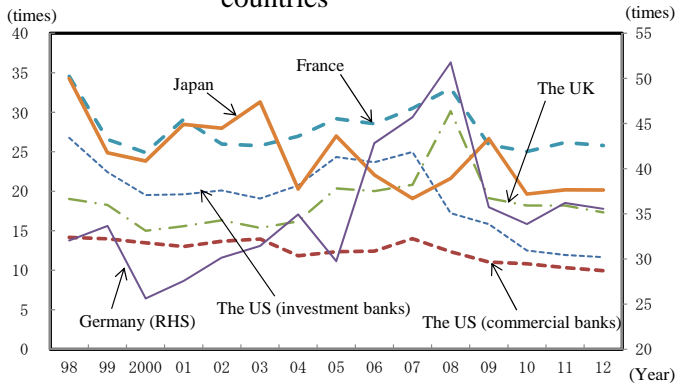


Figure 3-2-12 Bank leverage, and capital investment rate

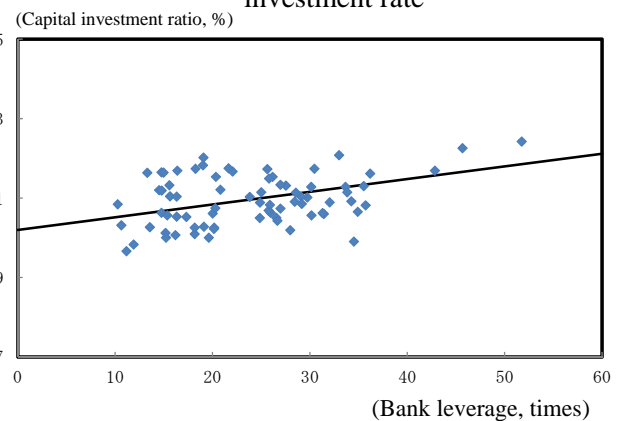
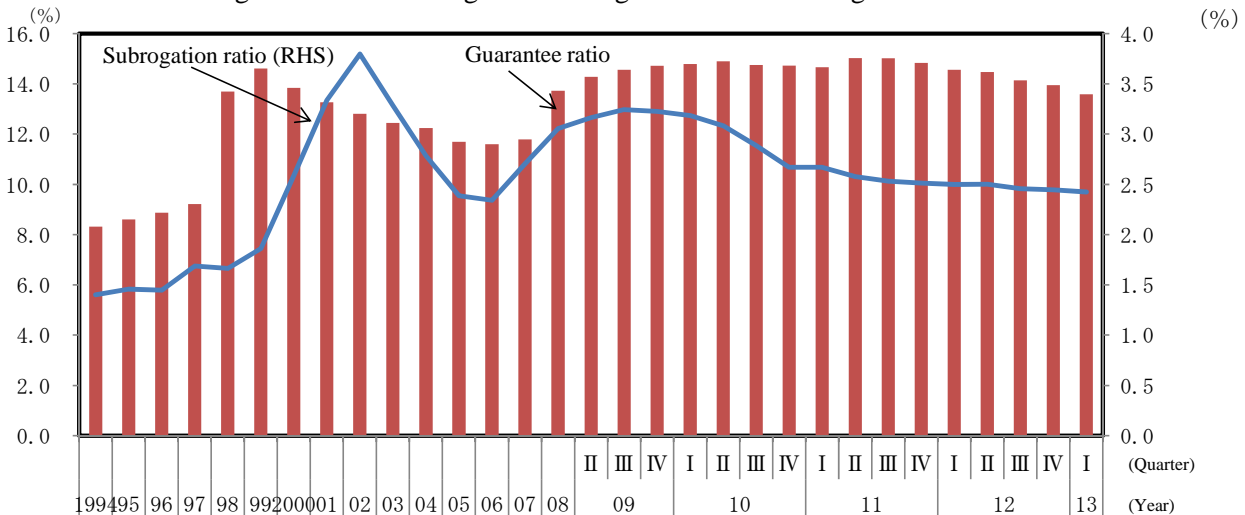


Figure 3-2-14 Changes in credit guarantee and subrogation ratios



(Note) Compiled based on: (Upper left) Bloomberg; (Upper right) OECD and Bloomberg; and (Lower) Loans and Discounts Outstanding by Sector, the Bank of Japan, and Actual Results of Credit Guarantee, the Japan Federation of Credit Guarantee Corporations.

- Venture investment is recovering, while staying at a low level.
- There is little growth in loans made by regional financial institutions to support startups.

Figure 3-2-16 Trends of venture investment

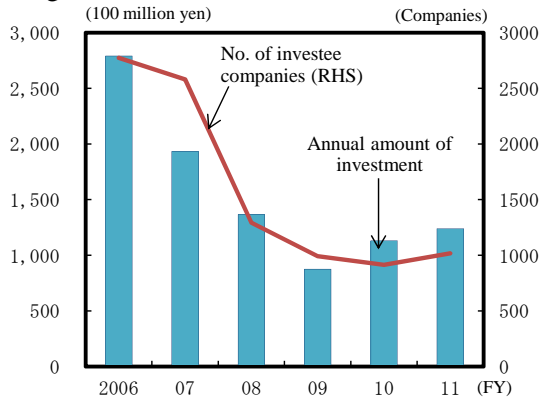
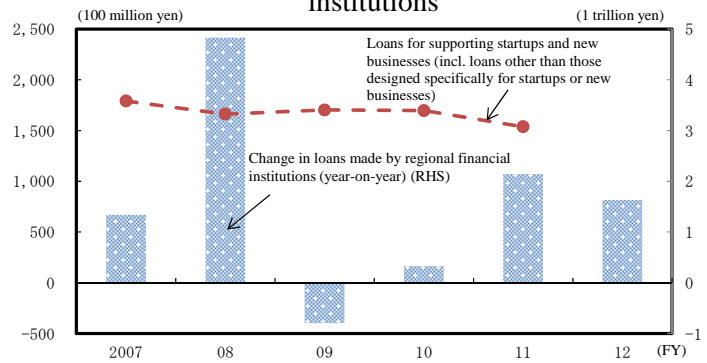


Figure 3-2-17 (1) Trends of regional financial institutions



(Note) Compiled based on: (Left) Venture Enterprise Center; and (Right) data from the Financial Services Agency and the Bank of Japan.

- Economies of scale work for regional financial institutions, though there is also a large variance in the operating cost ratio between them.
- There is room for improvement in management of defined-contribution pension funds.

Figure 3-2-20 Operating cost ratios of regional financial institutions

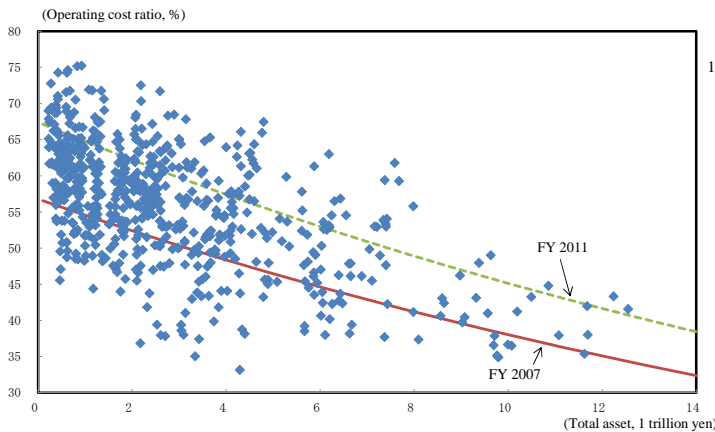
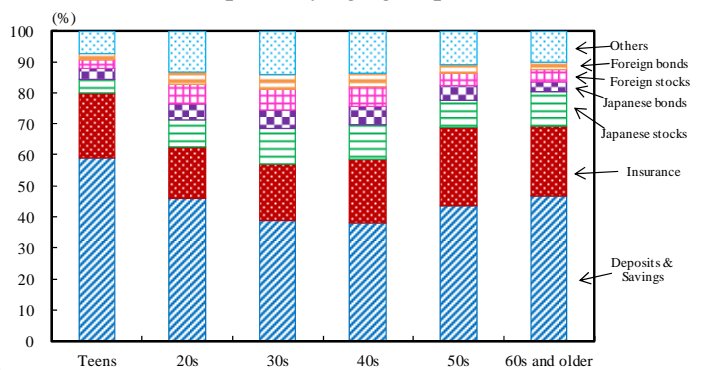


Figure 3-2-21 (2) Average portfolios of subscribers to defined-contribution pension plans by age group (401K)



(Note) Compiled based on: (Left) Japanese Bankers Association; and (Right) materials of the Liaison Council of Management and Administration Institutions (as of the end of March 2012).

- Financial services are still on the way to globalization.
- Mergers and acquisitions of financial institutions overseas are on the rise.

Figure 3-2-22 (5) Ratio of the balance of financial services to GDP

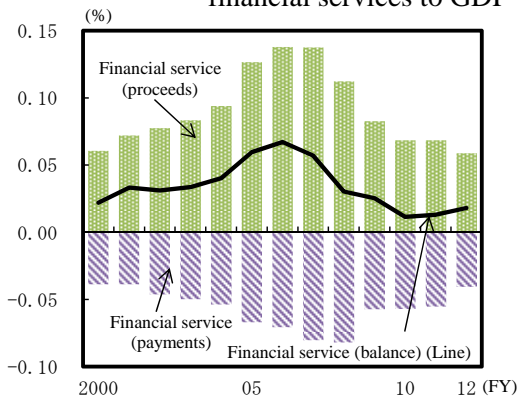
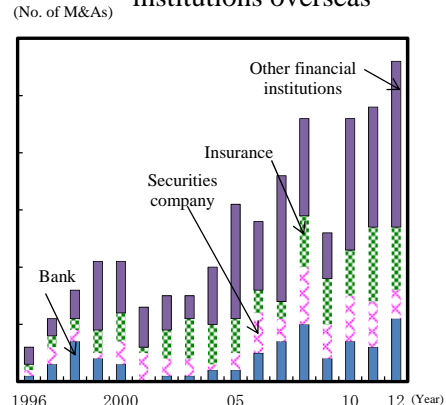


Figure 3-2-23 (2) Trend of M&As of financial institutions overseas



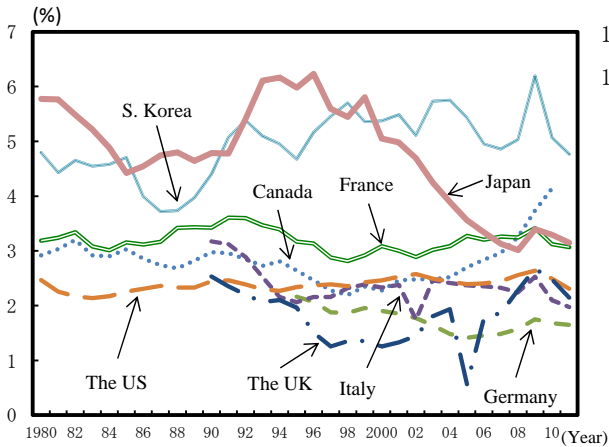
(Note) Compiled based on: (Left) Balance of Payments Statistics, the Bank of Japan; and the System of National Accounts, the Cabinet Office; and (Right) RECOF Corporation.

Section 3 Foundation for supply of social infrastructure

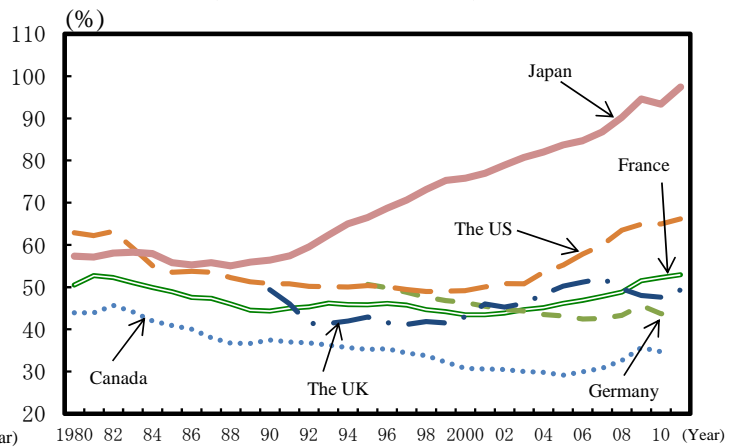
- Public investment peaked in 1996, declining in recent years to the same level as other major developed countries.
- Under severe fiscal conditions and with a shrinking population, what is needed is selection and concentration, further effective use of private-sector funds, and improved management of assets and risk.

Figure 3-3-3

(1) Trends of gross fixed capital formation (ratio to nominal GDP)



(2) Trends of tangible fixed assets (ratio to nominal GDP)



(Note) Compiled based on the System of National Accounts, the Cabinet Office, and OECD.Stat.

- Seen by region, the level of transportation infrastructure (road, sea port, and airport) is lower in urban areas.
- How much will be needed for maintenance and replacement in the medium and long term is grasped only imperfectly.

Figure 3-3-5 (1) Transport infrastructure by region (ratio to gross prefectural domestic product, 2009)

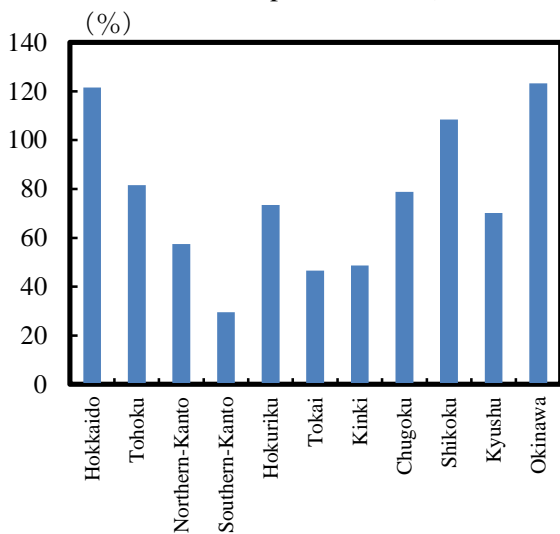
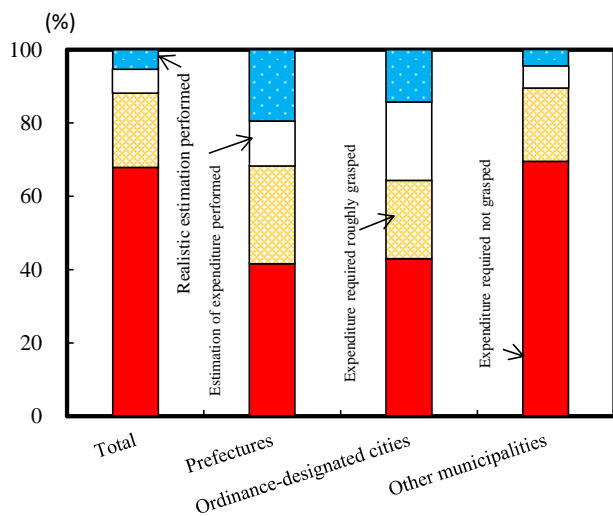


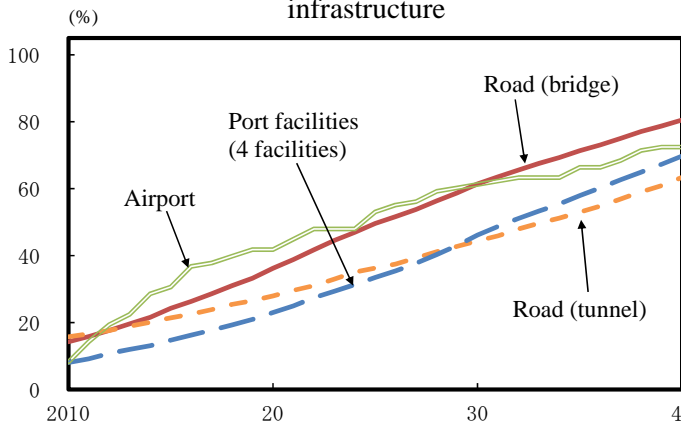
Figure 3-3-8 (3) Grasp of expenditure required for maintenance and replacement in the medium and long term



(Note) Compiled based on: (Left) 2012 Social Capital of Japan, and Prefectural Accounts, the Cabinet Office; and (Right) Findings from the Questionnaire Survey of Local Governments, the Ministry of Land, Infrastructure, Transport and Tourism.

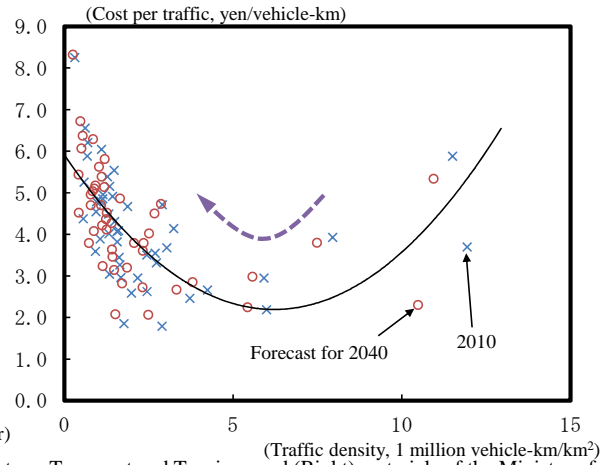
- Deteriorated transport infrastructure is expected to increase rapidly.
- With shrinking population, there are fears that cost of transport infrastructure per traffic will increase.

Figure 3-3-7 (3) (i) Percentage of facilities aged 50 years or older among existing transport infrastructure



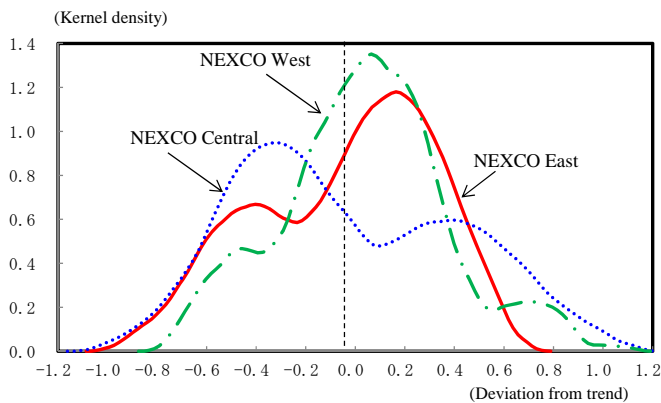
(Note) Compiled based on: (Left) materials of the Ministry of Land, Infrastructure, Transport and Tourism; and (Right) materials of the Ministry of Internal Affairs and Communications, the Ministry of Land, Infrastructure, Transport and Tourism, the Geospatial Information Authority, and the National Institute of Population and Social Security Research.

Figure 3-3-11 (2) (i) Road traffic density and unit cost



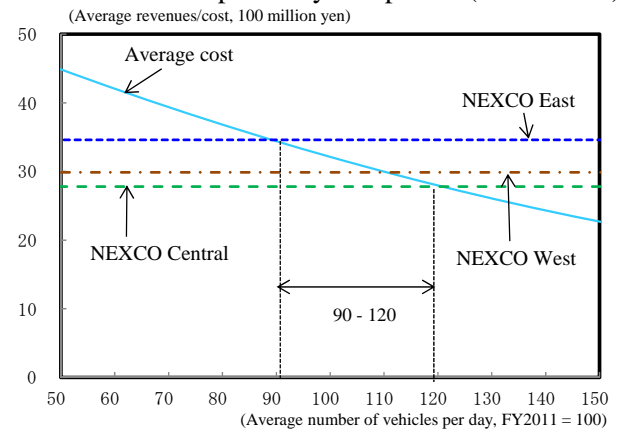
- There is a large difference in profitability among expressway companies.
- There are also fears that the unit cost of expressways will increase.

Figure 3-3-10 (2) Distribution of profitability of expressway companies



(Note) Compiled based on materials for settlement of accounts of the Japan Expressway Holding and Debt Repayment Agency.

Figure 3-3-12 (3) Average revenues and cost of expressway companies (3 NEXCOs)



- Difference in the return on investment is growing between general electric utilities.
- Average generation cost gradually decreases with the amount of electricity generated.

Figure 3-3-14 (2) ROI of general electric utilities

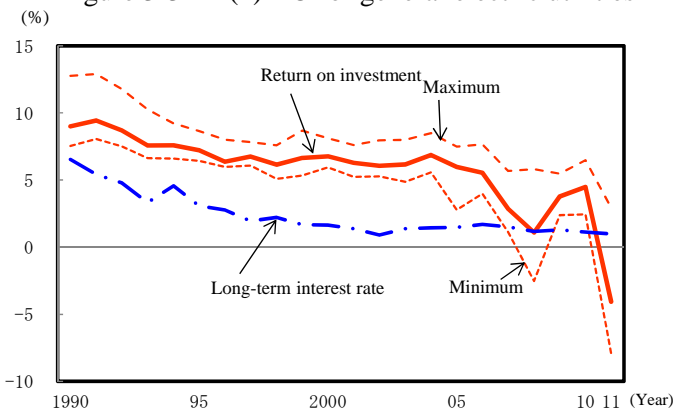
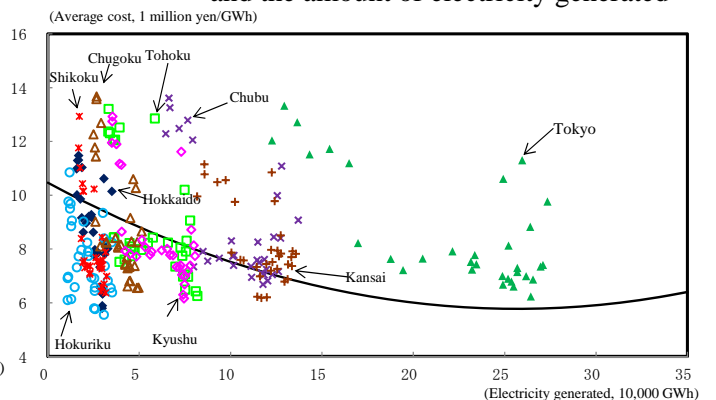


Figure 3-3-18 (1) Relation between generation cost and the amount of electricity generated

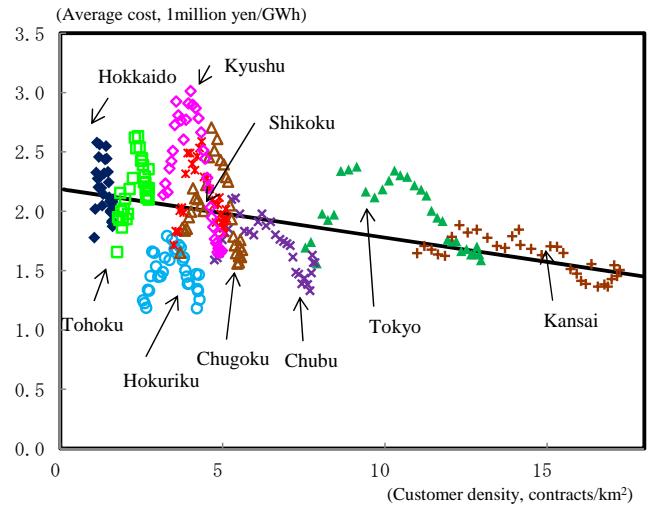
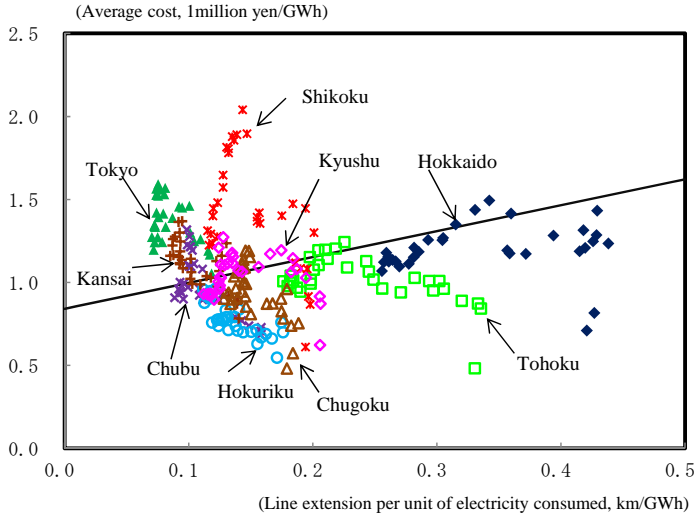


(Note) Compiled based on: (Left) the Federation of Electric Power Companies of Japan, and Bloomberg; and (Right) the Telecommunications Carriers Association.

- Average transmission cost increases with distance of transmission.
- Average distribution cost increases with decline in population density.

Figure 3-3-19 (1) Transmission cost and customer density

Figure 3-3-20 (1) Distribution cost and customer density

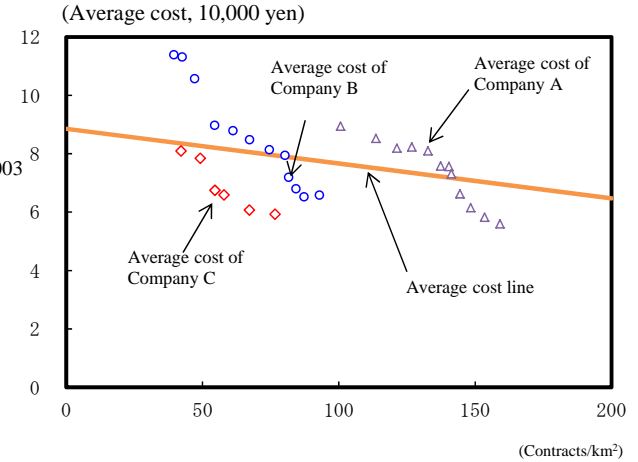
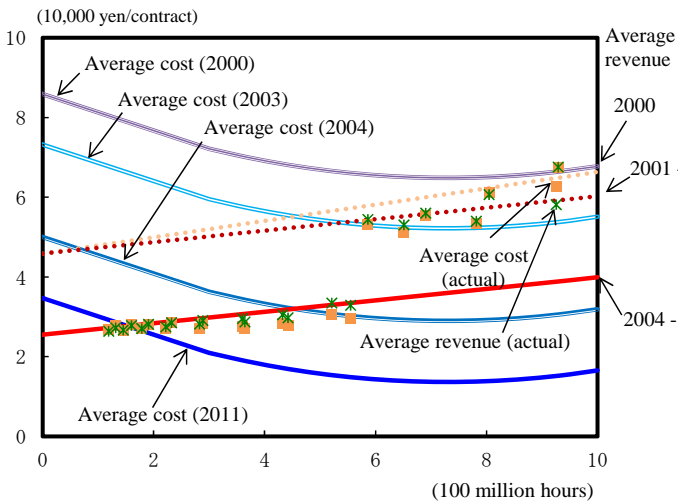


(Note) Compiled based on data from the Federation of Electric Power Companies of Japan.

- On fixed-line telephones, voice service is seeing a decline in cost with improved efficiency, though it is running deficits with declines in hours of conversation. Maintenance of existing networks is a factor that weighs down profitability.
- Average cost of mobile communications is increasing with declines in subscriber density.

Figure 3-3-27 (1) Profitability of voice service on fixed-line telephones (NTT EAST)

Figure 3-3-28 Subscriber density and cost of mobile communications



(Note) Compiled based on materials of: (Left) NTT EAST and NTT WEST; and (Right) mobile network operators.

Conclusion

○ Prospects and risks of the economy

» The economy is recovering gradually.

- (1) Increased external demand
Gradual recovery of the economy overseas, and continued rehabilitation of demand
- (2) Effects of the regime change of economic policy
Steady implementation of economic measures, penetration of “quantitative and qualitative easing”, and steady implementation of growth strategy
- (3) Ripple effect from corporations to households
Effect spreading from improved profitability of corporations to the increase in income of households and investment, and a positive cycle between income, expenditure, and production.

» Downside risks of the economy overseas

Slowdown of the Chinese economy, recurrence of sovereign debt crisis in Europe, etc.

○ Efforts for ending deflation and fiscal consolidation

» Turnabout to a new, growth-oriented regime

- (1) Higher expected inflation, lower real interest rate, and correction of appreciation of the yen
- (2) Securing of confidence in public finance, and a fiscal structure that copes with changes in the structure of the economy and society

○ Raising the ability of the Japanese economy for growth

» Bringing out companies' vigor, a source of ability for economic growth

- (1) Supporting companies in their challenges to make them more productive;
- (2) Developing environments for trade and investment to take in the vigor of global markets; and
- (3) Developing business environments to encourage innovation.

○ Developing a foundation for growth

» Developing favorable environments for business activity to be “a country of companies' choice”

- (1) Challenges concerning human resources
Formation of human capital of young people, development of ICT education, and securing of skilled foreigners;
- (2) Foundation for supply of funds for investment
Rebalancing of assets for ending deflation, and Strengthening of the ability to supply funds for growth;
- (3) Direction of social infrastructure development
Selection and concentration, asset management, and effective use of funds and know-how of the private sector;