NEWS

Analysis of Japan's Labor Economy 2017

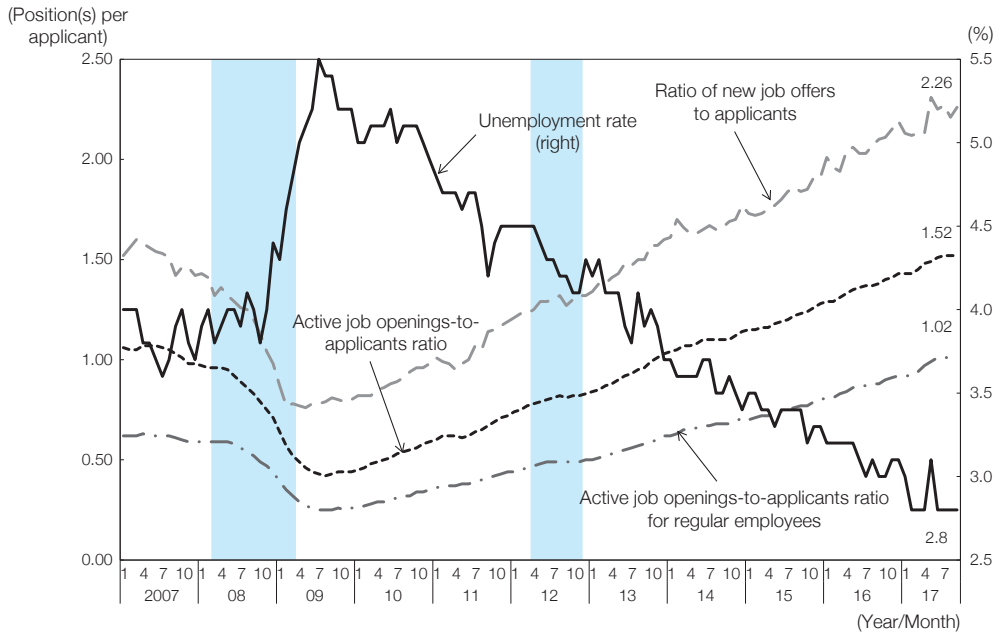
Office of Counsellor for Labour Policy Planning
Ministry of Health, Labour and Welfare

I. Employment Situation

Increase in labor demand steadily improves employment

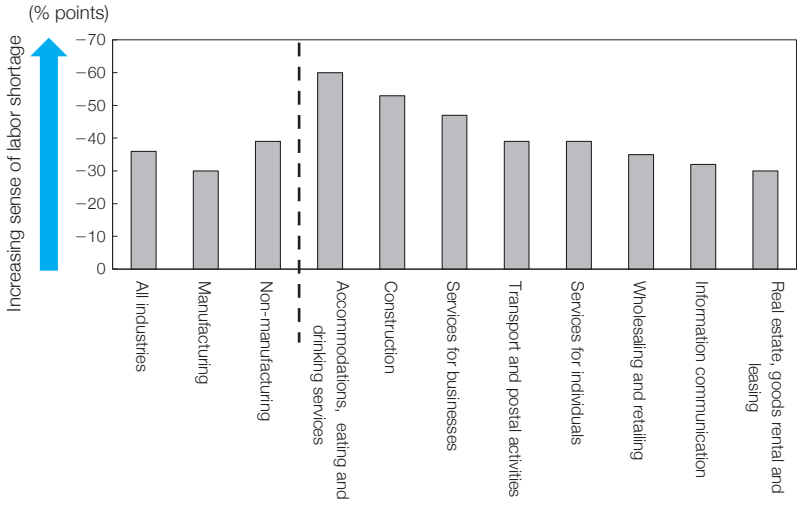
For an overall picture of the employment situation, let us examine the change in the unemployment rate and active job openings-to-applicants ratio (Figure 1). Both unemployment rate and active job openings-to-applicants ratio have been trending upward in Japan since 2009 after the global financial crisis. As of September 2017, the unemployment rate was 2.8%, which is its lowest level since June 1994, and the active job openings-to-applicants ratio was 1.52 positions per applicant, approaching the high level of 1.64 that it reached in January 1974. When limited to regular employment, the active job openings-to-applicants ratio, as of June 2017, rose to above 1 position per applicant for the first time since tracking of this statistic began in November 2004.

First, let us get an overall sense of surplus and shortage of employment as seen from the labor demand side (employers' perspective) by looking at the diffusion index (D.I.) of "surplus" minus "shortage" of employment in the Bank of Japan's *Tankan* (survey on short-term business outlook). The values for all enterprise sizes and all industries in the



Sources: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on MHLW's *Report on Employment Service* and Statistics Bureau, MIC's *Labor Force Survey*.
Notes: 1. Data used are seasonally adjusted.
2. During the period from March 2011 to August 2011, supplementary estimates (new standards) were used because there was no nationwide collection result due to the impact of the Great East Japan Earthquake occurred in March, 2011.
3. The shadowed parts are recessionary periods.

Figure 1. Trends in unemployment rate and active job openings-to-applicants ratio



Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on the data from Bank of Japan, *The Short-Term Economic Survey of Enterprises in Japan (Tankan).*

Figure 2. The change in D.I. for employment conditions by industry (The difference between April-June 2010 survey and April-June 2017 survey)

April-June 2017 survey were minus 25 percent points from the previous year, meaning perceived shortage of workers is at its highest level in around 25 years, since the January-March 1992 survey. The sense of shortage of employment is strongest in the industries of "Accommodations, eating and drinking services" and "Construction" as seen in comparison with the April-June 2010 and April-June 2017 surveys (Figure 2).

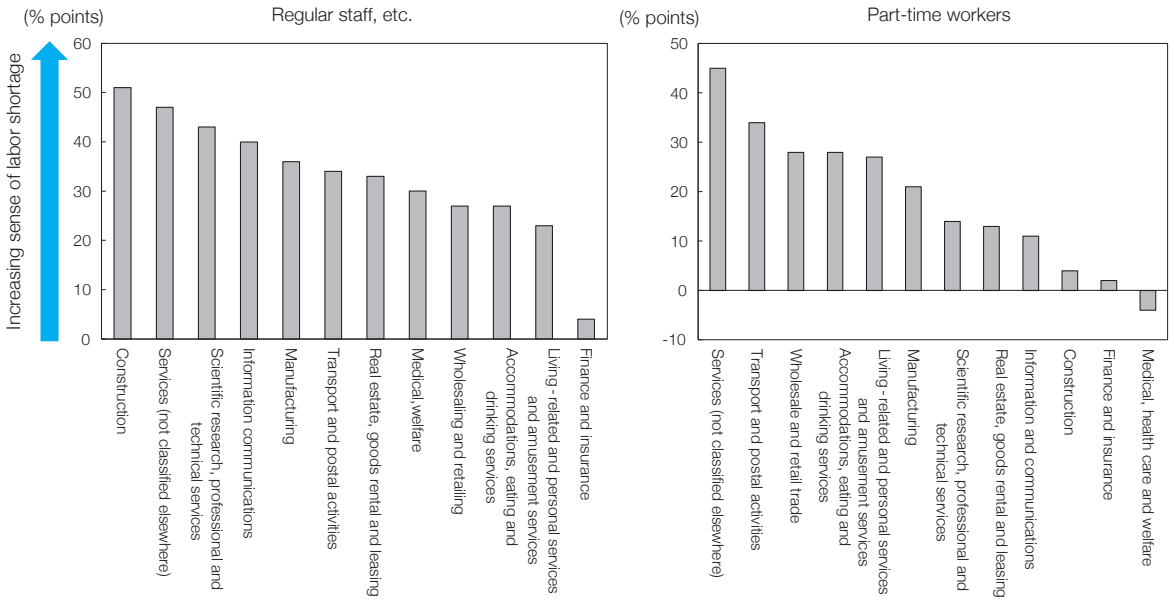
Figure 3 shows the D.I. for employers' judgment on the employment situation in the *Survey on Labour Economy Trends* conducted by Ministry of Health, Labor and Welfare (MHLW). There is a growing trend of shortage of labor supply among regular employees, etc. in industries such as "Construction," "Service (not elsewhere classified)," and "Information and communications" and among part-time workers in industries such as "Service (not elsewhere classified)" and "Transport and postal activities."

As for trends related to recruitment of regular workers, the number of full-time job openings is increasing across all industries in recent years. The increase is particularly pronounced in "Manufacturing" and "Medical, health care and welfare" (Figure 4).

Countermeasures for labor shortage varies by industry

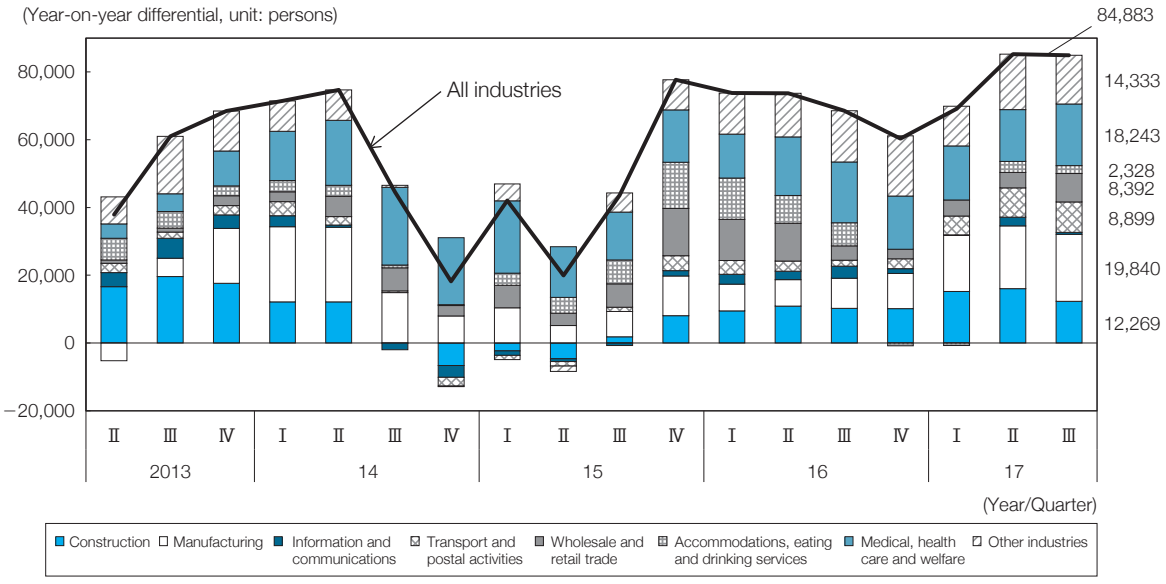
Having overviewed trends in perceived labor shortage, let us look at employers' responses to labor shortages with a focus on differences between industries. Potential measures for employers to deal with labor shortages are mainly "hiring new workers" and "increasing overtime work hours."

In terms of "hiring new workers," let us examine trends in number of employees. Figure 5 shows the number of employees by type of employment in each industry since 2013. It indicates that the number of regular employees trended upward in the third quarter of 2017 in the industries of "Medical, health care and welfare" and "Transport and postal activities," although it was not a marked increase. In contrast, not enough labor seems secured in "Construction" and "Information and communications," which has been a strongly perceived lack of full-time employees in recent years. Meanwhile, the number of non-regular workers is trending upward in "Accommodations, eating and drinking services" and "Medical, health care and welfare." Not enough labor seems secured in "Wholesale and retail trade" where there has been a perceived lack of part-time workers in recent years.



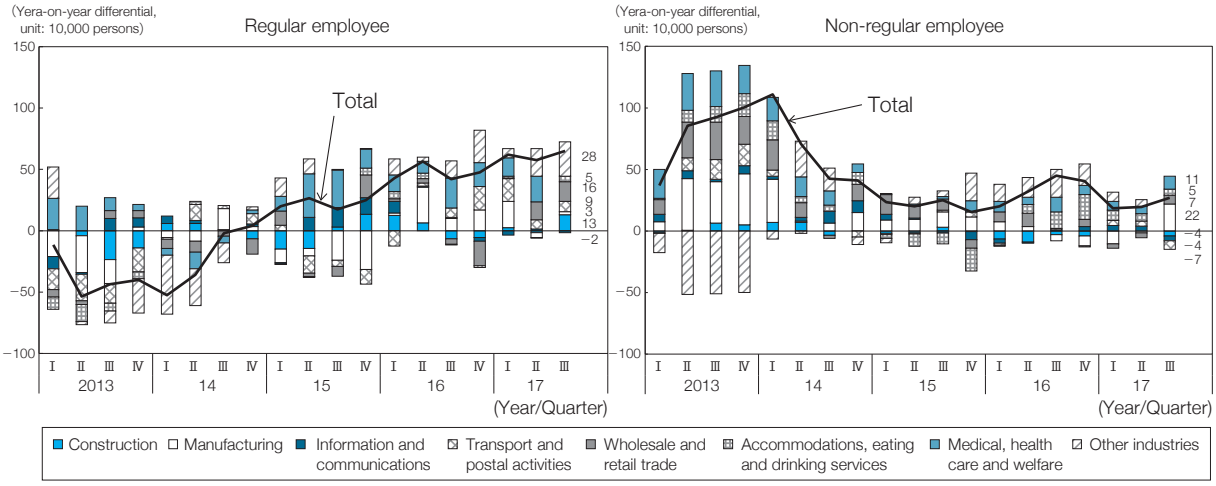
Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on MHLW's *Survey on Labor Economy Trends*.
Notes: 1. "Regular staff, etc." means a person employed without specifying an employment period or a person who is hired with an employment contract for a period of one year or more, excluding "part-time workers."
2. "Part-time worker" means a person whose prescribed working hours per day or prescribed number of working days per week are shorter than those of a regular employee at the same business.

Figure 3. Changes in D.I. for situation of surplus and shortage of workers, by industry and employment type (The difference between August 2010 survey and August 2017 survey)



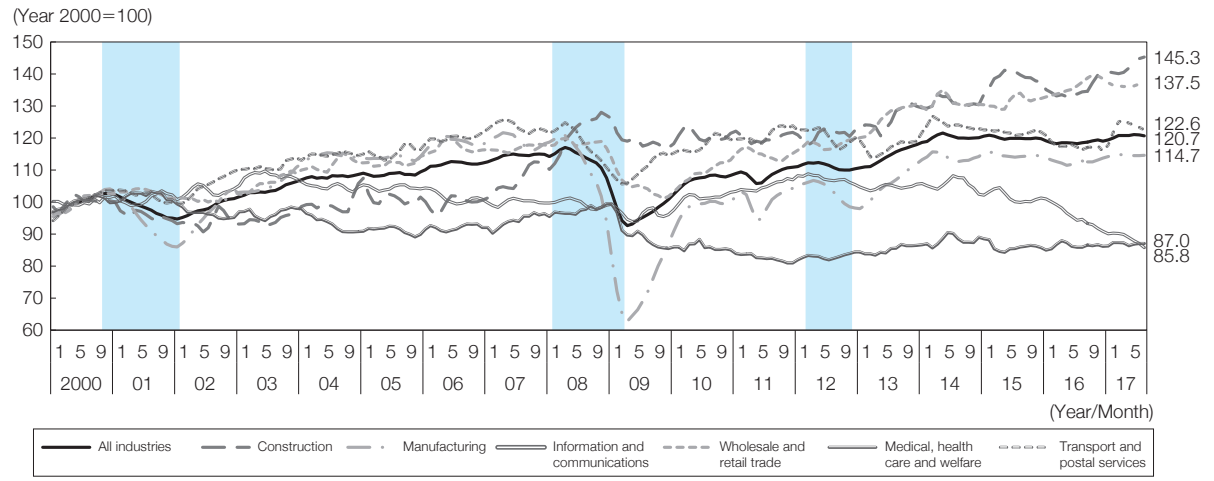
Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on MHLW's *Employment Referrals for General Workers*.
Note: Regarding the number of new full-time job openings by industry in the third quarter of 2017, the total for All industries was 1,236,212 persons, Construction 180,442, Manufacturing 150,681, Information and telecommunications 53,447, Transport and postal services 93,533, Wholesale and retail trade 156,455, Accommodations, eating and drinking services 77,921, Food service, and Medical, health care and welfare 281,085.

Figure 4. Trends in number of regular full-time job openings by industry



Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on the MIC's *Labor Force Survey* (detailed statistics).
Notes: 1. Data shows moving averages for last two quarters.
2. Numbers of persons employed in the third quarter of 2017 were: [Regular workers / employees] All industries 34.35 million persons, Construction 2.93 million, Manufacturing 7.00 million, Information and communications 1.41 million, Transport and postal services 2.34 million, Wholesale and retail trade 4.71 million, Accommodations, eating and drinking services 930 thousand, Medical, health care and welfare 4.72 million, Other industries 10.15 million; [Non-regular workers / employees] All industries 20.5 million persons, Construction 610 thousand, Manufacturing 2.85 million, Information and communications 280 thousand, Transport and postal services 920 thousand, Wholesale and retail trade 4.47 million, Accommodations, eating and drinking services 2.44 million, Medical, health care and welfare 3.03 million, Other industries 5.56 million.

Figure 5. Trends in number of regular / non-regular employees by industry



Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on the MHLW's *Monthly Labor Survey*.
Notes: 1. Data shows the seasonally adjusted value moving average for the last three months.
2. Seasonally adjusted values are prepared by Office of Counsellor for Labour Policy Planning of the MHLW. X-12ARIMA used.
3. The total for All industries is the number of regular workers in workplaces with 5 or more employees.
4. The overtime work hours as of August 2017 represented as time units are All industries 17.5 hours, Construction 21.2, Manufacturing 20.4, Information and communications 15.8 hours, Transport and postal services 33.5, Wholesale and retail trade 15.3, and Medical, health care and welfare 5.9.

Figure 6. Change in indicators for overtime work hours

Figure 6 gives an overview of how employers deal with the situation with respect to measures to "increase overtime work hours." While overtime work hours are trending upward in "Construction" and "Wholesale and retail trade," which are struggling to secure enough workers. In "Transport

and postal services" and "Manufacturing," the figures show increases in overtime work during past economic expansion phase in response to the economic stimulus, but have remained more or less flat even in the economic expansion phase since 2013. This may indicates the impact of enterprises' efforts to change ways of working, including curtailing excessively long work hours, in response to the government's Action Plan for the Realization of Work Style Reform. Overtime work hours in "Medical, health care and welfare" consistently stays flat overall, having fluctuated around the time of the 2008 global financial crisis. Meanwhile, in "Information and communications," overtime work hours have been decreasing in recent years. According to MHLW's *Survey on Labour Economy Trend,* the "Information and telecommunications" has a relatively high percentage of enterprises citing as a measure against labor shortages "improvement in working conditions of employees (by reducing overtime work hours, etc.)." We may infer that enterprises in this industry are actively working toward overtime reduction.

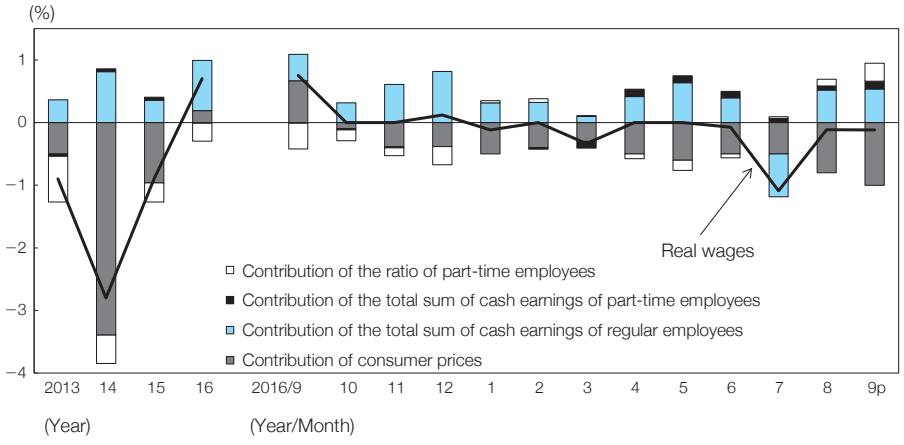
II. Wage trends

Salaries are picking up, hourly wages are trending upwards

Let us review trends in wages paid by employers. With regard to the perceived labor shortage in particular is expected to contribute to an increase in wages through tightening of supply and demand in the labor market. When we examine trends in corporate earnings, which are the source for increasing wages, Japanese Ministry of Finance's *Surveys for the Financial Statements Statistics of Corporations by Industry* indicates that ordinary profits levels have recovered beyond pre-global financial crisis levels, and the values for fiscal 2016 reached their highest ever. Based on these circumstances, let us analyze some trends in the share of corporate earnings distributed as worker wages and other personnel costs (referred to below as labor share).

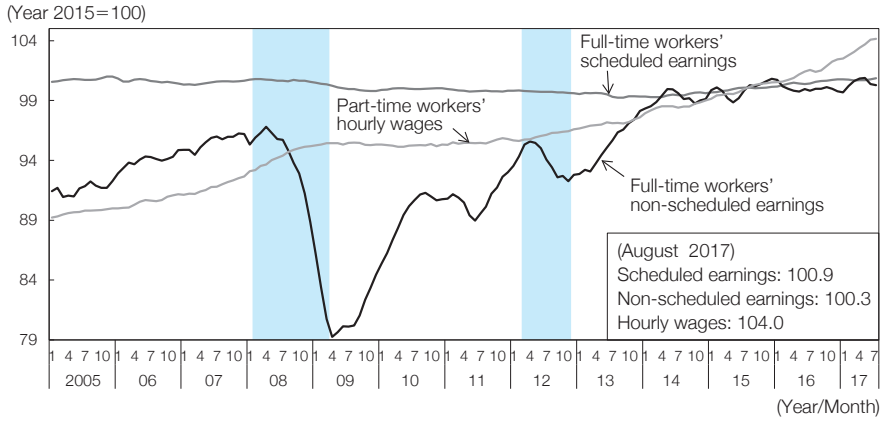
First, we examine wage trends as shown in Figure 7 through analysis of factors contributing to real wages (total cash earnings). The increase in 2016 was 0.7% year-on-year. While a rise in part-time workers as a percentage of the total workforce was a negative contributing factor, regular workers' salaries and fluctuations in consumer prices contributed positively. The figure also shows monthly trends. Although the salaries of regular and part-time workers have made an overall positive contribution since 2017, real wages have remained generally flat with consumer price fluctuations as a negative contribution.

Next, in order to comprehend wage trends



Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on the MHLW's *Monthly Labor Survey*.

Figure 7. Contribution of real wages (total cash earnings) (comparison to the previous year/to the same month in previous year)



Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on MHLW's *Monthly Labor Survey*.
Note: Data used are seasonally adjusted values (3-month moving average) prepared independently.

Figure 8. Full-time workers' scheduled/non-scheduled earnings, part-time workers' hourly wages

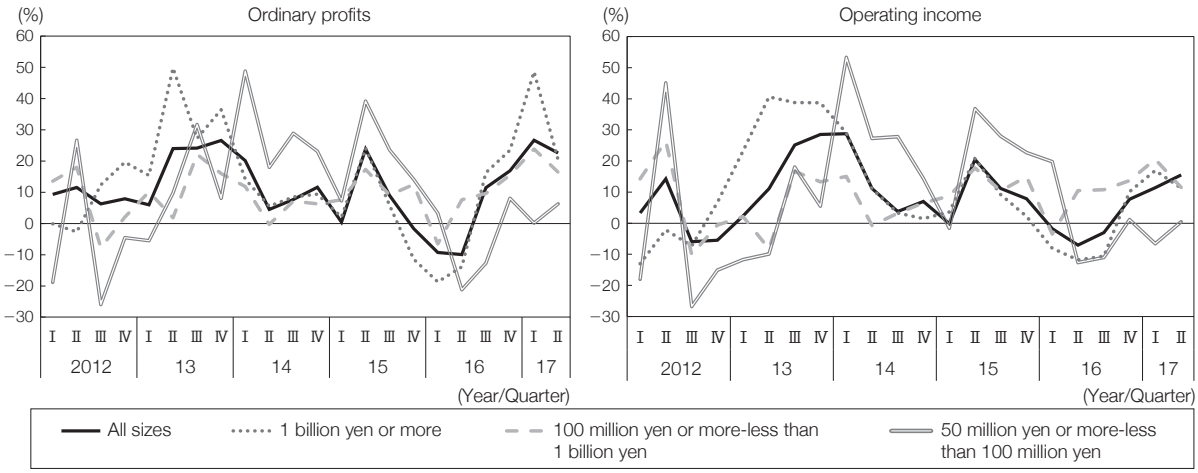
in more detail, let us see the transition of regular workers' scheduled cash earnings (regular salary) and non-scheduled cash earnings (bonuses, etc.) as well as part-time workers' hourly wages (Figure 8). In terms of wage trends for regular workers, both scheduled and non-scheduled cash earnings have gradually recovered. Non-scheduled cash earnings, however, are not correspondingly responsive to economic stimulus as during past periods of economic growth and are only moderately rising. This is mainly because overtime work hours have been declining since 2015. Meanwhile, part-time workers' hourly wages are trending upwards.

Improving labor share is needed at non-manufacturing SMEs with labor shortage

This section analyzes the relationship between corporate profits and personnel costs in terms of labor share.[1] Figure 9 shows that corporate earnings have improved not only at large enterprises[2] but also at small and medium sized enterprises.[3] Figure 10 shows characteristics related to corporate profits and reveals that the divergence between ordinary profits and operating income has increased in recent years. The same trend can be seen at any company size, though the rate of divergence is especially high at large enterprises. Focusing on "interest received, etc.," which is a factor[4] in divergence between ordinary profits and operating income, it is increasing particularly at large enterprises and rising rapidly since 2016 which appears to be a significant factor.

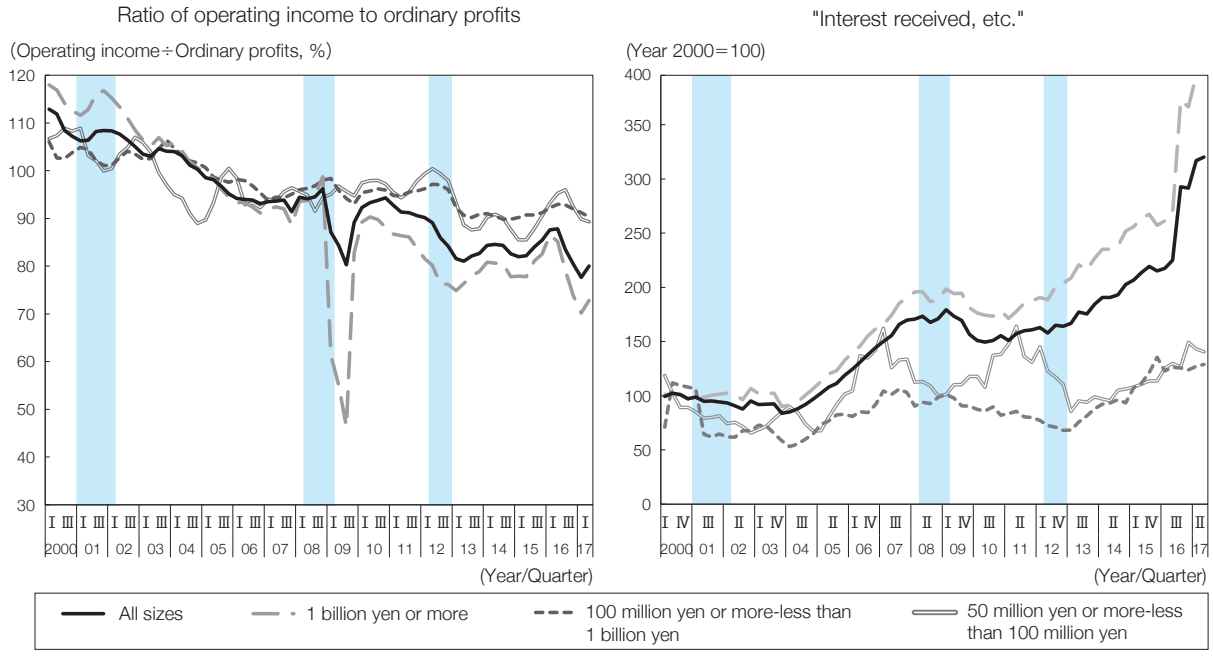
Based on the occurrence of the above-described changes in corporate earnings, we now seek to analyze trends in labor share from the viewpoints of ordinary profits as well as operating income which constitutes the profit of an enterprise's core business. Labor share is an indicator that declines during economic growth phases and rises during recessions.[5] This section attempts to grasp its characteristics by comparing the change in labor share between 2002 and 2006 to the transition during the period of economic growth since 2013.

Levels of labor share at all enterprise sizes and the value based on ordinary profits since 2013 is lower than the corresponding value in 2002-2006 across all industries (Figure 11). Looking at the figures in the non-manufacturing, we see the decline rate is somewhat faster than in the past. We can infer that personnel costs are not rising to the same degree as ordinary profits. Moreover, the levels of labor share based on operating income indicates that divergence is generally narrower than in past phases. There were points during 2016 when manufacturing values exceeded those of past phases. This is considered to be the effect of temporary declines in corporate earnings due to the yen's appreciation and the stagnation of overseas economies. The decline



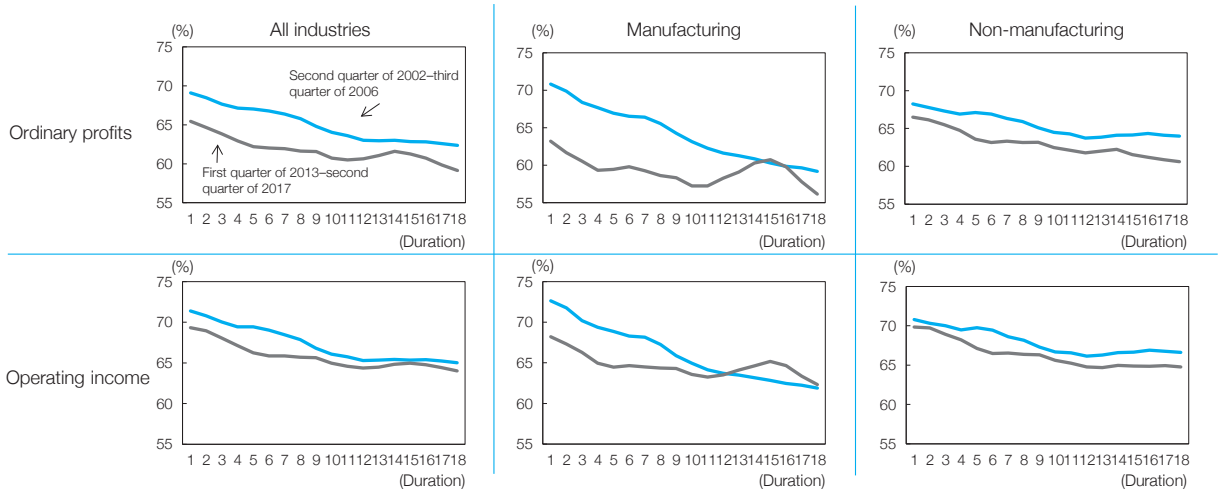
Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on MOF's *Financial Statements Statistics of Corporations by Industry*.
Notes: 1. Rate of increase is based on comparison with the same period of the previous year.
2. Rate of increase is the moving average for the past two quarters.
3. Finance and insurance industries are not included.

Figure 9. Increase in ordinary profits / Increase in operating income by capital amount



Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on MOF's *Financial Statements Statistics of Corporations by Industry*.
Notes: 1. Data used are seasonally adjusted values prepared independently.
2. The shadowed parts are recessionary periods.

Figure 10. Change in ordinary profits and operating income ratio by capital amount



Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on MOF's *Financial Statements Statistics of Corporations by Industry*.

Notes: 1. Data used are seasonally adjusted values (moving average for four quarters) prepared independently.

2. Labor share = personnel expenses ÷ added value, personnel expenses = executive salary + executive bonus + employee salary + employee bonus + benefit welfare expenses. Value added (operating income) = operating income + personnel expenses + depreciation amount. Value added (ordinary profits) = ordinary profit + personnel expenses + interest expense, etc. + depreciation amount.

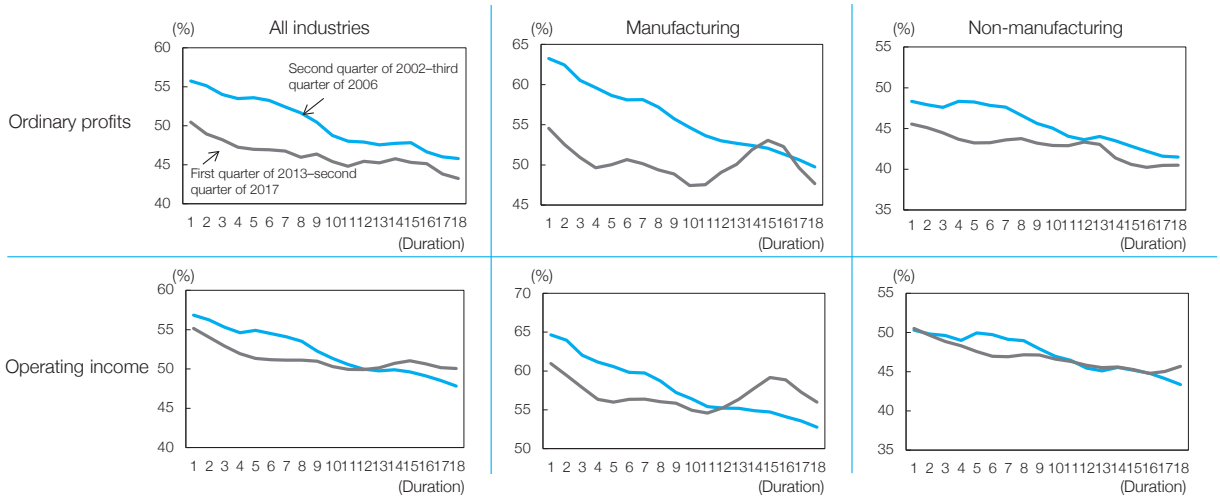
Figure 11. Change in labor share by industry (all enterprise sizes)

rate of labor share is somewhat moderate compared with past phases. It suggests that improvements in operating income are correlated with increases in personnel expenses.

Next, let us look at labor share in large enterprises. It appears to be trending similarly to other enterprise sizes (Figure 12). Looking specifically at labor share based on operating income in non-manufacturing industries, it has been at the same level in recent years as in past phases and has exceeded the level of past phases in the second quarter of 2017. While operating income in this period decreased by 0.3 percent points compared to the same period of the previous year, personnel expenses increased by 11.2 points compared to the same period of the previous year. This suggests that with the rise in perception of labor shortage, labor share is rising at large enterprises in non-manufacturing industries, driven by rising personnel costs.

Figure 13 shows labor share in small and medium sized enterprises. In the manufacturing, we can see that there is no influence from the appreciation of the yen, the state of overseas economies and so forth. We see similar trends in labor share based on operating income at large and other enterprise sizes, such as shrinking degree of divergence compared with past phases. As for the change in labor share based on ordinary profits, the rate of decline is somewhat swifter than in the past, and there is no suggestion that personnel expenses are rising in line with improvements in ordinary profits. In the non-manufacturing, on the other hand, labor share divergence is smaller compared to past phases when based on ordinary profits than when based on operating income. It shows the different trends at small and medium sized enterprises from those at large and enterprises or at all other enterprise sizes. This indicates that "other non-operating expenses," a factor in disparity between ordinary profits and operating income, is placing more pressure on the former than on the latter. Also, labor share based on operating income has remained at lower levels than during past phases.

Overall, at large enterprises, labor share based on ordinary profits is lower than in the past, while there are trends toward improvement of labor share based on operating income. On the other hand, at small and medium sized enterprises, the labor share is low



Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on MOF's *Financial Statements Statistics of Corporations by Industry*.
Notes: 1. Data used are seasonally adjusted values (moving average for four quarters) prepared independently.
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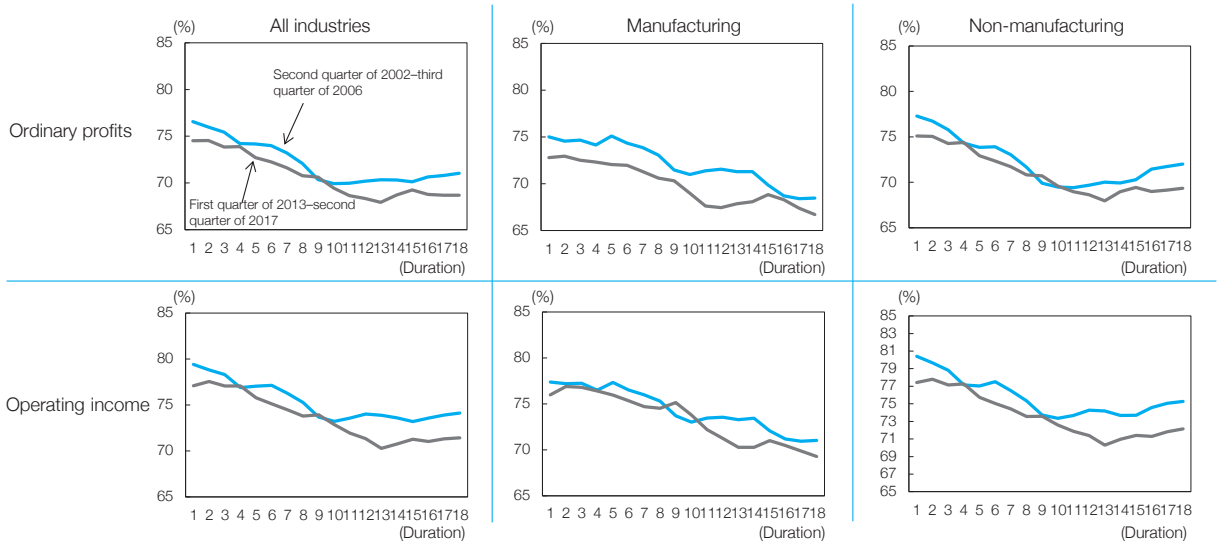
Figure 12. Change in labor share by industry (at large enterprises)



Source: Prepared by Office of Counsellor for Labour Policy Planning of MHLW, based on MOF's *Financial Statements Statistics of Corporations by Industry*.
Notes: 1. Data used are seasonally adjusted values (moving average for four quarters) prepared independently.
2. Labor share = personnel expenses ÷ added value, personnel expenses = executive salary + executive bonus + employee salary + employee bonus + benefit welfare expenses. Value added (operating income) = operating profit + personnel expenses + depreciation amount. Value added (ordinary profits) = ordinary profit +personnel expenses +interest expense etc. + depreciation amount.

Figure 13. Change in labor share by industry (at small and medium sized enterprises)

compared to past phases whether based on ordinary profits or operating income. In non-manufacturing industries in particular, although labor share based on ordinary profits has not significantly declined compared with past phases, it has greatly declined when based on the operating income from main

business operations.

While there appear to be differences among individual enterprises with regard to the two approaches, ordinary profits and operating income, in any case it is clear that in order to secure and maintain human resources amid tightening labor supply and demand, there is a need for substantive labor-management dialogue with regard to methods of distributing corporate earnings to workers.

Notes

1. In this article, labor share＝personnel expenses÷added value as defined by MOF's *Financial Statements Statistics of Corporations by Industry*. Personnel expenses＝executive salary＋executive bonus＋employee salary＋employee bonus＋benefit welfare expenses. Value added (operating income)＝operating income＋personnel expenses＋depreciation amount. Value added (ordinary profits)＝ordinary profits＋personnel expenses＋interest expense etc.＋depreciation amount.
2. In this article, companies with capitalization of 1 billion yen or more are classified as "large enterprises."
3. In this article, companies with capitalization of 50 million yen or more and less than 100 million yen shall be referred to as "small and medium sized enterprises."
4. The differential between ordinary profits and operating income consists of "interest received, etc.," "other non-operating income," "interest expenses," and "other non-operating expenses."
5. During economic expansion phases, increase in personnel expenses is curtailed compared to increase in corporate earnings, and labor's share of income declines. During recessions, since there is a so-called downward rigidity in wages, decline of wages is curtailed compared to decline of corporate profits, and labor's share of income increases.