Survey on Planned Capital Spending for Fiscal Years 2019, 2020 and 2021

(Conducted in June 2020)

Covid-19 to Induce First Negative Growth in Nine Years:
Forward-looking Investment for Digitalization Sees Increase

August 5, 2020

DBJ Development Bank of Japan

Economic & Industrial Research Department

Outline of the Survey

1. Survey subjects

(1) Planned capital spending

Carried out since 1956, the survey provides an overview of capital spending in Japan by analyzing capital spending activity by Japanese firms (domestic non-consolidated; domestic and overseas consolidated). By-industry investment trends, motivating factors, and other items are examined.

(2) Special survey: Mind Survey on Corporate Activities

This survey is conducted to identify the attitudes and perspectives of firms on key current issues.
This year's survey focuses on "investment in a broader sense," including investment in tangible fixed assets, information technology, R&D and M&A in addition to a contingent survey on the business impact of the novel coronavirus (Covid-19).

2. Companies surveyed

The survey covers private corporations capitalized at JPY 1 billion or more, excluding those in the finance and insurance industries.
(For the regional breakdowns, corporations with capital of JPY 100 million up to JPY 1 billion were added.)

3. Survey period

June 22, 2020. Most of the responses to the questionnaire were obtained in June.

4. Response (questionnaires sent to 3,046 firms)

Number of firms giving responses on domestic capital spending: 1,784 (response rate, 58.6%)
Number of firms giving responses on capital spending overseas: 630 (response rate, 20.7%)
Number of firms giving responses for the opinion poll: 1,212 (response rate, 39.8%)

5. Detailed results

Please visit https://www.dbj.jp/investigate/equip/index.html (Japanese only).

Contents

Executive Summary

1. Planned domestic capital spending for FY2020 by major firms (capitalized at JPY 1 billion or over) in industry show an increase of 3.9%, mainly supported by the manufacturing sector. However, actual performance is likely to show the first decrease in nine years, in light of the trend of downward revision to planned figures in recent surveys.

   Domestic capital spending in FY2019 recorded an increase for the eighth consecutive year, up 1.9% overall, led by robust investment for the development of next-generation automobile technology and the enhancement of urban functions.

   Planned spending for FY2020 shows continued spending on the development of next-generation automobile technology and an increase in investment to meet the rising demand for digitalization while being affected by the widespread downward pressure from the Covid-19 pandemic.

2. Characteristics of domestic capital spending in FY2020 identified from the survey results:

   (1) In the manufacturing sector (up 8.1%), continued investment in chemicals, non-ferrous metals and electric machinery for the development of next-generation automobile technology will be accompanied by a rise in spending to meet the increasing demand for digitalization.

   (2) In the non-manufacturing sector (up 1.4%), spending will increase in telecommunications & information for the development of digital infrastructure, in addition to investment in electric power for the maintenance and replacement of facilities. Meanwhile, investment will decline in transportation, real estate and retail due to widespread downward pressure from the Covid-19 pandemic.

3. Planned capital spending overseas shows a decline for the second consecutive year, down 3.6% overall. Although investment in Europe is set to increase in anticipation of rising demand for pharmaceuticals due to the influence of the Covid-19 pandemic, spending in North America will decline, led by transport equipment.

4. Continuing from the previous year, our Mind Survey on Corporate Activities focused on "investment in a broader sense," including investment in tangible fixed assets, information technology and R&D, in addition to a contingent survey on the business impact of Covid-19.

   90% of the firms report a negative impact of Covid-19 and 50% of the firms indicate that they need to review their business operations. As regards constraints on operations due to Covid-19, over 70% of the firms responded that the underdevelopment of remote working environment has restricted their business operations. With regard to information technology investment, the results point to a year-on-year increase in the percentage of firms leveraging artificial intelligence (AI) and the Internet of Things (IoT.) As for R&D, some respondents have high expectations for AI and other digital technologies to improve research efficiency.

Trends in Domestic Capital Spending and the Business Impact of Covid-19

1-1. Trends in Domestic Capital Spending

1-1-1. Trends in Domestic Capital Spending (Overview)

Covid-19 will induce the first negative growth in nine years.

- Domestic capital spending in FY2019 recorded an increase for the eighth consecutive year, up 1.9% overall, led by robust investment for the development of next-generation automobile technology and the enhancement of urban functions.
- Planned spending for FY2020 shows an increase of 3.9%, led by the manufacturing sector. Continued spending in the development of next-generation automobile technology will be accompanied by an increase in investment to meet the rising demand for digitalization. However, the growth will remain in single digits amid the widespread downward pressure from the Covid-19 pandemic. Actual performance is likely to show the first decrease in nine years, in light of the trend of downward revision to planned figures in recent surveys.

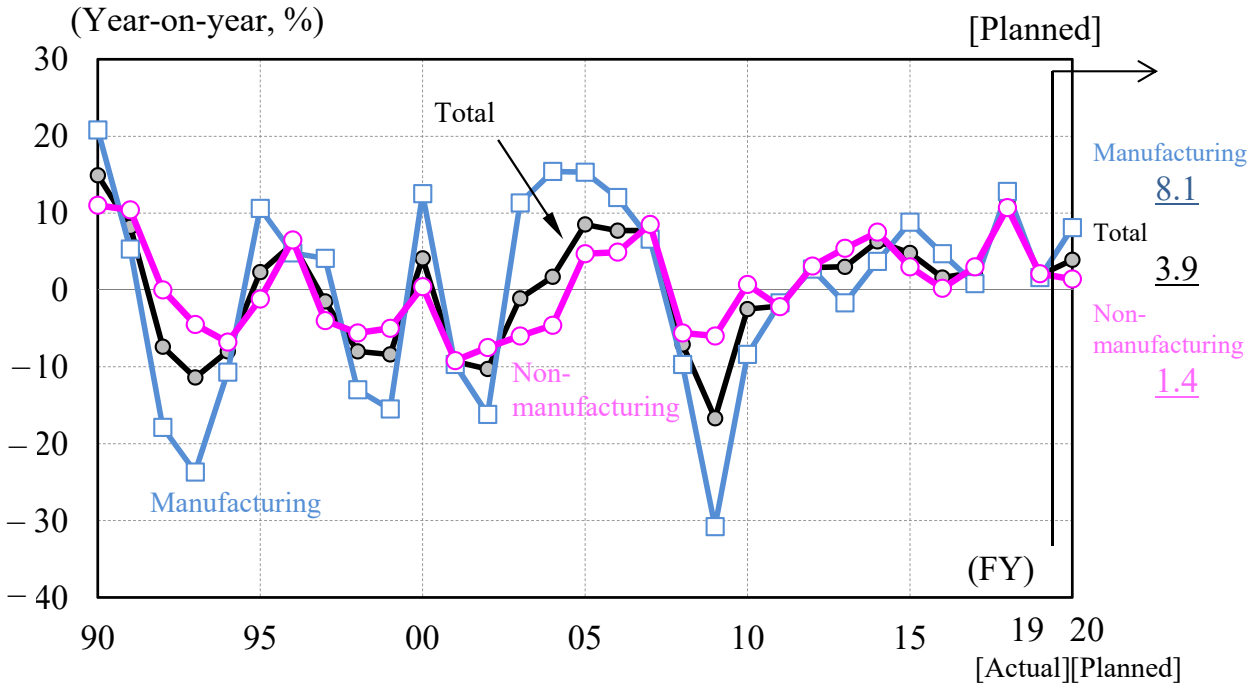
Figure 1-1-1-1. Domestic Capital Spending

(Year-on-year, %)

	FY2019 (actual) (1,752 firms)	FY2020 (planned) (1,784 firms)
Total (excluding electric power)	1.9 [2.3]	3.9 [2.3]
Manufacturing	1.6	8.1
Non-manufacturing (excluding electric power)	2.1 [2.7]	1.4 [-1.5]

Note: Based on the "DBJ Survey on Planned Capital Spending"; the same applies hereinafter unless otherwise noted.

Figure 1-1-1-2. Growth of Capital Spending (FY1990-2020)



1-1-2. Planned vs. Actual Figures

- Recent surveys have seen a common downward revision trend in actual spending versus planned figures for the current fiscal year at an execution rate just above 90%. For FY2019, the rate fell slightly below the average of FY2010-2018.

Figure 1-1-2-1. Capital Spending Growth: Planned vs. Actual (Total)

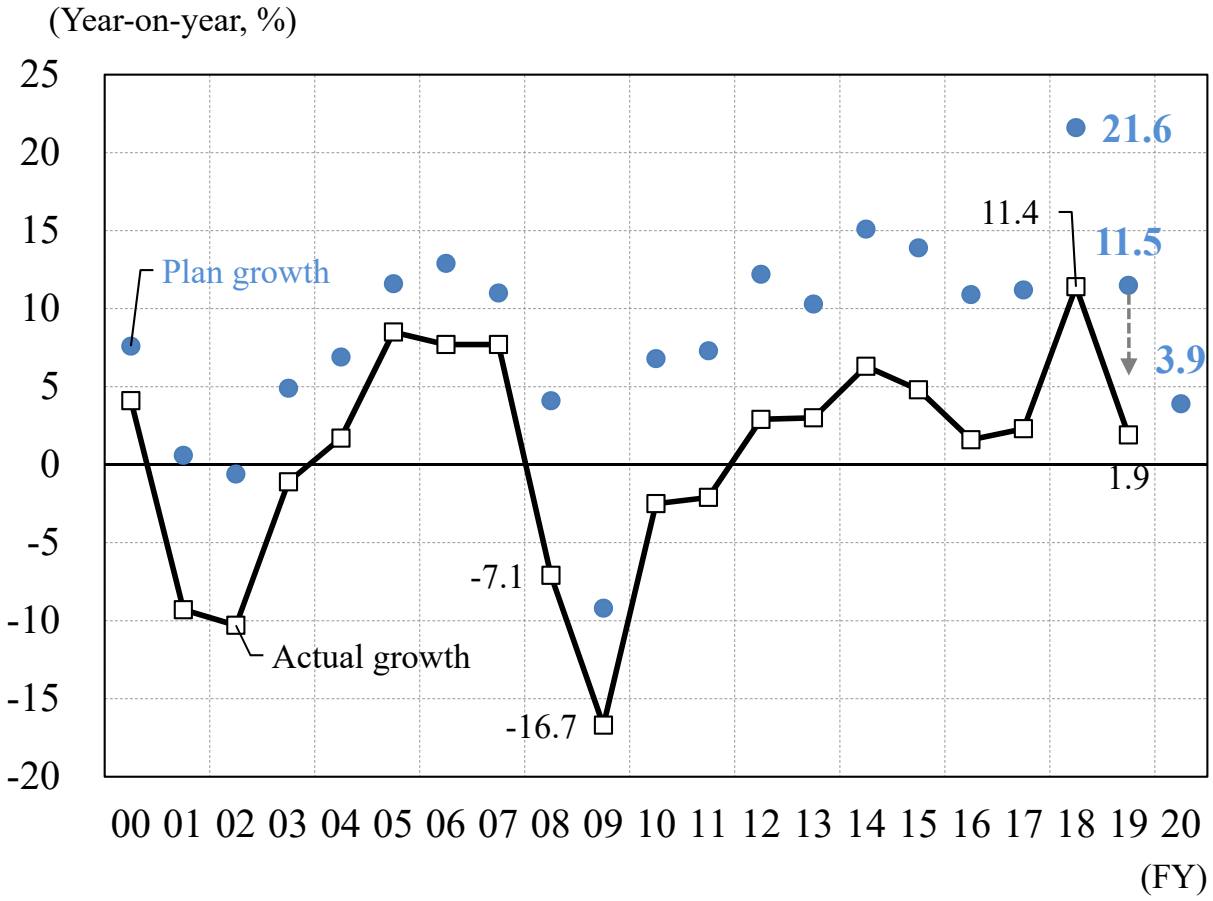
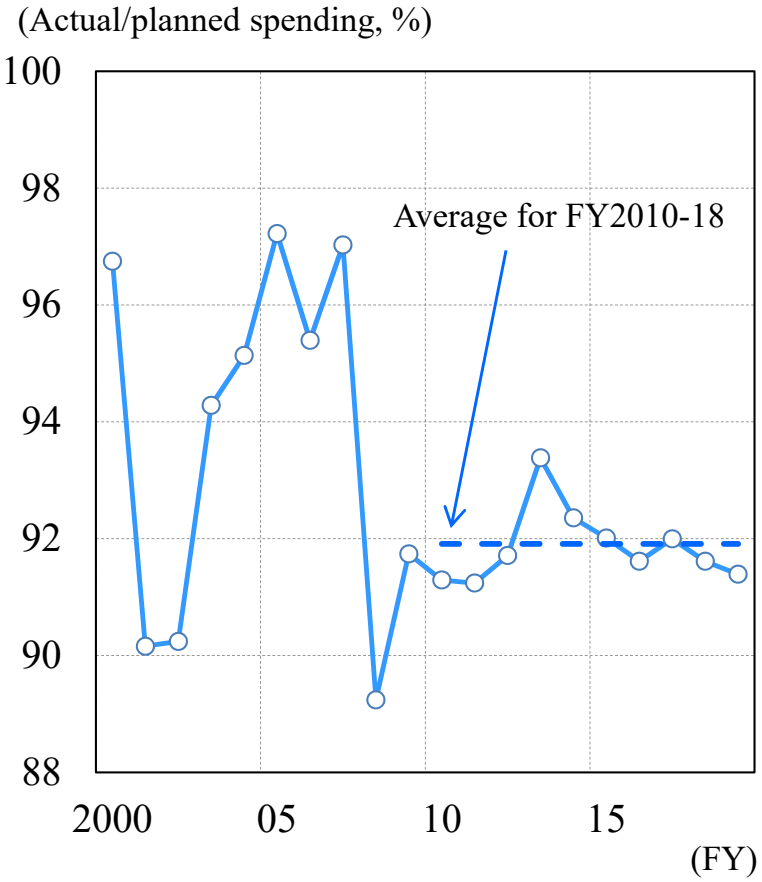


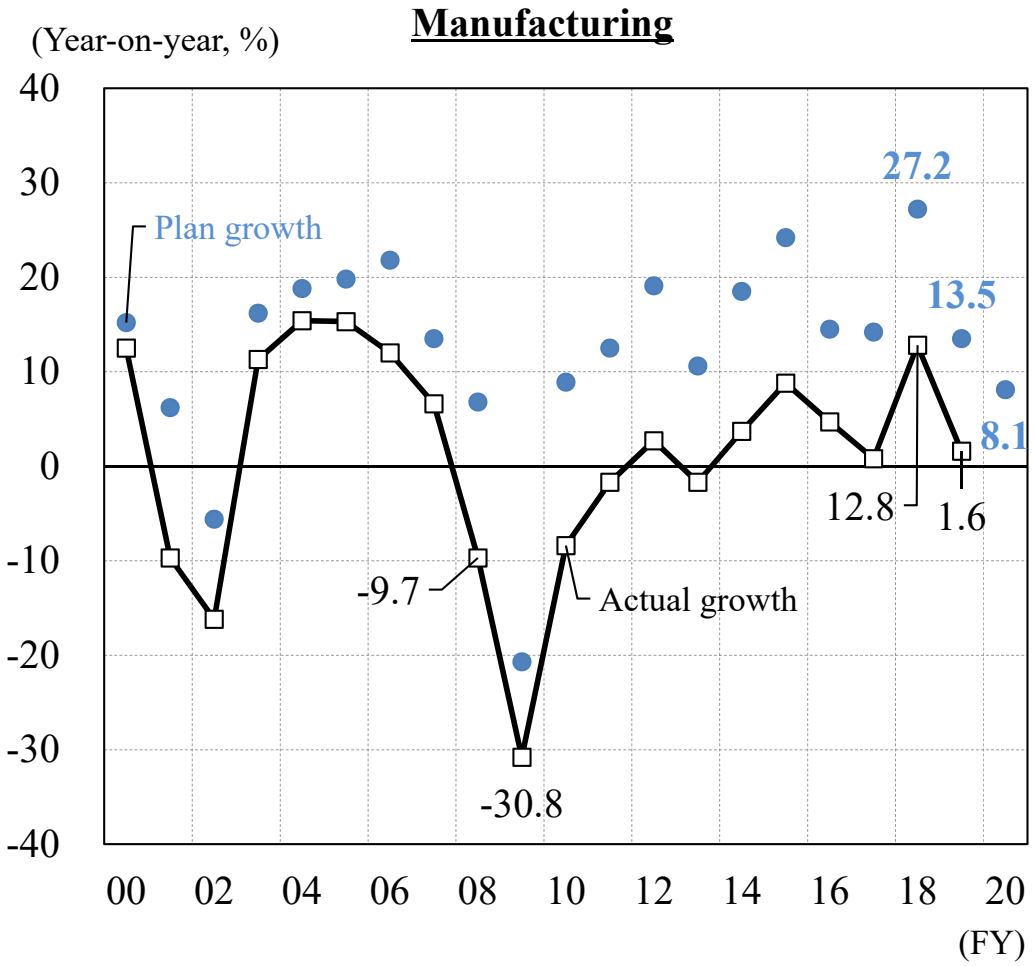
Figure 1-1-2-2. Plan Execution Rate (Total)

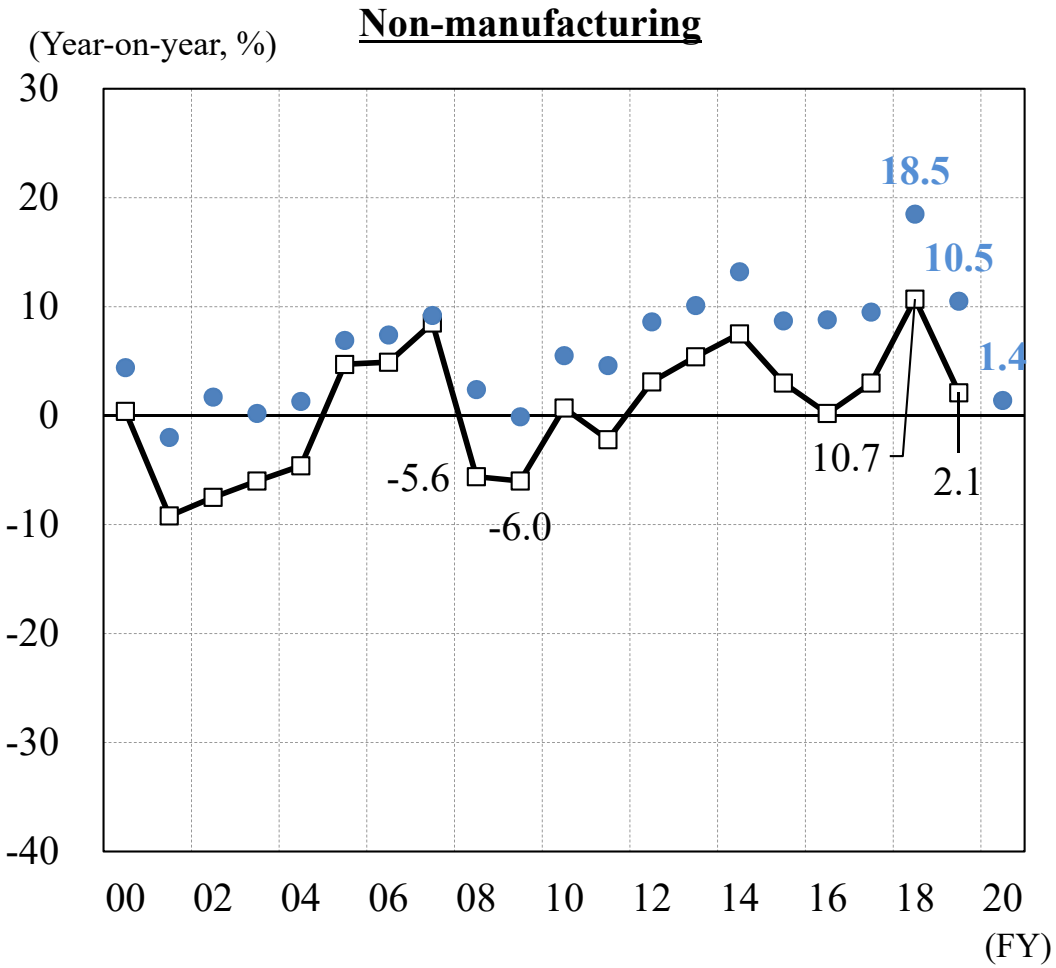


1-1-3. Planned vs. Actual Figures (by Sector)

- In the manufacturing sector, spending in FY2019 was revised downward particularly in transport equipment and electric machinery due in part to the Sino-US trade friction. An above-average downward revision was observed in non-manufacturing, as investment plans were postponed in transportation and electric power & gas in particular.

Figure 1-1-3. Capital Spending Growth: Planned vs. Actual

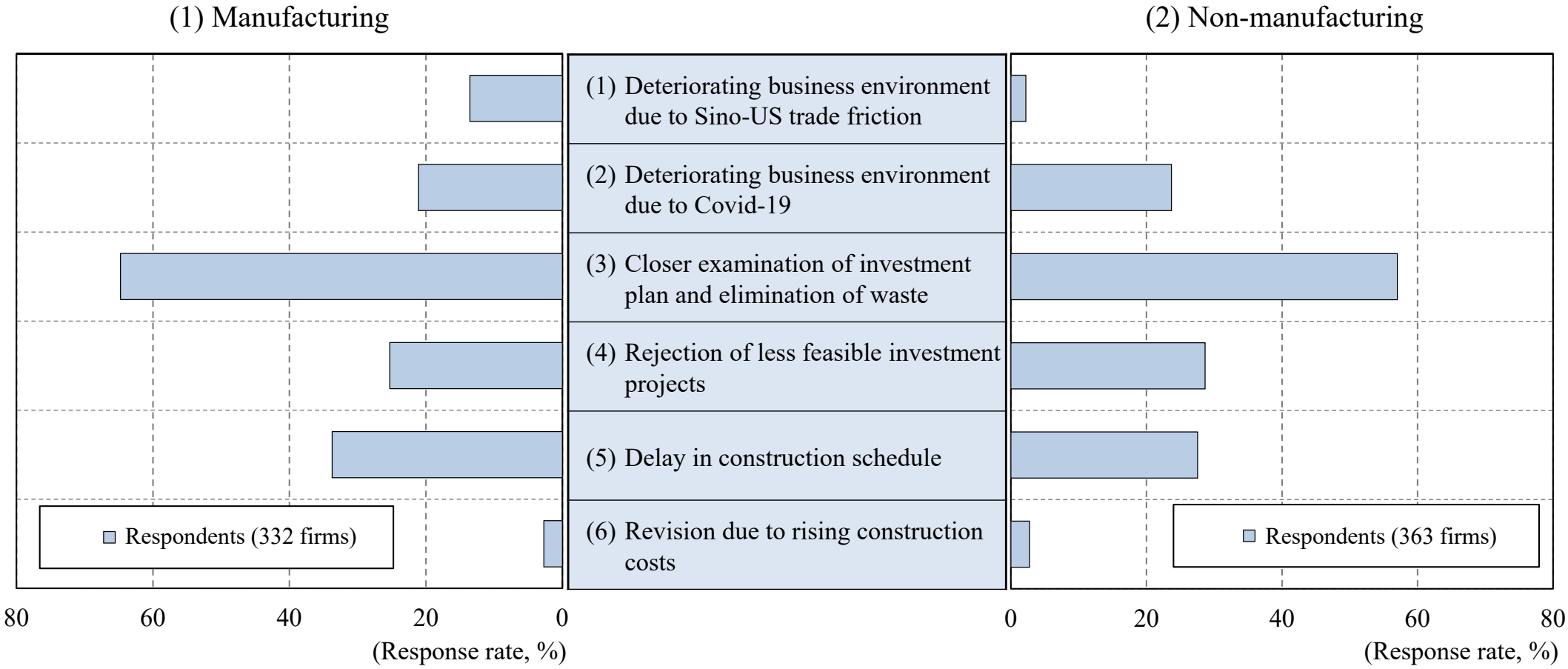




1-1-4. Factors for Downward Revision to Capital Spending in FY2019

- In both the manufacturing and non-manufacturing sectors, planned investment was not fully implemented in many cases, due to closer examination of the investment plan and elimination of waste, as well as delays in construction schedules. 10% of the respondents in the manufacturing industry cited Sino-US trade friction as the factor of the actual underperformance. The impact of the Covid-19 pandemic, which emerged in Jan-Mar 2020, was cited by 20% of the firms as a factor affecting their spending plans.

Figure 1-1-4. Factors for Downward Revision to Capital Spending in FY2019

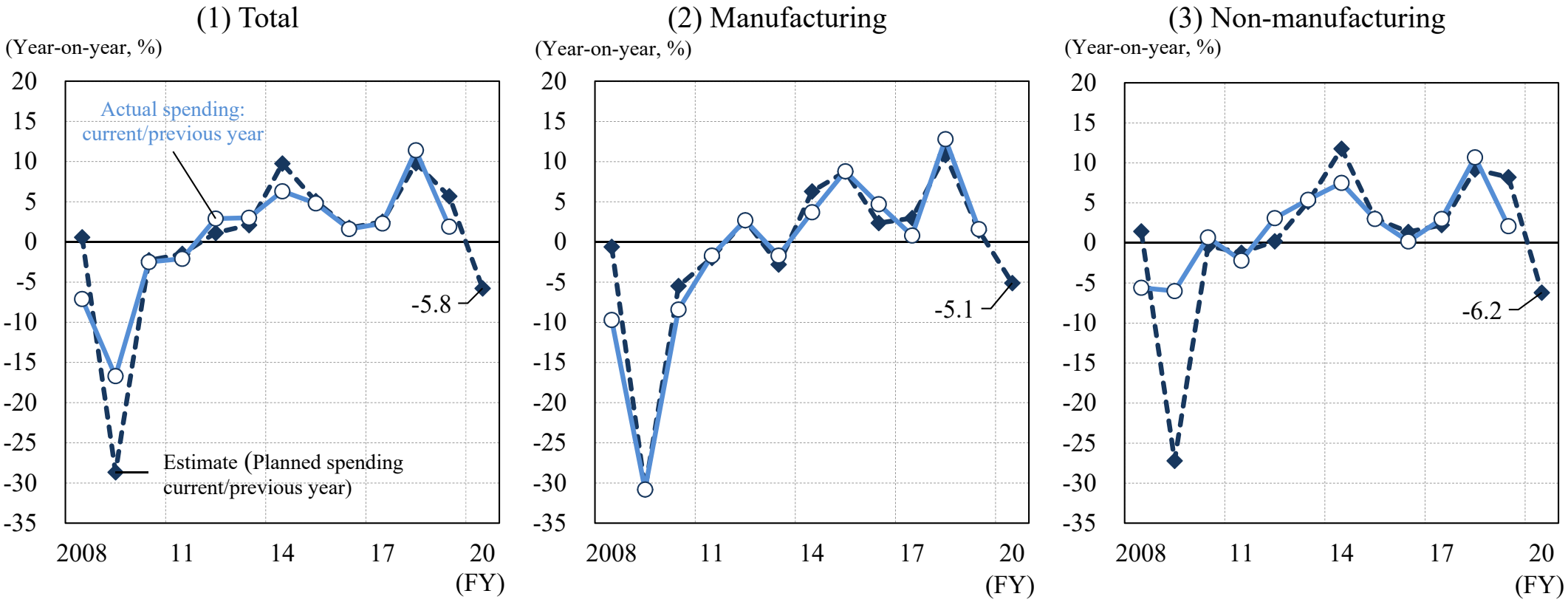


Note: Respondents may choose up to three answers. Data only covers those firms reporting less-than-planned capital spending.

1-1-5. Estimate of Actual Capital Spending

- Experiences from our previous surveys show that the change of actual capital spending on the previous year often approximates the year-on-year change of planned capital spending, effectively serving as a reference for forecasting actual performance.
- An estimation regarding the firms with responses of the planned figures for both FY2020 and FY2019 indicates that actual capital spending in FY2020 will decline 5.8% on the previous year in total.

Figure 1-1-5. Changes in Actual and Planned Capital Spending on Previous Year

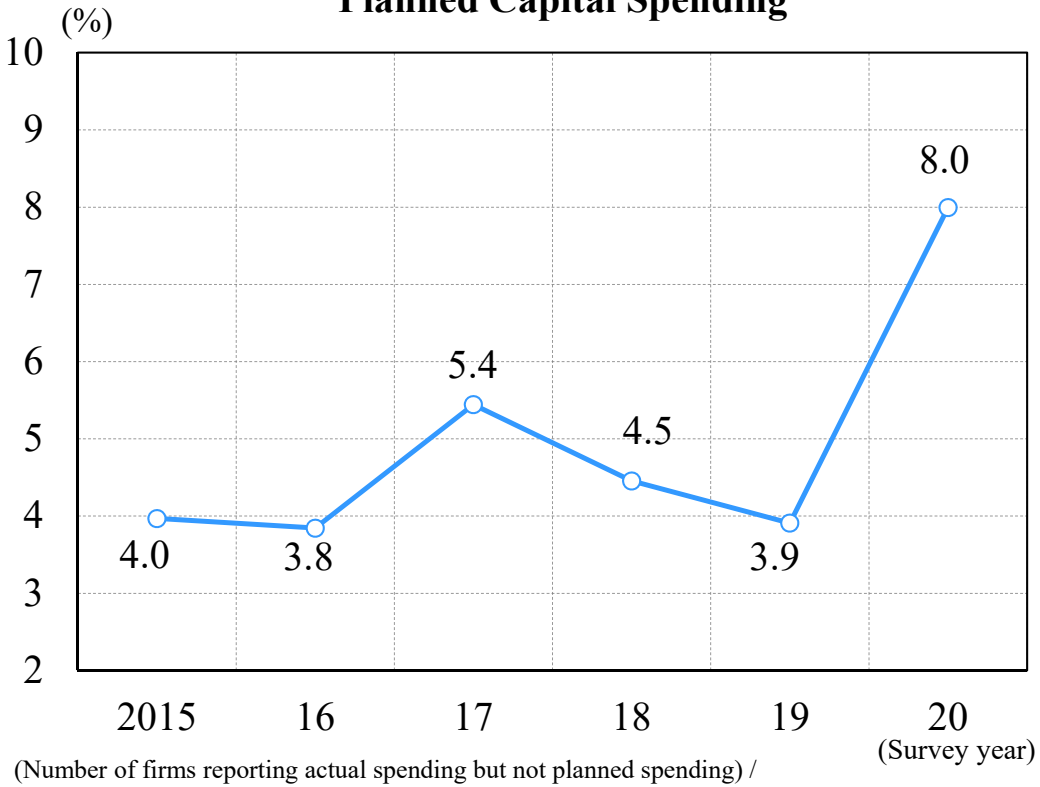


Note: Estimate for FY2009 shows a substantial decline reflecting the discontinuity caused by modification to the lease accounting standards affecting the non-manufacturing sector. Thus, the figure diverges from the actual figure adjusted for the discontinuity.

1-1-6. Share of Firms Not Reporting Planned Capital Spending

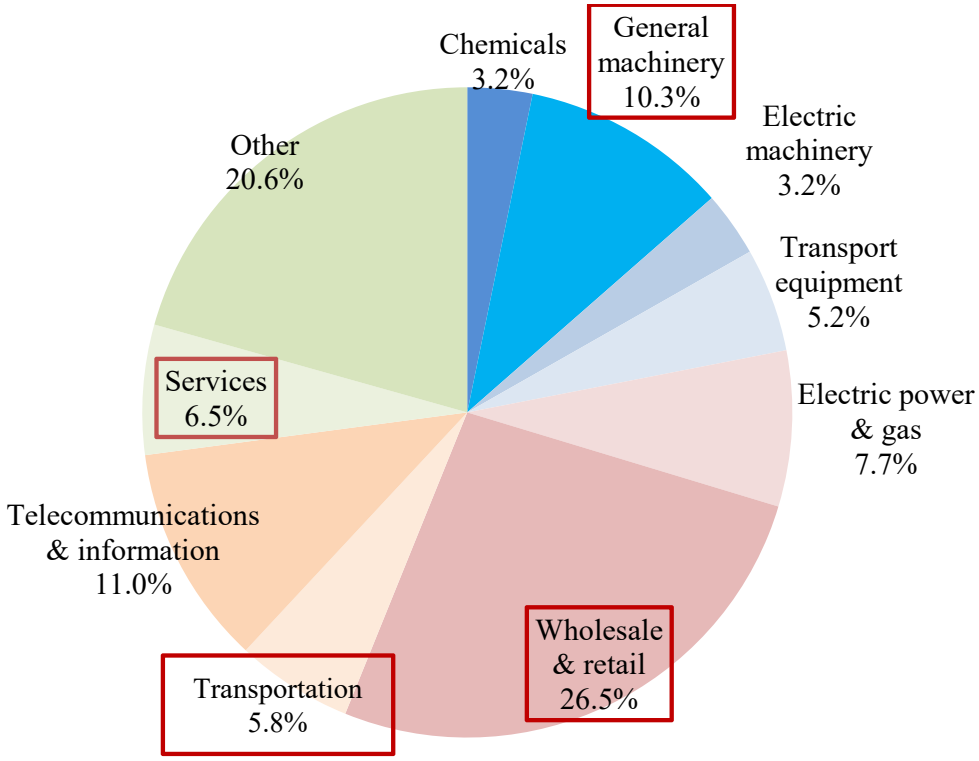
- In this year's survey, as many as 8% of the firms did not report planned capital spending for FY2020 (but did report actual spending in FY2019), citing uncertainties about the impact of Covid-19. If we assume that the planned spending of those non-reporting firms remains unchanged from the previous year, the growth of planned capital spending for FY2020 on the previous year will fall from 3.9% to 3.0%.
- Actually, however, planned capital spending might be even lower than our estimate under the "unchanged" scenario, as many of the non-reporting companies belong to industries reporting a reduction in planned capital spending on the previous year, such as general machinery in manufacturing, and wholesale & retail in non-manufacturing.

Figure 1-1-6-1. Share of Firms Not Reporting Planned Capital Spending



Note: (Number of firms reporting actual spending but not planned spending) / (Number of firms reporting both actual and planned figures + Number of firms reporting actual spending but not planned spending)

Figure 1-1-6-2. Firms Not Reporting Planned Capital Spending for FY2020 (Composition by Industry)



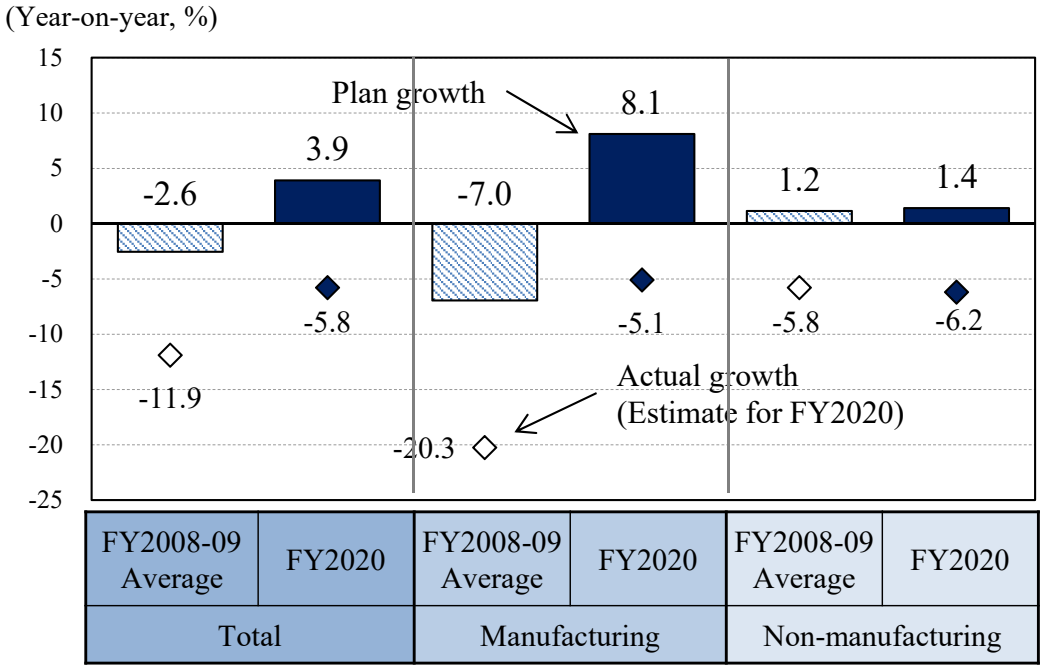
Note: Red squares indicate industries reporting reduced capital spending planned for FY2020.

1-1-7. Comparison with the Global Financial Crisis

Planned spending: Higher growth than during the global financial crisis particularly in manufacturing.

- Planned capital spending for FY2020 shows higher growth than during the global financial crisis, particularly in manufacturing. This may be explained, among others, by the improved financial health of financial institutions and firms, as well as demand for investment to improve longer-term competitiveness, as well as the generation of and increase in spending demand due to the Covid-19 pandemic.

Figure 1-1-7-1. Growth of Domestic Capital Spending
(comparison with data during the global financial crisis)



Note: The global financial crisis was triggered in mid FY2008, hence the adoption of the FY2008-09 average. The figures for FY2020 is the same as the estimate appearing on page 10.

Figure 1-1-7-2. Factors for Larger Planned Spending than during Great Recession

(1) Financial soundness of financial institutions
Unlike during the Great Recession, which was triggered by a financial crisis, financial intermediary functions have not been undermined thus far.

(2) Financial soundness of firms
The long-term economic recovery since the introduction of Abenomics has helped improve corporate financial soundness, particularly among large-sized firms.

(3) Demand for investment from longer-term perspective
Investments to improve longer-term competitiveness, including the development of next-generation automobile technology, are necessary regardless of the economic situation.

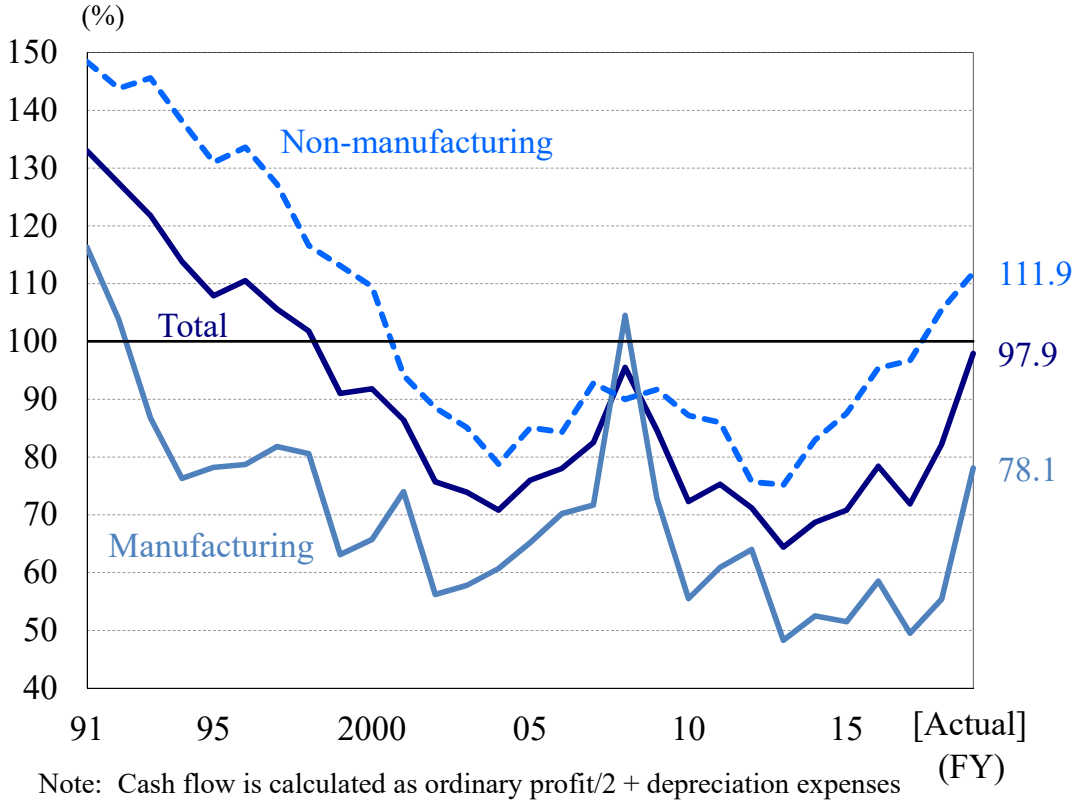
(4) Increased spending demand due to Covid-19
Covid-19 has increased the demand for investment in healthcare and pharmaceuticals while boosting spending demand for digitalization.

1-1-8. Capital Spending/Cash Flow Ratio and DI on Ordinary Profit

Capital spending/cash flow ratio is rising sharply as earnings decline.

- After a mild uptrend in recent years due to the increase in capital spending, capital spending/cash flow ratio rose substantially in FY2019 as ordinary profit plummeted.
- The Diffusion Index (DI) on ordinary profit, which turned negative in FY2019, is expected to deteriorate further in FY2020, exerting downward pressure on capital spending.

Figure 1-1-8-1. Capital Spending/Cash Flow Ratio



Note: Cash flow is calculated as ordinary profit/2 + depreciation expenses (simplified formula assuming an effective corporate tax rate of 50%).

Figure 1-1-8-2. DI on Ordinary Profit

(% pts)

	DI on ordinary profit		
	FY2018 actual 1,056 firms	FY2019 actual 887 firms	FY2020 planned 1,077 firms
Total	2.3	-12.2	-30.4
Manufacturing	-3.8	-19.9	-32.0
Non-manufacturing	6.7	-6.7	-29.2

Note:

DI on ordinary profit =

$$\frac{\text{No. of responses: Profit Increase} - \text{No. of responses: Profit decrease}}{\text{Total valid responses}}$$

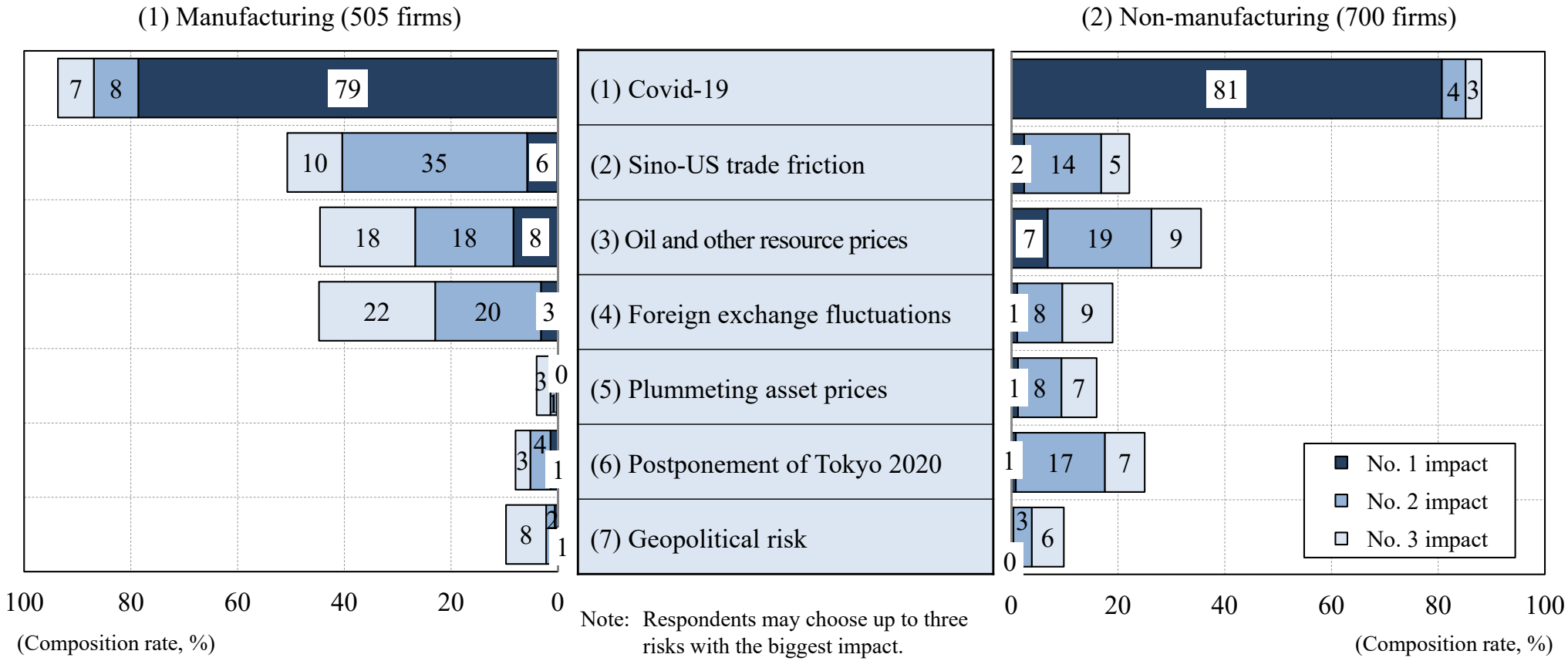
1-2. Business Impact of Covid-19

1-2-1. Business Risks

Covid-19 is widely recognized as a substantial business risk.

- An overwhelming number of the firms cite Covid-19 as a business risk. Other significant business risks include; for manufacturers (2) Sino-US trade friction, (3) oil and other resource prices, (4) foreign exchange fluctuations, and for non-manufacturers (3) oil and other resource prices and (6) postponement of the Tokyo 2020 Olympic and Paralympic Games.

Figure 1-2-1. Business Risks Going Forward



Note: Respondents may choose up to three risks with the biggest impact.

1-2-2. Risk-Induced Postponement of Investments

30% of the firms report postponement of capital spending projects due to Covid-19.

- 30% of the firms report having postponed capital spending projects in view of the Covid-19 pandemic, although 80% of these indicate that the postponed projects may be restarted once the situation returns to normal.
- Firms are less likely to implement those projects that have been postponed due to Sino-US trade friction.

Figure 1-2-2-1. Risk-Induced Postponement of Investments

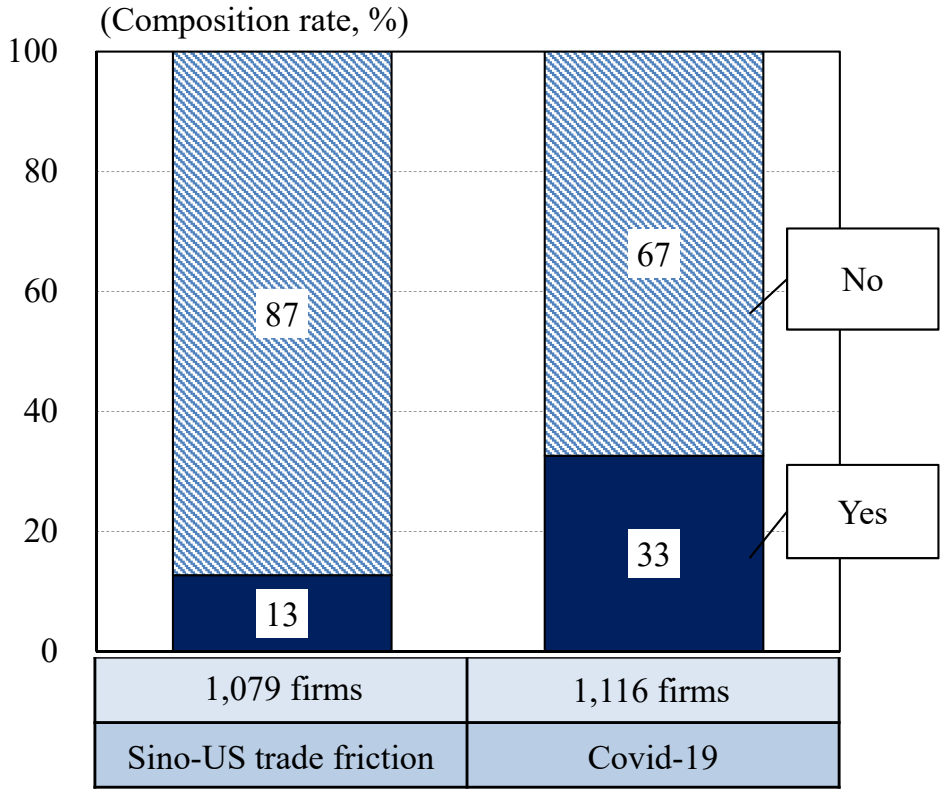
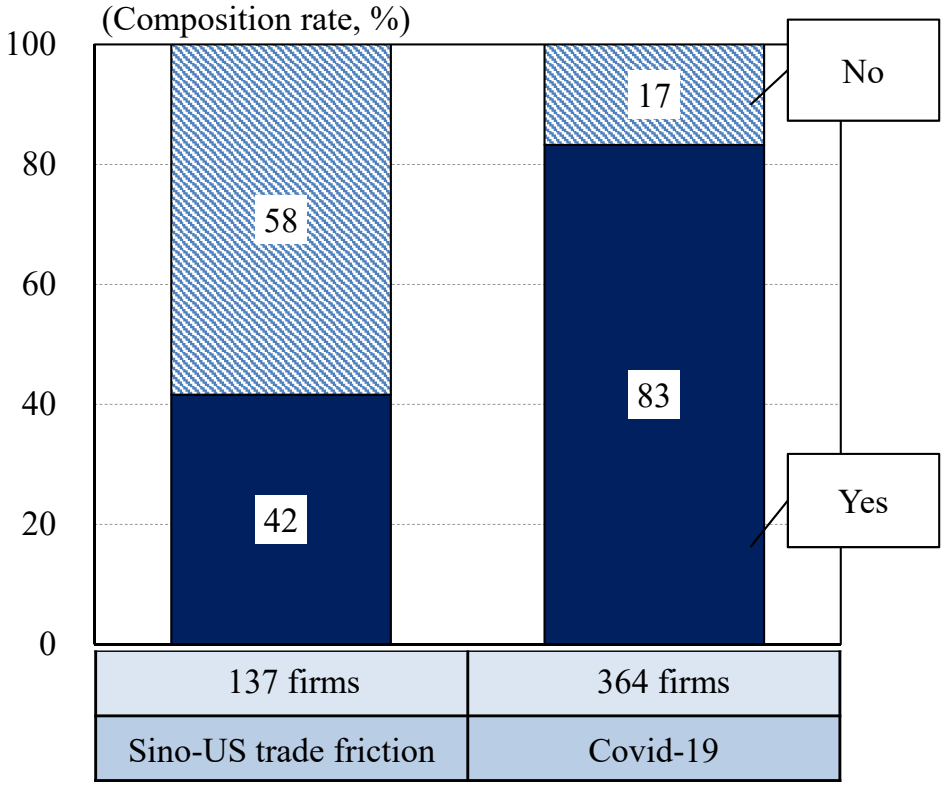


Figure 1-2-2-2. Plan to Implement Postponed Projects as Situation Normalizes



Note: Firms having postponed investment

1-2-3. Business Impact of the Covid-19 Pandemic

90% responded as having a negative impact from the Covid-19 pandemic.

- On the impact of the Covid-19 pandemic, 90% responded as being negative, of which 30% responded as having the biggest negative impact to date. Retail industry is among those responded as having a positive impact.
- Although some 30% of the respondents expect that their revenue will return to the pre-pandemic level in the first half of 2021, many have different views, with a significant number of firms not expecting to recover in the foreseeable future.

Figure 1-2-3-1. Business Impact of the Covid-19 Pandemic

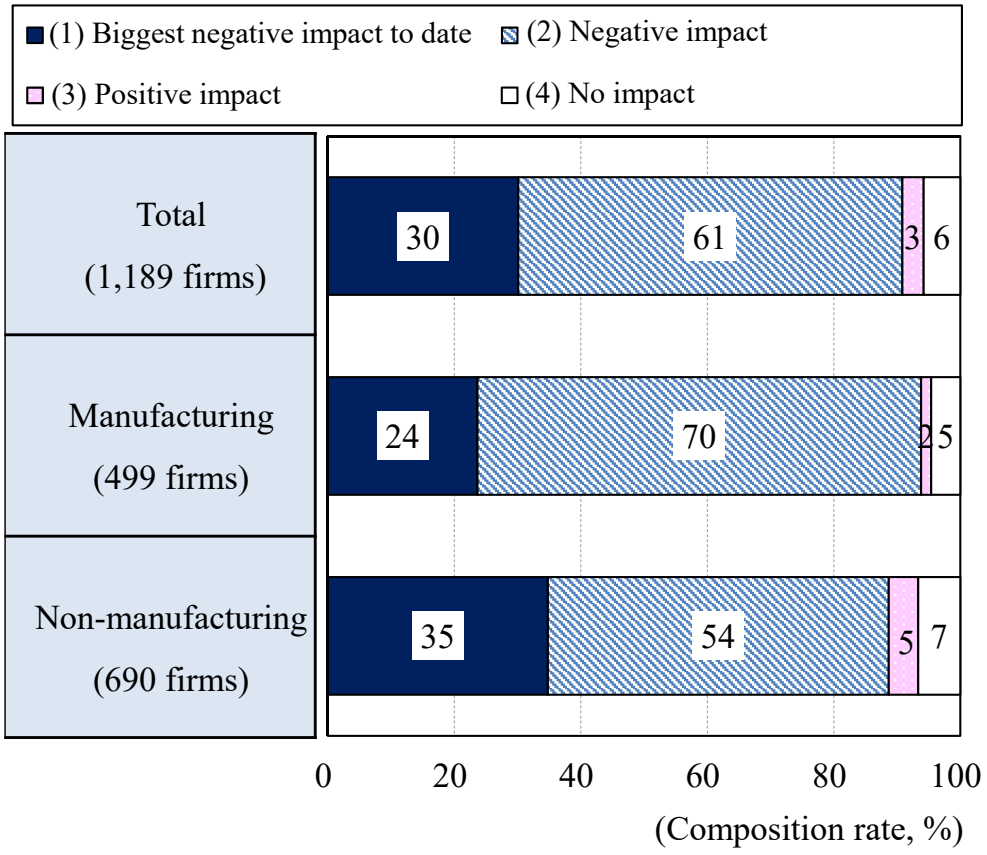
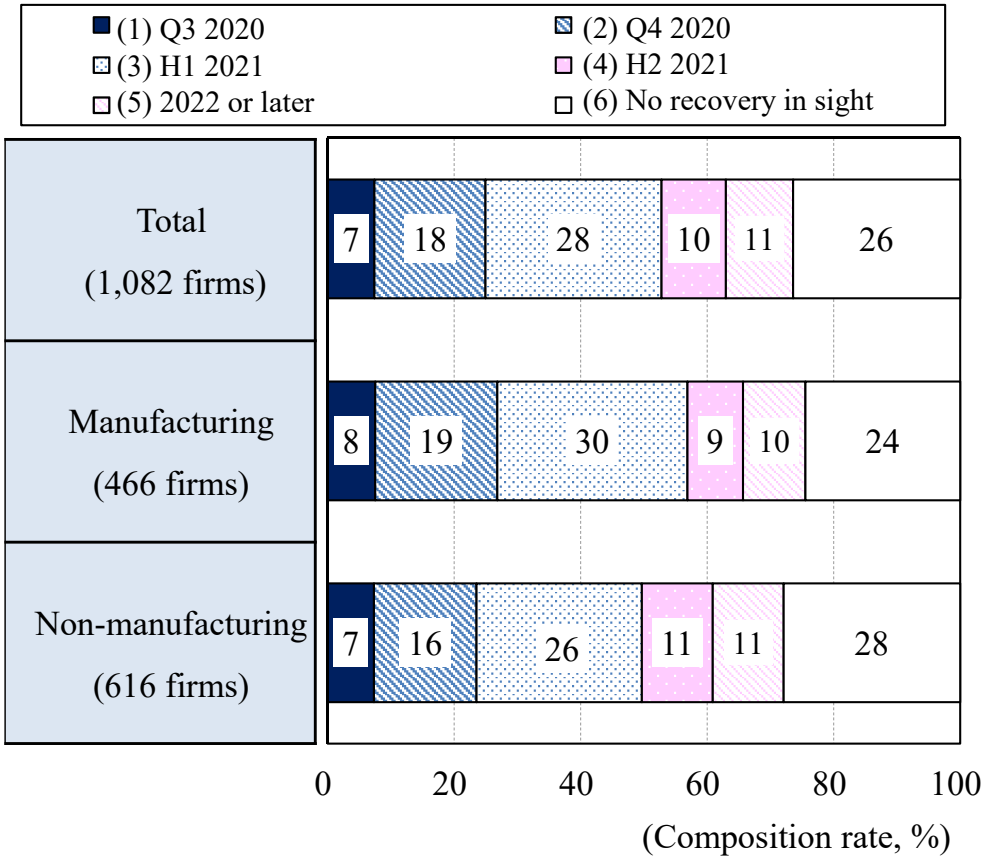


Figure 1-2-3-2. Timing for Regaining Post-Pandemic Revenue

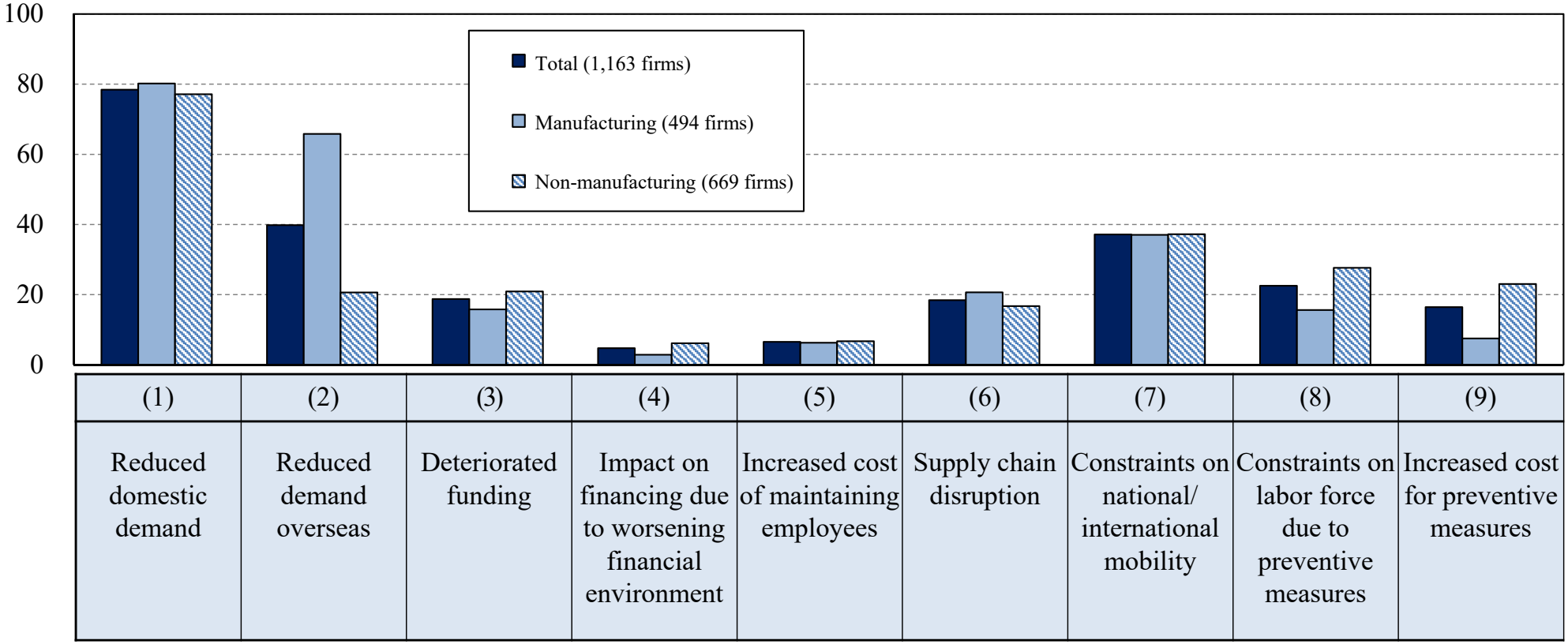


1-2-4. Negative Business Impacts of the Covid-19 Pandemic

Negative impacts range from decrease in demand to constraints on national/international mobility.

- On the negative impacts of the Covid-19 pandemic, 80% cite (1) decrease in domestic demand. Many manufacturers also cite (2) decrease in demand overseas.
- In addition, some 40% of the firms cite (7) constraints on national/international mobility, which implies a negative impact on the supply side along with (8) constraints on labor force due to preventive measures.

Figure 1-2-4. Negative Business Impacts of the Covid-19 Pandemic



Note: Respondents may choose of up to 3 factors. “Other” factors are not listed here due to their insignificant numbers.

1-2-5. Longer-Term Demand Outlook

Over 30% predict reduced demand in the medium to long term due to the Covid-19 Pandemic.

- Although 60% of the firms expect no change in demand, 30% predict reduced demand over the medium to long term. The outlook for future demand is particularly pessimistic in transport equipment in the manufacturing sector, as well as in real estate, transportation and services in the non-manufacturing sector.

Figure 1-2-5-1. Post-Covid-19 Demand Outlook for Products and Services over Medium to Long Term

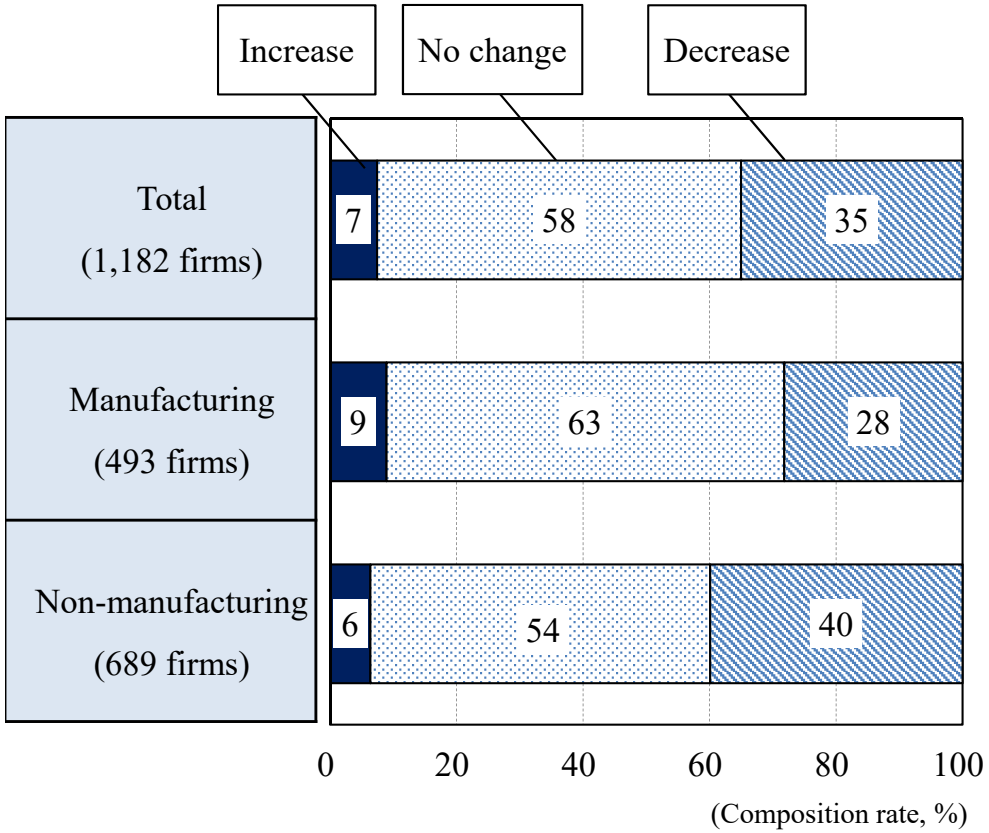
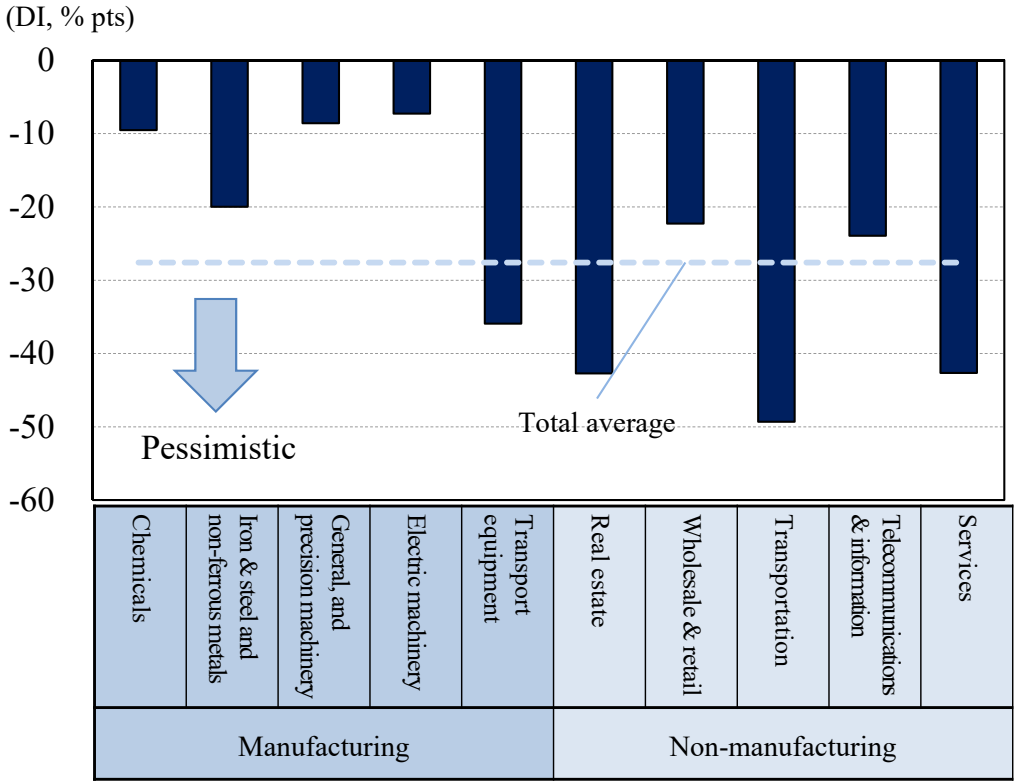


Figure 1-2-5-2. Post-Covid-19 Demand Outlook for Products and Services over Medium to Long Term (DI by Industry)



Note: DI represents (increase – decrease) / total number of respondents.

1-2-6. Necessity to Review Business

50% indicate the necessity to review business operation in view of the Covid-19 pandemic.

- In view of the Covid-19 pandemic, 50% of the firms point to the necessity of reviewing their business operation. On how they should review their business, 50% of the firms cite (1) offer new products and services, while over 30% indicate (5) digitalization of services (contactless technology etc.)

Figure 1-2-6-1. Necessity to Review Business in View of the Covid-19 Pandemic

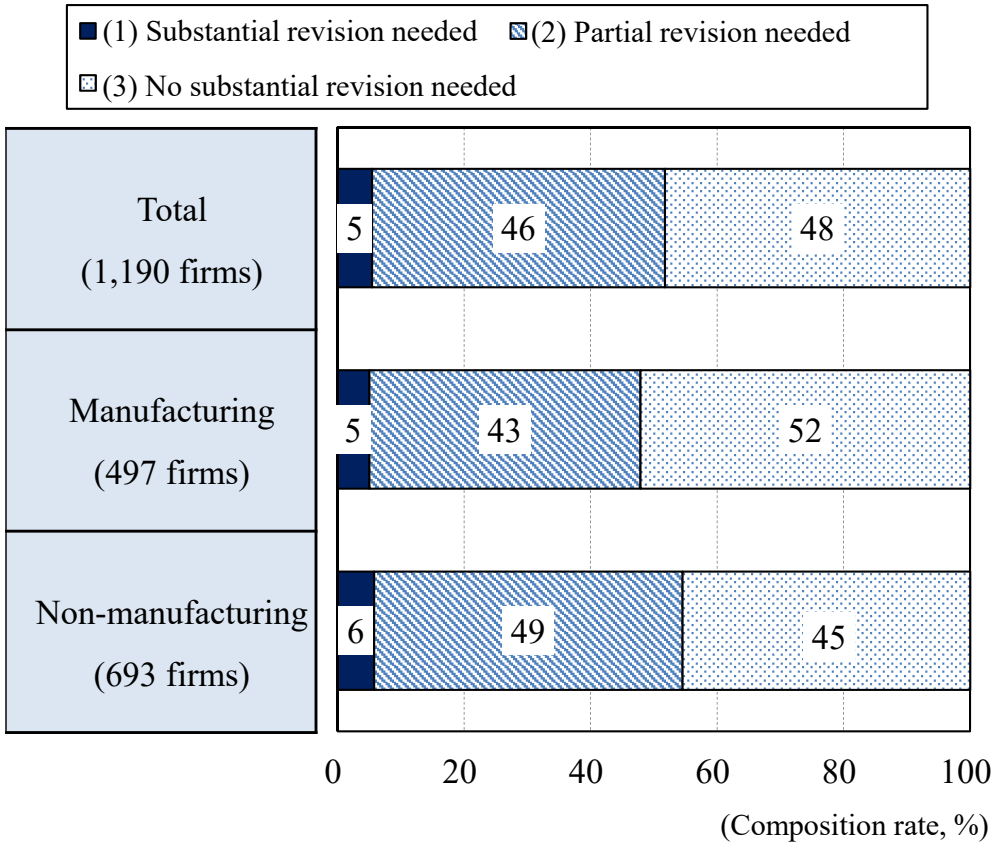
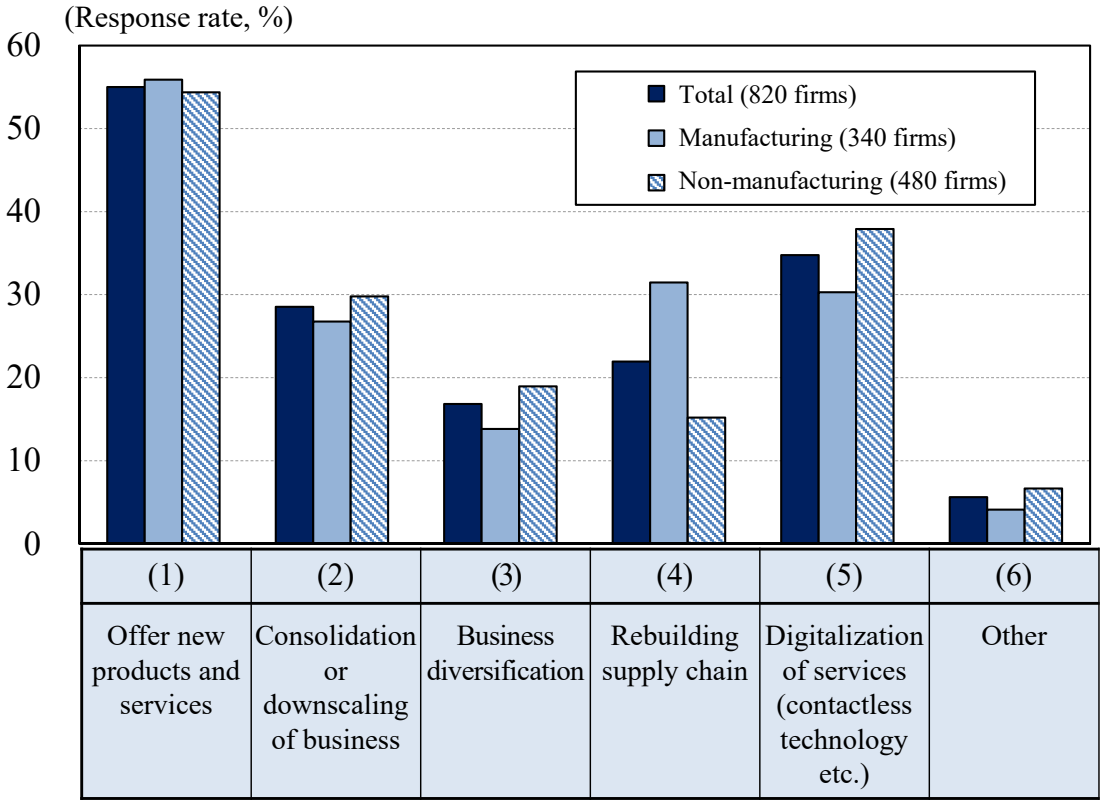


Figure 1-2-6-2. Reviewing Business: Initiatives Envisaged



Note: Respondents may choose up to two items.

2. Trends in Capital Spending by Industry

2-1. Trends in Capital Spending in the Manufacturing Sector

2-1-1. Trends in the Manufacturing Sector (1)

Capital spending for next-generation auto technologies continues in auto and related industries.

- In the manufacturing sector, capital spending growth in transport equipment will remain subdued as demand stagnates partly due to the impact of the Covid-19 pandemic. However, capital spending on the development of next-generation automobile technology to improve competitiveness over the medium to long term will continue in auto and related industries such as chemicals, non-ferrous metals and electric machinery. The Covid-19 pandemic will also boost investment in medical supplies as well as capital spending on electronic materials to meet the increasing demand for digitalization.

Figure 2-1-1. Industries with Greatest Contribution to Planned Capital Spending for FY2020 (Manufacturing)

(%)	Year-on-year	Composition rate	Factors
(1) Chemicals	10.7	19.6	Investment in electronic/battery materials, medical supplies and fast-moving consumer goods (FMCGs)
(2) Petroleum	39.5	4.2	Investment in maintenances/replacements of refineries and in electricity businesses
(3) Non-ferrous metals	33.6	4.3	Investment in semiconductor and battery materials
Reference: Transport equipment	2.2	24.1	Investment in new models and CASE (car connectivity, autonomous or assisted driving, new mobility or car sharing, electrified powertrains and components)
Reference: Electric machinery	7.1	8.3	Investment in sophisticated IoT and electronic parts
Manufacturing as a whole	8.1		

Note: Composition rate is defined as the ratio of actual capital spending by each industry to that of the whole manufacturing sector in FY2019.

2-1-2. Trends in the Manufacturing Sector (2)

Development of next-generation auto technologies will be accompanied by increased investment opportunities resulting from the Covid-19 pandemic

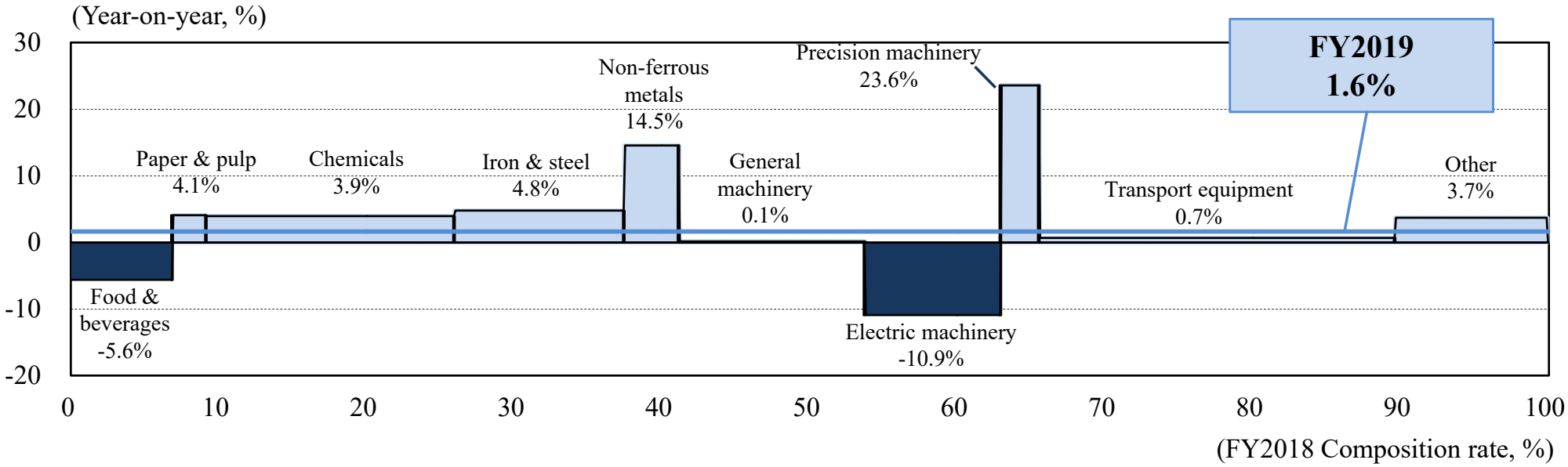
- Capital Spending for the development of next-generation auto technologies will continue in the auto and related industries, such as chemicals and non-ferrous metals for battery materials, iron & steel for lightweight components, and electric machinery for electronic materials. The Covid-19 pandemic is expected to drive investment in semiconductor materials and electronic components to meet the growing demand for digitalization and also in medical supplies and hygiene papers as well as cargo-handling equipment and cardboard in the logistics industry.

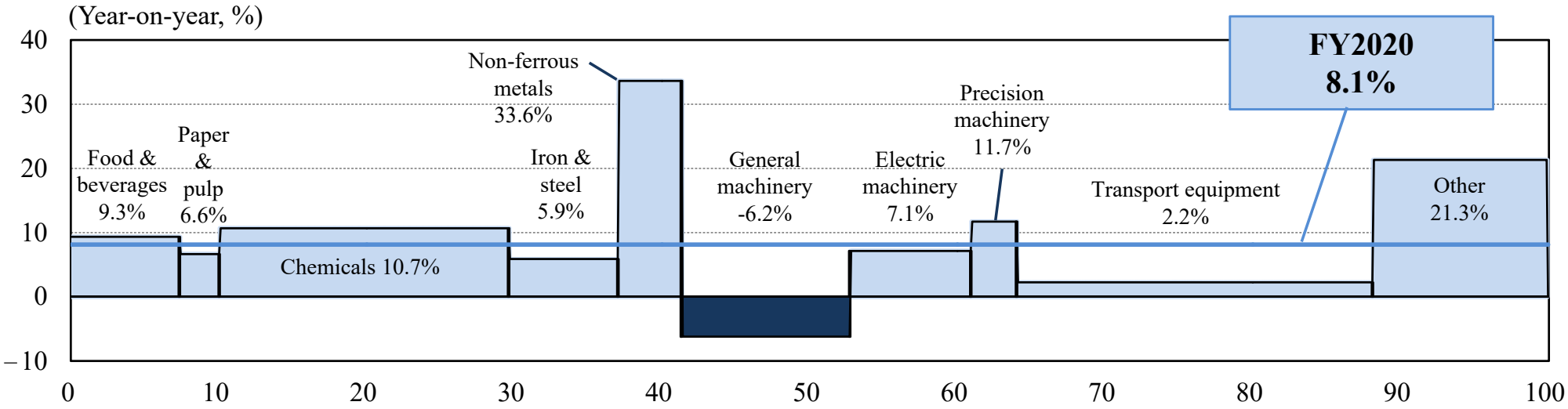
Figure 2-1-2. Areas of Expected Spending Increase in FY2020

		Next-generation auto technologies development	Areas of expected spending increase driven by Covid-19	
			Digital area	Other areas
Capital goods	General machinery			Cargo-handling equipment for logistics facilities
	Precision machinery		Semiconductor manufacturing equipment	Medical equipment
Intermediate goods, components, materials	Paper & pulp			Cardboard, hygiene paper
	Chemicals	Battery materials	Semiconductor materials	Medical supplies
	Iron & steel	Lightweight components		
	Non-ferrous metals	Battery materials	Semiconductor materials	
	Electric machinery	Electronic components		
Final demand	Automobile	CASE, batteries		
	Food & beverages			Home meals and home-meal replacements

2-1-3. Skyline Chart: Manufacturing Industry

Figure 2-1-3. Composition and Growth of Capital Spending, by Major Industry





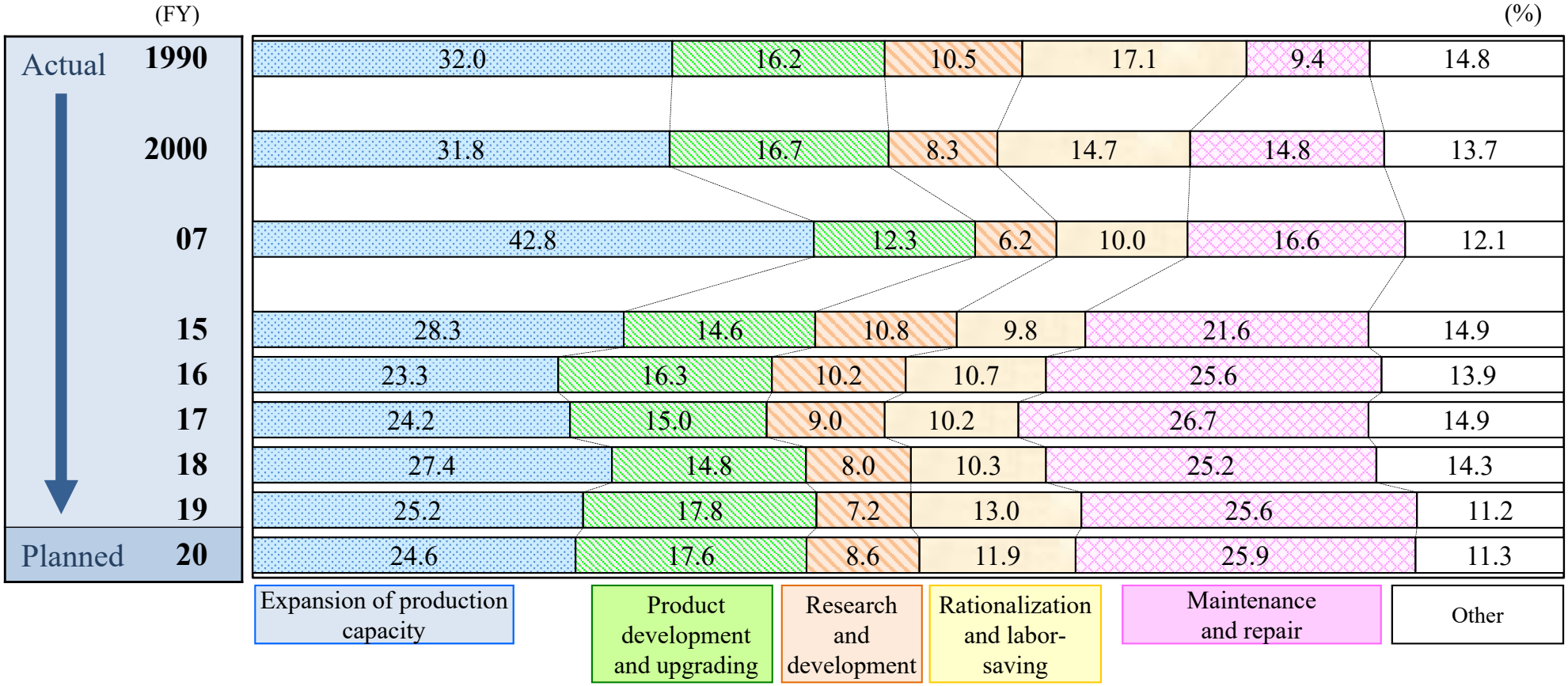
Note: The larger the area, the greater the contribution to total spending.

2-1-4. Investment Motives (Composition)

Expansion of production capacity shows a second straight year of decline as a motive.

- After increasing in FY2018, the share of "expansion of production capacity" will decline for the second consecutive year, while "product development and upgrading" will increase. "maintenance and repair" will retain a substantial share.

Figure 2-1-4. Investment Motives: Manufacturing

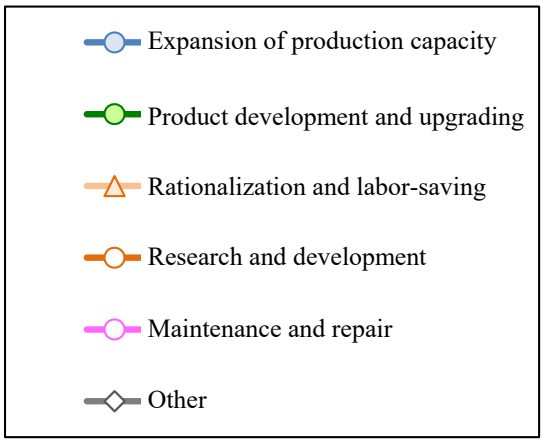


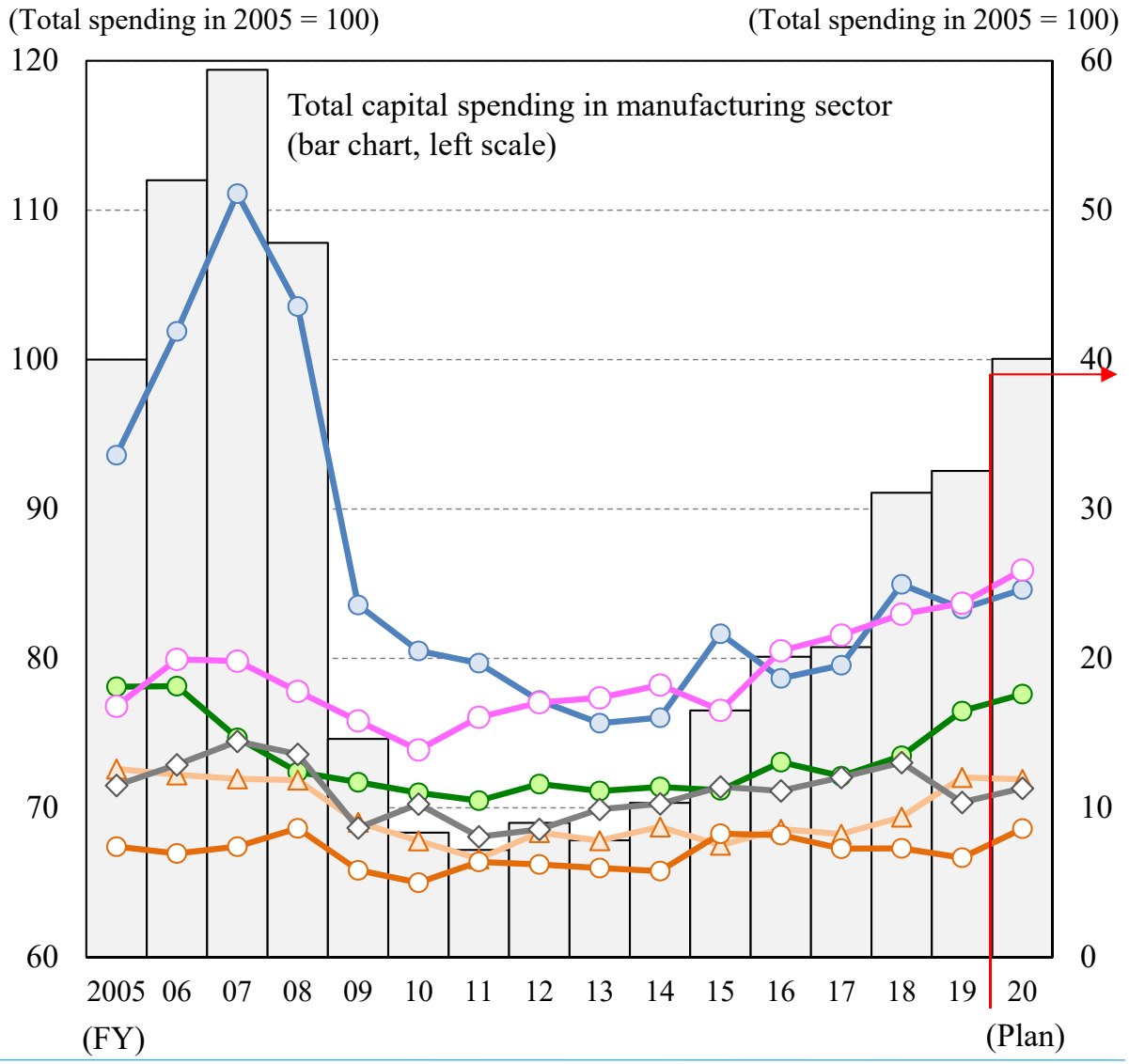
Note: Share of each investment motive in total capital spending, by value.

2-1-5. Investment Motives (Index)

- Investment in “maintenance and repair,” which overtook “expansion of production capacity” in FY2019, is expected to increase further in FY2020.
- Investment in “product development and upgrading” and “rationalization and labor-saving” also follows an uptrend.

Figure 2-1-5. Capital Spending, Historical Index by Investment Motive: Manufacturing





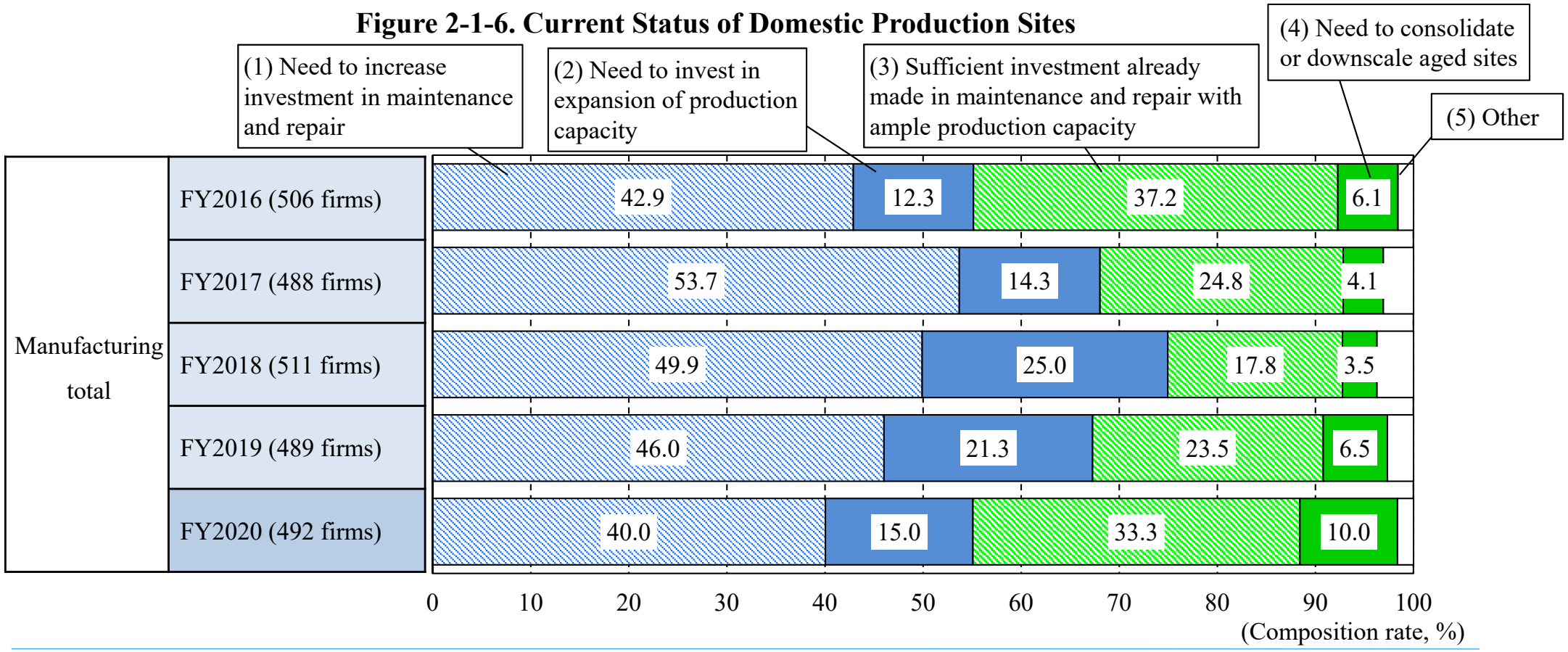
Note: The chart shows capital spending indexed on the total spending in FY2005 in the manufacturing sector. For each year, the capital spending indices (right scale) for individual investment motives add up to the capital spending index for the whole manufacturing sector.

2-1-6. Current Status of Primary Domestic Production Sites

Increase in “ample capacity” or “consolidation or downscaling” reflecting weak demand.

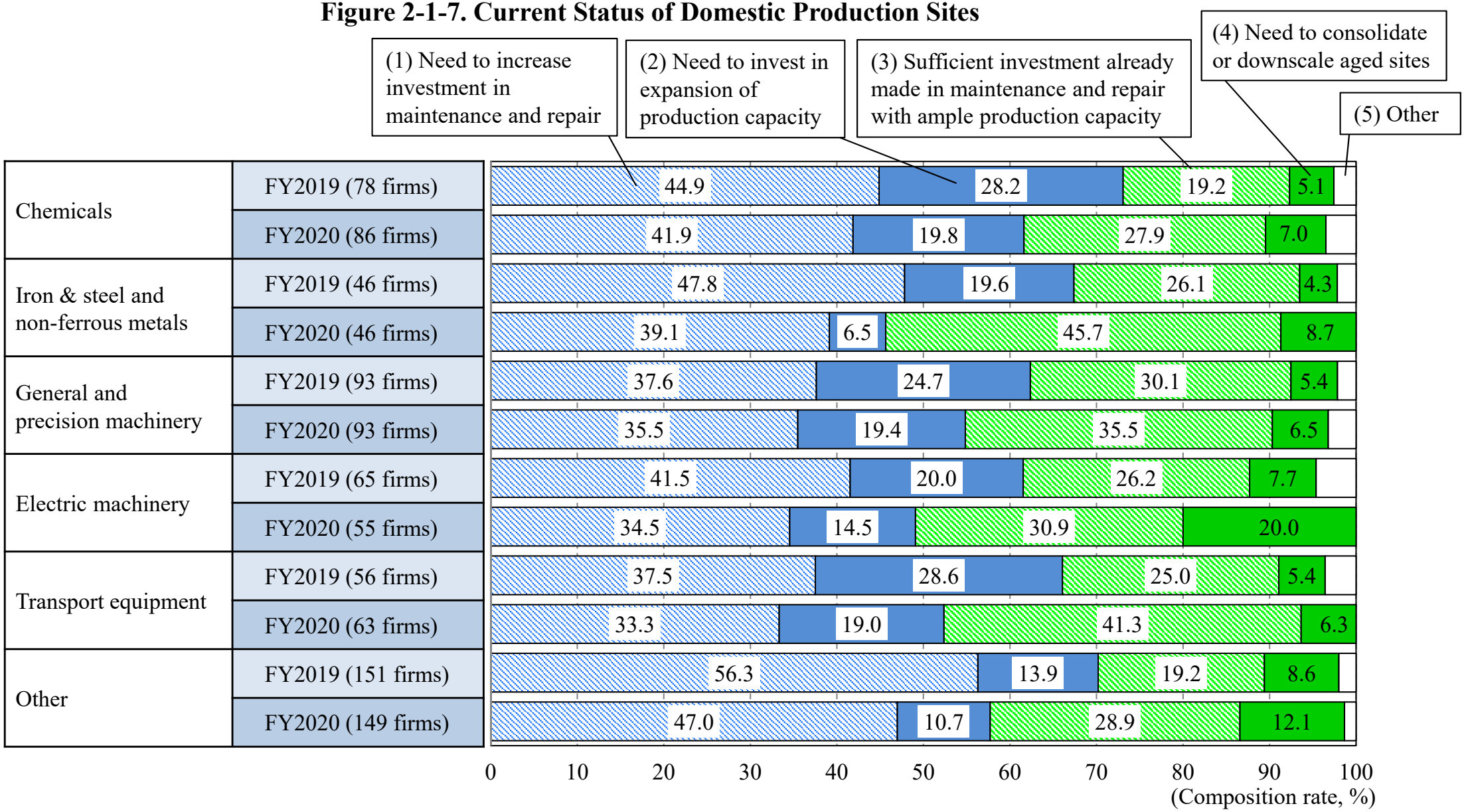
- Although 40% of the manufacturers responded “(1) Need to increase investment in maintenance and repair,” their share shows a decline for the third straight year.
- The share of “(2) Need to invest in expansion of production capacity” shows a decline for the second straight year. Reflecting the current weakness in demand, the answers “(3) Sufficient investment already made in maintenance and repair with ample production capacity” and “(4) Need to consolidate or downscale aged sites” also follow an uptrend.

Figure 2-1-6. Current Status of Domestic Production Sites



2-1-7. Current Status of Primary Domestic Production Sites: Major Industries

Figure 2-1-7. Current Status of Domestic Production Sites



2-2. Trends in Capital Spending in the Non-manufacturing Sector

2-2-1. Trends in the Non-manufacturing Sector (1)

Increased spending in Electric power and telecommunications & information is offset by the completion of Tokyo 2020-related investment projects and the impact of the Covid-19 pandemic.

- Planned capital spending shows an increase in telecommunications & information for the development of digital infrastructure, as well as in Electric power for maintenance and replacement. With growing downward pressure from the Covid-19 pandemic, however, planned capital spending in the entire non-manufacturing sector only shows lower single-digit growth, as investment is set to decline in transportation, real estate and retail partly due to the completion of Tokyo 2020 Olympic and Paralympic Games-related investment projects.

Figure 2-2-1. Industries with the Greatest Contribution to Planned Capital Spending for FY2020: Non-manufacturing

(%)	Year-on-year	Composition rate	Factors
(1) Electric power & gas	25.9	12.0	Increased spending on maintenance, replacement and safety improvement in power plants
(2) Telecommunications & information	7.3	18.6	Increased investment in the development of base stations and networks for 5G, as well as in data centers
Reference: Transportation	-2.2	31.6	Completion of large-scale investment projects in airports and logistics facilities and reduced aircraft procurement
Reference: Real estate	-2.2	16.0	Completion of large-scale development projects in central Tokyo
Reference: Wholesale & retail	-8.7	8.1	Reduced outlet investment
Non-manufacturing as a whole	1.4		

Note: Composition rate is defined as the ratio of capital spending by each industry to that of the whole non-manufacturing sector in FY2019.

2-2-2. Trends in the Non-manufacturing Sector (2)

Capital spending will be restrained in response to falling demand due to the Covid-19 pandemic and large investment for development projects in anticipation of Tokyo 2020 will see completion.

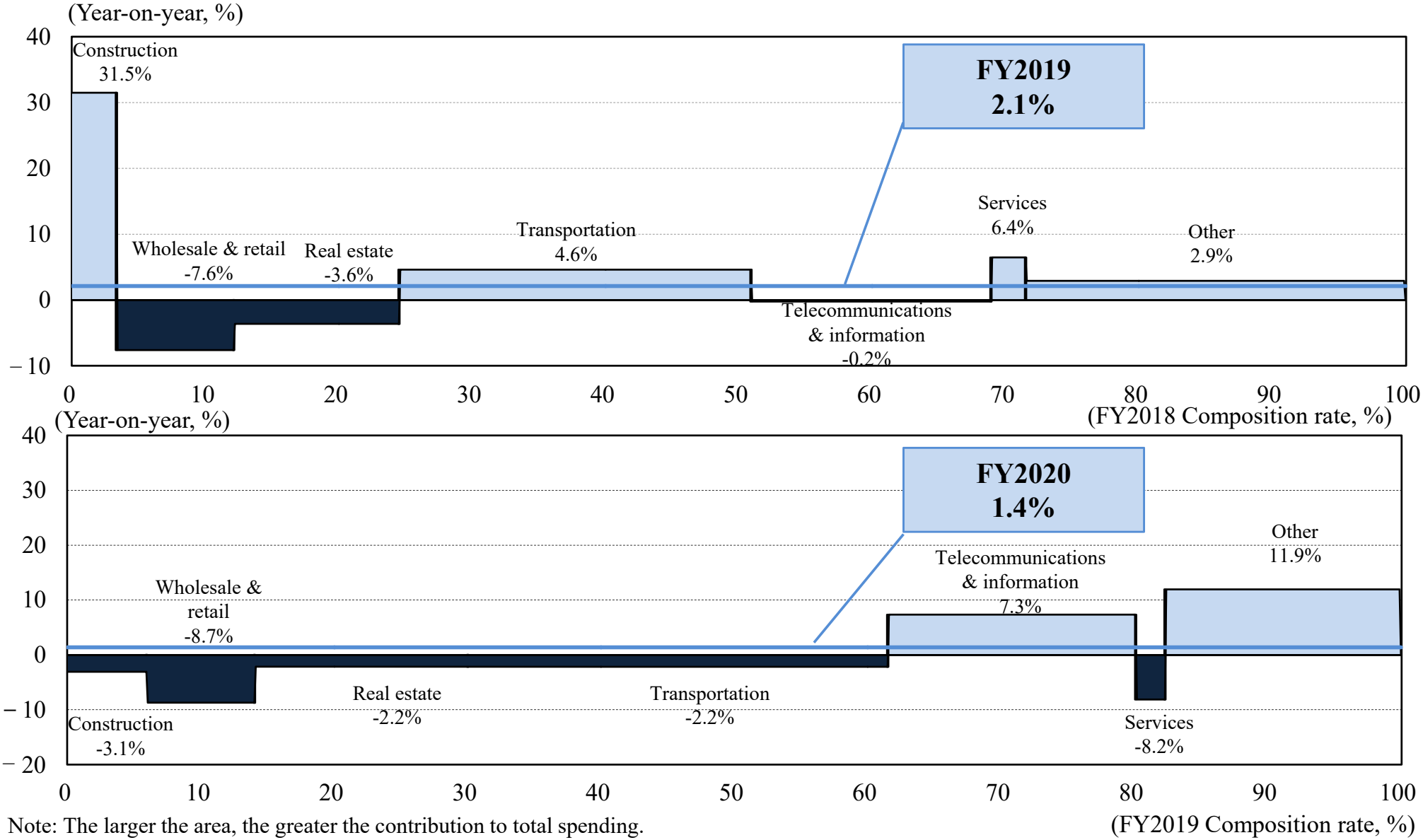
- Investment in logistics facilities will continue during the Covid-19 pandemic, driven by increased demand for e-commerce. At the same time, rising demand for digitalization will drive capital spending in telecommunications & information on 5G networks and data centers.
- Meanwhile, retail outlet investments will be restrained in response to falling demand due to the Covid-19 pandemic, and investments in real estate will decline from the completion of large complex facility development projects in central Tokyo in anticipation of the Tokyo 2020.

Figure 2-2-2. Investment Objectives and Developments toward Post-Covid-19/Tokyo 2020 Era in Non-manufacturing

Investment objective		Response to labor shortage	Regeneration and upgrading of urban areas	Response to inbound tourists
Developments toward post-Covid-19/Tokyo 2020 era		Reduced demand to alleviate labor shortage (excl. logistics experiencing increased demand for e-commerce)	Completion of large investment projects in anticipation of Tokyo 2020	Completion of large investment projects in anticipation of Tokyo 2020, amid worsening prospects for inbound tourism
		Rising demand for digitalization		
Impact on industries	Telecommunications & information	Increased capital spending on digital infrastructure development (5G networks, data centers) ↑		
	Transportation, etc.	Continued development of logistics facilities ↑	Continued measures for increasing speed and safety/disaster prevention for railways →	Completion of investment in airport facility development ↓
	Retail, real estate, services	Restrained investment in retail stores ↓	Completion of large complex facility development projects in central Tokyo ↓	Completion of investment projects for theme parks and hotels ↓

2-2-3. Skyline Chart: Non-manufacturing Industry

Figure 2-2-3. Composition and Growth of Capital Spending, by Major Industry



Note: The larger the area, the greater the contribution to total spending.

2-2-4. Characteristics of FY 2020 Planned Capital Spending by Industry

Manufacturing

- Food & beverages (-5.6% → 9.3%)
  Spending will increase for rationalization and production capacity expansion in response to the rising demand for healthy lifestyles, and for home meals and home-meal replacements.
- Chemicals (3.9% → 10.7%)
  Spending will increase for the third consecutive year, led by continued investment in high-tech goods such as electronic/battery materials, medical supplies and FMCGs.
- Petroleum (9.8% → 39.5%)
  Spending will increase for the fourth consecutive year, led by maintenance and rationalization investment in refineries, as well as electricity businesses.
- Iron & steel (4.8% → 5.9%)
  Spending will increase, driven by investment to add value to automobiles, including through weight saving.
- Non-ferrous metals (14.5% → 33.6%)
  A substantial investment increase is expected in a wide range of industries including automobiles, electronic equipment and semiconductors.
- General machinery (0.1% → -6.2%)
  Spending is expected to decline for the first time in four years, with the postponement of aircraft- and auto-related investment projects.
- Electric machinery (-10.9% → 7.1%)
  Spending will increase, led by investment in IoT upgrading and increased production of electronic components for automobile electrification.
- Precision machinery (23.6% → 11.7%)
  Spending will increase for the sixth straight year, driven by R&D investment in medical equipment, despite the completion of new plant construction projects in semiconductor manufacturing equipment.
- Automobiles (1.2% → 1.0%)
  Spending will increase slightly, driven by continued investment in response to CASE, including electrification, in addition to investment in new models and for major replacement, which will be largely offset, however, by restraints on spending in view of the weak market.

Non-manufacturing

- Wholesale & retail (-7.6% → -8.7%)
  Spending will continue to decline due to restraints on investment in new supermarkets and convenience store outlets as well as the impact of the Covid-19.
- Real estate (-3.6% → -2.2%)
  Spending will continue to decline due to the completion of major development projects in metropolitan areas, despite rising investment in local projects.
- Transportation (4.6% → -2.2%)
  Spending will decline for the first time in four years despite investment for increasing the speed of and improving safety in railways, as major investment projects have been completed in airports and logistics and spending on the acquisition of aircraft is restrained.
- Electric power (-0.2% → 26.0%)
  Spending will increase, driven by safety investments in nuclear power plants.
- Telecommunications & information (-0.2% → 7.3%)
  Spending will increase, driven by continued investment in data centers and the development of 5G base stations and networks on the back of government support.
- Services (6.4% → -8.2%)
  Spending will decline for the first time in six years due to inactive investment in hotels, amusement facilities etc.

Note: Figures in parentheses ( ) indicate changes in capital spending in the industry concerned (FY2019 → FY2020).

3. Attitudes toward “Investment in a Broader Sense”

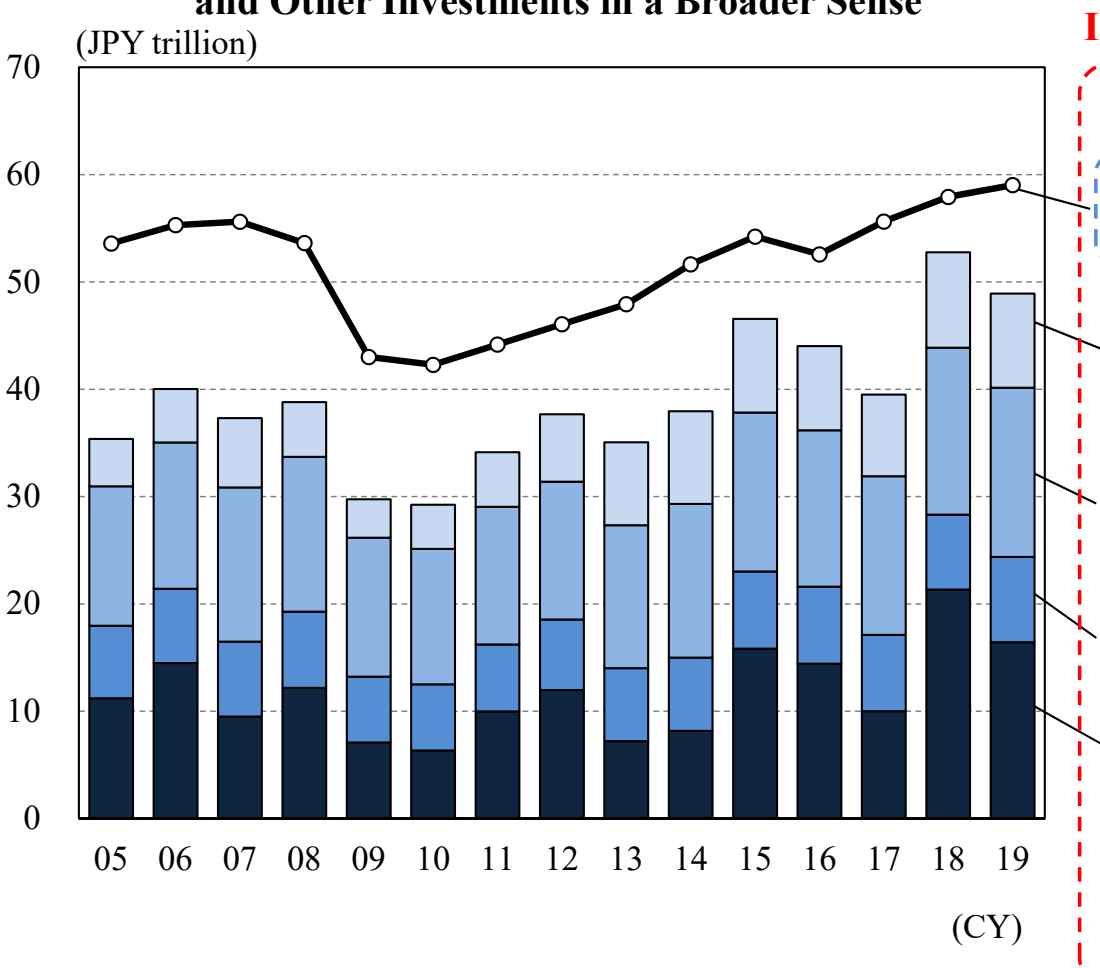
3-1. Concept of “Investment in a Broader Sense”

3-1-1. Corporate Approach towards the Future

Corporate approach towards the future:
"Investment in a broader sense"

All initiatives to the future for corporate growth, continuity and value improvement

Figure 3-1-1. Domestic Tangible Fixed Asset Investment and Other Investments in a Broader Sense



Investment in a broader sense

Investment in a narrow sense

(1) Domestic tangible fixed asset investment

(2) Overseas tangible fixed asset investment

(3) R&D expenditure

(4) Intangible fixed asset investment
(software investment, etc.)

(5) M&A

(6) Human investment
(not shown in the chart, as the amount cannot be quantified)

Notes:

(1), (3) and (4) Cabinet Office

"Annual Report on National Accounts"

(2) METI

"Basic Survey on Overseas Business Activities"

Fiscal year data for overseas tangible fixed asset investment

(5) RECOF data
Amount represents the total of In-In and In-Out.

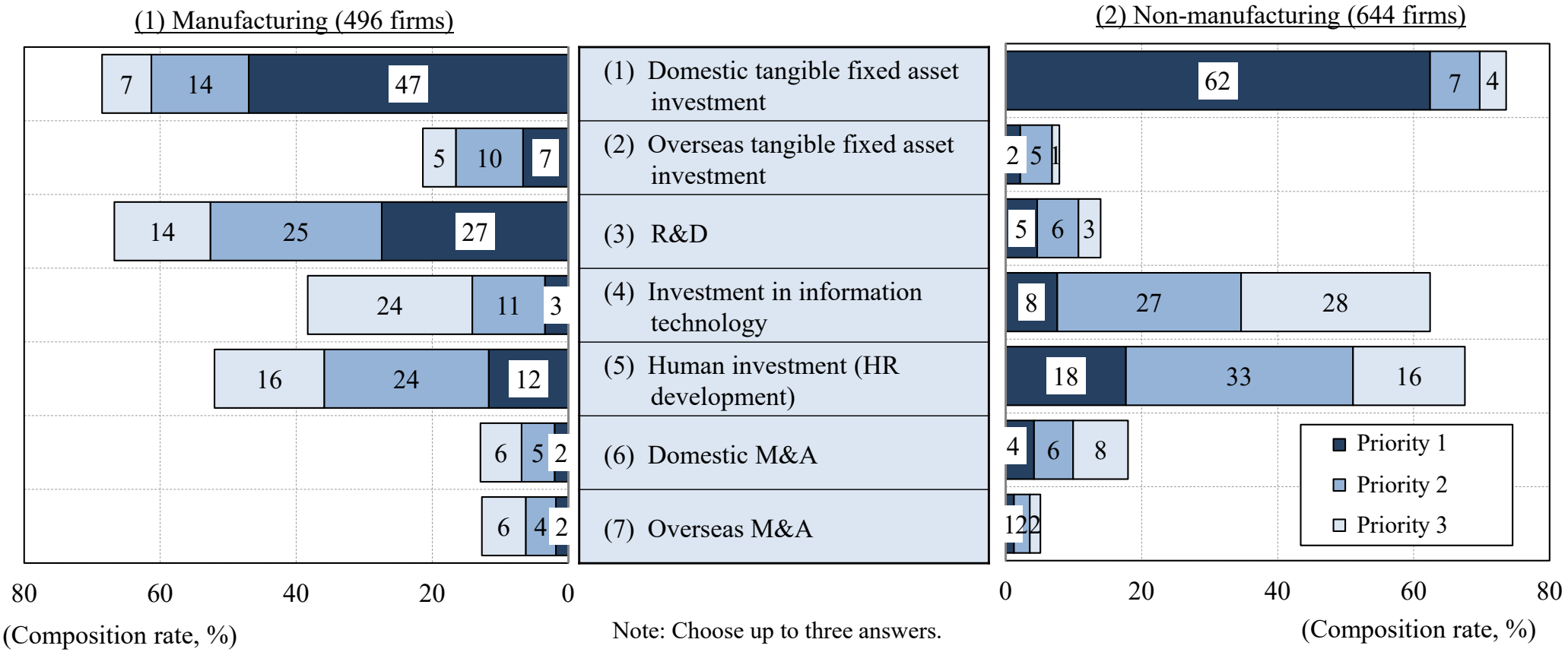
The 2019 data for items (1)-(4) is extrapolated from DBJ Survey on Capital Spending (actual data for FY2019).

3-1-2. Priorities of "Investment in a Broader Sense"

Three priorities for the manufacturing sector:
domestic tangible fixed asset investment, R&D and human investment.

- The same priorities have prevailed in "investment in a broader sense" over the years. In the manufacturing sector, (1) "Domestic tangible fixed asset investment," (3) "R&D" and (5) "Human investment (HR development)" form the three main pillars of "investment in a broader sense." In the non-manufacturing sector, top priority is given to (1) "Domestic tangible fixed asset investment," followed by (5) "Human investment (HR development)."

Figure 3-1-2. Priorities of "Investment in a Broader Sense"



Note: Choose up to three answers.

3-2. Capital Spending Overseas

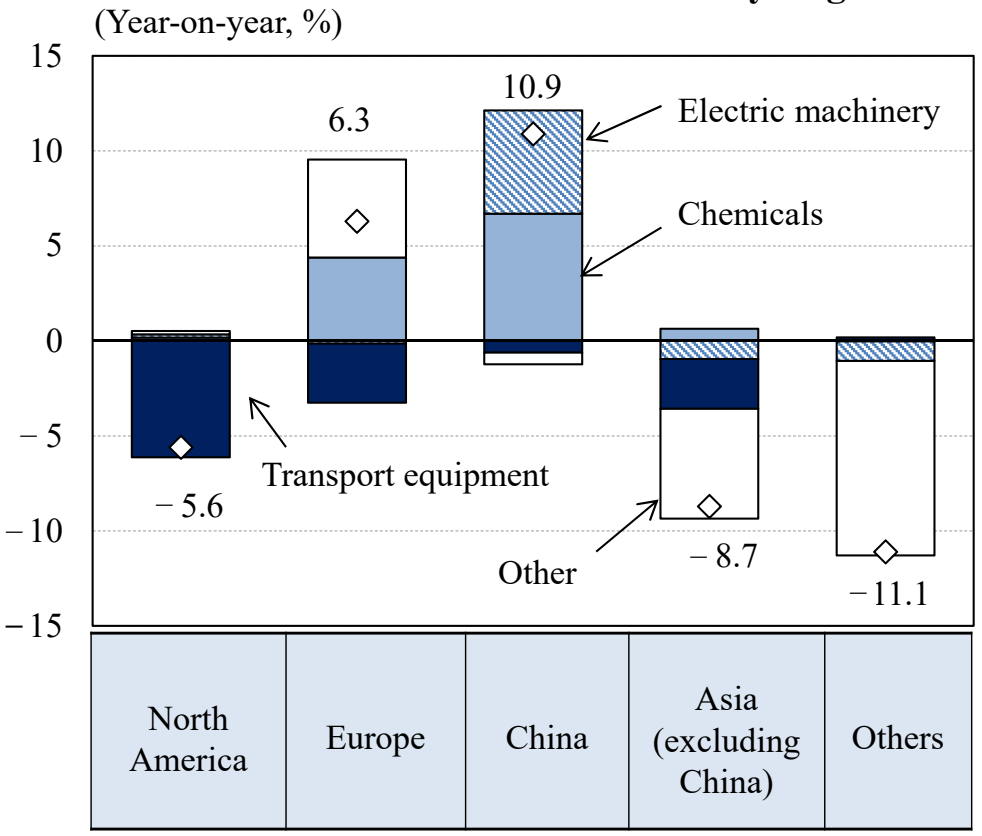
3-2-1. Capital Spending Overseas (Overview)

- Capital spending overseas (consolidated basis) in FY2019 showed the first decline in three years, down 1.2% on the previous year, impacted by the completion of investment projects in transport equipment in North America, which had risen substantially in the previous year.
- Planned capital spending for FY2020 shows a year-on-year decline of 3.6%, as investment will decrease in almost all regions in transport equipment due to stagnant demand for automobiles. In chemicals, however, spending will increase in Europe in anticipation of increased demand for pharmaceuticals in response to the Covid-19 pandemic, as well as in China on semiconductor materials. Also in electric machinery, spending on electronic components is planned in China in anticipation of the expansion of 5G networks.

Figure 3-2-1-1. Capital Spending Overseas (Consolidated Basis)

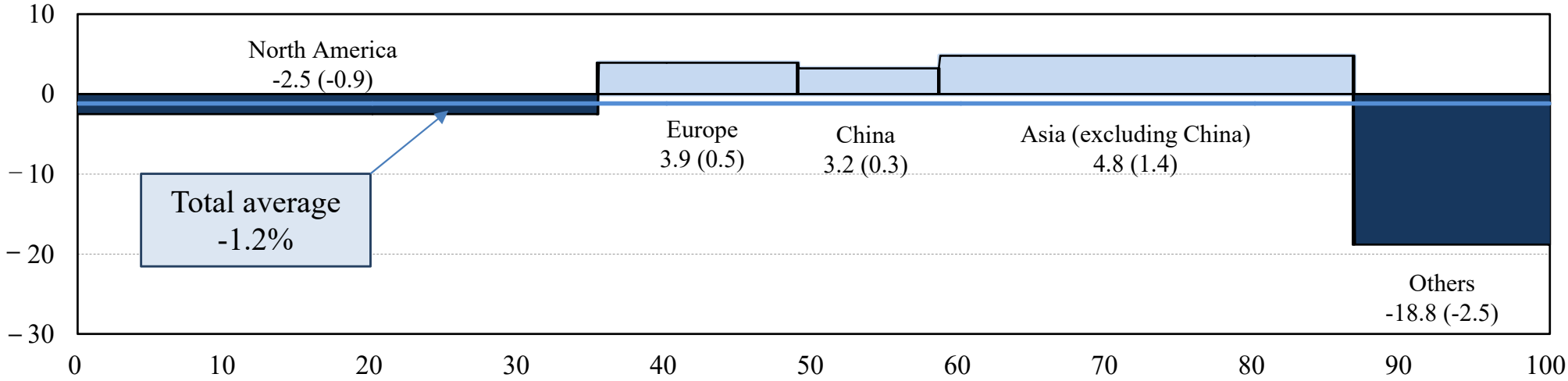
(Year-on-year, %)	FY2019 (actual) (566 firms)	FY2020 (planned) (630 firms)
Total	-1.2	-3.6
North America	-2.5	-5.6
Europe	3.9	6.3
China	3.2	10.9
Asia (excluding China)	4.8	-8.7
Others	-18.8	-11.1

Figure 3-2-1-2. Capital Spending Growth: FY2019 Actual vs FY2020 Plan by Region



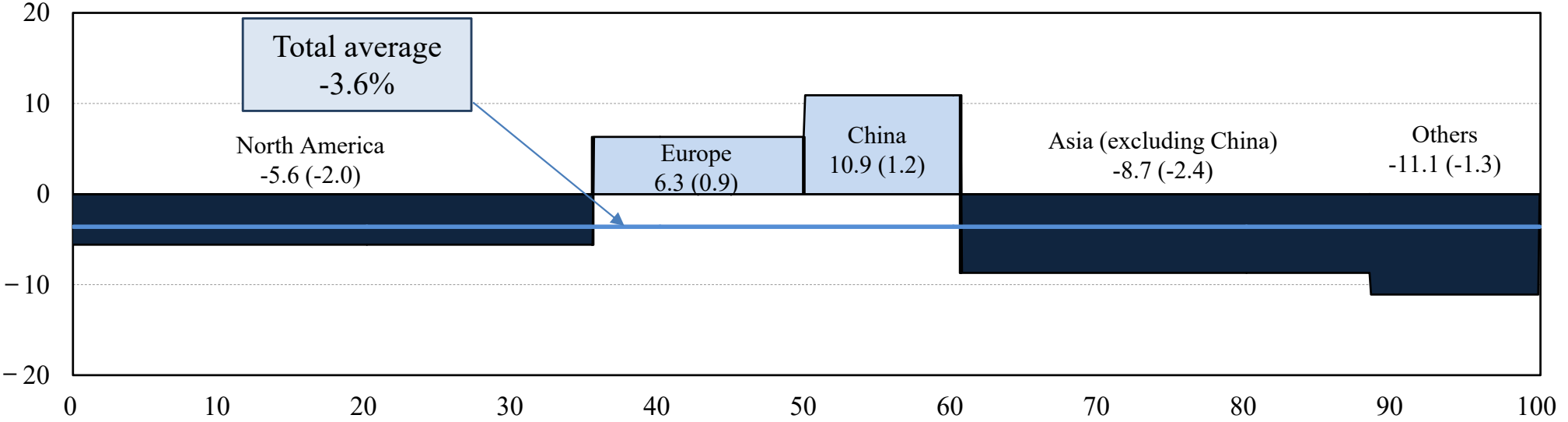
3-2-2. Skyline Chart: Capital Spending Overseas by Region

(Year-on-year, %) **Figure 3-2-2-1. Growth and Composition of Capital Spending Overseas by Region (Actual FY2019) (%)**



Note: Figures indicate change in FY2019 actual spending versus FY2018 actual spending. Figures in parentheses indicate contribution to the total spending. (Composition rate, %)

(Year-on-year, %) **Figure 3-2-2-2. Growth and Composition of Capital Spending Overseas by Region (Planned FY2020) (%)**



Note: Figures indicate change in FY2020 planned spending versus FY2019 actual spending. Figures in parentheses indicate contribution to the total spending. (Composition rate, %)

3-2-3. Overseas Capital Spending Ratio (Manufacturing)

Higher overseas capital spending ratio than during the Great Recession points to bleaker prospects for investment overseas than in Japan.

- In FY2019, the overseas capital spending ratio fell slightly as investment increased in Japan and decreased overseas. Nonetheless, the ratio is still higher than in the run-up to the Great Recession.
- During the Great Recession, investment plummeted both in Japan and overseas. The higher overseas production ratio at present indicates a weaker impact of external demand on domestic investment. Since the impact of the Covid-19 pandemic has been worse overseas, spending cuts may be more weak overseas than in Japan in FY2020.

Figure 3-2-3-1. Trend of Overseas Capital Spending Ratio (Manufacturing)

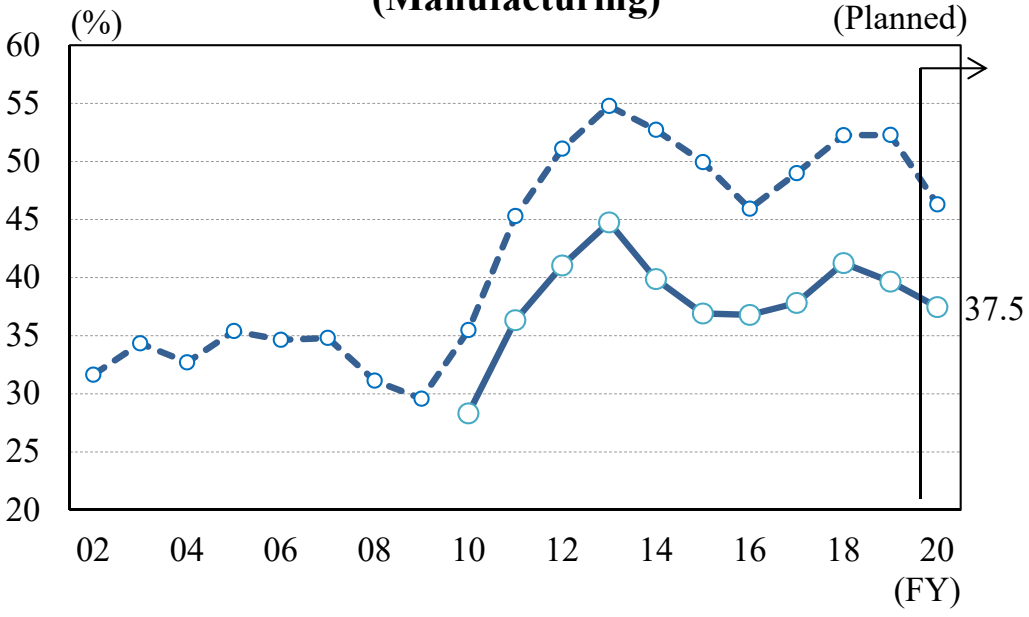
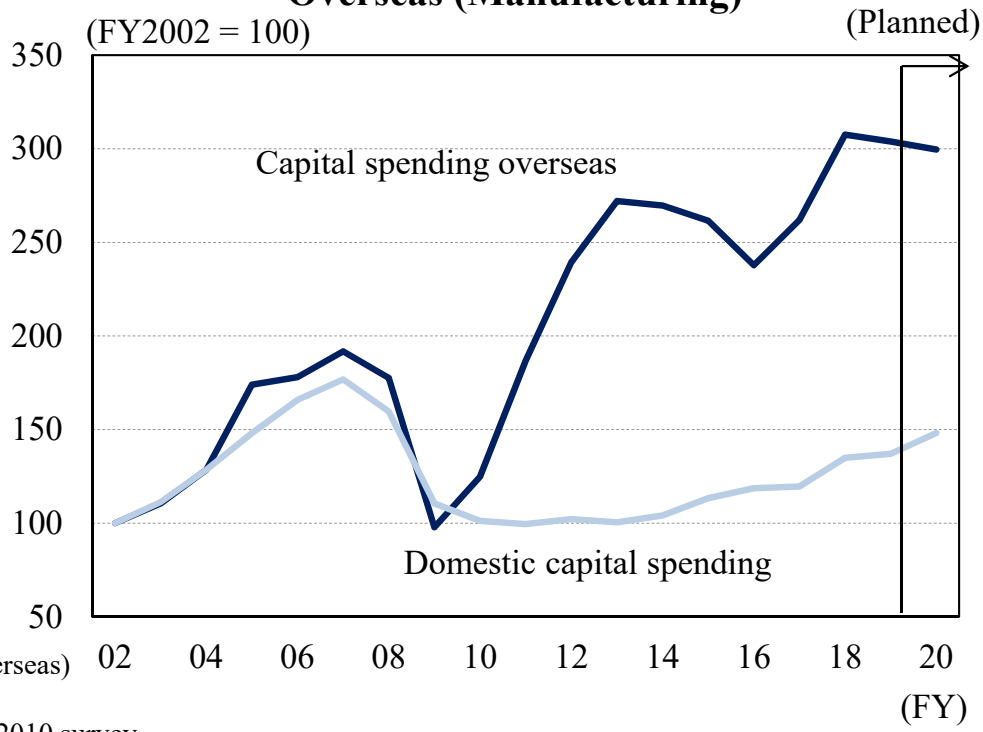


Figure 3-2-3-2. Trend of Capital Spending in Japan and Overseas (Manufacturing)



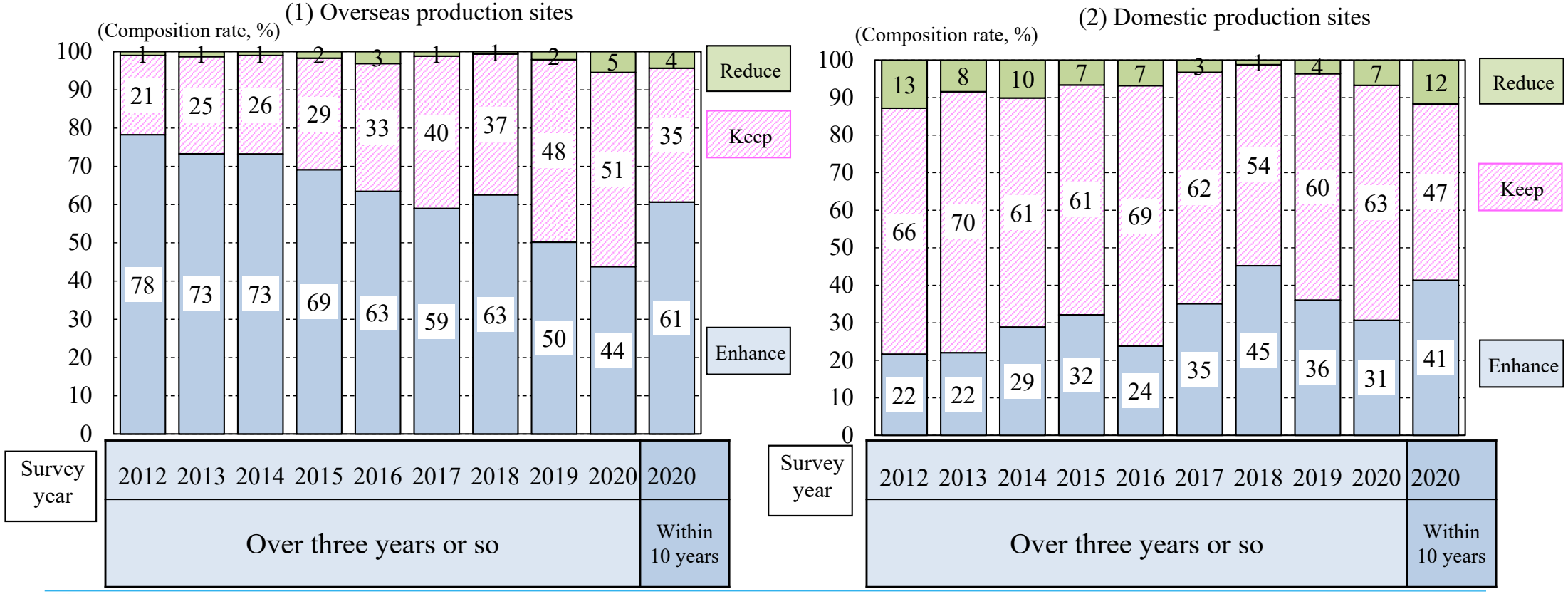
Notes: Dotted lines: consolidated overseas/(non-consolidated domestic + consolidated overseas)
Solid lines: consolidated overseas/(consolidated domestic + consolidated overseas)
*Data on consolidated domestic capital spending have been available since the FY2010 survey.

3-2-4. Domestic and Overseas Medium-Term Supply Capacity (Manufacturing)

Prospects for spending in Japan and overseas in the next three years or so show two consecutive years of decline.

- On the outlook for medium-term supply capacity over the coming three years or so, the number of manufacturers intending to enhance operations overseas shows a decrease for the second straight year, while firms intending to reduce it shows a slight increase. However, up to 60% of manufacturers intend to increase their spending overseas within 10 years.
- In the domestic market, a smaller number of manufacturers now intend to enhance operations over the coming three years or so, whereas about 60% of them are willing to maintain the current supply capacity. However, some 10% of the firms intend to reduce operations in Japan within 10 years.

Figure 3-2-4. Medium-Term Domestic and Overseas Supply Capacity (Manufacturing)



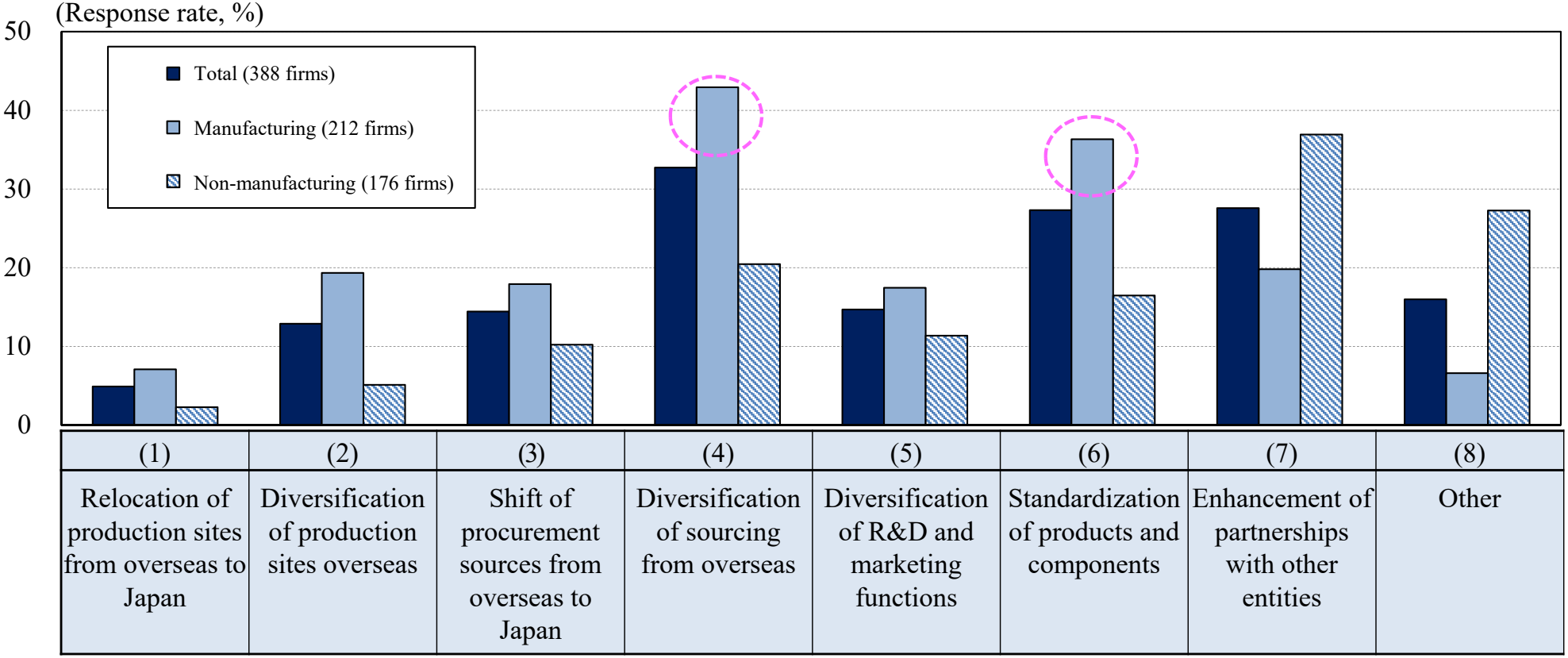
Note: Data covers the firms reporting both domestic and overseas operations (313 firms in FY2020).

3-2-5. Revision of Supply Chain in Response to the Covid-19 Pandemic

There is increased awareness of the need for redundancy in emergency situations, including through diversification of sourcing from overseas.

- On how to revise their supply chains, 40% of the manufacturers cite "(4) Diversification of sourcing from overseas," followed by "(6) Standardization of products and components." The result apparently indicates that Covid-19 has increased the awareness of the need to ensure redundancy in an emergency, including through alternative sources of procurement and diversion of components.

Figure 3-2-5. Actions (including Consideration) to Revise Supply Chain in Response to the Covid-19 Pandemic



Note: Choose up to three answers.

3-3. Investment in Information Technology

3-3-1. Trend of Investment in Information Technology (1)

In FY2019, investment in information technology saw double-digit growth for the third consecutive year, with further increases expected in FY2020.

- Investment in information technology in FY2019 rose 13.7% on the previous year on the back of system replacement investment in transport equipment in the manufacturing sector, and spending on traffic control systems in transportation in the non-manufacturing sector.
- A slower-than-average but steady increase of 16.4% on the previous year is planned for FY2020. The manufacturing sector will be led by investment in IoT at factories in electric machinery, while spending in the non-manufacturing sector will be propped up by remote maintenance management systems at power stations, among others.

(Year-on-year, %)

Figure 3-3-1. Plan for IT Investment

Industry	FY2019 Actual (679 firms)	FY2020 Planned (722 firms)	Project examples in FY2019 and 2020
Total	13.7	16.4	
Manufacturing	30.3	21.3	
Electric machinery	37.4	84.2	Investment in IoT at factories
Transport equipment	23.2	12.7	Renovation of aging systems at factories
Non-manufacturing	3.5	10.2	
Transportation	39.5	14.6	Development of security and traffic control systems
Electric power & gas	-8.4	67.0	Development of remote maintenance management systems at power stations

Note: Includes IT investment accounted for as expenses.

3-3-2. Trend of Investment in Information Technology (2)

Spending on software continues to be prioritized over tangible fixed asset investment.

- 80% of the firms continue to prioritize spending on software over tangible fixed asset investment.
- Meanwhile, 50% of the firms report the rising cost of maintaining and revamping existing systems. Such increase in costs might curb efforts on further digitalization as information assets accumulate.

Figure 3-3-2-1. Trend of Software Investment in Recent Years
(Comparison with Tangible Fixed Asset Investment)

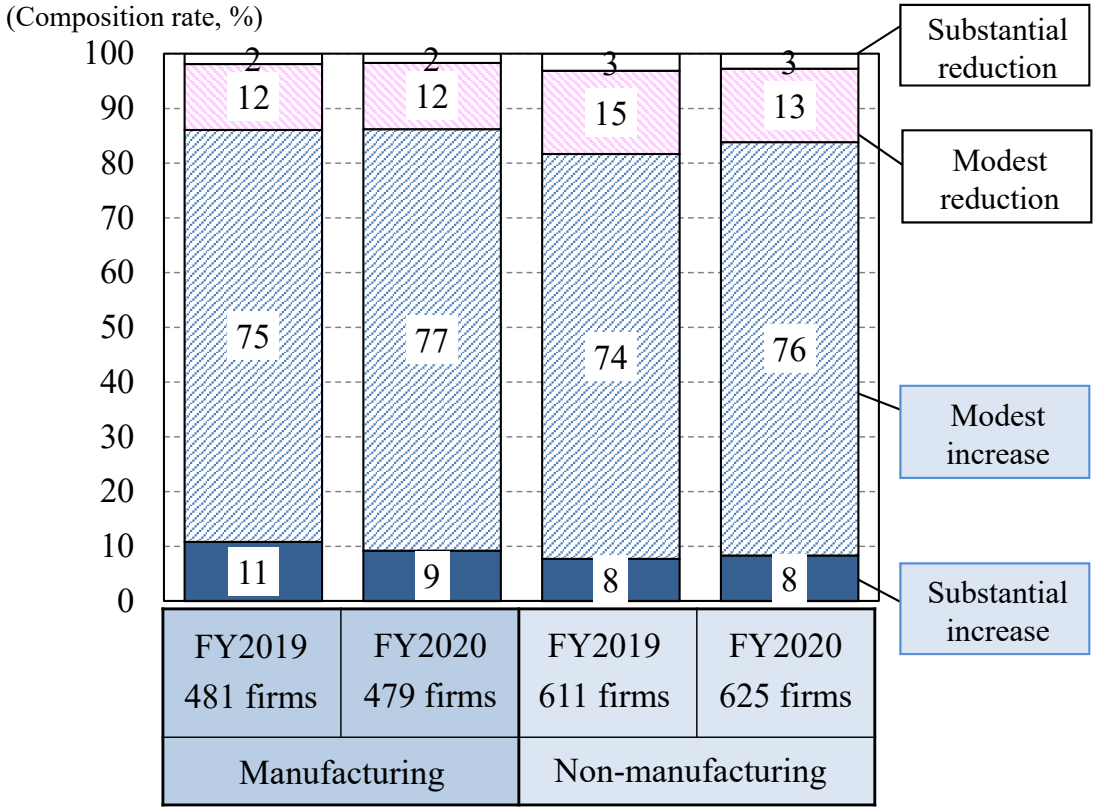
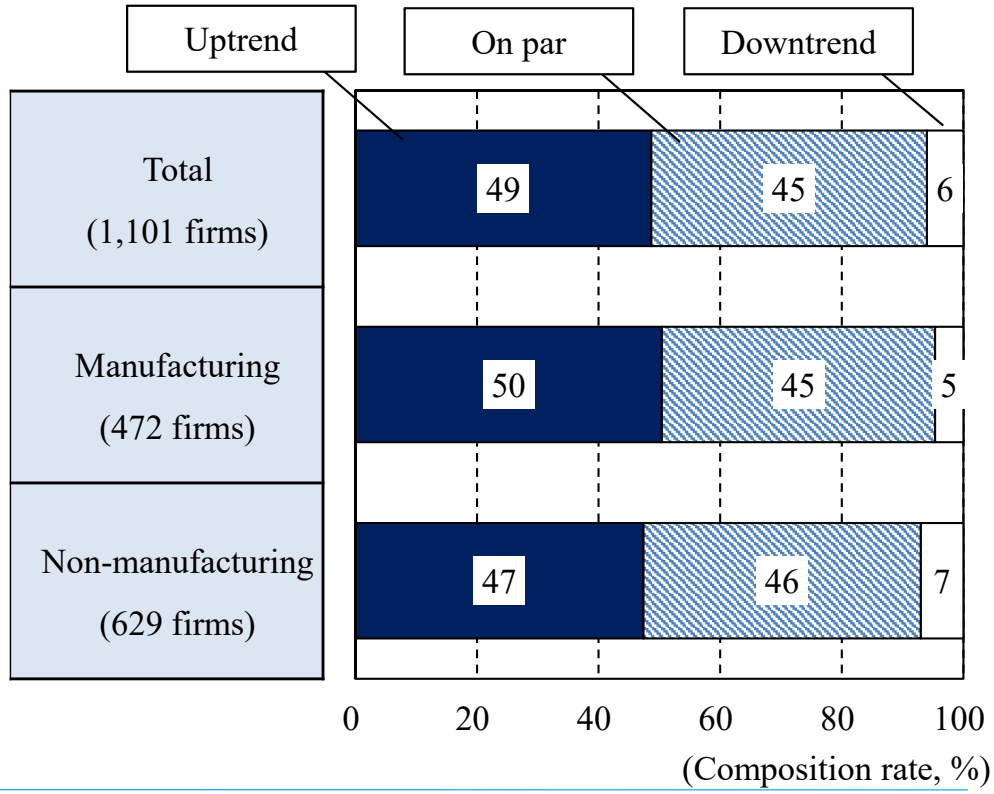


Figure 3-3-2-2. Share of Cost of Maintaining and Revamping Existing Systems in Software Investment (vs. 5 Years Ago)



3-3-3. Challenges for Introduction and Utilization of AI and IoT

More firms now utilize AI and IoT.

- Over 30% of the firms capitalized at JPY 10 billion or over now utilize AI and IoT. Utilization is also spreading among firms capitalized at less than JPY 10 billion. The constant increase in the use of AI and the IoT is in stark contrast to the current economic stagnation.
- As the efforts make headway, an increasing number of firms face a (1) shortage of experts. The number of firms pointing to (2) the lack of internal understanding or knowledge of technology shows a decline on the previous year.

Figure 3-3-3-1. Utilization of AI and IoT

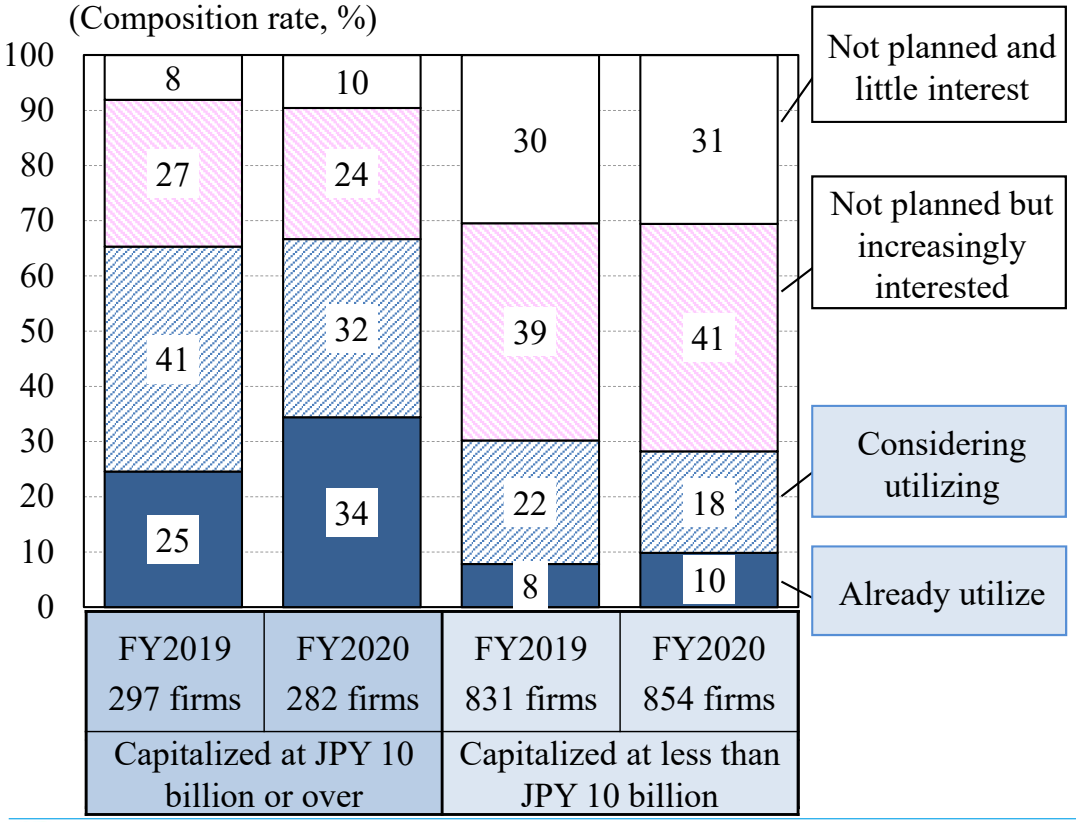
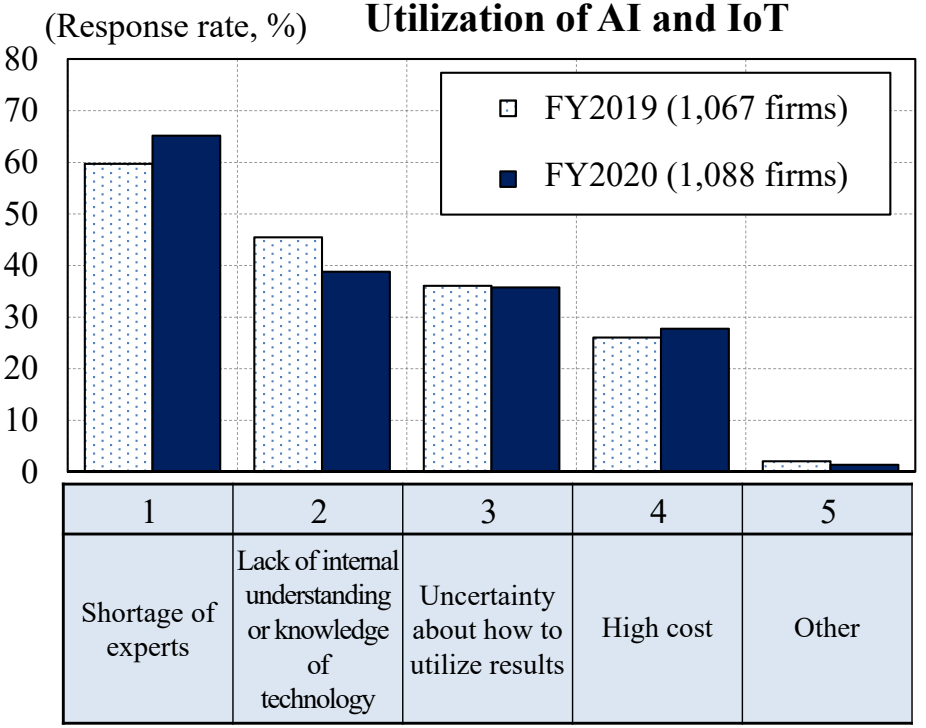


Figure 3-3-3-2. Challenges for Introduction and Utilization of AI and IoT



Note: Choose up to two answers.

3-3-4. Impact of Digitalization on Business Models

Almost 70% of firms report an impact of digitalization on business models or business environment.

- Asked about the impact of digitalization on industry and society through technologies such as AI, IoT and 5G, almost 70% of the firms continue to report an impact on their business models or business environment.
- In addition to initiatives leveraging 5G technology such as remote monitoring of equipment and image transmission, cases of efforts for digitalization include eliminating face-to-face interaction with customers and applying AI to over-the-counter services.

Figure 3-3-4-1. Impact of Digitalization in Industries and Societies through AI, IoT, 5G and Other New Technologies

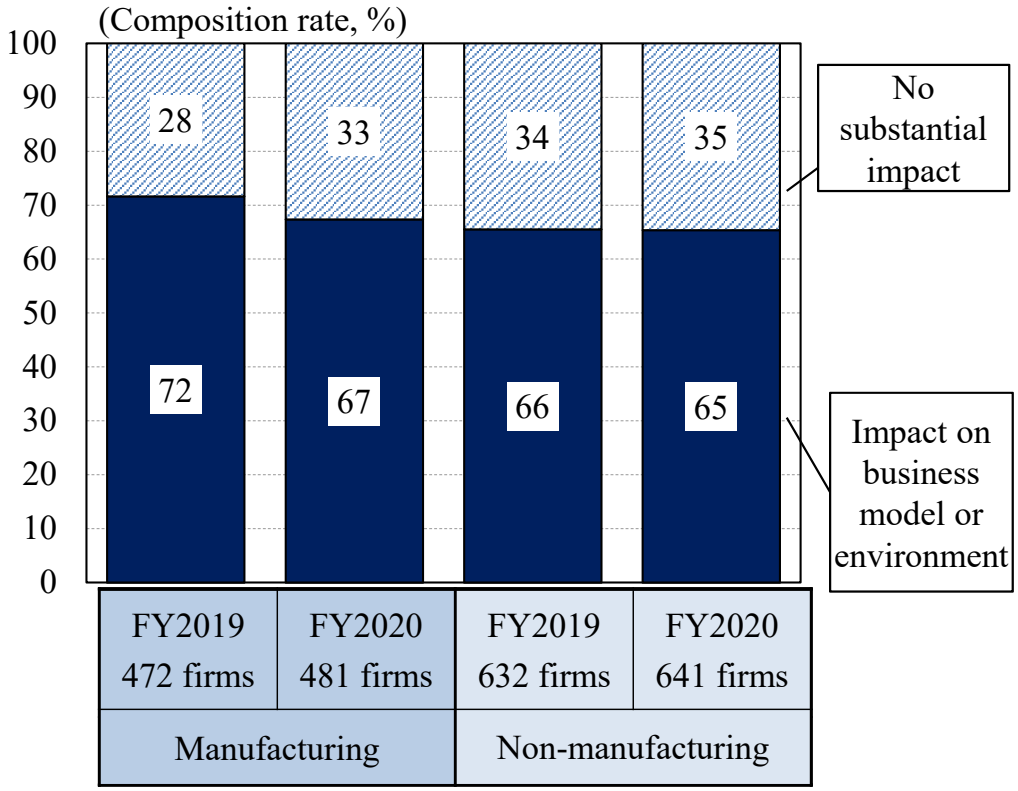


Figure 3-3-4-2. Key Initiatives for Digitalization

	Industry	Example
Manufacturing	General machinery	Remote monitoring of equipment, IoT services
	Electric machinery	Advanced Driver Assistance Systems (ADAS)
	Precision machinery	Automatic monitoring of equipment, AI-aided diagnosis
Non-manufacturing	Transportation	MaaS, unattended operation, introduction of AI to OTC services
	Wholesale & retail	Unmanned branch operation, automation of warehouse operation
	Construction & real estate	Accommodation of 5G base stations, elimination of face-to-face interaction with customers
	Other	5G image transmission, reduction of brick-and-mortar shops

3-4. R&D Activities

3-4-1. R&D Expenditure

R&D will be driven by chemicals, as spending in transport equipment levels off.

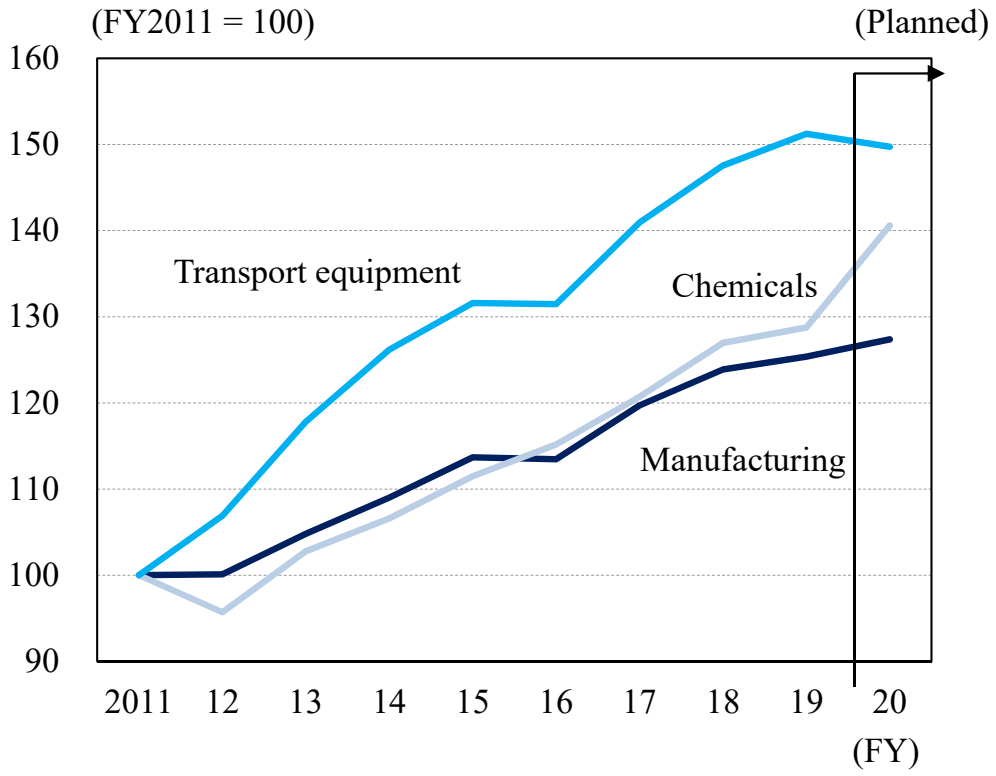
- R&D expenditure in FY2019 (on a consolidated basis) rose 1.3% on the previous year overall. The uptrend was led by transport equipment with the development of advanced technologies for the future including drive assistance/autonomous driving functions and electrification.
- Planned expenditure for FY2020 shows a continued uptrend, rising 1.7% on the previous year. Spending in transport equipment, which led the overall increase in R&D expenditure, will ease, but R&D in chemicals related to pharmaceuticals is expected to receive a boost from the Covid-19 pandemic.

Figure 3-4-1-1. R&D Expenditure (Consolidated Basis)

Year-on-Year, %	FY2019 (Actual) (642 firms)	FY2020 (Planned) (654 firms)	Composition rate, % (FY2019)
Total	1.3	1.7	100.0
Manufacturing	1.2	1.6	97.9
Transport equipment	2.5	-1.0	48.6
Chemicals	1.4	9.2	24.8
Electric machinery	-3.9	-4.2	12.2
Non-manufacturing	5.6	4.8	2.1

Note: For the purpose of this survey, R&D expenditure comprises all costs related to R&D, including personnel cost, raw materials cost, depreciation cost and allocated overhead.

Figure 3-4-1-2. Trend of R&D Expenditure (Consolidated Basis)



3-4-2. Utilization of Open Innovation and Other External Resources

Attitude toward open innovation shows no significant change.

- A slight decline has been observed since the previous year in the number of companies reporting increased utilization of open innovation, etc., a trend that has not changed significantly during the Covid-19 pandemic.
- As a measure of improving R&D efficiency, some 50% of the firms capitalized at JPY 10 billion or over report utilization of open innovation, etc. Expectations are also high for digital technologies including AI.

Figure 3-4-2-1. Opportunities for Utilizing Open Innovation and Other External Resources

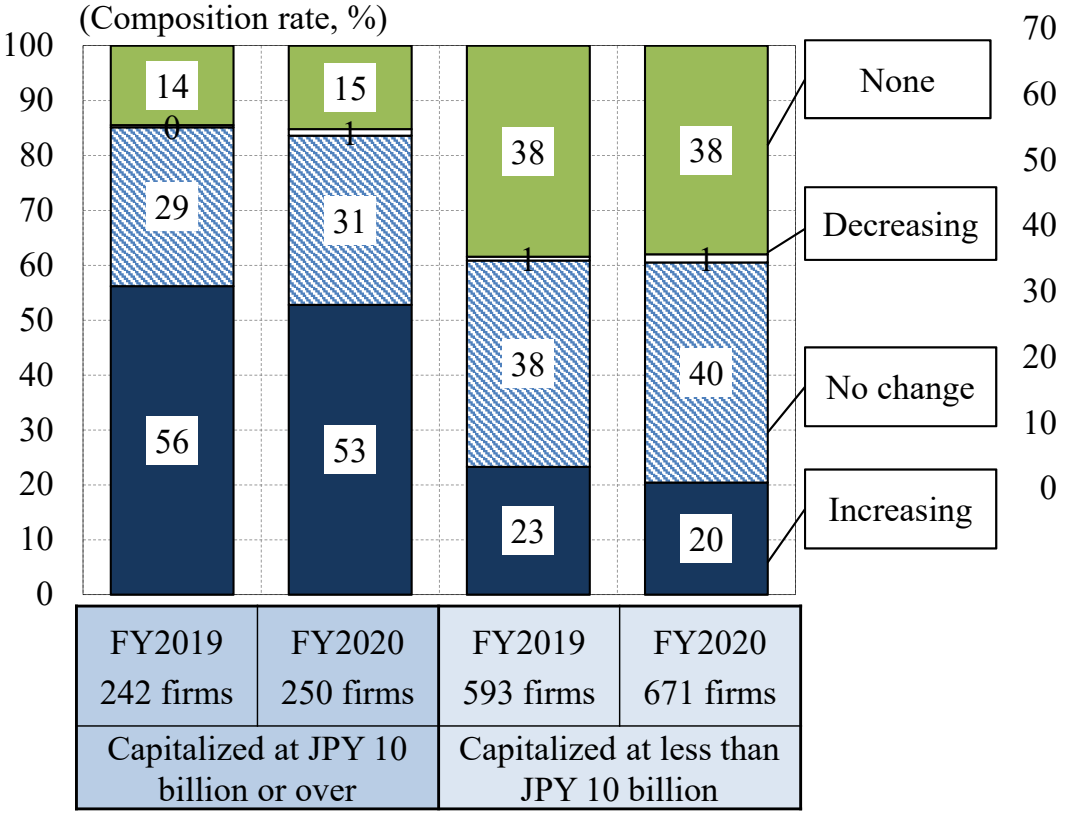
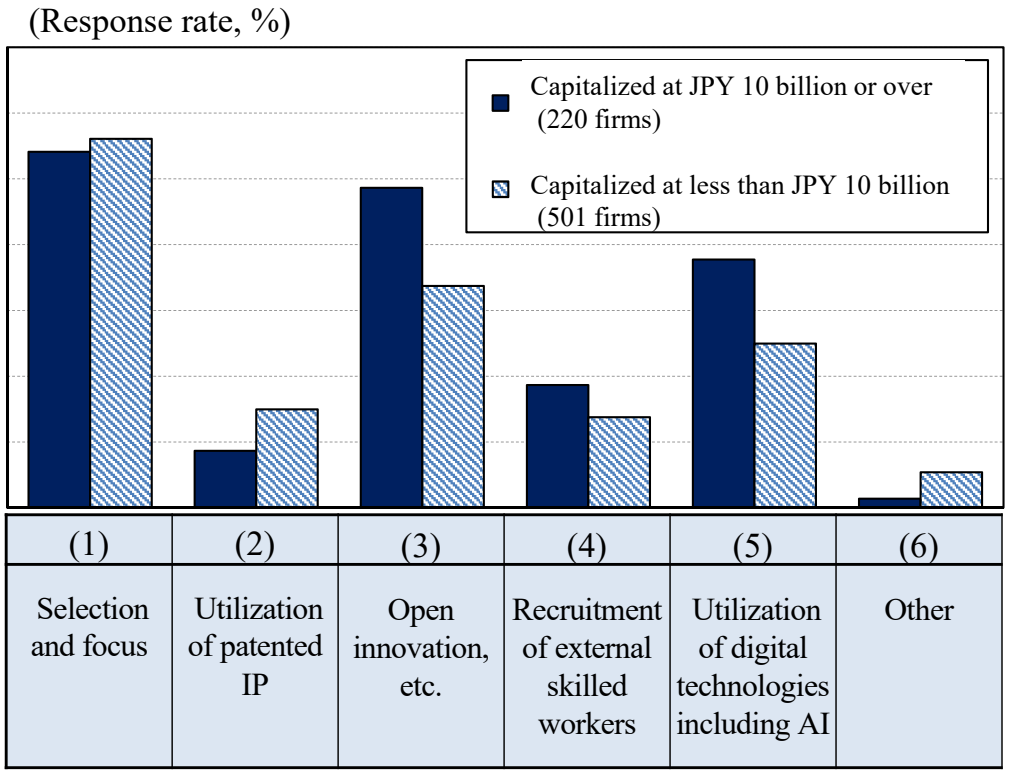


Figure 3-4-2-2. Efforts for Improving R&D Efficiency



Note: Choose up to two answers.

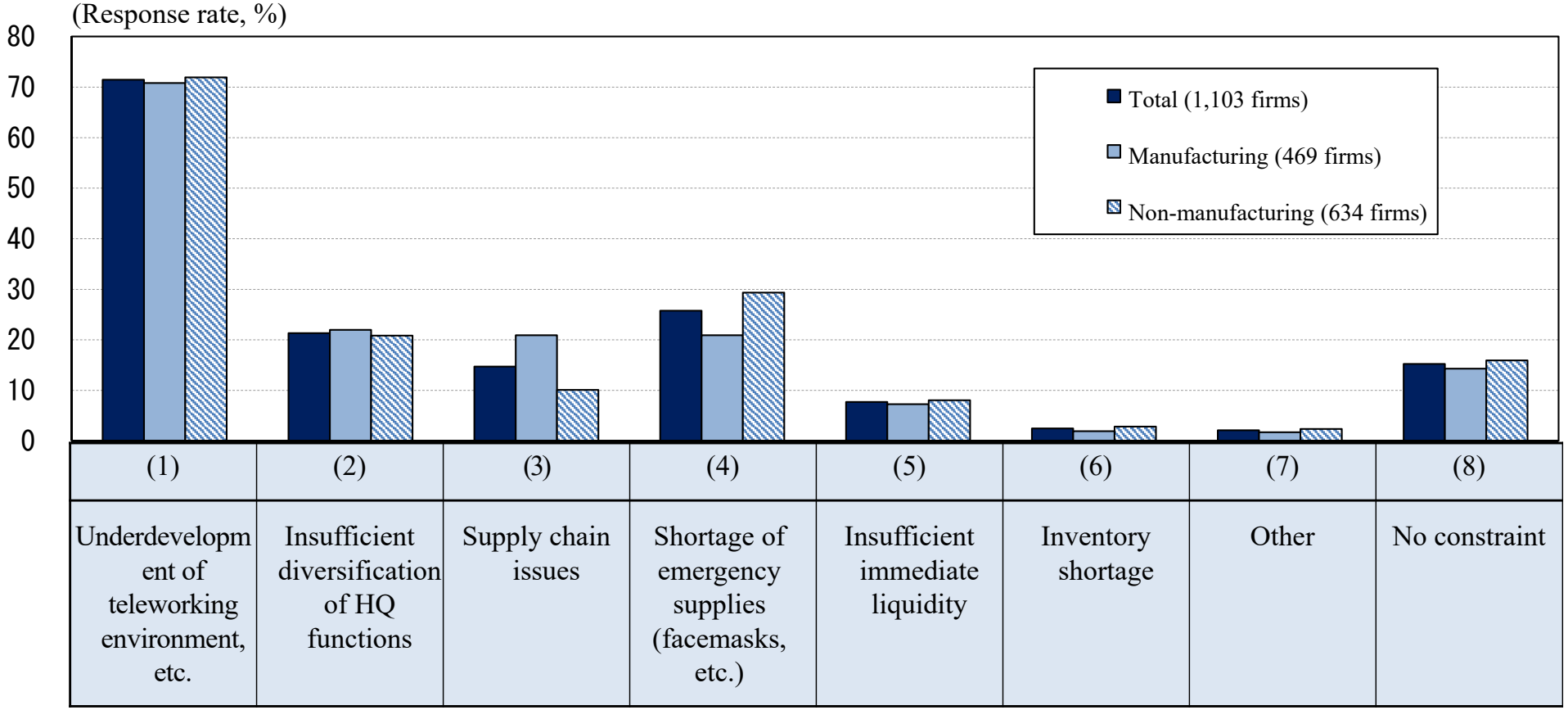
3-5. Human Investment, Work-Style Reform

3-5-1. Constraints on Business due to the Covid-19 Pandemic

Underdevelopment of the teleworking environment restricts business operation.

- Over 70% of the firms report that "(1) Underdevelopment of teleworking environment, etc." has restricted their business operation during the Covid-19 pandemic.

Figure 3-5-1. Constraints on Business Operation during the Covid-19 Pandemic



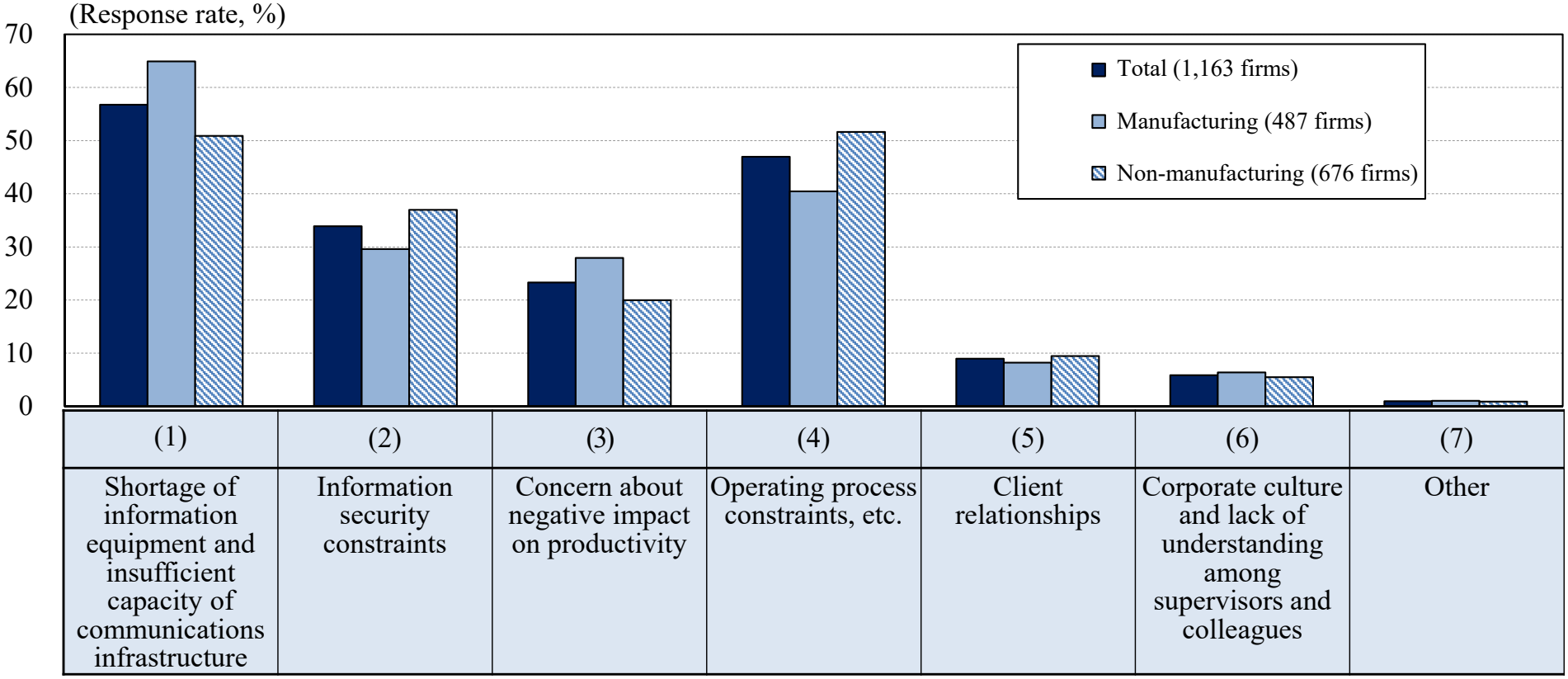
Note: Choose up to three answers, except for open responses.

3-5-2. Obstacles to Teleworking, etc.

Obstacles to teleworking include the shortage of information equipment and communications infrastructure issues.

- Some 60% of the firms report (1) Shortage of information equipment and communications infrastructure issues as an obstacle to teleworking, etc. Infrastructure development is urgently needed as many firms also cite (2) Information security constraints.
- Although not many firms cite (5) Client relationships or (6) Corporate culture as an obstacle, about 50% of them recognize (4) Existing operating processes as an obstacle, pointing to the need to change operating processes appropriately to encourage flexible working styles.

Figure 3-5-2. Obstacles to Introducing Flexible Working Styles including Teleworking



Note: Choose up to two answers.

3-5-3. Labor Shortage and Labor-Saving Investment

The labor shortage has eased slightly due to the Covid-19 pandemic.

- The serious labor shortage has eased somewhat due to the Covid-19 pandemic. Yet, potential demand persists for labor-saving investment as the labor market is expected to tighten over the medium term.
- 70% of the firms say that 0-20% of total capital spending will address the issues of labor shortage and labor saving.

Figure 3-5-3-1. Impact of Labor Shortage on Business Development

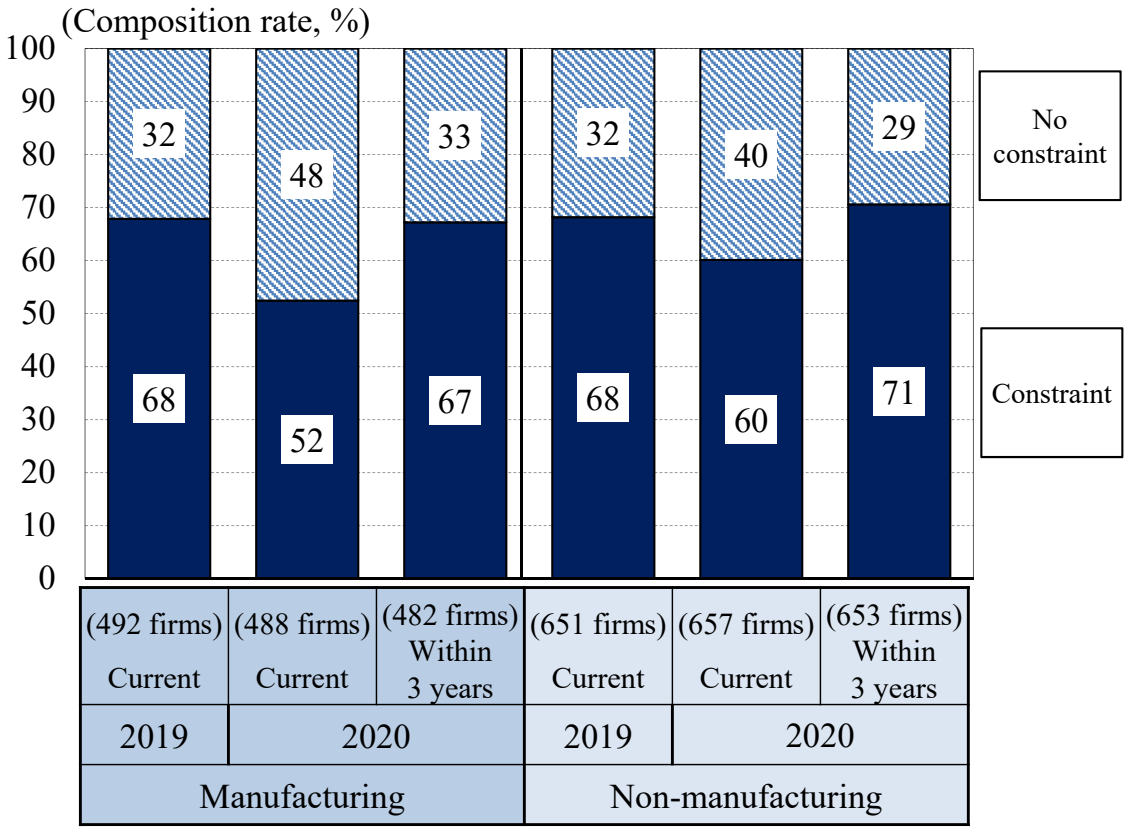
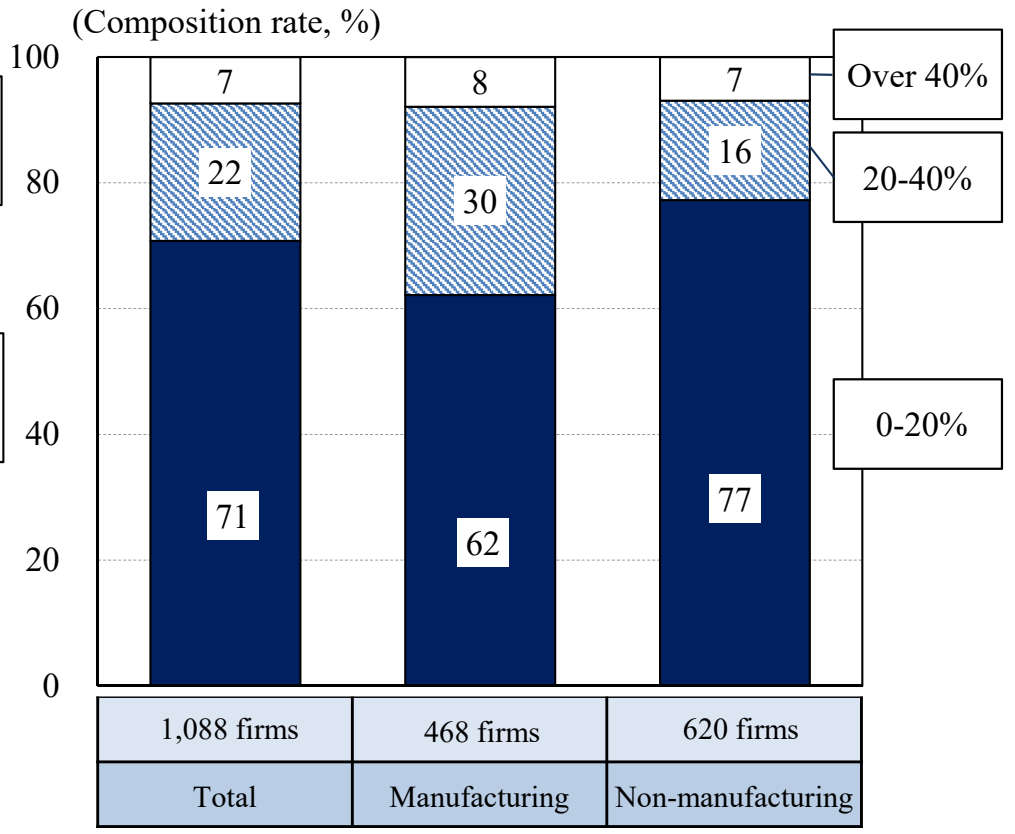


Figure 3-5-3-2. Share of Investment to Address Labor Shortage and Labor Saving in Total Capital Spending



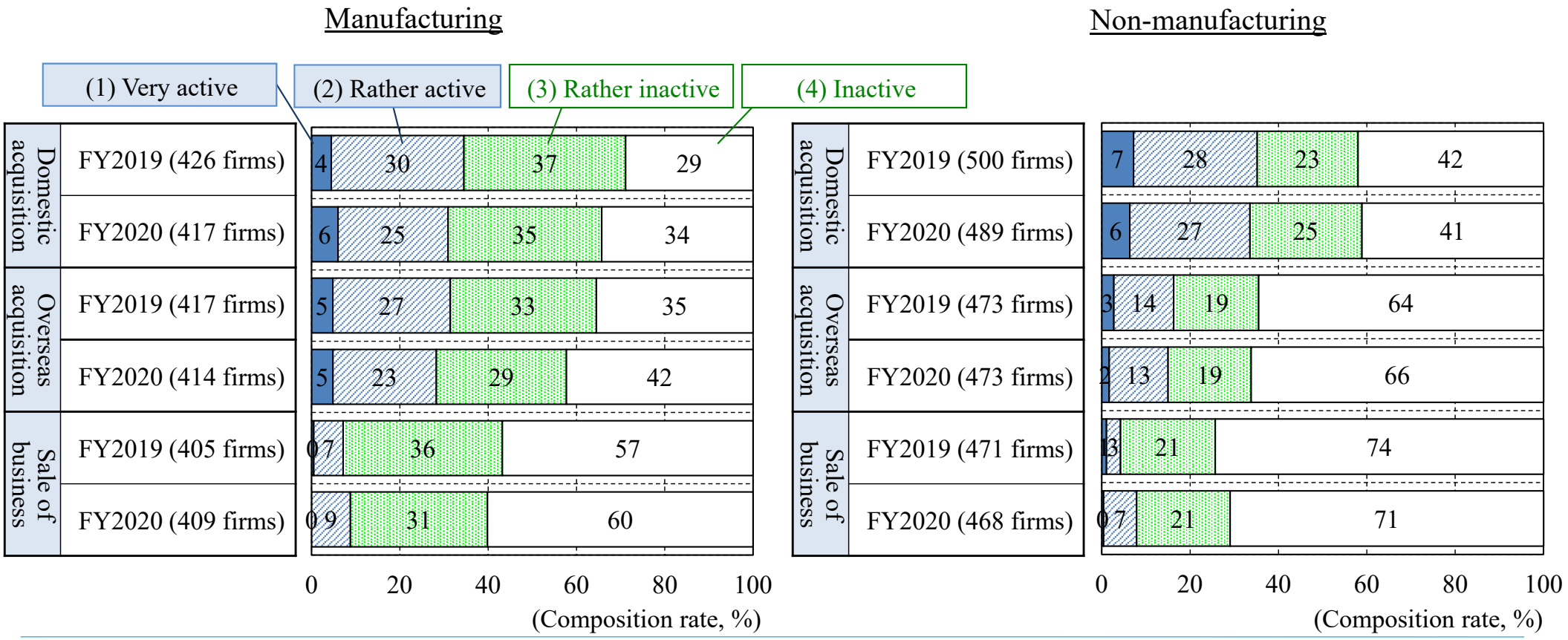
3-6. M&A

3-6-1. Attitude toward M&A

The attitude toward M&A is less aggressive than in the previous year.

- The number of firms claiming to be active in business acquisition in Japan and overseas shows a decrease on the previous year, both in manufacturing and non-manufacturing. At the same time, the number of firms reportedly positive about selling their business rose slightly on the previous year.

Figure 3-6-1. Attitude toward M&A



Appendices

Appendix 1. Capital Spending in FY2019, 2020 and 2021

Figure 1. Domestic Capital Spending in FY2019, 2020 and 2021

(JPY 100 million, %)

	FY2019 (actual) (1,752 firms)			FY2020 (planned) (1,784 firms)			FY2021 (planned) (750 firms)		
	FY2018 Actual	FY2019 Actual	Change	FY2019 Actual	FY2020 Planned	Change	FY2020 Planned	FY2021 Planned	Change
Total	197,567	201,406	1.9	159,550	165,766	3.9	36,486	31,587	-13.4
(Excluding electric power)	171,617	175,502	2.3	149,010	152,488	2.3	33,368	28,847	-13.5
Manufacturing	65,645	66,708	1.6	59,696	64,550	8.1	13,842	11,620	-16.0
Non-manufacturing	131,922	134,698	2.1	99,854	101,216	1.4	22,644	19,967	-11.8
(Excluding electric power)	105,973	108,795	2.7	89,314	87,937	-1.5	19,526	17,227	-11.8

Appendix 2. Capital Spending, by Region (Planned for FY2020)

- Planned capital spending for FY2020, by region (responses given by 4,641 large- and medium-sized firms; see Note), shows an increase of 2.4% overall, with investment rising in seven out of the 10 regions. Medium-sized firms, however, plan substantial cutbacks in investment, down 9.6%.
- In FY2019, spending increased 2.0% overall (3.0% for the medium-sized firms), as investment rose in six regions, more than offsetting the decline in Tohoku, North Kanto and Koshin, Tokai and Kansai.

Figure 2-1. Change in Capital Spending, by Region, FY2020/FY2019

Difference from FY2019/FY2018 in parentheses ( )

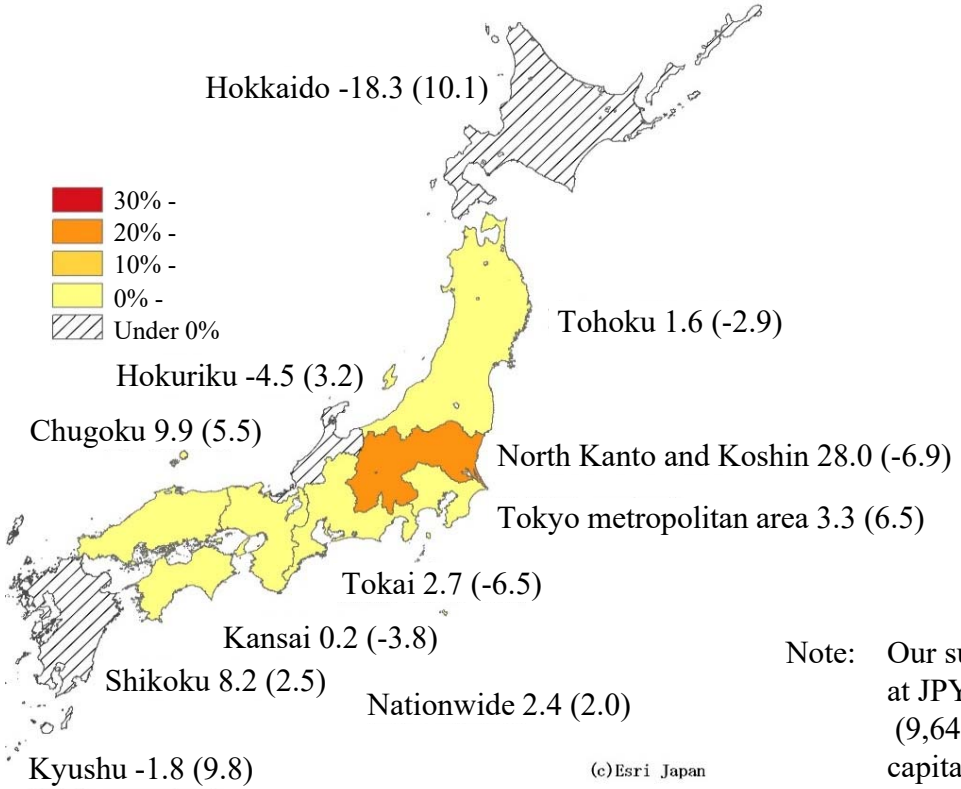


Figure 2-2. Change in Capital Spending, by Region and by Sector, FY2020

(%)

	Total	Manufac-turing	Non-manufac-turing
Hokkaido	-18.3	8.6	-26.7
Tohoku	1.6	7.3	-7.1
North Kanto and Koshin	28.0	9.0	101.6
Tokyo met. area	3.3	25.2	-3.0
Hokuriku	-4.5	-13.2	24.3
Tokai	2.7	-0.5	17.5
Kansai	0.2	0.5	-0.0
Chugoku	9.9	1.6	32.2
Shikoku	8.2	11.8	0.8
Kyushu	-1.8	13.1	-10.6
Nationwide	2.4	6.4	-0.1

Note: Our survey on capital spending, by region, covers medium-sized firms (capitalized at JPY 100 million to 1 billion) as well as large-sized companies.
(9,641 firms in total, of which 4,641 firms responded to the questions on planned capital spending, by region)

Appendix 3. Usefulness of BCP against the Covid-19 Pandemic

Over 70% of the firms say that their existing BCP is working against the Covid-19 pandemic.

- More than 70% of the firms report that their existing business continuity plan (BCP) is working effectively against the Covid-19 pandemic.
- Over 80% are developing their BCP to reduce business risks.

Figure 3-1. Usefulness of Existing BCP against the Covid-19

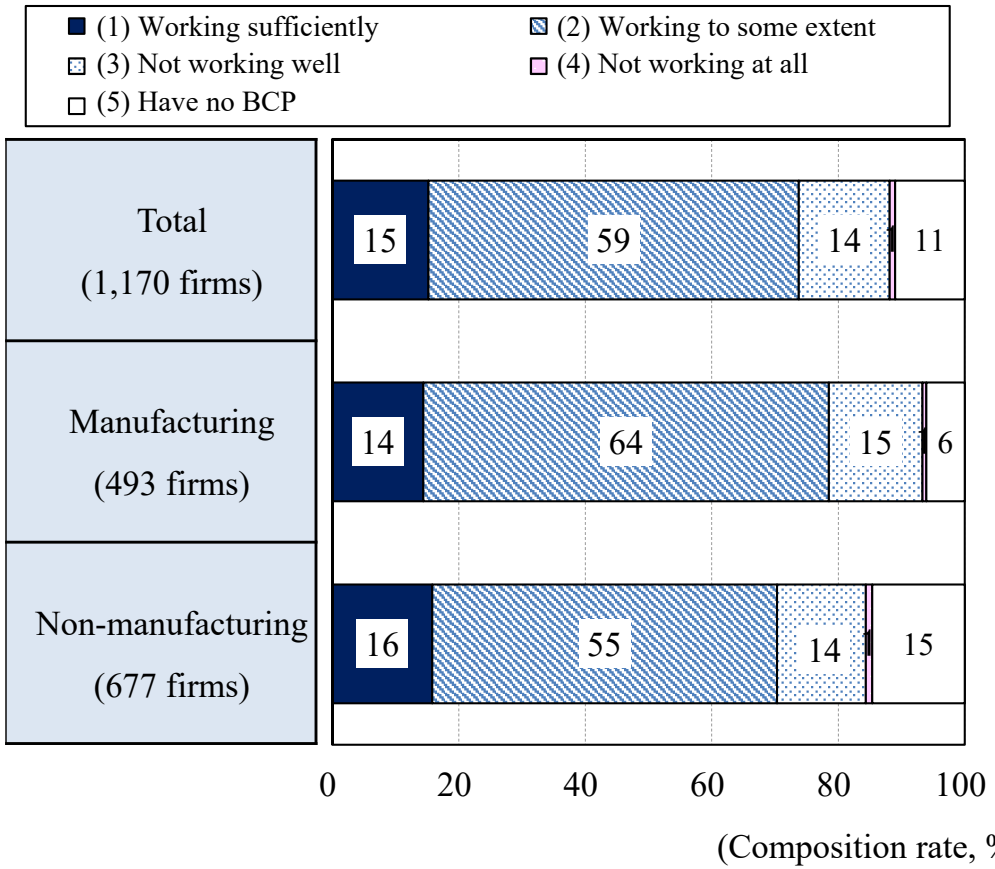
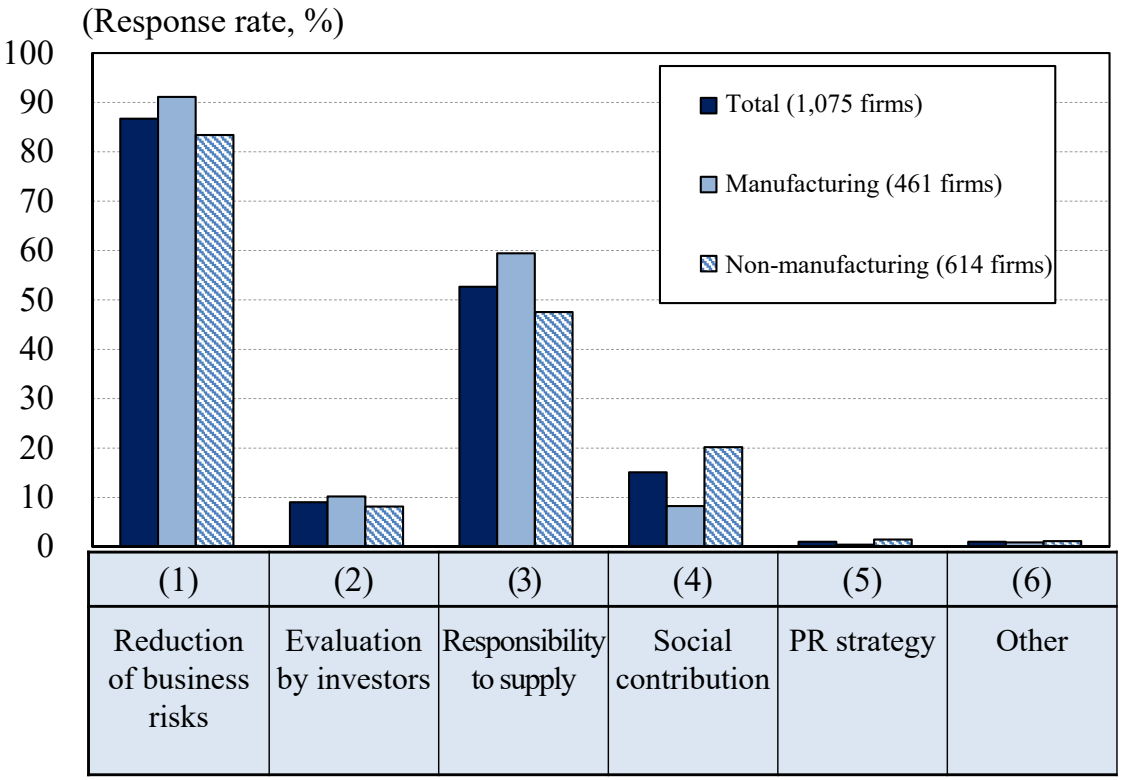


Figure 3-2. Purpose of Developing BCP



Note: Choose up to two answers.

Appendix 4. Prospects for Inbound Tourism and Capital Spending Post-Covid-19

A limited number of firms plan to reduce capital spending related to inbound tourism for now.

- Some 40% of the firms say that inbound tourists have an impact on their business. However, only a minority of firms are planning to reduce related capital spending based on their prospects for the number of inbound tourists once the Covid-19 pandemic ends.

Figure 4-1. Relationship between Inbound Tourists and Business

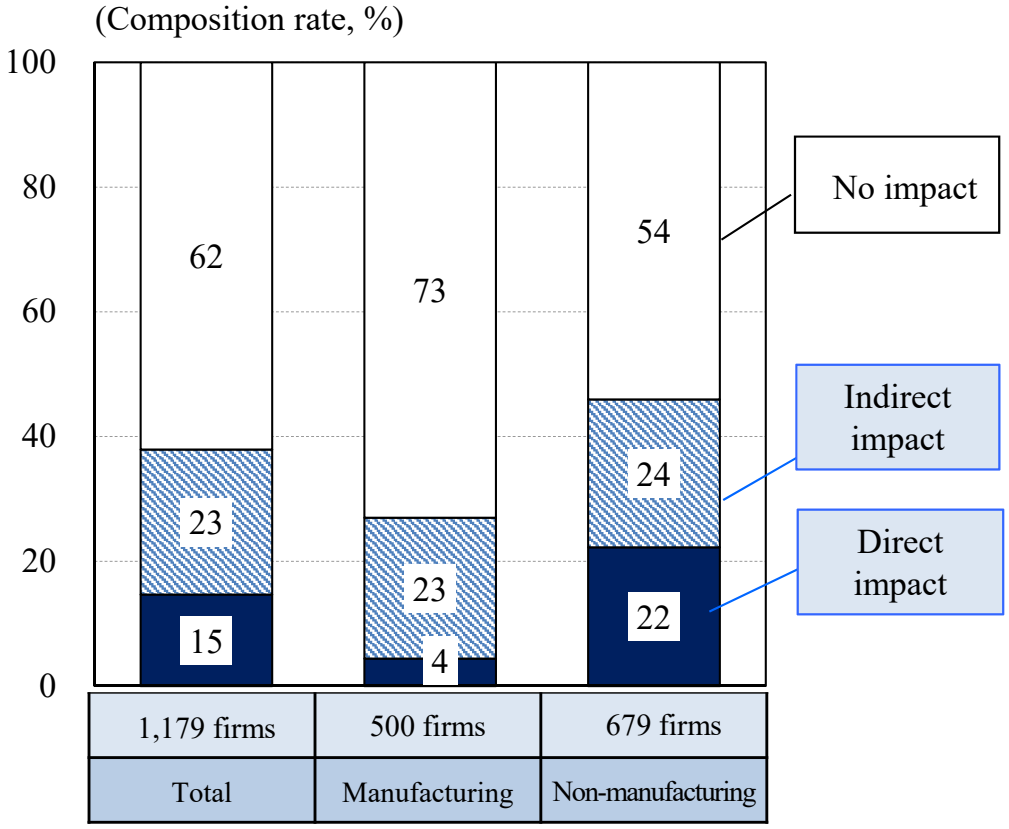
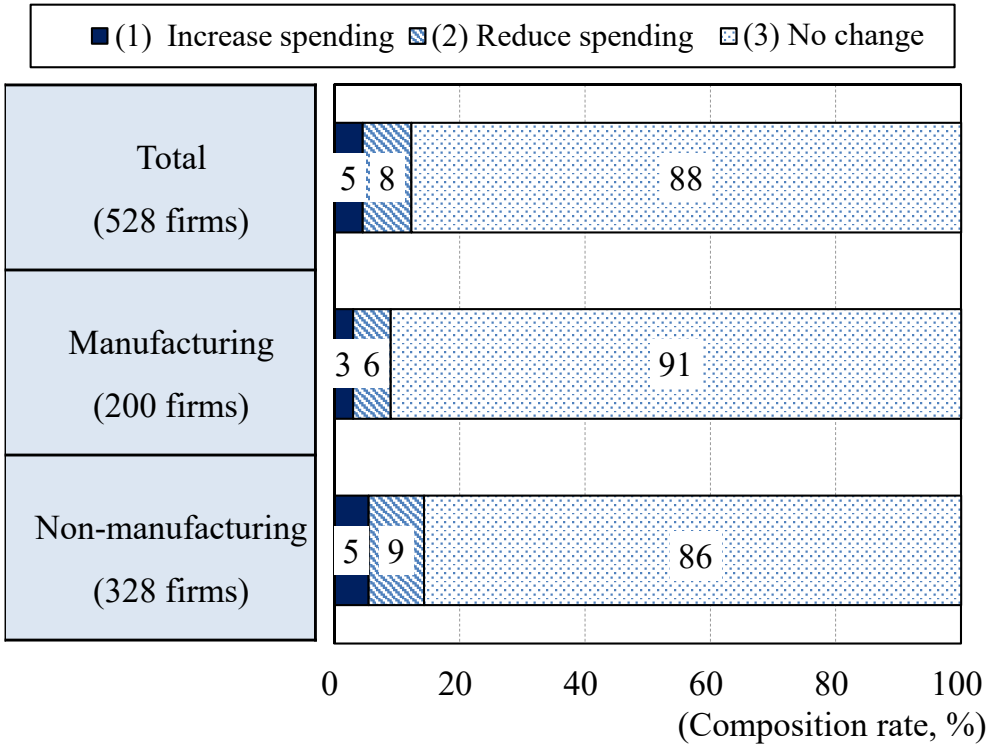


Figure 4-2. Expected Trend of Related Capital Spending in Light of Prospects for Inbound Tourists Post-Covid-19



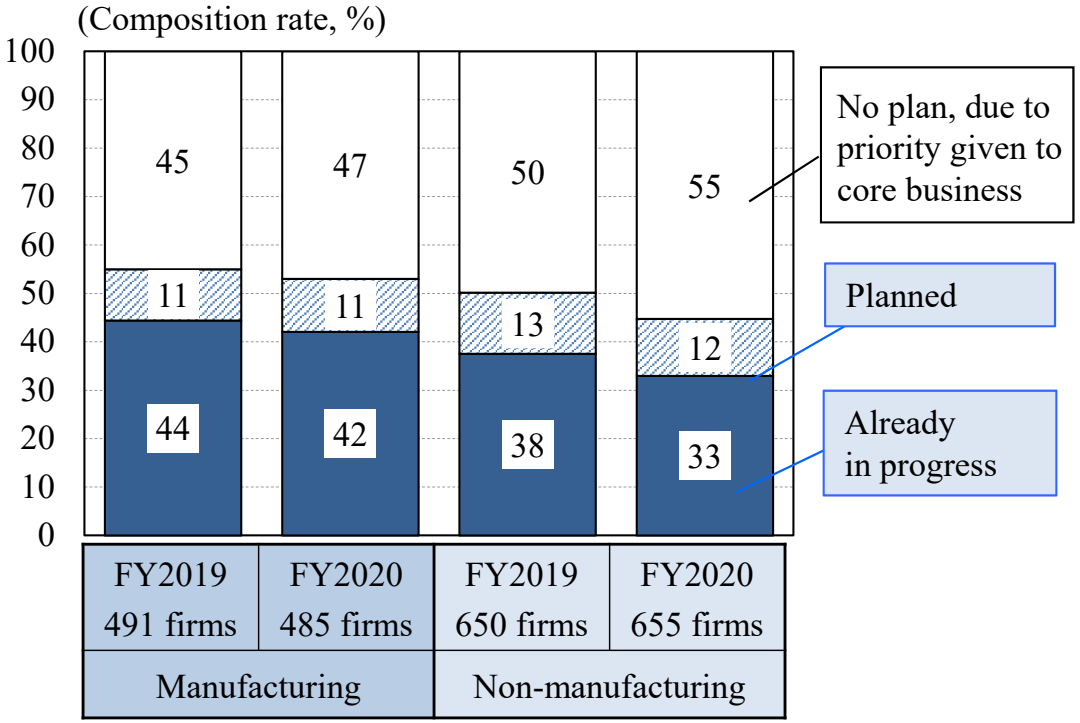
Note: Respondents only include firms with relevant capital spending.

Appendix 5. Exploration of Opportunities in Growth Markets

The number of firms exploring opportunities in growth markets shows a slight decline.

- The number of firms exploring opportunities in growth markets shows a slight decline on the previous year in both manufacturing and non-manufacturing.
- Concrete opportunities in growth markets still concern healthcare, batteries and car accessories in the manufacturing sector, whereas non-manufacturers are also seeking opportunities in the digitalization of the shop environment, agribusiness, space business and e-sports, among others.

Figure 5-1. Medium-Term Actions to Explore Opportunities in Growth Markets



Note: Respondents include group subsidiaries of major firms as well as public-private joint ventures established for specific projects

Figure 5-2. Specific Examples of Exploring Opportunities in Domestic Growth Markets

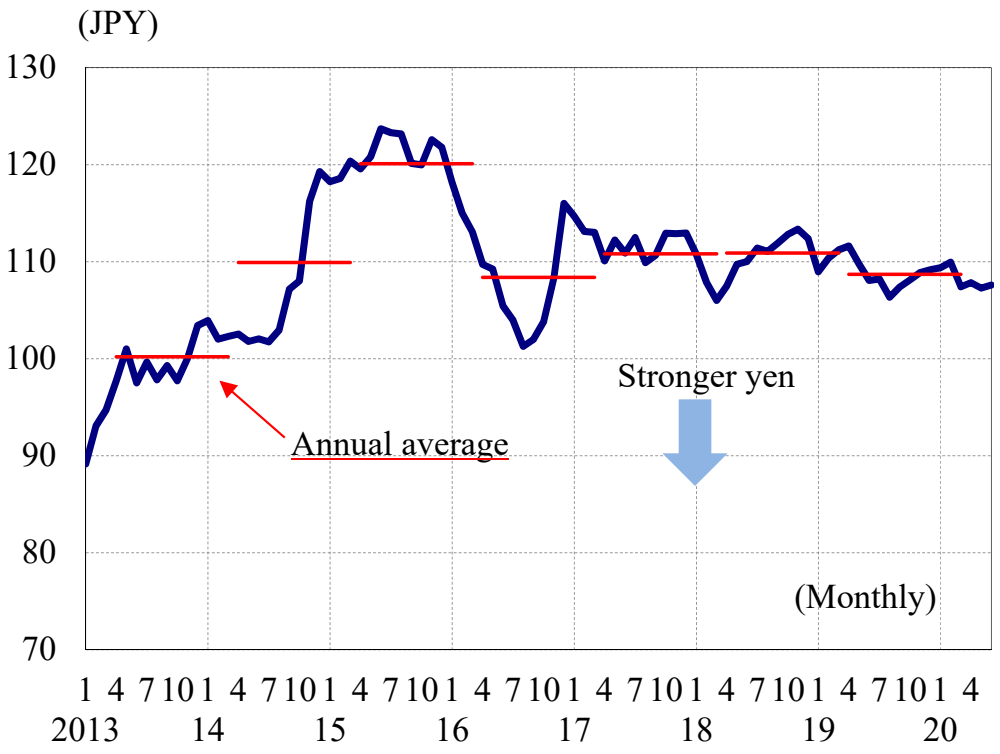
	Industry	Example
Manufacturing	Chemicals	Regenerative medicine, cellular medicine, life science, ICT materials
	General machinery	Healthcare business, hydrogen stations
	Electric machinery	Lithium-ion batteries, car accessories, automated guided vehicles
Non-manufacturing	Transportation	Next-generation mobility, agribusiness
	Wholesale & retail	Digitalization of shop environment, subscription business, e-price stickers
	Construction & real estate	Space business, e-sports, real estate crowdfunding

Note: Opportunity in growth market = Offering of any new business or service other than the existing core business

Appendix 6. Foreign Exchange Rate Assumed by Manufacturers

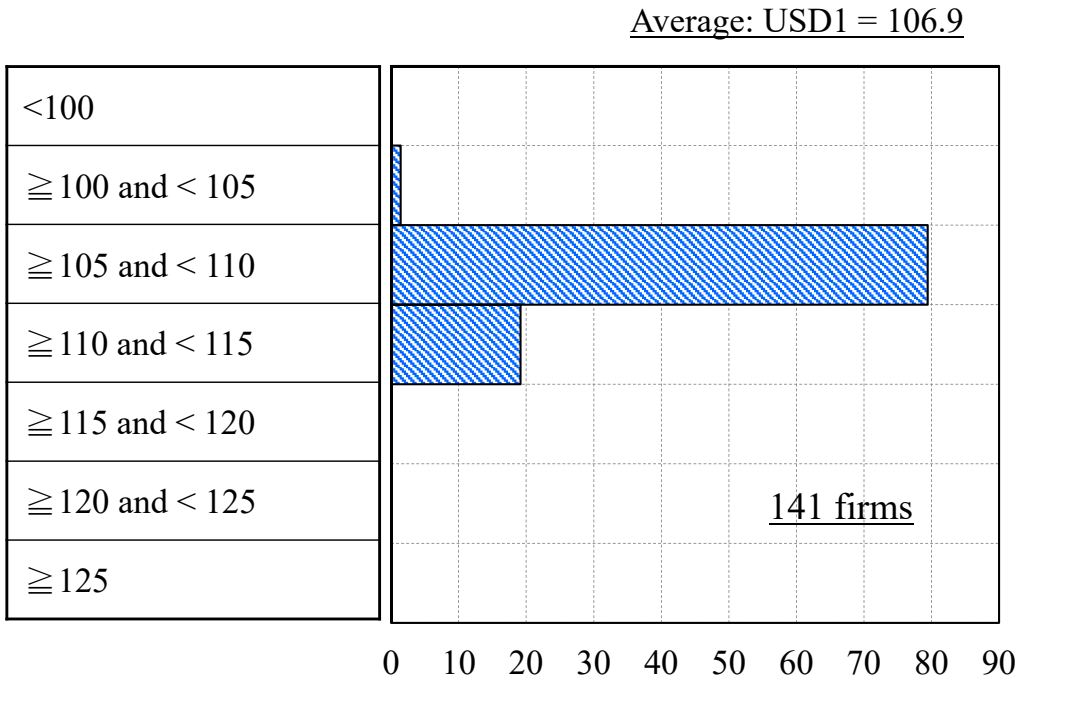
USD 1 = JPY 105-110 is the foreign exchange rate most commonly assumed by manufacturers, with an average of 106.9 yen to the dollar.

Figure 6-1. Actual USD/JPY Rate



Source: Bank of Japan,
(Monthly average of interbank rate at 17:00).

Figure 6-2. USD/JPY Rate Assumed by Manufacturers



Reference: Assumed EUR/JPY rate
Average of 141 firms: EUR 1 = JPY 118.8
Mode: ≧120 yen and <125 yen

Source: Development Bank of Japan, "Survey on Planned Capital Spending."