Survey on Planned Capital Spending for Fiscal Years 2020, 2021 and 2022

(Conducted in June 2021)

- K-shaped recovery from a sizable decline during the Covid-19 pandemic, particularly prominent in the manufacturing sector
- Investment to address pressing issues for achieving carbon neutrality nationwide, including through the development of cutting-edge technology mainly in urban areas
- Widespread investment to enhance resilience including in the development of overseas production sites and the diversification of sourcing

August 5, 2021

DBJ Development Bank of Japan

Chief Research Office

Outline of the Survey

1. Survey subjects

(1) Planned capital spending

- Carried out since 1956.
- Designed to provide an overview of capital spending in Japan by analyzing capital spending activity on a domestic non-consolidated basis, and on a domestic and overseas consolidated basis (in terms of trends by industry and motivating factors, among others).

(2) Survey of Attitudes on Corporate Activities (special survey)

- Conducted to identify the attitudes and perspectives of firms on key current issues.
- This year's survey continues to focus on corporate "investment in a broader sense," including the business impact of the novel coronavirus (Covid-19), efforts to achieve carbon neutrality, as well as investment in tangible fixed assets, information technology and R&D.

2. Companies surveyed

- 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

- Up to Tuesday, June 22, 2021.

4. Response (questionnaires sent to 3,022 major firms and 6,464 medium-sized firms)

- Number of respondents regarding domestic capital spending: 1,823 major firms (response rate, 60.3%) and 3,869 medium-sized firms (response rate, 59.9%)
- Number of respondents regarding capital spending overseas: 681 (response rate, 22.5%)
- Number of respondents regarding capital spending by region: 4,792 (response rate, 50.5%)
- Number of respondents regarding the special survey: 1,165 major firms (response rate, 38.6%) and 3,129 medium-sized firms (response rate, 48.4%)

5. Detailed results

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

Executive Summary

1. Overview of capital spending

- Domestic capital spending in FY2020 recorded the first decline in nine years as the Covid-19 pandemic affected both manufacturing and non-manufacturing sectors. Planned capital spending for FY2021 shows a recovery (up 12.6%), on the back of the implementation of postponed projects and the acceleration of investment in preparation for a carbon-neutral, digitalized society.

2. Impact of Covid-19

- Capital spending in the manufacturing sector will exceed the pre-Covid level, but investment in transportation, services and other non-manufacturing industries hit hardest by the pandemic is not expected to resume the pre-Covid level. Overall, the recovery will be K-shaped as further cuts in spending are planned by medium-sized firms for FY2021 with downward pressure coming from the lodging industry in particular.

3. Investment for carbon neutrality

- Investment is planned to address immediate pressing issues (electric vehicles, energy conservation, renewable energy, etc.) while many firms remain at the stage of preparation, seeking to establish their visions.

4. Innovation to progress toward a carbon-neutral, digitalized society

- In view of the mounting technological challenges for carbon neutrality, firms are engaging in research and development including for energy transformation in recognition of the rising need for innovation. Many projects are also planned to invest in AI- and IoT-driven innovation for remote contactless operation and automation, a trend accelerated by the Covid-19 pandemic.

5. Investment to enhance resilience

- Efforts have been made to enhance supply chains following major disasters both in Japan and abroad. Supply chains have come under further scrutiny during the Covid-19 pandemic with heightened awareness of shortages of semiconductors and geopolitical risks, resulting in planned spending on the development of production sites overseas and the diversification of overseas sites and suppliers.

6. Characteristics by region

- Investment in innovation including in the development of cutting-edge technology is planned in metropolitan areas in particular. Spending is planned across the board to address pressing issues, including on electric vehicles and renewable energy, and on disaster risk-management.

Overview by region (plan for FY2021 in parentheses)

Hokkaido (-9.9%): 2nd consecutive year of decline, mainly due to the completion of large repair projects

Tohoku (+10.5%): Double-digit increase driven by electric vehicle components and renewable energy projects

North Kanto and Koshin (+38.3%): Substantial increase thanks to electric vehicle components, power semiconductors and recycling plants

Tokyo Metropolitan area (+20.2%): Substantial increase led by batteries equipped on vehicles, 5G-related projects and downtown development

Hokuriku (+17.2%): Double-digit increase driven by semiconductors for vehicles

Tokai (+5.3%): Robust spending propped up by batteries for hybrid vehicles as well as offices and commercial facilities

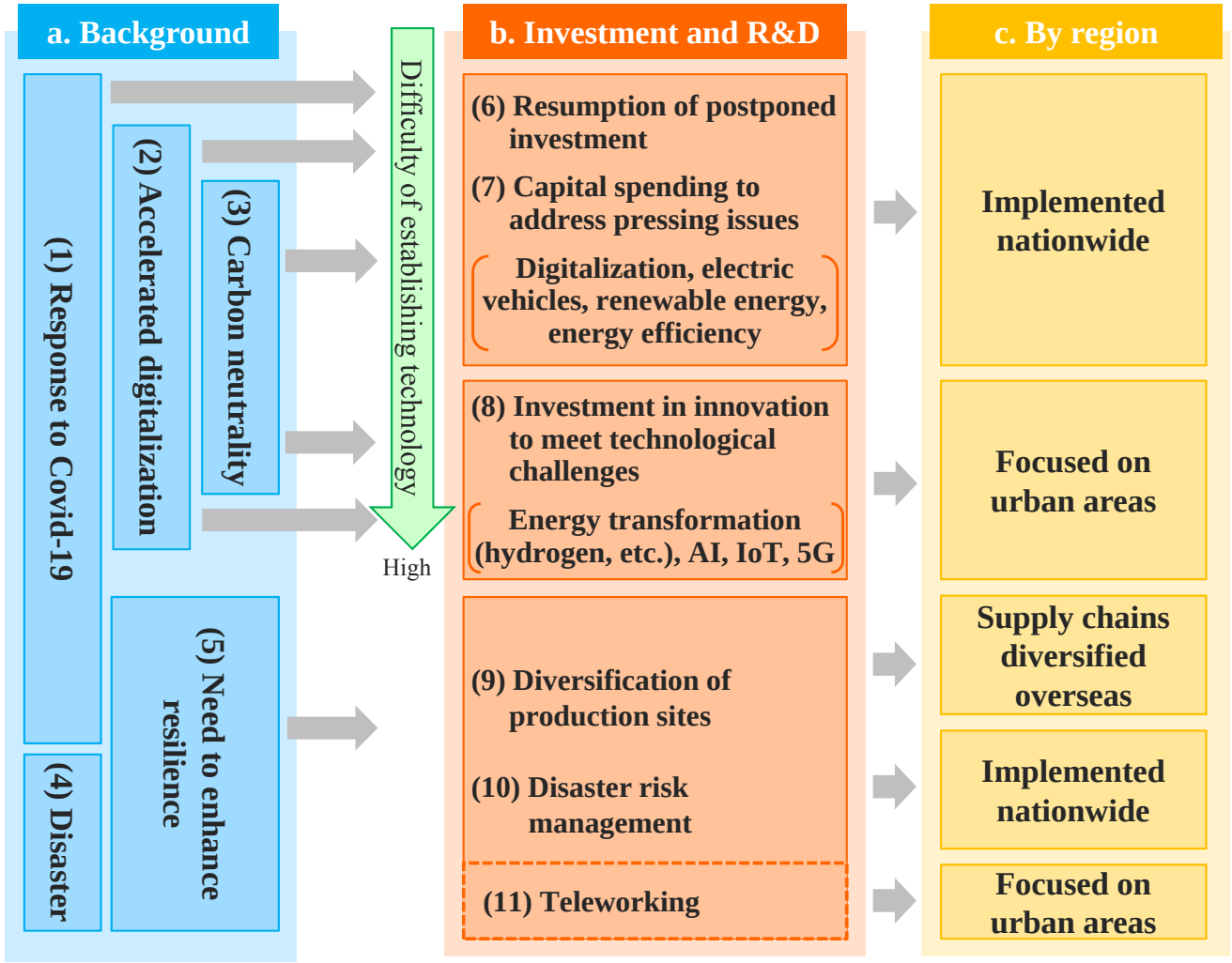
Kansai (+12.0%): First increase in three years thanks to electronic materials/components, logistics and the enhancement of functions to reduce disaster risks

Chugoku (+8.4%): Spending propped up by electric vehicles and disaster risk reduction projects

Shikoku (+23.0%): Substantial growth driven by battery materials for electric vehicles

Kyushu (+15.0%): Double-digit increase led by redevelopment projects

Structure of This Report



1. Trends in Domestic Capital Spending

Overview of This Year's Survey on Planned Capital Spending (Major Firms)

Domestic capital spending will recover in FY2021, led by the manufacturing sector.

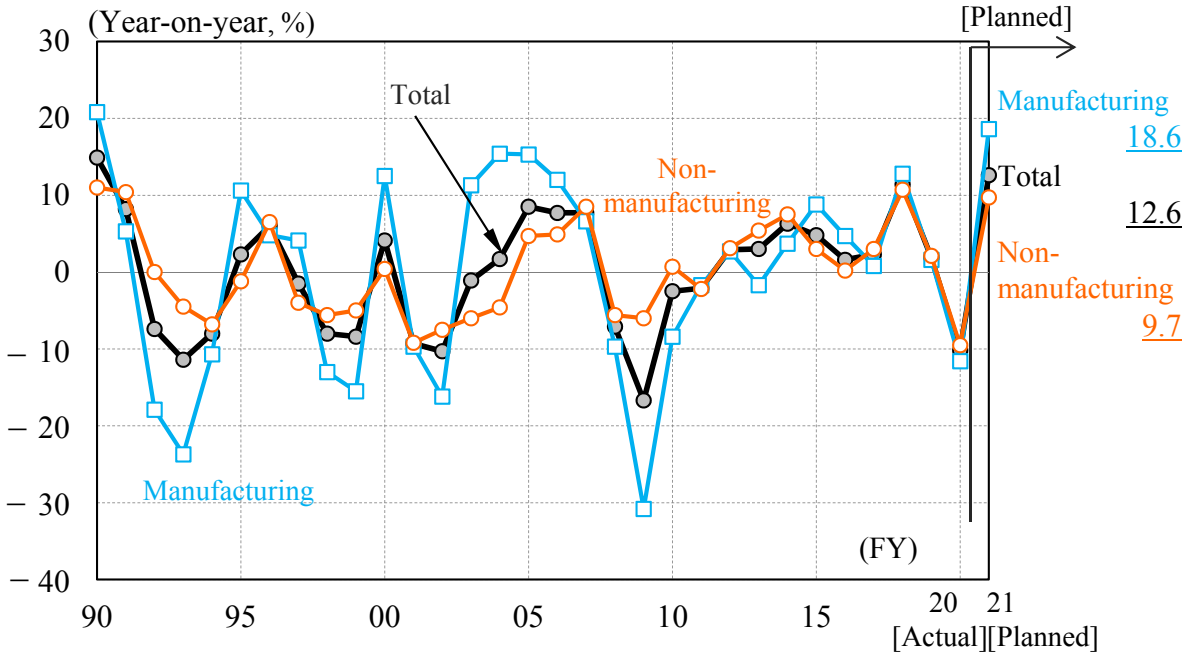
- Largely due to the impact of Covid-19, actual capital spending in FY2020 declined for the first time in nine years, down 10.2% on the previous year. The substantial contraction in both the manufacturing and non-manufacturing sectors is in stark contrast to the crisis caused by the Great Recession.
- Planned capital spending for FY2021 shows an increase of 12.6% on the previous year. The recovery will be led by the manufacturing sector thanks to the implementation of projects postponed last year and rising investment in electric vehicles and to meet the growing demand for digitalization.

Trends in domestic capital spending in FY2020 and FY2021

(Year-on-year, %)

	FY2020 Actual (1,670 firms)	FY2021 Planned (1,823 firms)
Total (excluding electric power)	-10.2 [-9.7]	12.6 [12.8]
Manufacturing	-11.6	18.6
Non-manufacturing (excluding electric power)	-9.5 [-8.6]	9.7 [9.6]

Growth of capital spending (FY1990-2021)

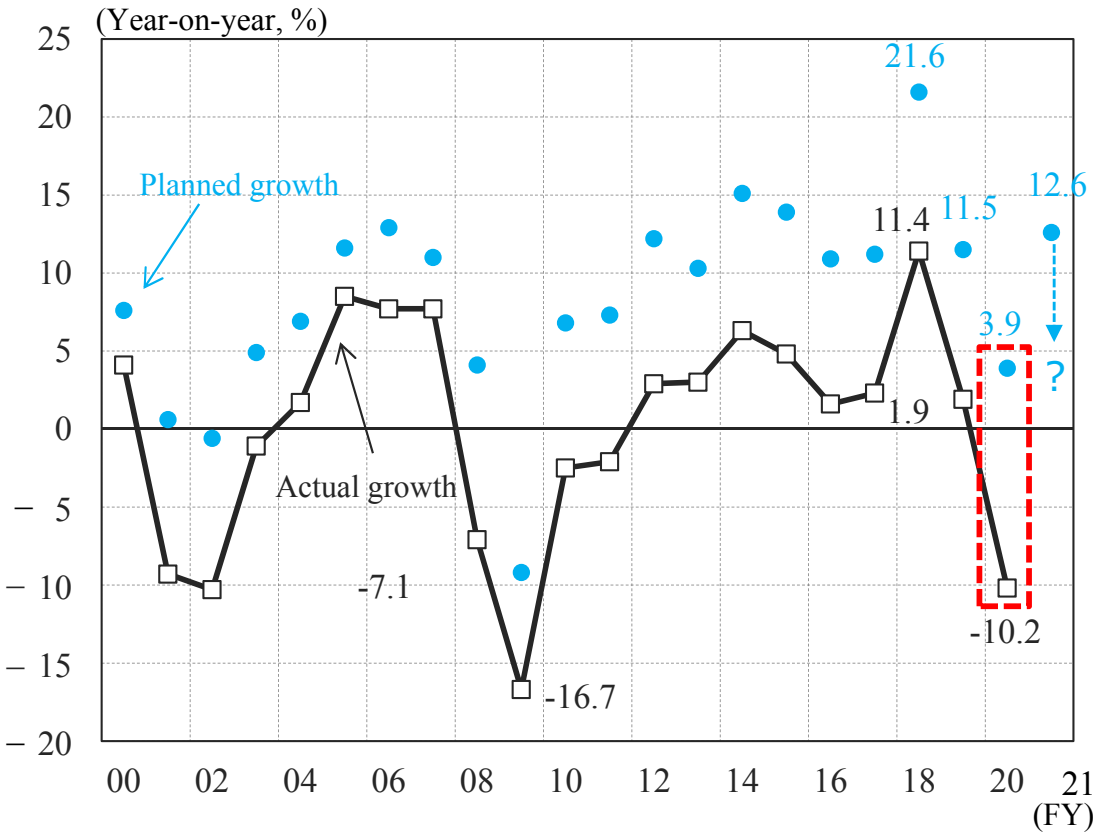


Latest Estimate Based on Comparison of Past Plan versus Actual Figures

The latest estimate does not indicate a return to the pre-pandemic level but does indicate a swifter recovery than after the Great Recession.

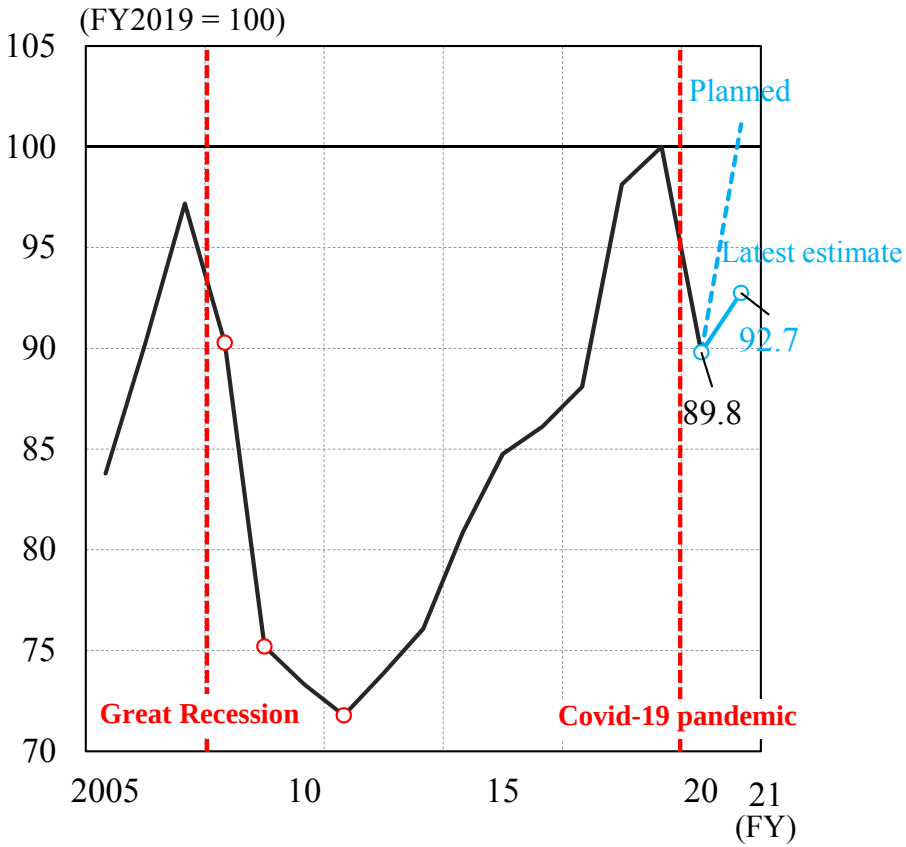
- Recent surveys have seen a common trend of downward revision in actual spending versus planned figures for the current fiscal year.
- In light of this tendency, actual capital spending in FY2021 is not expected to resume the pre-pandemic level of FY2019, remaining only in single-digit growth.
- However, the recovery is expected to be quicker than after the Great Recession.

Capital spending growth: planned vs. actual (total)



Note: Major companies

Capital spending levels including the latest estimate (total)



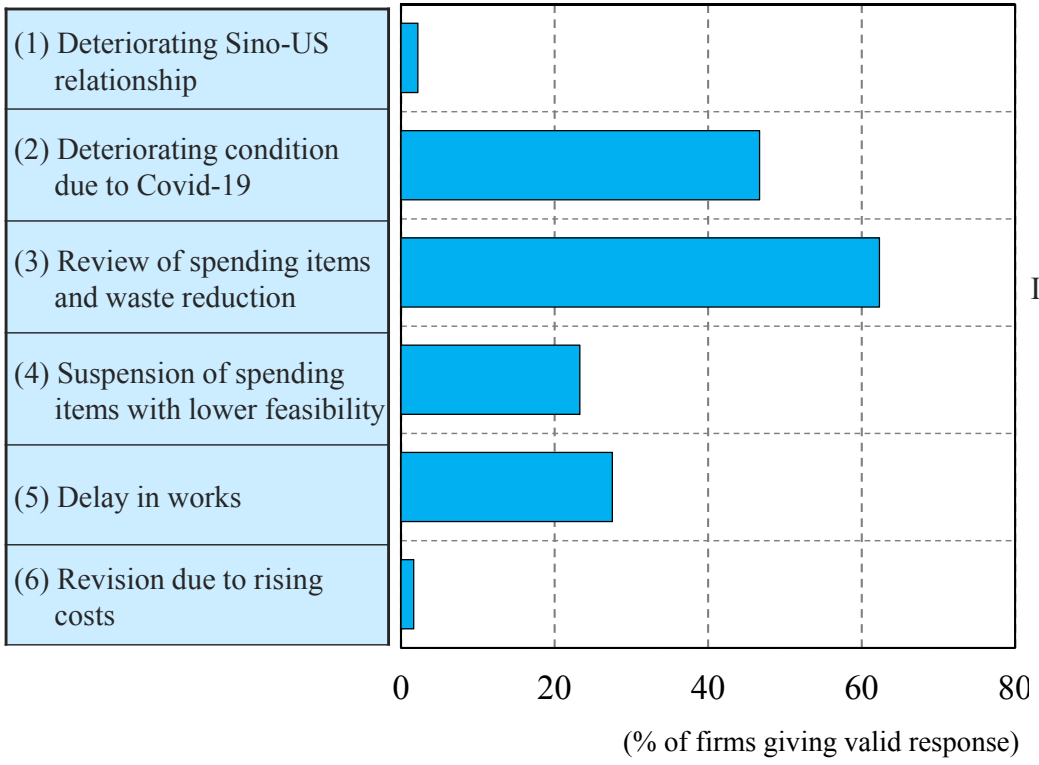
Note: Latest estimate reflects the five-year average of realization rate from FY2015 to 2019.

Are Investment Projects Postponed Last Year Included in This Year's Plan?

Most manufacturers plan to resume "postponed projects," but fewer non-manufacturers plan to do so.

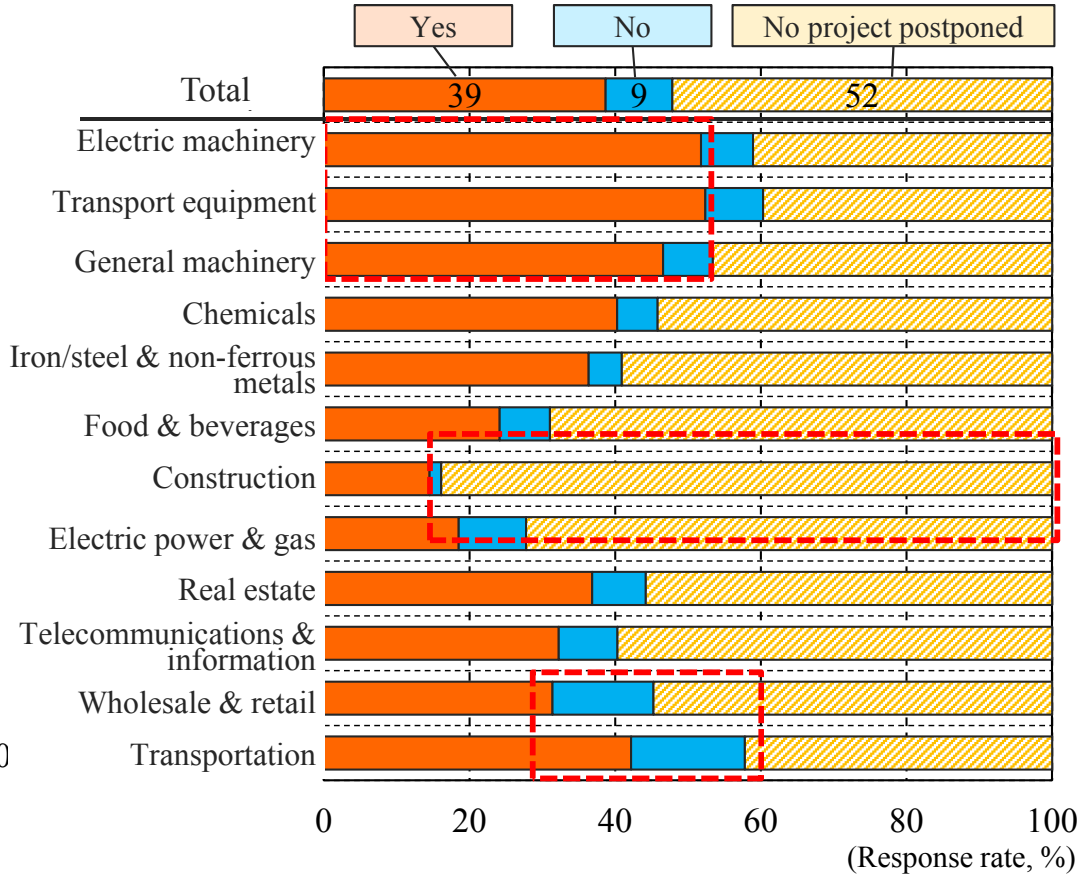
- In FY2020, almost 50% of the firms revised their capital spending plan downward in the wake of the Covid-19 pandemic.
- Manufacturers are more likely to resume postponed projects (electrical machinery, transport equipment, general machinery, etc.) this year.
- Non-manufacturers are less likely than manufacturers to resume investment (wholesale & retail, transportation, etc.).

Reasons why last year's actual figures did not reach the initial plan



Notes: Respondents may choose up to three answers. Data only covers major firms.

Does this year's plan include projects postponed last year due to the Covid-19 pandemic?



Notes: Data only covers major firms reporting less-than-planned capital spending.

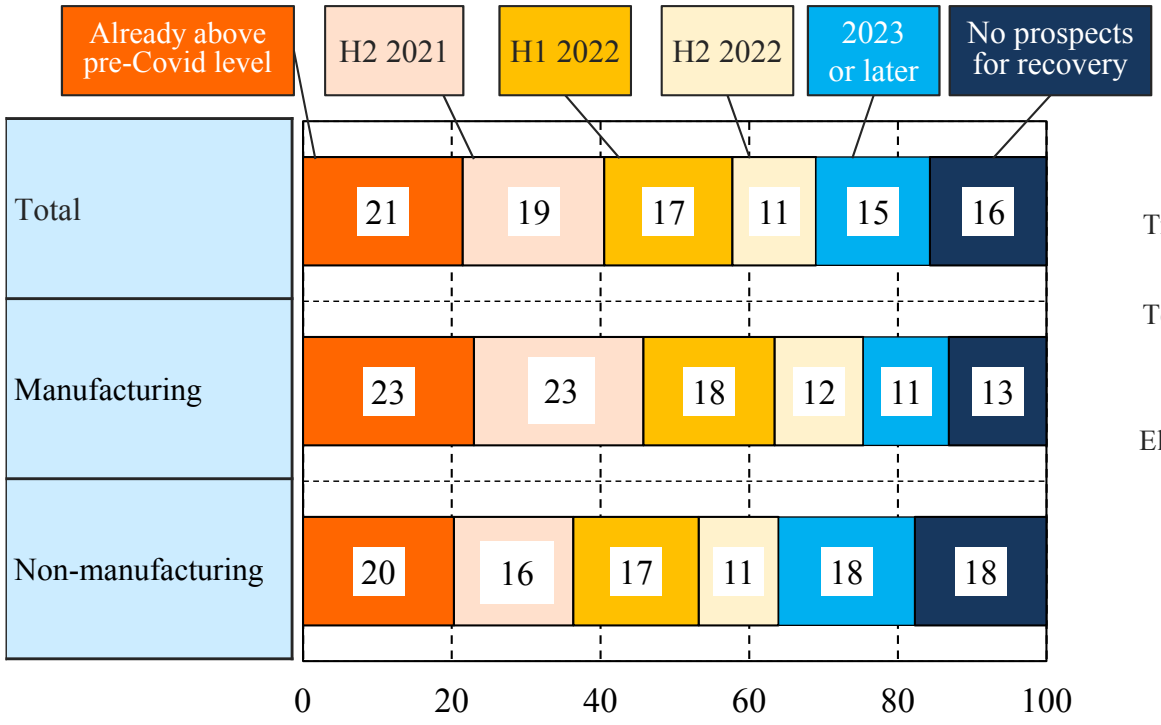
Prospects for Recovery from the Covid-19 Pandemic

Forty percent of the firms expect sales to recover by the end of the year, but the recovery will be K-shaped.

- Asked about their sales, 40% of the firms expect recovery by the end of the year, including 20% reporting sales that already exceeded the post-pandemic level. However, the recovery is expected to be K-shaped, as the answers from non-manufacturing firms are evenly distributed among choices, including “no prospects for recovery.”
- By major industry, over 60% of the firms in electric machinery, as well as over 50% in telecommunications & information, anticipate recovery by the end of the year, whereas more than 50% of the firms in the transportation industry do not expect recovery until 2023 or have no prospects for recovery at all, with little recovery in passenger demand in sight.

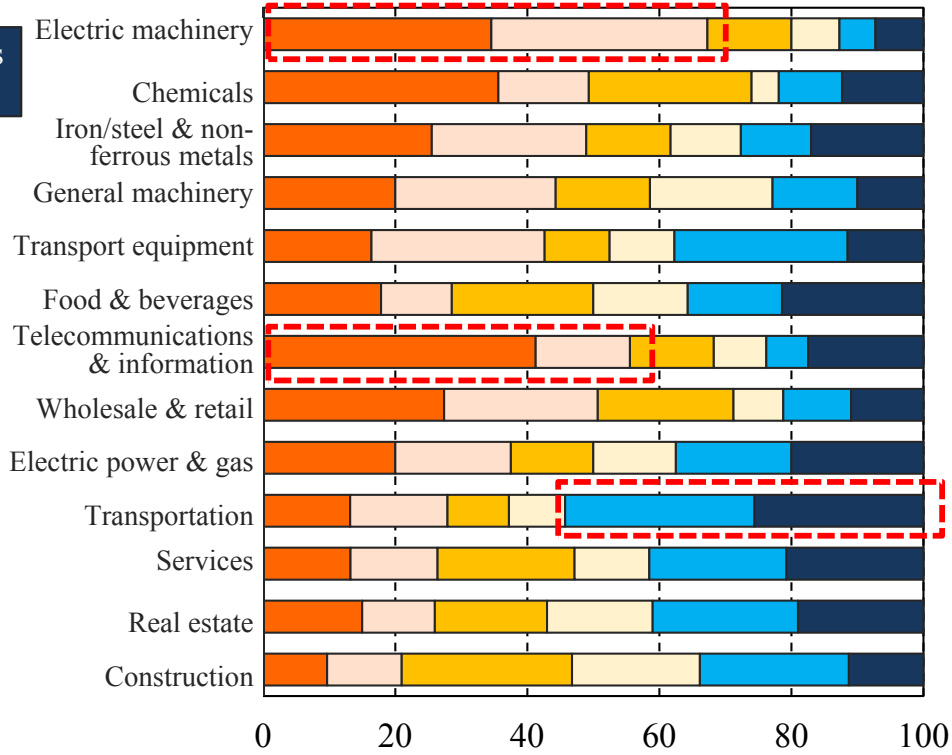
Prospects for recovery from the Covid-19 pandemic

Overview



(Response rate, %)

By major industry



(Response rate, %)

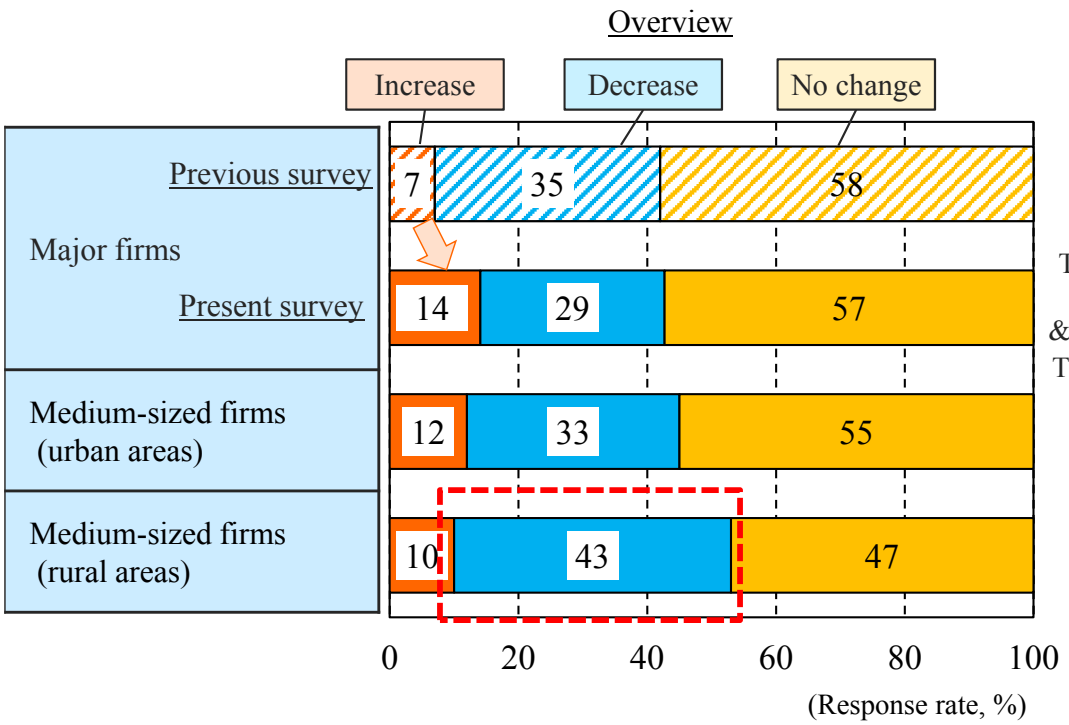
Note: Major firms.

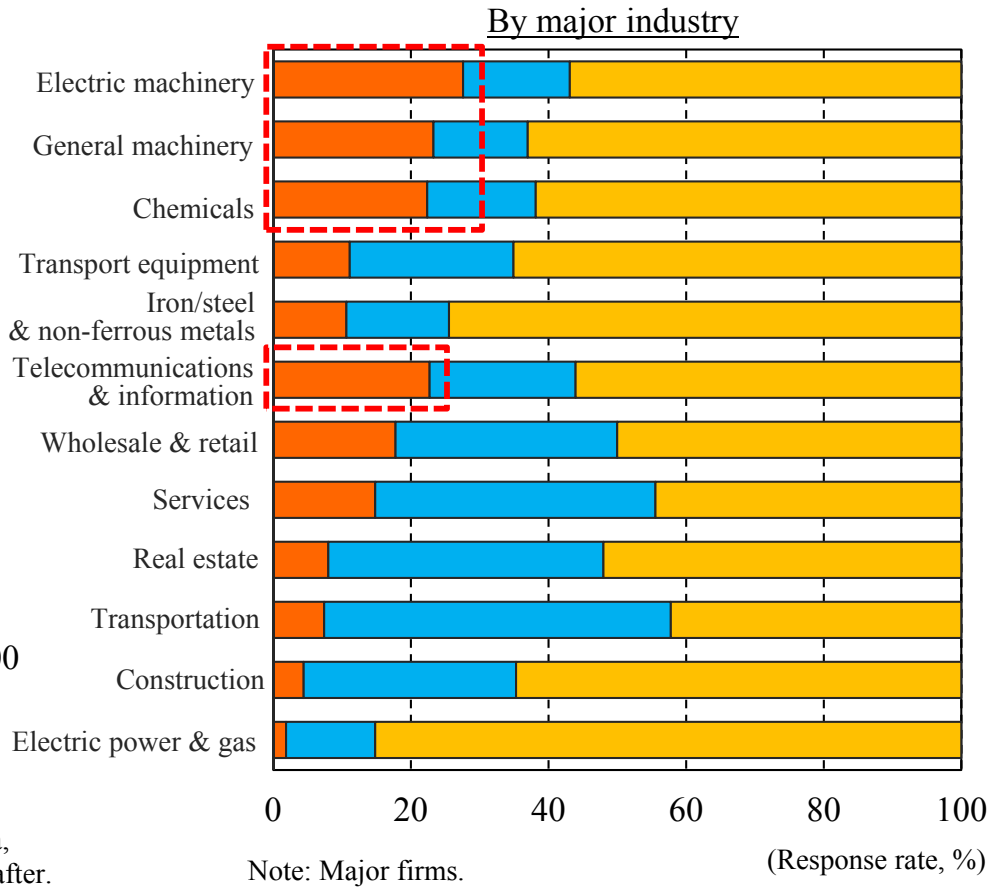
Longer-Term Outlook of Post-pandemic Demand for Products and Services

More firms expect an increase in demand for products and services in the medium to long term versus the previous year.

- In last year's survey, more than half of the firms expected no change in demand in the longer term. In this year's survey, more firms expect an increase in demand over the longer term while a smaller share of firms anticipate shrinking demand as a result of the pandemic.
- However, a larger impact may be observed among medium-sized firms in rural areas, as more than 40% of them expect a decline in demand.
- By major industry, the results show a very mixed picture, as larger proportions of firms are anticipating increased demand in electric machinery, general machinery, chemicals and telecommunications & information.

Post-Covid-19 demand outlook for products and services over the medium to long term





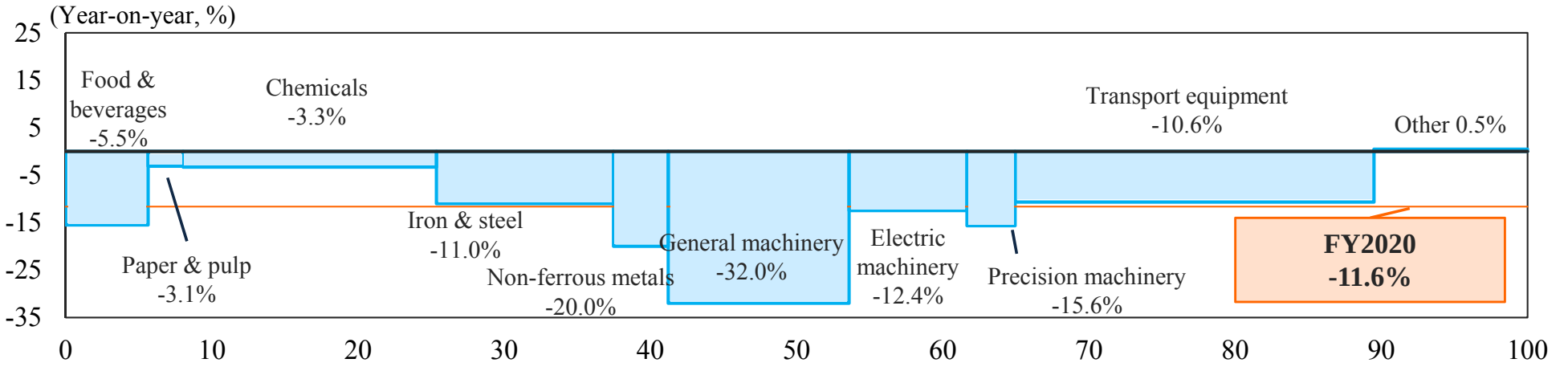
Note: Urban areas include Tokyo Metropolis as well as the prefectures in the three metropolitan areas where a government-designated city is located (Saitama, Chiba, Kanagawa, Aichi, Kyoto, Osaka and Hyogo Prefectures); the same applies hereinafter.

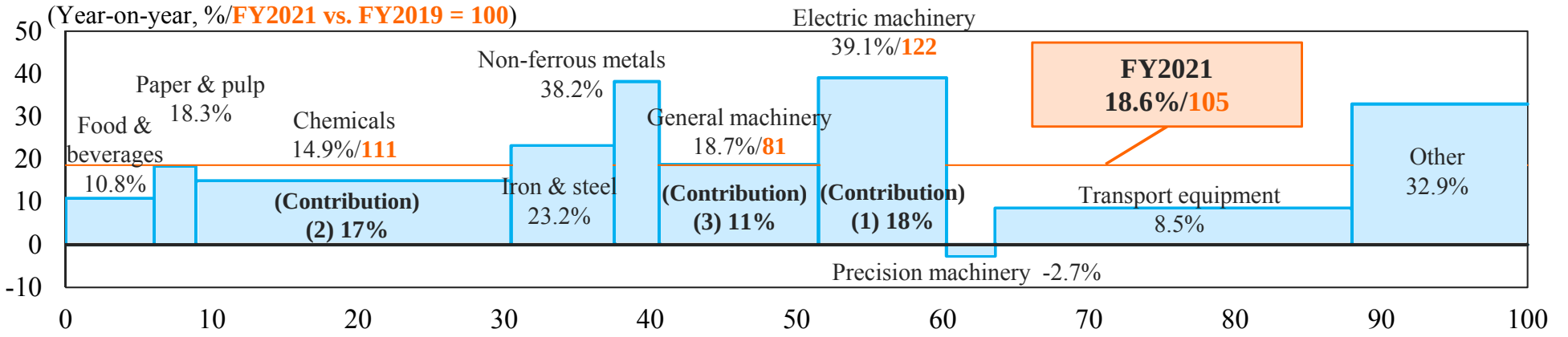
Note: Major firms.

Skyline Chart of Composition and Growth of Capital Spending by Major Industry (Manufacturing)

Increased spending is planned in various industries, particularly in electric machinery and chemicals for carbon neutrality and digitalization.

- The widespread decline in FY2020 will change into substantial growth in FY2021, led by electric machinery and chemicals.
- In addition to the resumption of postponed investments, spending will substantially exceed the pre-Covid levels in electric machinery, led by investment in electric vehicle components to achieve carbon neutrality and in power semiconductors, as well as in chemicals, propped up by electronic vehicle materials and pharmaceuticals.



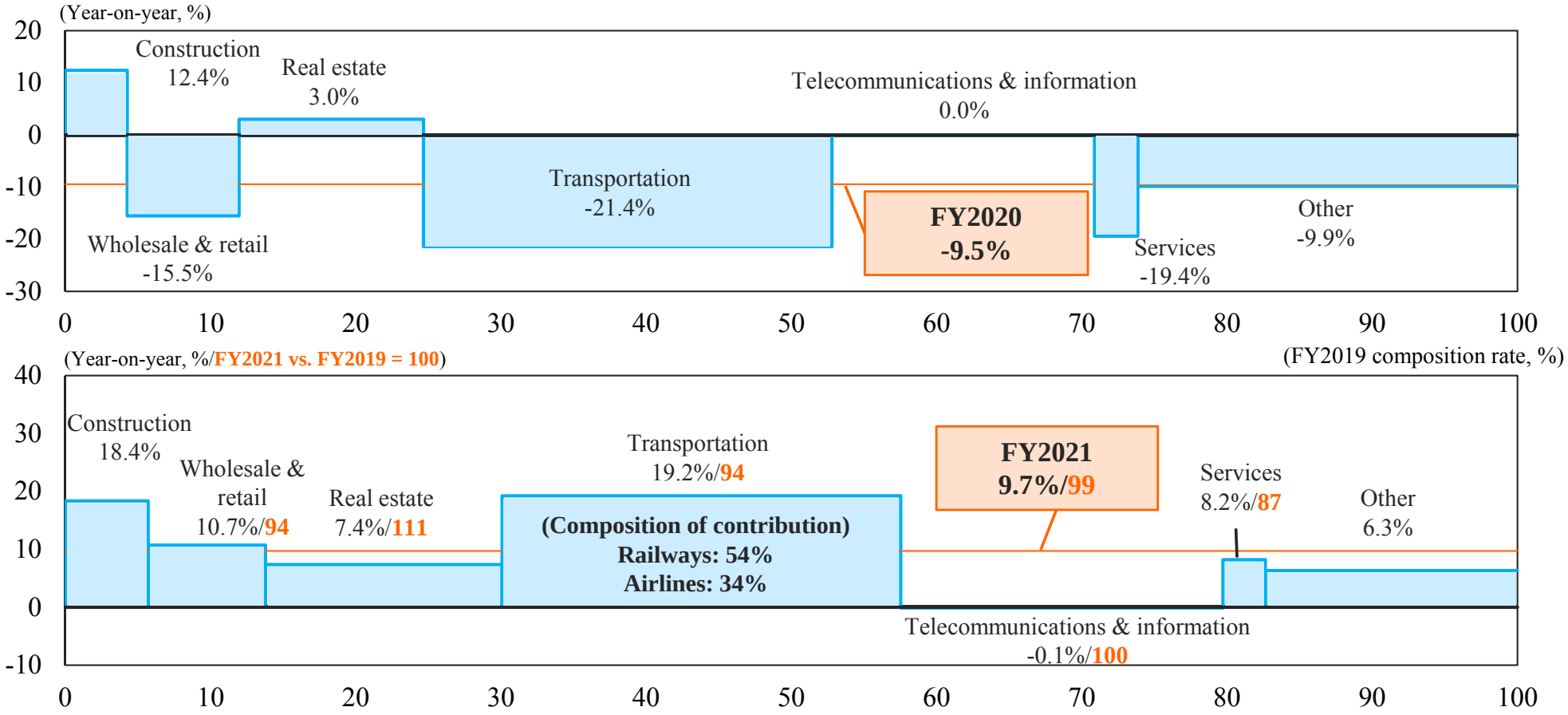


Notes: The larger the area, the greater the contribution to total spending. Data only covers major firms.

Skyline Chart of Composition and Growth of Capital Spending by Major Industry (Non-Manufacturing)

Spending will remain robust in real estate but will not recover to the pre-Covid level in wholesale & retail, transportation and services, resulting in a K-shaped recovery.

- Despite a widespread decline in FY2020, spending in real estate will continue its robust increase in FY2021, driven by investment in logistics facilities and downtown development. Spending in telecommunications & information will remain on a par with the pre-Covid level, as the rising investment in 5G base stations will be offset by the consolidation of 4G facilities.
- Postponed investments in transportation are planned to be implemented mainly by road and air transport firms, while plans in wholesale & retail, particularly in existing supermarket and CVS outlets, are to increase investment. However, total spending in the non-manufacturing sector, including services, is not expected to recover to the level of FY2019, as many firms still do not expect an early recovery from the pandemic.



Notes: The larger the area, the greater the contribution to total spending. Data only covers major firms.

Comparison between Major and Medium-Sized Firms

Medium-sized firms plan reduced spending due to substantial downward pressure from the lodging industry, in particular; the recovery will be K-shaped depending on the size of the firm.

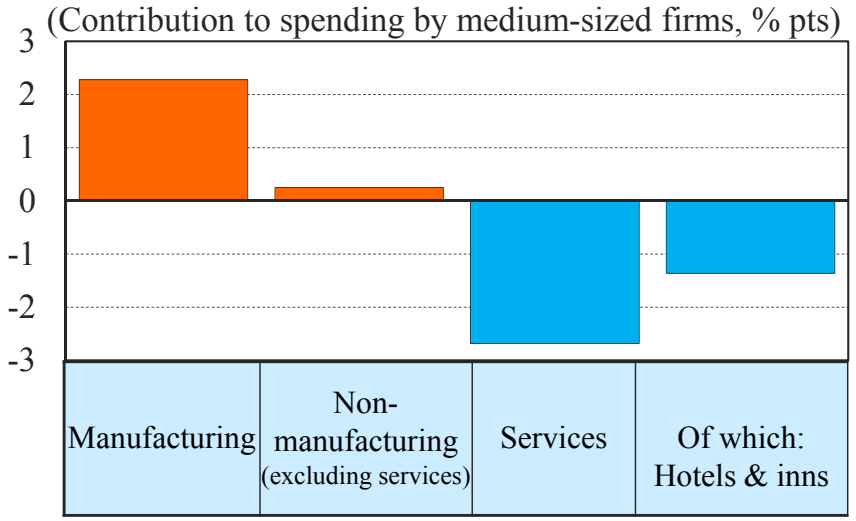
- Planned capital spending for FY2021 shows an increase of 12.6% among the major firms and a decrease of 0.2% among the medium-sized firms. Medium-sized firms show weaker performance even taking into account the difference in the pattern of downward revision toward the end of the year. Thus, the recovery will be K-shaped depending on the business size. There is substantial downward pressure from services, including hotels and inns, most of which are medium-sized firms.

Trends in capital spending in FY2020 and 2021, by business size

(Year-on-year, %)

	FY2020 Actual	FY2021 Planned
Total	-10.5	11.3
Manufacturing	-12.3	16.9
Non-manufacturing	-9.6	8.5
Major firms	-10.2	12.6
Manufacturing	-11.6	18.6
Non-manufacturing	-9.5	9.7
Medium-sized firms	-14.1	-0.2
Manufacturing	-17.5	5.4
Non-manufacturing	-11.5	-4.2

Contribution to the capital spending of medium-sized firms, by industry



Composition of spending amount, by business size (FY2020)

(Composition rate, %)	Major	Medium
Manufacturing	33	42
Non-manufacturing (excl. services)	65	46
Services	2	12
Of which: Hotels & inns	0	6

Overview of GRIT Spending, by Industry and Region

Investment to address pressing issues, including carbon neutrality and resilience, can be observed nationwide, whereas spending on innovation is focused on urban areas.

- Investment to address the pressing issue of carbon neutrality is mainly observed in the Pacific Belt among large CO_2 emitters. Spending on electric vehicles, energy conservation and renewable energy is active across the board.
- Innovation-related projects, which entail highly challenging processes to establish technology, are mainly conducted in urban areas where R&D centers are located, including R&D on AI-driven automation and energy transition.
- Efforts to enhance resilience against pandemics and disasters are seen nationwide, while a more diverse supply chain is being implemented abroad.

Difficulty of establishing technology: High

		a. Key features	b. Industry	c. Region	d. Key projects (spending amount)
Green/ Transition	1	• Pressing issues • Large CO_2 emitters	• Iron & steel, chemicals	• Pacific Belt (Kanto, Kansai, Chugoku)	• Magnetic steel sheet capacity (tens of billions of yen) • LNG power generation (tens of billions of yen) • Recycling plant (billions of yen)
	2	• Pressing issues • Quick wins (with existing technology)	• Chemicals, electric and general machinery • Wholesale & retail, real estate	• All regions	• Transition to electric vehicles (batteries, power semiconductors) (hundreds of billions of yen) • Energy conservation (LED lighting) (hundreds of millions of yen) • Renewable energy (photovoltaic, wind power, biomass)
Innovation	3	• Near-term issues • Labor-saving, streamlining • Densely populated areas	• Wholesale & retail, transportation	• Metropolitan areas (Hokkaido, Kanto, Kansai, Tokai)	• Automation of distribution centers (AI, IoT) (tens of billions of yen)
	4	• Longer-term issues • R&D on cutting-edge technology (requiring sizable investment) • Limited areas	• Chemicals, general machinery, automobiles	• Tokyo metropolitan area (Kanagawa) • Tokai (Aichi, Shizuoka)	• Hydrogen-reduced iron (hundreds of billions of yen), ammonia • Cancer drug development, biotechnology (hundreds of billions of yen) • Smart factory, 5G, autonomous driving, smart city (hundreds of billions to trillions of yen)
Resilience	5	• Response to Covid-19	• Electric machinery, chemicals	• Tokai, Shikoku	• Highly sensitive camera for PCR testing, facemask capacity (billions of yen)
	6	• Response to earthquakes, storms and floods	• Manufacturing in general • Real estate, transportation	• Dispersed to either the Pacific side or the Sea of Japan side • Tohoku, Chugoku, Kyushu	• Production site diversification (billions of yen) • Seismic strengthening (hundreds of millions to billions of yen) • Flood control (hundreds of millions to billions of yen)
	7	• Response to geopolitical risks	• Manufacturing in general	• Overseas business sites	• Sourcing diversification

Notes: GRIT stands for the key strategic theme of DBJ's Fifth Medium-Term Management Plan (Green, Resilience, Innovation and Transition).
The amount of spending on d. "Key projects" includes longer-term projects as well as projects planned for FY2021.

Characteristics, by Region

Investment to address pressing issues, including electric vehicles, energy conservation and renewable energy, can be observed in areas with a high concentration of large CO_2 emitters, among others.

- Projects related to carbon neutrality are mainly planned in Kanto & Koshin, Kansai and Chugoku (the Pacific Belt), where the chemical and iron & steel industries are concentrated, in an effort to address pressing issues, including the replacement of power-generation facilities and electric furnaces. Investment in electric machinery and transport equipment to accompany the transition to electric and hybrid vehicles is planned across wide areas in Kanto & Koshin and Tokai. Investment related to innovation, including for the development of cutting-edge technology, is mainly planned in the Tokyo metropolitan area, where R&D hubs are concentrated.

	Hokkaido	Tohoku	North Kanto & Koshin	Tokyo metro area	Hokuriku	Tokai	Kansai	Chugoku	Shikoku	Kyushu
Green/ Transition	Coke oven repair Biomass power generation Wind power generation	Electronic parts for electric vehicles Offshore wind power generation	Electric vehicle components Power semiconductors Chemical recycling plants	LNG power generation Development of engines for hybrid vehicles	Semiconductors for vehicles Energy efficient factory equipment	Mass production of hybrid vehicle batteries Development centers for vehicle electrification Onboard electric control units	Magnetic steel sheet Parts for electric vehicles	Magnetic steel sheet Production equipment for new light electric vehicle models	Battery materials for electric vehicles Development of LEDs for electric vehicles	Independent hydropower generation Transition to LNG Power semiconductors
Innovation	Store automation Automated warehousing	5G electronic parts Delivery robots	Development of new auto models Development of robot speed reducer	R&D on autonomous driving HDD for data centers Cancer drug development	Implementation of AI and IoT in factories	Ammonia piloting Smart city Smart factory 5G testing facilities	Hydrogen-reduced iron production Pharmaceuticals 5G parts (crystal devices)	Ammonia supply chain building Local 5G experiments	Raw materials for 5G	Automated warehousing
Resilience	Seismic strengthening of hotels	Flood control Seismic strengthening	Replacement of R&D facilities	Emergency power generators	Diversification of production sites (Tokyo metropolitan area → Hokuriku)	Remote production sites Virtual desktop Emergency power generators	Central monitoring & disaster prevention equipment	Disaster prevention for underground malls Flood control	Facemask capacity expansion Disaster prevention equipment	Business continuity planning Rechargeable battery replacement
Capital spending growth in FY2021	-9.9	10.5	38.3	20.2	17.2	5.3	12.0	8.4	23.0	15.0
Characteristics	2nd straight year of decline with the completion of large-scale repair projects	Double-digit growth led by spending on electric vehicle components and renewable energy	Substantial increase driven by electric vehicle components, power semiconductors and recycling plants	Substantial growth led by batteries for vehicles, 5G and downtown development	Double-digit growth driven by semiconductors for vehicles	Spending growth propped up by hybrid vehicle batteries as well as offices and commercial facilities	1st increase in 3 years, led by electronic materials & parts, logistics and the enhancement of disaster prevention functions	Increase propped up by electric vehicles and disaster prevention projects	Substantial growth driven by battery materials for electric vehicles	Double-digit increase led by redevelopment projects

Notes: The table lists key initiatives identified in Surveys on Planned Capital Spending and corporate press releases, with coloration depending on the amount identified or the number of initiatives. Darker colors indicate particularly active industries and regions.

2. Developments toward Carbon Neutrality

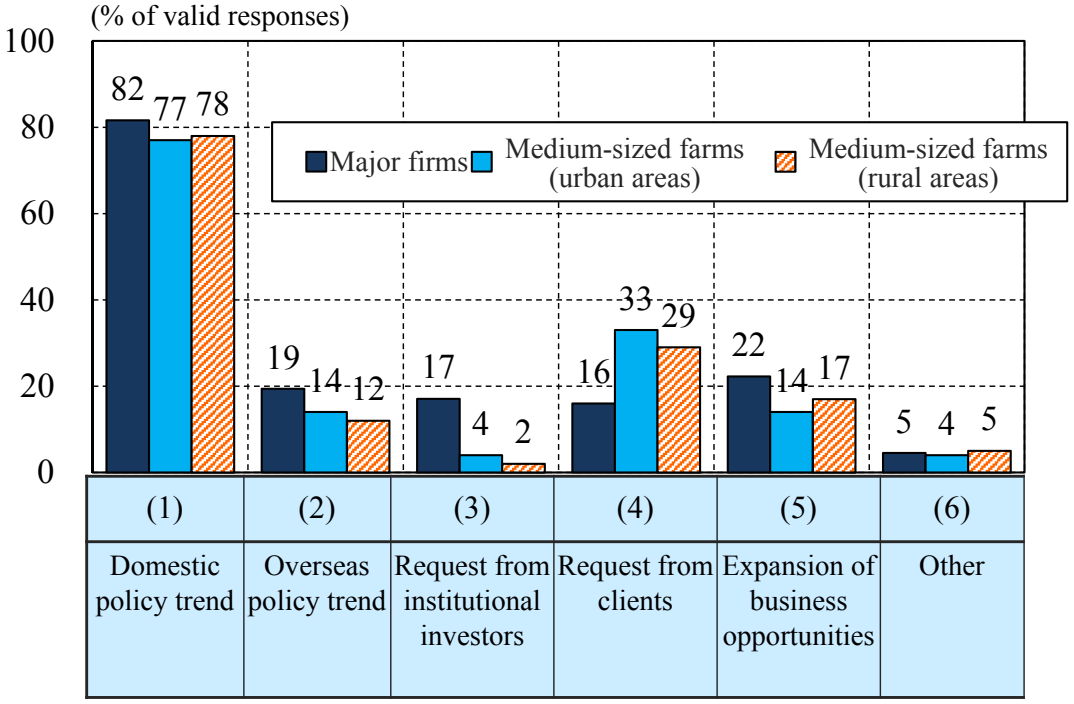
Green Transition

Factors behind Relevant Efforts and Expected Business Impact

Domestic policy trend is an overwhelming factor for relevant efforts, and its business impact entails the development of long-term strategies, among others.

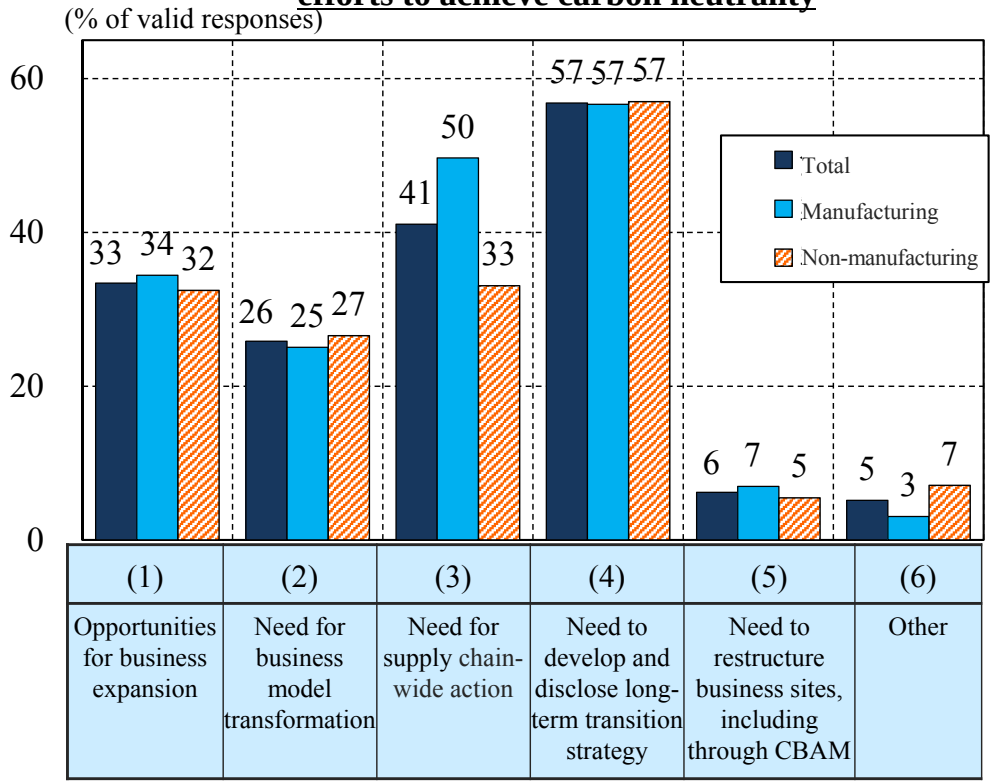
- The domestic policy trend is one overwhelming factor behind relevant efforts. Other important factors include the expansion both of business opportunities and of requests from institutional investors for major firms, and requests from clients for medium-sized firms, pointing to differences depending on the business size.
- Expected business impact includes the addressing of the need to develop and disclose a long-term strategy and of the need for supply chain-wide action.

Factors behind efforts to realize a carbon-neutral society



Note: Respondents may choose up to two answers.

Business impact from the acceleration of international efforts to achieve carbon neutrality



Notes: Respondents may choose up to three answers. Data only covers major firms.

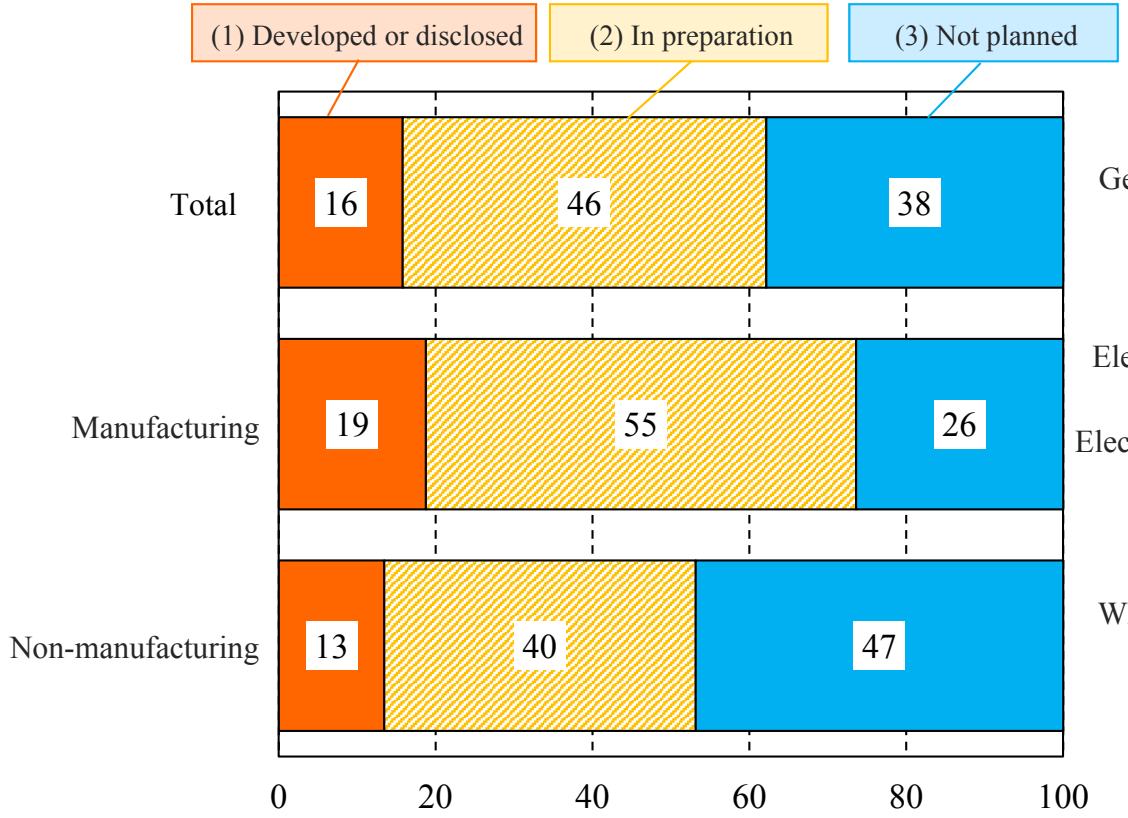
Development of Longer-Term Vision to Achieve Carbon Neutrality

Development and preparation are making headway mainly among large CO_2 emitters.

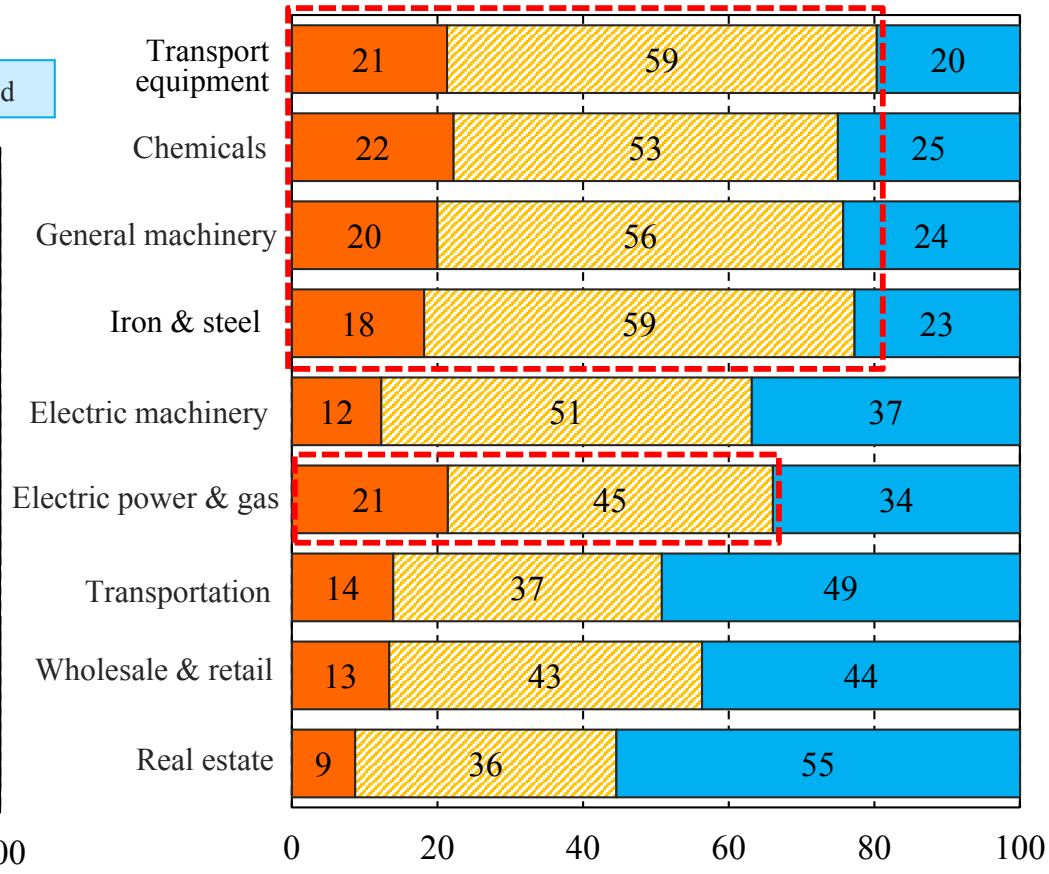
- Almost 20% of the firms, particularly major firms, have developed a longer-term vision to achieve a carbon-neutral society. About half of the firms are now preparing the vision.
- The development and preparation of a vision is led by large CO_2 emitters, including in transport equipment, iron & steel, chemicals, general machinery and electric power & gas.

Development and consideration of longer-term vision

Overview



By major industry



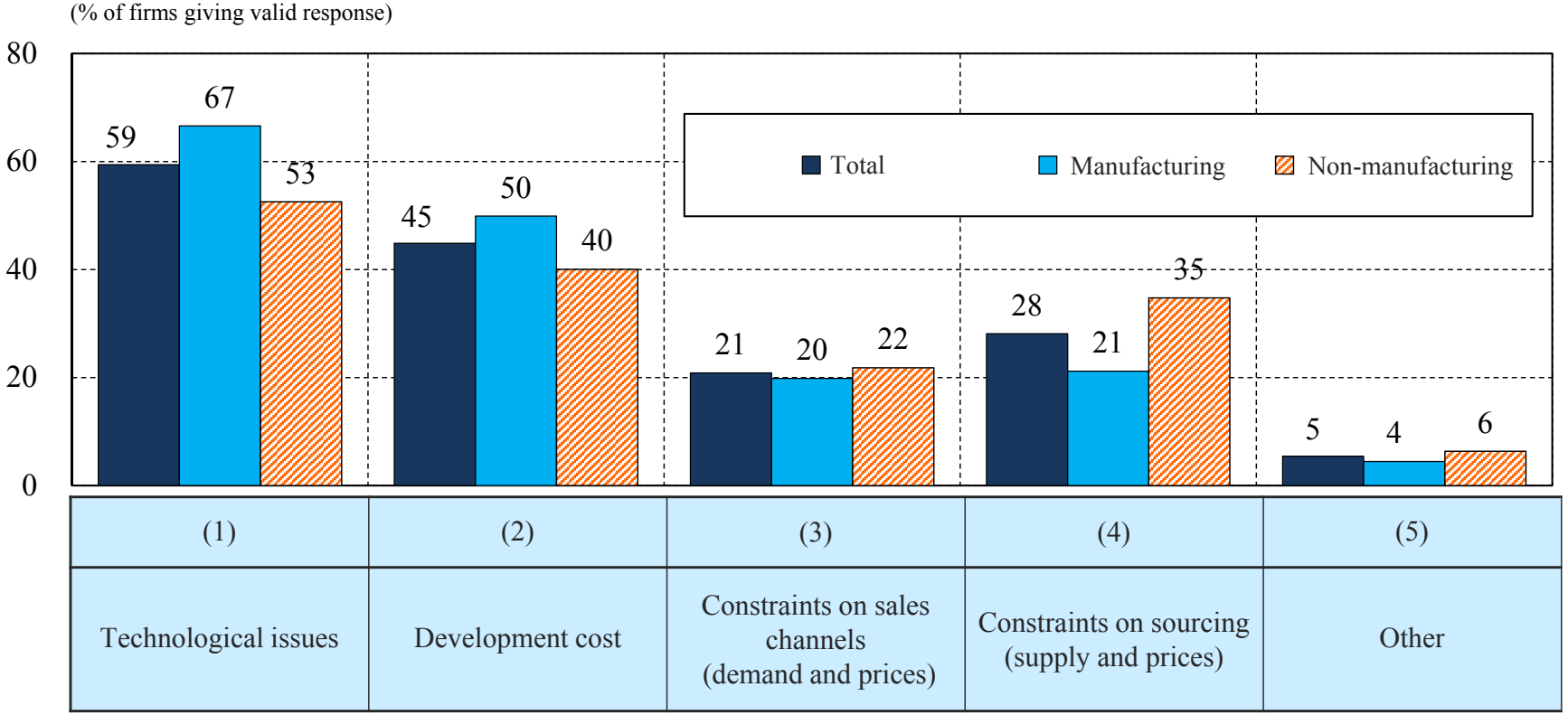
Note: Major firms.

Key Challenges

Key challenges include technological issues and development cost, mainly in manufacturing.

- Key challenges for continuing relevant efforts include technological issues and development cost, particularly in the manufacturing sector.

Challenges to continued efforts for achieving carbon neutrality



Notes: Respondents may choose up to two answers. Data only covers major firms.

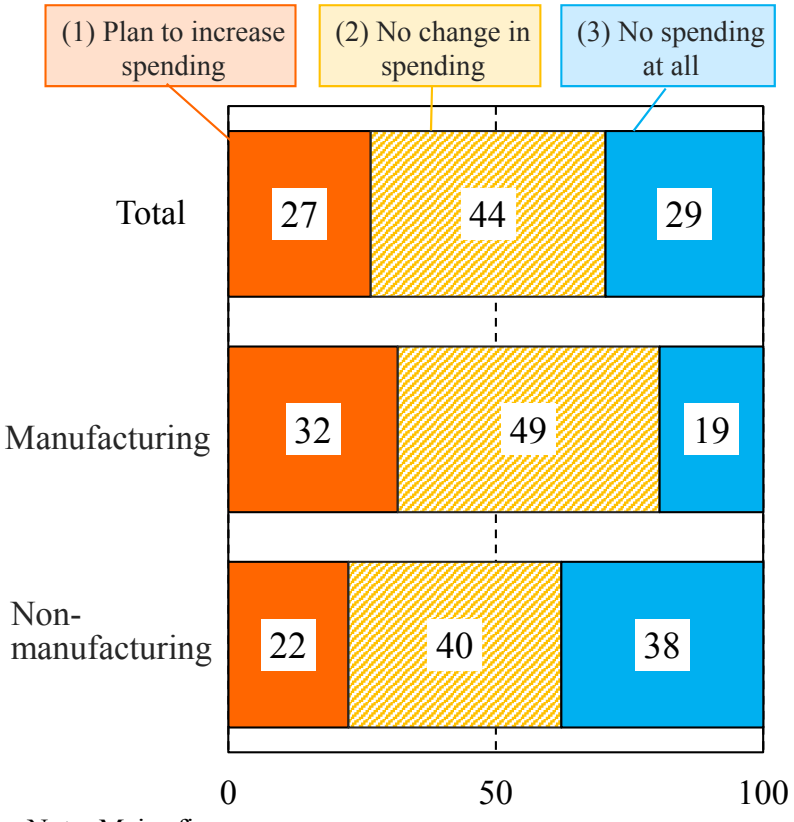
Status of Related Investment

Thirty percent of the firms plan to expand related investment, mainly in transport equipment and chemicals.

- Almost 30% of the firms plan to expand investment related to carbon neutrality (including in R&D). In particular, over 40% of both the Transport equipment and the Chemicals industries are planning to increase spending.
- Major components of the related investments (by medium-sized firms) include energy transition and renewable energy as well as R&D.

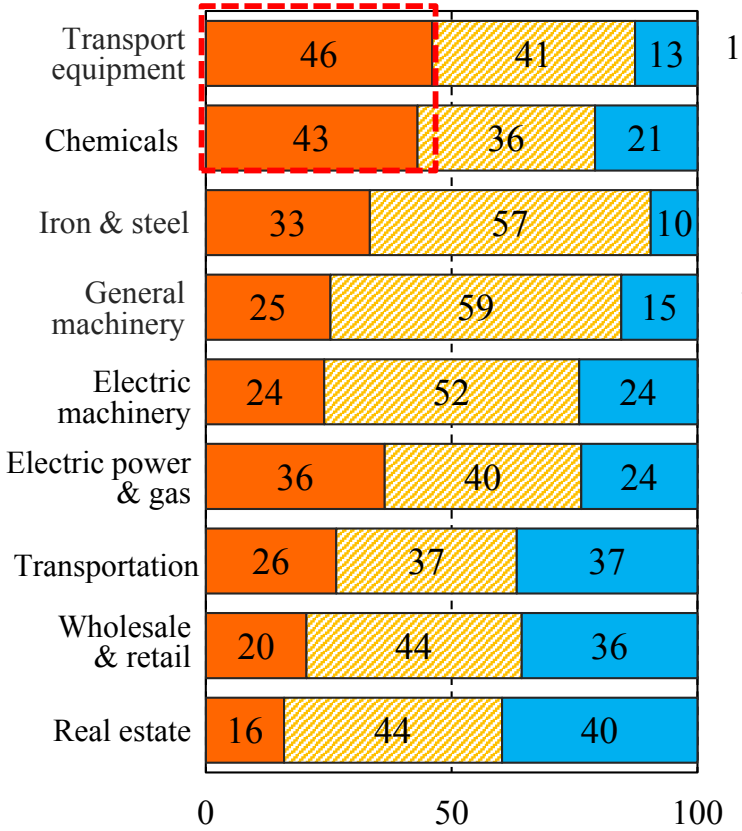
Status of investment related to carbon neutrality (including R&D)

Overview

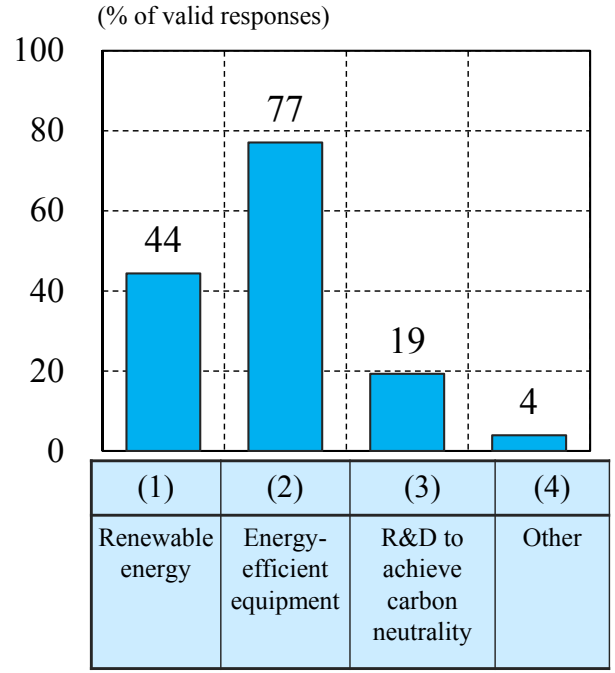


Note: Major firms.

Overview, by major industry



Components of investment related to carbon neutrality



Notes: Respondents may choose up to four answers. Data only covers medium-sized firms.

3. Investment in Innovation

Research and Development

Active investment for carbon neutrality, vehicles and 5G mainly in chemicals and electric machinery

- R&D expenditure in FY2020 declined 3.7% on the previous year as a whole, recording the first decrease in the last four years, especially with downturn in Transport equipment.
- Planned expenditure for FY2021 shows an increase of 9.2% on the previous year. Spending growth will be particularly strong in chemicals, led by pharmaceuticals, and in electric machinery focused on materials for vehicles, 5G and power semiconductors. Spending on transport equipment is also expected to rise, mainly for new model development, as the market starts to recover. R&D expenditure for carbon neutrality, including spending for the utilization of hydrogen, is also planned in chemicals and general machinery.

R&D expenditure

(Year-on year, %)	FY2020 Actual (589 firms)	FY2021 Planned (647 firms)	Composition rate (FY2020)	Key R&D projects
Total	-3.7	9.2	100.0	
Manufacturing	-3.7	9.2	98.1	
Transport equipment	-6.1	5.7	42.6	New model development, promotion of transition to electric vehicles, autonomous driving
Chemicals	2.6	12.1	28.2	Cancer drugs and other pharmaceuticals, Covid-19 vaccines, hydrogen compression materials, recyclable packaging materials, technology for carbon cycle and reduction of GHG emissions
Electric machinery	0.9	15.5	13.1	Sophistication of electronic devices, energy conservation, power semiconductors, 5G
General machinery	-7.3	6.6	6.0	Co-combustion of liquid ammonia, hydrogen gas turbine/engine, electric vehicles, auto parts-related equipment, logistics order picking systems
Non-manufacturing	-1.9	9.4	1.9	

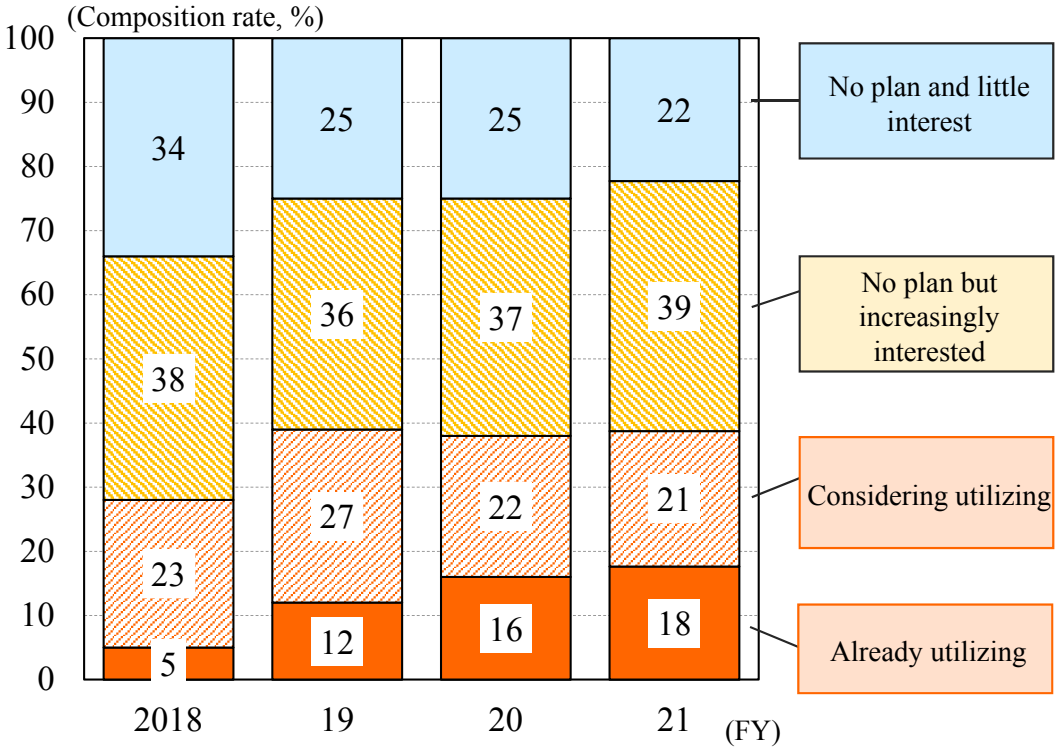
Notes: Data only covers major firms. For the purpose of this survey, R&D expenditure (consolidated basis) comprises all costs related to R&D, including personnel cost, raw materials cost, depreciation cost and allocated overhead.

Utilization of, and Interest in, AI and IoT

The Covid-19 pandemic is boosting the use of, and interest in, cutting-edge technologies such as AI and IoT.

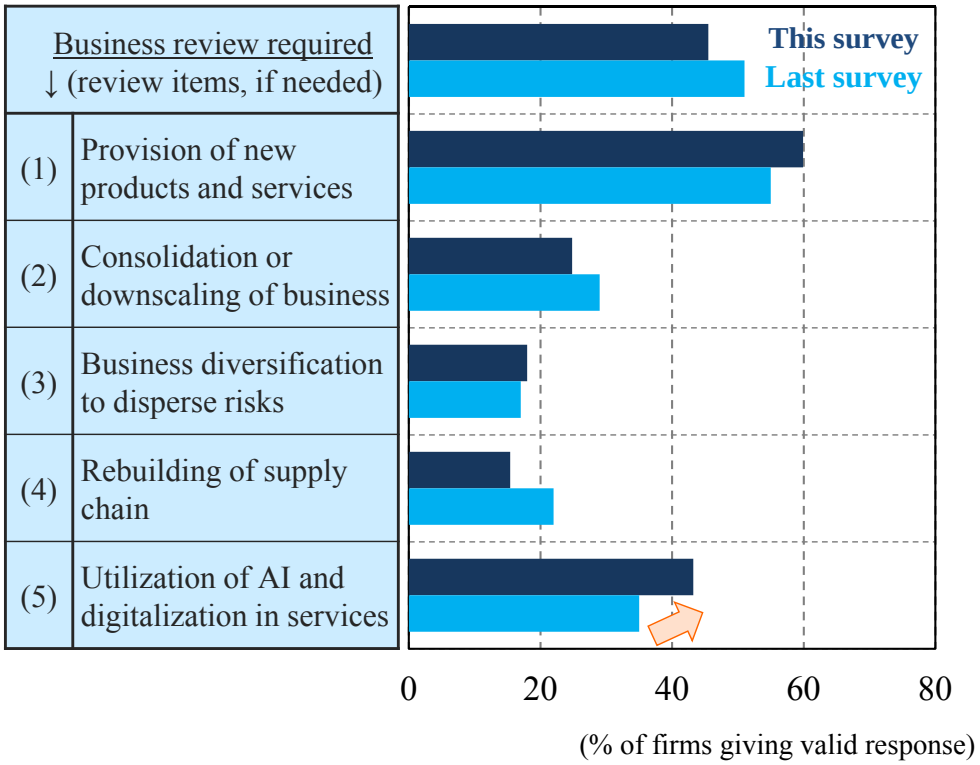
- The share of firms utilizing, or increasingly interested in, AI and IoT has steadily risen in recent years.
- The last 12 months in particular have seen the Covid-19 pandemic raise awareness of the need to leverage AI and digitalize services.

Utilization of AI, IoT and other advanced technologies



Note: Major firms.

Review of business in the wake of the Covid-19 pandemic



Notes: Respondents may choose up to two answers. Data only covers major firms.

Investment in Information Technology

A substantial increase is planned, including for the introduction of IoT in factories and the digital transformation of operations.

- Investment in information technology in FY2020 declined 12.0% on the previous year, as a wide range of industries experienced the first decline since the Great Recession due to Covid-19. Nonetheless, IT investment in electric machinery turned to a substantial increase backed by the introduction of IoT in factories.
- An increase of 38.9% on the previous year is planned for FY2021. The substantial increase is partly attributable to the implementation of investment projects postponed from the previous year. The manufacturing sector will be led by investment in the digital transformation of operations in electric machinery, while spending in the non-manufacturing sector will be propped up by the deployment of self-serve cash registers in retail and the introduction of remote building technology in construction.

Plan for investment in information technology

(Year-on-year, %)

Industry	FY2020 Actual (602 firms)	FY2021 Planned (731 firms)	Major information technology investment projects
Total	-12.0	38.9	
Manufacturing	-5.0	40.6	
Of which: Electric machinery	60.3	43.2	Introduction of IoT in factories Improvement of operations through information technology (digital transformation)
Of which: Transport equipment	-7.5	24.3	Renewal of aged systems at factories
Non-manufacturing	-17.1	36.2	
Of which: Wholesale & retail	-17.7	56.1	Self-serve cash registers and cashless transactions
Of which: Construction	-1.9	73.1	Introduction of remote construction technology

Note: Major firms.

4. Business Impact of Covid-19 and Resilience

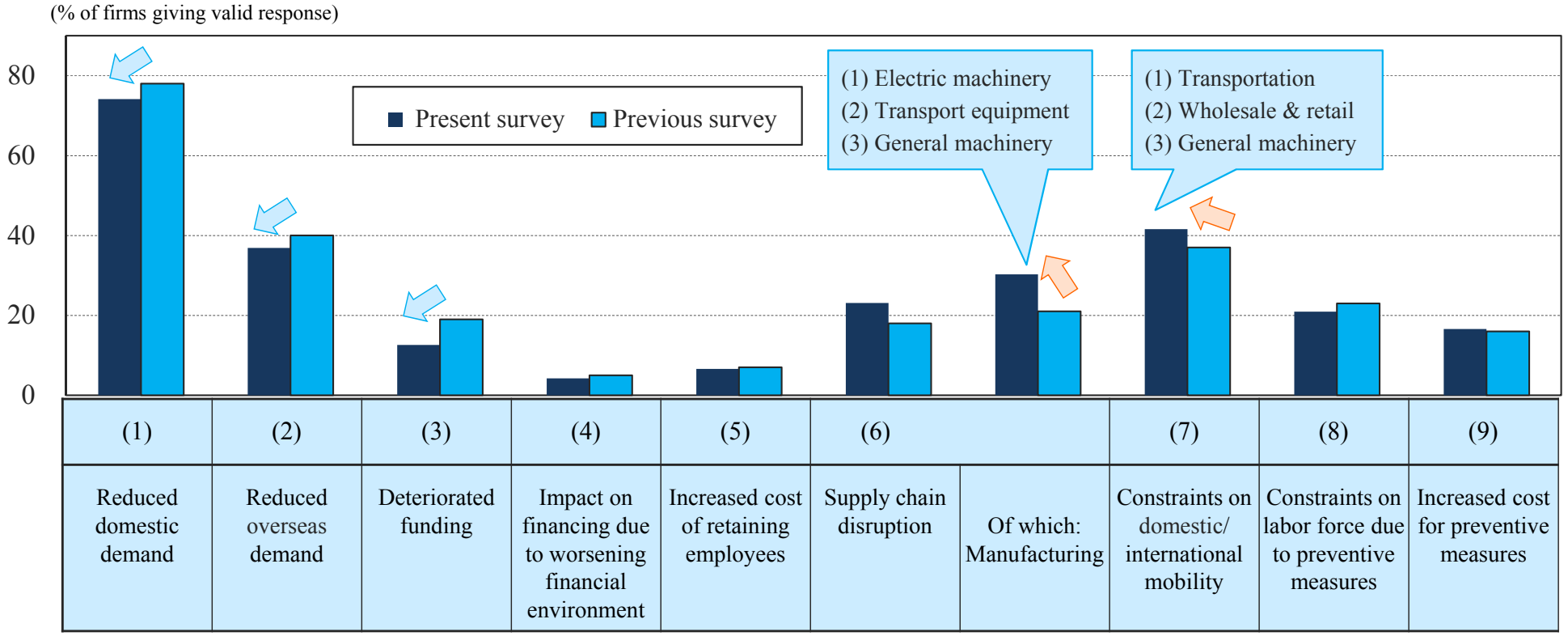
Resilience

Negative Business Impacts of the Covid-19 Pandemic

The impact on demand will ease but constraints on mobility and impacts on supply chains will increase.

- Asked about the negative business impacts of the Covid-19 pandemic, fewer firms now cite reduced demand or concern about financing, but more firms cite constraints on domestic/international mobility and, particularly in machining and assembling industries, challenges related to supply chains.

Negative business impacts of the Covid-19 pandemic



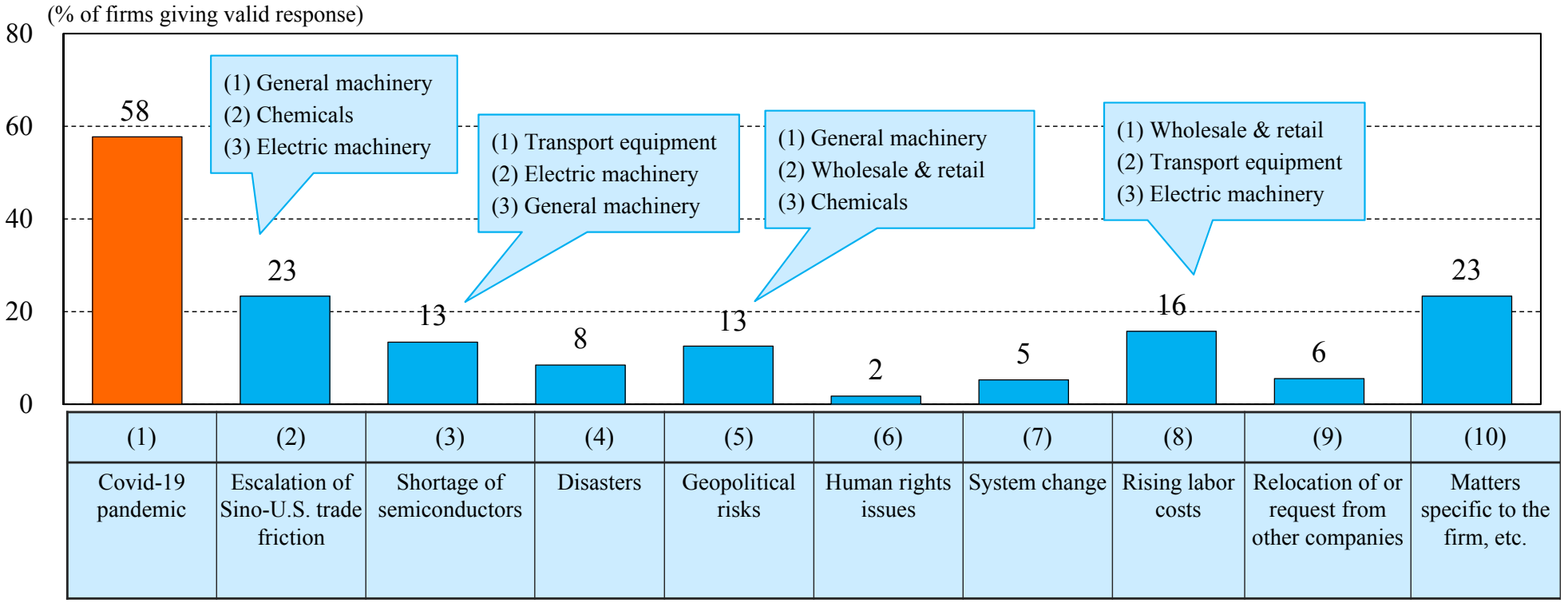
Notes: Respondents may choose up to three answers. Data only covers major firms.

Opportunities for Revision of Supply Chains

Opportunities come from geopolitical risks as well as Covid-19.

- Although some firms have been revising their supply chain since before the crisis, in view of rising labor costs, for example, many firms see potential opportunities in the Covid-19 pandemic.
- For other firms, mainly manufacturers, opportunities also come from the Sino-US trade friction, shortage of semiconductors and geopolitical risks.

Opportunities for revision of supply chain



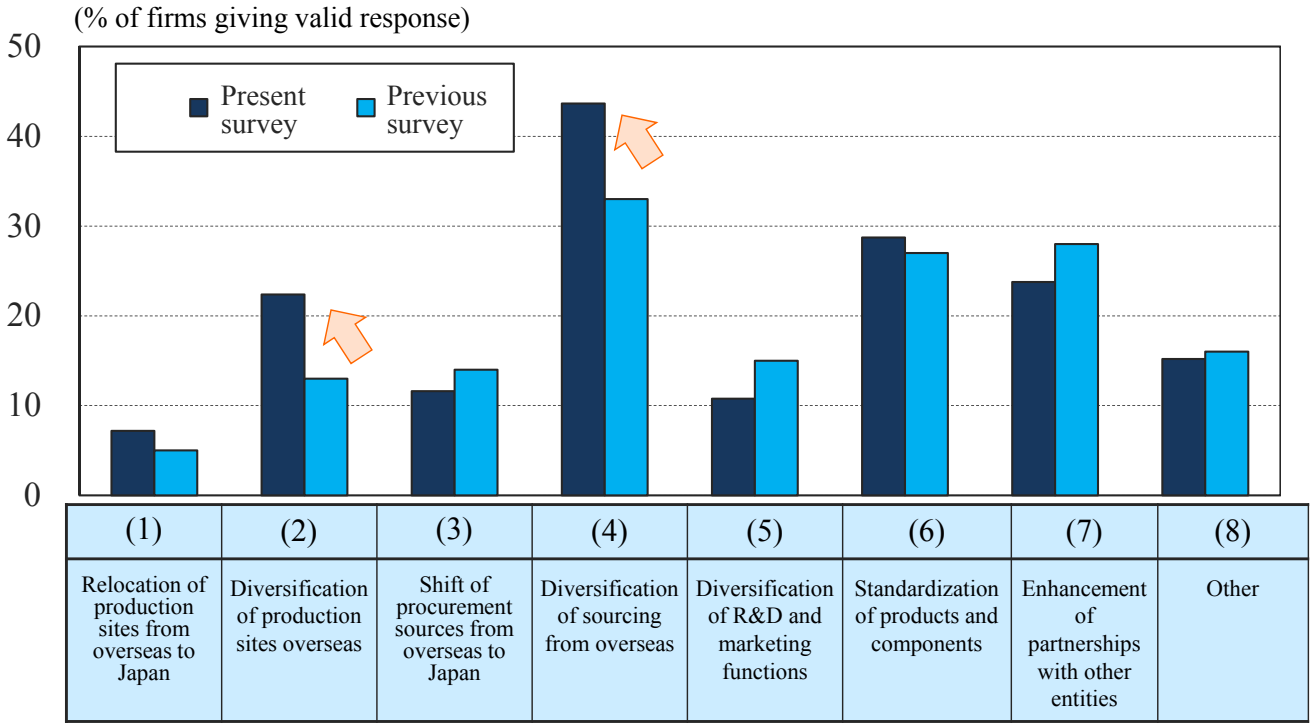
Notes: Respondents may choose up to three answers. Data covers major firms of all industries.

Actions to Revise Supply Chains and Investment Overseas

An increasing number of companies are seeking to diversify production sites and sourcing overseas, but not in Japan.

- With regard to actions to revise supply chains, the number of firms citing the diversification of sourcing or production sites overseas has increased, particularly over the year.
- Planned capital spending overseas for FY2021 shows a substantial increase across wide areas, led by components for electric vehicles in China.

Actions (including consideration) to revise supply chains in response to the Covid-19 pandemic



Notes: Respondents may choose up to three answers. Data only covers major firms.

Capital spending overseas (consolidated basis)

(Year-on-year, %)	FY2020 Actual (525 firms)	FY2021 Planned (681 firms)
Total	-14.4	17.2
North America	-16.2	13.5
Europe	-7.0	19.3
China	10.8	25.6
Asia (excl. China)	-21.6	18.4
Other	-20.2	13.1

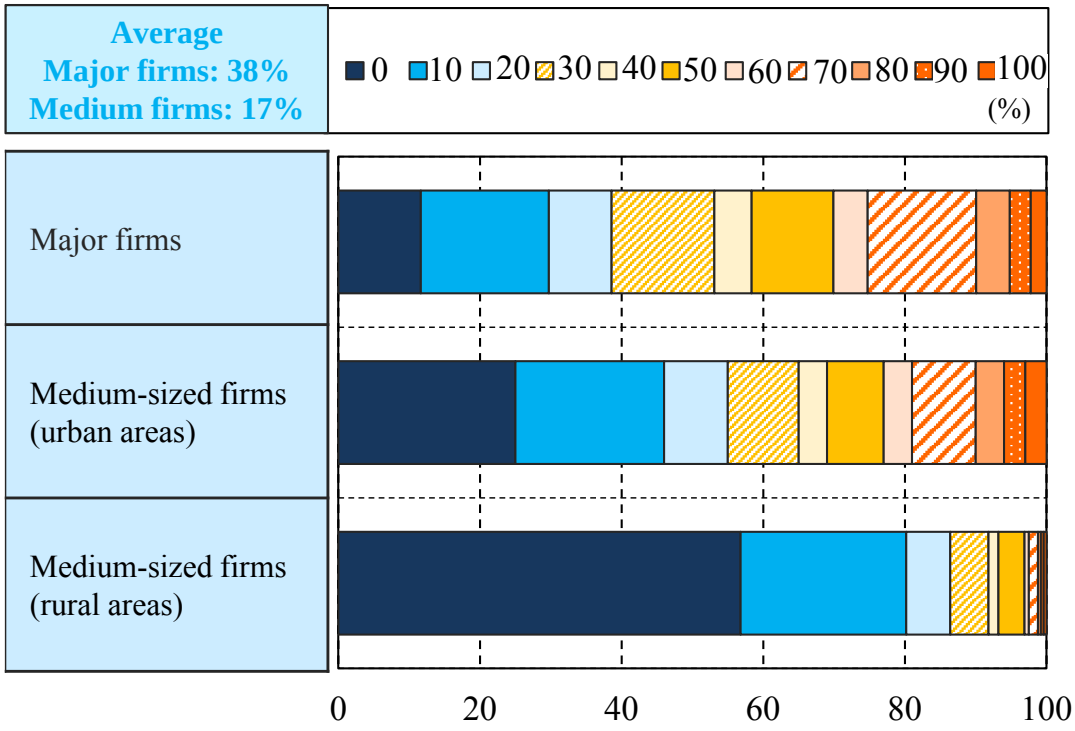
Note: Major firms.

Teleworking Ratio and Related Investment

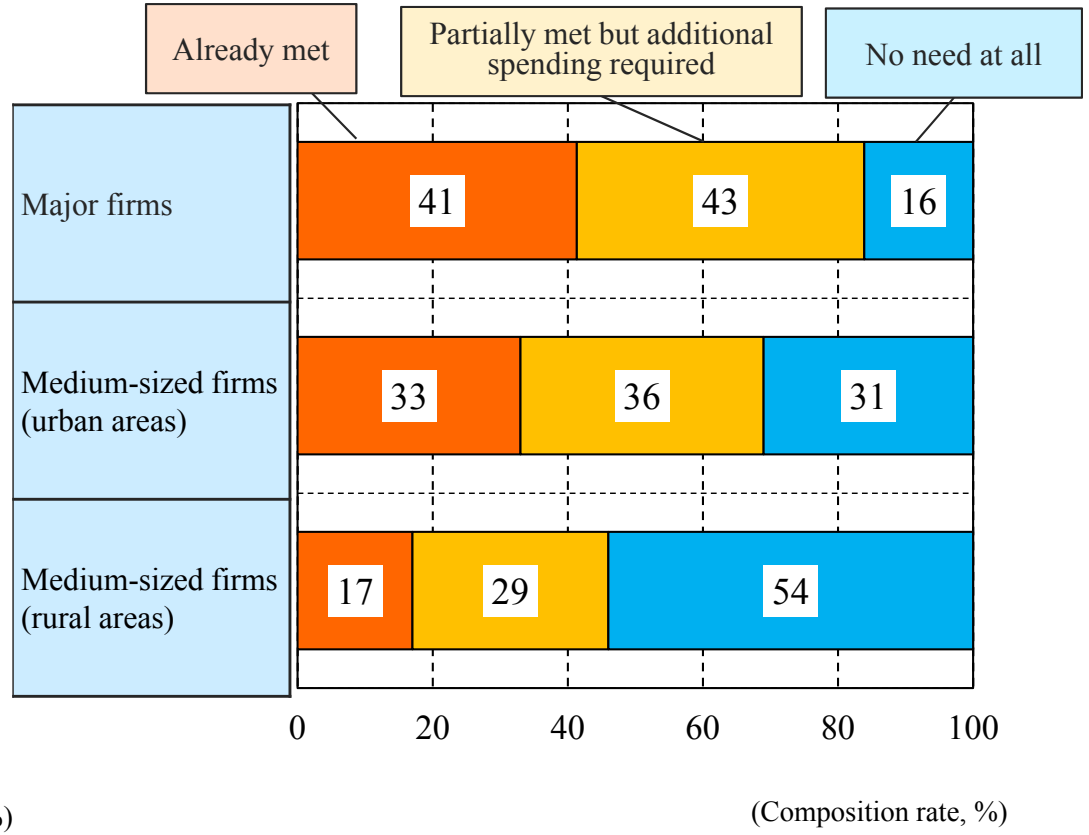
The teleworking ratio reached almost 40% on average (at the peak) among the major firms, as over 80% of the firms have implemented relevant investments.

- During the last twelve months, the teleworking ratio peaked at almost 40% among the major firms, and 20% among the medium-sized firms on average, but the ratio ranged from 0 to 100% depending on the industry or company concerned. The difference is also substantial in geographical terms, as medium-sized firms show a relatively high teleworking ratio in urban areas, whereas almost 60% of medium-sized firms have not introduced teleworking at all in rural areas.
- Eighty percent of the major firms have executed capital spending on teleworking (including those requiring additional investment).

Teleworking ratio (peak level in FY2020)



Need for investment in teleworking

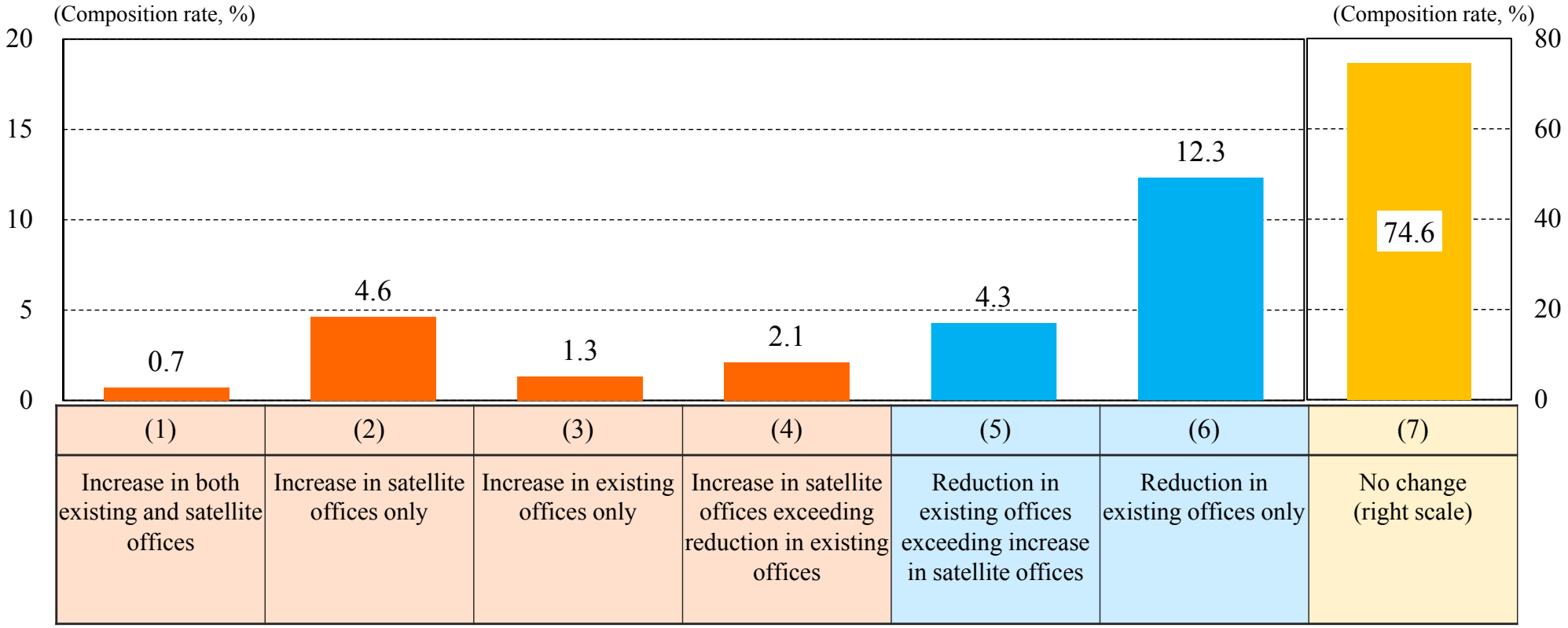


Longer-Term Perspective for Office Space in View of Widespread Teleworking

Seventy-five percent of the firms say their office space will remain unchanged, but a slight reduction overall is possible.

- Despite the spread of teleworking, 75% of the firms respond that their office space will remain unchanged over the medium to long term.
- Almost 17% of the firms expect their office space to be reduced, categories (5) + (6) below, while about 9% of the firms expect their office space to increase, categories (1) + (2) + (3) + (4), pointing to the possibility of a slight decline in total.

Longer-term perspective for office space in view of widespread teleworking



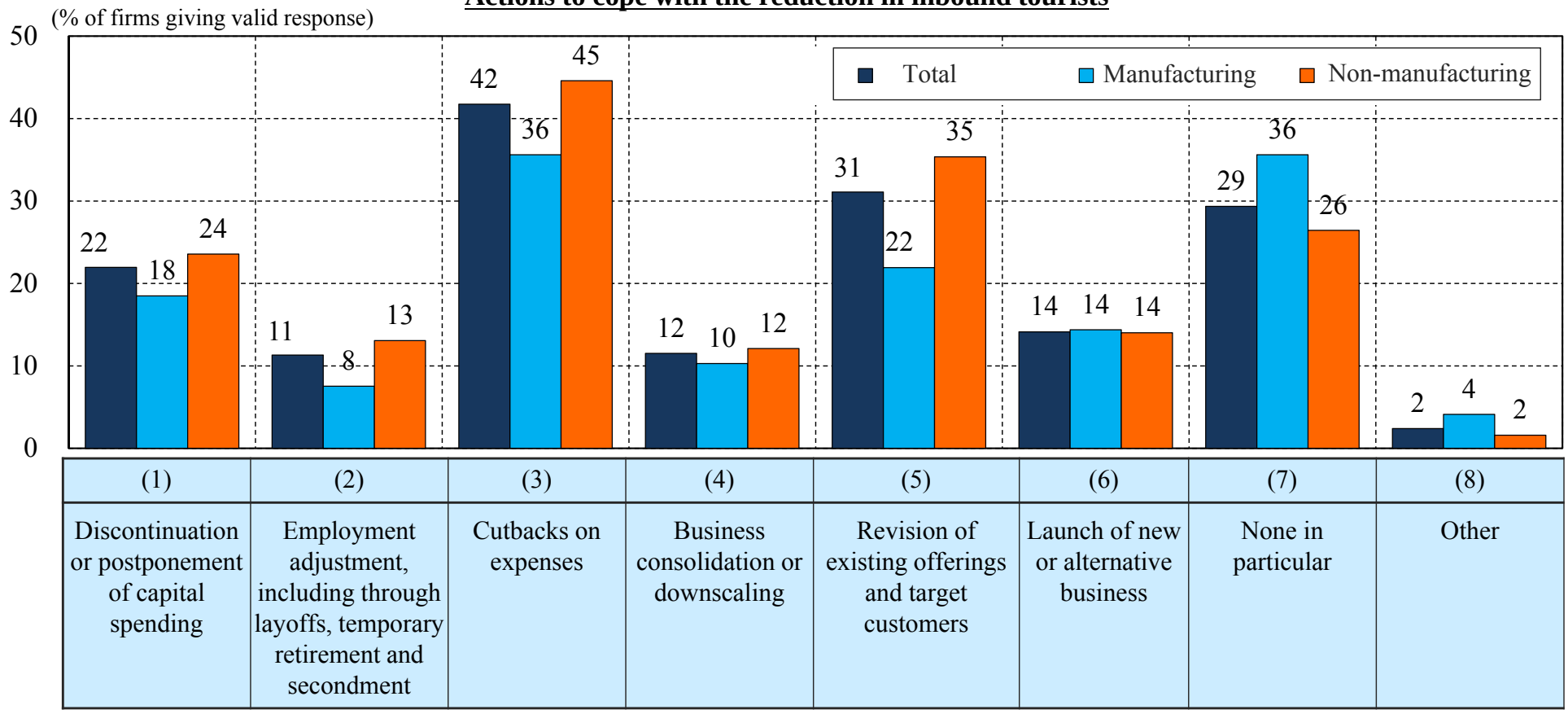
Note: Major firms in all industries.

Actions to Cope with the Reduction in Inbound Tourists

Firms feel they have limited choice in terms of new or alternative business.

- Asked about actions to cope with the reduction in inbound tourists, almost 50% of the non-manufacturers cite cutbacks on expenses while 40% cite revision of existing offerings and target customers. A certain percentage of the firms also say that they had to discontinue or postpone capital spending.
- Choices seem to be limited, as only 14% of the firms have launched new or alternative business.

Actions to cope with the reduction in inbound tourists



Notes: Respondents may choose up to three answers. Data only covers major firms.

5. APPENDICES

By Industry and Region	Efforts for carbon neutrality, innovation and improved resilience, by industry and region
Domestic Capital Spending	Overview, characteristics of major industries, cash flow ratio, investment motives, current status of key domestic production sites, labor shortage and labor-saving investment, priorities in investment behavior
Innovation	Industrial and social impact of digitalization, challenges for R&D
Covid-19 and Resilience	Business risks going forward
Investment Overseas	Skyline chart of capital spending overseas by region, overseas capital spending ratio, longer-term prospects for domestic and overseas supply capacity, attitude toward M&A, expected foreign exchange rates
Regional Developments	Planned capital spending for FY2021, by region

Efforts for Carbon Neutrality, by Industry and Region

Investments to address pressing issues of energy efficiency and renewable energy are observed in areas with a concentration of large CO_2 emitters.

- Investments for carbon neutrality are planned in Kanto/Koshin, Kansai and Chugoku (the Pacific Belt), where the chemical and iron & steel industries are concentrated, including for the replacement of power generation facilities and electric furnaces to address pressing issues. Investments in electric machinery and transport equipment in response to the shift toward electric and hybrid vehicles are planned in wide areas, particularly in Kanto/Koshin and Tokai. In the non-manufacturing sector, projects related to hydrogen tend to be in Kanto/Koshin, while investments in LEDs are observed across the board.

	Hokkaido	Tohoku	Kanto/Koshin	Hokuriku	Tokai	Kansai	Chugoku	Shikoku	Kyushu
Chemicals	CCS piloting	Geothermal generation Green hydrogen	New LNG power plant Recycling plant		Plastic waste recycling Post-plastic non-woven fabrics	Gas turbine power generation Reclaimed resin			Off-grid hydraulic power generation Switch to LNG
Iron/steel & non-ferrous metals	Coke oven repair Recycling plant		Electric furnace replacement Photovoltaics		Magnetic steel sheet	Magnetic steel sheet Parts for vehicle electrification	Magnetic steel sheet Parts for vehicle electrification		
General machinery			Car navigation R&D center Geothermal/ hydrothermal heat exchanger	Energy-efficient equipment Green air-conditioning		Gas turbines Air-conditioning for electric vehicles	Photovoltaics	Biomass power generation Shift to renewable energy	Photovoltaics
Electric machinery		Electronic parts for electric vehicles	Power semiconductors Renewable energy electricity storage system	Parts for autonomous driving	On-board units for electric vehicles Electric vehicle testing products	On-board parts Power semiconductors	Capacitors Photovoltaics	Batteries for electric vehicles Vegetable oil equipment	Power semiconductors
Transport equipment		Production of electric and hybrid vehicle parts	Enhancement of electric vehicle production technology Hybrid vehicle parts		Mass production of hybrid vehicle batteries Vehicle electrification development center	Lithium battery production capacity enhancement for hybrid vehicles	Electric vehicle production equipment Hybrid vehicle parts	Expansion of lithium battery production capacity	Electric vehicle parts
Other manufacturing	Green factory	Environmental conservation works	Photovoltaics Biogas power generation	Photovoltaics	Biomass plastics	Photovoltaics Biomass plastics	Biomass power generation	Digestive gas power generation Joint distribution	Energy-efficient equipment Biomass power generation
Wholesale & retail	Hydrogen production	Photovoltaics	Hydrogen production site Photovoltaics		Recycled cars				Energy-efficient equipment
Real estate			Lithium battery installation Photovoltaics		Green building	LED lighting City greening			LED lighting
Transportation	Green logistics	Electric vehicle charging infrastructure Renewable energy development	Hydrogen stations LNG bunkering vessel	Boiler control optimizing system			Ammonia base Lithium battery-driven vessel	LPG/ammonia hybrid vessel	
Electric power & gas	Biomass power generation Wind power generation	Offshore wind power generation Mega-solar	Wind power generation Mega-solar	Biomass power generation			Biomass power generation	High-efficiency power generation	Biomass power generation Geothermal generation
Other non-manufacturing		Natural gas extraction	Travel-oriented car navigation Photovoltaics	Environmental facilities		LED lighting for hotels Motion detectors	Off-grid power generation	Construction of net-zero energy building	Photovoltaics

Notes: The table lists selected initiatives based on planned capital spending surveys and company publications. The coloration shows the amount or number of projects identified, with darker colors indicating active industries and regions.

DBJ

Efforts for Innovation, by Industry and Region

Although innovation hubs are concentrated in Kanto/Koshin and Tokai, projects related to electric vehicles are found nationwide.

- Spending is particularly active in Kanto/Koshin and Tokai, where R&D hubs of research-intensive industries are located, including chemicals, electric machinery and transport equipment.
- Projects related to electric vehicles are found nationwide across a wide range of industries including iron/steel & non-ferrous metals and general machinery.
- In the non-manufacturing sector, investments for AI- and IoT-driven automation of warehouses and stores are planned across the regions.

	Hokkaido	Tohoku	Kanto/Koshin	Hokuriku	Tokai	Kansai	Chugoku	Shikoku	Kyushu
Chemicals		Optical plastics	R&D facilities (Yokohama, Kawasaki)	R&D hub	Semiconductors Pharmaceuticals	Semiconductors Lithium batteries Pharmaceuticals		Lithium batteries 5G	
Iron/steel & non-ferrous metals		Lithium battery recycling		Aircraft parts		Hydrogen-reduced iron production Equipment for hydrogen stations			
General machinery			Smart factory Robot speed reducer	IoT implementation	Smart factory	Semiconductors Industrial robots	Biotechnological research		
Electric machinery		5G electronic parts	5G-related development HDD for data centers		5G communication equipment	Components of 5G smartphones			Automated equipment
Transport equipment	Introduction of data-collection software to production lines		Development of autonomous vehicles New models		Smart city FCV	IoT-driven efficient production	Smart factory Local 5G piloting		
Other manufacturing	Introduction of AI Labor-saving	AI for workstyle reform	Synthetic paper development				Ammonia supply chain building	Telemedicine Components for autonomous vehicles	Newspaper production system
Wholesale & retail	Store automation Distribution center		Warehouse dedicated to e-commerce Home delivery center			AI-driven out-of-stock detection Utilization of smartphone data		Distribution center	POS system Distribution center
Real estate		Installation of AI-driven info Introduction of delivery robots	Incubation facilities	AI-driven customer service		Development of innovation hubs			Incubation facilities
Transportation	Automated warehousing	AI-driven robot	Remote-controlled robot AI terminal		Remote-controlled automatic cargo handling	AI-driven automatic delivery Unmanned forklift			
Other non-manufacturing	Energy-efficient data center		Smart hotel Methanation piloting		Ammonia piloting	Matching for AI-driven transport	Expansion of communication equipment		Server Mission-critical system

Notes: The table lists selected initiatives based on planned capital spending surveys and company publications. The coloration shows the amount or number of projects identified, with darker colors indicating active industries and regions.

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Efforts for Improved Resilience, by Industry and Region

Investments to address Covid-19 and disasters are partially accompanied by spending to diversify production sites.

- Some investments are intended to diversify production sites away from the Tokyo metropolitan area or to bring supply chains back to Japan.
- Capacity expansion for Covid-related drugs and facemasks is another common objective of capital spending. Investments are also planned in Tohoku and Chugoku for seismic safety and flood control in light of their experience with catastrophes.

	Hokkaido	Tohoku	Kanto/Koshin	Hokuriku	Tokai	Kansai	Chugoku	Shikoku	Kyushu
Chemicals		Flood control		Increase of pharmaceutical production capacity			Cancer drugs Quakeproofing	Increase in facemask production capacity	
Iron/steel & non-ferrous metals		Seismic strengthening							
General machinery				Diversification of production sites away from Tokyo	New office Remote work center	Supply chain reshoring	Flood control	Environment equipment	Disaster control
Electric machinery		Flood control			Cameras for PCR testing				
Transport equipment		New factory	Replacement of research facilities Power supply to FC buses		Virtual desktop Smart factory		Flood impact assessment Quakeproofing		Hybrid vehicles applied as emergency power sources
Other manufacturing							Data center	Increase in facemask production capacity	
Wholesale & retail			Investment in distribution system			Investment in delivery business systems	Response to new lifestyles Investment in home delivery systems	Transformation of department stores into commercial complexes	Investment in BCP Rechargeable battery replacement
Real estate	Quakeproof building Emergency rechargeable batteries	Off-grid power generator	Off-grid power generator Cold storage warehouse	Uninterruptible power sources	Emergency power generator	Development of central monitoring & disaster prevention equipment	Large-scale development Disaster prevention for underground malls	Disaster prevention equipment	Emergency lighting Power supply units
Transportation	Construction of distribution warehouses	Large-scale quakeproof structures, including elevated bridges	Ground installations for railways Cold storage warehouse	Logistics centers	Logistics centers	Foundation strengthening for tanks Remote monitoring control	Rolling stock enhancement Introduction of cruisers	Quakeproof elevated bridges Joint distribution warehouses	Large-scale shipbuilding Quakeproofing
Other non-manufacturing	Quakeproof hotel Transfer and construction of hotels		Travel plans for rural development Quakeproof conduits	Investment in BCP		Quakeproofing Disaster prevention support system	Telecommunication equipment Data center	ICT disaster prevention Quakeproofing	Telecommunication equipment Quakeproofing

Notes: The table lists selected initiatives based on planned capital spending surveys and company publications. The coloration shows the amount or number of projects identified, with darker colors indicating active industries and regions.

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Capital Spending in FY2020, 2021 and 2022

(JPY 100 million, %)

	FY2020 (actual) (1,670 firms)			FY2021 (planned) (1,823 firms)			FY2022 (planned) (758 firms)		
	FY2019 Actual	FY2020 Actual	Change	FY2020 Actual	FY2021 Planned	Change	FY2021 Planned	FY2022 Planned	Change
Total	193,590	173,876	-10.2	159,241	179,375	12.6	44,777	38,784	-13.4
(Excluding electric power)	167,854	151,505	- 9.7	147,968	166,872	12.8	43,535	37,587	-13.7
Manufacturing	63,924	56,487	-11.6	52,486	62,255	18.6	15,992	15,038	-6.0
Non-manufacturing	129,667	117,389	-9.5	106,755	117,120	9.7	28,785	23,746	-17.5
(Excluding electric power)	103,930	95,018	-8.6	95,482	104,617	9.6	27,543	22,549	-18.1

Note: Major firms.

Characteristics of FY2021 Planned Capital Spending, by Industry

Manufacturing

- Food & beverages (-15.5% → 10.8%)
  Spending will increase on expanding production capacity, mainly for products designed to offer higher value added.
- Chemicals (-3.3% → 14.9%)
  Spending will increase by double digits, led by active investment in high-tech goods such as automobiles, electronic materials and pharmaceuticals.
- Petroleum (25.9% → 26.1%)
  Spending will continue to increase, led by maintenance and rationalization investment in refineries, as well as spending on new business.
- Iron & steel (-11.0% → 23.2%)
  Spending will increase substantially, driven by investment in products intended to add value to automobiles.
- Non-ferrous metals (-20.0% → 38.2%)
  A substantial increase in investment is expected as widespread capacity expansion is planned to meet the demand of client industries, including automobiles, electronic equipment and semiconductors.
- General machinery (-32.0% → 18.7%)
  Spending is expected to grow by double digits, with a reactionary increase in industrial machinery and parts thereof.
- Electric machinery (-12.4% → 39.1%)
  Spending will grow substantially, the first increase in three years, led by a reactionary increase on the previous year and investment in electronic parts for automobile electrification and in 5G.
- Precision machinery (-15.6% → -2.7%)
  Spending will decline in total, as rising capacity investment to address the Covid-19 crisis in medical equipment will be more than offset by the temporary reduction in spending to enhance production capacity in semiconductor manufacturing equipment.
- Automobiles (-11.3% → 9.1%)
  Spending is expected to increase, driven by continued investment in response to CASE, including electrification, in addition to investment in new models in anticipation of market recovery.

Non-manufacturing

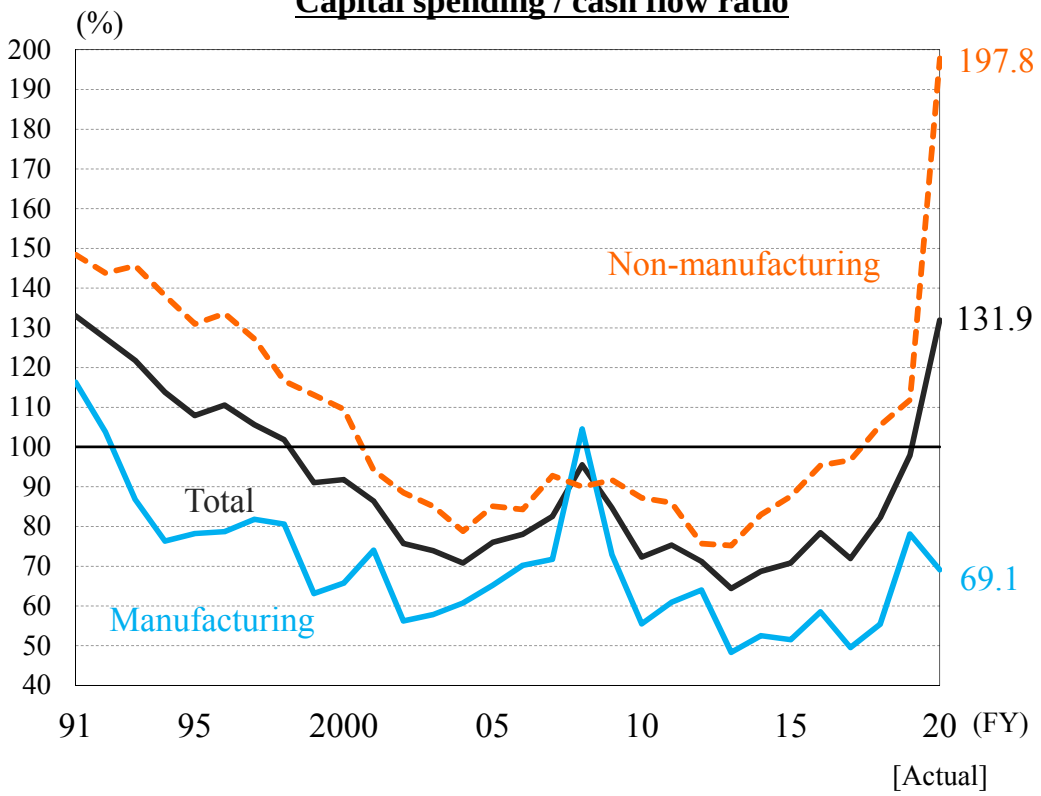
- Wholesale & retail (-15.5% → 10.7%)
  Spending will turn up thanks to investment in existing supermarket and CVS outlets for contactless transactions despite cutbacks on spending in department stores.
- Real estate (3.0% → 7.4%)
  Spending will continue to increase due to rising investment in the development of international production sites and distribution facilities.
- Transportation (-21.4% → 19.2%)
  Spending will turn up driven by the expansion of projects to build rolling stock and improve safety in railways, as well as by sizable capital spending on aircraft acquisition.
- Electric power (-13.1% → 10.9%)
  Spending will increase thanks to investment in nuclear power plants.
- Telecommunication & information (0.0% → -0.1%)
  Spending will remain almost level despite continued investment both in the development of 5G base stations and networks and in data centers, as firms seek to improve the efficiency of investment.
- Services (-19.4% → 8.2%)
  Spending will turn up amid sluggish investment in hotels, driven by aggressive investment in theme parks to add more value.

Notes: Data only covers major firms. Figures in parentheses ( ) indicate changes in capital spending in the industry concerned (FY2020 → FY2021).

Capital Spending / Cash Flow Ratio

- The capital spending / cash flow ratio rose substantially in FY2020 due to the deterioration of profitability.
- The diffusion index (DI) on ordinary profit, which remained negative for the second consecutive year in FY2020, is expected to recover in FY2021 led by the manufacturing sector.

Capital spending / cash flow ratio



DI on ordinary profit

(% pts)

	DI on ordinary profit		
	FY2019 Actual 887 firms	FY2020 Actual 836 firms	FY2021 Planned 1,117 firms
Total	-12.2	-8.9	8.9
Manufacturing	-19.9	-6.1	16.5
Non-manufacturing	-6.7	-10.8	3.0

Notes: Data only covers major firms.

DI on ordinary profit =

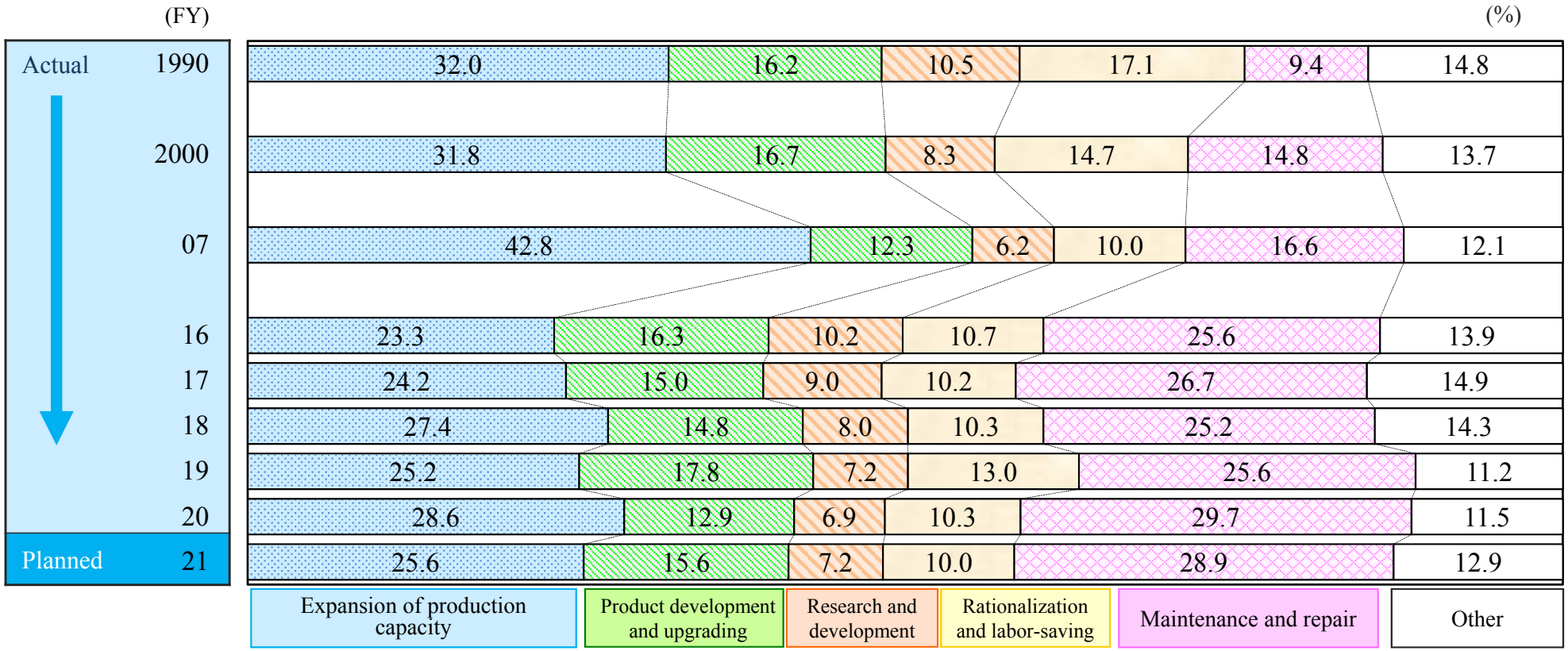
$$\frac{\text{No. of “profit increase” responses - No. of “profit decrease” responses}}{\text{Total valid responses}}$$

Notes: Data only covers major firms. Cash flow is calculated as ordinary profit/2 + depreciation expenses (simplified formula assuming an effective corporate tax rate of 50%).

Composition of Investment Motives (Manufacturing)

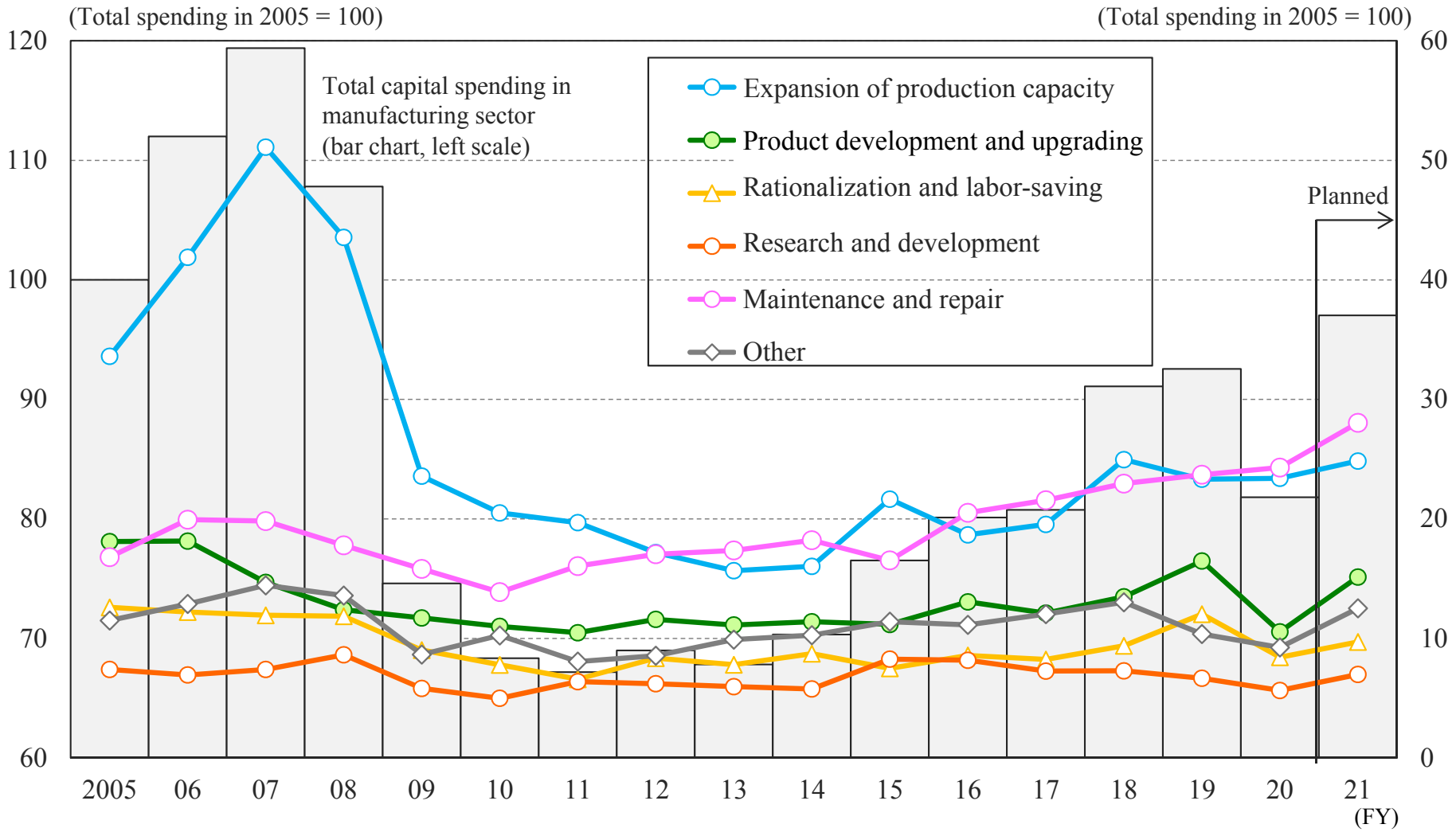
- After a substantial drop in FY2020 due to the Covid-19 pandemic, the share of "product development and upgrading" is expected to recover in FY2021.
- The share of "maintenance and repair" remains high in the wake of the crisis.

Composition of investment motives (manufacturing)



Notes: Share of each investment motive in total capital spending, by value. Data only covers major firms.

Index of Investment Motives (Manufacturing)

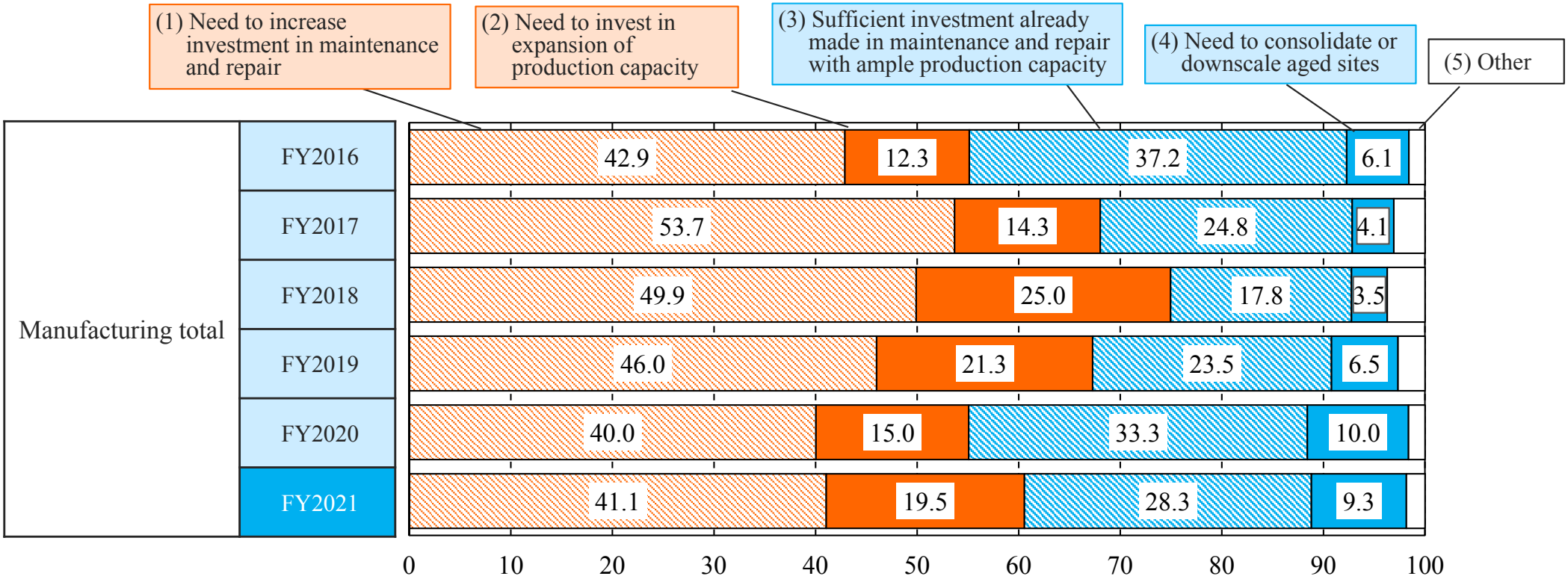


Notes: Data only covers major firms. The chart shows capital spending indexed on the total spending in FY2005 in the manufacturing sector. For each year, the capital spending indices (right scale) for individual investment motives add up to the capital spending index for the whole manufacturing sector.

Current Status of Primary Domestic Production Sites

- Forty percent of the manufacturers cite "(1) Need to increase investment in maintenance and repair," showing the first increase in its share in the last five years.
- The share of "(2) Need to invest in expansion of production capacity" also shows the first increase in two years. The responses "(3) Sufficient investment already made in maintenance and repair with ample production capacity" and "(4) Need to consolidate or downscale aged sites" saw their shares decline but not to the pre-Covid levels.

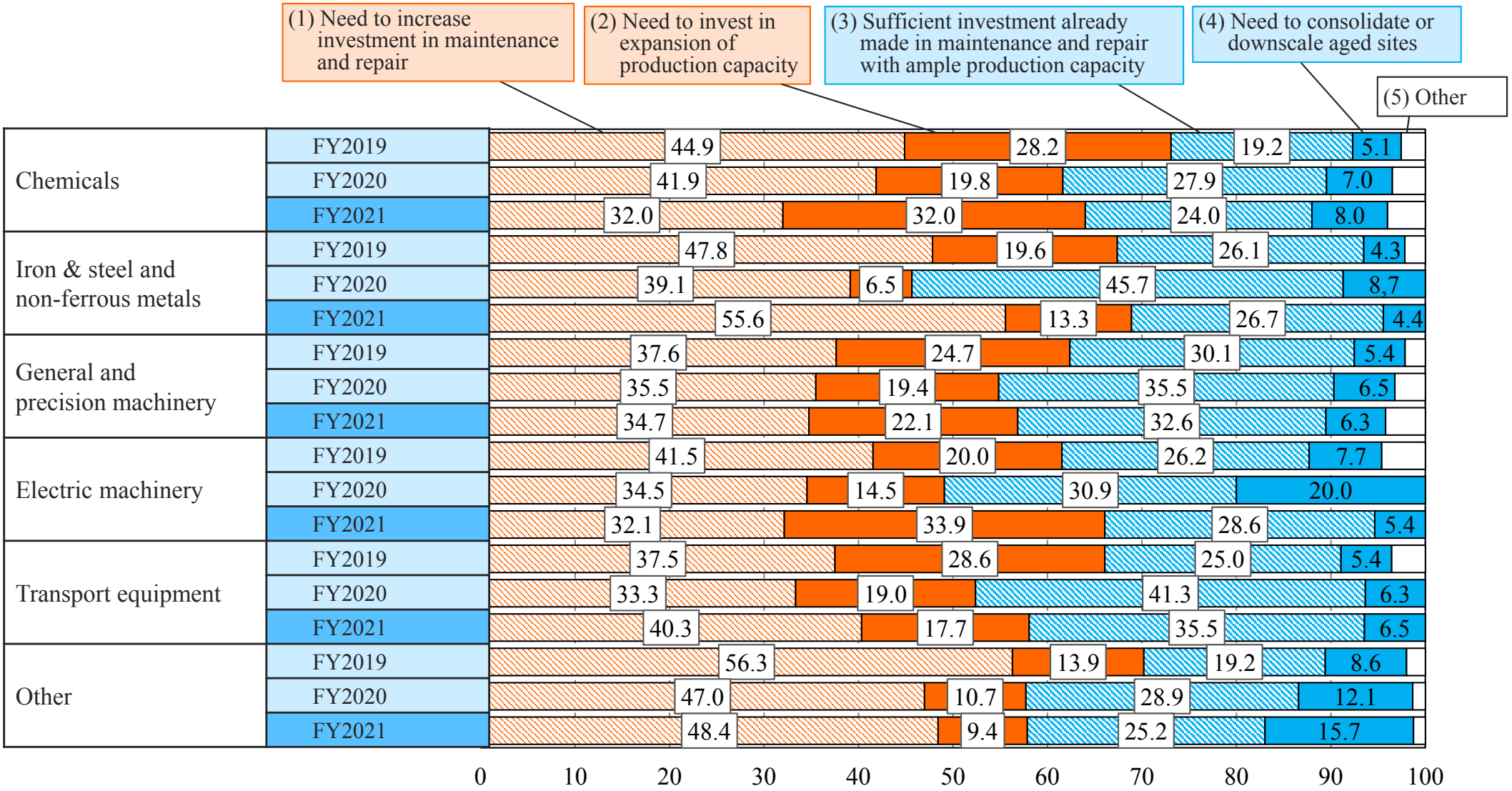
Understanding of current status of domestic production sites in general



Note: Major firms.

(Composition rate, %)

Current Status of Primary Domestic Production Sites (Major Industries)

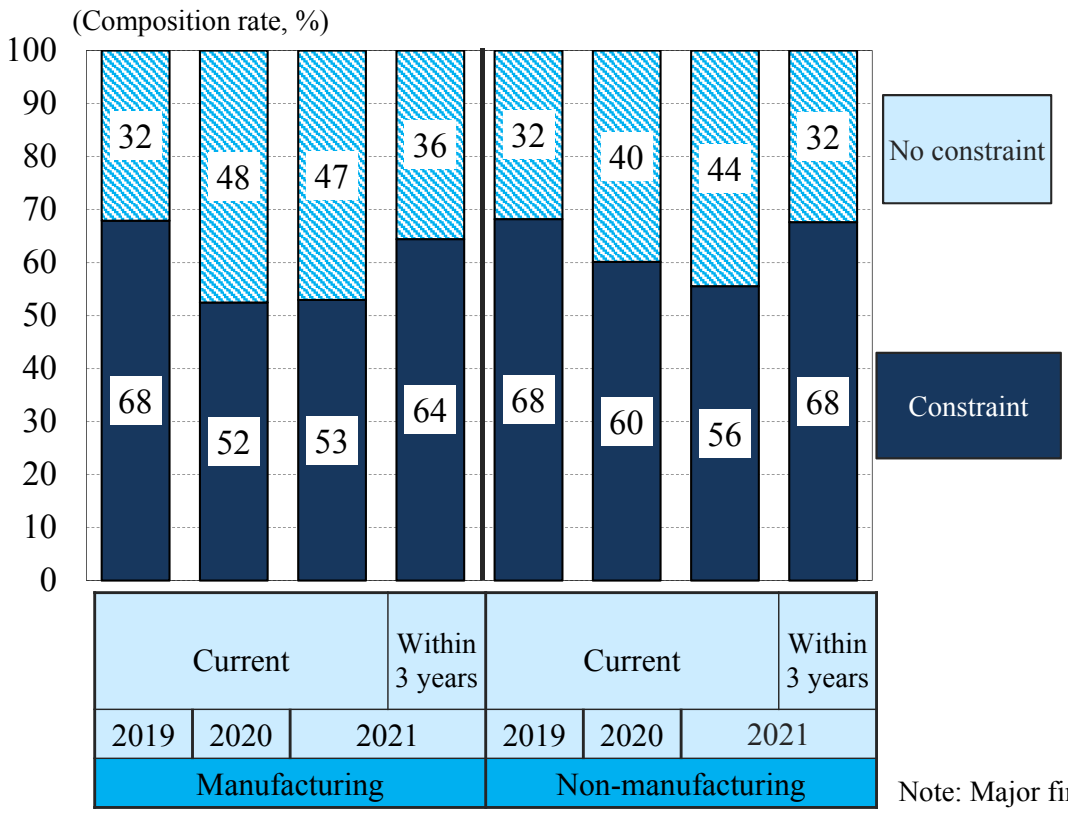


Note: Major firms.

Labor Shortage and Labor-Saving Investment

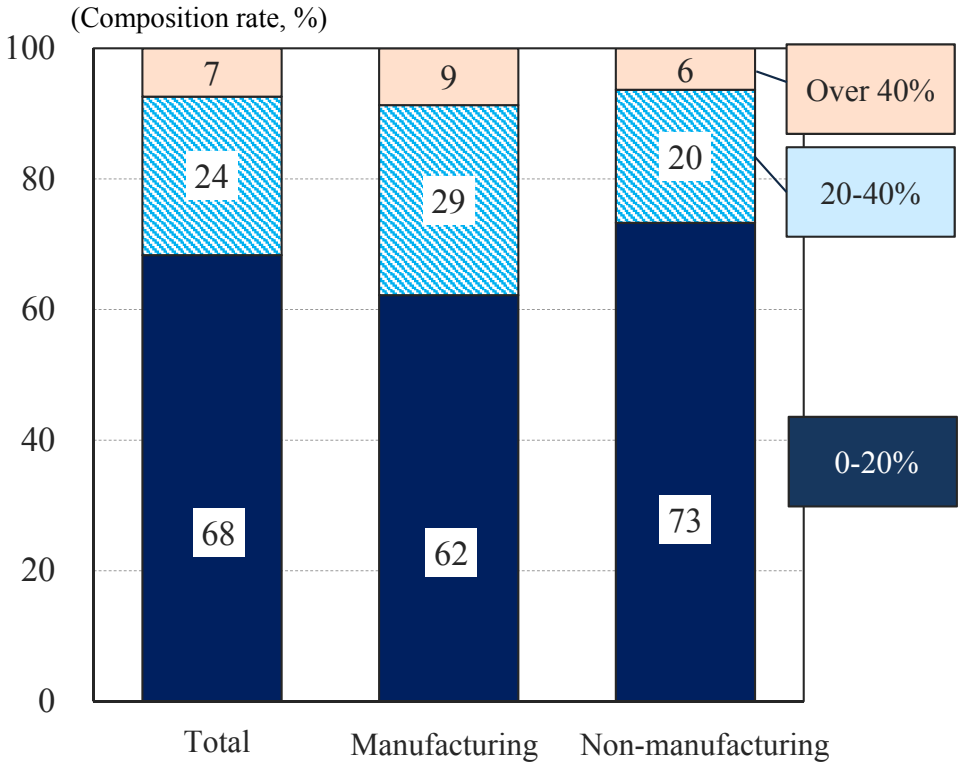
- The serious labor shortage has eased somewhat due to the Covid-19 pandemic. Indeed, the number of firms citing labor shortage as one of the constraints on their business declined on the previous year in the non-manufacturing sector in particular. Nevertheless, potential demand persists for labor-saving investment as the labor market is expected to tighten over the medium term.
- Almost 70% of the firms say that 0-20% of total capital spending will focus on the issues of the labor shortage and labor-saving.

Impact of labor shortage on business development



Note: Major firms.

Share of investment to address labor shortage and labor-saving in total capital spending

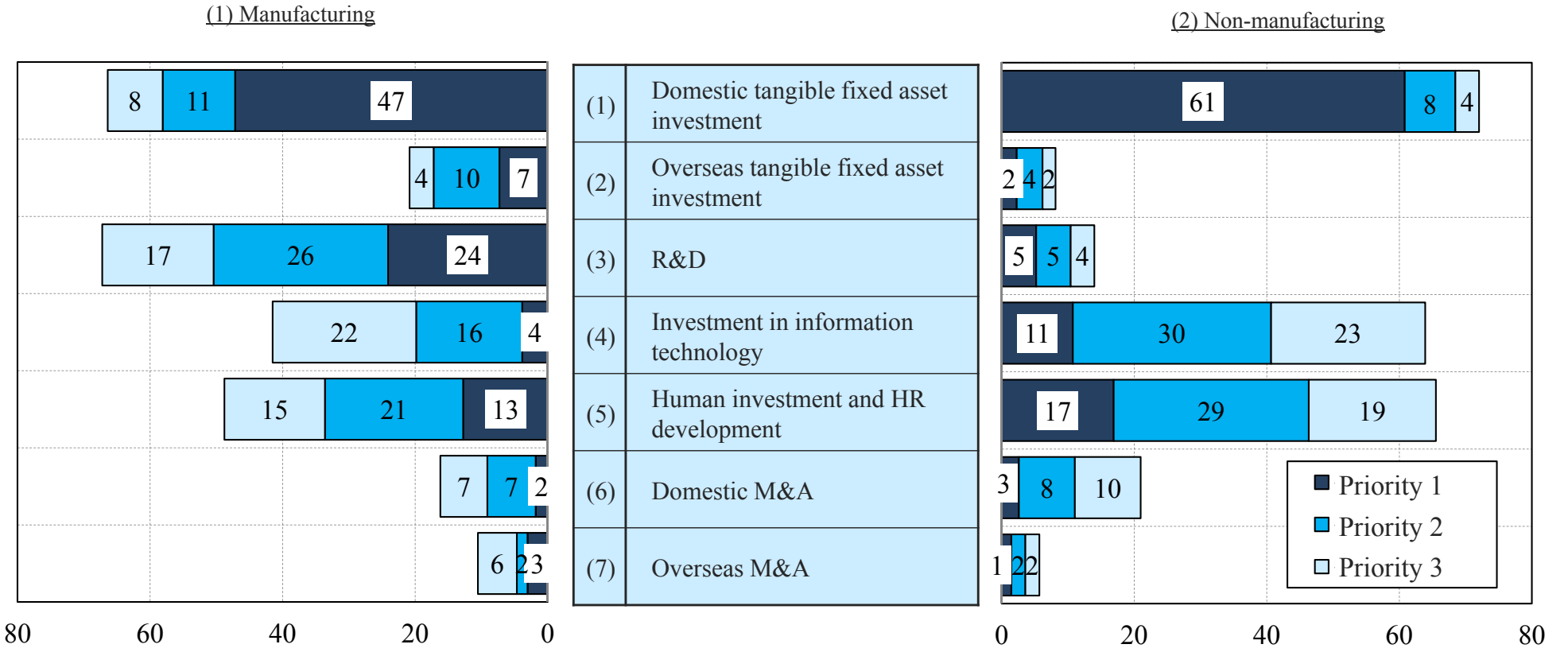


Note: Major firms.

Priorities in Investment Behavior

- In both the manufacturing and non-manufacturing sectors, the top priority in investment behavior is (1) “Domestic tangible fixed asset investment.” Other priorities are (3) “R&D” and (5) “Human investment and HR development” in the manufacturing sector, and (5) “Human investment and HR development” and (4) “Investment in information technology” in the non-manufacturing sector.

Priorities in investment behavior

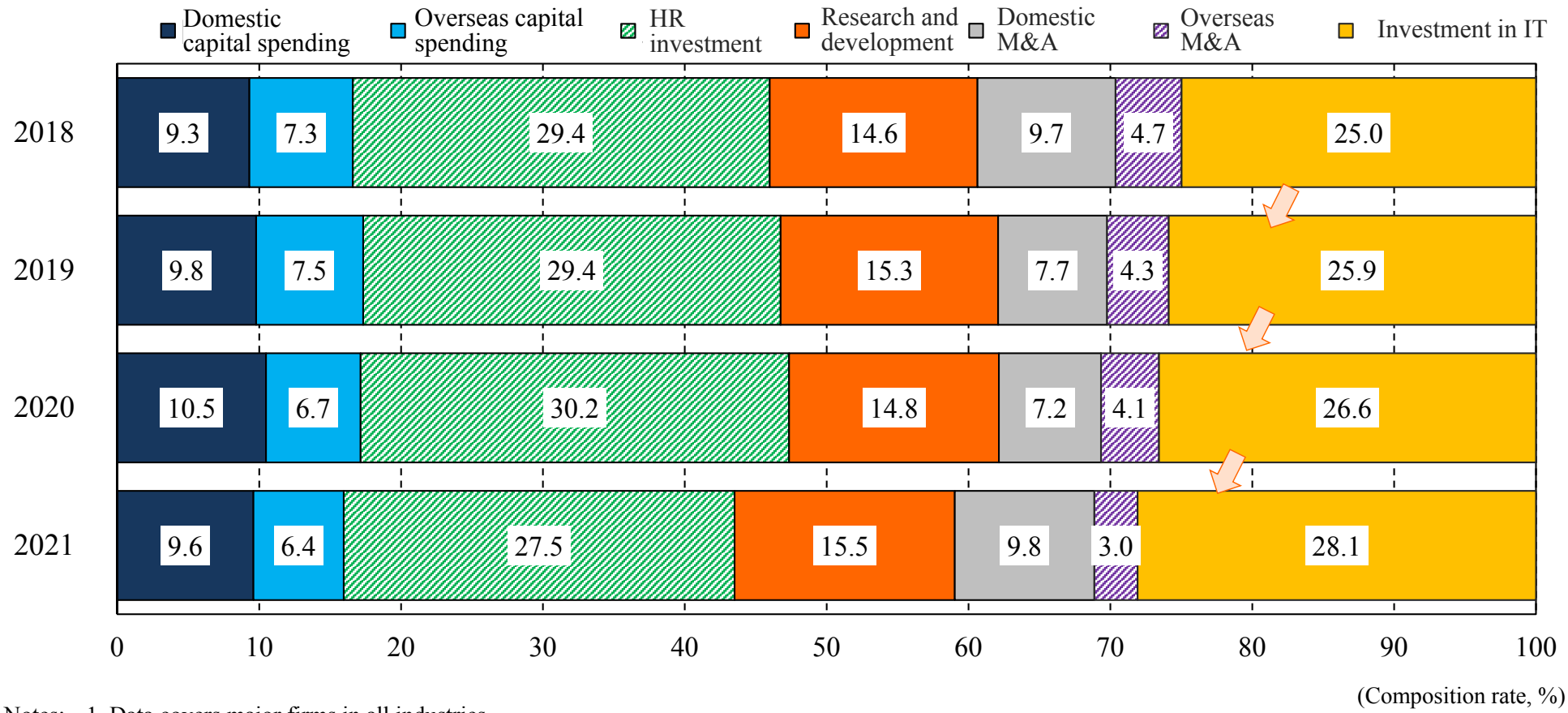


Notes: Respondents may choose up to three answers. Data only covers major firms.

Priorities in Investment Behavior

- The priorities on capital spending overseas and M&A overseas have declined during the Covid-19 pandemic.
- In contrast, the priority on investment in information technology has been rising constantly.

Trend of priorities in investment behavior

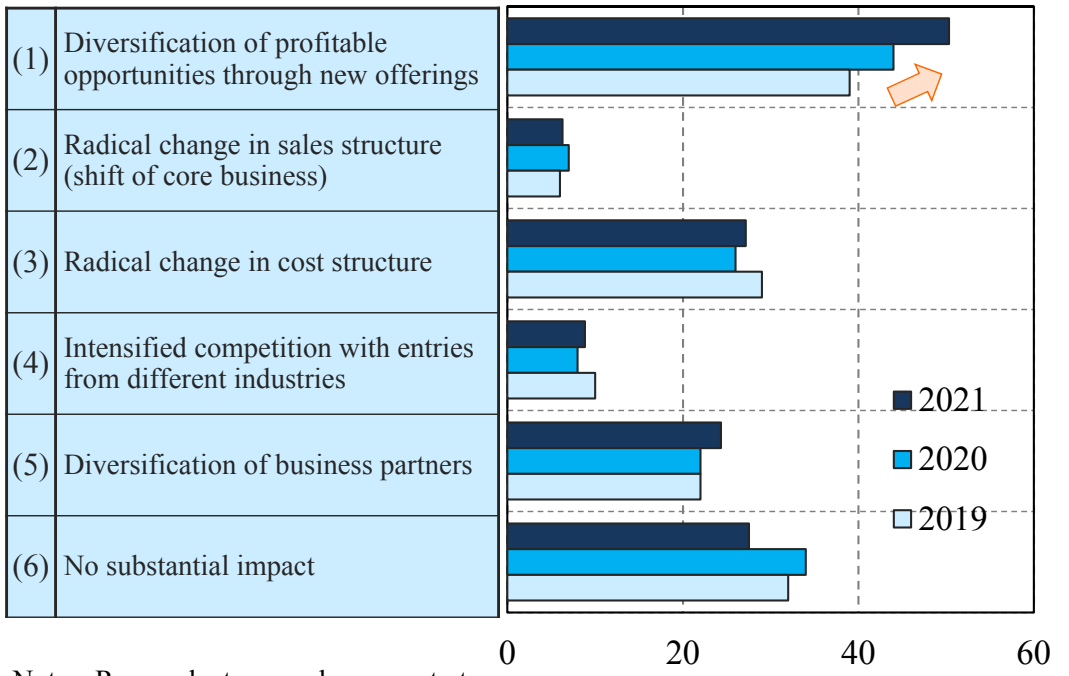


Notes: 1. Data covers major firms in all industries.
2. Three points are assigned to priority 1, two points to priority 2 and one point to priority 3. The aggregate total score is considered as 100%.

Impact of Digitalization on Industry and Society

- Asked about the impact of digitalization on industry and society through technologies such as AI, IoT and 5G, more firms now realize that it will lead to the diversification of profitable opportunities, as the percentage of respondents indicating a negligible impact declined on the previous year. The respondents citing the diversification of business partners also increased slightly.
- In addition to initiatives for production automation, IoT and autonomous driving, categories of efforts for digitalization include the enhancement of contactless services online and digital transformation of administrative procedures.

Impact of digitalization on industry and society through technologies including AI, IoT and 5G



Notes: Respondents may choose up to two answers.
Data covers major firms of all industries.

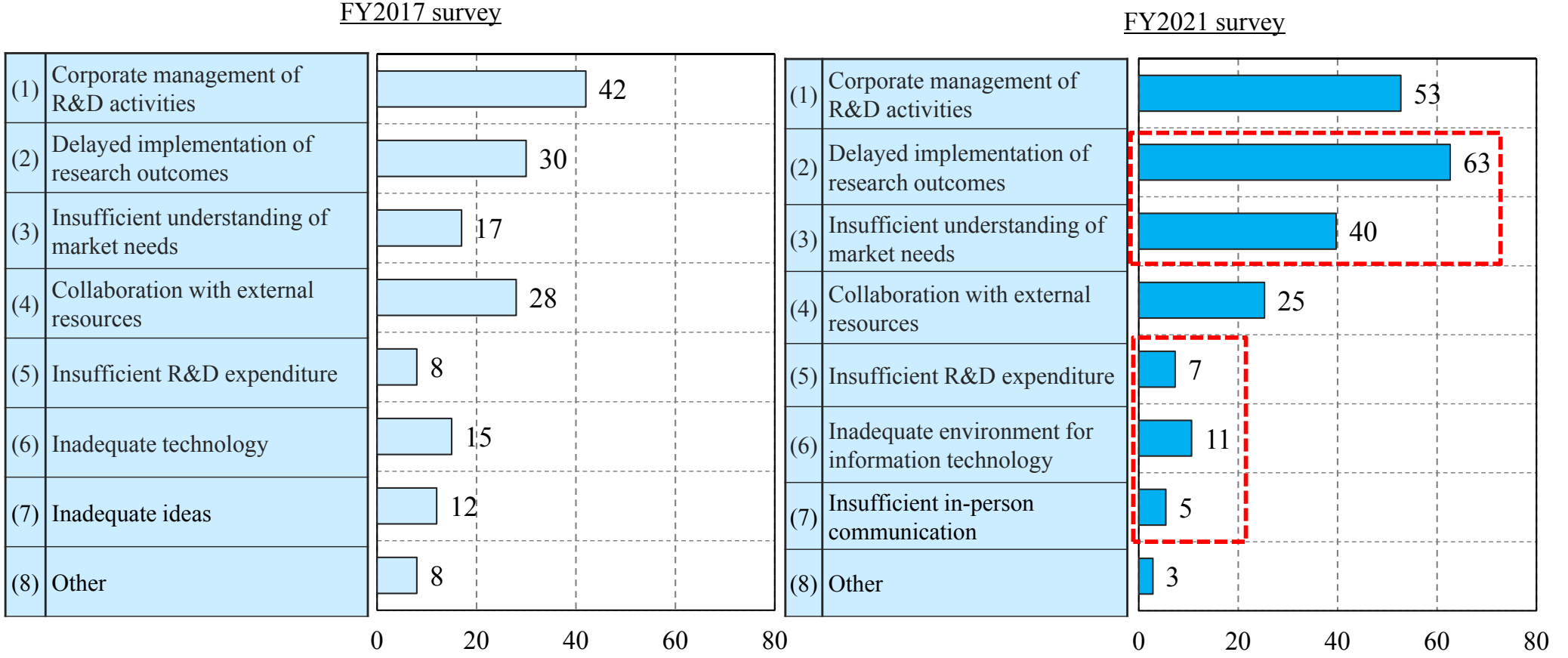
New businesses and initiatives for digitalization

	Industry	Example of new businesses and initiatives
Manufacturing	General machinery	Production automation, IoT
	Electric machinery	Autonomous driving, smart factory
	Precision machinery	AI-driven diagnosis support, data delivery service
Non-manufacturing	Transportation	MaaS, autonomous driving, digital transformation of station works
	Wholesale & retail	Enhancement of e-commerce, diversification of payment methods, online medication guidance
	Construction and real estate	5G base stations, automated building control, smart city, automation of construction works
	Other	Smart agriculture, digitalization of delivery

Challenges for Research and Development

- Asked about challenges for R&D, the numbers of firms citing delayed implementation of research outcomes and insufficient understanding of market needs rose substantially versus the FY2017 survey.
- Not many firms cited R&D expenditure allocation, IT environment or in-person communication as challenges.

Challenges for research and development

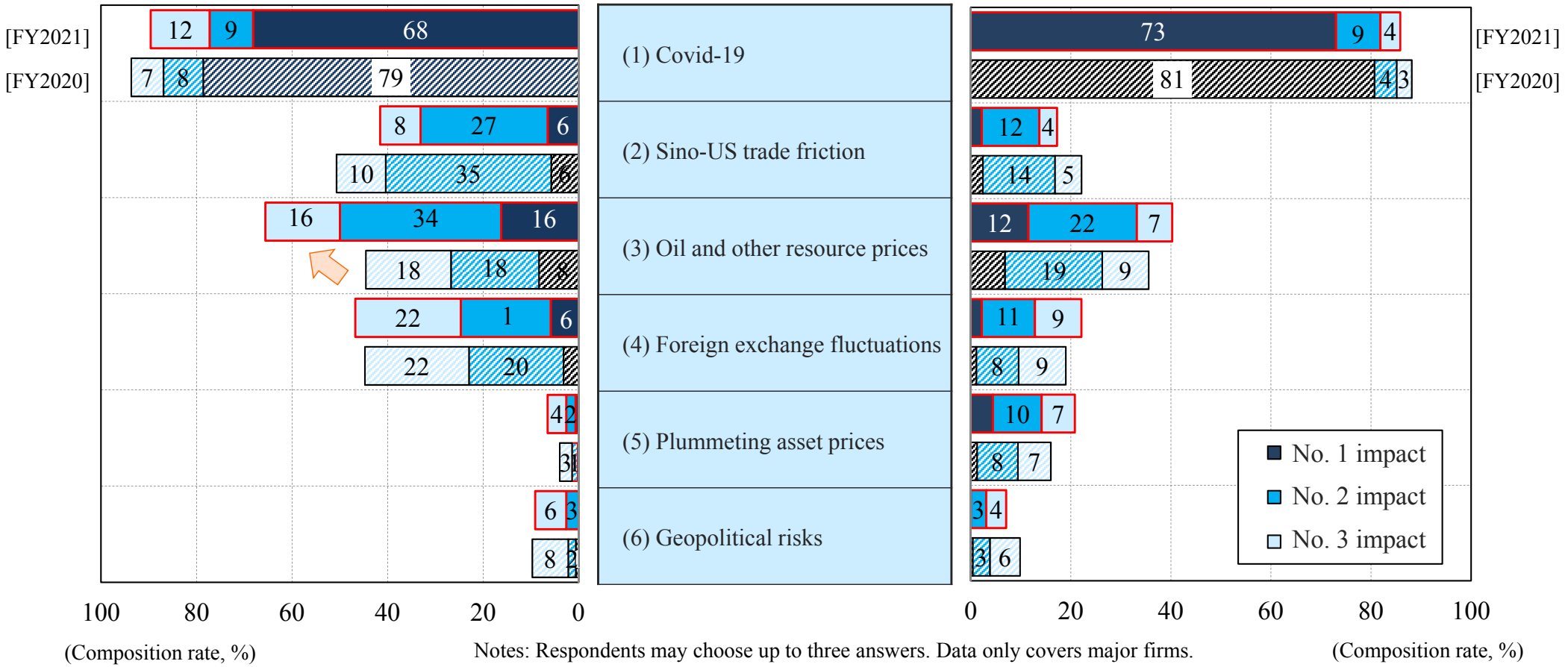


Notes: Respondents may choose up to two answers.
Data covers major firms of all industries.

Business Risks Going Forward

- The business risk category cited by the largest number of firms is still Covid-19, despite a slight decline on the previous year. Other significant business risks include trends in oil and other resource prices, which are becoming an increasingly critical factor particularly in the manufacturing sector.

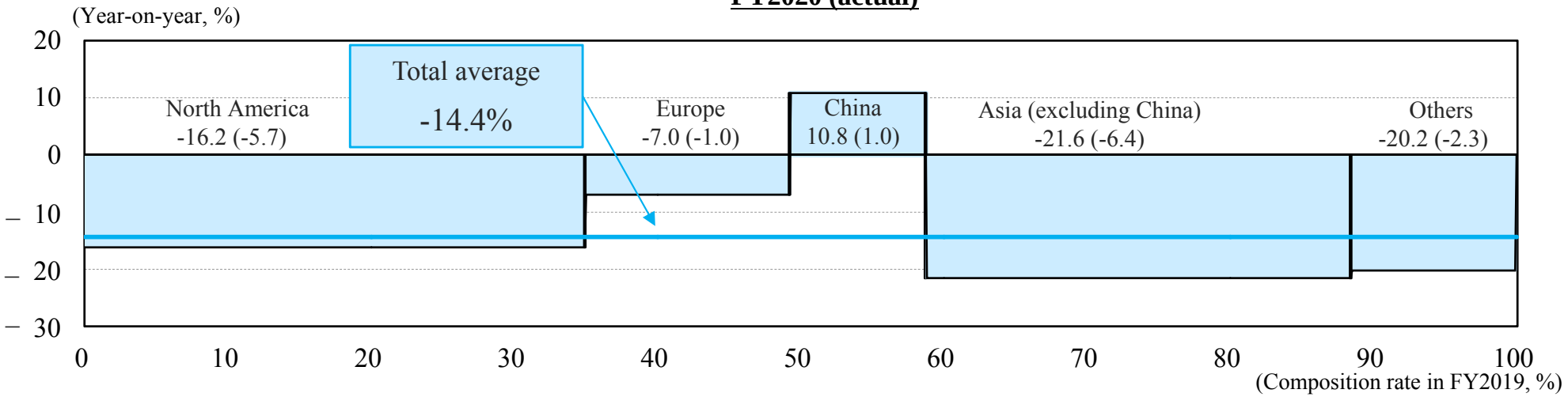
Business risks going forward



Notes: Respondents may choose up to three answers. Data only covers major firms.

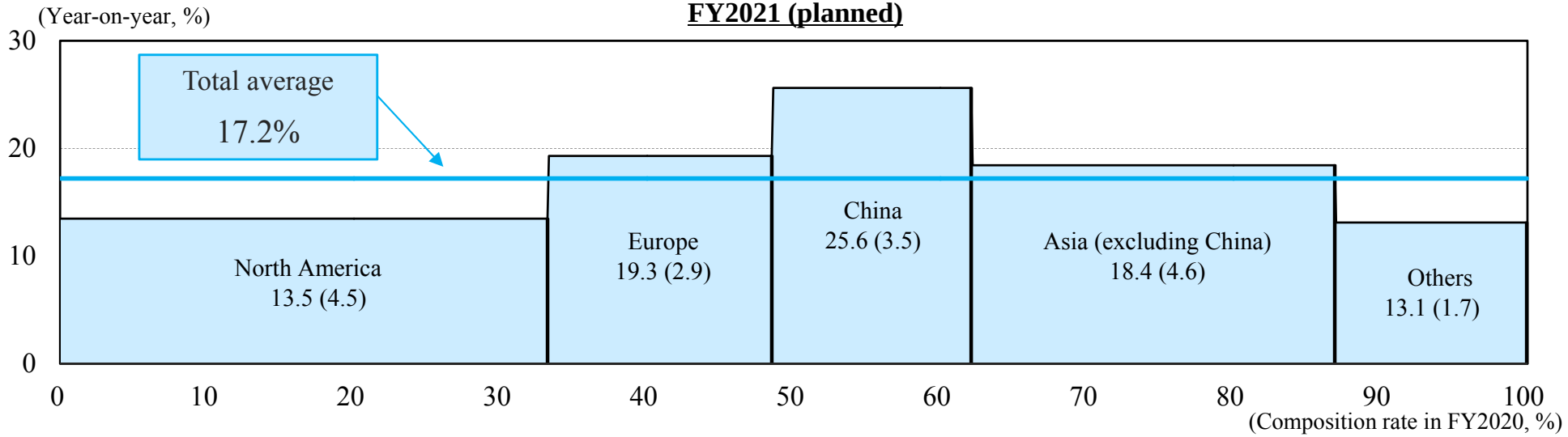
Skyline Chart of Overseas Capital Spending, by Region

FY2020 (actual)



Notes: Figures indicate change in FY2020 actual spending versus FY2019 actual spending. Figures in parentheses indicate contribution to the total spending. Data only covers major firms.

FY2021 (planned)

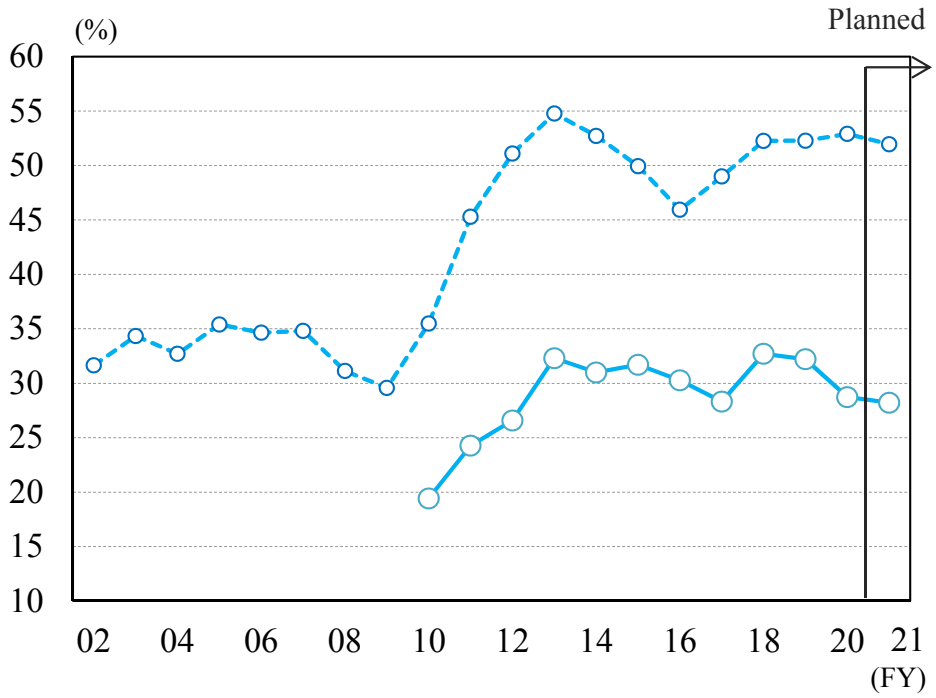


Notes: Figures indicate change in FY2021 planned spending versus FY2020 actual spending. Figures in parentheses indicate contribution to the total spending. Data only covers major firms.

Overseas Capital Spending Ratio

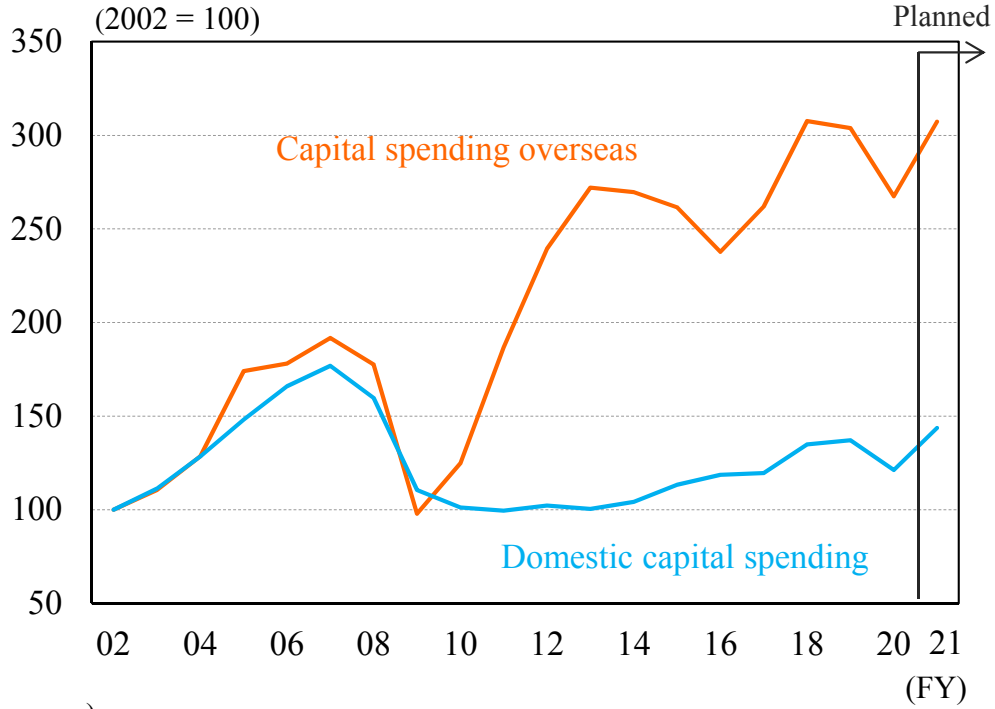
- In FY2020, the overseas capital spending ratio declined due to substantial drops in many regions, including North America, caused by the Covid-19 pandemic. This is the second consecutive year of decline, following the slight decrease in FY2019 due to the impact of the Sino-US trade friction.
- Plans for FY2021 point to an almost unchanged overseas capital spending ratio, as the expected increase in capital spending in North America and Europe, where vaccination is making substantial progress, as well as in China, where the pandemic was contained at an early stage, will be matched by a recovery in domestic investment.

Trend of overseas capital spending ratio (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 has been available since the FY2010 survey.
Data only covers major firms.

Trend of capital spending in Japan and overseas (manufacturing)

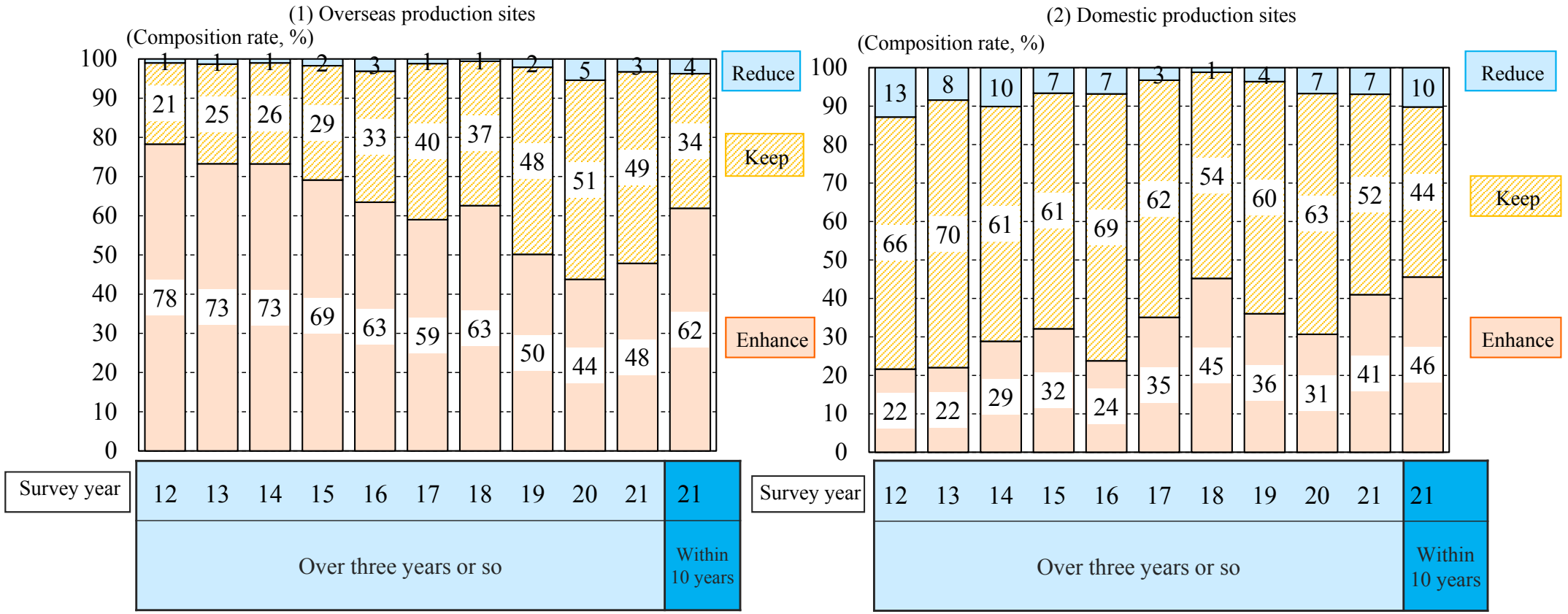


Note: Major firms.

Domestic and Overseas Longer-Term Supply Capacity (Manufacturing)

- Regarding 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 slight increase but has not recovered to the pre-Covid level of 2019. However, more than 60% of manufacturers intend to increase their spending overseas within 10 years.
- In the domestic market, a larger number of manufacturers now intend to enhance operations over the coming three years or so, up 10% on the previous year. Almost half of the manufacturers are planning to enhance operations within 10 years, but some 10% of the firms intend to reduce operations in Japan.

Medium-term domestic and overseas supply capacity (manufacturing)

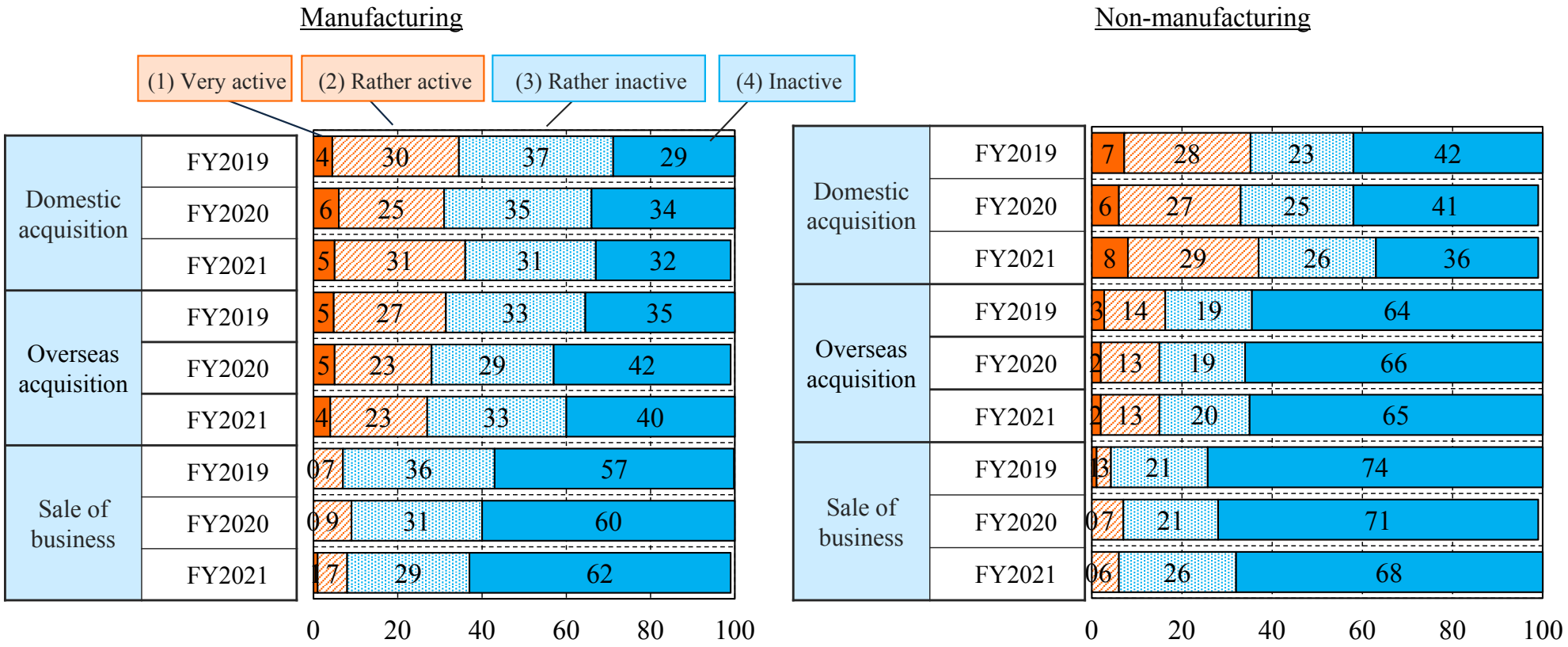


Note: Data covers the major firms reporting both domestic and overseas operations (294 firms in FY2021).

Attitude toward M&A

- Hit by the Covid-19 pandemic, the number of firms claiming to be actively engaged in business acquisition in Japan and overseas decreased in FY2020 on the previous year, both in manufacturing and non-manufacturing. One year on, their appetite has recovered in the domestic market, but not overseas.

Attitude toward M&A

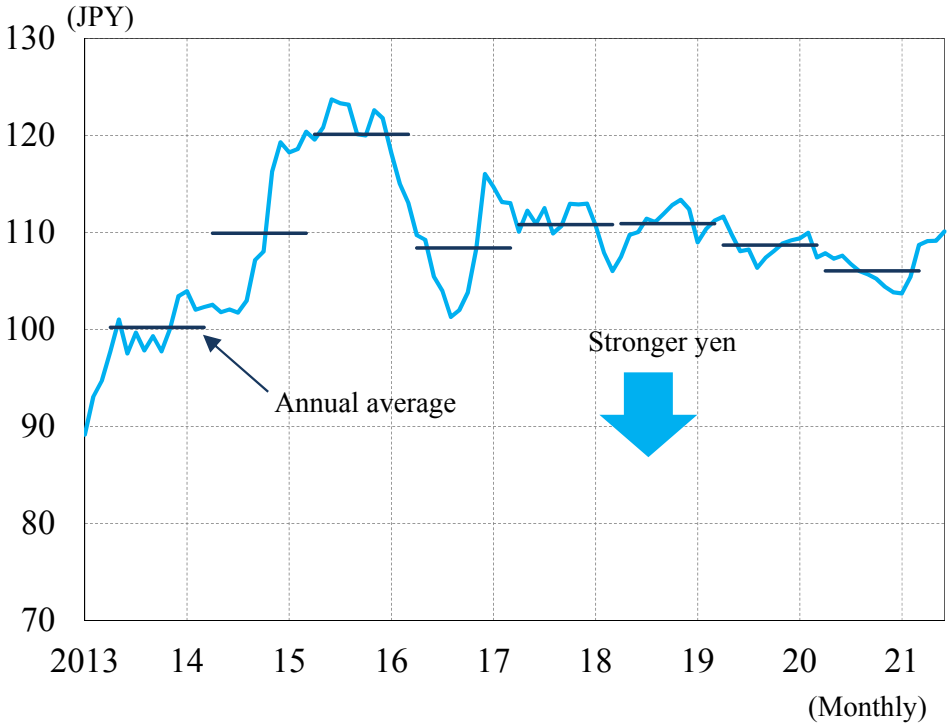


Note: Major firms.

Foreign Exchange Rate Assumed by Manufacturers

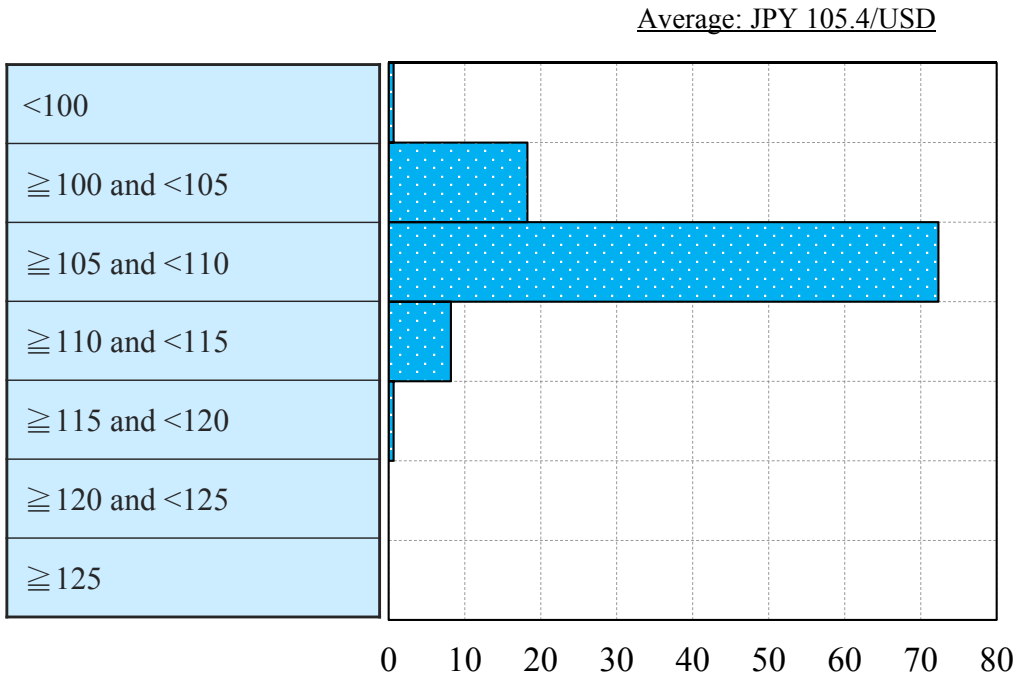
- USD 1 = JPY 105-110 is the foreign exchange rate most commonly assumed by manufacturers, with an average of 105.4 yen to the dollar.

Actual USD/JPY rate



Source: Bank of Japan, "Foreign Exchange Rates"
(Monthly average 5:00 p.m. interbank rate).

USD/JPY rate assumed by manufacturers

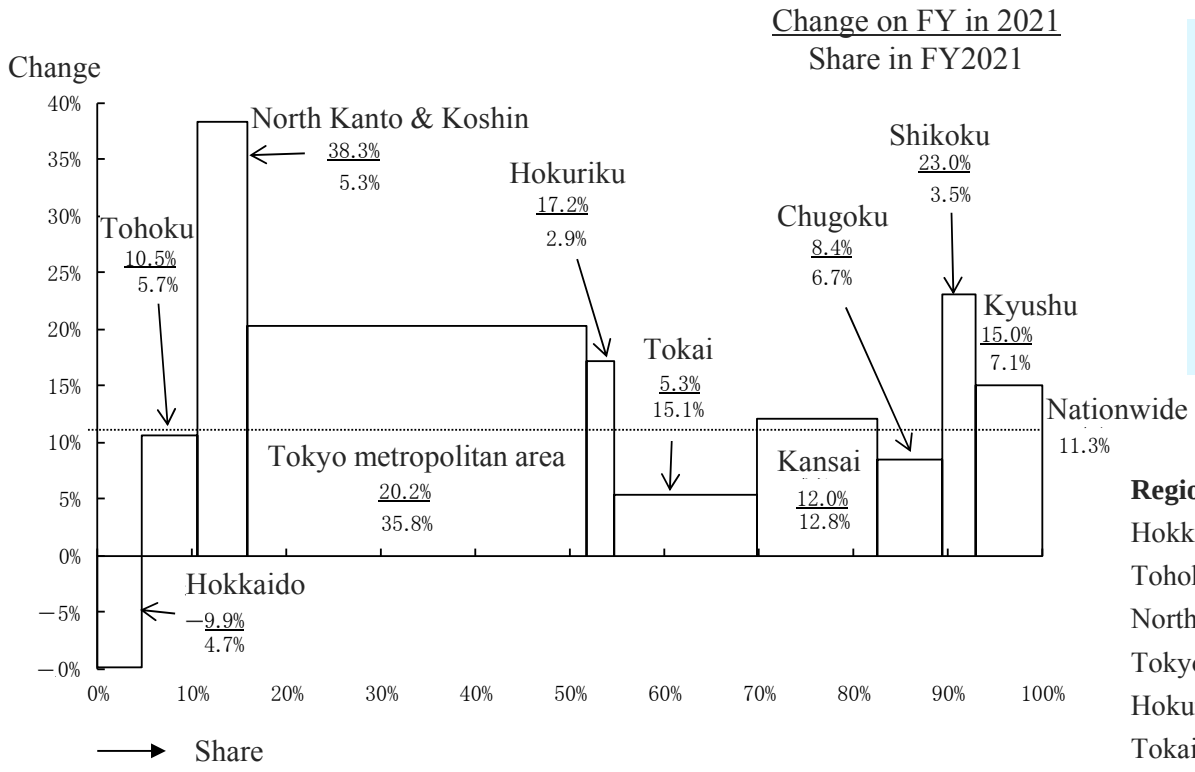


Reference: Assumed EUR/JPY rate.

- Average rate: EUR 1 = JPY 124.3.
- Mode: ≧120 yen and <125 yen.

Source: Development Bank of Japan, "Survey on Planned Capital Spending."
Note: Data only covers major firms.

Planned Capital Spending for FY2021, by Region



(1) Up 11.3% overall, with increases planned in nine of the 10 regions and reductions planned in one region

(2) Relatively high growth in North Kanto & Koshin, Tokyo metropolitan area and Shikoku

(3) Reduction only planned in Hokkaido

Regional composition

Hokkaido: Hokkaido
Tohoku: Aomori, Iwate, Miyagi, Akita, Yamagata, Fukushima, Niigata
North Kanto & Koshin: Ibaraki, Tochigi, Gunma, Yamanashi, Nagano
Tokyo metropolitan area: Saitama, Chiba, Tokyo, Kanagawa
Hokuriku: Toyama, Ishikawa, Fukui
Tokai: Gifu, Shizuoka, Aichi, Mie
Kansai: Shiga, Kyoto, Osaka, Hyogo, Nara, Wakayama
Chugoku: Tottori, Shimane, Okayama, Hiroshima, Yamaguchi
Shikoku: Tokushima, Kagawa, Ehime, Kochi
Kyushu: Fukuoka, Saga, Nagasaki, Kumamoto, Oita, Miyazaki, Kagoshima

Notes: 1. The nationwide change on previous year figure includes data on unlocated firms and Okinawa Prefecture.
2. The share of each region reflects the prefectural composition of the respondents. The regional shares do not add up to 100%, due to rounding.
3. Areas in the skyline chart reflect contribution to the nationwide change.

Planned Capital Spending for FY2021, by Region

	Change on previous year (%)				Overview of capital spending, by region
	FY2020 Actual Total	Planned for FY2021			
		Total	Manufacturing	Non-manufacturing	
Hokkaido	-26.1	-9.9	-25.3	-2.7	Spending will decline for the second straight year due, to the completion both of production facility repair projects in iron & steel and od new plant construction in transport equipment.
Tohoku	-20.9	10.5	3.3	20.9	Spending will increase for the first time in four years, led by transportation with large-scale projects, construction with new business site launches, and chemicals with projects related to pharmaceuticals.
North Kanto & Koshin	-6.1	38.3	21.5	87.0	Spending will turn to a substantial increase, led by chemicals and transport equipment with capacity investment, and electric power with large-scale repair projects.
Tokyo metropolitan area	-19.1	20.2	39.9	16.3	Spending will turn up, led by transportation with airline-related projects, real estate with continued downtown redevelopment projects, and transport equipment with auto-related projects.
Hokuriku	-3.6	17.2	18.7	13.1	Spending will turn up, led by electric machinery with capacity investment in semiconductors, metal products and non-ferrous metals with investment in auto components, and electric power with maintenance and repair.
Tokai	-7.8	5.3	3.3	13.0	Spending will turn up, led by real estate with the construction of office buildings and commercial facilities.
Kansai	-20.0	12.0	10.8	12.7	Spending will increase for the first time in three years, led by chemicals and electric machinery with capacity investment, transportation with the enhancement of logistics and disaster prevention functions, and real estate with large-scale redevelopment.
Chugoku	-11.6	8.4	27.0	-22.7	Spending will turn up, led by transport equipment with the launch of new models, despite a substantial reduction planned in electric power due to the completion of large-scale projects.
Shikoku	-11.9	23.0	30.7	3.4	Spending will turn to a substantial increase, driven by product upgrading and production capacity enhancement in electric machinery as well as non-ferrous metals and paper & pulp.
Kyushu	-18.4	15.0	15.1	14.8	Spending will turn up, led by non-ferrous metals and paper & pulp with capacity investment, and real estate and transportation with redevelopment projects.
Nationwide	-10.5	11.3	16.9	8.5	The manufacturing sector will drive the upturn in capital spending.

Note: The nationwide change on previous year figures include data on unlocated firms and Okinawa Prefecture.

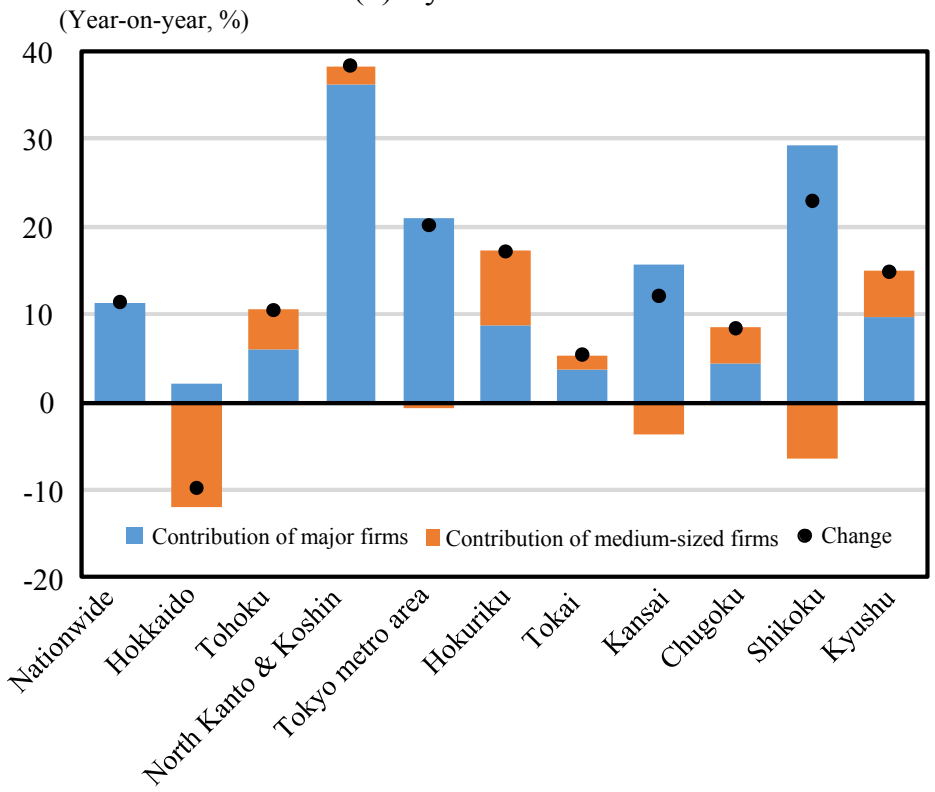
DBJ

Capital Spending, by Region (by Business Size and by Sector)

- By business size, major firms make positive contributions to the spending increase nationwide, but the contribution of major firms and medium-sized firms is mixed depending on the region concerned. Spending in Hokkaido will decline due to negative contributions from medium-sized firms.
- By sector, both manufacturing and non-manufacturing make similar contributions to spending at the national level, but the former drives investment in Hokuriku, Chugoku and Shikoku while the latter leads spending in Tohoku, North Kanto & Koshin, Tokyo metropolitan area, Kansai and Kyushu.

Trend of capital spending, by region

(1) By business size



(2) By sector