



Annual Report on the Japanese Economy and Public Finance 2021

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

— Towards a resilient Japanese economy:
Accelerating innovation towards an economic
society with strength and flexibility —

Summary

September 2021

Cabinet Office, Government of Japan

Key points of each chapter

❑ Chapter 1: Current State of Japanese Economy and Macroeconomic Challenges

The Japanese economy is recovering, though slowly. The spread of COVID-19 limits the cycle of domestic demand and income/employment. While progress in vaccination and the enhancement of healthcare services suppress the impacts of COVID-19, the gradual expansion of economic and social activities is the key to recovery. Of the three current sets of favorable and unfavorable factors – 1) robust consumer confidence and COVID-19 expansion, 2) robust corporate earnings and Asian COVID-19 expansion, and 3) the lowest number of business bankruptcies in 50 years and corporate debt – the unfavorable factors should be eliminated to expand consumption, investment and exports. While demand shortages are lingering, the elimination of unfavorable factors and the enhancement of favorable factors would solidify domestic demand rebound. If wage hikes underlying the improvement of the labor supply-demand balance are reflected in prices, it would become a step forward to breaking away from deflation.

❑ Chapter 2: Japan's Economic Changes and Challenges as Seen from Enterprises

Growth challenges for enterprises include the acceleration of digitalization diffusion through the enhancement of incentives for development in the software sector and the resolution of investment and human resources shortages in the information and communication industry. The second challenge is the realization of energy efficiency improvement and electricity cost cuts through innovation amid the global trend towards carbon neutrality. The third is the suppression of infrastructure maintenance cost hikes caused by falling population, facing corporations in rural regions.

❑ Chapter 3: Employment Changes and Challenges

The spread of COVID-19 in 2020 affected non-regular, female, young and contact-based service industry employees at home and abroad. In Japan, female employment is generally recovering thanks to the improvement of working conditions for non-regular employees and their regularization. While telework has spread, communication difficulties have been pointed out. Suitable work styles for digitalization are being explored. Future challenges regarding the employment of female and aged people include the reform of employment or job change obstacles left in qualifications for spouse allowances and retirement benefit computation methods.

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This material has been tentatively prepared to explain the Annual Report on the Japanese Economy and Public Finance. For quotations and other purposes, please refer to the text of the Annual Report on the Japanese Economy and Public Finance.

Chapter 1 Section 1: Economic Trends through 1st Half of 2021 (Macro trends)

- As economic activities were restricted again under the impact of COVID-19, Japan's real GDP contracted in the January-March quarter of 2021. In the April-June quarter, though under economic restrictions, real GDP grew thanks to positive contributions from consumer spending, and capital and housing investment (Figure 1).
- Since May 2020, the fall in employee compensation, though fluctuating depending on changes in bonuses, has generally narrowed from 2019 thanks to changes in regular wages and employment (Figure 2). A consumer spending breakdown indicates that durable goods consumption remained as high as before the spread of COVID-19, whereas spending on clothing and other semi-durable goods, as well as services, weakened from pre-COVID-19 levels (Figure 3).

Figure 1 Real GDP growth rate

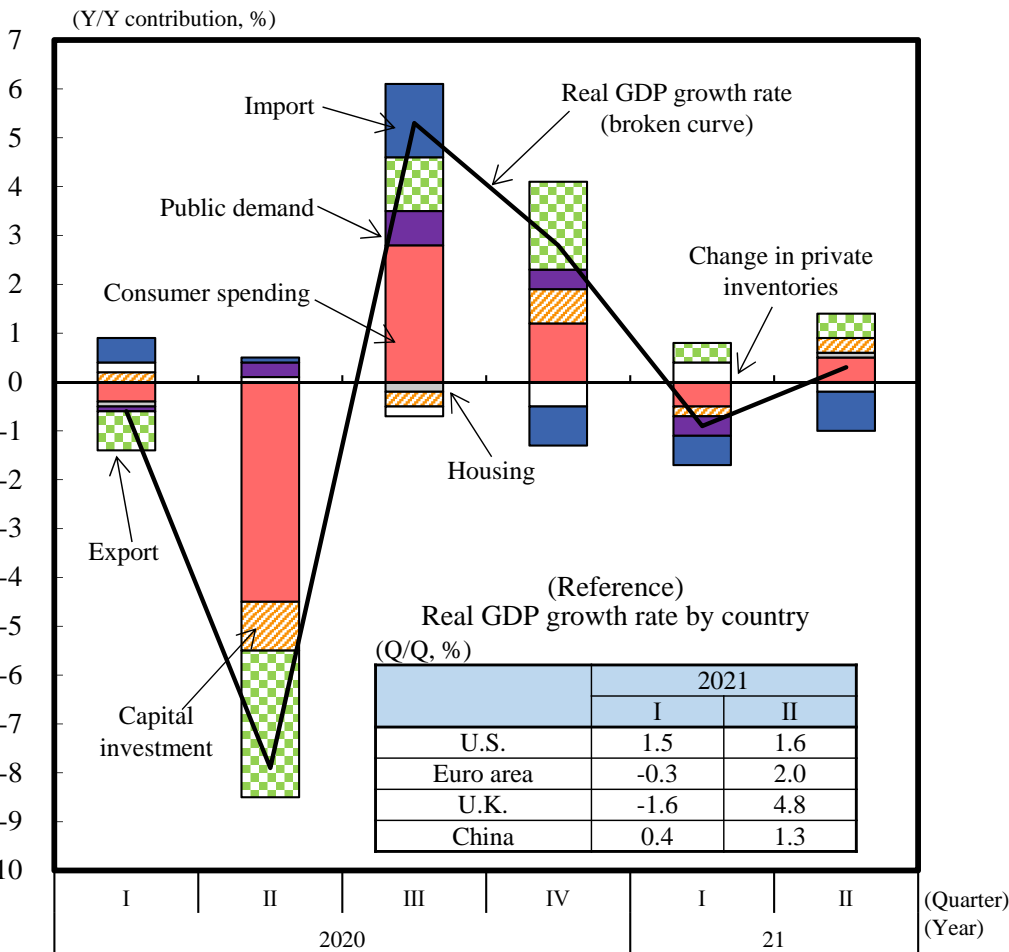


Figure 2 Real total employment compensation

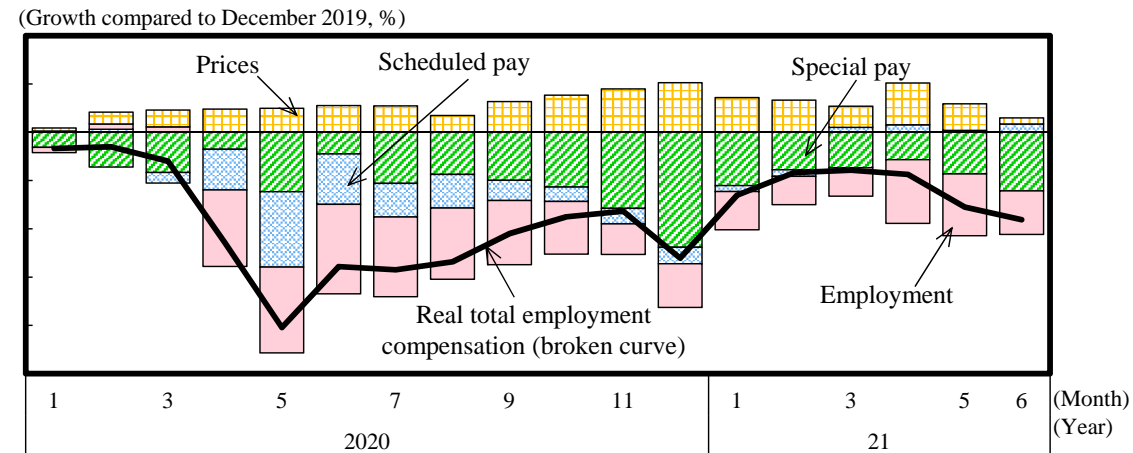
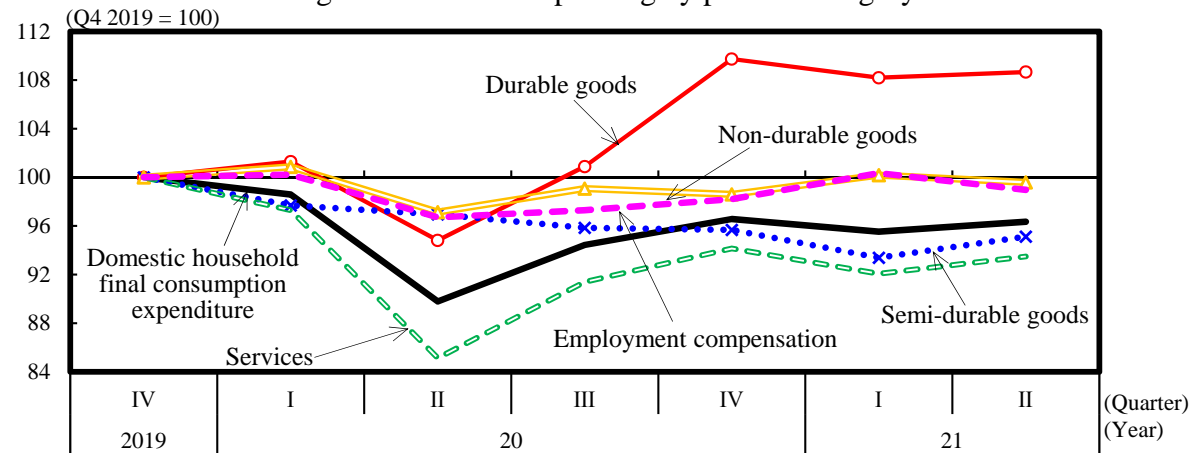


Figure 3 Consumer spending by product category



(Source) Figure 1: Compiled based on System of National Accounts, Cabinet Office. Seasonally adjusted real value.

Figure 2: Compiled based on Labor Force Survey, Ministry of Internal Affairs and Communications (MIC); Monthly Labour Survey, Ministry of Health, Labour and Welfare (MHLW); and System of National Accounts, Cabinet Office. Seasonally adjusted.

Chapter 1 Section 1: Economic Trends through 1st Half of 2021 (Relationship between outing restrictions and consumption)

- In the United States and the United Kingdom, the number of new COVID-19 infections and critical COVID-19 patients decreased in line with progress in vaccination. At present, however, the number of new infections is increasing again under the impact of new COVID-19 variables (Figure 4). An increase in the number of new infections tends to be accompanied by a decline in the number of outings (negative inclination). Japan's trendline is greatly inclined, indicating that outing restrictions are more sensitive to an increase in the number of new infections than in the United Kingdom or the United States (Figure 5). Outings and consumption of services have a strong correlation, indicating that outing restrictions suppress consumption (Figure 6). Meanwhile, electronic commerce consumption without outings has increased generally for young and aged households even since early 2021 (Figure 7).

Figure 4 Relationship between vaccination rates and new infections

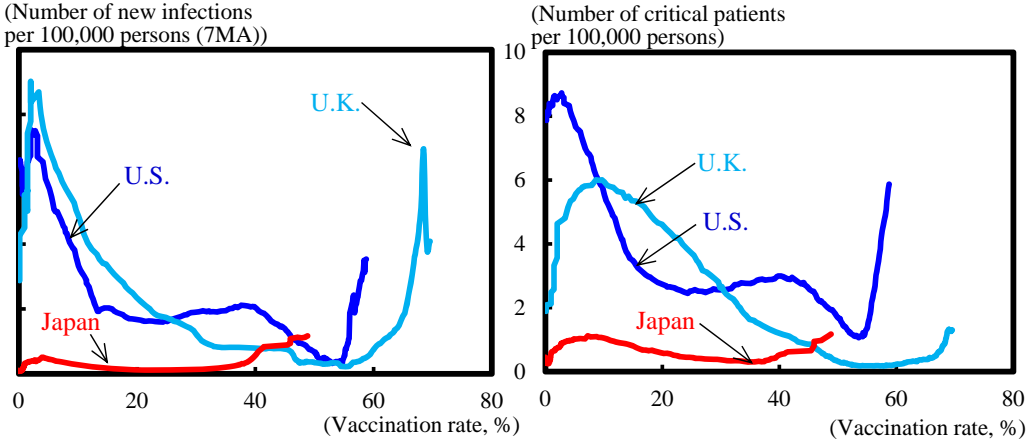


Figure 6 Relationship between visiting/staying hours at retail/recreation facilities and services consumption expenditure

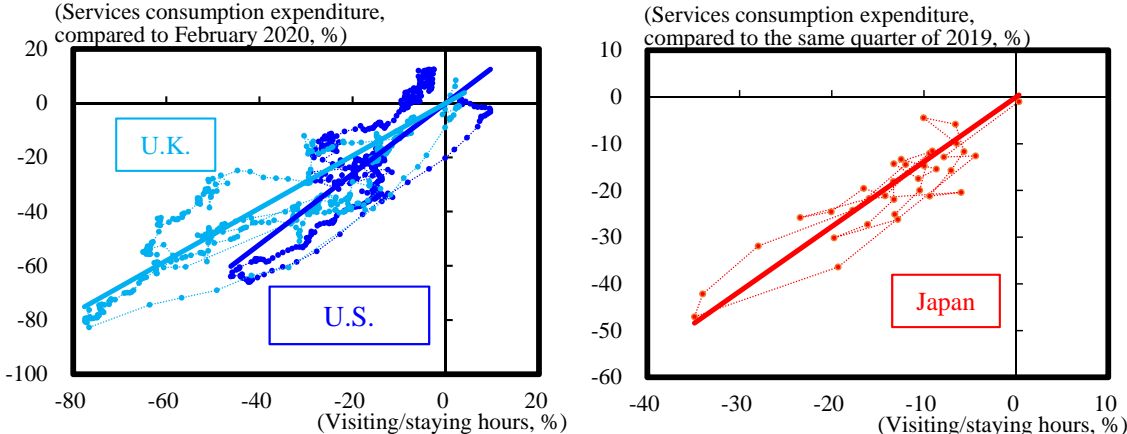


Figure 5 Relationship between the number of new infections and visiting/staying hours at retail/recreation facilities

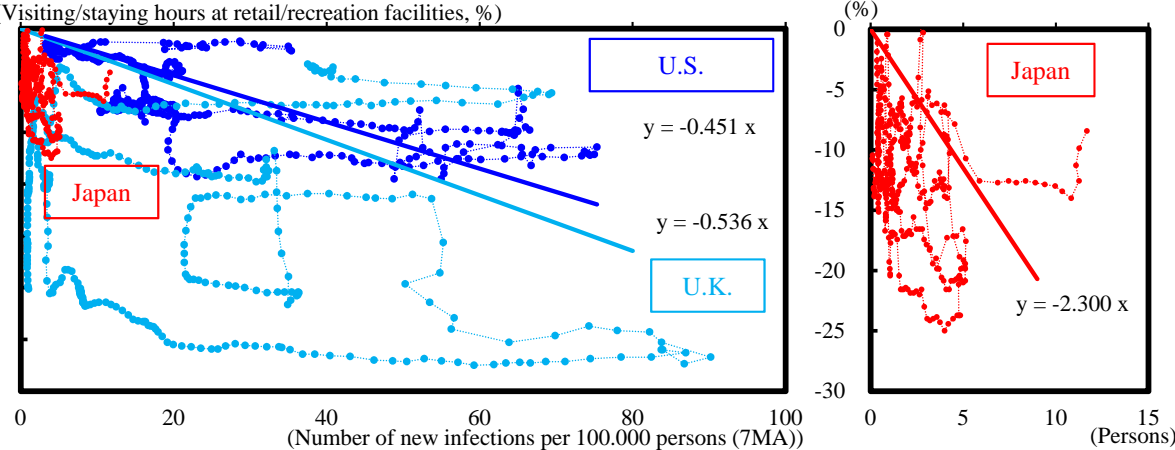
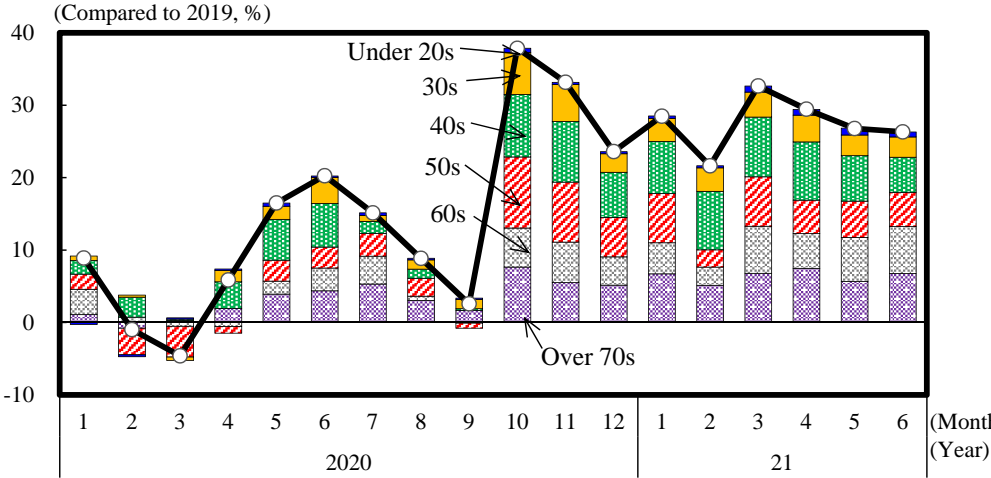


Figure 7 Changes in EC consumption (contribution of households by age of head of household)



(Source) Figures 4 to 6: Compiled based on MHLW; WHO; Google; Nowcast Inc.; JCB Consumption NOW, JCB Co., Ltd.; etc. "Visiting/staying hours at retail/recreation facilities" shows the degree of changes in visiting and staying hours in each facility by comparing with the median for the same day of the week in the period from January 3 to February 6, 2020. Figure 7: Compiled based on Survey of Household Economy, MIC.

Chapter 1 Section 1: Economic Trends through 1st Half of 2021 (Investment trends)

● Capital investment is linked to current profits (Figure 8) and sense of over or under capacity (Figure 9). Growth in profits and the sense of under capacity contributes to future capital investment growth. Between 2009 and around 2012, profit growth failed to lead to capital investment growth due to six simultaneous pains, including yen appreciation. Their normal relationship has been restored since 2013. The ratio of capital investment to profits has fallen from the 2000s but will increase thanks to the promotion of investment in growth fields. Even if profits remain unchanged, capital investment is expected to rise.

Figure 8 Correlation between capital investment and current profits

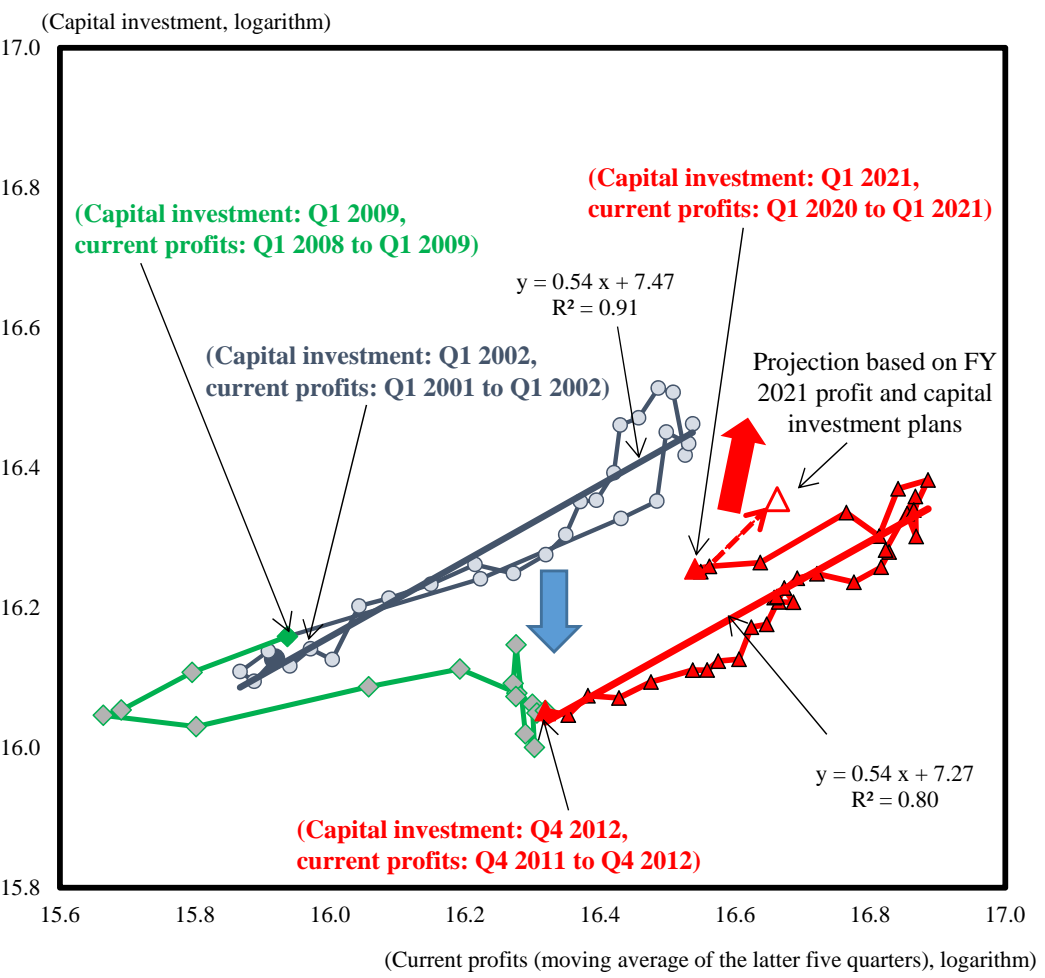
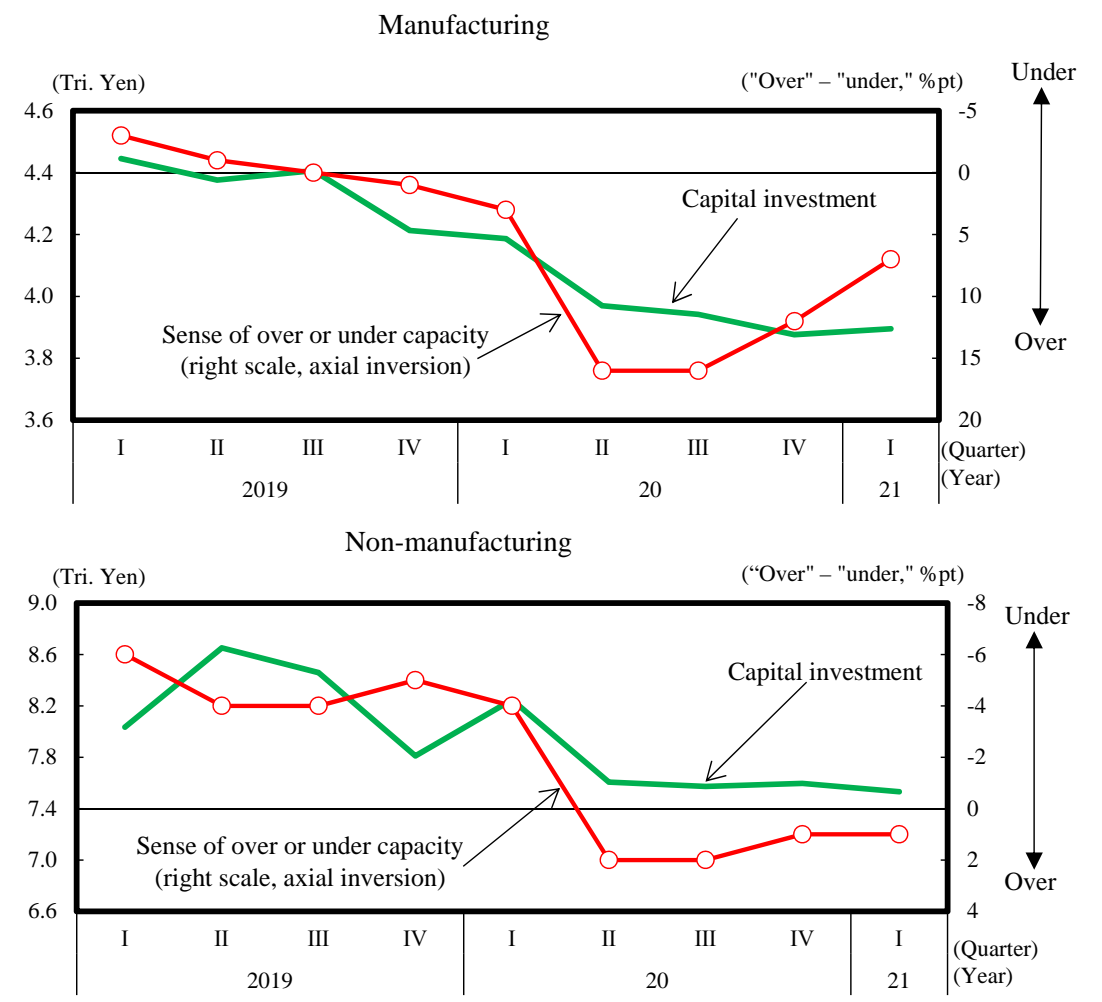


Figure 9 Changes in capital investment and the sense of over or under capacity



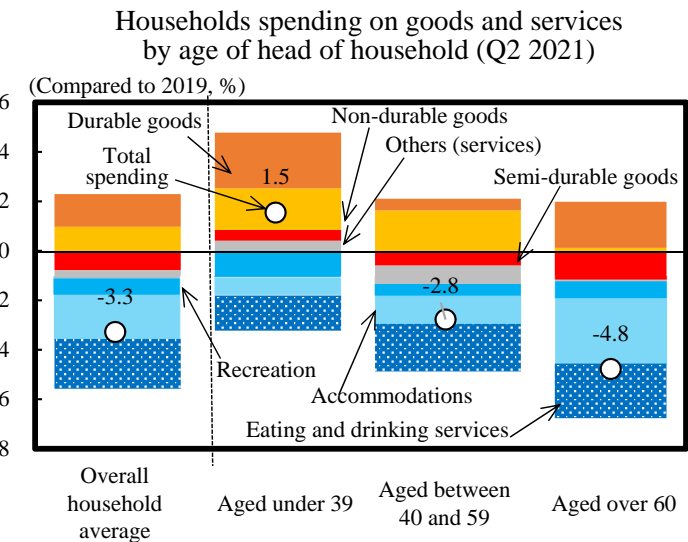
(Source) Figure 8: Compiled based on Quarterly Financial Statements Statistics of Corporations by Industry, Ministry of Finance (MOF). Seasonally adjusted.
 Figure 9: Compiled based on Quarterly Financial Statements Statistics of Corporations by Industry, MOF, and Real Export Price Index and Short-term Economic Survey of Enterprises in Japan (BOJ Tankan), Bank of Japan (BOJ). Capital investment covers all sizes of investment, including that in software (seasonally adjusted). Figure 8: “Projection based on FY 2021 profit and capital investment plans” represent extension from current profit and capital investment (including software investment) planned for FY2021 (changes from the previous year) given through the June 2021 BOJ Tankan survey.

Chapter 1: Three Challenges to Enhance Economic Responsiveness and Growth Potential

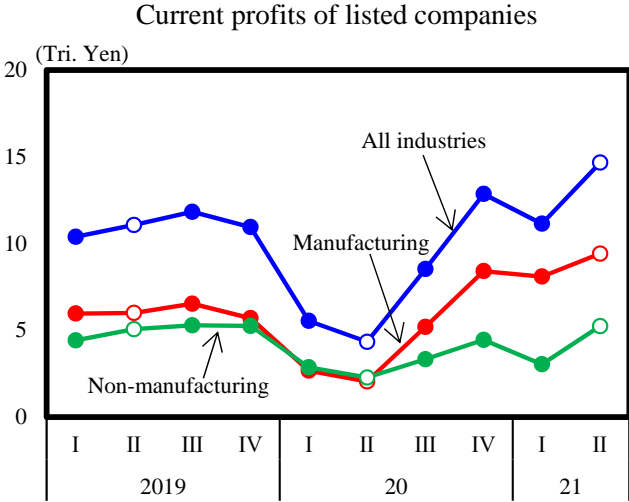
- Current and future economic trends can be represented by the three sets of favorable and unfavorable factors.
- They are 1) robust consumer confidence and COVID-19 expansion, 2) robust corporate earnings and Asian COVID-19 expansion, and 3) the lowest number of business bankruptcies in 50 years and corporate debt (see Chapter 2 for details) (Figure 10). It is important for Japan to balance COVID-19 countermeasures through the promotion of vaccination with the restoration of normal life, increase the resilience of supply chains and promote business turnaround initiatives and the smooth movement of human resources.

Figure 10 Three sets of favorable and unfavorable factors

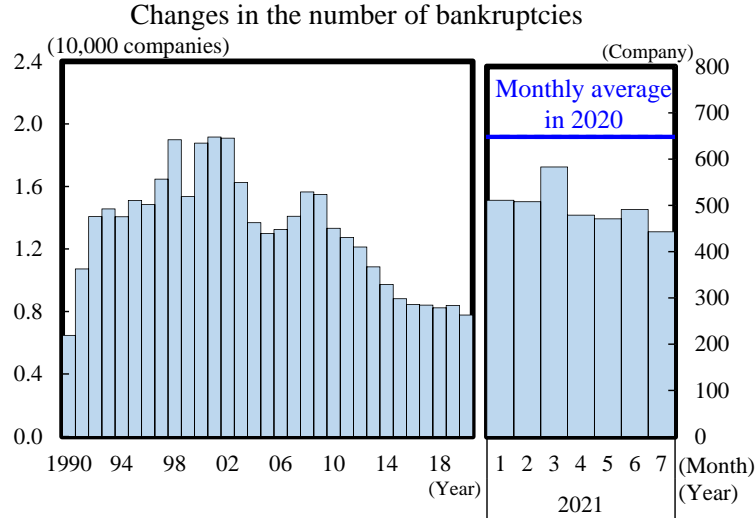
(1) Robust consumer confidence and COVID-19 expansion



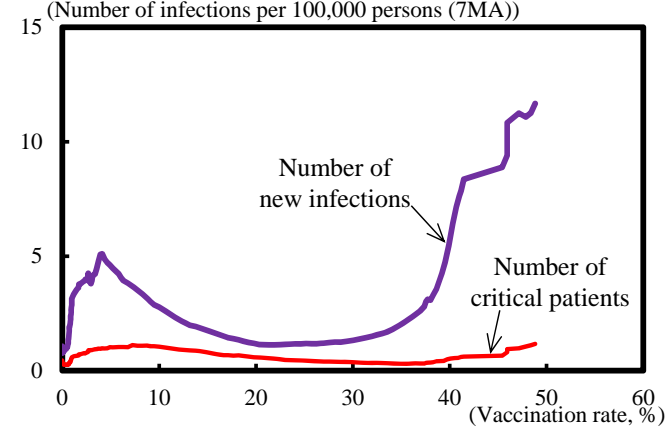
(2) Robust corporate earnings and Asian COVID-19 expansion



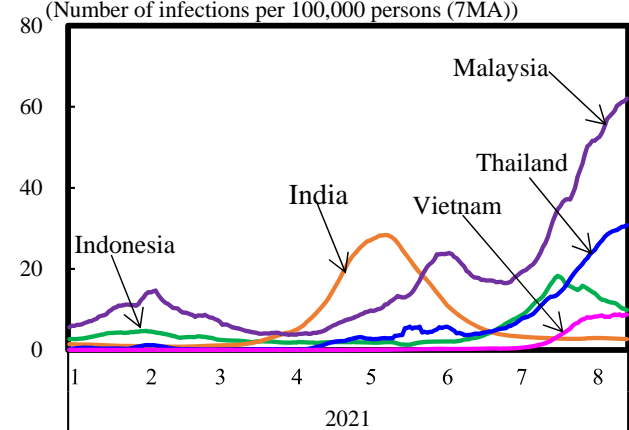
(3) The lowest number of business bankruptcies in 50 years and corporate debt



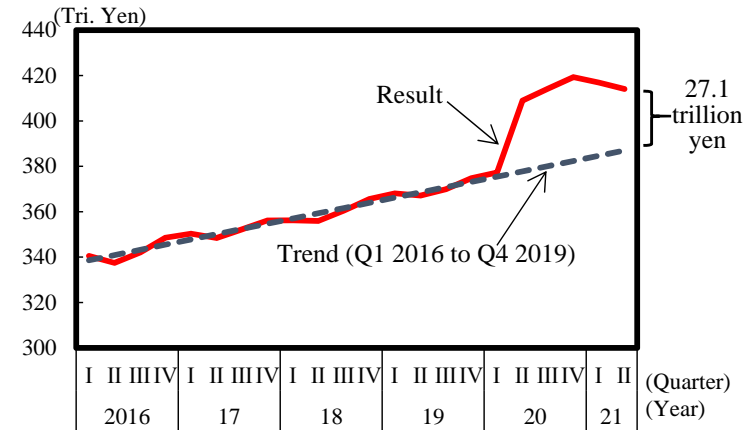
Relationship between vaccination rate and infections in Japan



Number of new infections in Asian countries



Growth in corporate debt



(Source) Figure 10: Compiled based on Family Income and Expenditure Survey, MIC; MHLW; WHO; NIKKEI NEEDS; Monthly report on corporate bankruptcy, Tokyo Shoko Research; Loans and Bills Discounted by Sector, BOJ; etc.

Chapter 1 Section 2: Employment, Price and Financial Trends through Supply and Demand Fluctuations (Supply-demand gap and employment)

- The expanding GDP gap exerts upward pressure on the unemployment rate (Figure 11). At present, however, companies' employment maintenance initiatives and policy support, such as employment adjustment subsidies, are holding down any unemployment rate rise while the GDP gap of around minus 4% is still left.
- A breakdown of production activity volume changes into work hours, employment and labor productivity indicates that manufacturers have almost recovered to pre-COVID-19 levels, while accommodations, eating and drinking services' production activity volume in 2021 is down 30-40% from pre-COVID-19 levels. A decline in work hours and a drop in labor productivity through production falls have been combined with a decrease in employment (Figure 12).

Figure 11 Relationship between GDP gap and unemployment rate

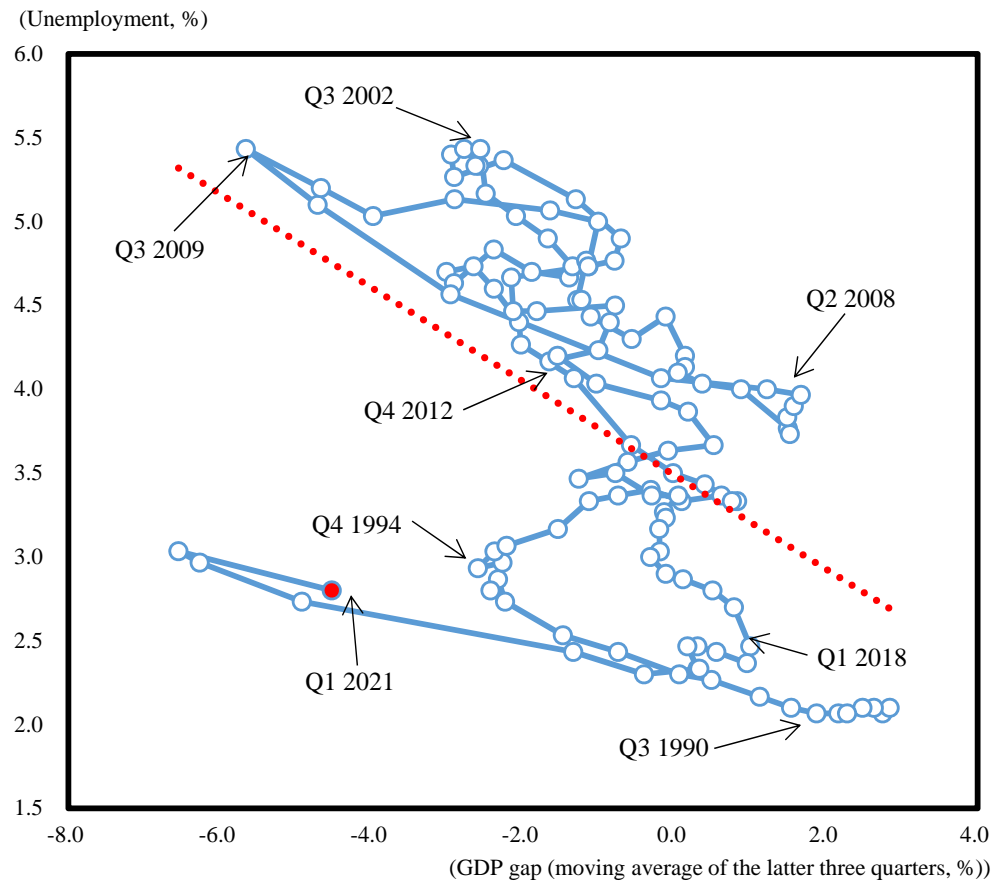
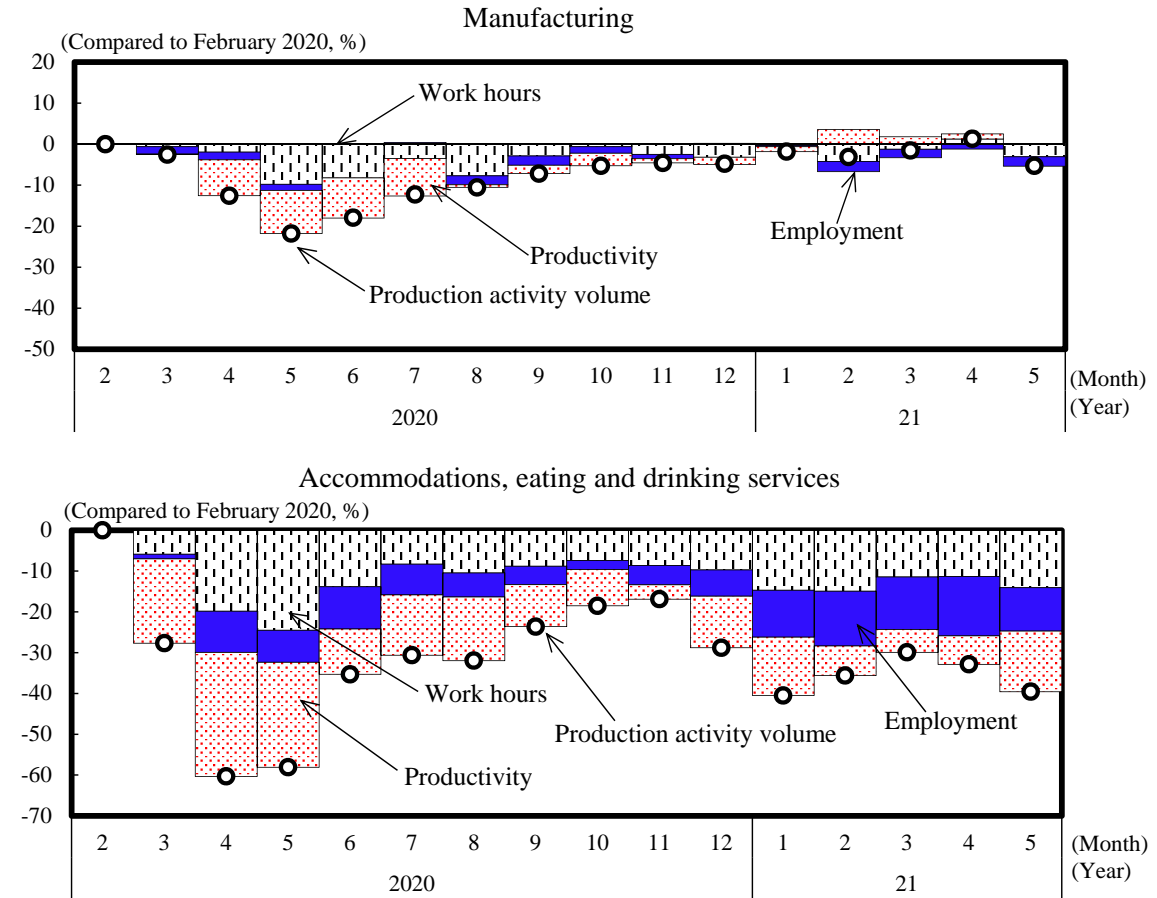


Figure 12 Changes in production activity volume, labor input and productivity



(Source) Figure 11: Compiled based on Labor Force Survey, MIC; System of National Accounts, Cabinet Office; etc.

Figure 12: Compiled based on Labor Force Survey, MIC; Monthly Labour Survey, MHLW; and Indices of Industrial Production & Indices of Tertiary Industry Activity, Ministry of Economy, Trade and Industry (METI).

Chapter 1 Section 2: Employment, Price and Financial Trends through Supply and Demand Fluctuations

(Supply-demand balance and prices)

- The price Phillips curve indicates that if supply and demand recover, prices are expected to increase moderately to avoid deflationary risks (Figure 13). However, items that post year-on-year price fluctuation close to zero account for a high share of consumer price components (Figure 14), leading to companies' sticky product pricing.

Figure 13 Phillips curve

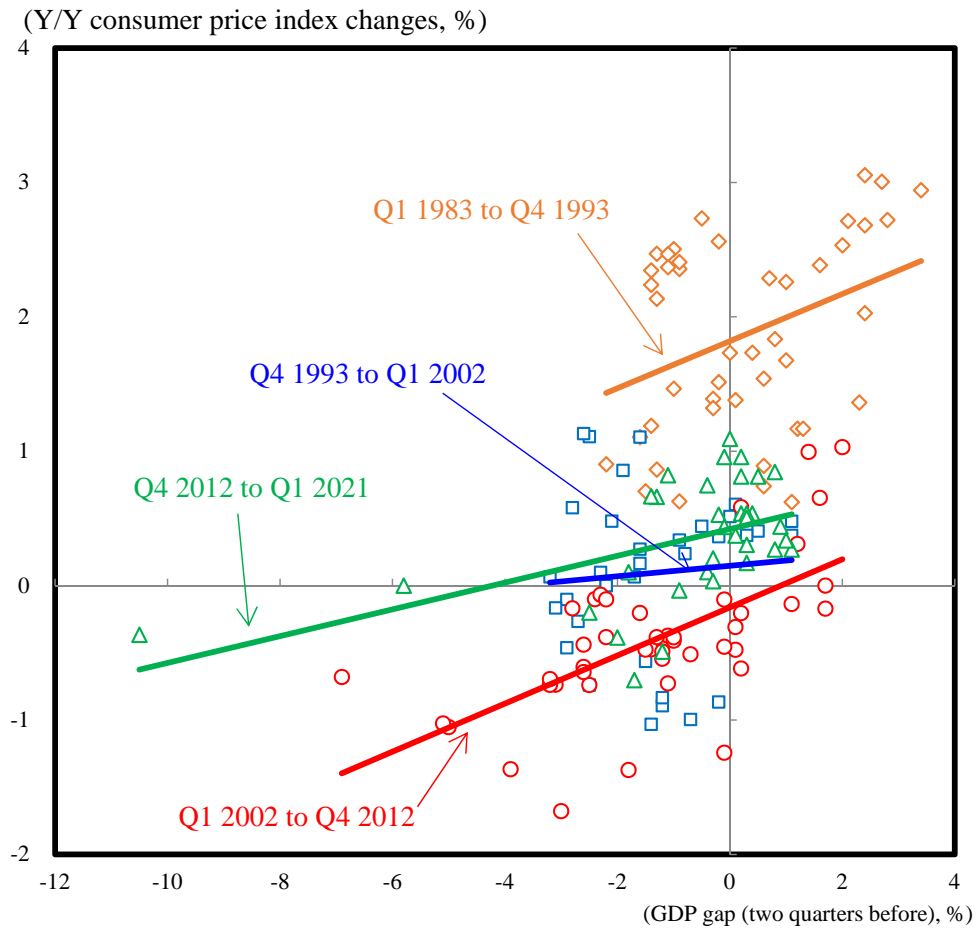
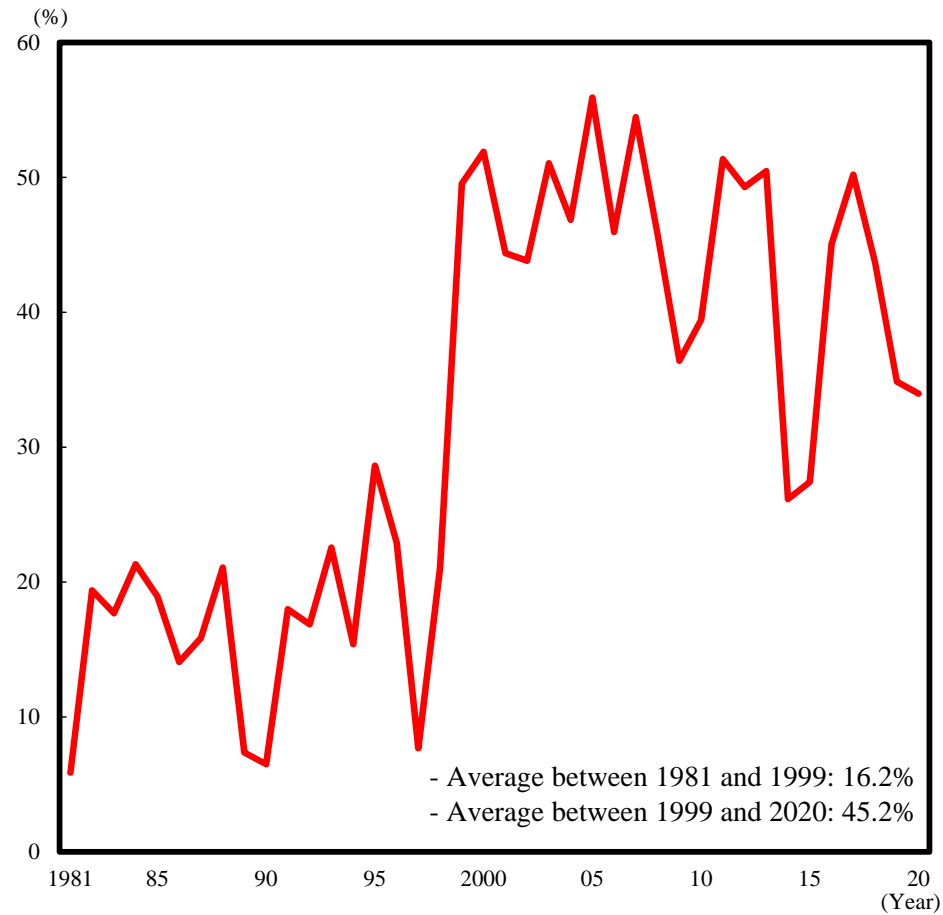


Figure 14 Changes in the share for goods that post year-on-year price fluctuations close to zero



(Source) Figure 13: Compiled based on System of National Accounts, Cabinet Office, and Consumer Price Index, MIC. Consumer prices is in terms of general, excluding fresh food and energy.

Figure 14: Compiled based on Consumer Price Index, MIC. The share represents the ratio of the weights of items that post year-on-year price changes between -0.5% and +0.5% to the total weights of consumer price index components.

Chapter 1 Section 3: Future Macroeconomic Challenges (Long-term income trend)

- Since 2000, Japan has posted relatively lower real GDP growth than other major countries, but has narrowed its gaps with them in real GDP per capita growth. This is primarily attributable to a decline in population (Figure 15). Real total employment compensation has increased in line with growth in employment and total cash pay since around 2013 (Figure 16). Total cash pay (nominal income per capita) has come under downside pressure from a decrease in work hours and a change in the employee mix. This is because a decline in working males amid population aging (retirement of baby-boomers) has been combined with a rising labor participation rate for non-regular female and aged employees characterized by lower average wages and less work hours than working males. Since 2013, however, hourly pay has increased against the backdrop of productivity growth in a manner to offset the downside pressure (Figure 17). Given that the labor supply-demand balance will tighten due to population decline and aging under a continued momentum for wage hikes in the future, wage levels can be expected to rise.

Figure 15 Real GDP growth rates in major countries

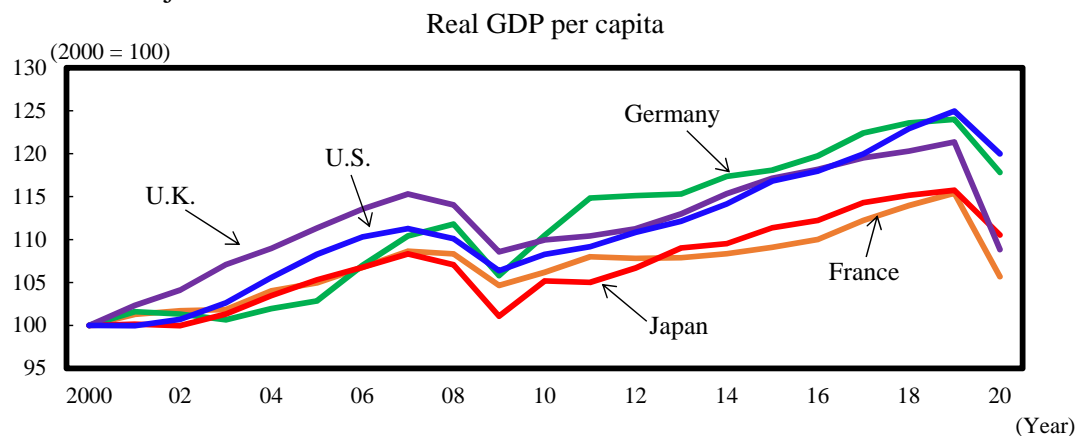
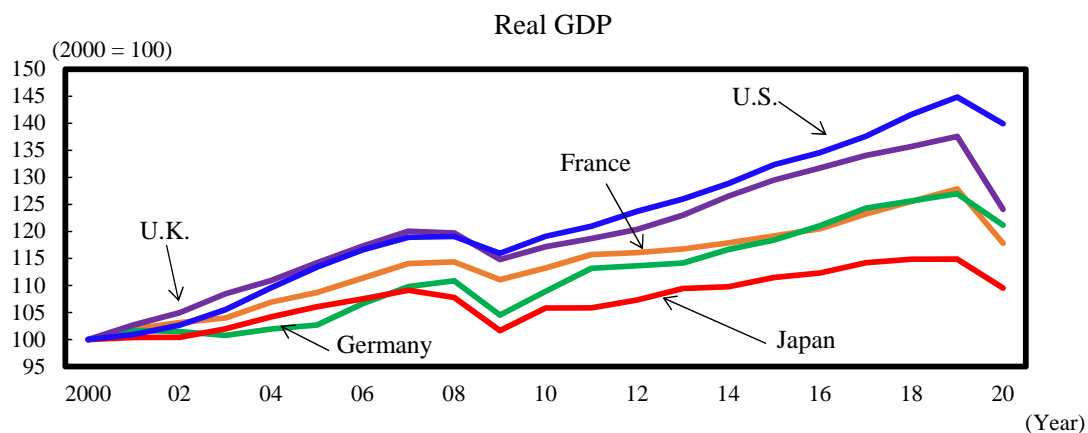


Figure 16 Breakdown of total employment compensation

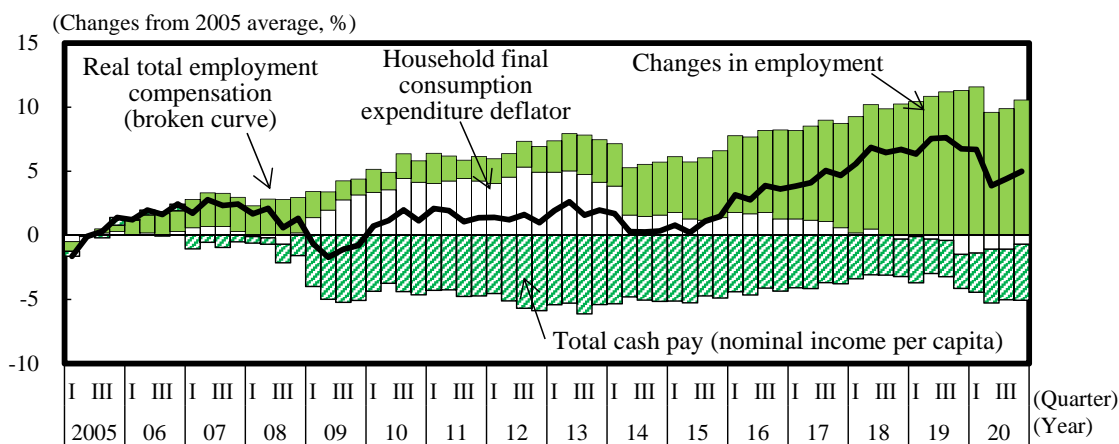
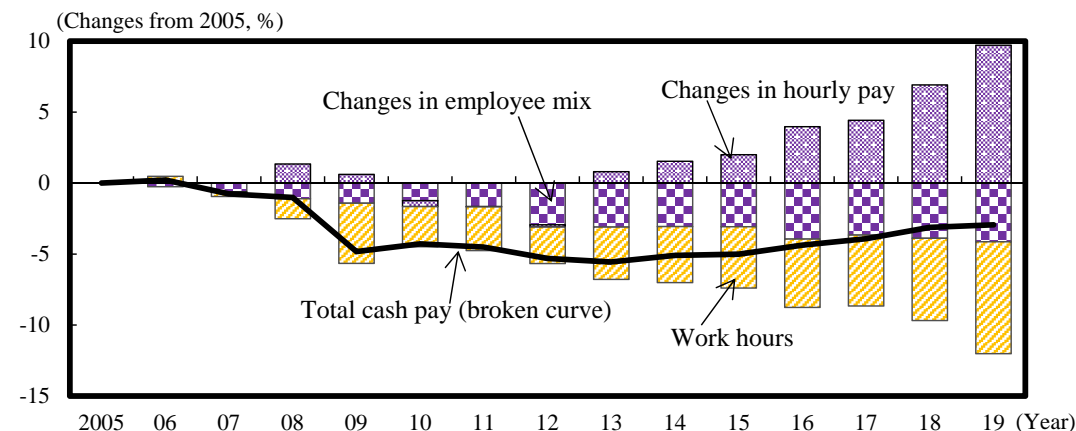


Figure 17 Breakdown of total cash pay



(Source) Figure 15: Compiled based on System of National Accounts, Cabinet Office; IMF; etc.

Figures 16 & 17: Compiled based on System of National Accounts, Cabinet Office; Labor Force Survey, MIC; and Monthly Labour Survey & Basic Survey on Wage Structure, MHLW.

Chapter 2 Section 1: Past Enterprises and Investment

(International comparison of domestic investment, productivity and pay, and factors behind stagnation (1) Deflation)

- As enterprises gave priority to reducing accumulated debt after the collapse of the asset-inflated bubble economy, deflation continued under the vicious cycle of investment suppression, demand shortages and price drops (Figure 1).
- Until around 2010, manufacturers used productivity growth to reduce the unit labor cost (ULC) and left nominal pay failing to rise (used the fruit of productivity growth to cut product sales prices). Non-manufacturers, plagued with weak labor productivity growth, cut the ULC by increasing part-time workers' share of employment to lower average pay (Figure 2). Such tendency was corrected in the second half of the 2010s as enterprises raised their momentum to increase pay.

Figure 1 Deflation and debt reduction

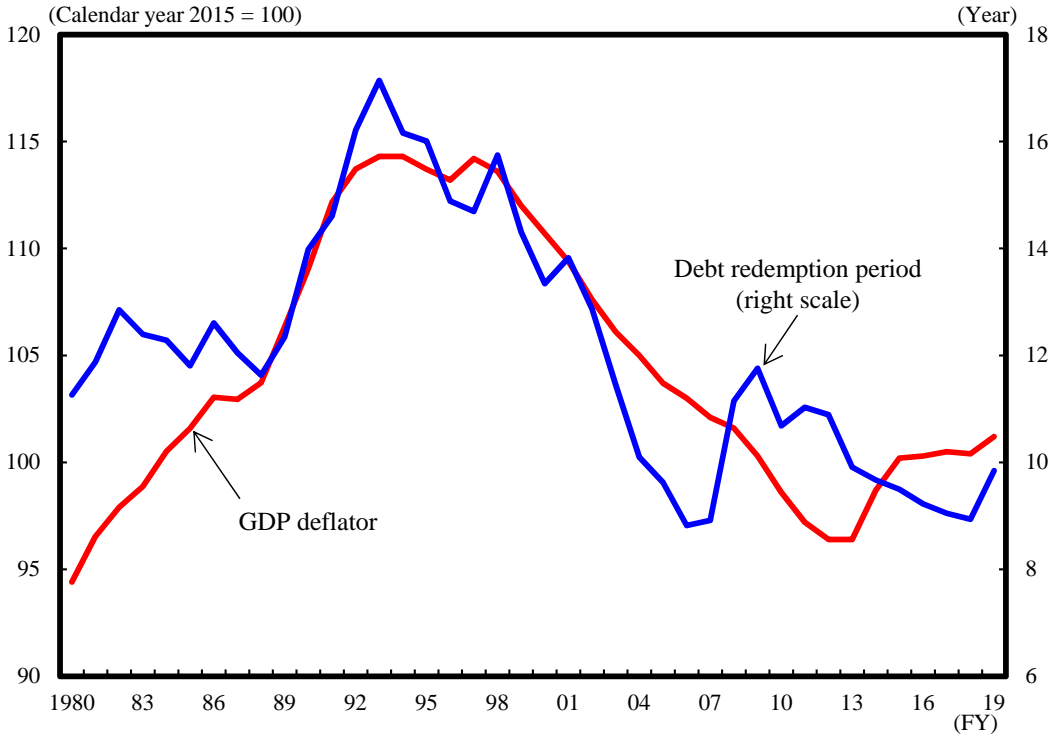
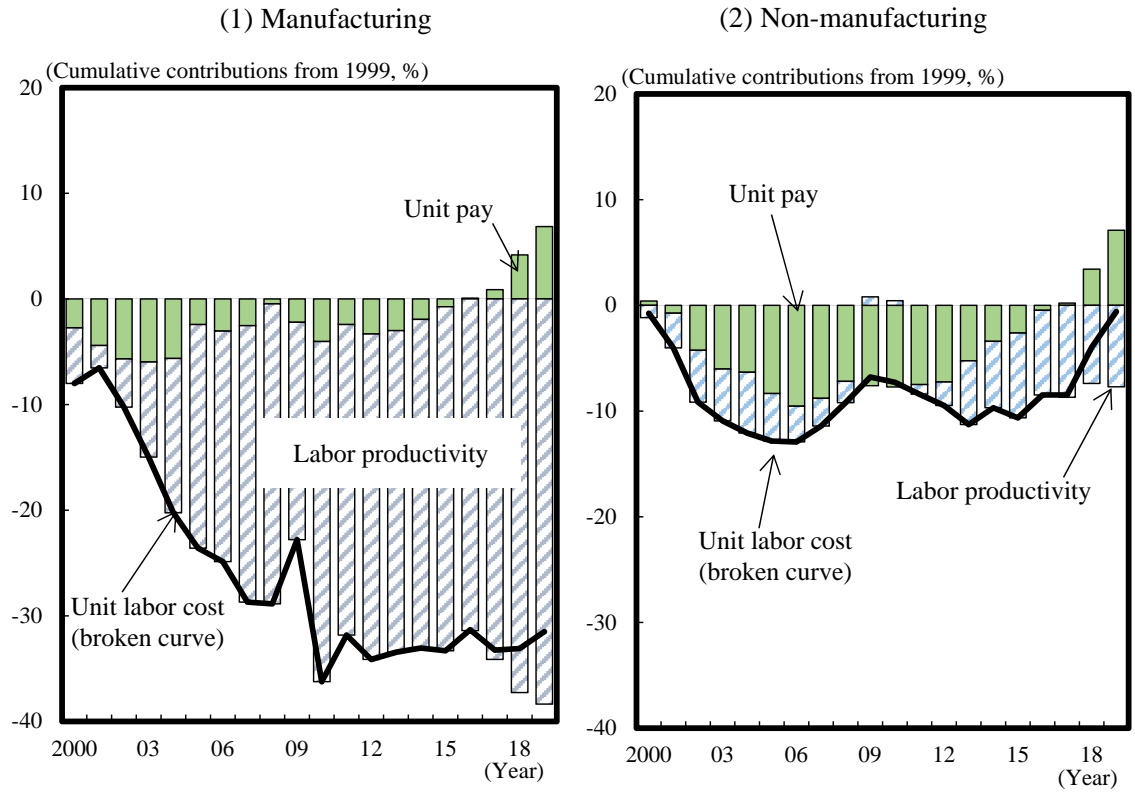


Figure 2 ULC breakdown



(Source) Compiled based on System of National Accounts, Cabinet Office; Quarterly Financial Statements Statistics of Corporations by Industry, MOF; and BOJ Tankan & Average Contract Interest Rates on Loans and Discounts, BOJ.

Figure 1: Debt redemption period = debt to repay (corporate bonds + short to long-term borrowings) / debt repayment resources (current profits × 0.5 × 0.7 + depreciation × 0.7).
 Figure 2: Unit labor cost (ULC) = nominal employment compensation / real GDP = (nominal employment compensation / labor input) / (real GDP / labor input) = unit pay / labor productivity

Chapter 2 Section 1: Past Enterprises and Investment

(International comparison of domestic investment, productivity and pay, and factors behind stagnation (2) Six simultaneous pains)

- Enterprises faced the so-called six simultaneous pains – (1) yen appreciation, (2) delays in economic partnership agreement negotiations, (3) high corporation tax, (4) labor market rigidity, (5) environmental overregulation and (6) electricity shortages and high electricity cost – in addition to the global financial crisis and the Great East Japan Earthquake. Of the six, the first one (yen appreciation) has ended. However, enterprises have become more resilient to exchange rate fluctuations by keeping exported goods' local currency prices unchanged even during yen depreciation in order to gain some profit margins and by increasing foreign direct investment in order to make money overseas even during yen appreciation. The second and third pains have almost been resolved. As for the fourth pain, however, the labor market is still rigid despite the promotion of initiatives to employ female and aged people. The fifth pain has become a global issue subject to an international agreement framework. The promotion of innovation to improve energy efficiency has become a new source of growth that contributes to improving Japanese enterprises' competitiveness. The sixth pain has become even more important toward carbon neutrality. In addition, a delay in digitalization has become a new challenge under the COVID-19 pandemic (Figure 3).

Figure 3 Current state of six simultaneous pains facing enterprises

	Under six simultaneous pains	Current state	Assessment
(1) Yen appreciation	Nominal effective exchange rate 110.36 (as of the end of December 2011)	Yen appreciation has ended. 85.03 (as of the end of June 2021)	- Enterprises have become more resilient to exchange rate fluctuations.
(2) Delays in economic partnership agreement negotiations	Economic partnership agreements with ASEAN, and India and three other countries have taken effect. Covering nearly 20% of exports and imports (as of the end of December 2011)	Japan has signed or effectuated the Comprehensive and Progressive Agreement for Trans-Pacific Partnership and economic partnership agreements with the EU and 24 countries. Covering about 50% of exports and imports (as of the end of January 2021)	
(3) High corporation tax	37.00% (Corporate effective tax rate in FY2012)	29.74% (Corporate effective tax rate since FY2018)	
(4) Labor market rigidity	Regular employment: 33.55 million employees Non-regular employment: 18.12 million employees (2011)	Regular employment: 35.29 million employees Non-regular employment: 21.65 million employees (2020)	
(5) Environmental overregulation	Cutting greenhouse gas emissions by 32% by 2020 (From FY2013) (2009)	Cutting greenhouse gas emissions by 46% by FY2030 (From FY2013) (2021)	- A new source of growth
(6) Electricity shortages and high electricity cost	13.7 yen/kWh (For industrial users in FY2010)	17.0 yen/kWh (For industrial users in FY2019)	
New challenge Delay in digitalization	The Japan Revitalization Strategy (Basic Policies for Economic and Fiscal Management and Structural Reform 2013) called for realization of a world-leading society in terms of use of IT.	The COVID-19 pandemic has made the information technology development delay clearer.	×

- COVID-19 has triggered changes in investment and enterprise behavior.
- Business turnaround activities are seen mainly in accommodations, eating and drinking services (Figure 4). Restaurants' entry into takeout meal services and online sales, and clothing shops' participation in Internet and subscription-based sales are observed.
- Mainly large enterprises (manufacturers) are reforming supply chains. Reforms include the expansion and diversification of clients in Japan and other Asian countries and the reduction and concentration in Europe and North America (Figure 5). Although nearly 70% of enterprises have not considered reforms, the risk of supply constraints emerging from the spread of COVID-19 in some trading partner countries is seen in addition to trade and investment risks through regional conflicts and international disputes. It remains important to enhance the robustness and resilience of supply chains.

Figure 4 Considering or not considering business turnaround

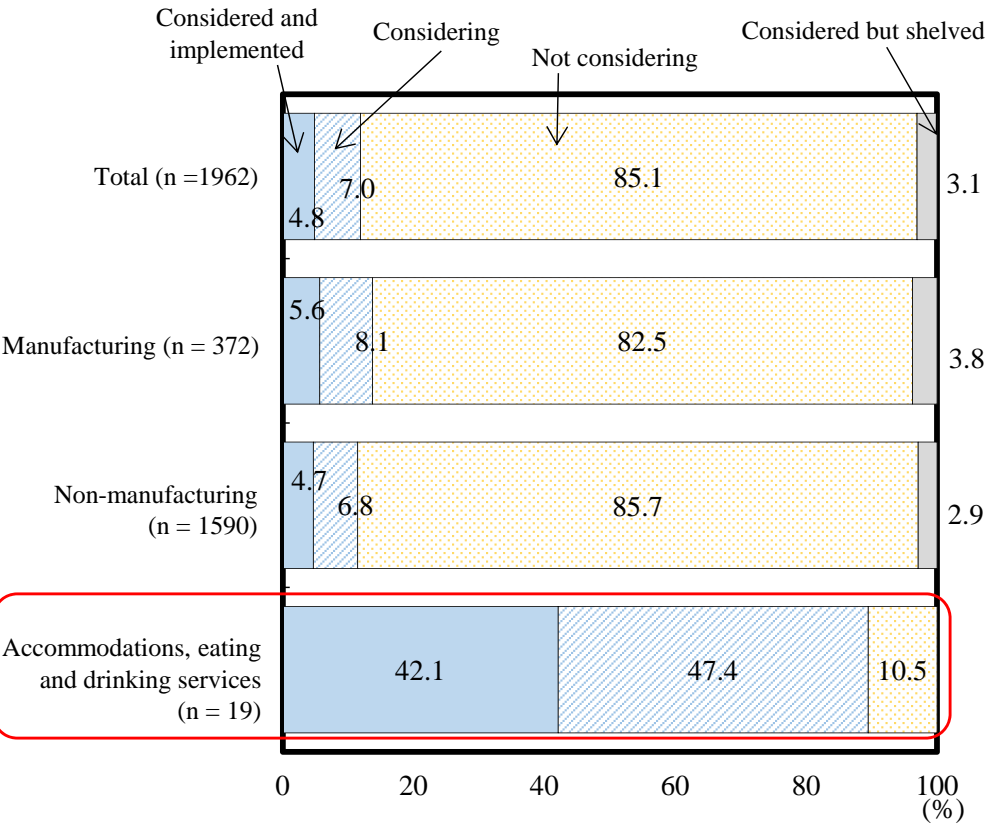
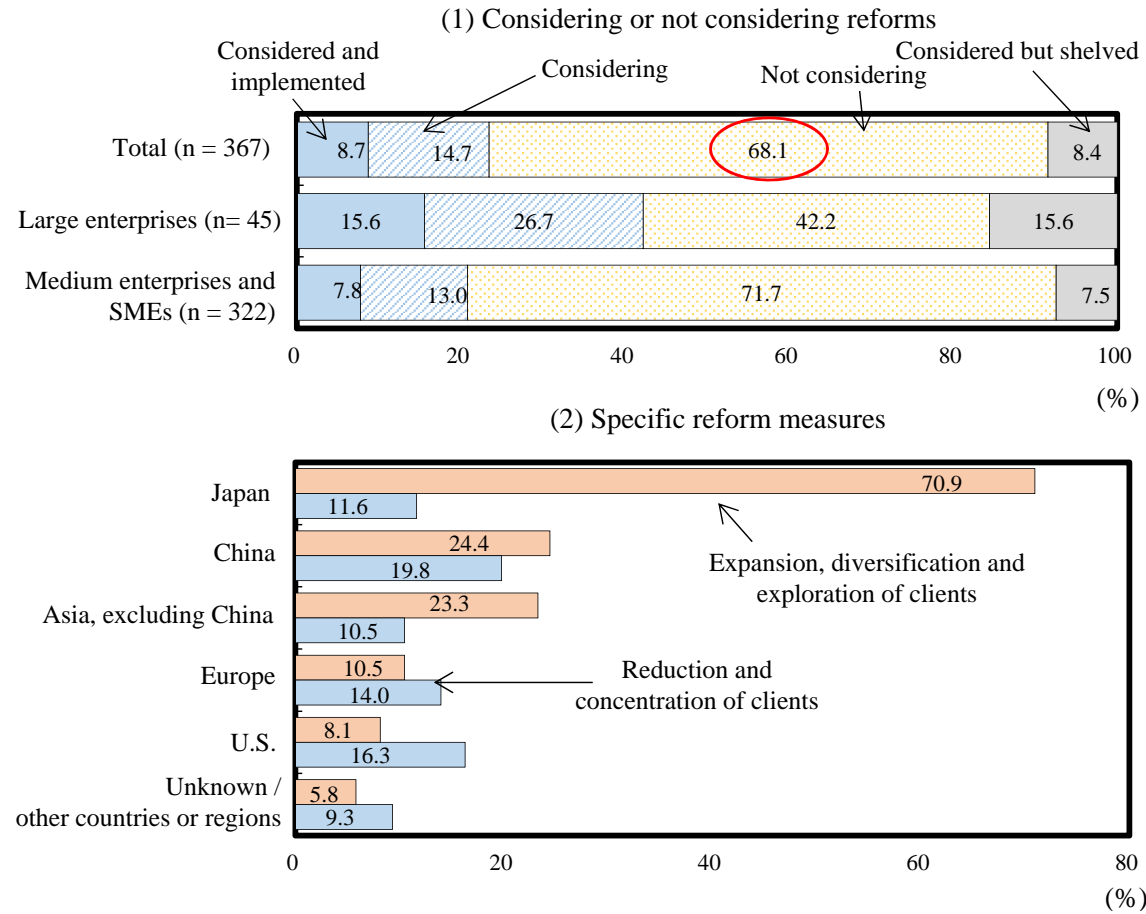


Figure 5 Considering supply chain reforms in view of COVID-19 (manufacturing)



(Source) Compiled based on the survey on perception changes triggered by COVID-19 – work styles and investment, Cabinet Office. The questionnaire survey was conducted between March 2 and 26, 2021, with effective responses made by 2,065 enterprises.

Chapter 2 Section 1: Past Enterprises and Investment (Debt issue accompanying economic restrictions)

- Corporate debt in the April-June 2021 quarter increased by about 27 trillion yen from trends due to economic restrictions to prevent COVID-19 spread. Debt growth from trend peaked out for all industries but stayed high for the eating and drinking services (at 2.6 trillion yen, equivalent to 60% of outstanding debt in FY2019) and for the accommodation services (at 0.8 trillion yen, equivalent to 20% of the same) (Figure 6). Most of the increase (for FY2020) in outstanding loans to SMEs were credit guaranteed loans from private financial institutions. Proper loans from private financial institutions decreased slightly (Figure 7). To allow enterprises to repay debt by earning profits in the future, Japan should raise economic activity levels while implementing COVID-19 countermeasures. Then, financial institutions will be urged to work not only as lenders but also as business supporters.

Figure 6 Corporate debt growth accompanying economic restrictions

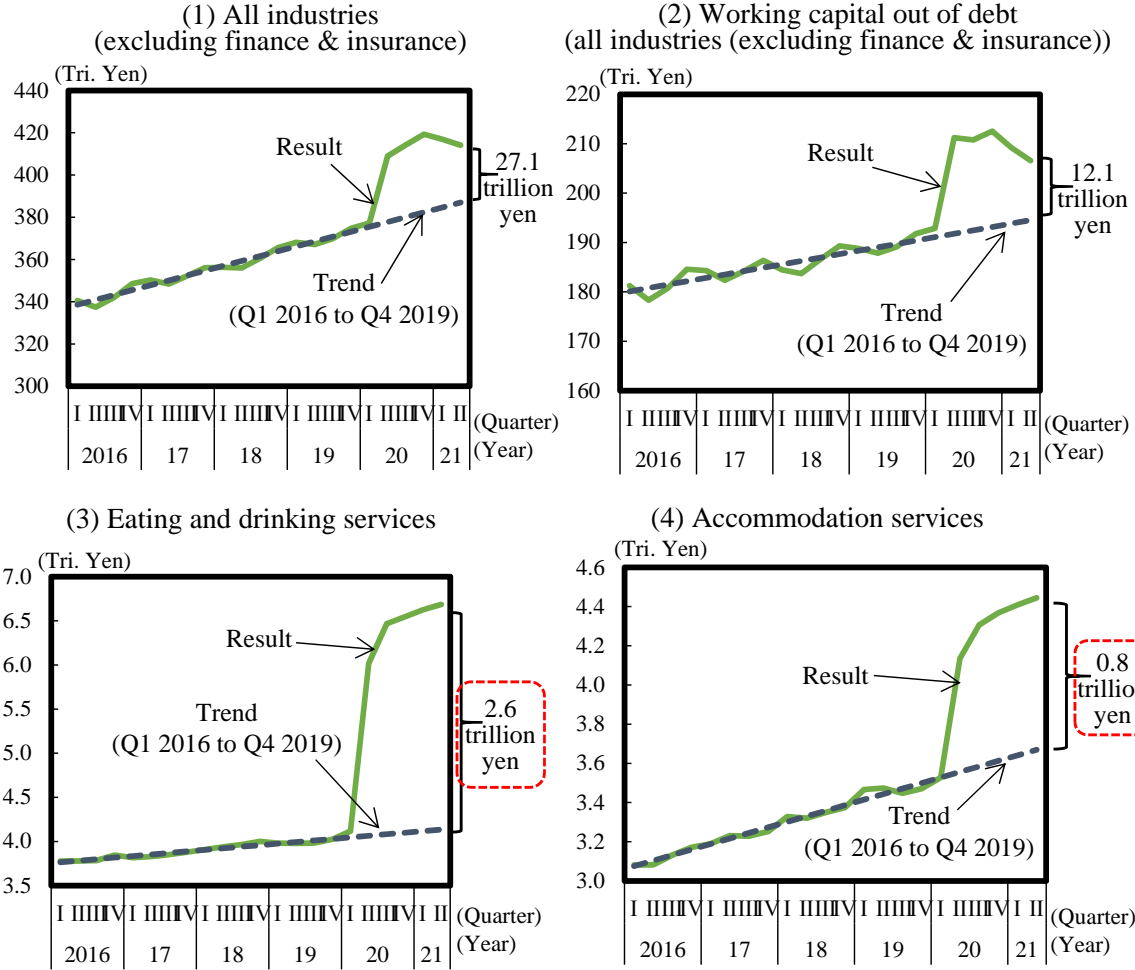
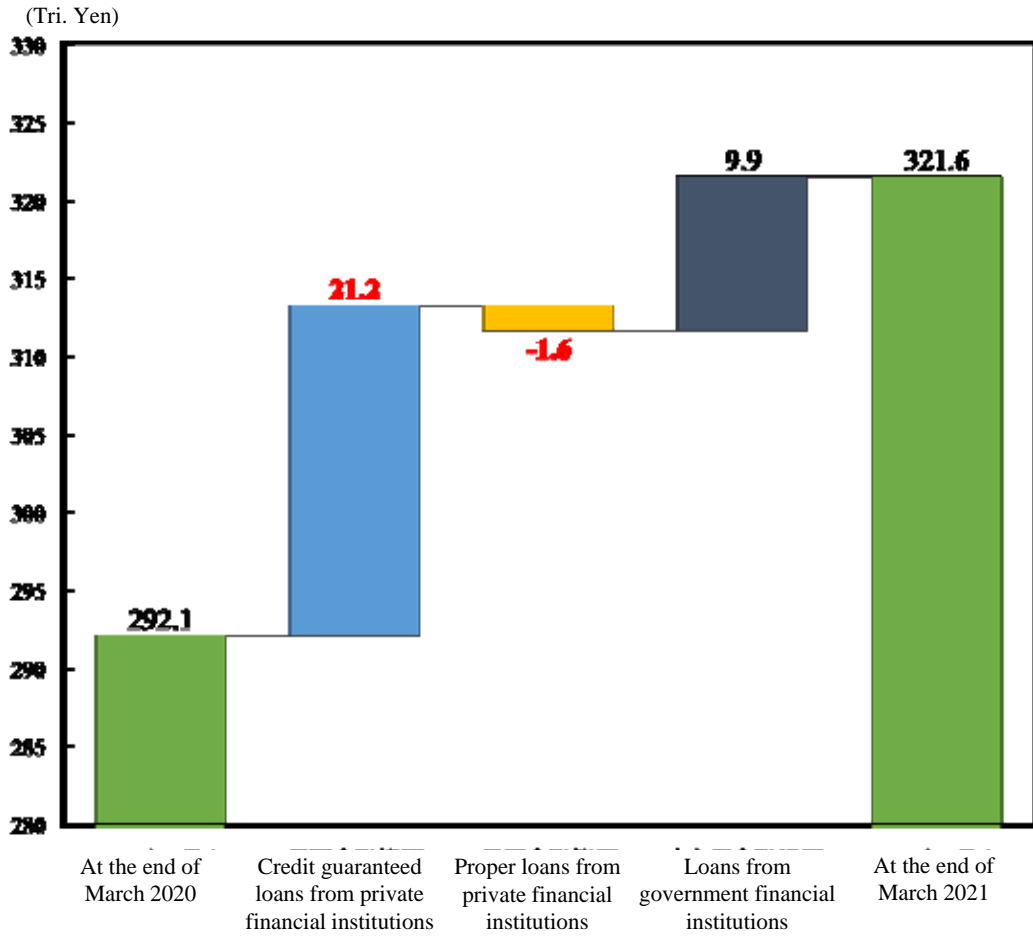


Figure 7 Changes in outstanding loans to SMEs



(Source) Compiled based on Loans and Bills Discounted by Sector, BOJ; Main accounts at credit unions, Shinkumi Bank; the consolidated balance sheet of the Shoko Chukin Bank, Ltd.; Monthly lending report, Japan Finance Corporation; Credit guarantee trends, Japan Federation of Credit Guarantee Corporations; and System of National Accounts, Cabinet Office. Figure 7: Credit guaranteed loans from private financial institutions are outstanding credit guarantee at the Japan Federation of Credit Guarantee Corporations, including a small amount at Shoko Chukin Bank. Proper loans from private financial institutions are calculated by subtracting credit guaranteed loans from private financial institutions from total loans from private financial institutions.

Chapter 2 Section 2: Challenges toward Future Growth (Challenges toward acceleration of digitalization)

- More than 70% of large enterprises have responded to DX (digital transformation), including those that are formulating DX plans. However, less than 10% of SMEs have implemented DX. Even when including those considering DX, the percentage share slips below 40% and has room to expand (Figure 8).
- There is generally a shortage of ICT (information and communication technology) human resources (Figure 9). Research and development (R&D) investment concentrates in manufacturing industries. In the information and communication industry as the DX center, R&D investment as a percentage of GDP is only a quarter of the U.S. level. The investment amount is one-16th of the U.S. level (Figure 10). Human resource development and R&D investment consistent with key challenges are needed.

Figure 8 Japanese enterprises' DX status

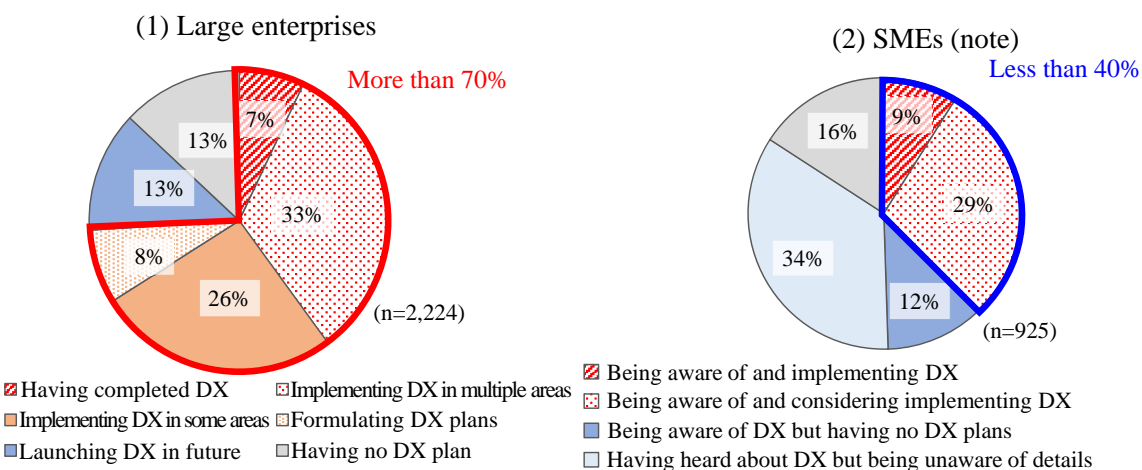


Figure 10 R&D investment by industry

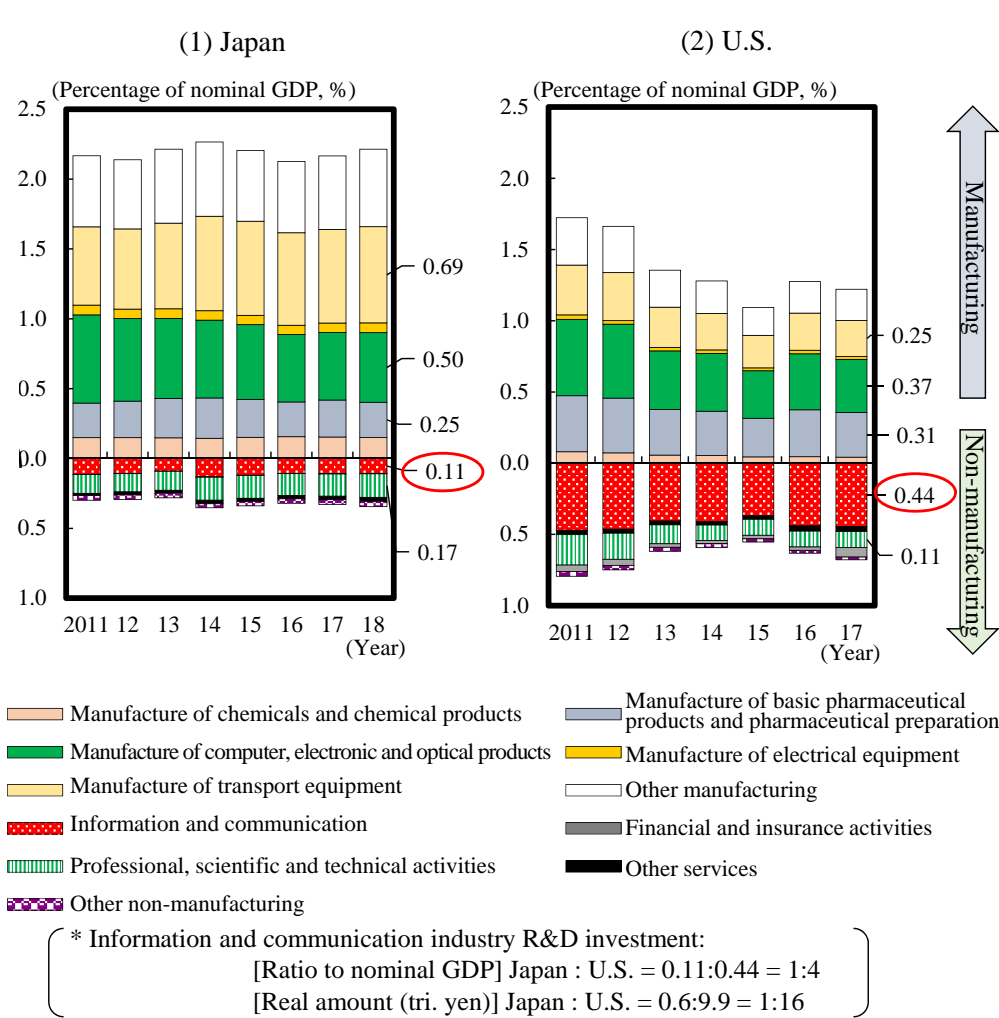
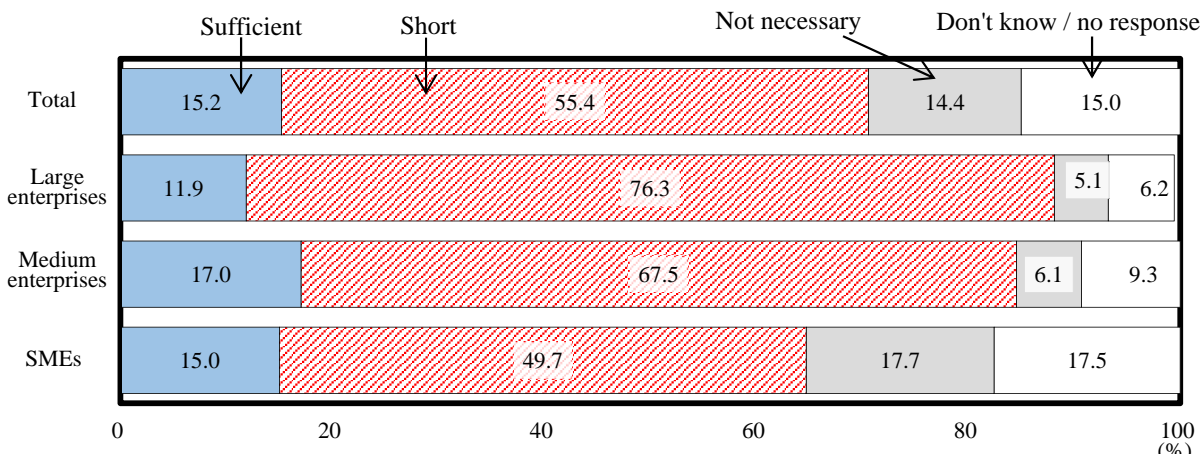


Figure 9 ICT human resources shortage (as of the end of August 2020)



(Source) Compiled based on Corporate digital transformation survey in Japan (FY2020), Dentsu Digital Inc.; DX Report 2 (Interim Report), METI; Basic Survey on the Information and Communications Industry, MIC & METI; Bureau of Economic Analysis; Communications Usage Trend Survey in 2020, MIC; and Japanese Science and Technology Indicators 2020, Ministry of Education, Culture, Sports, Science and Technology.
 Figure 8: Data of "(2) SME" are from a questionnaire survey of enterprises selected by METI as future leaders of regional economies (Companies Driving Regional Growth).

Chapter 2 Section 2: Challenges toward Future Growth (Global warming countermeasures under energy cost constraints)

- Since FY2013, which is the starting point for energy demand goals for FY2030, Japan has simultaneously realized economic growth and energy demand reduction. As a result, energy efficiency improved at an annual rate of 2.0% in six years from FY2013 (Figure 11).
- The Strategic Energy Plan (draft) projects energy demand at about 280 million kL for FY2030 in a case for redoubled energy-saving efforts. If the energy efficiency improvement trend (2.0% per year) for the past six years continues, energy demand in FY2030 may come to about 314 million kL. To realize the energy demand projection in the redoubled energy-saving effort case, the past energy efficiency improvement will have to be combined with an 11% demand cut through additional demand suppression and efficiency improvement (Figure 12).

Figure 11 Economic growth and energy demand

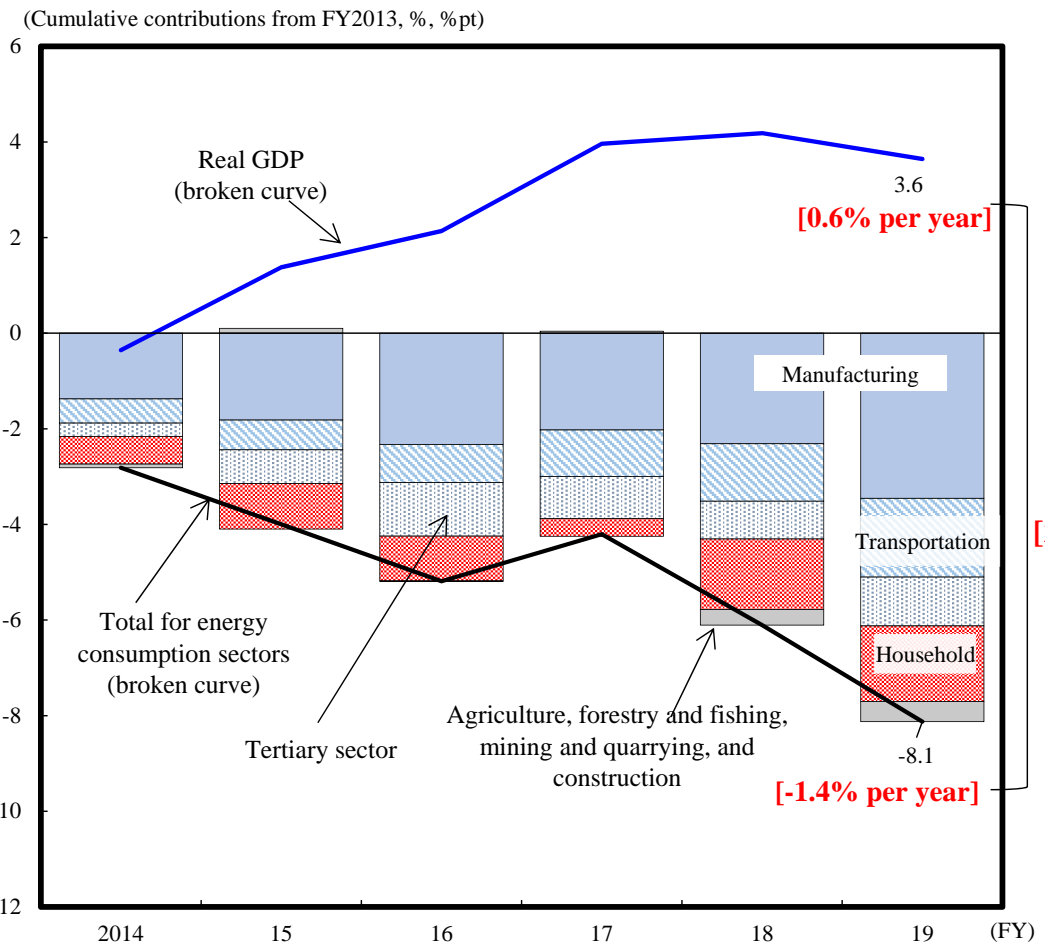
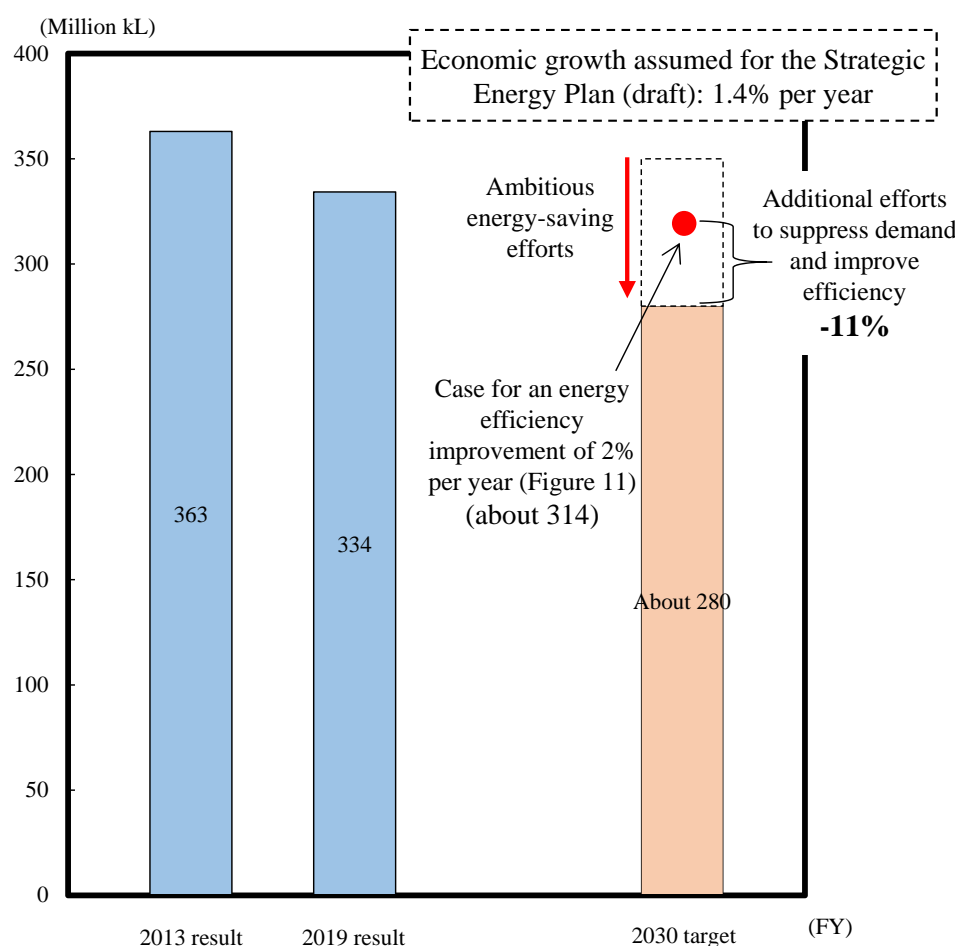


Figure 12 Energy demand projection

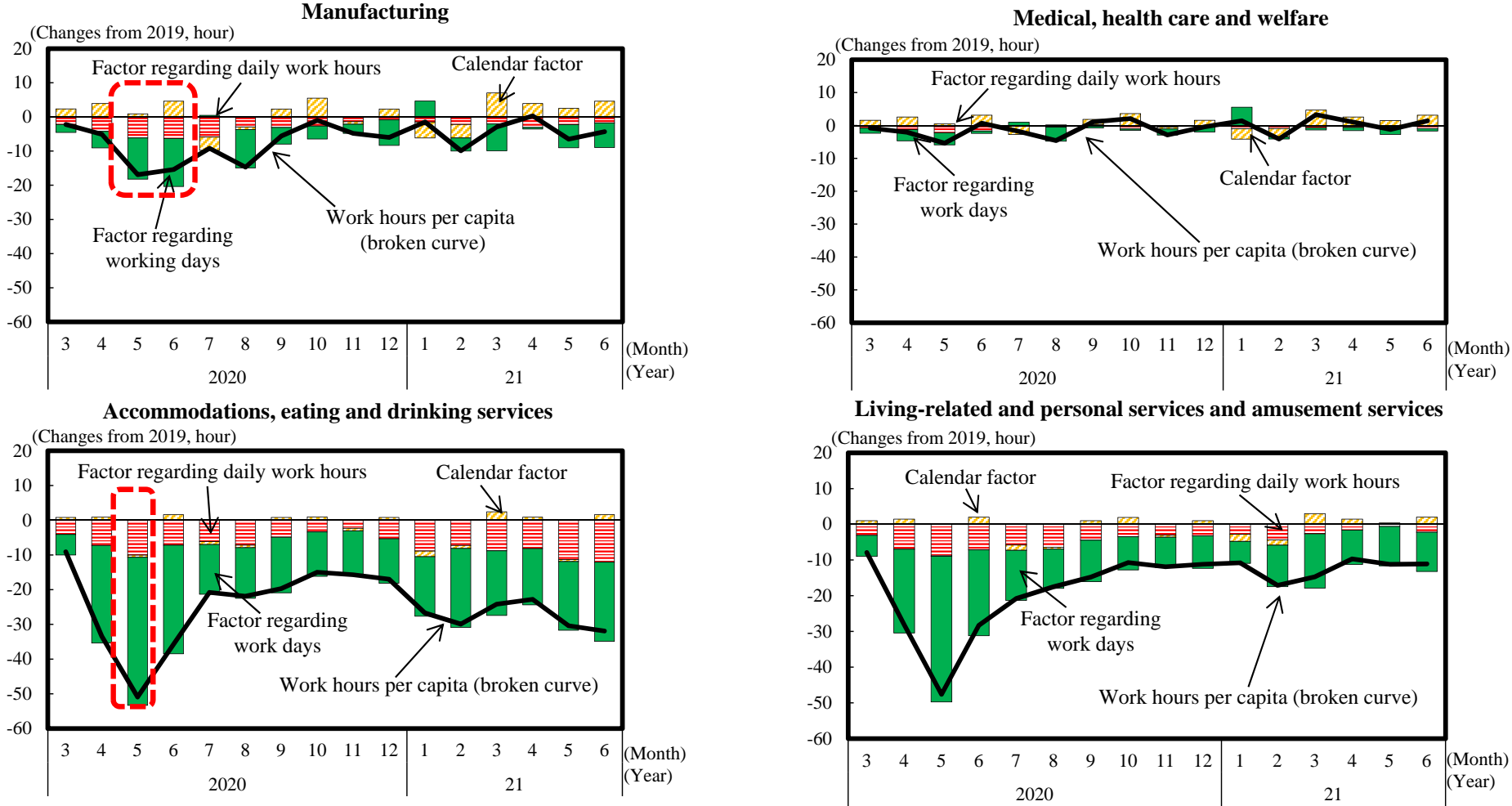


(Source) Compiled based on Comprehensive Energy Statistics & Strategic Energy Plan (draft), Agency for Natural Resources and Energy, and System of National Accounts, Cabinet Office.
 Figure 12: An energy demand cut consistent with energy efficiency improvement (2.0% per year) under the annual economic growth rate of 1.4% is about 0.6% per year (2.0% - 1.4%). If this is applied to 11 years from FY2020 to FY2030: 334 million kL (energy consumption in FY2019) $\times (1 - 0.6\%)^{11} = 314$ million kL. (280 million kL / 314 million kL - 1) $\times 100 = -11\%$.

Chapter 3 Section 1: Employment Changes and Challenges (Changes in work hours under the COVID-19 pandemic)

- The decline in work hours is broken down into three factors: (1) work hours per day, (2) calendar and (3) the number of working days affected by vacation or temporary closure. Work hours per capita in manufacturing industries plunged sharply in May and June 2020, with the third factor making a great contribution to the plunge. Later, the work hour decline narrowed in line with production recovery, but the third including temporary closure served as a downside factor. Among non-manufacturing industries, the medical, health care and welfare industry kept work hours at or above the 2019 level, seeing little decline through the third factor. In the accommodations, eating and drinking services, and living-related and personal services and amusement services, work hours per capita declined by up to about 50 hours. Of the decline, 80-90% is attributable to the third factor including temporary closure. As the state of emergency declaration was limited to the eating and drinking service sector, etc. from January 2021, a decline in work hours per capita in the accommodations, eating and drinking services widened again (Figure 1).

Figure 1 Breakdown of work hours per capita (for general workers)



(Source) Figure 1: Compiled based on Monthly Labour Survey, MHLW.

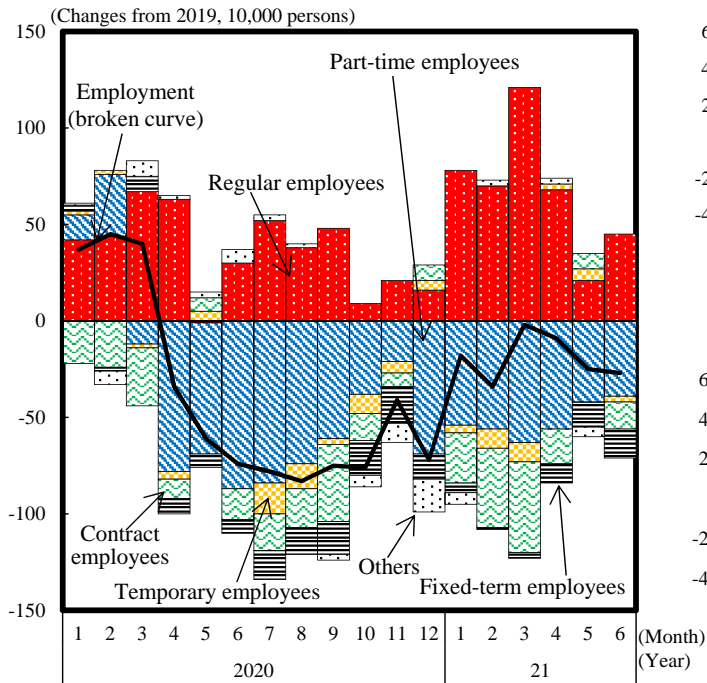
Chapter 3 Section 1: Employment Changes and Challenges

(Employment changes under COVID-19 expansion: Analysis on female employment)

- Under the COVID-19 impact, employment as well as work hours fluctuated. Employment sharply declined in the April-June quarter of 2020 and rebounded from the October-December quarter, compared to 2019. In 2021, part-time employees continued to decrease, while regular employees followed an uptrend (Figure 2 (1)). The regularization of employees has been promoted under the work style reform initiative (implementation of the revised Act on Improvement of Personnel Management and Conversion of Employment Status for Part-Time Workers and Fixed-Term Workers).
- Employment by industry and by type in the first half of 2021 indicates that non-regular employees, including females, decreased substantially from 2019 levels in the accommodations, eating and drinking services, and living-related and personal services and amusement services, which were affected greatly by the COVID-19 pandemic. Meanwhile, regular employees increased in the information and communication industry and the medical, health care and welfare industry, where labor demand was increasing (Figure 2 (2)).
- It is important to improve economic growth potential through workers' smooth shift to areas where labor demand growth is seen. Recurrent education will contribute to the smooth shift. Time and cost problems impede recurrent education, so support systems, such as general educational training benefits, the work style reform initiative, and other measures, should be used to promote recurrent education (Figure 3).

Figure 2 Changes in employment

(1) Employment by type (excluding directors)



(2) Employment by industry and by type (average of the first half of 2021)

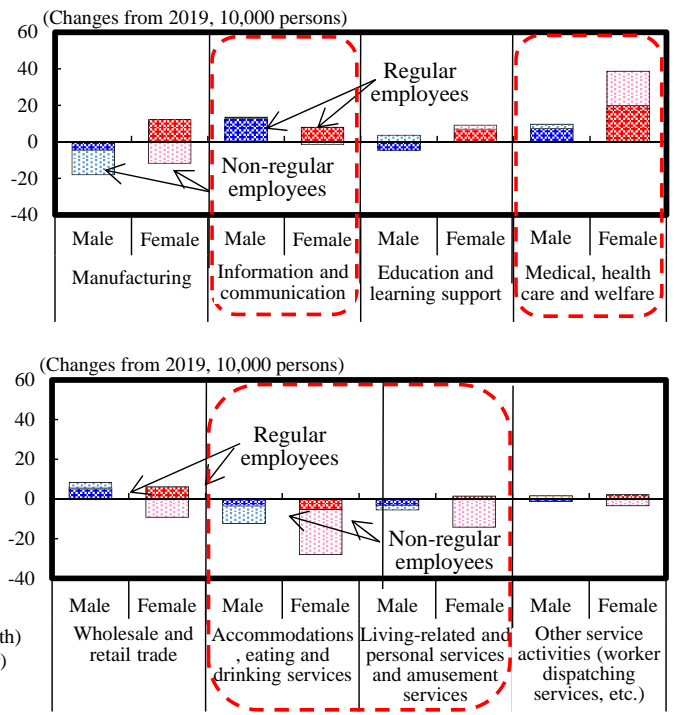
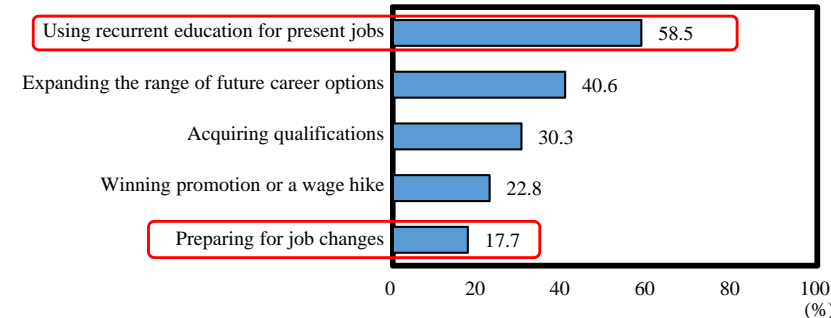
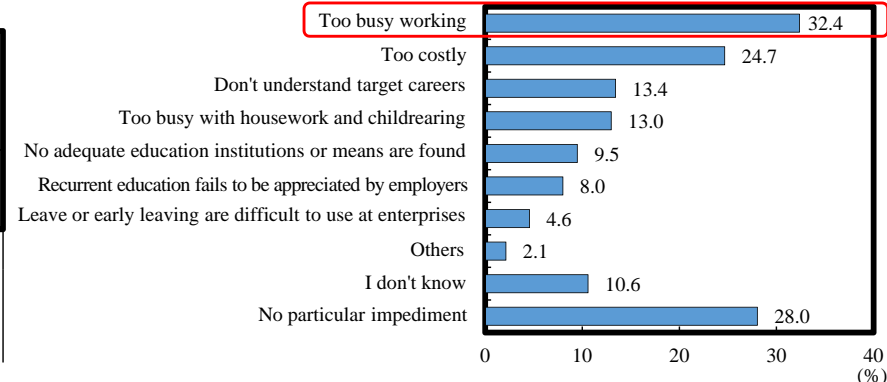


Figure 3 Needs for and impediments to recurrent education

(1) Reasons for tackling recurrent education



(2) Impediments to recurrent education



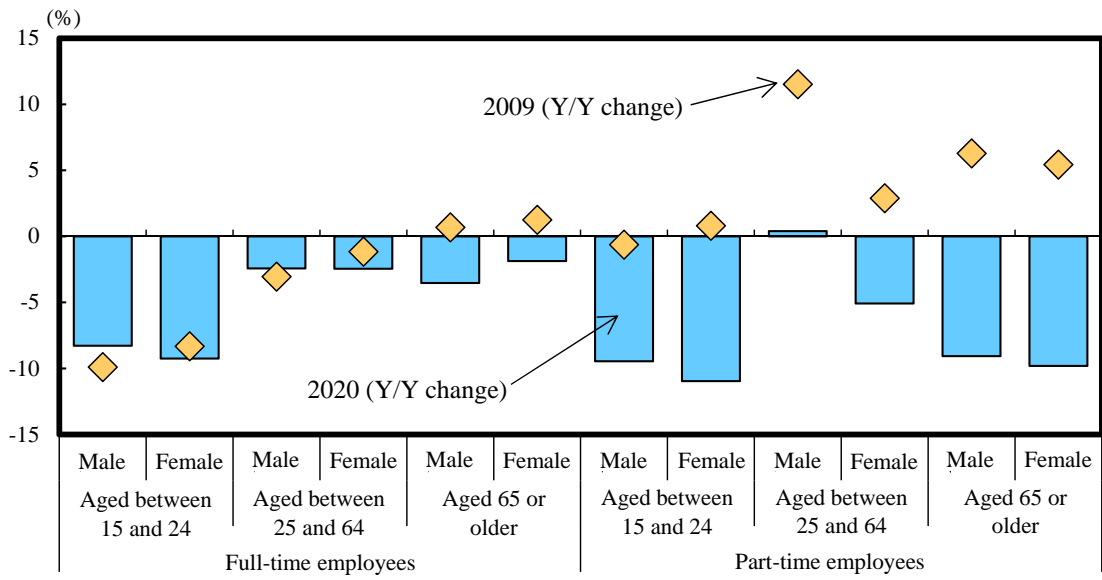
(Source) Figure 2: Compiled based on Labor Force Survey, MIC. Figure 3: Compiled based on the 3rd survey on life consciousness and behaviors under the COVID-19 pandemic, Cabinet Office.

(Employment changes under COVID-19 expansion: Analysis by an international organization)

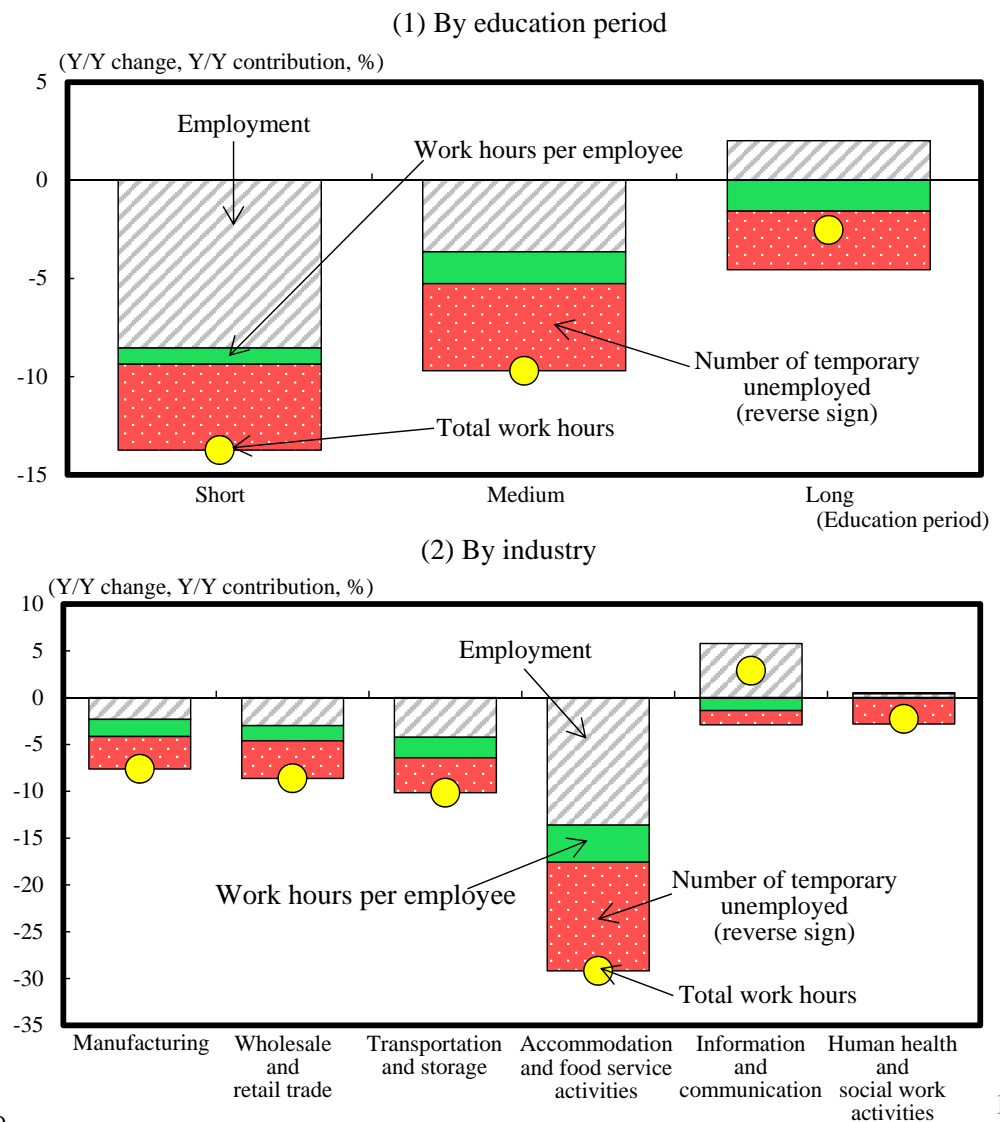
- According to an analysis by the Organization for Economic Cooperation and Development (OECD), employment adjustment pressure emerged in OECD countries mainly in the April-June 2020 quarter, affecting (1) part-time employees, (2) young, aged and female employees, (3) employees with shorter education periods and (4) accommodations, eating and drinking services, transportation and storage, wholesale and retail trade, and manufacturing industries in that order (Figure 4).

Figure 4 Employee attributes found vulnerable to COVID-19 impact in OECD countries

(1) Employment by type, by age and by sex (2009 and 2020, Y/Y change)



(2) Breakdown of Y/Y change in total work hours into factors (2020)



(Source) Figure 4 (1): Compiled based on OECD Statistics. Figures 4 (2) & (3): Compiled based on OECD Employment Outlook 2021, OECD.

Chapter 3 Section 1: Employment Changes and Challenges (Telework)

- According to the Cabinet Office's survey on life consciousness and behaviors under the COVID-19 pandemic, the telework implementation rate rose after the spread of COVID-19. The May 2021 survey indicates that the share declined for respondents citing "almost full telework" while increasing for those combining telework and workplace attendance (Figure 5).
- Telework implementation rate changes are related to job characteristics. For instance, telework is more frequent for less routine jobs (Figure 6).
- Many respondents said that subjective labor productivity decreased when they switched from workplace attendance to telework (Figure 7) because of difficult communications. A shift to work styles combining telework with workplace attendance is seen, indicating that productivity can be expected to rise as communication difficulties are mitigated. From the viewpoint of preventing COVID-19 infections from spreading, some mechanism is required to flexibly increase the telework implementation rate.

Figure 5 Telework implementation rates and frequency by region (regions where employees live)

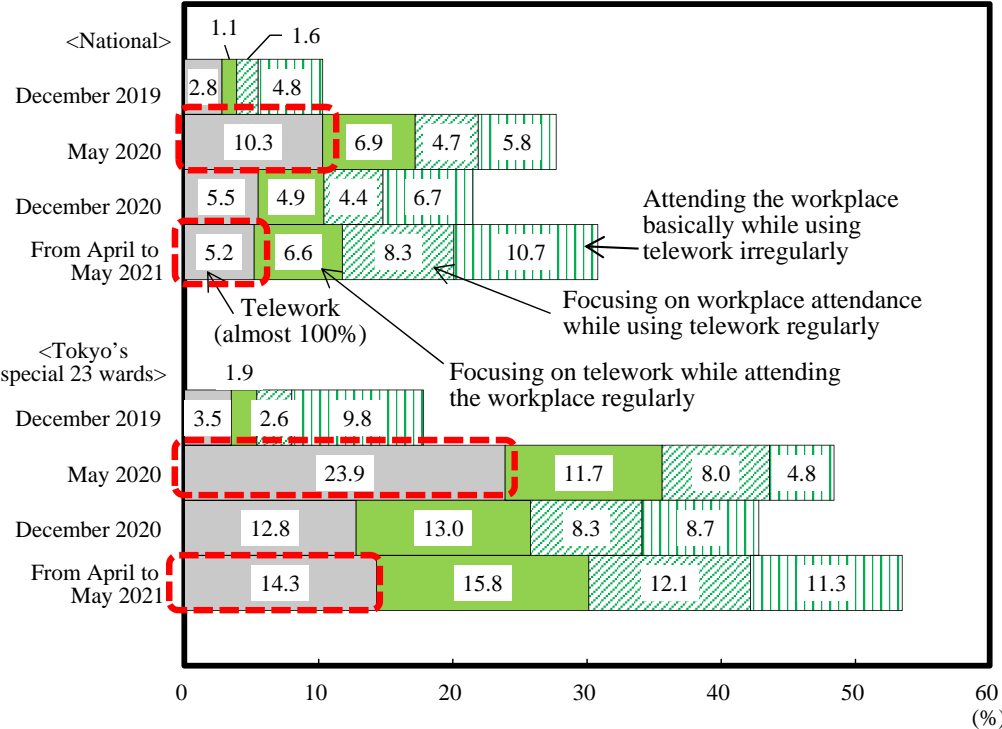


Figure 6 Extent of routine work and telework accessibility

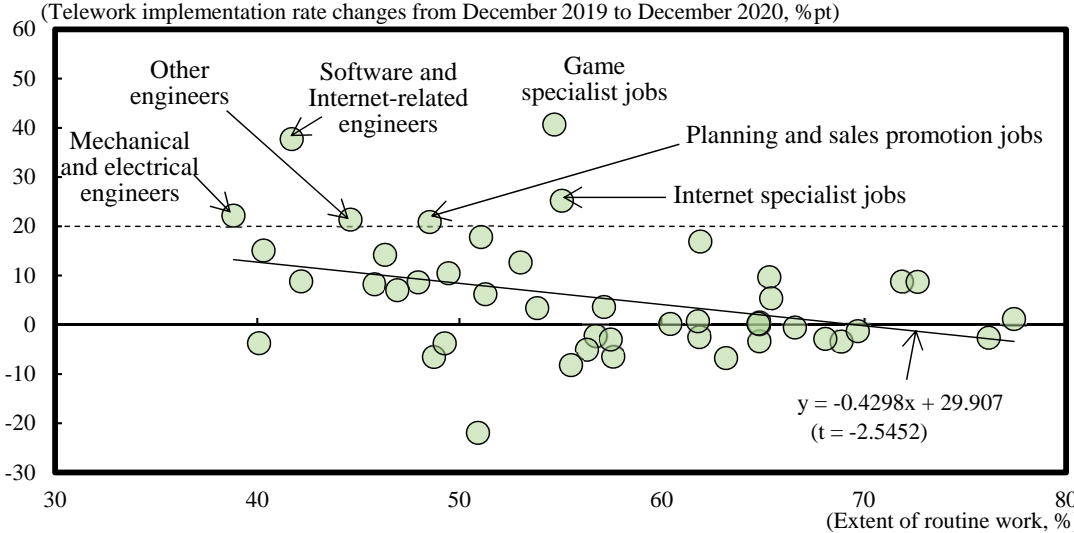


Figure 7 Productivity changes through telework

	(Unit: %)	Down	Up	Unchanged	"Down" - "up" (DI)
Cabinet Office (From April to May 2021)		33.3	11.6	55.1	21.7
PERSOL (January 2021)		64.7	16.6	18.6	48.1
JILPT (3rd) (December 2020)		66.2	12.7	21.1	53.5
Morikawa (June 2020)		82	18		-
Recruit (From April to May 2020)		25.1	9.1	65.7	16

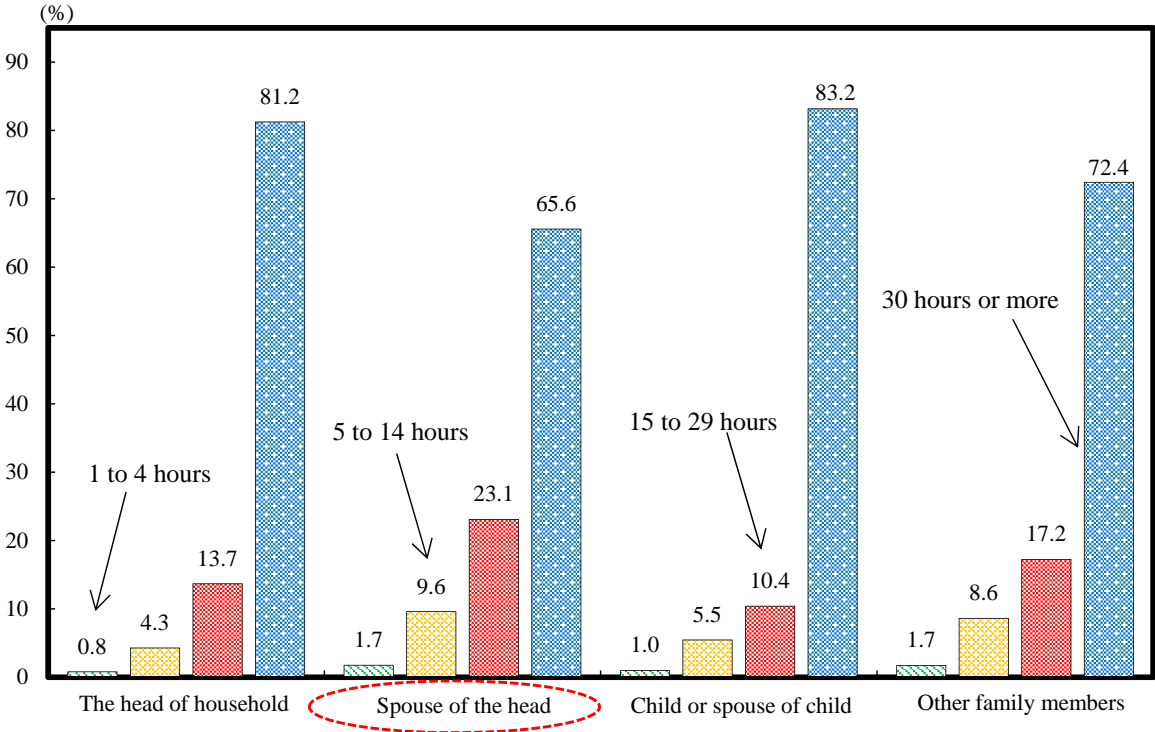
(Source) Figure 5: Compiled based on the 3rd survey on life consciousness and behaviors under the COVID-19 pandemic, Cabinet Office.
 Figure 6: Japanese Panel Study of Employment Dynamics, Recruit Works Institute.
 Figure 7: Compiled based on the 3rd survey on life consciousness and behaviors under the COVID-19 pandemic, Cabinet Office; the 4th emergency survey on the impact of COVID-19 countermeasures on telework, PERSOL RESEARCH AND CONSULTING CO., LTD; the 3rd survey on the impact of COVID-19 infection spread on work and life, Japan Institute for Labour Policy and Training (JILPT); Productivity of telework under COVID-19 crisis – Analysis of survey of employees, Morikawa Masayuki; and Special follow-up survey of Japanese Panel Study of Employment Dynamics, 2020, Recruit Works Institute. Parentheses indicate survey periods.

Chapter 3 Section 2: Challenges regarding Employment (Specific challenges toward employment promotion)

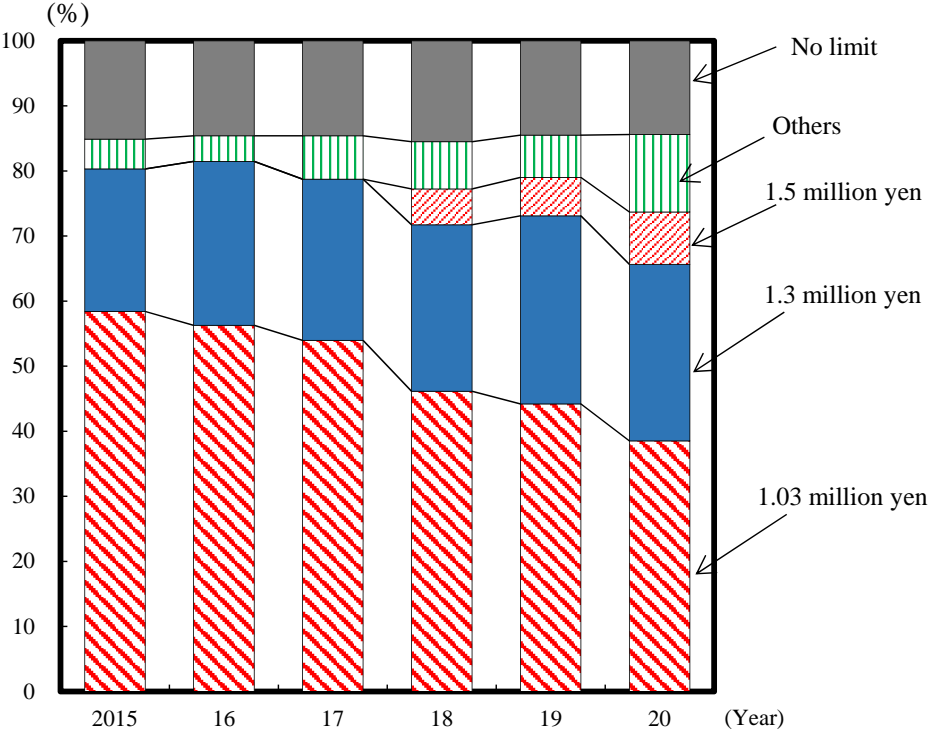
- As the working population declines, aged people and females are expected to become the potential workforce. Among female employees, spouses of householders are dominantly non-regular employees with shorter working hours. It will remain important to reform requirements for spouse allowances and other disincentives for employment and implement the second enhancement of safety nets in view of the spread of COVID-19 in order to make the most of human capital developed through employment experience (Figure 8).

Figure 8 Female employment status

(1) Female weekly work hours by relationship to the head of household (2020)



(2) Income limit for spouse allowances



(Source) Figure 8: Compiled based on Labor Force Survey, MIC, and Survey of Job-by-Job Pay Rates in Private Enterprises, National Personnel Authority.