



# Annual Report on the Japanese Economy and Public Finance 2023

(Report by Minister of State for Economic and Fiscal Policy)

- Prices and wages began to rise -

[Points]

August 2023

Director General for Economic Research

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# Chapter 1 Macroeconomic trends and challenges

Figure 1 Real consumption expenditure by income quintile (workers' households comprising at least two)

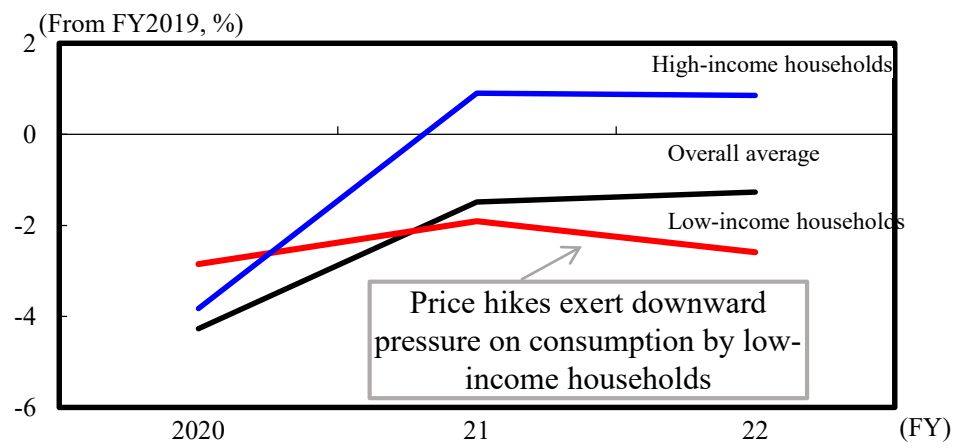


Figure 4 Distribution of price hikes by item (services)

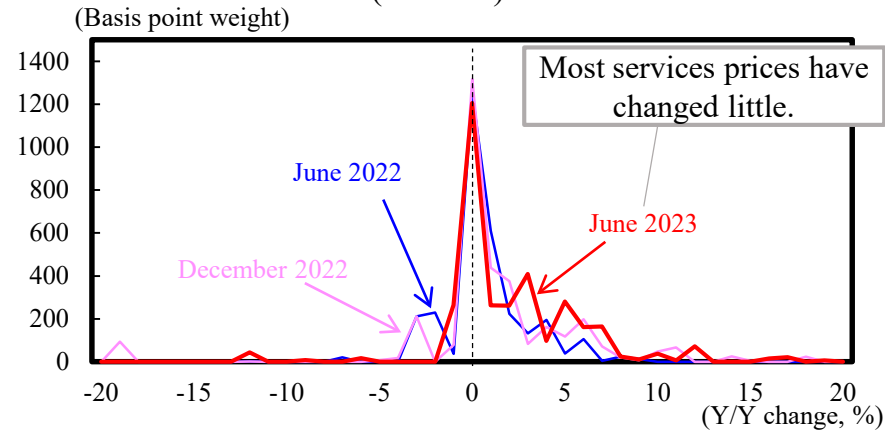
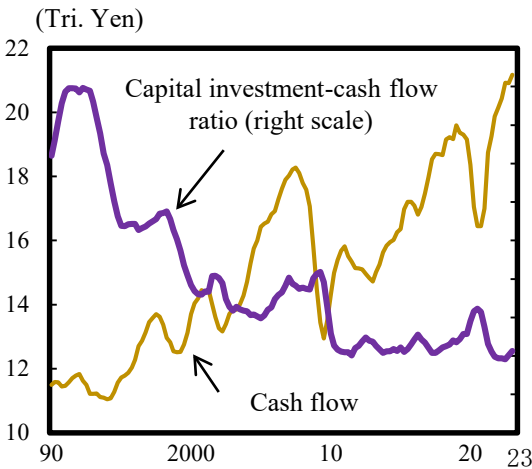
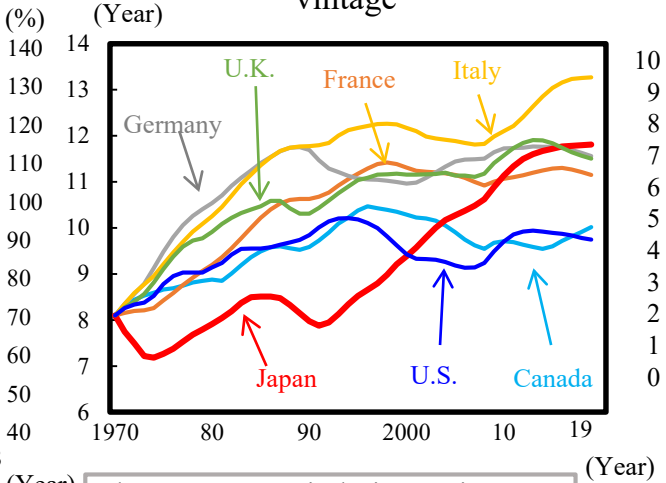


Figure 2 Capital investment-cash flow ratio



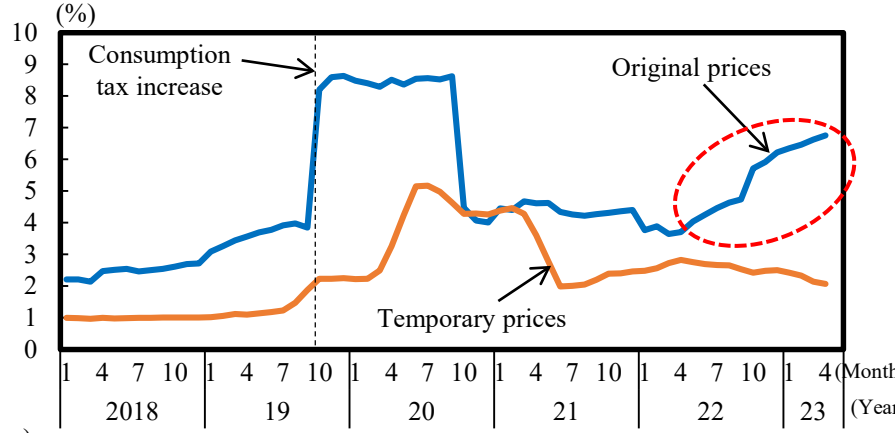
The capital investment-cash flow ratio has followed a downtrend since the 90s.

Figure 3 Average capital vintage



The average capital vintage in Japan has risen faster than in other G7 countries due to investment stagnation.

Figure 5 Changes in price revision frequency (services)



The original price revision frequency has been rising since fall 2022.

(Source) Figure 1: Compiled based on Family Income and Expenditure Survey, Ministry of Internal Affairs and Communications (MIC). Figure 2: Compiled based on Quarterly Financial Statements Statistics of Corporations by Industry, Ministry of Finance (MOF). Cash flow = Current profit × 0.5 + Depreciation cost. Moving average of the latter four quarters. Figure 3: Compiled based on National Wealth Survey, Economic Planning Agency; and OECD.Stat. Capital vintage was computed on the assumption of 8.1 years in 1970 for all countries. Figure 4: Compiled based on Consumer Price Index, MIC. Figure 5: Compiled based on Retail Price Survey, MIC.

# Chapter 2 Section 1 Challenges towards household income improvement (labor mobility)

Figure 1 Job changers' share by annual income

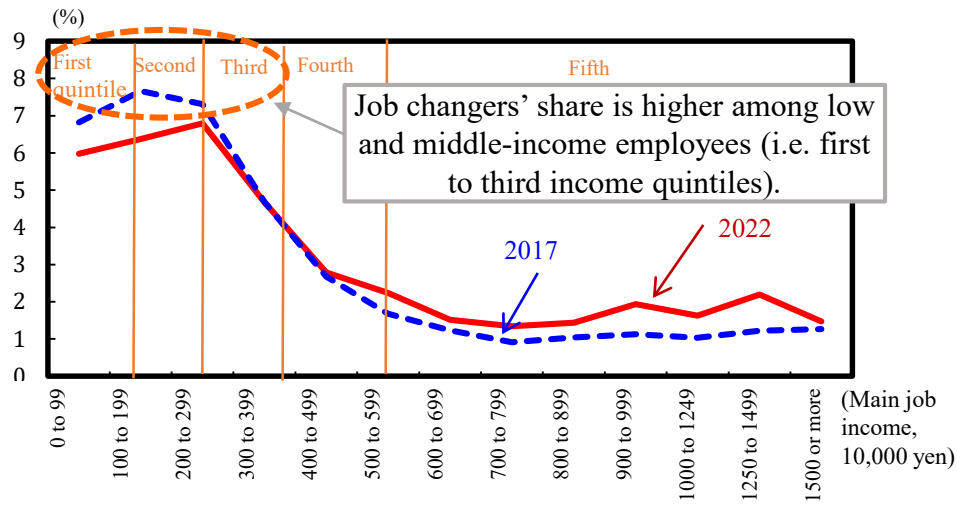


Figure 2 Job changes' income-boosting effect

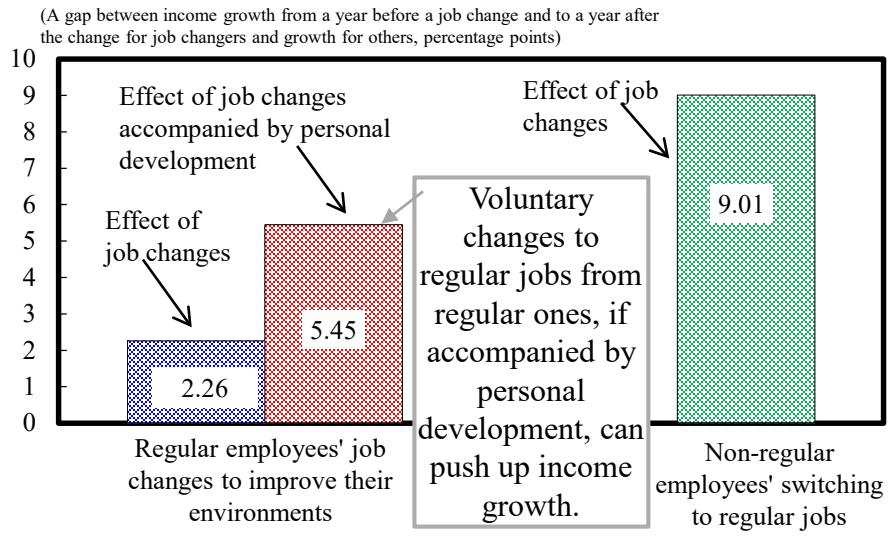


Figure 3 Job changes' effect on work confidence indicators

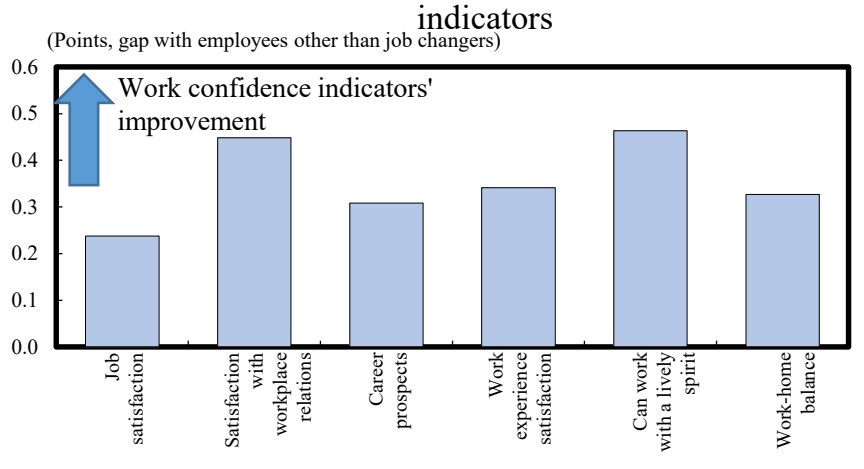
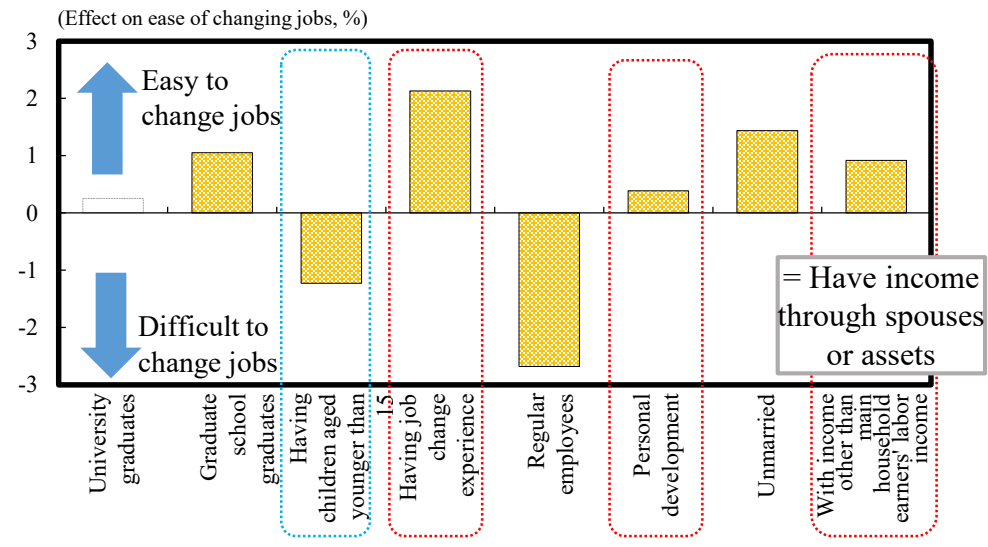


Figure 4 Factors to discourage and encourage job changes



(Source) Figure 1: Compiled based on Employment Status Survey, MIC. Figures 2 to 4: Compiled based on Japanese Panel Study of Employment Dynamics, Recruit Works Institute. Data are between 2016 and 2022. Figure 4 uses the trend score matching method to compare annual income changes for job changers and other employees with similar worker attributes, such as age or educational background. In Figure 1, job changers' share in each annual income quintile is estimated on the assumption that workers in each quintile are distributed similarly. Annual income is up to 1.26 million yen for the first quintile, 1.27 million to 2.46 million yen for the second quintile, 2.47 million to 3.70 million yen for the third quintile, 3.71 million to 5.60 million yen for the fourth quintile, and 5.61 million yen or more for the fifth quintile.

# Chapter 2 Section 1 Challenges towards household income improvement (female empowerment, multiple job working)

Figure 5 Monthly pay by duration of services (regular employees)

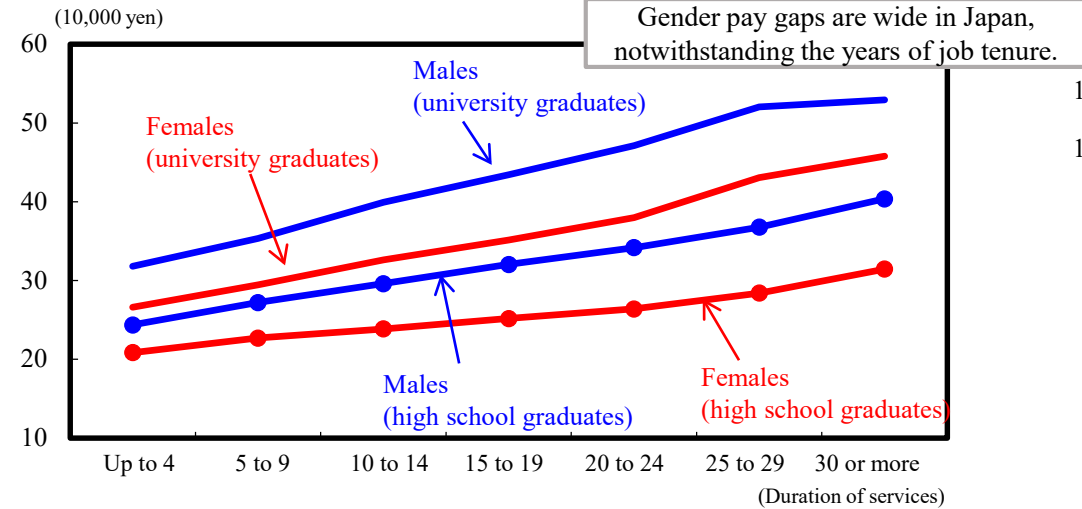


Figure 7 Share of multiple job workers by main-job income

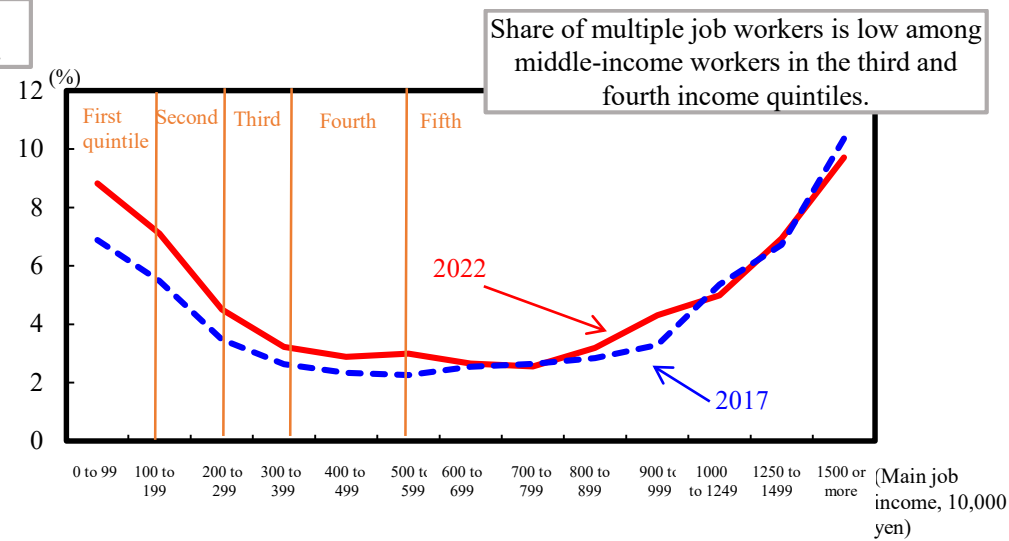


Figure 6 Characteristics of Japanese employment practices

(1) Share of long hours workers

(2) Duration of services and pay

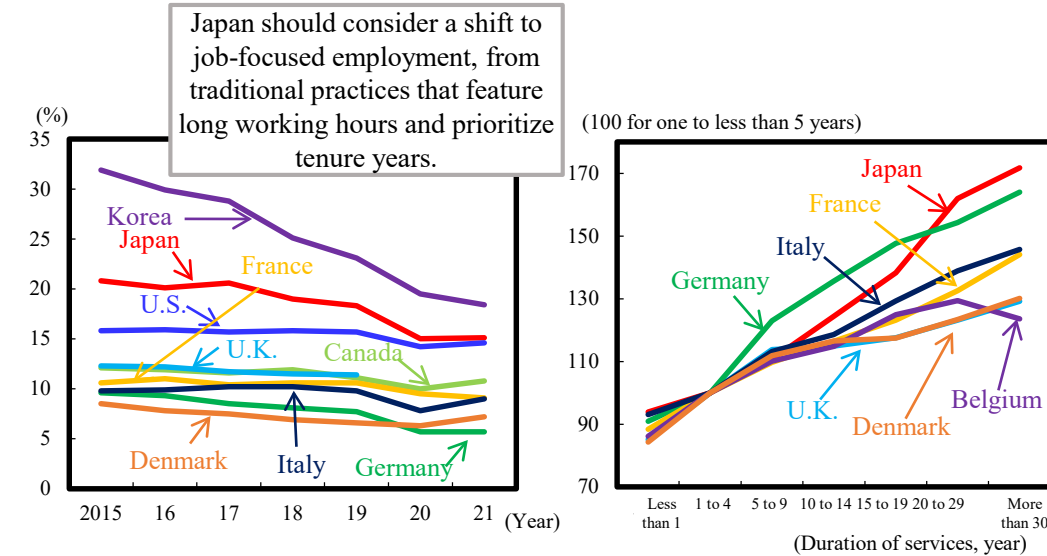
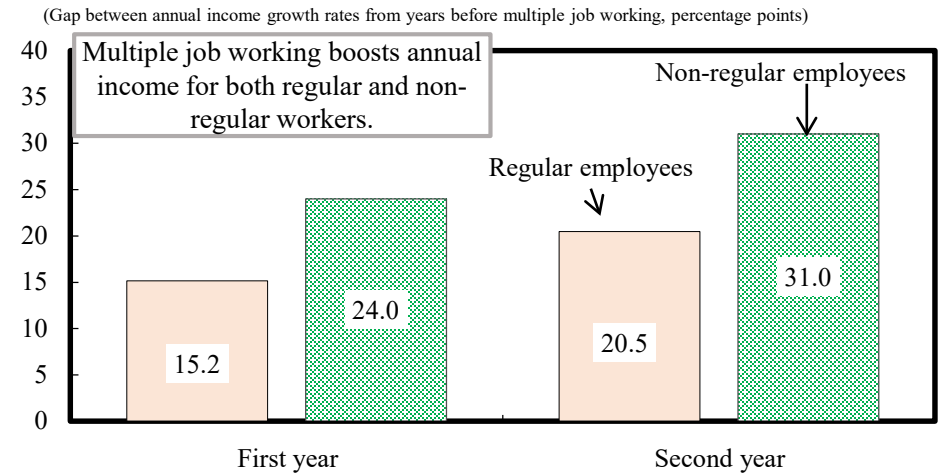


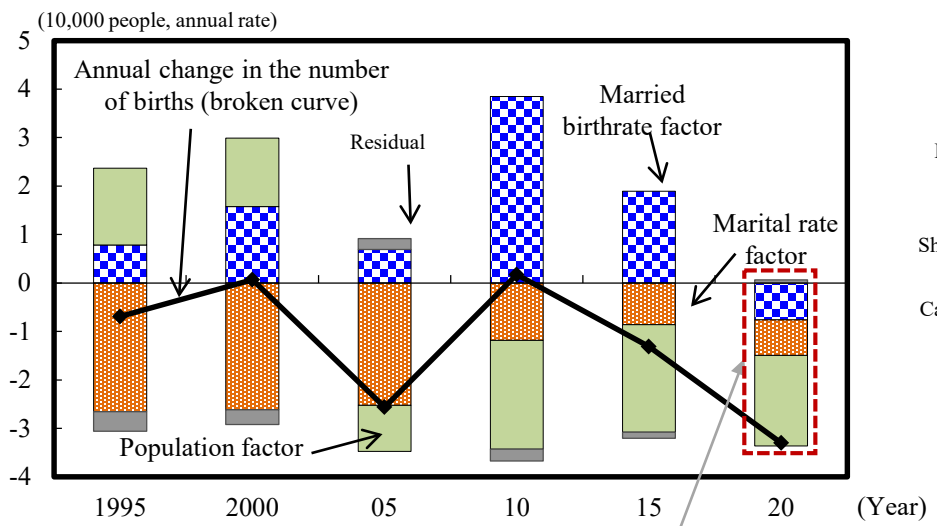
Figure 8 Effect of multiple job working on annual income



(Source) Figure 5: Compiled based on Basic Survey on Wage Structure, Ministry of Health, Labour and Welfare (MHLW). Scheduled pay for 2022. Figure 6: Compiled based on Databook of International Labour Statistics 2023, Japan Institute of Labour Policy and Training (JILPT); and Five Countries Relations Survey, Recruit Co., Ltd. (↑ indicates the share of workers who work 49 hours or more per week. Figure 7: Compiled based on Employment Status Survey, MIC. Figure 8: Compiled based on Japanese Panel Study of Employment Dynamics, Recruit Works Institute. Data are between 2016 and 2022. DID (difference in differences) estimation results using the trend score matching method. In Figure 7, multiple job workers' share in each annual income quintile is estimated on the assumption that workers in each quintile are distributed similarly. Annual income is up to 1.26 million yen for the first quintile, 1.27 million to 2.46 million yen for the second quintile, 2.47 million to 3.70 million yen for the third quintile, 3.71 million to 5.60 million yen for the fourth quintile, and 5.61 million yen or more for the fifth quintile.

# Chapter 2 Section 2 Falling birthrates and household economy (factors behind and measures against falling birthrates)

Figure 9 Factors contributing to births



Couples with annual income below the median level (5.5 million yen) have more difficulties in having first and second children than higher-income couples.

The number of births since 2015 has been pushed down by three factors; the population factor, the marital rate factor, and the married birthrate factor.

Figure 10 Relationship between income and birthrates

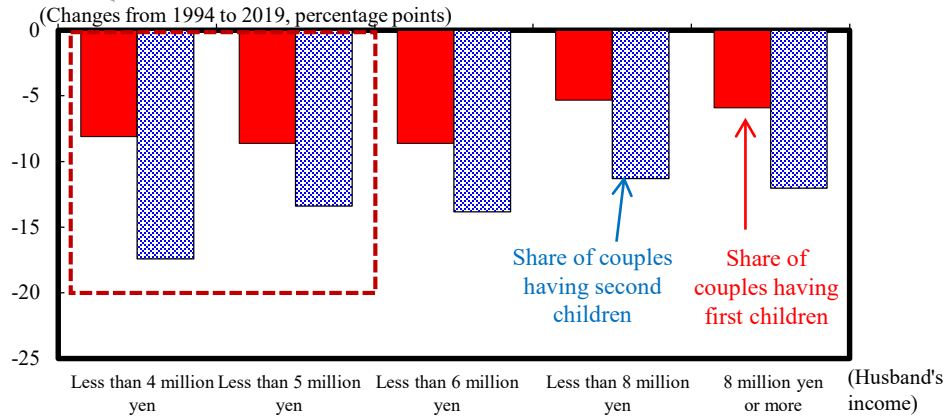
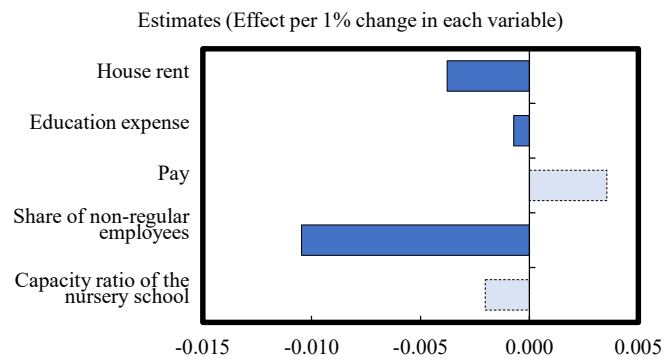


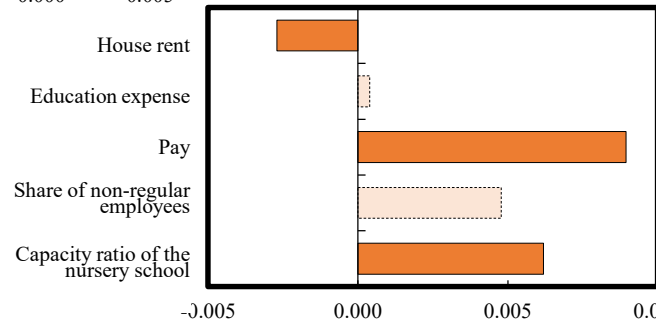
Figure 11 Factor analysis of birthrate gaps by prefecture

(1) Birthrate gaps through the marital rate



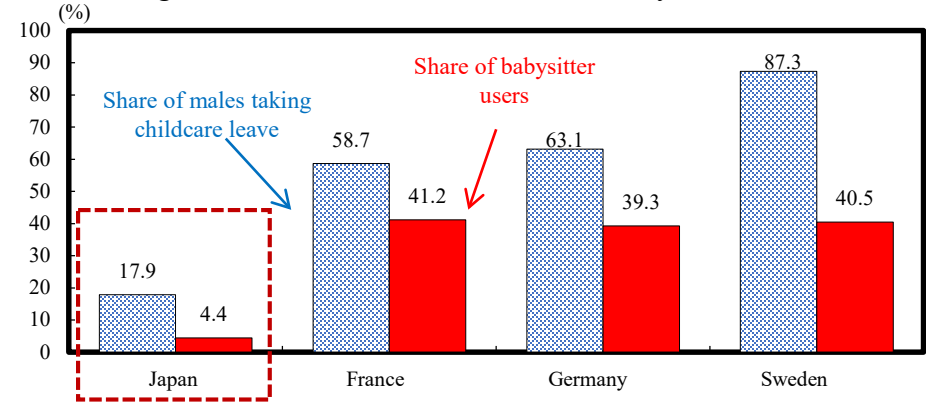
Rises in house rents, education expenses, and the share of nonregular employees can exert downward pressure on the marital rate.

(2) Birthrate gaps through the married birthrate



The reduction of the house rent burden as well as the increase in wages and the childcare facility capacity can help to expand births.

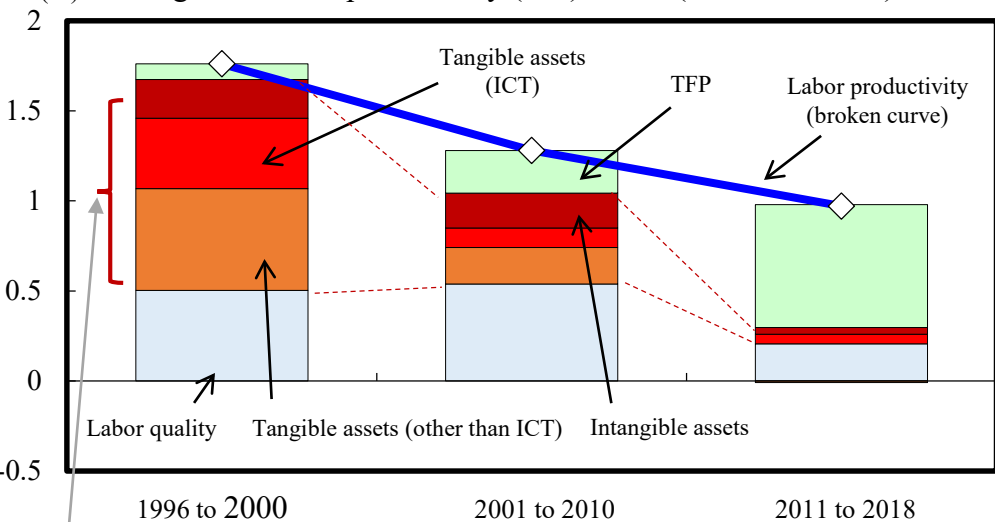
Figure 12 Males' childcare leave and babysitter use



(Source) Figure 9: Compiled based on Census, MIC; and Vital Statistics, MHLW. Births from mothers aged between 15 and 49 are covered. Figure 10: Estimated based on National Survey of Family Income, Consumption and Wealth & National Survey of Family Income and Expenditure, MIC. The median income level is 5.5 million yen. Figures 11 & 27: Estimated based on Census, National Survey of Family Income, Consumption and Wealth & Employment Status Survey, MIC; and Vital Statistics, Basic Survey on Wage Structure & other published materials, MHLW. (Figure 12) Compiled based on Report on FY2020 International Awareness Survey on the Declining Birthrate Society, Cabinet Office.

# Chapter 3 Section 1 Productivity trends and challenges, Section 2 Japanese companies' markup rate trends and challenges

Figure 1 Labor productivity (real) trends (since the 1990s)



The capital equipment ratio's contribution to real labor productivity growth has been declining.

Average markup rate (sales price/marginal cost) and firm-level markup rate distribution remained stable for the last two decades. These indicate firms' price-controlling power have not changed so much.

The markup rate fluctuates in response to changes in prices of raw materials, as do the pseudo terms of trade.

Figure 2 Markup rate trends

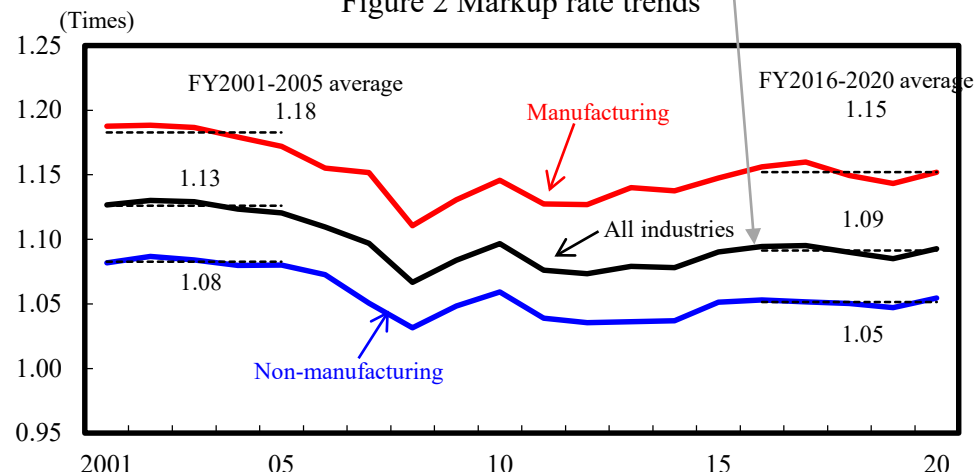


Figure 3 Markup rate distribution (all industries)

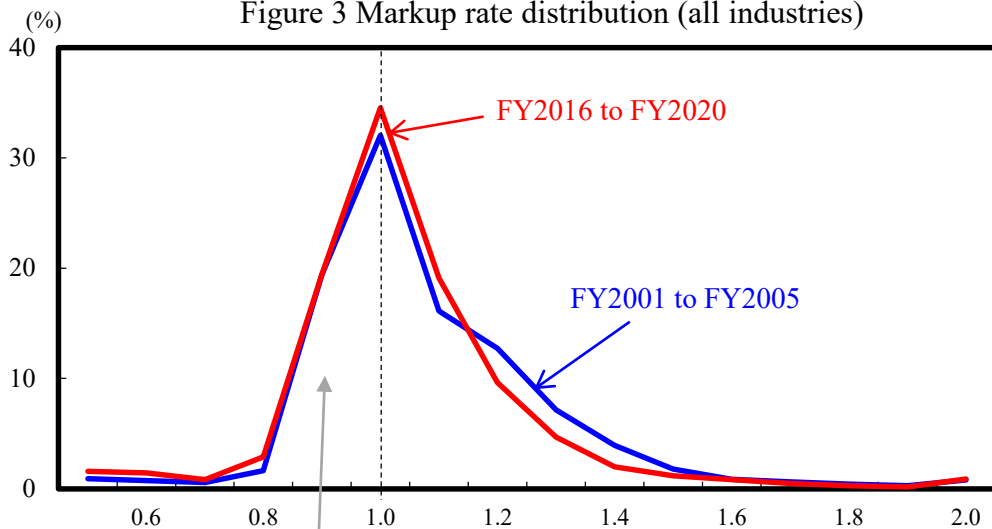
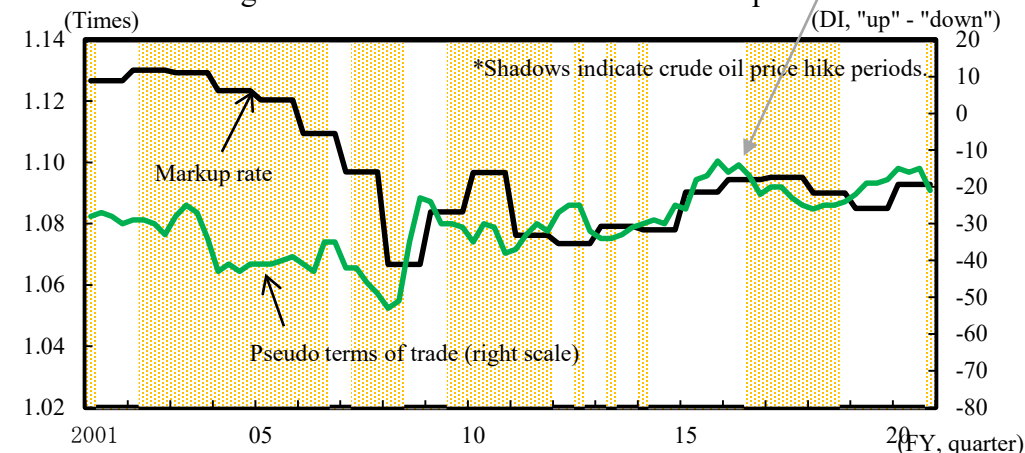


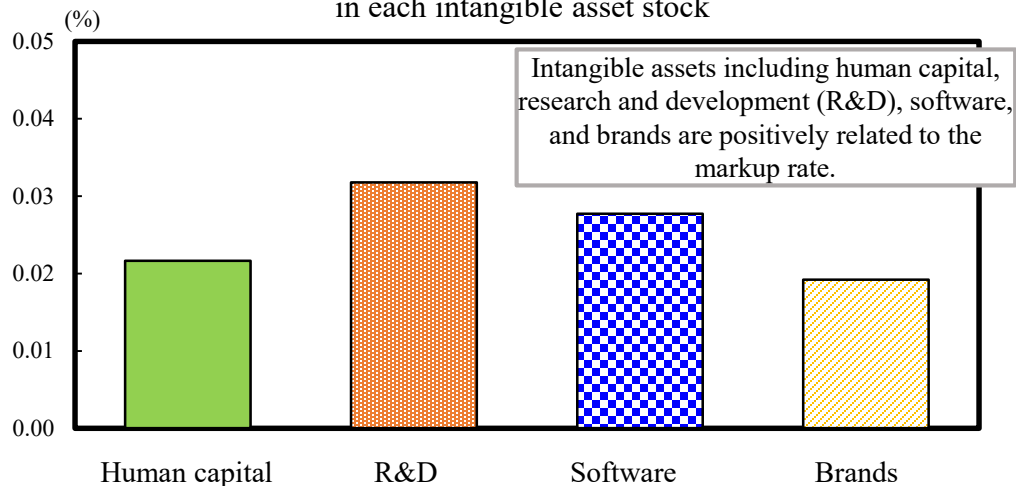
Figure 4 Pseudo terms of trade and markup rate



(Source) Figure 1: Compiled based on EU KLEMS. (Figures 2 & 3) Tabulated and compiled by the Cabinet Office based on the data from Basic Survey of Japanese Business Structure and Activities, Ministry of Economy, Trade and Industry (METI). The markup rate is the ratio of a sales price to marginal cost. Here, the marginal cost covers intermediate input, excluding labor cost, etc. The median level of the FY2016-2020 average markup rate in Figure 3 is 1.06 times. (Figure 4) Pseudo terms of trade were compiled based on Short-term Economic Survey of Enterprises in Japan, Bank of Japan. A gap between the sales price DI and the purchase price DI for companies of all sizes and all industries. Crude oil price hike periods are compiled based on NIKKEI NEEDS, indicating periods where the quarterly backward moving average price of crude oil rose. Markup rate data correspond to fiscal year data for all industries in Figure 2.

# Chapter 3 Section 2 Japanese companies' markup rate trends and challenges, Section 3 Challenges towards expansion of SME exports

Figure 8 Markup rate change accompanying a 10% increase in each intangible asset stock



While the start of exporting improves productivity, improvement at small and medium enterprises (SMEs) tends to be slower than at large companies

Given the current status, Japanese firms have sufficient room to raise the markup rate and expand investment.

Companies with higher markup rates feature higher pay levels (compared with productivity), indicating that they have the potential to share profits with employees.

Figure 10 Relationship between the markup rate and capital investment

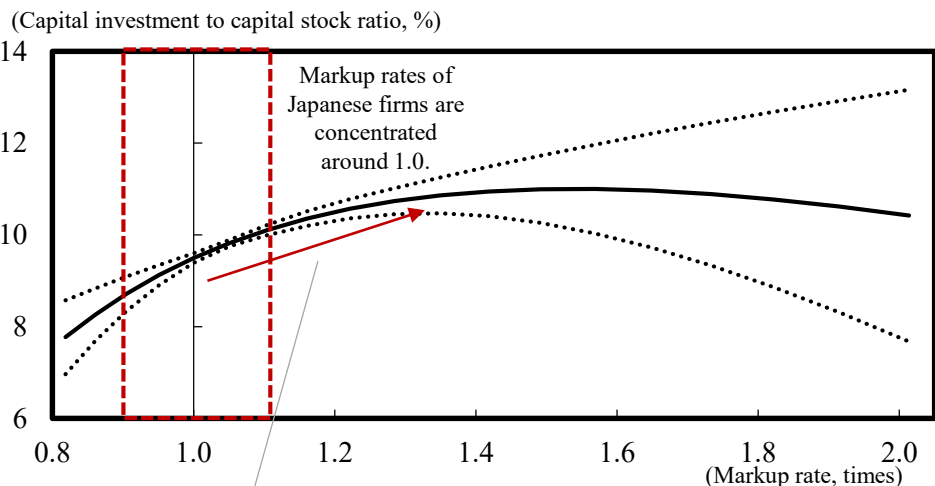


Figure 11 Pay levels compared with productivity and markup rate

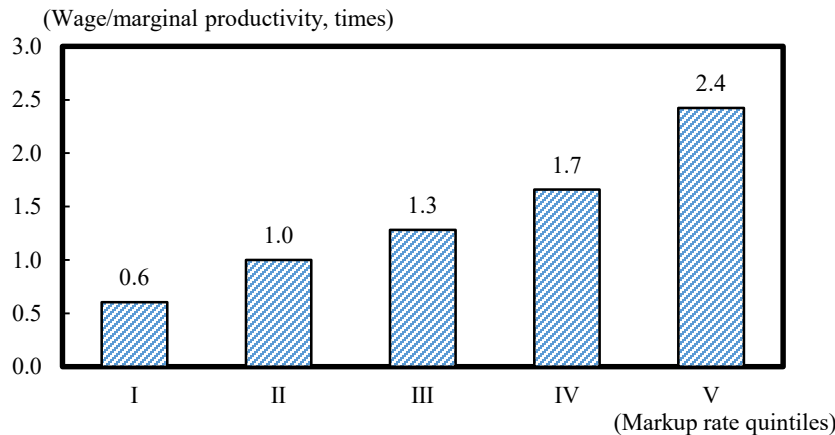
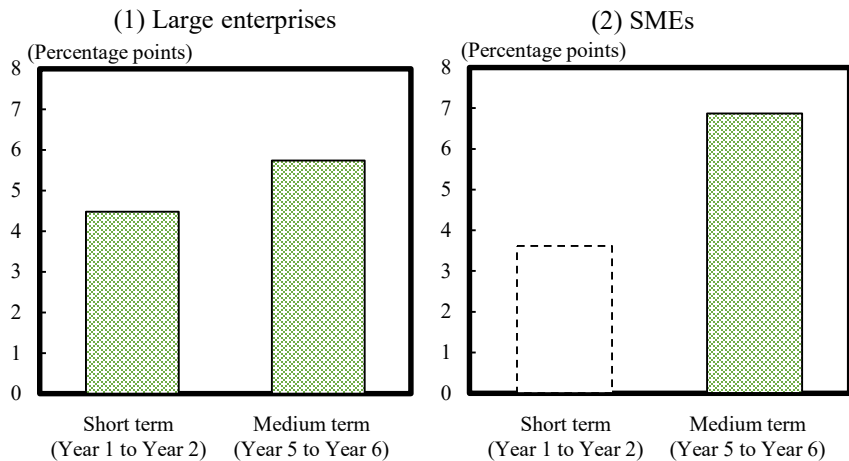


Figure 9 Exports to push up total factor productivity (TFP)



(Source) Tabulated and compiled by the Cabinet Office based on the data from Basic Survey of Japanese Business Structure and Activities, METI. Figure 8 Competence development cost is realized and stocked as human investment, R&D investment as R&D, advertisement cost as brands. Software represents real software assets. (Figure 9) DID estimation results using the trend score matching method. The part surrounded by dotted lines is non-significant. (Figure 10) The capital investment represents real capital investment in a given term divided by real capital stock at the end of the previous term. The dotted line indicates the 95% confidence interval.