

Analysis of the Labour Economy

2015

(White Paper on the Labour Economy 2015)

— Measures for Labour Productivity and Employment/Labour Issues —

[Summary]

September 2015

Ministry of Health, Labour and Welfare

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[Outline]

Outline of the Analysis of the Labour Economy 2015

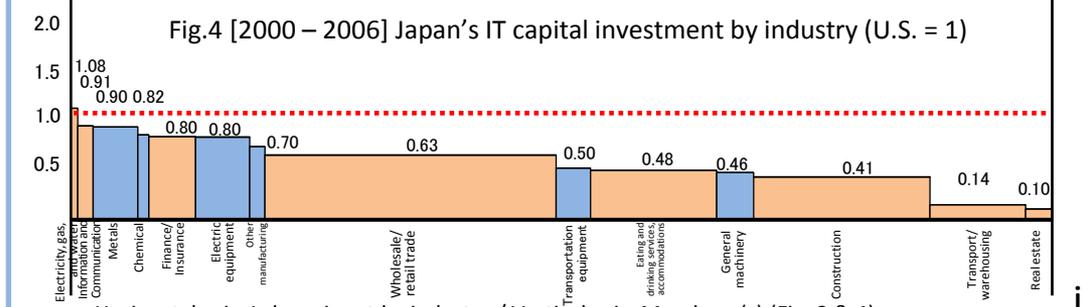
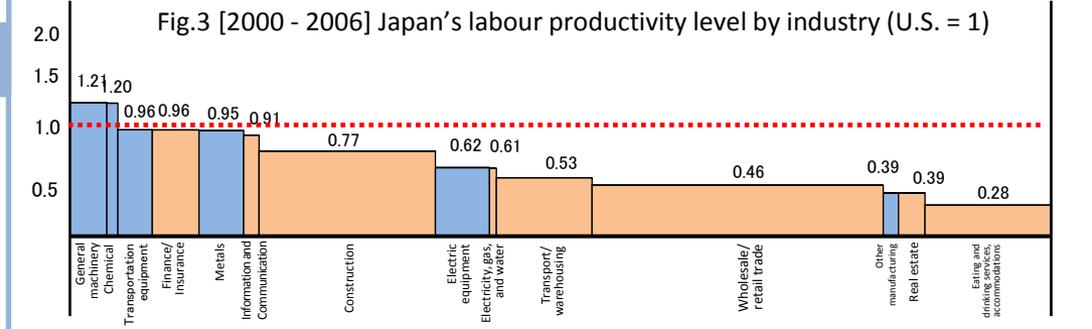
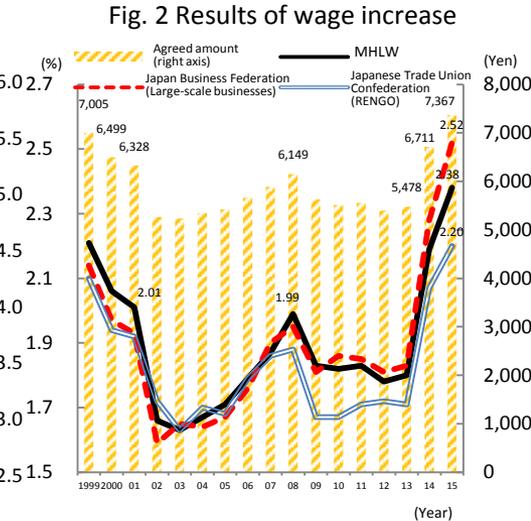
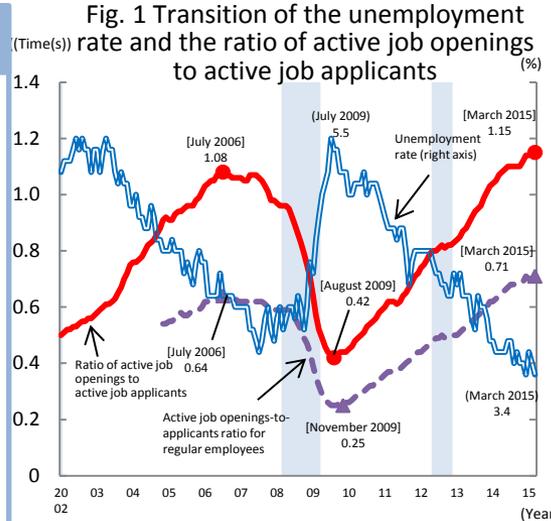
The white paper was analyzed under the title “Measures for Labour Productivity and Employment/Labour Issues” for the purpose of maintaining and enhancing the economic vitality by overcoming the supply limitation, i.e. the shrinking labour force as a result of the decline in birthrate and demographic aging, and by enabling continued increase in wages.

Chapter 1: Trends and features of the labour economy

- ◆ Employment conditions are steadily improving: the FY2014 average unemployment rate was 3.5%, the lowest rate in 17 years, and the FY 2014 average ratio of active job openings to active job applicants was 1.11, the highest ratio in 23 years. Furthermore, employment of regular workers increased, and the number of workers involuntarily working as non-regular workers decreased.
- ◆ As a result of the shunto (annual spring wage offensive) of 2015, agreed amount and the wage increase rate both increased compared to the previous year. In addition, small and medium-sized companies tended to increase wages.

Chapter 2: Challenges for the sustainable growth of the Japanese economy

- ◆ In order to sustain a virtuous economic cycle, increase in wages is important for stimulating consumption. For this reason, measures for enhancing labour productivity are indispensable.
- ◆ When compared with the labour productivity levels of European and North American countries, Japan has a comparable growth rate though the level has dropped.
- ◆ When Japan’s labour productivity levels by industry are compared with those of the U.S., the levels in Japan are lower mainly in the non-manufacturing industries, possibly due to the considerably smaller information technology (IT) capital investments made in Japan compared to those made in the U.S. Furthermore, while IT investments simultaneously accompany investments in brand equity, organizational structure, and human capital that contribute to growth, it is our challenge that such investments made in Japan are also extremely small.



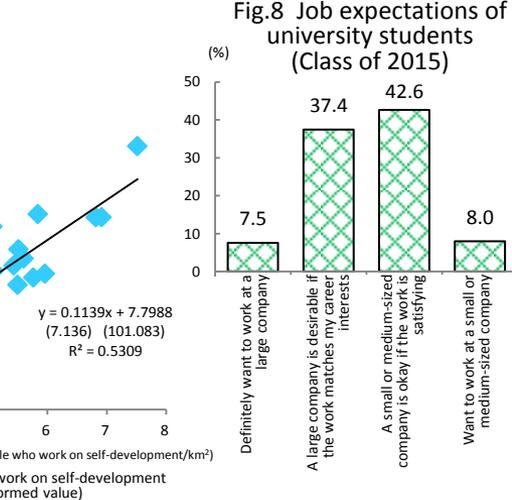
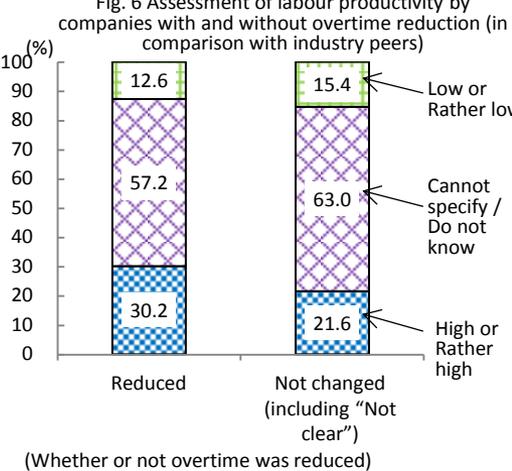
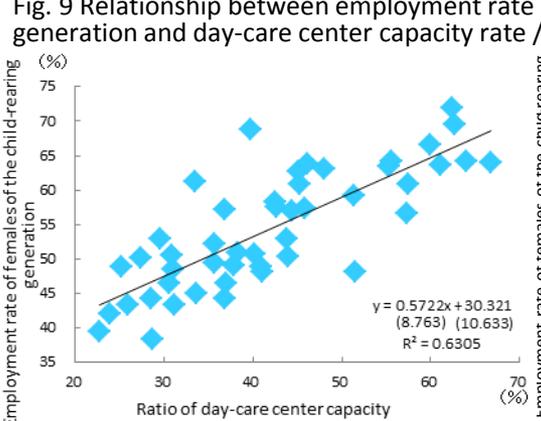
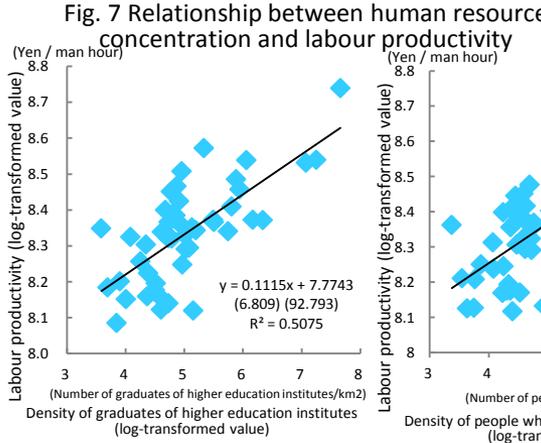
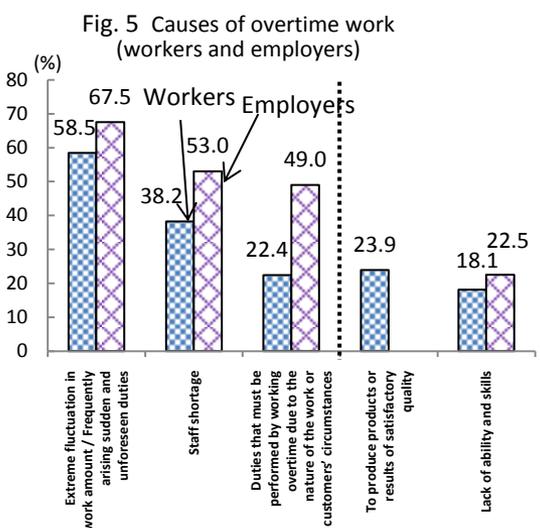
Horizontal axis: Labour input by industry / Vertical axis: Man-hour(s) (Fig. 3 & 4)

Chapter 3: For the realization of more effective work styles

- ◆ In order to encourage labour participation, work styles must be reviewed; e.g. correction of long working hours.
- ◆ Reasons for the occurrence of overtime work given by both employers and workers include fluctuation in the amount of work, staff shortage, and customer service duties. In addition, while many employers responded as overtime being caused by workers' lack of ability and skills, many workers responded that they want to produce satisfactory products/results based on their own standards.
- ◆ Various efforts made by companies that worked on reducing overtime work and succeeded in overtime reduction include work condition reality check, alerting, reviewing of details and distribution of duties, and appeals from top executives. Such companies tend to regard themselves as having higher labour productivity in comparison with those of industry peers. (According to the responses given in company interviews, the positive effects of reduction in work hours were fatigue reduction and self-improvement.)

Chapter 4: Desirable state of local economies in the face of population decline

- ◆ Regional economy vitalization is crucial to the economic growth of our country. Private final consumption expenditure contributes significantly to the growth of local economies. Accordingly, we must encourage labour participation by females and seniors, and also improve labour productivity since it is the prerequisite for raising income levels.
- ◆ Regional labour productivity tends to improve when population, businesses, as well as human resources (e.g. people who have received higher education at universities or junior colleges, and people who work on self-development) concentrate in the region. To enhance this human resource group, improvements in the employment situation and attractive employment opportunities are needed.
- ◆ Regional economic growth can be supported through efforts to secure workers in the era of population decline by encouraging females of the child-rearing generation to work; this can be done by providing sufficient day-care center capacity and suppressing long working hours to create an environment that enables the balancing of work and child-rearing.



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— Measures for Labour Productivity and Employment/Labour Issues —

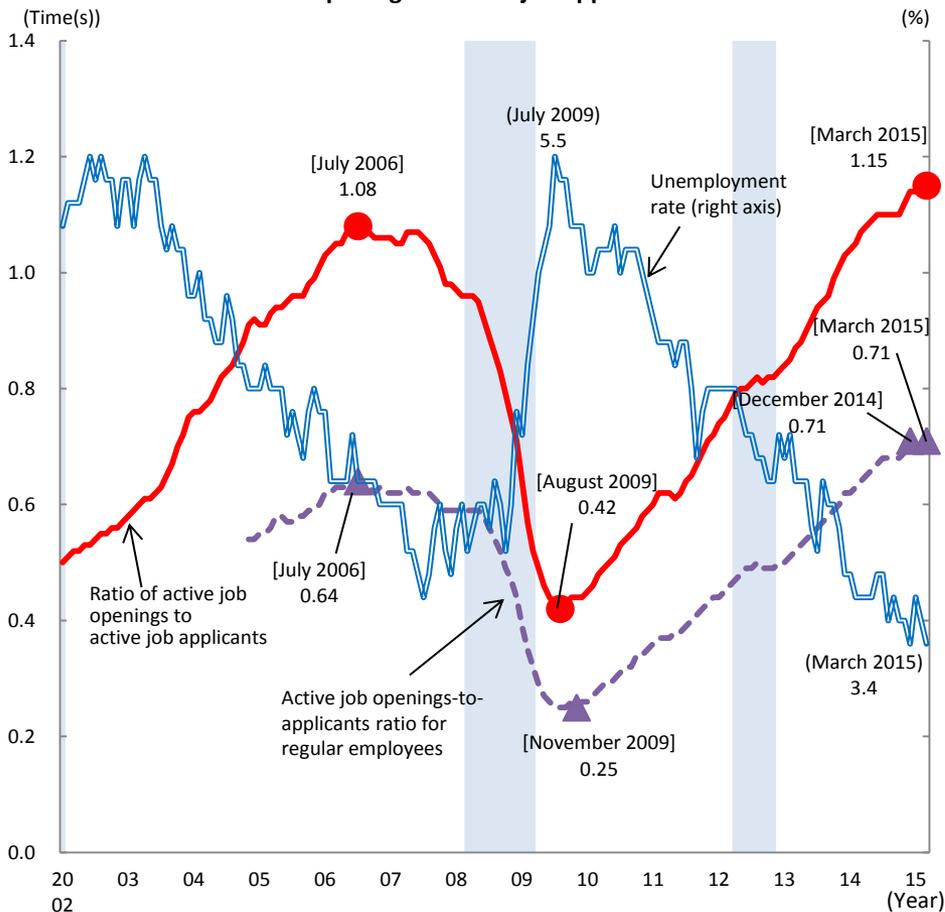
[Overview]

Chapter 1 Trends and features of the labour economy

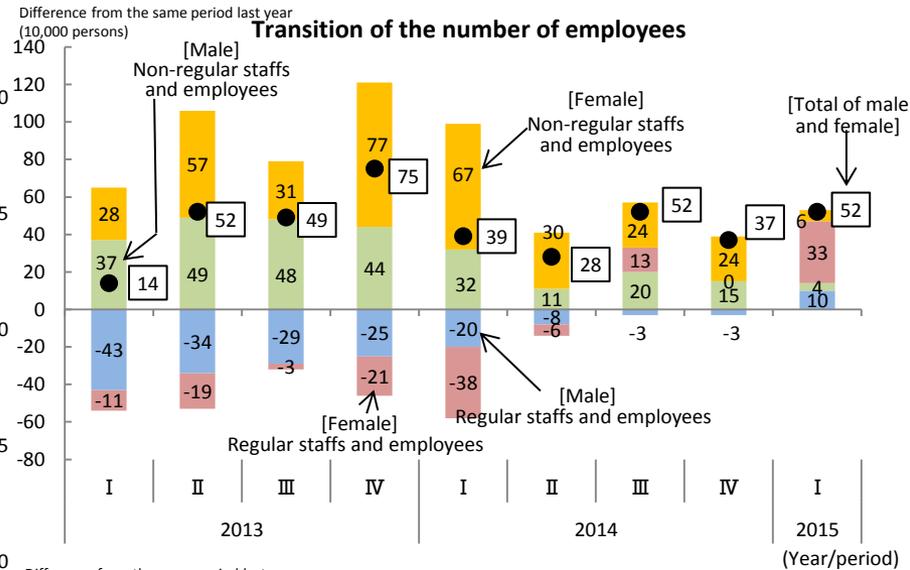
— Trends of employment, unemployment, etc. —

- Employment conditions are steadily improving: the FY2014 average unemployment rate was 3.5%, the lowest rate in 17 years, and the FY 2014 average ratio of active job openings to active job applicants was 1.11, the highest ratio in 23 years. Furthermore, the active job openings-to-applicants ratio for regular employees reached a record high in December 2014 at 0.71.
- Employment of regular workers increased, and the number of workers involuntarily working as non-regular workers consecutively decreased for four consecutive quarters.

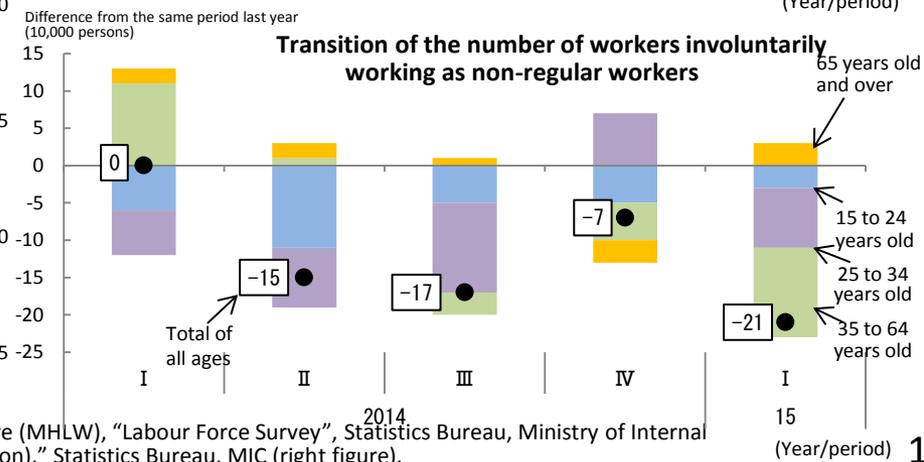
Transition of the unemployment rate and the ratio of active job openings to active job applicants



Transition of the number of employees



Transition of the number of workers involuntarily working as non-regular workers



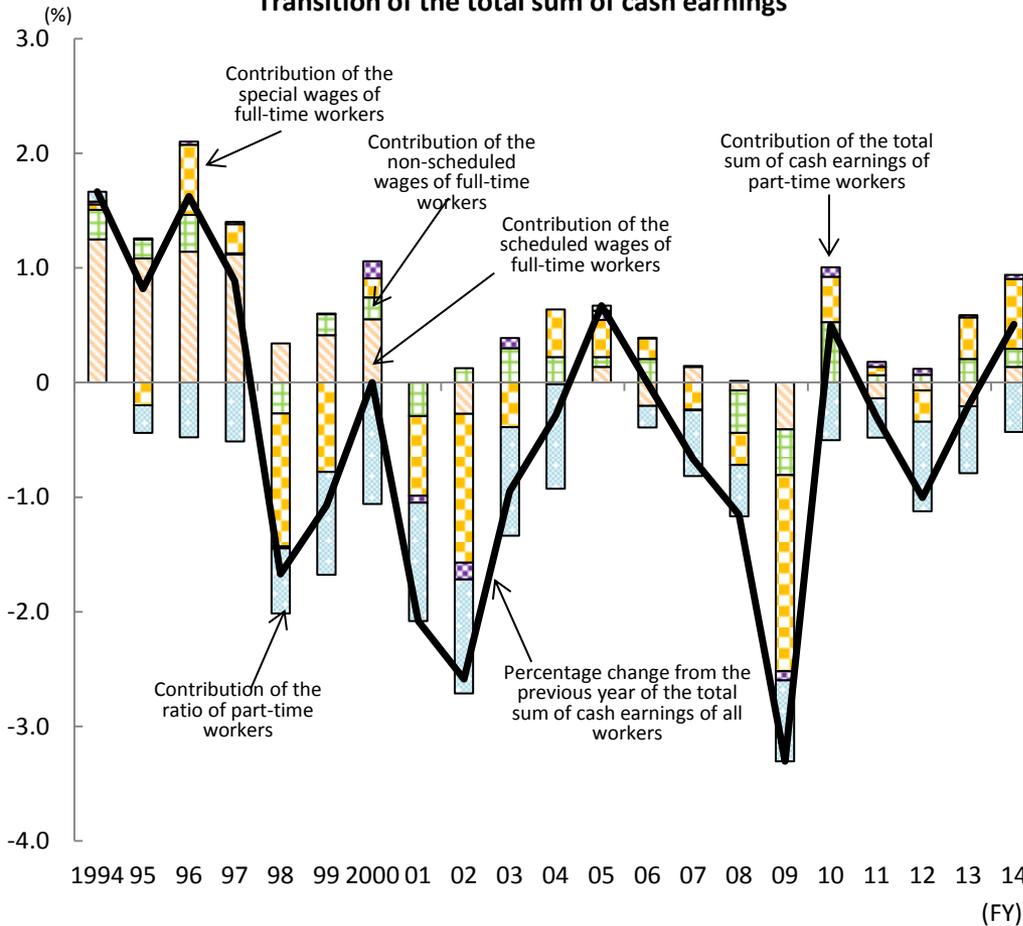
Source: Prepared based on "Report on Employment Service," Ministry of Health, Labour and Welfare (MHLW), "Labour Force Survey", Statistics Bureau, Ministry of Internal Affairs and Communications (MIC) (left figure), and "Labour Force Survey (detailed tabulation)," Statistics Bureau, MIC (right figure).

Chapter 1 Trends and features of the labour economy

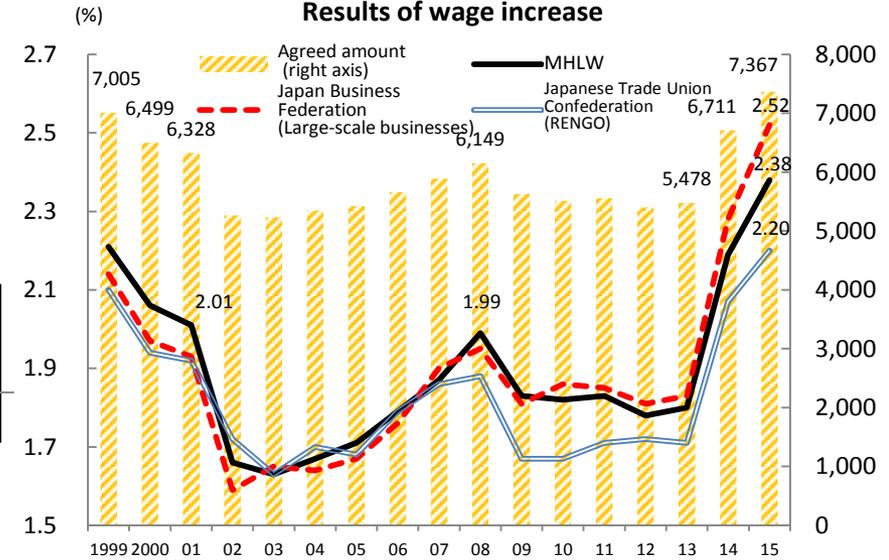
— Trend of wages —

- Nominal wages in FY 2014 increased for the first time in four years mainly due to the increase in special wages and scheduled wages of full-time workers. As a result of the shunto (annual spring wage offensive), agreed amount and the wage increase rate both increased compared to those of the previous year. In addition, wage increases were observed also in small and medium-sized companies.
- Hourly wages of part-time workers also increased. Consequently, the wage gap between part-time workers and full-time workers has narrowed.

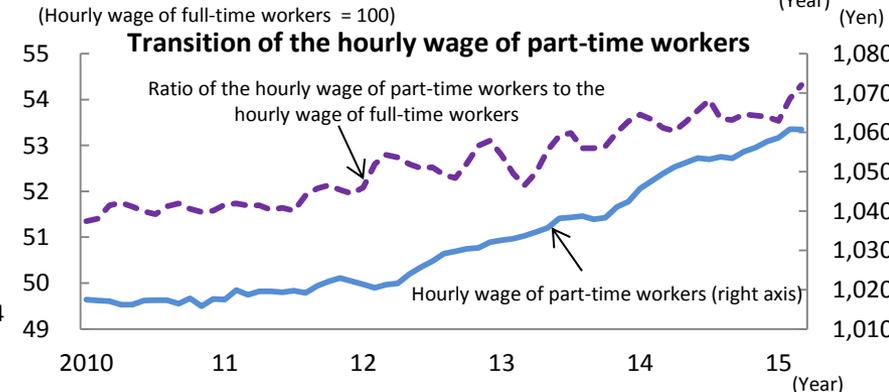
Transition of the total sum of cash earnings



Results of wage increase



Transition of the hourly wage of part-time workers



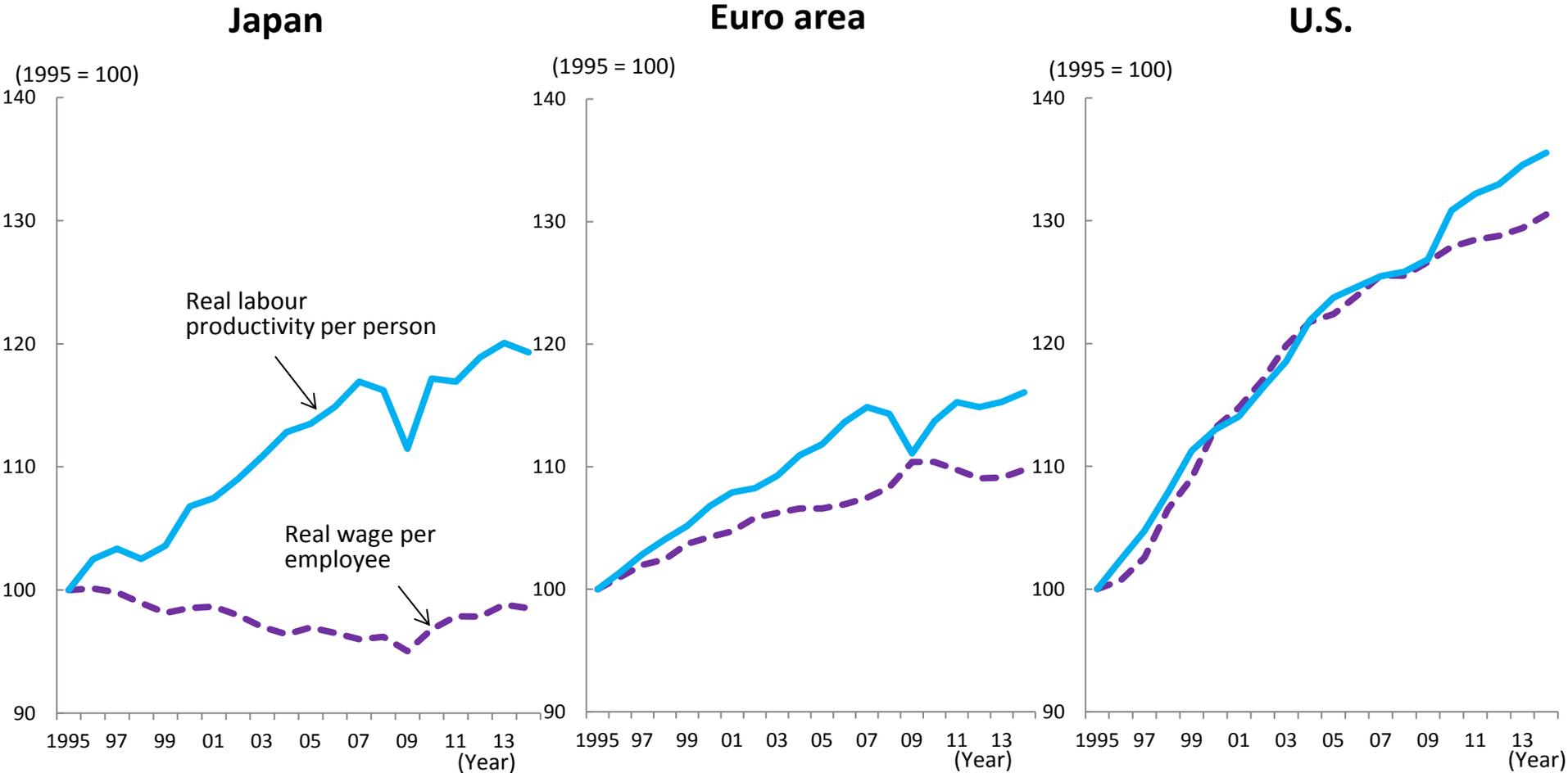
Source: Prepared based on "Monthly Labour Survey," MHLW (left and lower right figures), "Situation of Demands and Conclusions of Negotiations for Wage Increase in Major Private Companies (Springtime)," MHLW, "Settlement Results of the Labour-Management Negotiations in the Springtime in Large-Scale Businesses (weighted average) (final results)," Japan Business Federation, and "Results of Final Responses to the Policy for Spring Struggle for a Better Life," Japanese Trade Union Confederation (upper right figure).

Chapter 2 Challenges for the sustainable growth of the Japanese economy

— Wage stagnation in the midst of deflation and the causes (1) —

- While real wages are increasing in the midst of increasing real labour productivity in the euro area and in the U.S., in Japan, real wages are stagnating in the midst of increasing real labour productivity.

International comparison of real wages and real labour productivity

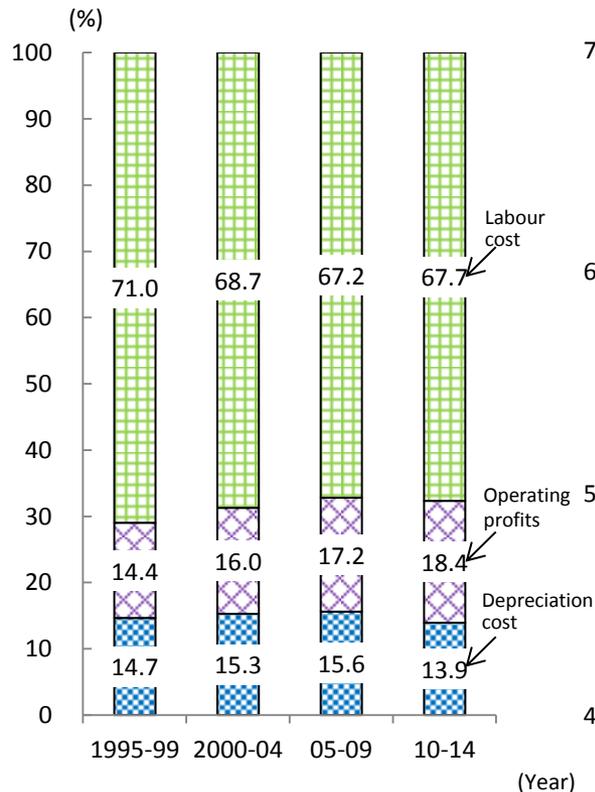


Chapter 2 Challenges for the sustainable growth of the Japanese economy

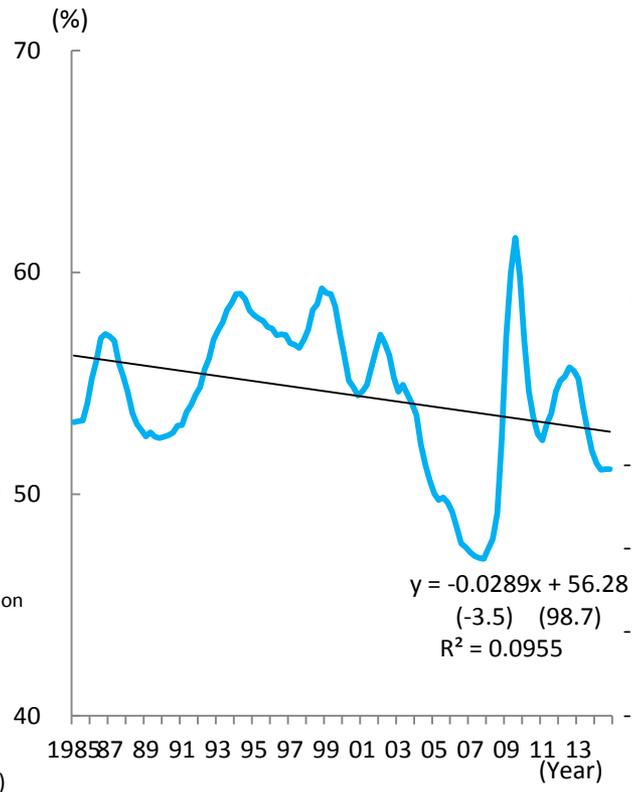
— Wage stagnation in the midst of deflation and the causes (2) —

- While the proportion of operating income in the added value of companies has been increasing, the proportion of labour cost (labour share) has decreased, especially from 2000 through 2004; the labour share of large companies has been showing a downward trend. This has been one of the causes of wage stagnation.
- The worsening of terms of trade caused by the drop in export prices has cancelled out the upward pressure on wages caused by the increase in labour productivity. This has been another cause of wage stagnation.

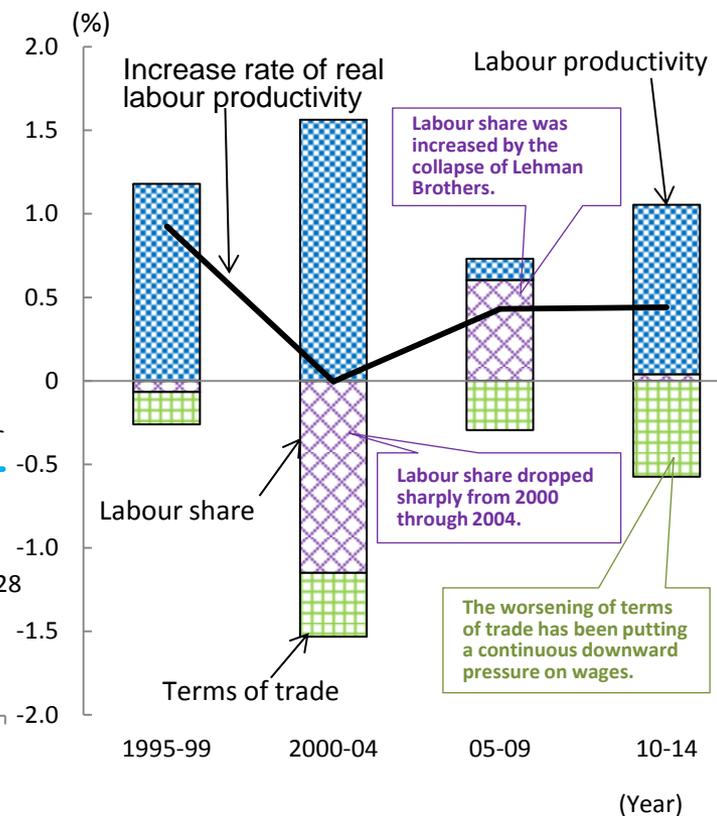
Proportions in added value



Labour share of large companies



Analysis of factors of real wage increase rate



Source: Prepared based on "Financial Statements Statistics of Corporations by Industry" (quarterly journal), Ministry of Finance (left and central figures).
 Estimated based on "Monthly Labour Survey," MHLW, "Labour Force Survey," MIC, and "National Accounts," Cabinet Office (right figure).

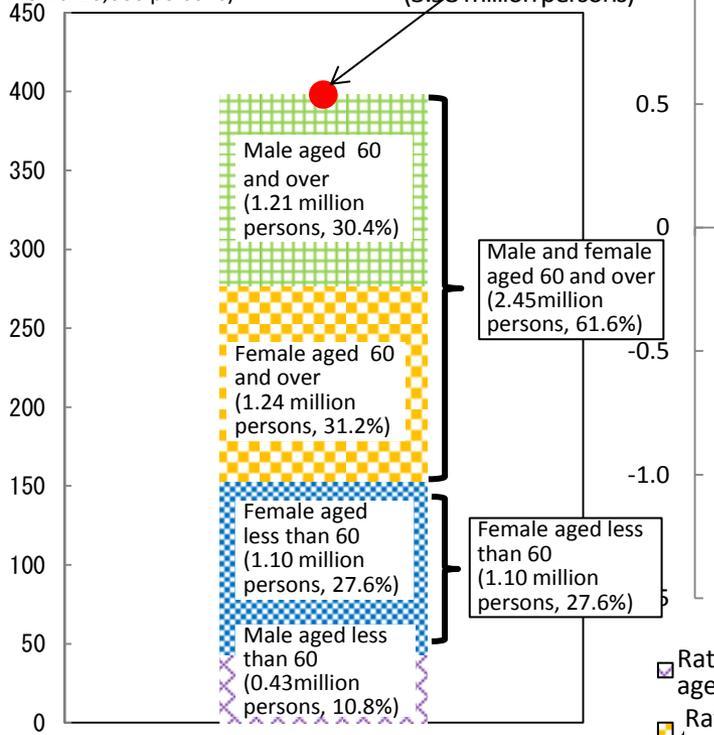
Chapter 2 Challenges for the sustainable growth of the Japanese economy

— Wage stagnation in the midst of deflation and the causes (3) —

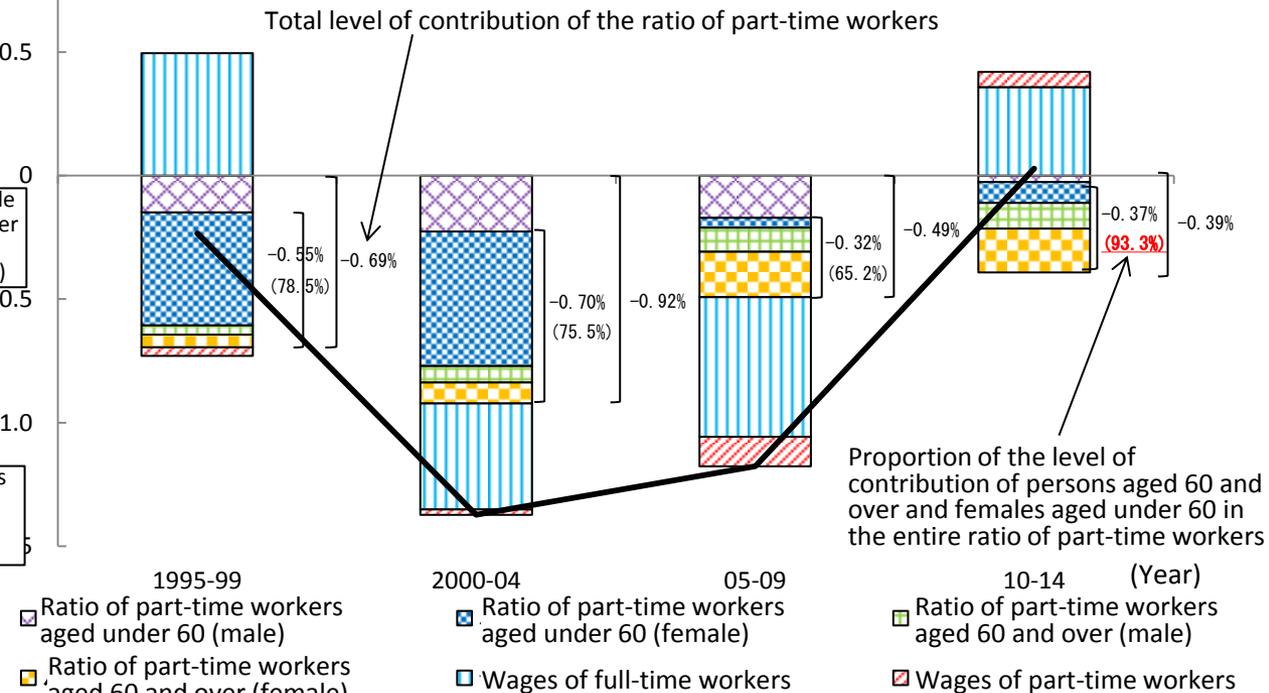
- Increase in non-regular workers such as part-time workers with comparatively lower wages puts downward pressure on the average wage.
- In light of the fact that almost 90% of the group of non-regular workers such as part-time workers that joined the workforce in the past 10 years consisted of seniors aged 60 and over and females aged under 60, wages were analyzed by factors of changes in the wages of full-time workers and part-time workers as well as factors of the rise in the ratio of part-time workers by age group. Looking at the average of five years from 2010, the rise in the ratio of part-time workers of those social strata accounts for 0.37% (93.3% of the downward pressure caused by the ratio of part-time workers) of the downward pressure on wages.

Analysis of factors of the increase in non-regular workers such as part-time workers (2004 →2014)

(Increase in 2014 compared to 2004, Unit: 10,000 persons) Total (3.98 million persons)



Analysis of factors of wages by age group



Source: Prepared based on "Labour Force Survey (detailed tabulation)," Statistics Bureau, MIC (left figure).

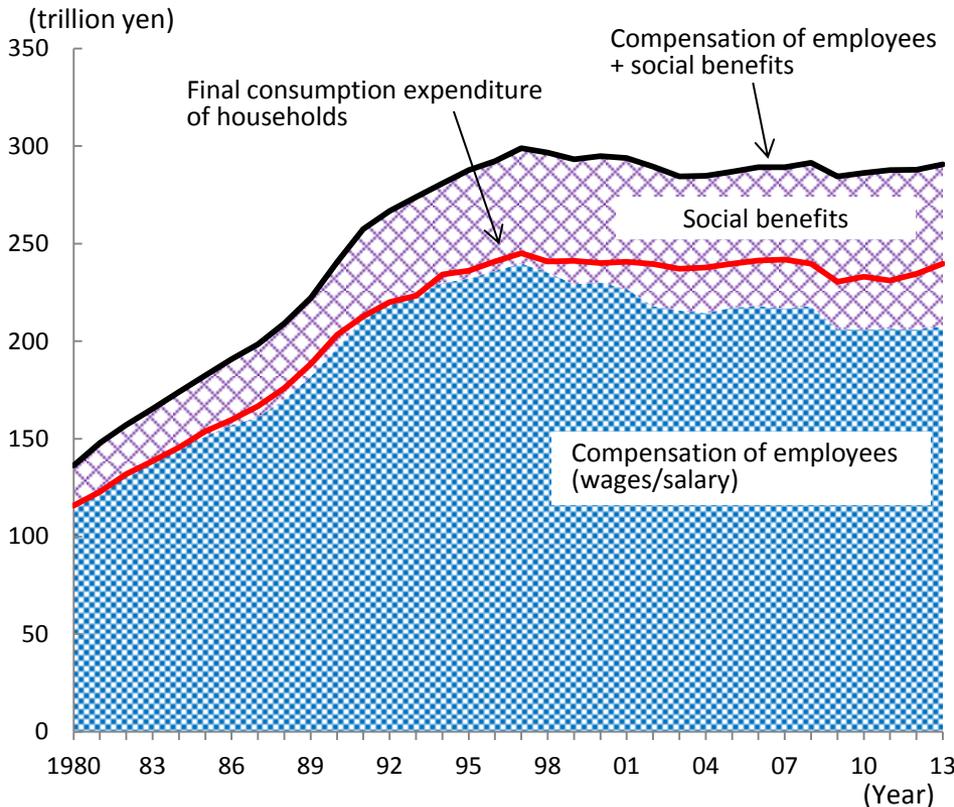
Calculated based on "Basic Survey on Wage Structure," MHLW (right figure).

Chapter 2 Challenges for the sustainable growth of the Japanese economy

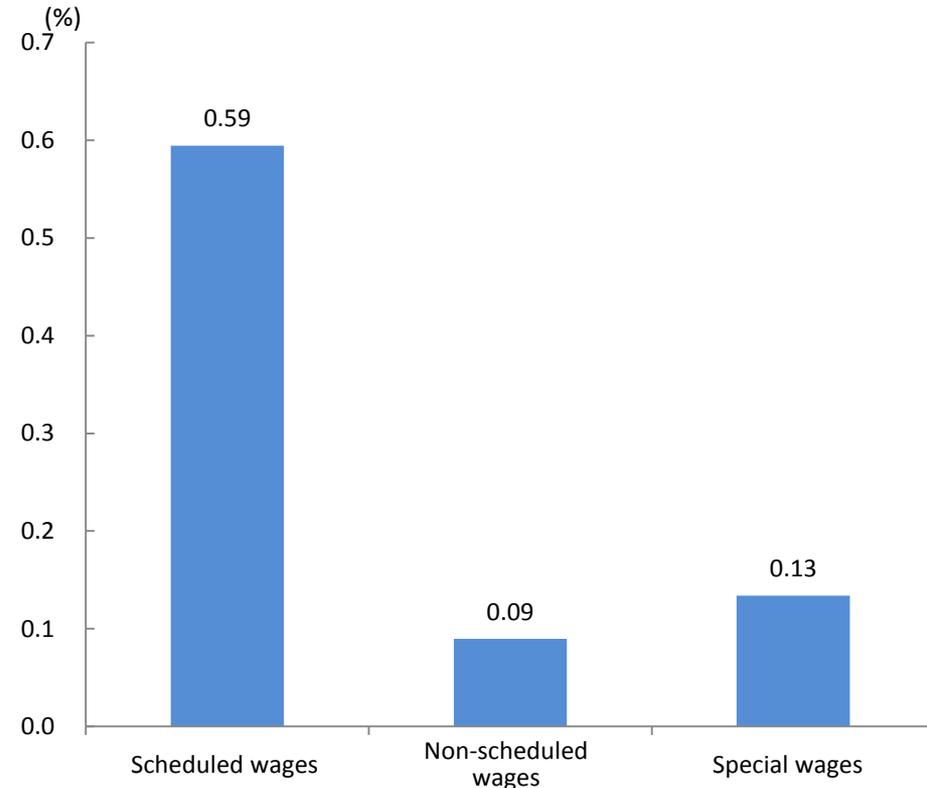
— Sustaining a virtuous economic cycle by expanding demand —

- Until 1990, there was a high correlation between compensation of employees (wages/salary) and final consumption expenditure of households which accounts for approximately 60% of the GDP in Japan. However, social benefits such as pension benefits have been underpinning household income since 1998. In order to stimulate consumption, it is important that corporate profits are distributed to wages.
- According to the consumption function estimation results, a 1% increase in scheduled wages increases macro-level personal consumption by 0.59%. On the other hand, a 1% increase in non-scheduled wages or special wages increases macro-level personal consumption only by 0.09% and 0.13%, respectively. Constant wage increases such as an increase in scheduled wages by a base pay raise have a greater impact on consumption stimulation.

Relationship between private consumption and employee compensation & social benefits



Impact of 1% wage increase on macro-level private consumption (elasticity)



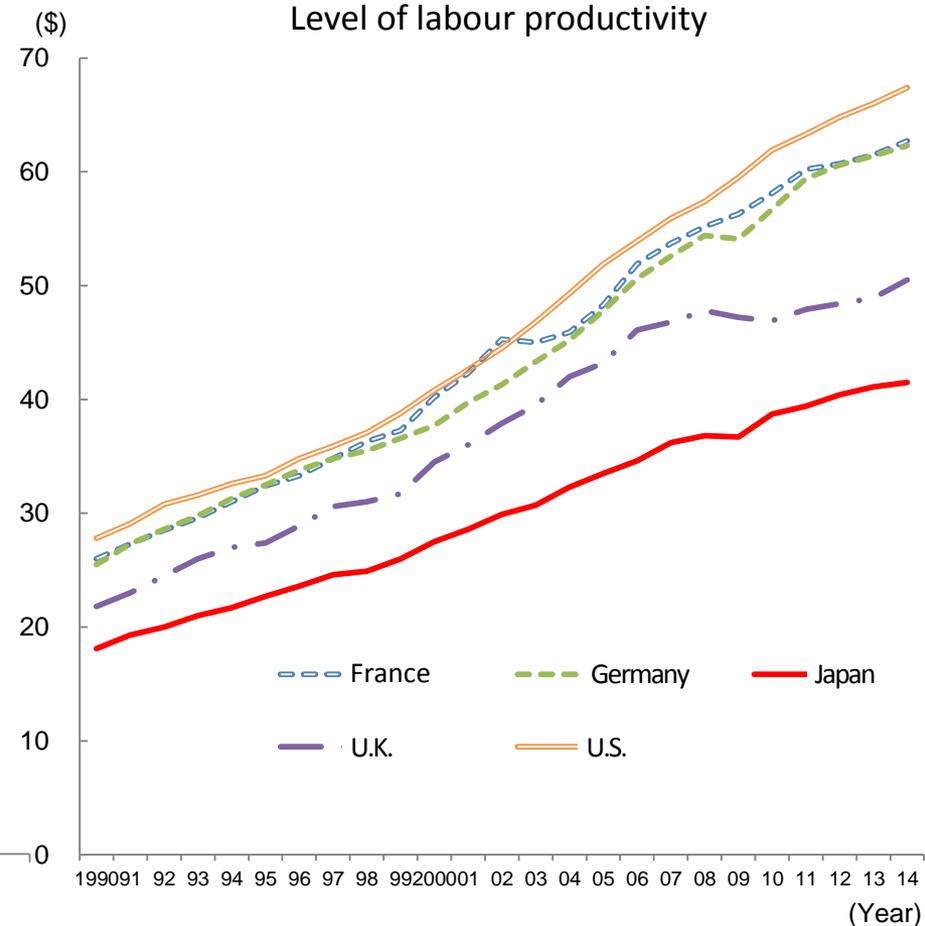
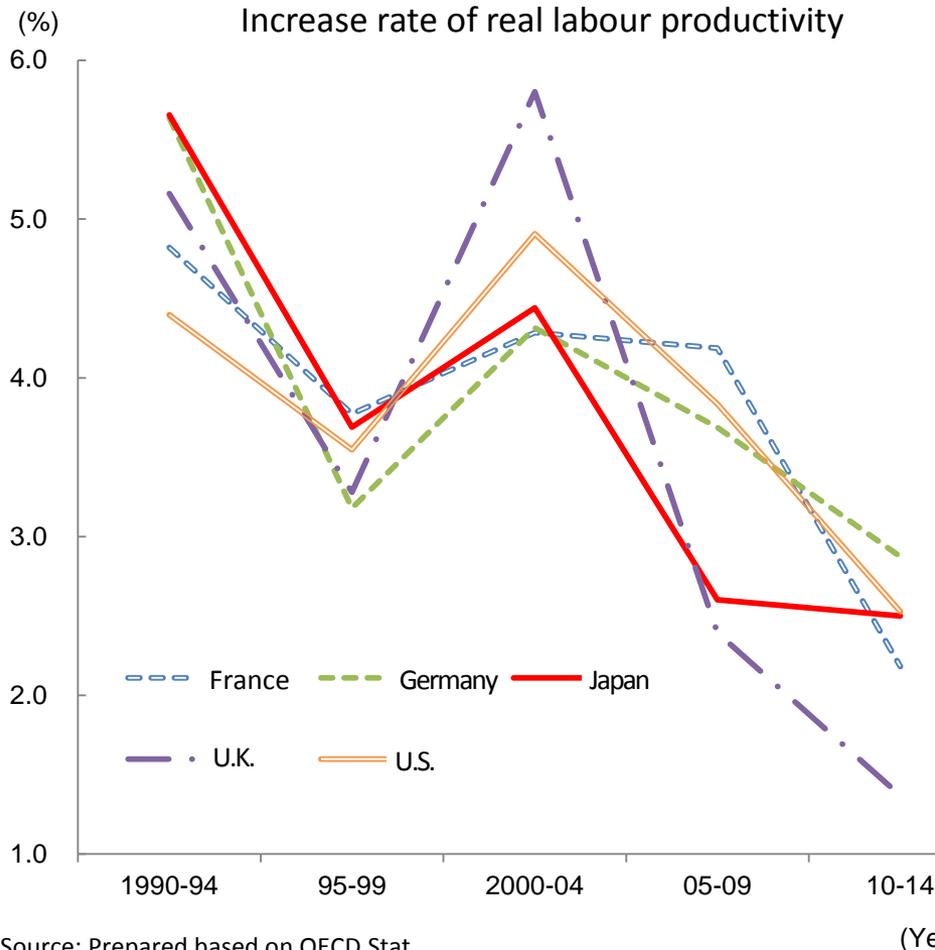
Source: Prepared based on "National Accounts," Cabinet Office (left figure).

Estimated based on "Monthly Labour Survey," MHLW, "Labour Force Survey," Statistics Bureau, MIC, and "National Accounts," Cabinet Office (right figure).

Chapter 2 Challenges for the sustainable growth of the Japanese economy

— Challenges for improving productivity in Japan (1) —

- Increase in labour productivity is indispensable for maintaining and enhancing the economic vitality by overcoming the supply limitation, i.e. the shrinking labour force as a result of the decline in birthrate and demographic aging, and for enabling continued increase in wages.
- When compared with the labour productivity levels of European countries and the U.S., Japan has a comparable growth rate though the level has dropped.



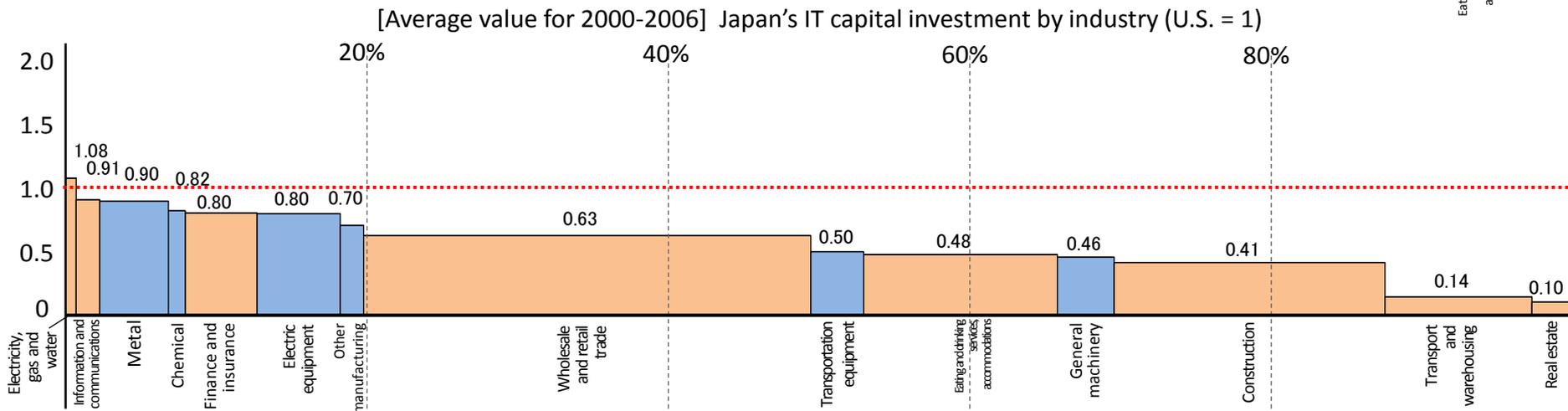
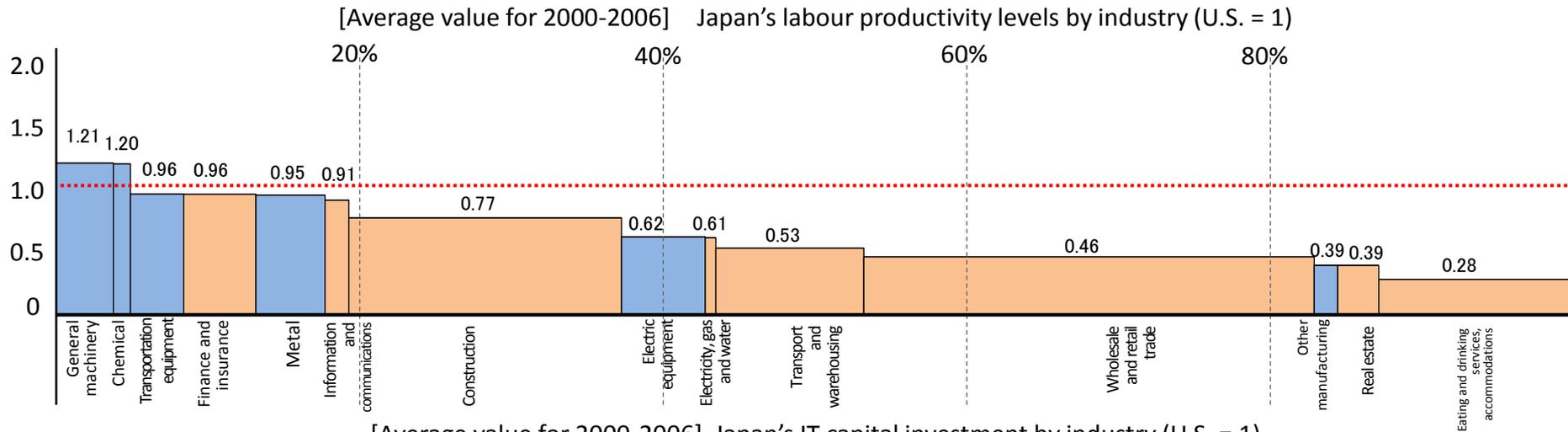
Source: Prepared based on OECD.Stat.

(Note) The following issues accompany the purchasing power parity technique employed for comparing the levels of labour productivity in different countries: problems with the selection of products and services used for the calculation, and the problem that same products and services have differing qualities depending on countries.

Chapter 2 Challenges for the sustainable growth of the Japanese economy

— Challenges for improving productivity in Japan (2) —

- When labour productivity levels are compared between Japan and the U.S. across industries, levels are lower in Japan mainly in the non-manufacturing industries.
- When the levels of IT capital investment as an investment element are compared between Japan and the U.S., investment in this area is lower in Japan in almost all industries.
- It has been pointed out that reluctance for corporate restructuring has slowed down the introduction of IT in Japan; in order to improve labour productivity, it is important to actively invest in the IT sector.

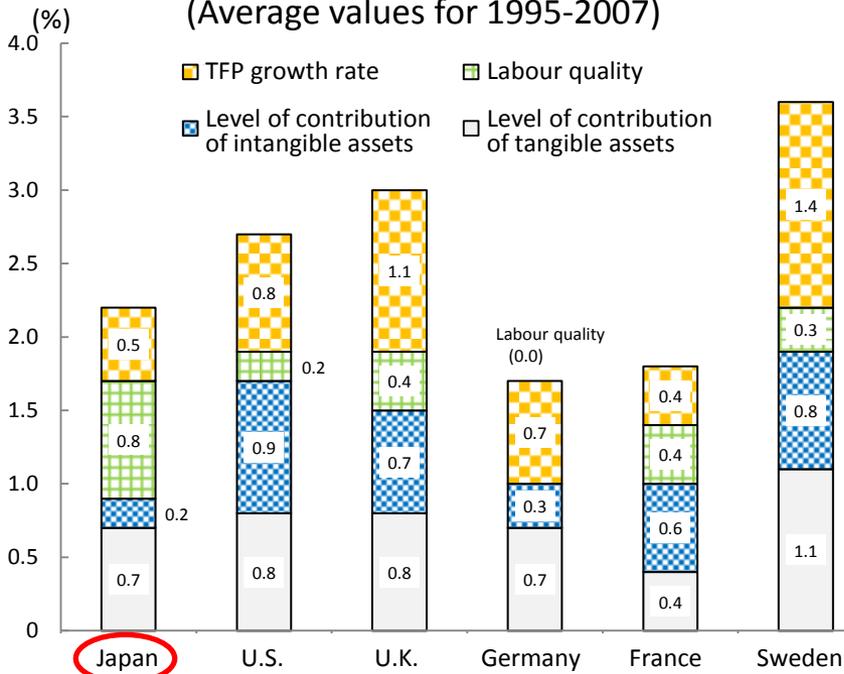


Chapter 2 Challenges for the sustainable growth of the Japanese economy

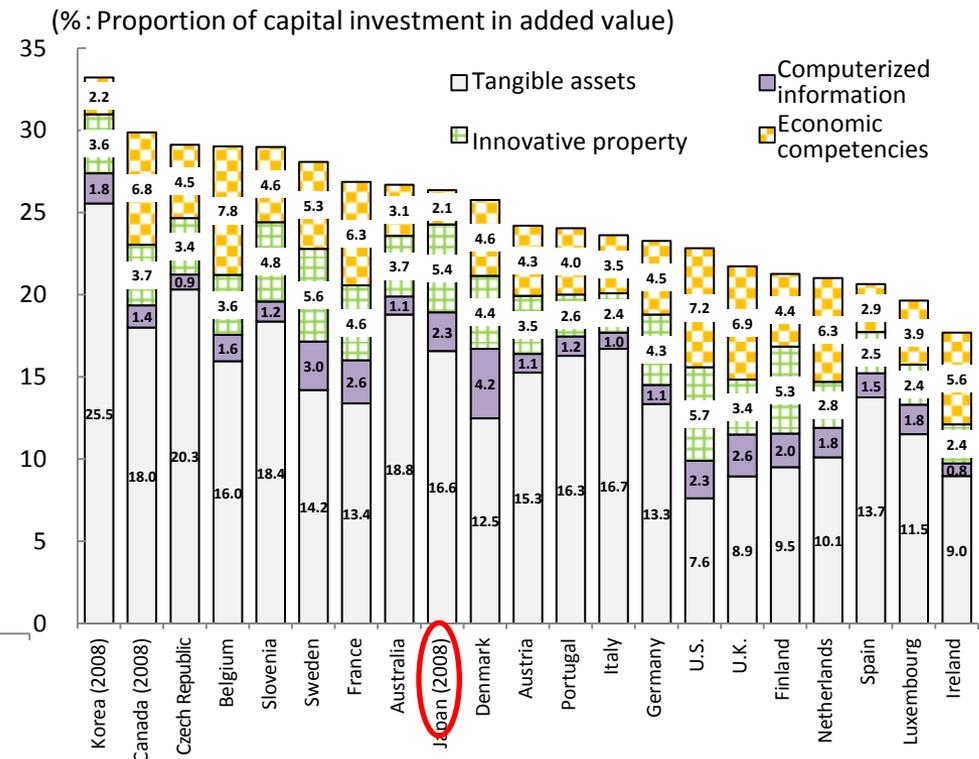
— Challenges for improving productivity in Japan (3) —

- According to the analysis of factors of labour productivity in light of intangible assets (1. *computerized information* such as software, 2. *innovative property* such as R&D, and 3. *economic competencies*, i.e. investments in brand equity, organizational structure, and human capital), which is gaining increasing attention in relation to recent productivity analyses, while the contribution of intangible assets to the increase of productivity is large in other countries, that of Japan is small.
- When capital investments are compared internationally, in Japan, the proportions of investments in tangible assets such as buildings, machinery, and equipment are higher, while the proportions of investments in intangible assets are lower; especially, the proportions of investments in economic competencies are considerably lower.

Analysis of factors of labour productivity in light of intangible assets
(Average values for 1995-2007)



International comparison of capital investments



Source: "Investments in Intangible Assets by Industries and Economic Growth in Japan," Miyagawa and Hisa (2013) (left figure)

"Supporting investment in knowledge capital, growth and innovation" OECD (2013) (right figure)

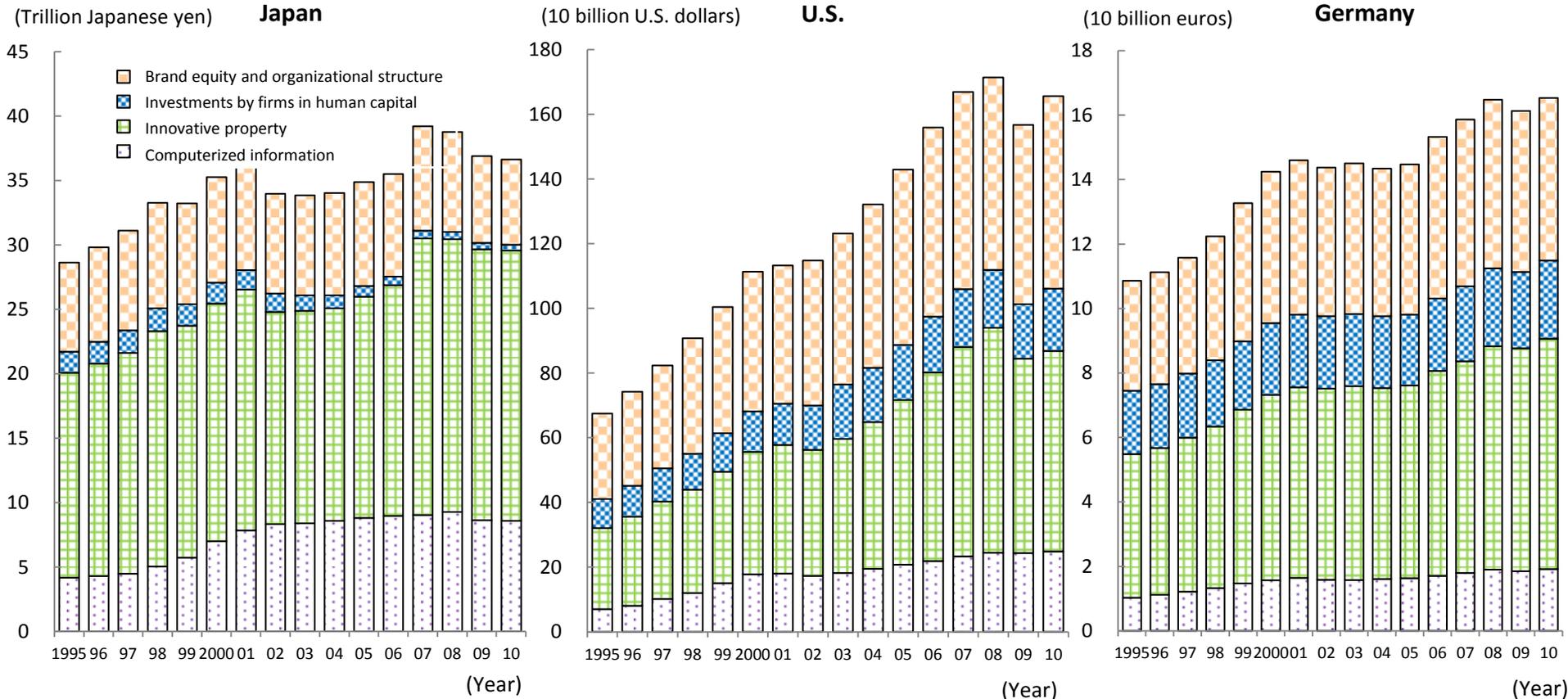
(Note) Total factor productivity (TFP) is regarded as the portion (residual error) of production increase which cannot be measured by the increase in investments of production elements such as capital and labour, and is understood to reflect innovation, management efficiency, etc. As for "labour quality," on the basis that the level of wages reflects the fluctuation in labour productivity, workers are grouped according to attributes such as education level and age, and based on the growth accounting perspective, it is regarded that the labour quality has risen when there is an increase in the proportion of the group with higher total wages.

Chapter 2 Challenges for the sustainable growth of the Japanese economy

— Challenges for improving productivity in Japan (4) —

- Looking at the investments in intangible assets in Japan, the U.S., and Germany, when economic competencies are analyzed in terms of *investments in brand equity and organizational structure* and *investments by firms in human capital*, investments by firms in human capital have dropped sharply in Japan; the proportion of investments in this category is approximately 10% of those of the U.S. and Germany.
- Though it must be noted that on-the-job training costs are not included in *investments by firms in human capital* since this item is estimated based on off-the-job training costs, the drop in the proportion of investments in human capital raises concerns about the fact that human capital is not being accumulated for the future.

Investments in intangible assets



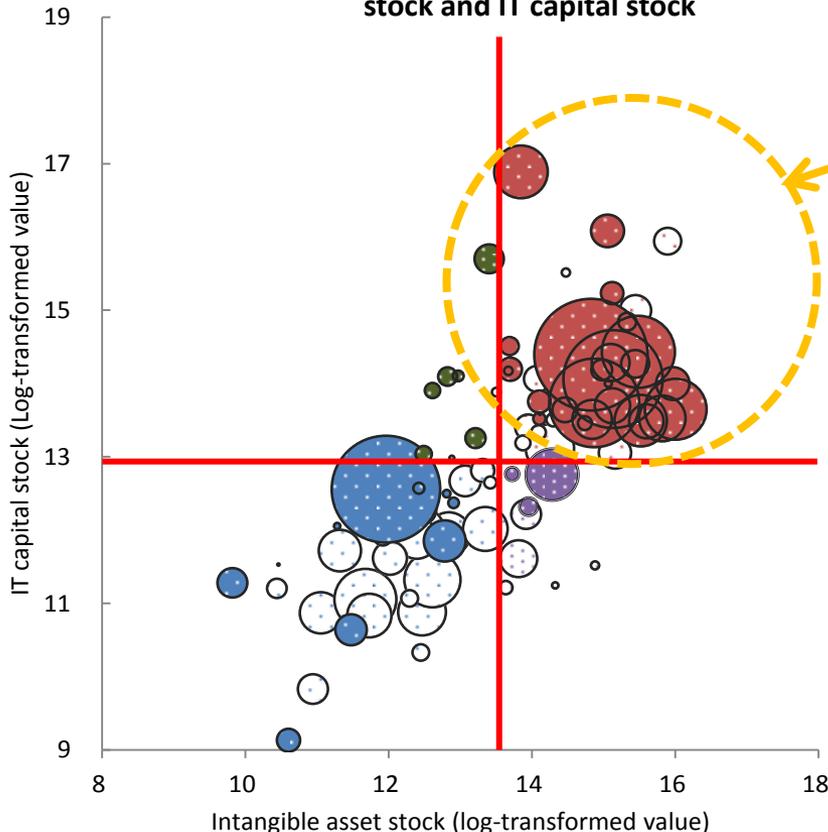
Chapter 2 Challenges for the sustainable growth of the Japanese economy

— Challenges for improving productivity in Japan (5) —

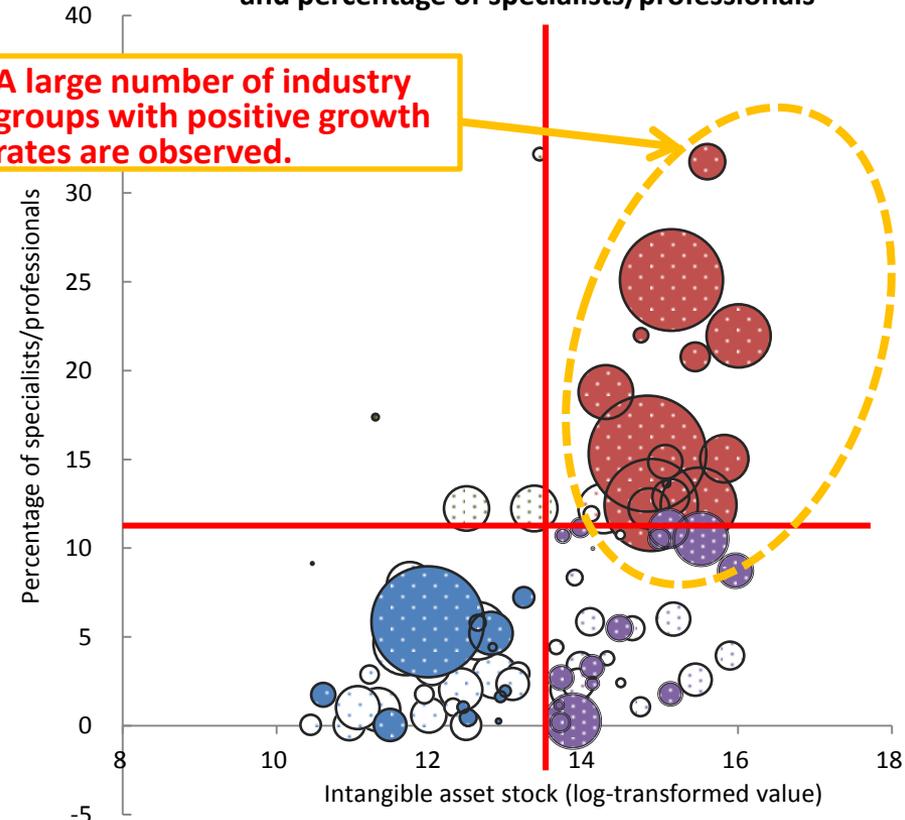
Looking at the relationship between added value growth rates by industry and intangible assets, IT capital, as well as the percentage of specialists/technicians in order to examine whether or not there is a difference in added value growth rates when intangible assets such as investments in brand equity, organizational structure, and human capital are combined with other investment elements, there are more industries with higher added value growth rates in the industry groups with higher-than-average intangible asset stocks and IT capital stocks. Furthermore, there are more industries with higher added value growth rates in the industry groups with higher-than-average intangible asset stocks and percentages of specialists/technicians.

As demonstrated by these data, industry growth is enhanced by simultaneously increasing investments in intangible assets as well as the above mentioned investment elements.

Real added value growth rate by intangible asset stock and IT capital stock



Real added value growth rate by intangible asset stock and percentage of specialists/professionals



A large number of industry groups with positive growth rates are observed.

Source: Prepared based on Japan Industrial Productivity (JIP) Data base, The Research Institute of Economy, Trade and Industry.

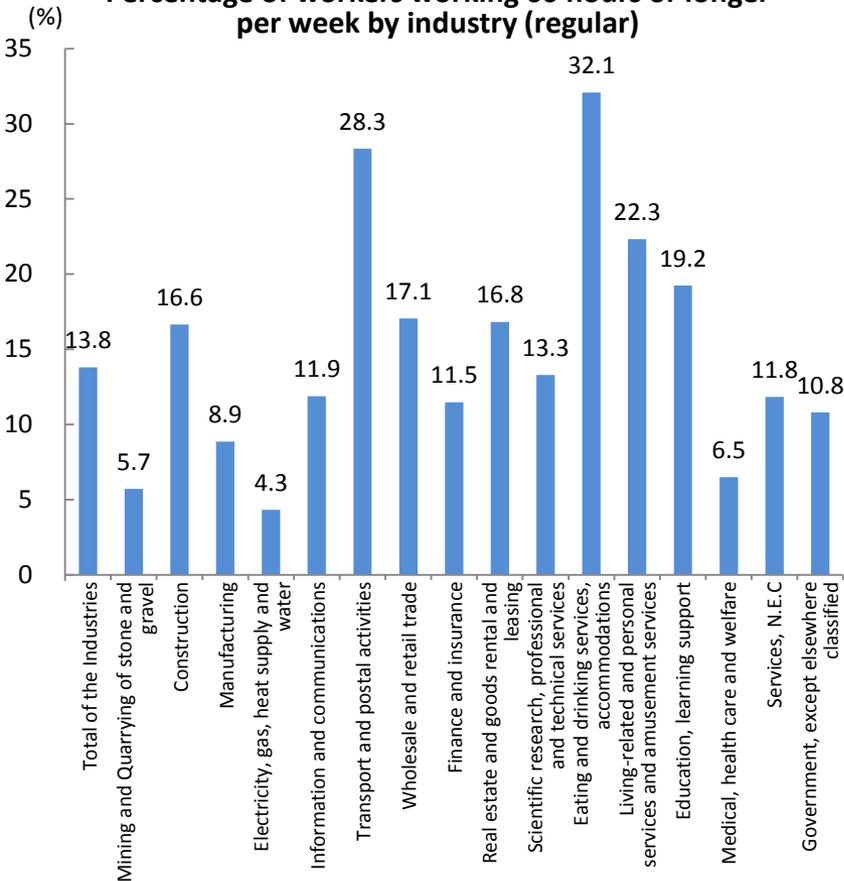
(Note): The size of the bubbles represents the size of growth rates. Bubbles of industries with positive growth rates are shown in dark colors.

Chapter 3 For the realization of more effective work styles

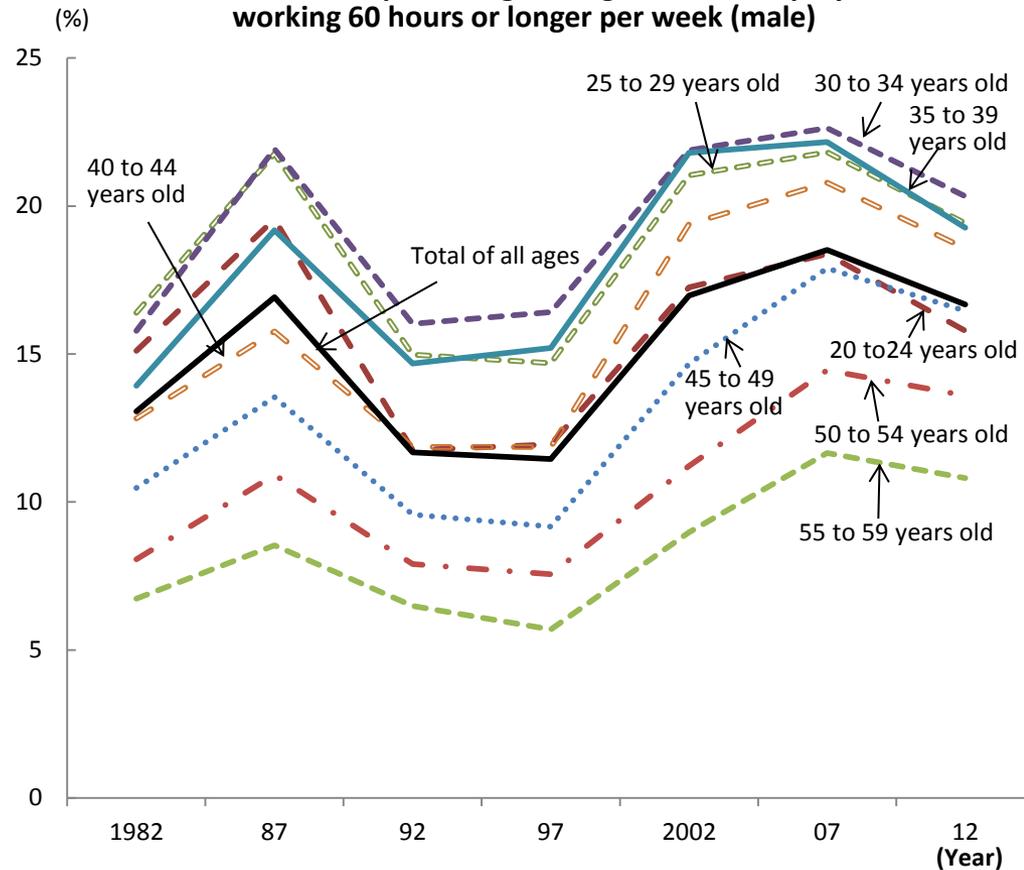
— Current work styles in Japan —

- While the total actual working hours of workers has decreased mainly due to the increase in the ratio of part-time workers, the total actual working hours of full-time workers has not changed significantly.
- When examined by industries, the percentage of workers working 60 hours or longer per week is high in Eating and drinking services, accommodations, transport and postal activities, as well as living-related and personal services and amusement services. When examined by age groups, the percentage of regular male staff/employees working 60 hours or longer per week is high in age groups from 25 to 39.

Percentage of workers working 60 hours or longer per week by industry (regular)



Transition of the percentage of regular staff/employees working 60 hours or longer per week (male)



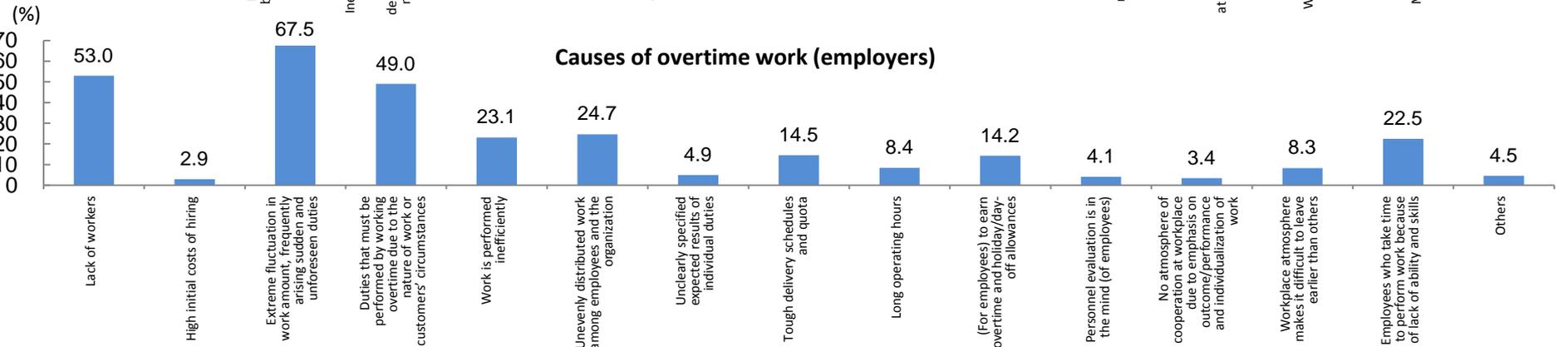
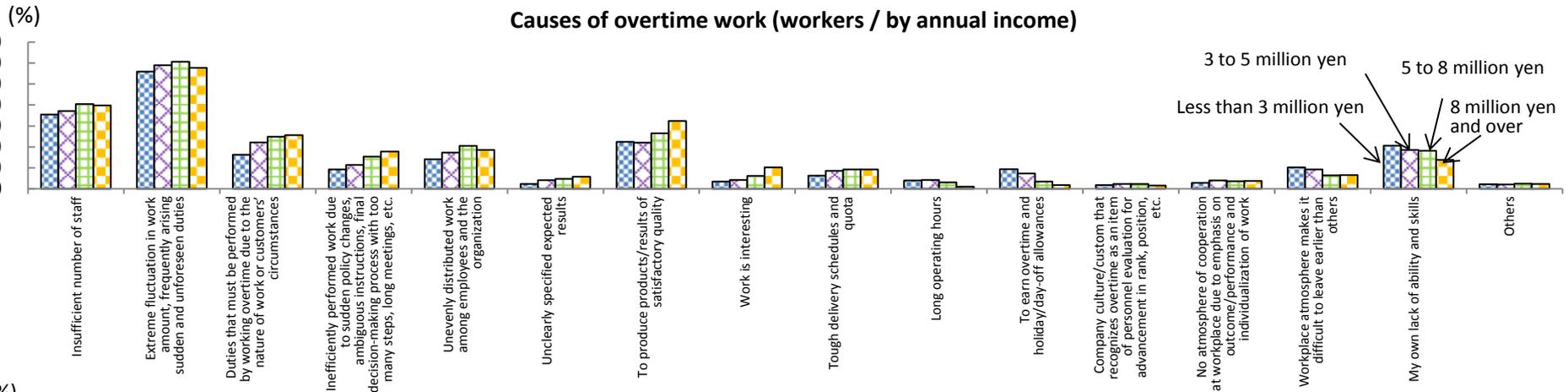
Source: Prepared based on "Basic Statistical Survey on Employment Structure (2012)," Statistics Bureau, MIC (left figure).

Prepared based on "Basic Statistical Survey on Employment Structure," Statistics Bureau, MIC (right figure).

Chapter 3 For the realization of more effective work styles

— Current circumstances and challenges of work styles in terms of worker's and employer's perspectives (1) —

- According to a survey of workers and employers, the percentage of respondents that gave the following reasons for the occurrence of overtime work was high in both groups: fluctuation in the amount of work, the frequent arising sudden and unforeseen duties, and staff shortage.
- In addition, a high percentage of workers responded that overtime work occurs because they want to produce satisfactory products/results based on their own standards. Meanwhile, only a low percentage of workers responded that they work overtime to earn overtime and holiday/day-off allowances.
- High percentage of employers responded that overtime work is caused because work is performed inefficiently or because there are duties that must be performed by working overtime due to customers' circumstances. Also, many employers responded that employees who take time to perform work because of lack of ability and skills are the cause of overtime work.



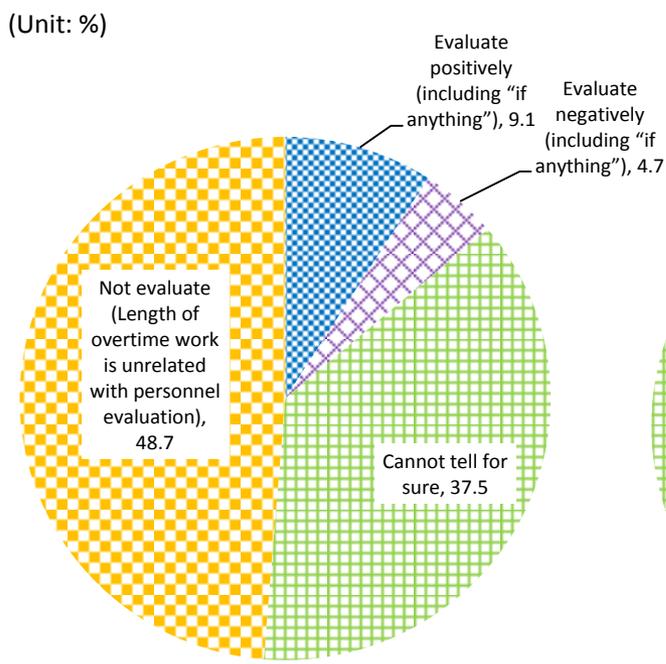
Source: Prepared based on "Survey on Work Hours and Work Style Needs (2015)," Japan Institute for Labour Policy and Training (upper figure).
 Prepared based on "Survey on Work Hours Management and Efficient Work Styles (2015)," Japan Institute for Labour Policy and Training (lower figure).

Chapter 3 For the realization of more effective work styles

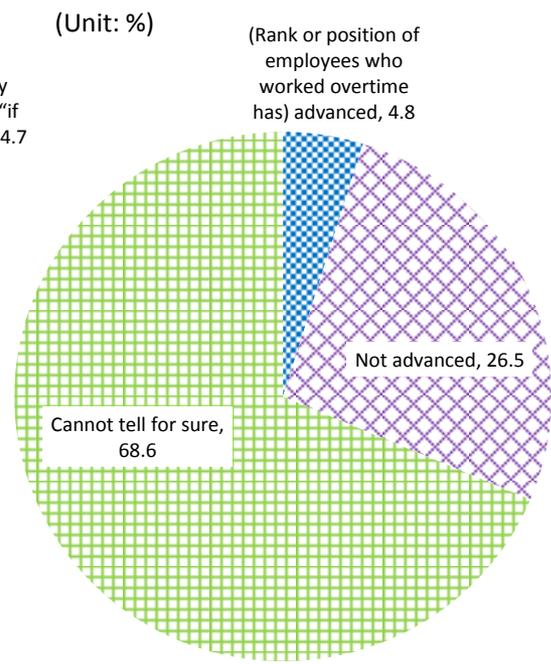
— Current circumstances and challenges of work styles in terms of worker's and employer's perspectives (2) —

- According to the survey of employers, a high percentage of them do not include overtime work in the personnel evaluation items for advancement in rank or position.
- IT utilization is regarded as a tool for efficient work styles; nearly 20% of employers responded that the total actual working hours decreased by IT utilization.
- In order to reduce overtime work which is caused by heteronomous factors, it is important to distribute staff efficiently based on analyses of fluctuation in demand, and to build business models that are less likely to be affected by outside factors. Meanwhile, IT utilization and good communication between superiors and subordinates are important for performing work efficiently.

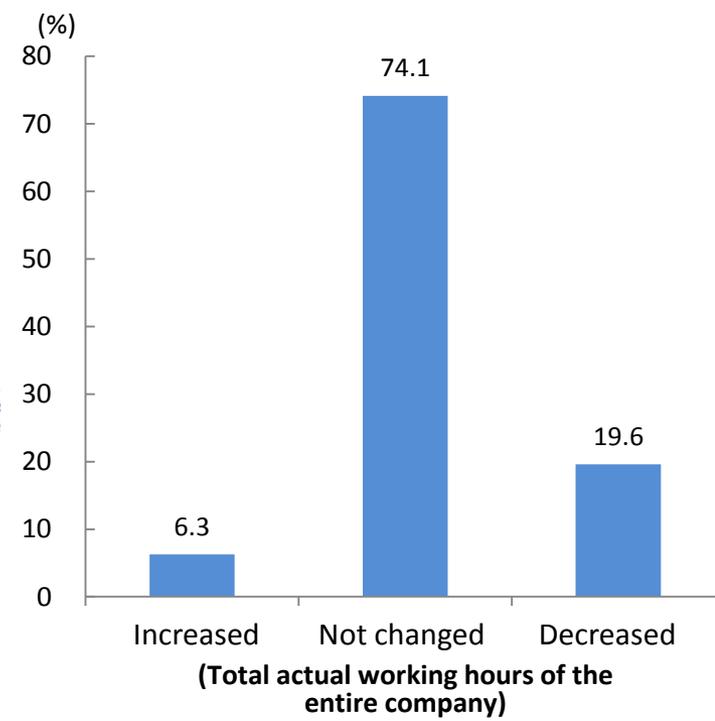
Personnel evaluation of overtime work (employer)



Advancement in rank or position of employees who worked overtime (employer)



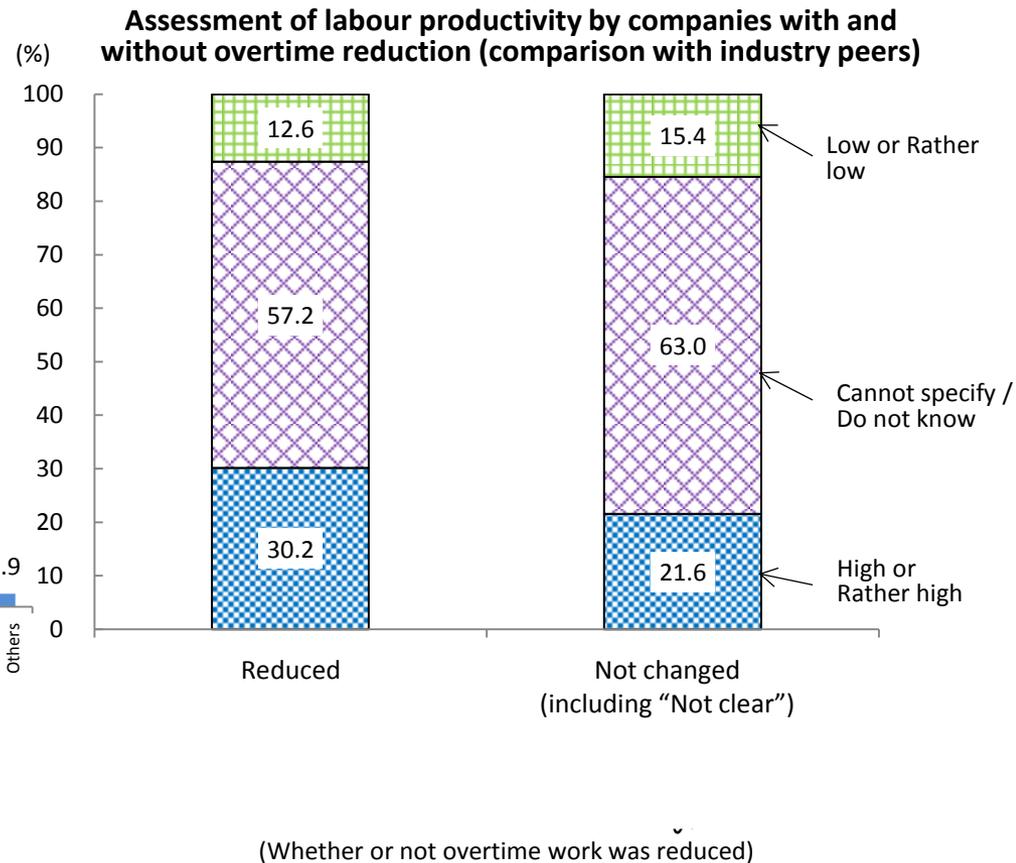
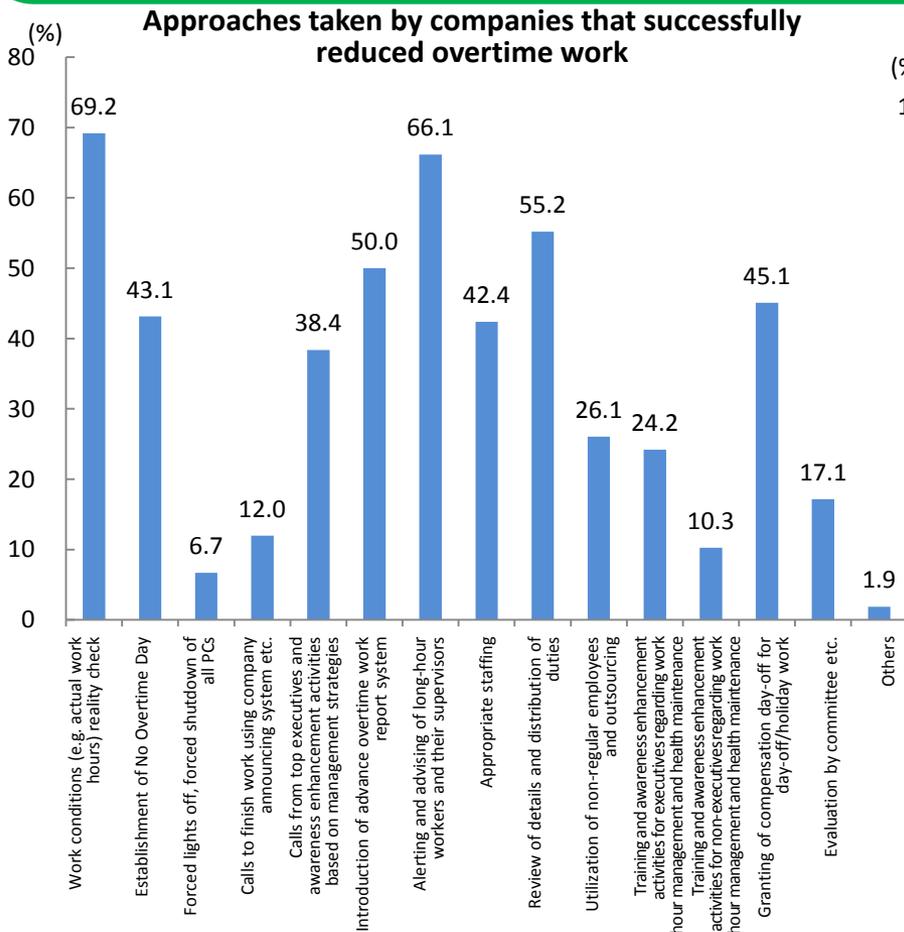
Change in the total actual working hours due to increased IT utilization



Chapter 3 For the realization of more effective work styles

— Aiming at creating a virtuous cycle for workers and employers by improving work styles (1) —

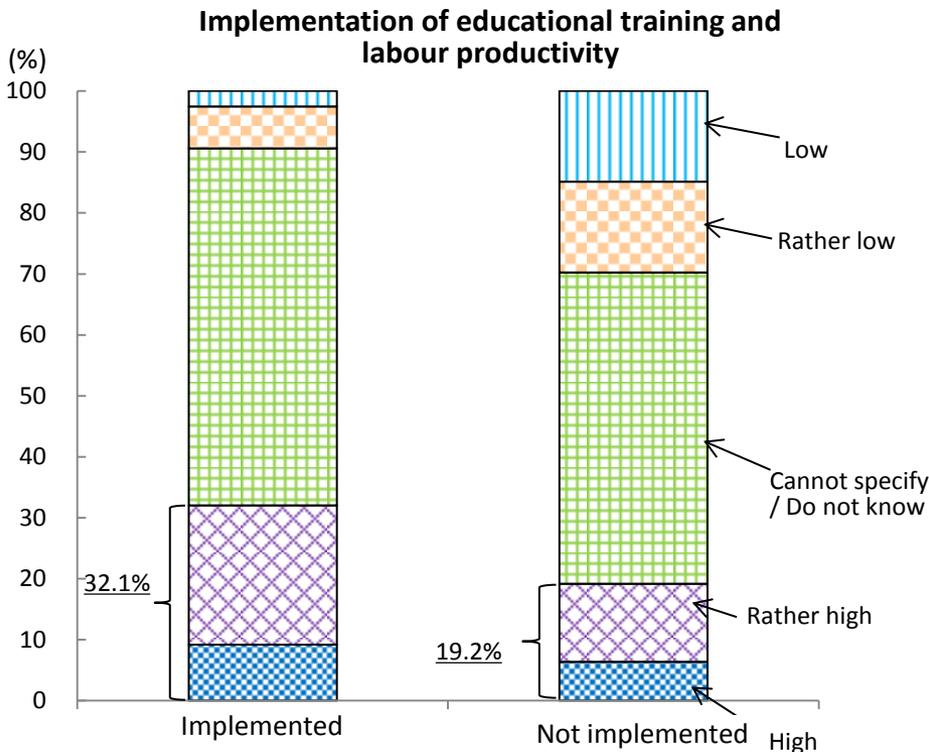
- Many companies that were successful in reducing overtime work took the following approaches: work condition reality check, alerting and advising workers working long hours and their superiors, and reviewing details and distribution of duties.
- Such companies tended to regard their company as having higher labour productivity in comparison with those of industry peers. Hence, reduction of overtime work is meaningful not only for workers but for companies as well. According to the responses given in company interviews, the positive effects of reduction in work hours included fatigue reduction, increased motivation, and self-improvement.



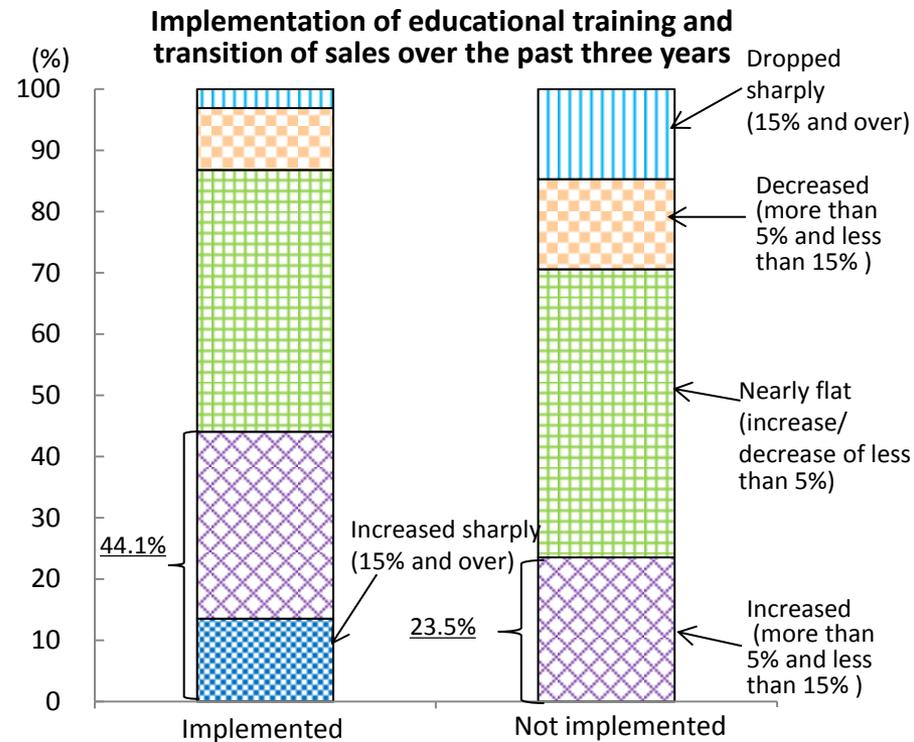
Chapter 3 For the realization of more effective work styles

— Aiming at creating a virtuous cycle for workers and employers by improving work styles (2) —

- In order to maintain/enhance production activities while reducing work hours, labour productivity must be enhanced and labour input must be increased.
- A high percentage of companies that implement educational training regards themselves as having higher labour productivity in comparison with those of industry peers, and state that their sales (over the past three years) have increased.
- It is important to provide diverse work styles that meet the needs of workers who wish to work more hours and potential workers who are unemployed due to being unable to find jobs because of work conditions, such as work hours and work schedules, so that they can participate in labour in ways that suit their desired work conditions.



(Educational training activities)

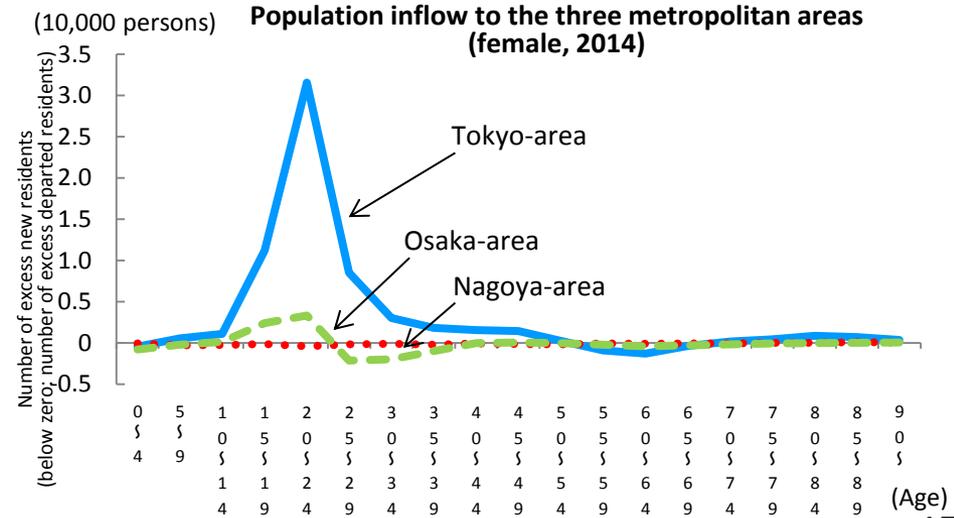
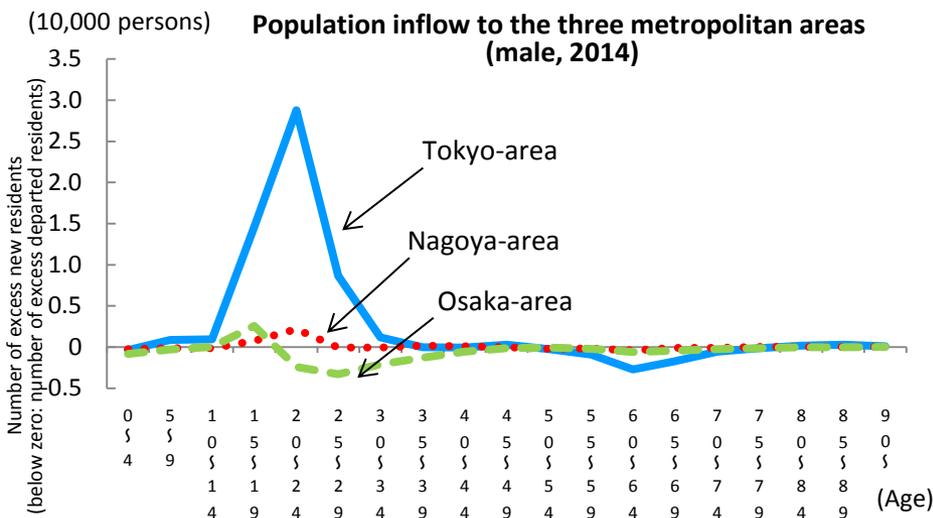
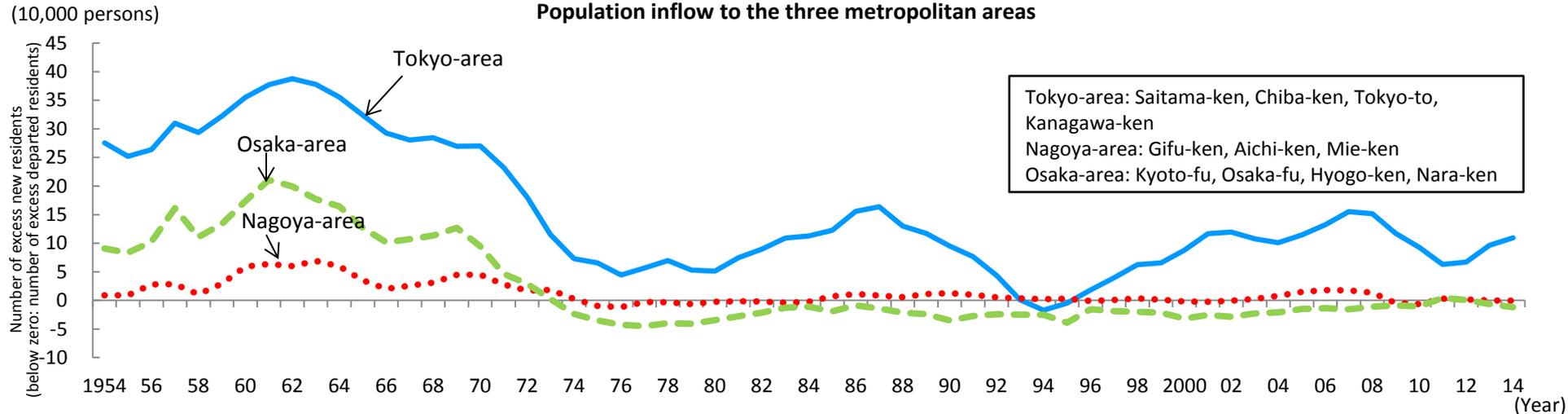


(Educational training activities)

Chapter 4 Desirable state of local economies in the face of population decline

— Demographic trends and labour supply limitations —

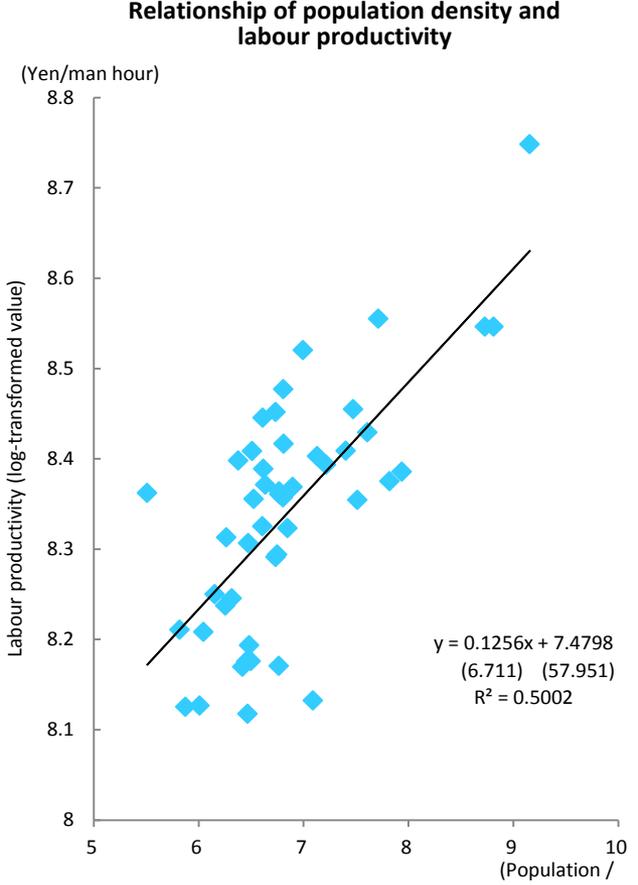
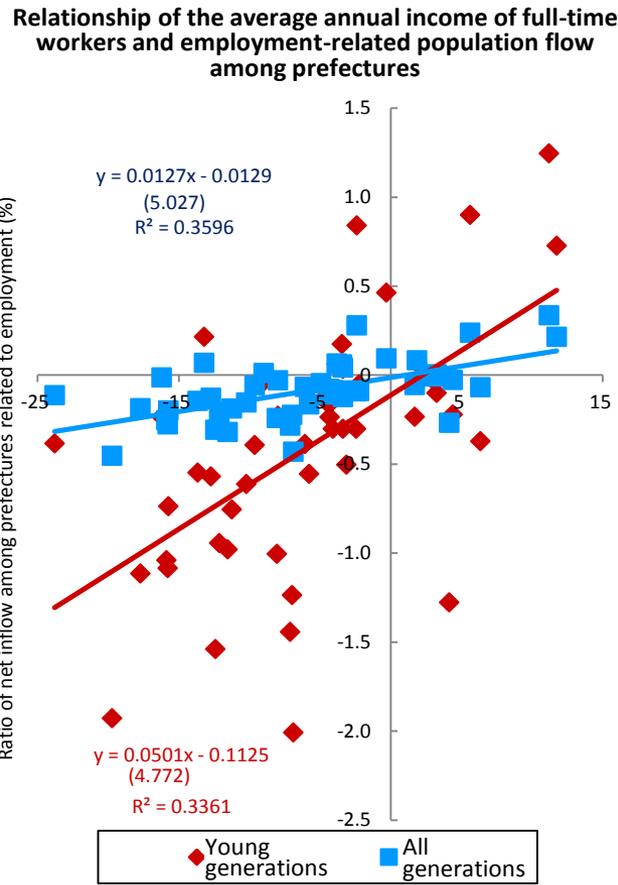
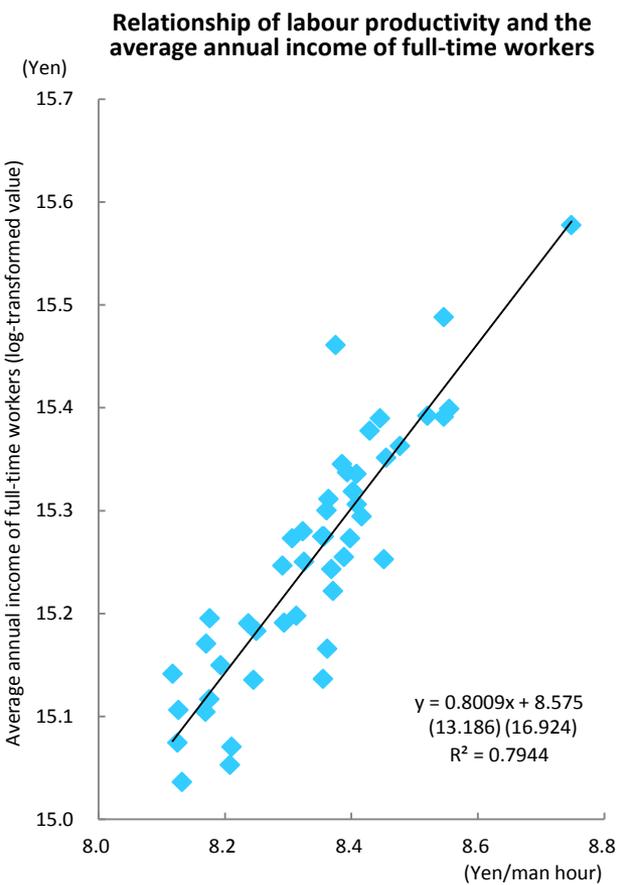
- Population inflow to the Tokyo-area has been increasing since 2011.
- Young age groups of both males and females tend to concentrate in the Tokyo-area due to the concentration of universities and large companies.



Chapter 4 Desirable state of local economies in the face of population decline

— Challenges for creating a virtuous economic cycle in regions (1) —

- The average annual income, i.e. the wage standard, tends to be higher in regions with higher labour productivity. Accordingly, there is a trend of employment-related population flow to areas with higher wage standards.
- Levels of labour productivity are higher in areas with higher concentration of population and higher population density. Efforts to increase labour productivity are crucial for the growth of local economies.



Labour productivity (log-transformed value)

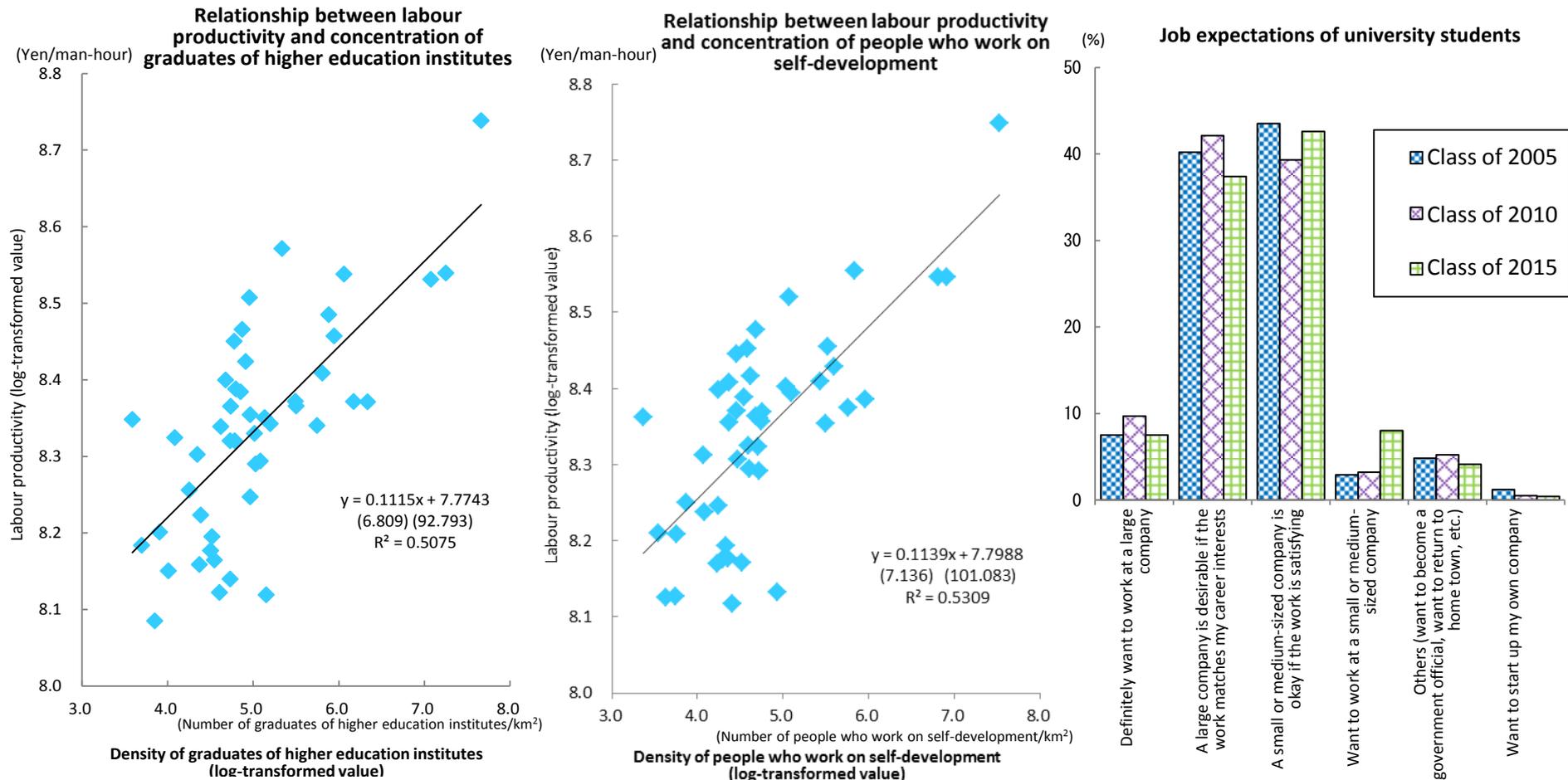
Difference between the national average of the average annual income of full-time workers, excluding effects of educational levels etc. (%)

Population density (log-transformed value)

Chapter 4 Desirable state of local economies in the face of population decline

— Challenges for creating a virtuous economic cycle in regions (2) —

- There are correlations between improvements in labour productivity and the concentration of population, businesses, as well as human resources (e.g. people who have received higher education at universities or junior colleges, and people who work on self-development); it is important to effectively utilize these *concentration benefits*.
- In order to enhance this human resource group, improvements in the employment situation and attractive employment opportunities are needed.

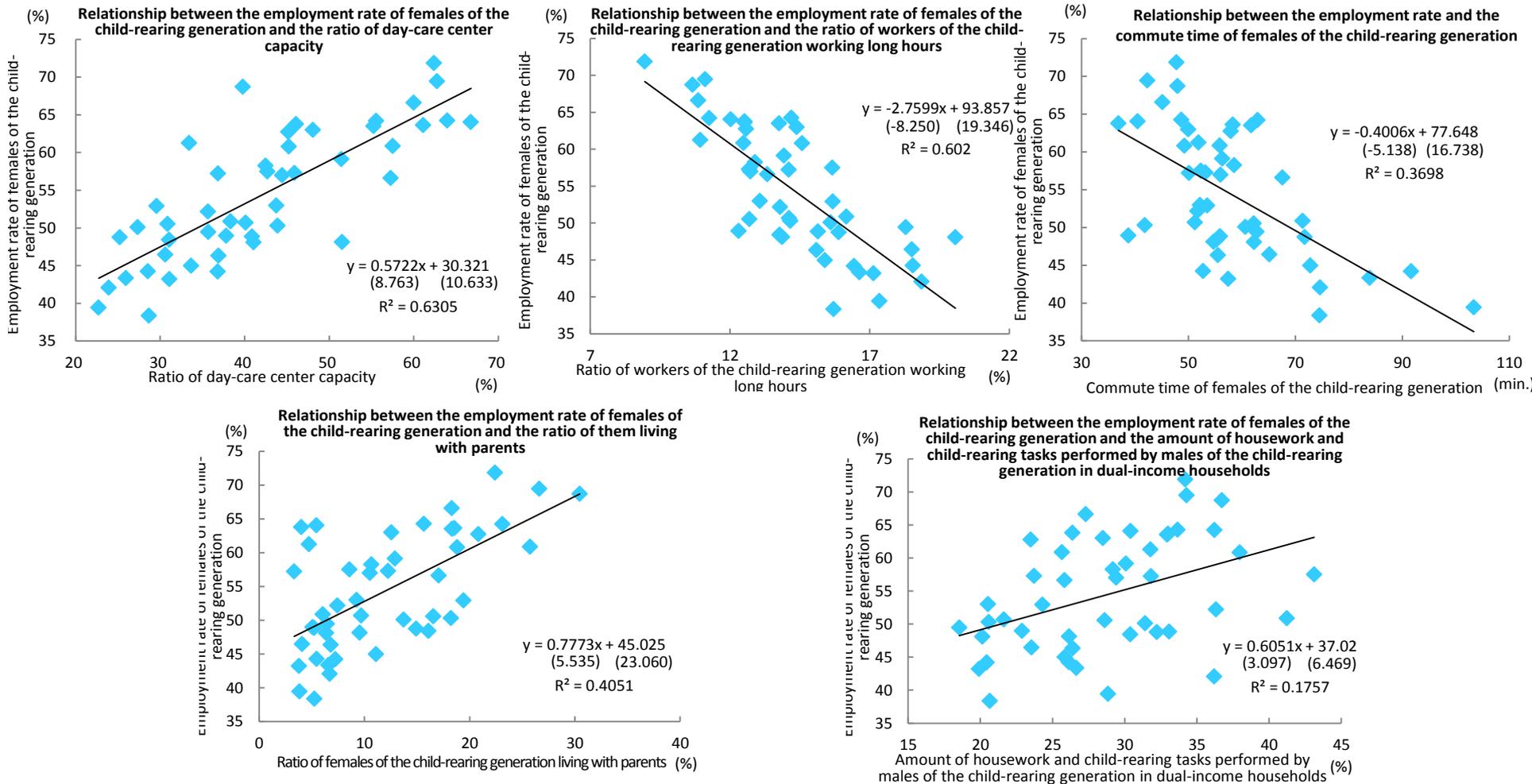


Source: Estimated based on “Monthly Labour Survey (regional),” MHLW, “Prefectural Accounts,” Cabinet Office, “Population Census (2010),” “Basic Statistical Survey on Employment Structure (2012),” “Regional Statistics Database,” Statistics Bureau, MIC (left figure) (central figure). “Mynavi’s Survey on Job Expectations of University Students,” Mynavi Corporation (right figure)

Chapter 4 Desirable state of local economies in the face of population decline

— Challenges for creating a virtuous economic cycle in regions (3) —

- In the era of population decline, it is important to make efforts to motivate people who do not have the experience of participating in the labour market to work and to encourage labour participation.
- A large number of women who want to work are not searching for jobs due to bearing and raising of children. In order to encourage females of the child-rearing generation to work, sufficient day-care center capacity must be provided and long working hours must be suppressed to create an environment that enables the balancing of work and child-rearing.



Source: Estimated based on "Report on Circumstances Related to Day-Care Centers," MHLW, "Basic Statistical Survey on Employment Structure (2012)," "Survey on Time Use and Leisure Activities (2011)," and "Population Estimates," Statistics Bureau, MIC.