

# Survey on Planned Capital Spending for Fiscal Year 2024

Substantial Growth in Both Manufacturing and Non-manufacturing

Growth Driven by Digitization and EV-led Electrification  
amid Concerns about Labor Shortage and Price Inflation

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August 6, 2024



Chief Research Office

# Outline of the Survey

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## 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 nonconsolidated basis, and on a domestic and overseas consolidated basis (in terms of trends by industry and by prefecture).
- Also covers subjects related to investment motives, profit/loss, R&D expenditure and investment in digitization.

### (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 topics include downside risks, growth opportunities, the 2024 logistics crisis, human resource investment, DX, innovation, decarbonization and supply chains, among others.

## 2. Survey period

- Up to Friday, June 25, 2024

## 3. Companies surveyed

- Private corporations (excluding those in the finance/insurance industries)
- 2,872 major firms capitalized at 1 billion yen or more
- 6,398 medium-sized firms with capital of 100 million up to 1 billion yen (for regional breakdowns)

## 4. Responding companies and response rates

- Domestic capital spending: 1,643 major firms (57.2%)  
3,730 medium-sized firms (58.3%)
- Overseas capital spending: 599 firms (20.9%)
- Capital spending by region: 4,439 firms (47.9%)
- Special survey: 939 major firms (32.7%)  
2,508 medium-sized firms (39.2%)

## 5. Detailed results

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

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# Executive Summary

## **1. Overview of Domestic Capital Spending**

Domestic capital spending by major firms (capitalized at ¥1 billion or over) in FY2023 rose 6.9% overall, the second straight year of increase over three years, driven by the development and increased production of electric vehicles, semiconductors and materials thereof, as well as city-center redevelopment. Planned capital spending for FY2024 shows a sizable increase of 21.6% on the previous year. In addition to investment projects carried over from the previous year, accelerated digitization is driving spending on expanding semiconductor production capacity, accompanied by rising investment in electrification, including electric vehicles. Furthermore, spending on functional expansion of airports is expected to increase, buoyed by the rising number of passengers and the growth of inbound tourists while city-center redevelopment continues, resulting in substantial expansion in both the manufacturing and non-manufacturing sectors.

## **2. Corporate Management and Improvement in Business Value**

Although many of the firms are passing along costs and raising wages, recognizing price inflation and labor shortage as risk factors, such actions have been largely insufficient. The logistics industry is addressing the so-called 2024 crisis due to changes in labor regulations with further digitization and investment in automation. With attention focused on engagement with investors and proactive disclosure to drive up share prices, companies are apparently putting more emphasis on their medium-term business plans.

## **3. Investment in Human Resources**

Companies are increasingly proactive in raising wages to help recruit talent. Alternatively, many continue to make forward-looking investments in digitization and automation.

## **4. Digitization**

Spending on digitization has remained at high levels since the Covid-19 pandemic. The use of, and interest in, artificial intelligence (AI) is expected to rise sharply, helped by the spread of generative AI.

## **5. Investment in Innovation**

Companies are focusing attention on autonomous driving and general-use AI as promising technological innovations. A certain number of manufacturers are leveraging data on intellectual capital in business management.

## **6. Decarbonization**

In addition to technical issues, challenges in advancing decarbonization include how to finance, and then pass along development cost. Investment in decarbonization is expected to remain almost unchanged this year as a percentage of total capital spending.

## **7. Supply Chains and Investment Overseas**

Spending on sourcing diversification and stock building is expected to ease, largely due to the relaxation of constraints on the supply of semiconductors, with the focus shifting to the expansion of business where demand exists. Enhancement of production in Japan is still a notable trend compared with the pre-pandemic period.

## **8. Characteristics of Capital Spending by Region and by Medium-sized Firms**

Substantial increases are planned in, for example, Hokkaido, driven by infrastructure development; in North Kanto & Koshin, led by transport equipment; and in the Tokyo metropolitan area, with growth across the board in both manufacturing and non-manufacturing. Medium-sized firms are moving toward passing along costs and raising wages, as they are more keenly aware than large-sized firms of price inflation and shortages of workers and successors as downside risks. Remaining challenges include how to pass along the increased cost of achieving carbon neutrality.

# **1. Overview of Domestic Capital Spending**

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## Capital Spending in FY2023 and FY2024

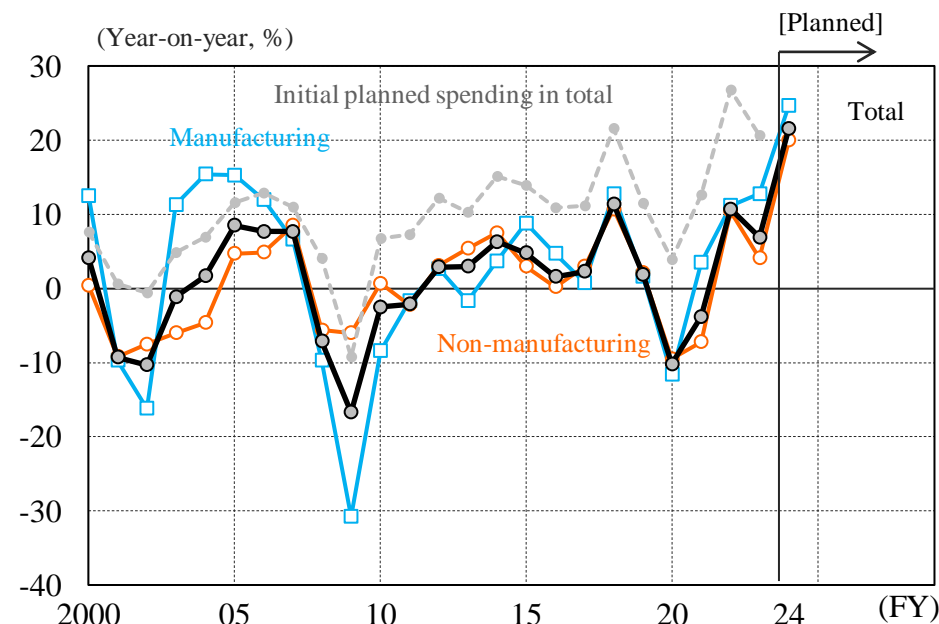
- Domestic capital spending in **FY2023** rose 6.9% overall, the second straight year of increase, driven by the **development and increased production of electric vehicles, semiconductors and materials thereof**, as well as **city-center redevelopment**, despite a sizable downward revision compared with the planned level (up 20.7%). The manufacturing sector recorded the highest growth (up 12.8%) since FY2005, exceeding the level of FY2022 (up 11.2%). Spending in the non-manufacturing sector also rose for the second consecutive year (up 4.1%).
- Planned capital spending for **FY2024** shows a **sizable increase** of 21.6% on the previous year, tied with FY2018 for the second highest rate since the **1980s** next to FY2022 (26.8%). In addition to investment projects carried over from the previous year, accelerated digitization is driving spending on **expanding semiconductor and electric vehicle production capacity**. Furthermore, spending on **functional expansion of airports is expected to increase**, buoyed by the **rising number of passengers and the growth of inbound tourists**, while **city-center redevelopment** continues, resulting in **substantial expansion** in both the manufacturing and non-manufacturing sectors.

### Capital Spending in FY2023 and FY2024

(Year-on-year, %)	FY2023 (actual)		FY2024 (planned)
	1,541 firms	(Plan as of PY)	1,643 firms
Total	6.9	(20.7)	21.6
(Excluding electric power)	8.7	(19.8)	19.7
Manufacturing	12.8	(26.5)	24.7
Non-manufacturing	4.1	(17.6)	20.0
(Excluding electric power)	6.3	(15.7)	16.7

Note: Major firms.

### Changes in domestic capital spending



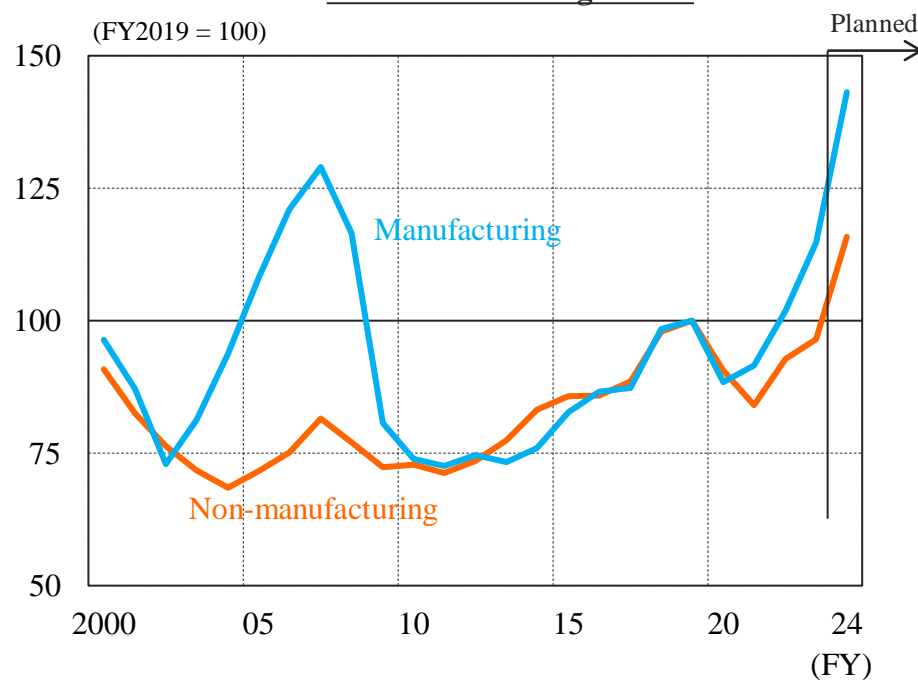
Note: Major firms.

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

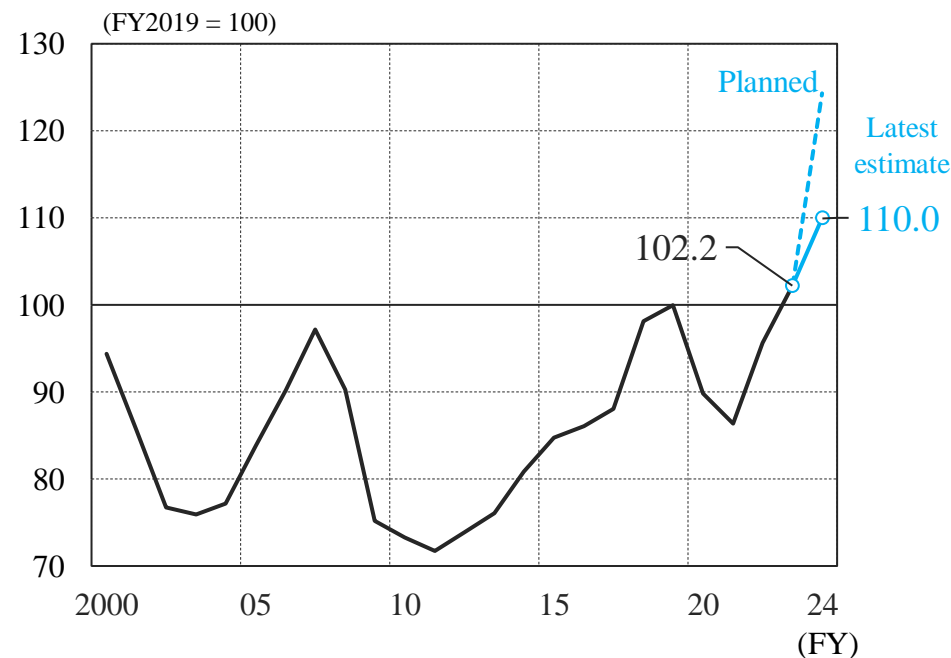
## Robust Spending in Manufacturing Expected to Exceed the Pre-pandemic Level in FY2024

- The manufacturing sector is beating the non-manufacturing sector in the pace of recovery in the post-pandemic period, driven by investment related to electric vehicles and semiconductors in a wide range of industries.
- Capital spending in FY2023 exceeded the pre-pandemic level. In light of the pattern of revision in the pre- and post-pandemic periods, capital spending in FY2024 is also expected to reach around 7%, indicating a continued expansion over the pre-pandemic level of FY2019.

**Levels of capital spending in the manufacturing and non-manufacturing sectors**



**Actual and expected levels of capital spending in Japan**

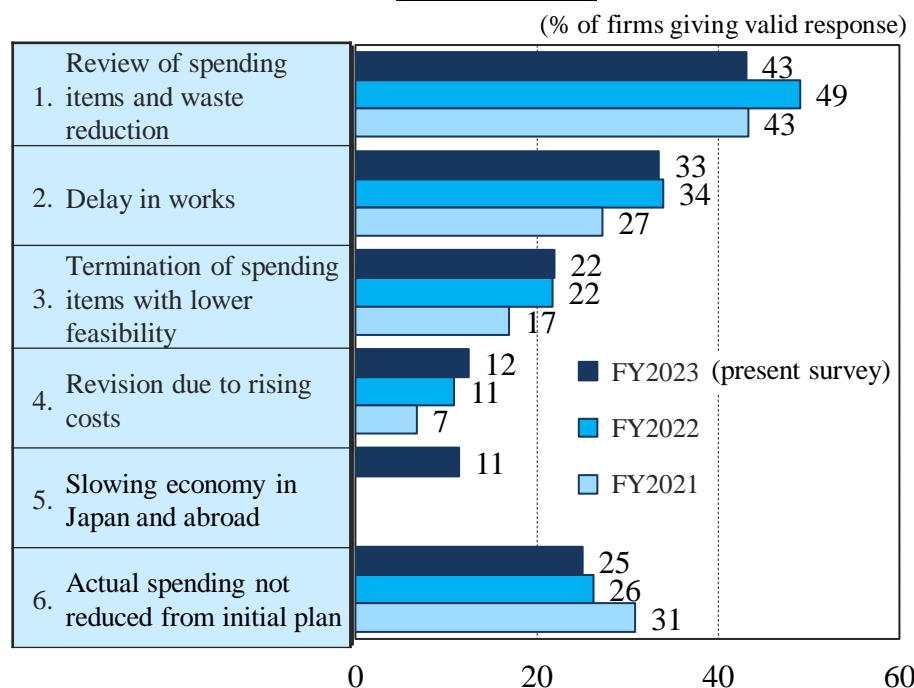


	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Planned Investment Mostly Retained in FY2023, despite Delays and Rising Costs of Construction

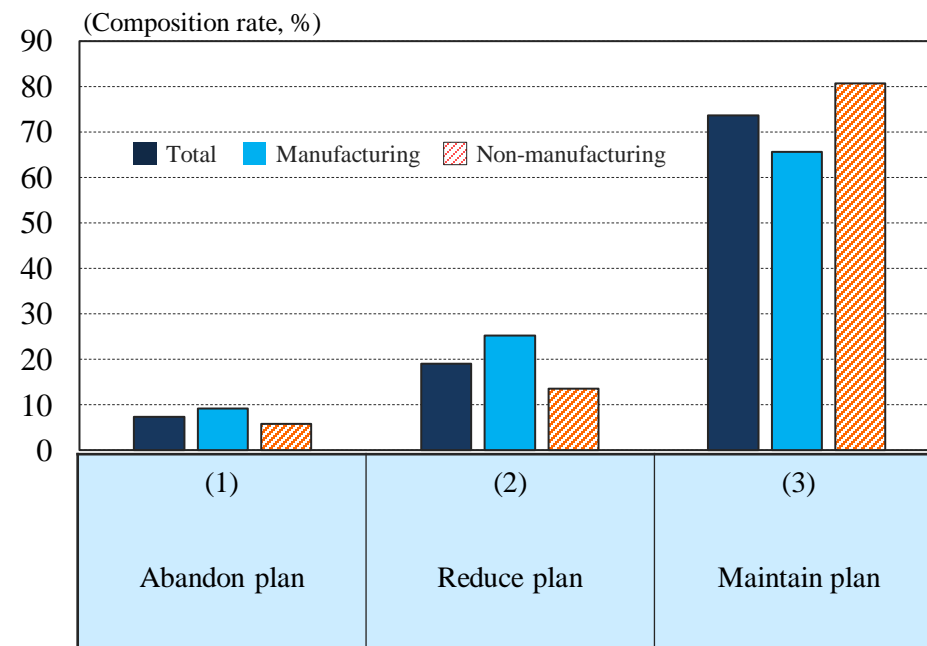
- Capital spending in FY2023 was **substantially revised downward from the planned level**. Continuing from the previous year, many firms cited **delays in construction** due mainly to the labor shortage as a reason for the downward revision. The number of firms revising their plan due to **rising construction costs** also **increased** for the third straight year.
- Although some manufacturers downsized their plan as a result of postponing investment, less than 10% abandoned their investment plan, and over 80% responded that they would retain the initial plan. Thus, the postponed projects are expected to be implemented this year.

### Reasons why last year's actual figures did not reach the initial plan (main reasons)



- Notes: 1. Major firms in all industries.  
 2. Respondents may choose up to three answers.  
 3. Item 5 represents the total of “slowing economy in Japan” and “slowing economy overseas.”

### Action after (partially) postponing capital spending in Japan



Note: Major firms in all industries.



	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Semiconductor, EV and City-Center Development to Continue Driving Investment in FY2024

- In the manufacturing sector, investment in **semiconductor** production capacity continues in materials-based industries such as electric machinery, chemicals and non-ferrous metals. Investment in **batteries and magnetic steel sheets** will also increase, mainly for **vehicle electrification**.
- For the purpose of decarbonization, spending on **renewable energy and energy efficiency** continues in a wide range of industries, accompanied by **investment in grid reinforcement for renewable energy**.
- In the non-manufacturing sector, spending on **functional expansion of airports is expected to increase**, along with investment in **hotels and entertainment facilities**, buoyed by the **rising number of passengers and the growth of inbound tourists**, while **city-center redevelopment** continues.

	Digitization/semiconductor			Decarbonization			Increase in travel
	Labor replacement	Semiconductor	EV	Renewable energy	Energy conservation	Other	Sophistication of city functions
Iron & steel		Capacity investment in semiconductors and materials thereof	Silicon wafers		Efficient blast and electric furnaces	Electric furnaces	
Chemicals			Electronic materials			CO <sub>2</sub> capture and recycling as materials	
Electric machinery			Electronic parts		Power semiconductors		
Transport equipment			Batteries				
				EV-related capacity enhancement			
General machinery	Autonomous robots	Semiconductor production equipment					
Telecom & information	AI/Data centers						
Electric power & gas						Grid for renewables	
Petroleum				Photovoltaic Wind power		SAF	
Retail	AI ordering	Enhanced e-commerce		Grid-scale batteries			
Transportation	Logistics efficiency, labor-saving and automation devices		Introduction of EVs		LED-lighting at stations		Resumed or continued sophistication of city functions in anticipation of increased travel
Real estate					ZEB ZEH		Vehicles
Services							Aircraft
							Logistics facilities
							Airport functions
							City-center redevelopment
							Hotels
							Entertainment facilities

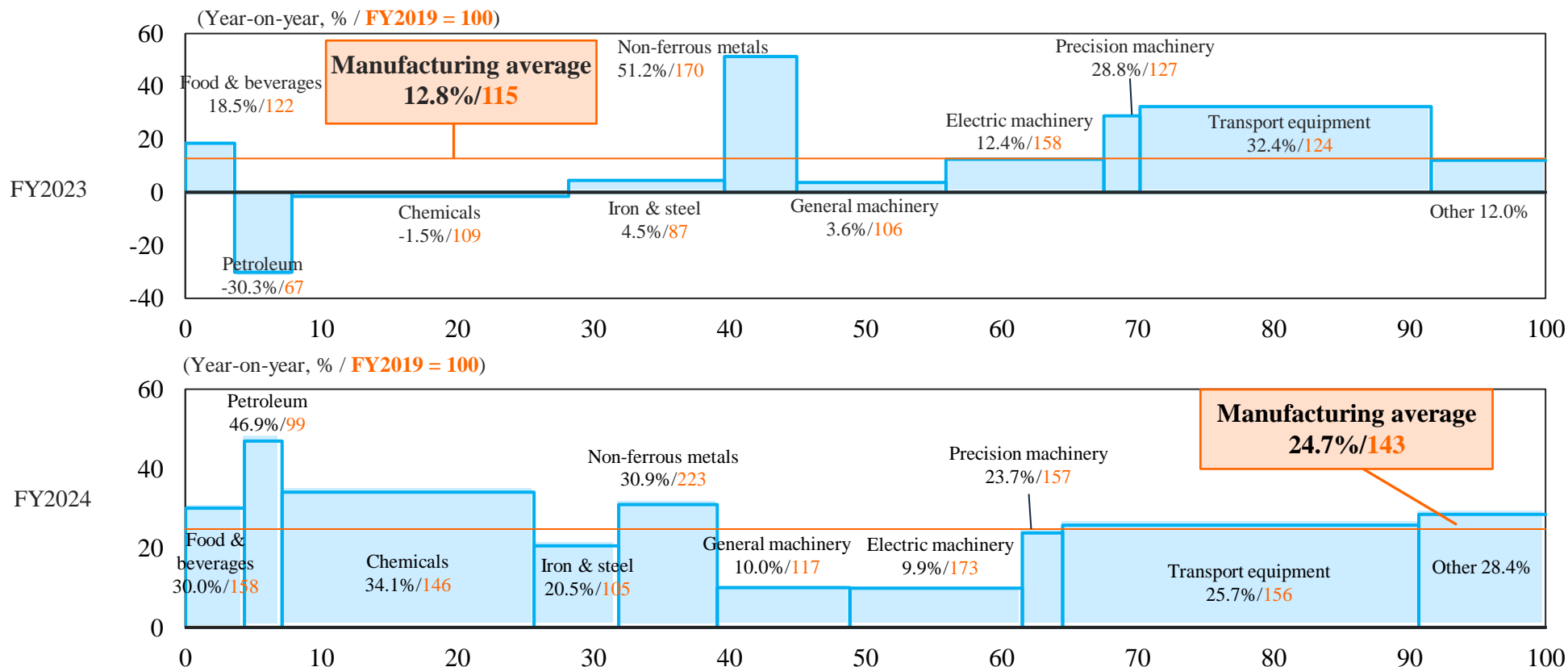
Note: Red-framed boxes indicate changes vs. the previous year. Orange-colored boxes indicate relatively large-scale investment.

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Skyline Chart for Manufacturing Sector:

### Robust Spending for Semiconductors and EVs in Non-ferrous Metals and Transport Equipment

- In **FY2023**, capital spending in **non-ferrous metals, precision machinery and transport equipment** rose substantially for investment related to semiconductors and electric vehicles.
- Sizable increases** are planned for **FY2024** in a wide range of industries, including for **chemicals, semiconductor materials, electric vehicles and pharmaceuticals**. Robust spending is planned for **semiconductors and electric vehicles in non-ferrous metals**. Investment in **transportation equipment** also continues for **electric vehicles, including batteries**.



Notes: 1. Major firms.

2. The larger the area, the greater the contribution to total spending.

(FY2023 composition rate, %)

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Characteristics of Planned Capital Spending: Manufacturing

	FY2023		FY2024	
	YoY (%)	Characteristics	YoY (%)	Characteristics
Chemicals	-1.5	Spending declined slightly due to further studies and delays in investment projects, despite progress in areas such as semiconductors, pharmaceuticals and decarbonization.	34.1	A substantial increase in spending is planned, mainly related to <b>materials for semiconductors and electric vehicles</b> , pharmaceuticals and decarbonization.
Automobiles	33.1	Substantial growth was driven by investment in <b>batteries/electrification</b> and new model development, in addition to the easing of constraints on semiconductor supply.	24.6	Spending will rise substantially, led by expansion of projects related to <b>batteries and electrification</b> .
Non-ferrous metals	51.2	Spending increased substantially, with capacity investment in <b>materials for semiconductors and EV batteries</b> to meet expected demand in the longer term.	30.9	A rapid growth in spending is planned in expectation of continued demand related to <b>semiconductors and electric vehicles</b> .
Petroleum	-30.3	Spending dropped sharply due to decline in investment for maintenance and replacement in refineries, and to termination of large-scale investment projects during the pandemic.	46.9	Next-generation energy projects will drive a substantial increase in spending, including for renewables and sustainable aviation fuel (SAF).
Food & beverages	18.5	Spending increased by double digits, with investment to enhance capacity in response to health consciousness.	30.0	Spending will increase rapidly due to new plant construction for production system restructuring in addition to rising health consciousness.
Iron & steel	4.5	Spending increased for the first time in four years, driven by equipment upgrading.	20.5	Equipment upgrading and capacity investment in <b>magnetic steel sheets for electric vehicles</b> are expected to result in a substantial increase in spending.
Electric machinery	12.4	Spending grew by double digits, with capacity investment in anticipation of increased demand for semiconductors <b>accompanying vehicle electrification and energy efficiency improvement of electronic devices</b> .	9.9	Spending will increase for the fourth consecutive year, buoyed by continued strong demand for <b>semiconductors</b> , mainly for <b>electric vehicles</b> and data centers.
General machinery	3.6	Spending increased slightly, due mainly to capacity investment related to machine tools and logistics equipment on the back of the needs for automation.	10.0	A double-digit increase is planned to meet the needs for automation and increased demand related to <b>aerospace and defense</b> .
Precision machinery	28.8	Spending increased substantially, driven by rising production related to <b>semiconductor production equipment</b> in anticipation of increased demand for semiconductors.	23.7	Investment is expected to increase substantially, with accelerated spending on biotechnology-based pharmaceuticals, in addition to <b>semiconductor production equipment</b> .

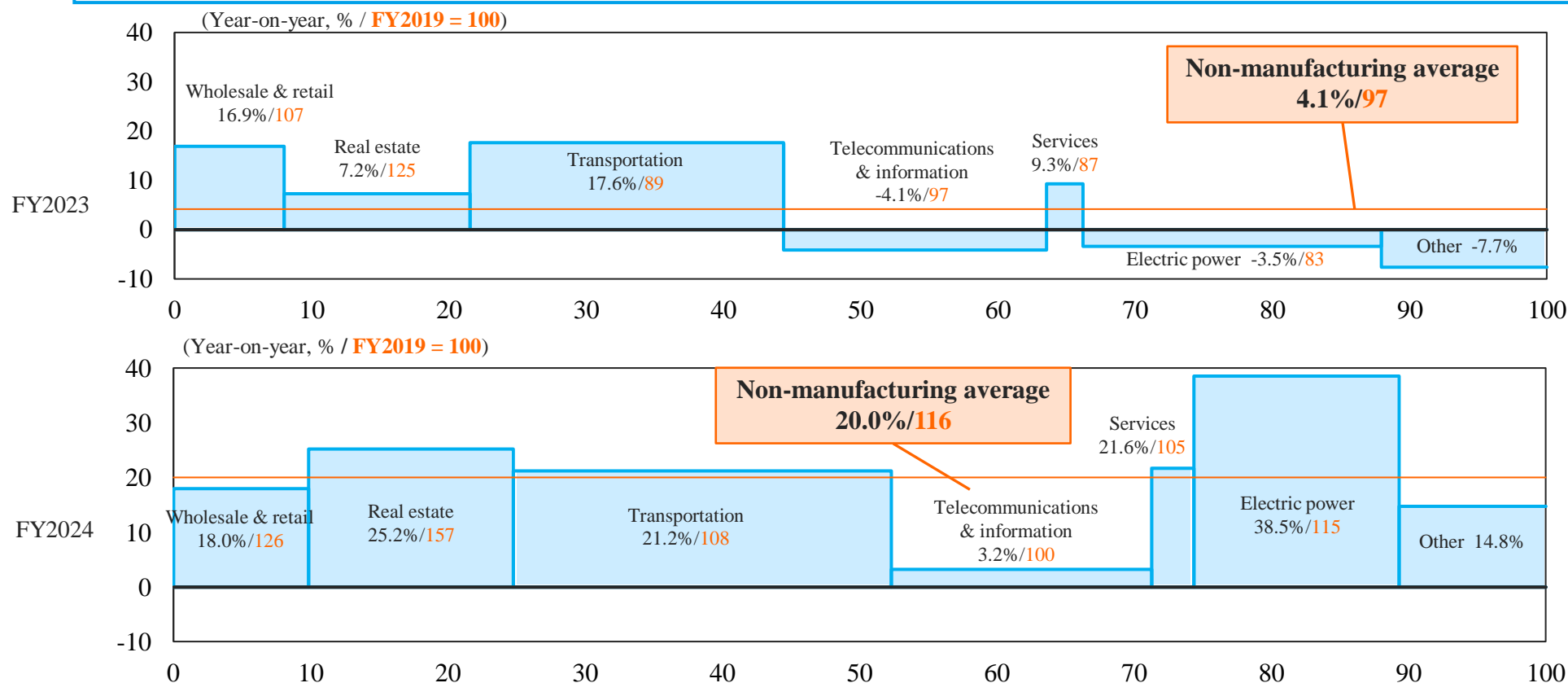
Note: Industries are listed in order of contribution in FY2024.

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Skyline Chart for Non-manufacturing Sector:

### Driven by Capacity Investment in Transportation and Continued Redevelopment in Real Estate

- Spending increased for the second consecutive year in **FY2023**, thanks to the resumption of postponed investment in railways for safety measures and in aircraft purchase, as well as investment in **large-scale business hub development in city-centers**, despite downward pressure from the postponement of spending on nuclear energy and the termination of 5G investment projects.
- A substantial increase is planned for **FY2024**, led by **transportation, with new vehicle production and the expansion of airport functions** to meet the rising demand of inbound tourists; real estate, with continued large-scale projects; and **electric power, with grid maintenance, replacement and construction**, and nuclear energy-related projects.



Notes: 1. Major firms.

2. The larger the area, the greater the contribution to total spending.

(FY2023 composition rate, %)

## Characteristics of Planned Capital Spending: Non-manufacturing

	FY2023		FY2024	
	YoY (%)	Characteristics	YoY (%)	Characteristics
Transportation	17.6	Spending increased by double digits with the resumption of postponed <b>investment in railways for safety measures</b> and in aircraft purchase, as well as for <b>station area development</b> .	21.2	Spending will increase substantially, driven by <b>new vehicle production</b> , shipbuilding, <b>expansion of airport functions</b> and station area development, along with labor-saving investment.
Electric power	-3.5	Spending declined, particularly on nuclear energy.	38.5	Spending is expected to recover with investment in nuclear energy and <b>grid maintenance, replacement and construction</b> .
Real estate	7.2	Spending increased with the development of <b>logistics facilities</b> and procurement of property, in addition to the <b>completion of large-scale business hubs</b> .	25.2	Spending is expected to increase substantially, led by the development of next-generation, <b>large-scale business hubs, logistics facilities</b> , commercial facilities and hotels.
Wholesale & retail	16.9	Spending increased by double digits, driven by the renewal of existing outlets and the introduction of digital technology to improve efficiency.	18.0	A double-digit increase in spending is planned, with the renewal of existing outlets, the <b>enhancement of e-commerce</b> and digital-powered labor-saving.
Services	9.3	Spending increased, mainly for accommodation facilities and real estate development.	21.6	Spending will increase substantially due to the refurbishment and launch of <b>accommodation facilities</b> and aggressive investment in <b>entertainment facilities</b> .
Telecom & information	-4.1	Spending declined as investment in developing 5G base stations and networks peaked.	3.2	A slight increase in spending is planned, with expansion of investment in digital infrastructure including <b>AI computing platforms and data centers</b> .

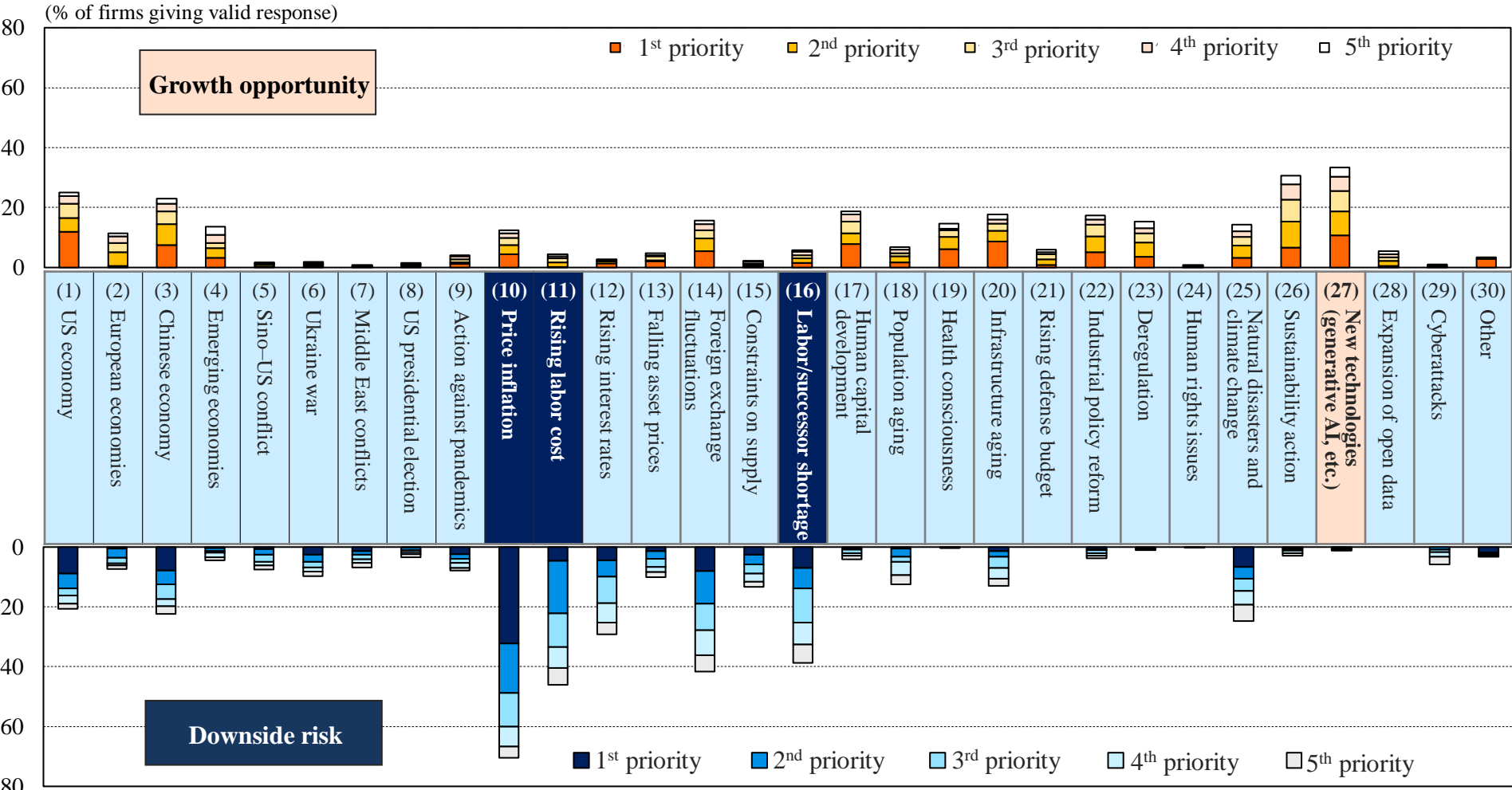
Note: Industries are listed in order of contribution in FY2024.

## **2. Corporate Management and Improvement in Business Value**

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	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

# Price Inflation and Rising Labor Cost & Shortage Emerging as Risk Factors, as AI and New Technologies Present Growth Opportunities



(% of firms giving valid response)

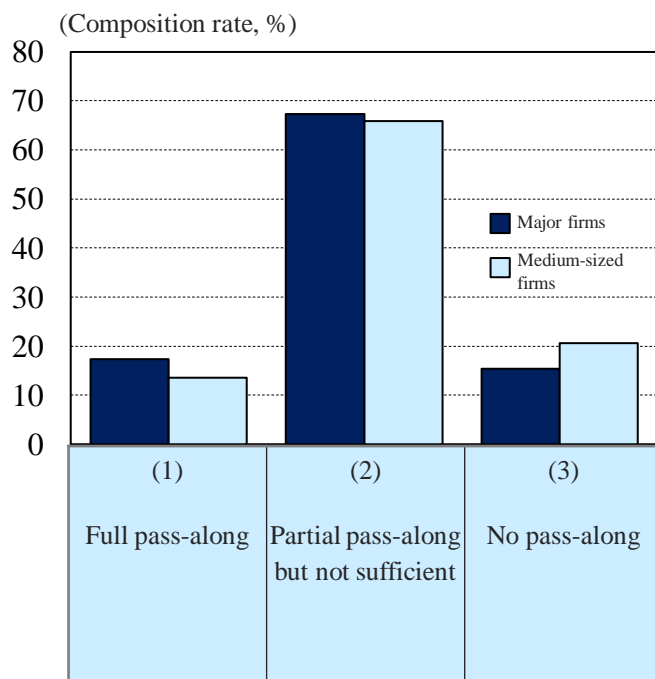
Notes: 1. Major firms in all industries.  
2. Up to five answers in order of impact.

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

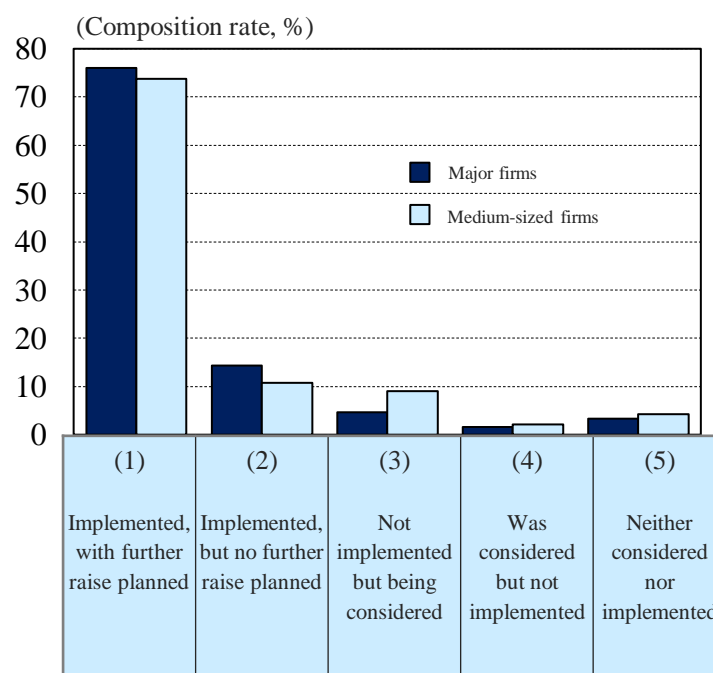
## Medium-sized as well as Major Firms Passing along Costs and Raising Wages

- As the risk of price inflation emerges, most medium-sized firms as well as major firms say that they are **passing along costs to prices** at least partially. However, a majority of both of categories consider that the **pass-along is insufficient**.
- Some 90% of both major and medium-sized firms say that they have **raised wages**. Although a majority of both categories respond that the **pay raise rate surpasses the previous year's level**, the percentage of this response is higher among major than medium-sized firms.

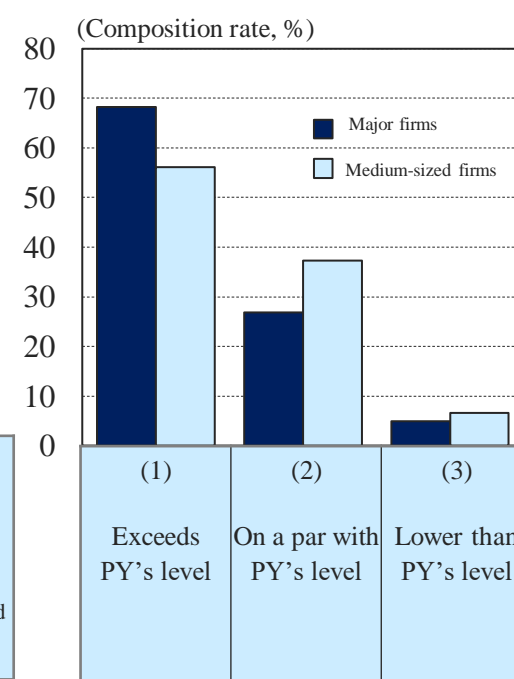
**Costs passed along to sales prices**



**Pay raise**



**Pay raise rate**



Notes: 1. All industries.

2. Data on pay raise rate only cover those firms that have actually raised wages.



	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Response to the 2024 Crisis in Logistics Focusing on Investment in Digitization, Mechanization and Automation

- As response measures to cope with the so-called **2024 crisis in logistics** due to the tightening of labor regulations, many firms across the industries cited “**Digitization**,” while a considerable number of manufacturers also cited “**Capital spending for mechanization & automation**.” “Expansion of joint-delivery” was also cited in industries such as food & beverages, chemicals (including daily goods manufacturers) and wholesale & retail. In industries likely to be hardest hit by the crisis, including road freight transport and warehousing, a larger share of companies cited digitalization and investment in mechanization/automation, as well as **modal shift**, than in other industries.
- Among the medium-sized firms, the share of “No response in particular” is higher than among the major firms almost across the board. Despite trailing the major firms in almost every response measure, a higher percentage of medium-sized firms cited **stock building** as a response to the crisis, particularly in the manufacturing sector.

### Response to the 2024 Logistics Crisis

(% of firms giving valid response)	(1) Site consolidation	(2) Site distribution	(3) Modal shift	(4) Stock building	(5) Expansion of "joint-delivery"	(6) Digitization	(7) Capital spending for mechanization and automation	(8) Implementation of voluntary action plan of industry	(9) No response in particular
Total (major firms)	11	6	8	7	15	22	21	8	43
Manufacturing (major firms)	14	8	11	9	21	21	25	11	31
Food & beverages	25	13	33	4	54	17	38	17	8
Chemicals	17	11	19	15	24	17	17	11	26
Iron & steel/non-ferrous metals	5	14	11	14	18	20	23	14	32
Transport equipment	12	10	7	2	20	20	34	7	27
Non-manufacturing (major firms)	9	4	6	5	12	23	19	5	52
Construction	10	2	2	5	10	38	23	15	40
Wholesale & retail	21	9	3	9	28	34	36	7	20
Road freight/warehouse transport	10	2	34	0	20	41	32	0	32
Total (medium-sized firms)	10	5	4	8	13	16	15	7	55
Manufacturing (medium-sized firms)	12	9	5	13	18	14	19	8	43
Non-manufacturing (medium-sized firms)	9	3	4	5	10	17	12	6	62

Notes: 1. Industry-level data for major firms only.  
2. Respondents may choose up to three answers.

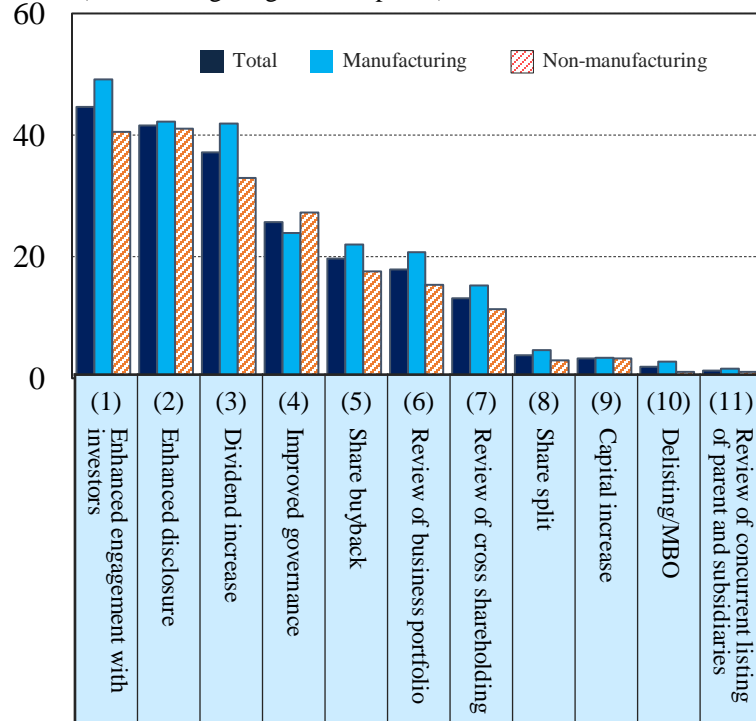
	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Enhanced Engagement with, and Disclosure to, Investors focused on Medium-term Business Plan to Drive Up Share Prices

- Companies are emphasizing investor relations to drive up share prices, including through **shareholder engagement** and **enhancement of disclosure**. There is greater interest in **dividend increases** on the back of robust business performance.
- Medium-term business plans** and **shareholder returns/dividend policies** are the focus of information disclosure to shareholders.
- Although only a small percent of the firms have considered a **hostile takeover**, **more than 20% of the firms** responded that they would **consider it if necessary**.

### Focus for propping up share prices

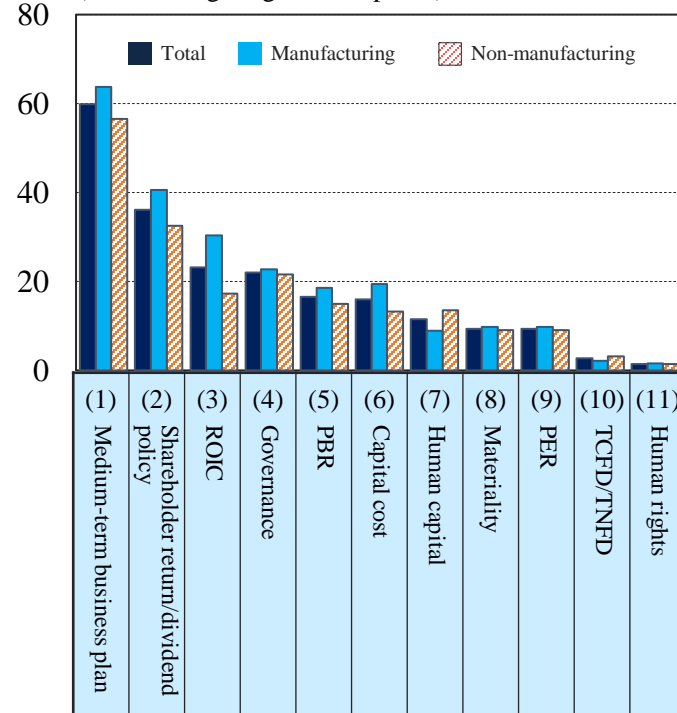
(% of firms giving valid response)



Notes: 1. Major firms. 2. Respondents may choose up to three answers.

### Priority subject in information disclosure

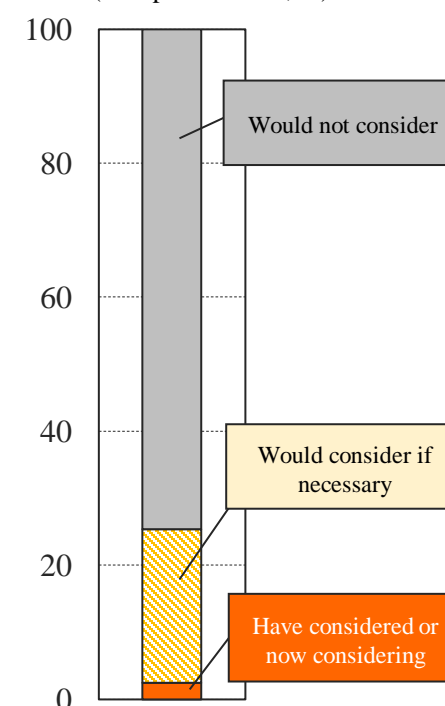
(% of firms giving valid response)



Notes: 1. Major firms. 2. Respondents may choose up to three answers.

### Attitude toward hostile takeover

(Composition rate, %)



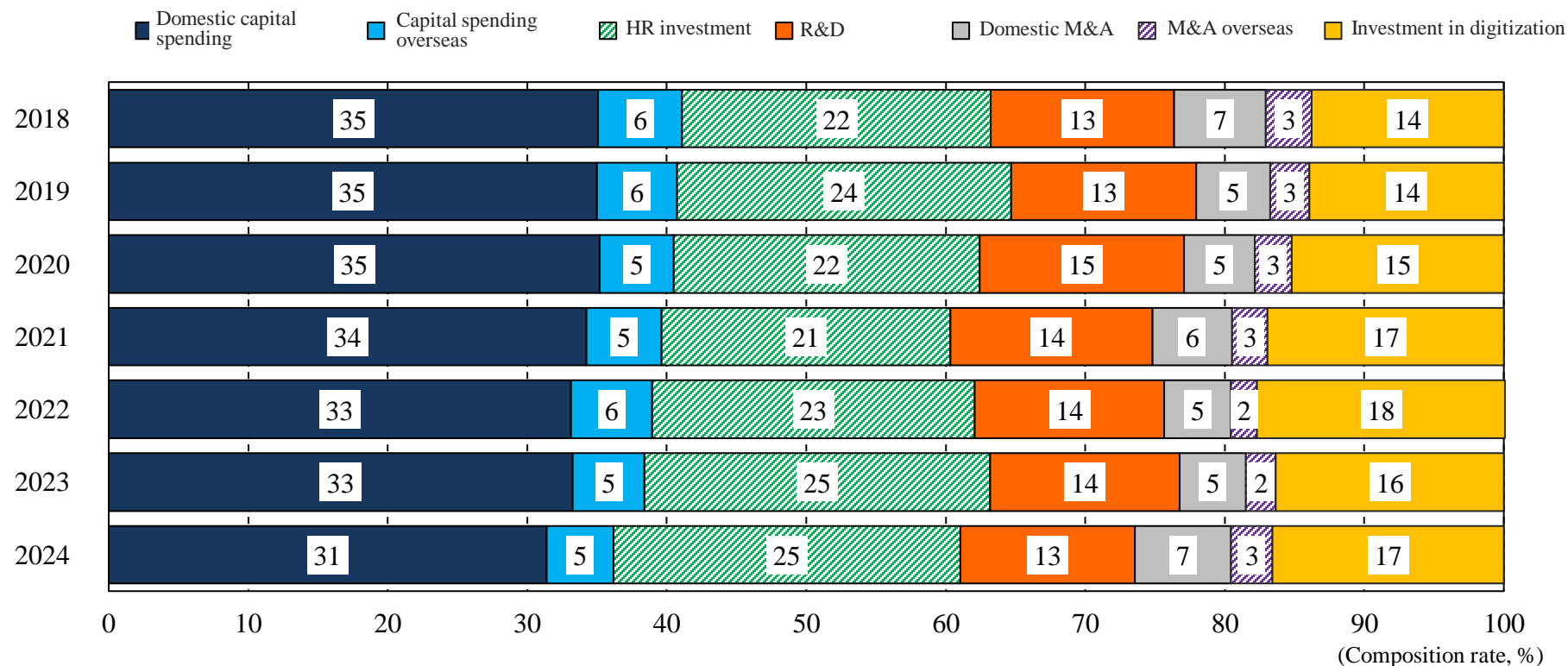
Note: Major firms in all industries.

	Large firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Increased Priority of Investment in HR and Digitization

- The **priority of investment in human resources** and **digitization** has been rising gradually in recent years among investment activities in a broader sense, including investment in assets other than tangible fixed assets. This year's research also points to a slight increase in the priority of M&A, both in Japan and overseas.

### Priorities of investment in a broad sense



Notes: 1. Major firms in all industries.

2. Figures represent percentages calculated based on a scoring mechanism giving three points to the top priority, two points to the second priority, and one point to the third priority.

### **3. Investment in Human Resources**

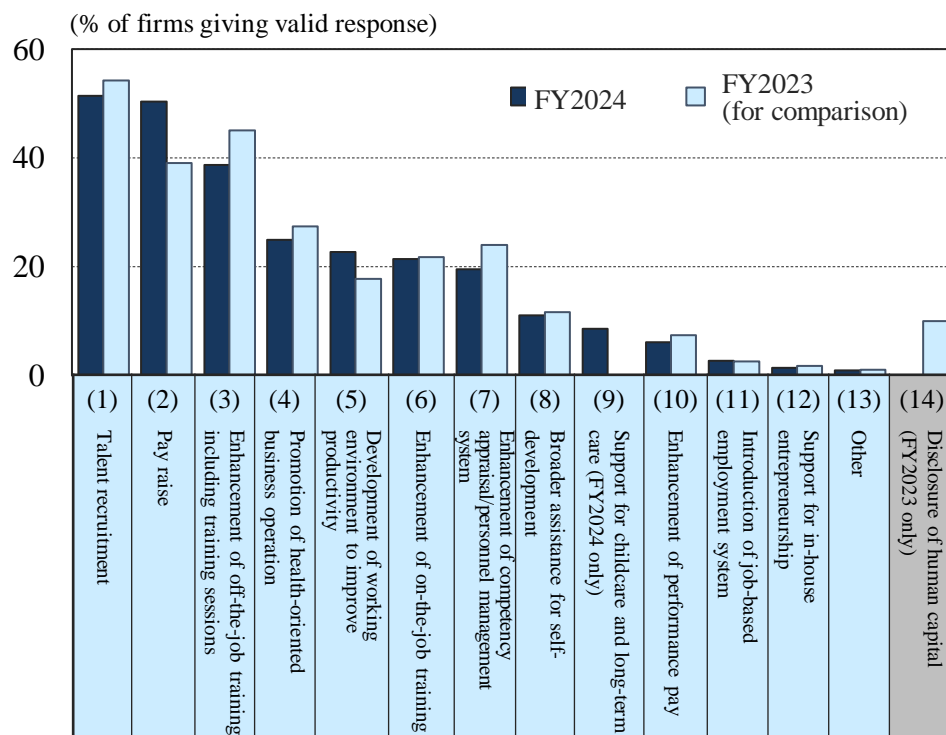
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Major firms		Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

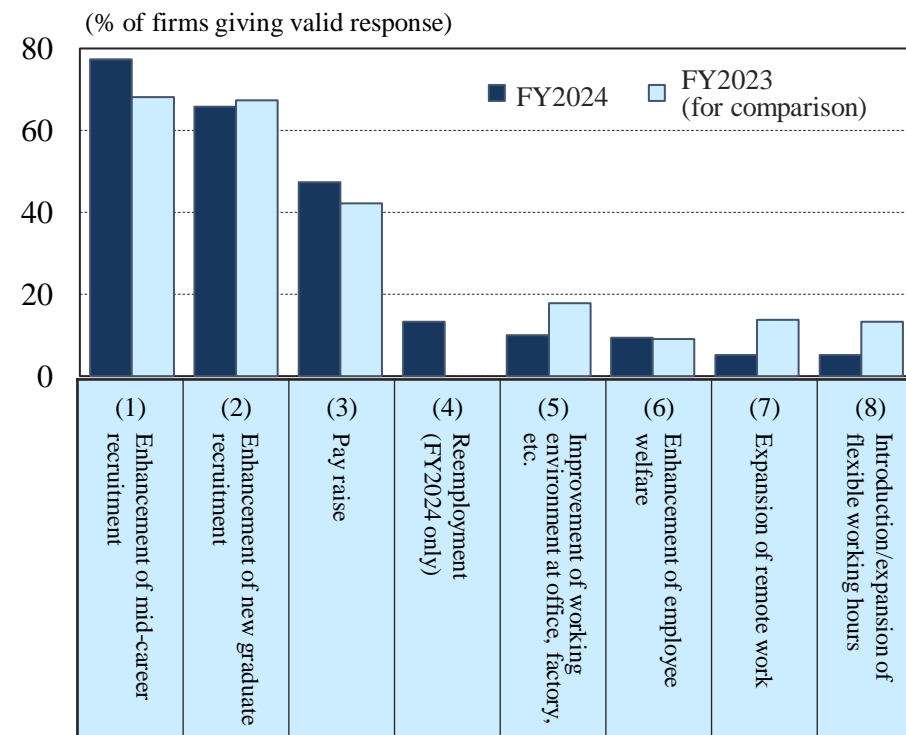
## HR Investment Focused on Talent Recruitment and Pay Raise: Mid-career Hires and Pay Raise Are the Key to Talent Recruitment

- As the labor shortage continues, most companies cite **talent recruitment** as the top priority in recruiting human resources, continuing from the previous year, but the importance of **pay raise** shows a rapid increase, surpassing enhancement of off-the-job training including training sessions, which was ranked higher last year. Meanwhile, the share of companies citing support for childcare remains below 10%, as with support for in-house entrepreneurship and introduction of a job-based employment system, following the previous year's trend.
- As regards actions for talent recruitment, companies are increasingly focusing on **mid-career recruitment**, thus widening the gap with new graduate recruitment, while **pay raise** is emerging as a key priority. Elsewhere, **reemployment** has also gained in importance. In addition, 10% of the firms find that improving the working environment at the office, factory, etc. is an effective measure.

### Composition of HR investment



### Actions for talent recruitment (major actions)



Notes: 1. Major firms in all industries.  
2. Respondents may choose up to three answers.

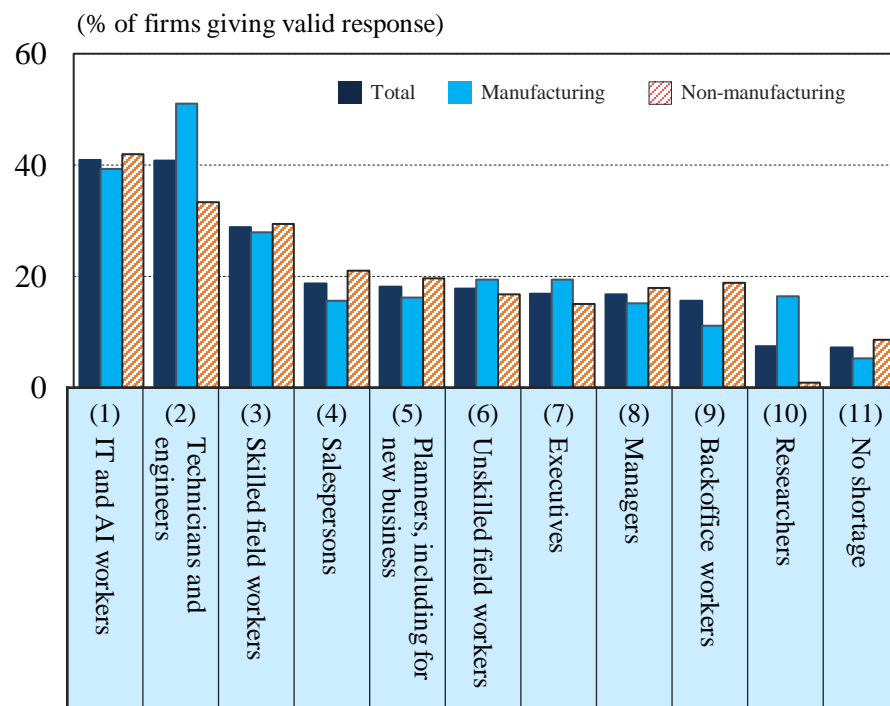
Notes: 1. Major firms in all industries.  
2. Respondents may choose up to three answers.

Major firms		Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Shortages of IT and AI Talent, Technicians and Skilled Workers: Labor Shortage Potentially Leading to Labor-Saving Investment

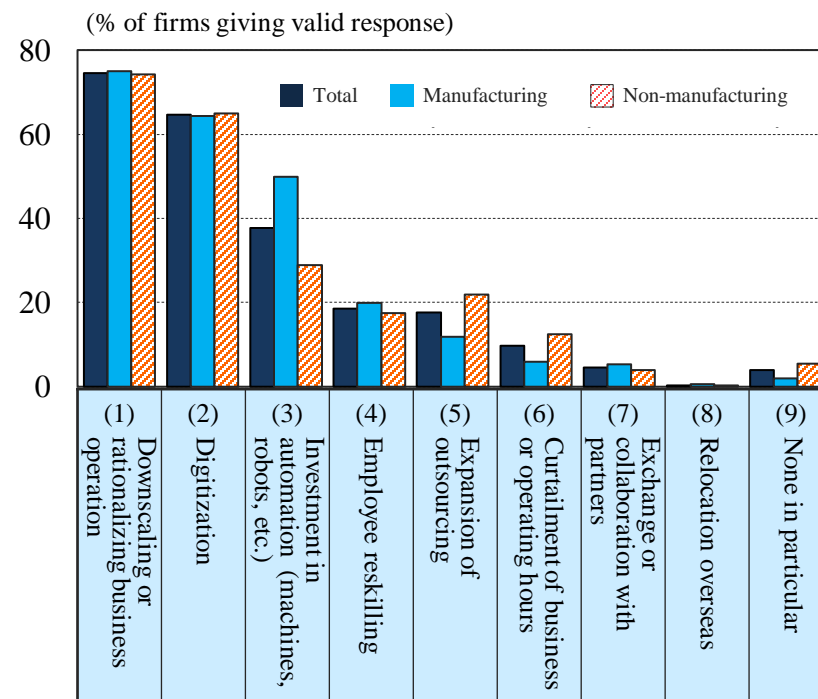
- Many firms cited a lack of **IT and AI workers**, as well as **technicians** and **skilled field workers**. Elsewhere, some 20% of the firms also reported shortages in various job categories including salespersons, executives and managers.
- Primary actions to cover the gap when recruitment is unsuccessful include **downscaling or streamlining business operations** and **digitization** in both the manufacturing and non-manufacturing sectors. Many companies also cited **investment in automation**, particularly in the manufacturing sector, possibly leading to labor-saving investment to cope with the labor shortage going forward.

### Categories of talent in short supply



Notes: 1. Major firms in all industries.  
2. Respondents may choose up to three answers.

### Measures to cope with labor shortage other than recruitment



Notes: 1. Major firms in all industries.  
2. Respondents may choose up to three answers.

## 4. Digitization

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	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Digitization Investment Showing Rapid Growth in Non-manufacturing in Particular

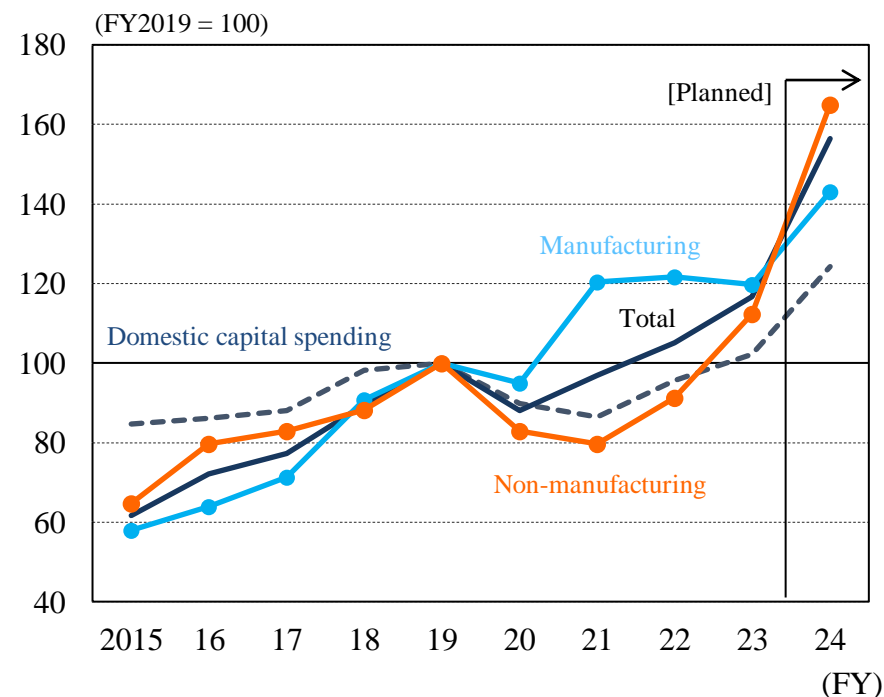
- Digitization investment in FY2023 rose 11.1%, the third consecutive year of increase despite downward revision of planned spending, as with the previous year.
- Planned spending for FY2024 shows an increase of 34.0%, with system investment in a wide range of industries for **operational efficiency improvement**. In the manufacturing sector, digitization investment is expected to rise 19.5%, led by transport equipment for **consolidation of data management** and other efficiency measures. But it is the non-manufacturing sector that will drive digitization spending with a sizable growth of 46.9%, including in wholesale & retail for **e-commerce infrastructure development**, in electric power & gas for **remote maintenance**, and in transportation for **customer service** and **warehouse automation**.

### Change in digitization investment in FY2023 and 2024

(Year-on-year, %)	FY2023		FY2024
	Planned (682 firms)	Actual (513 firms)	Planned (619 firms)
Total	33.8	11.1	34.0
Manufacturing	32.3	-1.6	19.5
Non-manufacturing	35.3	23.0	46.9
Construction	33.1	18.6	35.0
Wholesale & retail	24.7	58.0	43.2
Electric power & gas	39.3	18.1	55.8
Transportation	54.2	7.5	63.6

Notes: 1. Major firms.  
2. Digitization investment includes tangible fixed asset investment (server purchase, etc.), as well as software investment (including expenses).

### Digitization investment ratio



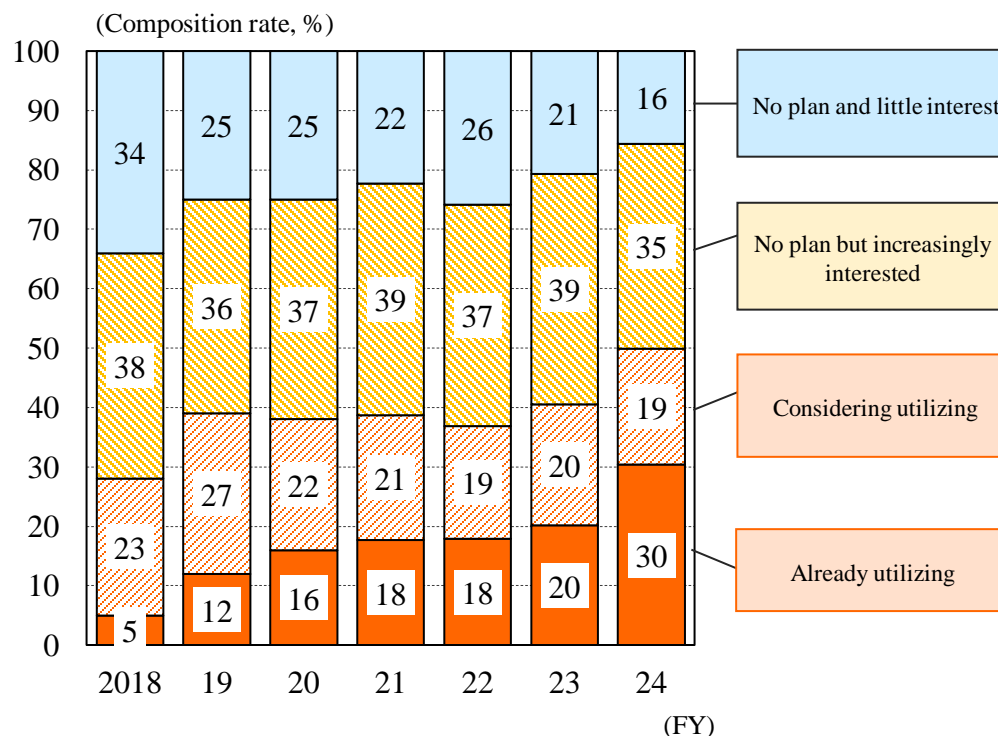


	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Rapid Expansion Planned in Utilization of AI and IoT

- The share of firms that are “**Already utilizing**” AI or IoT has **risen rapidly** with the spread of generative AI and now exceeds the percentage of those with “No plan and little interest.”
- Asked about how they utilize AI, **many firms cited preparation of minutes and operational efficiency improvement**, but some also cited usage for **adding more value**, including various types of **forecasting** to inform planning, product tests, drug development, air-conditioning and optimization of dispatch control.

### Utilization of AI, IoT and other advanced technologies



Note: Major firms in all industries.

### Usage of AI

Industry	Usage
All industries	<ul style="list-style-type: none"> <li>• Preparation, summarizing and proofreading of minutes</li> <li>• Chatbot, ideation</li> <li>• Information gathering, improvement of administrative efficiency</li> <li>• <b>Forecasting</b> (stock, price, demand, performance, life duration, etc.)</li> <li>• Reading of information by AI-OCR</li> </ul>
Manufacturing (materials-based)	<ul style="list-style-type: none"> <li>• <b>Product tests</b></li> <li>• Machine data gathering</li> <li>• <b>AI-powered drug development</b>, diagnostic imaging</li> </ul>
Manufacturing (processing & assembly)	<ul style="list-style-type: none"> <li>• Product tests, appearance tests</li> <li>• Education</li> </ul>
Energy	<ul style="list-style-type: none"> <li>• Optimization of factory operation</li> <li>• Energy control</li> </ul>
Non-manufacturing	<ul style="list-style-type: none"> <li>• Preventive maintenance</li> <li>• <b>Programming assistance</b></li> <li>• <b>Air-conditioning, heat source optimization</b></li> <li>• <b>Dispatch management, on-demand transport, on-time operation</b></li> </ul>

Notes: 1. Major and medium-sized firms.  
2. Free description.

## **5. Investment in Innovation**

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	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Investment in R&D to Increase in Many Industries for Upgrading and Decarbonization

- In FY2023, general machinery showed strong growth with **technological development for carbon neutrality** and **development of high-performance new products**, but the overall growth rate was limited to 4.2% as other industries failed to reach the planned level.
- Planned spending for FY2024 shows significant growth of 8.7% on the previous year. Despite a slowdown in general machinery as compared with the extraordinary growth in FY2023, the heavily-weighted transport equipment industry is expected to maintain the growth it recorded in FY2023, mainly for **CASE-related development, including electrification**, in addition to the substantial growth planned in chemicals for **sophisticated product development**, and in electric machinery for **post-5G** and other **upgrading** projects. Research and development on **decarbonization** will continue in a wide range of industries.

### R&D expenditure

(Year-on-year, %)	FY2023 Actual (509 firms)	FY2024 Planned (555 firms)	Share (FY2023)	Key R&D projects
Total	4.2	8.7	100.0	
Manufacturing	4.1	8.5	96.0	
Transport equipment	3.1	3.3	43.1	New model development, CASE/carbon neutrality-related (particularly for electrification) development Development to improve safety
Chemicals	0.6	8.3	28.0	Development of high-performing products, including for pharmaceuticals, automobiles and electronic materials
Electric machinery	1.5	16.3	6.7	Technological research and development, including for labor-saving, post-5G and other types of sophistication
General machinery	23.4	13.6	7.1	Development of sophisticated new products for promoting carbon neutrality and automobiles
Non-manufacturing	5.2	14.5	4.0	

Notes: 1. Major firms.

2. R&D expenditure (consolidated basis) comprises all costs related to R&D, including personnel cost, raw materials cost, depreciation cost and allocated overhead.

## Attention Focused on Autonomous Driving and AI as Technological Innovations, with Active Utilization of Intellectual Capital Data, Particularly in Manufacturing

- Asked about technological innovations with significant impact going forwards, both manufacturers and non-manufacturers cited **autonomous driving** and **general-use AI**. Many firms also cited hydrogen-related technology in materials-based industries such as iron & steel, as well as renewables in the non-manufacturing sector.
- Consideration of patents and other intellectual capital data analysis has been advancing more rapidly in the manufacturing sector, as **more than 20% of the manufacturers report having utilized it**, and **almost 70% take a proactive attitude**, including the firms showing interest in the analysis. In the non-manufacturing sector, on the other hand, almost 60% of the firms show no interest at all, indicating that efforts to leverage intellectual property in business management still have a long way to go.

### Innovative technologies considered to have substantial impact on business

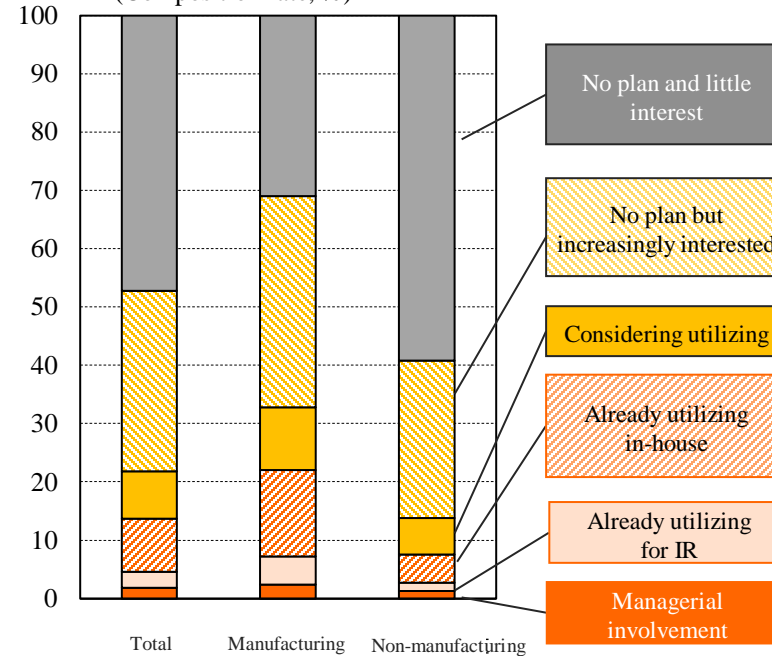
(% of firms giving valid response)

	(1) Autonomous driving (Level 4 and above)	(2) Hydrogen-related (steelmaking, batteries, etc.)	(3) General-use AI	(4) Renewables (offshore wind farms, etc.)	(5) Robots and humanoids	(6) Drones	(7) 6G	(8) None in particular	(9) Other
All industries	28	25	25	25	14	13	9	20	24
Iron & steel	25	60	10	15	5	10	5	20	25
Non-ferrous metals	43	26	17	22	13	4	26	13	39
General machinery	25	44	17	27	25	10	6	12	35
Electric machinery	51	24	43	22	11	5	27	11	27
Precision machinery	20	33	33	7	40	7	27	13	40
Transport equipment	58	38	15	13	3	20	0	8	25
Electric power & gas	0	62	11	60	9	17	4	15	17
Real estate	20	4	23	25	13	12	3	38	23
Transportation	58	30	20	21	12	14	4	18	27
Telecom & information	11	2	51	4	9	9	38	18	27

Notes: 1. Major firms.  
2. Multiple (up to three) answers.  
3. Other includes eVTOL, nuclear fusion, quantum computer, blockchain, space use, human augmentation, etc.).

### Consideration of intellectual capital data analysis

(Composition rate, %)



Notes: 1. Major firms.  
2. Multiple (up to three) answers aggregated and converted into composition ratios.

## 6. Decarbonization

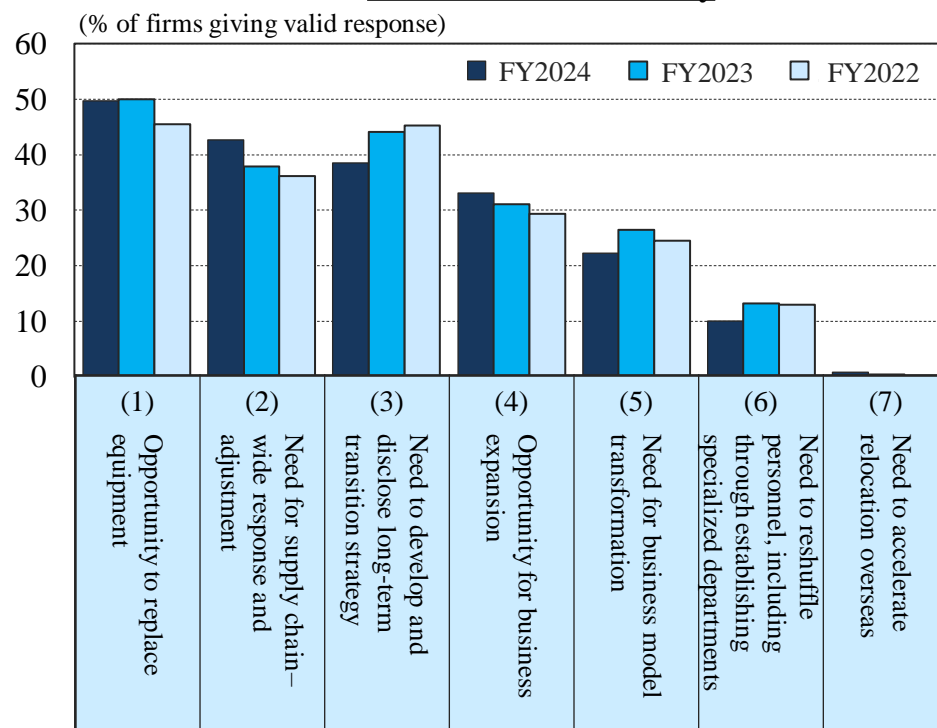
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	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Carbon Neutrality to Trigger Replacement of Facilities: Decarbonization Depends on Ability to Pass along Costs, in Addition to Technology

- A large percentage of the firms continue to consider **carbon neutrality** goals as an **opportunity to replace equipment**, raising expectations for activated investment in the future. The share of firms citing the **need for supply chain-wide response** and **opportunity for business expansion** is increasing steadily, to the detriment of the need to develop and disclose a long-term transition strategy.
- Asked about challenges for progress in decarbonization efforts, many companies cited **passing along costs to sales prices** and **development cost**, as well as **technological issues**, which means that the continuation of efforts for decarbonization hinges on how to pass along development cost to sales prices.

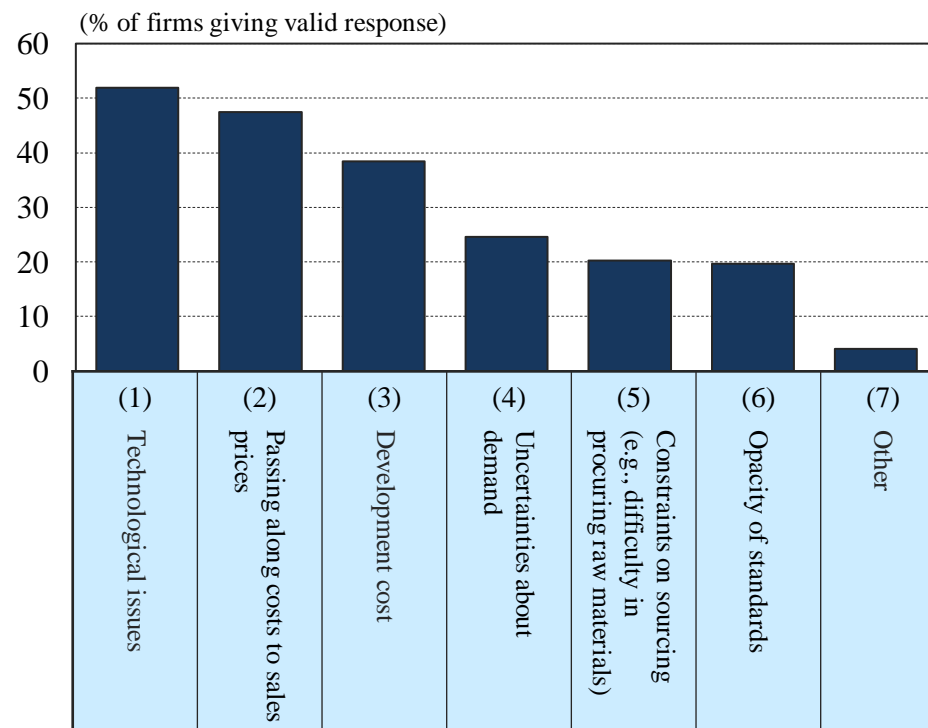
### Expected business impact of accelerated actions to achieve carbon neutrality



Notes:

- Major firms in all industries.
- Respondents may choose up to three answers.

### Challenges for progress in decarbonization efforts



Notes:

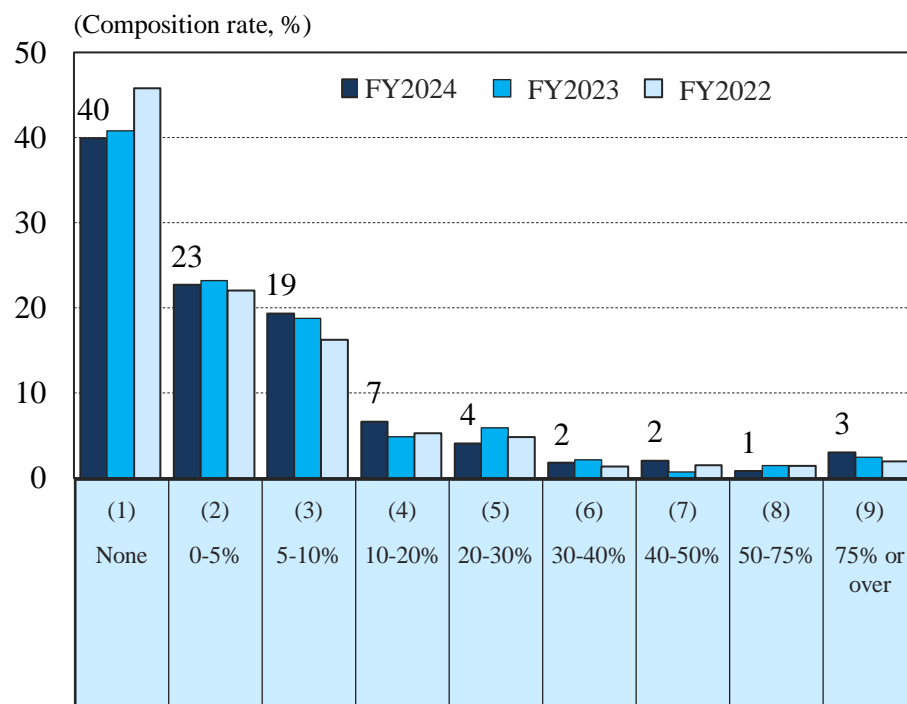
- Major firms in all industries.
- Respondents may choose up to three answers.

Major firms		Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Almost Unchanged Share of Decarbonization in Capital and R&D Spending

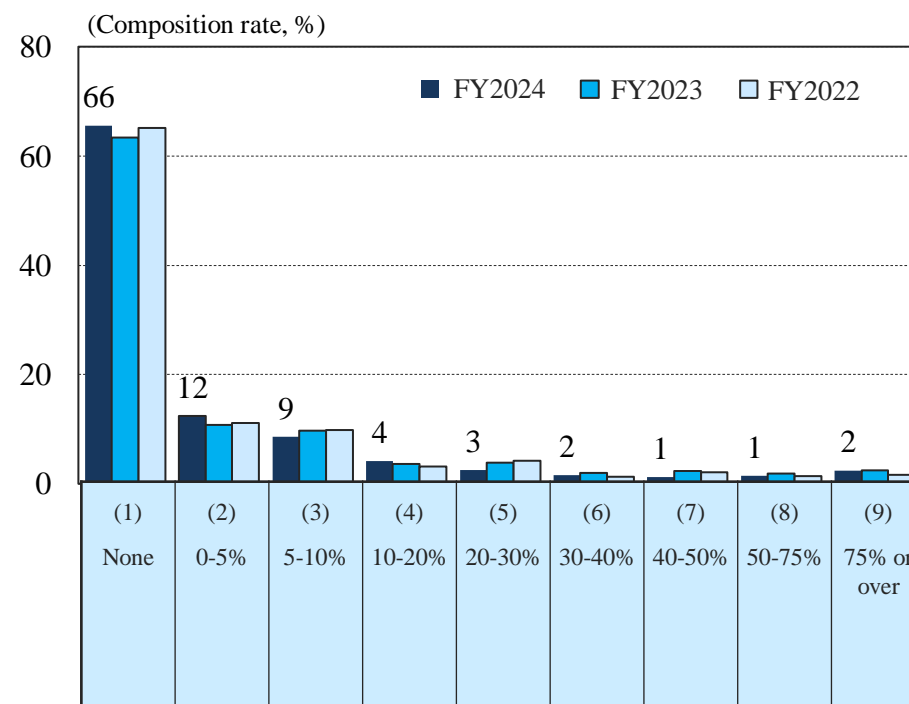
- The share of **decarbonization** investment in **capital** spending in **FY2024** is expected to stay on a par with the level of FY2023, although the share of companies reporting “None” has declined since FY2022.
- The share of decarbonization investment in R&D expenses has remained almost unchanged for the last three years.

**Share of decarbonization in capital spending**



Notes: Major firms in all industries.

**Share of decarbonization in R&D investment**



Notes: Major firms in all industries.

## **7. Supply Chains and Capital Spending Overseas**

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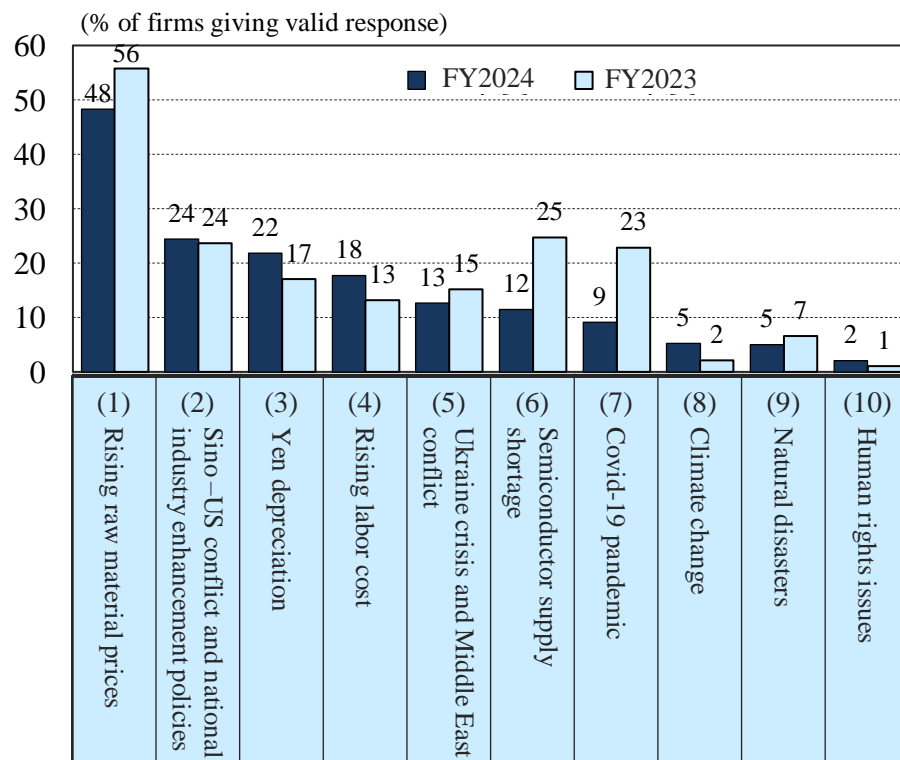


Major firms		Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Business Expansion Where Demand Exists, amid Reduced Necessity for Strategic Inventories and Sourcing Diversification due to Eased Constraints on Supply

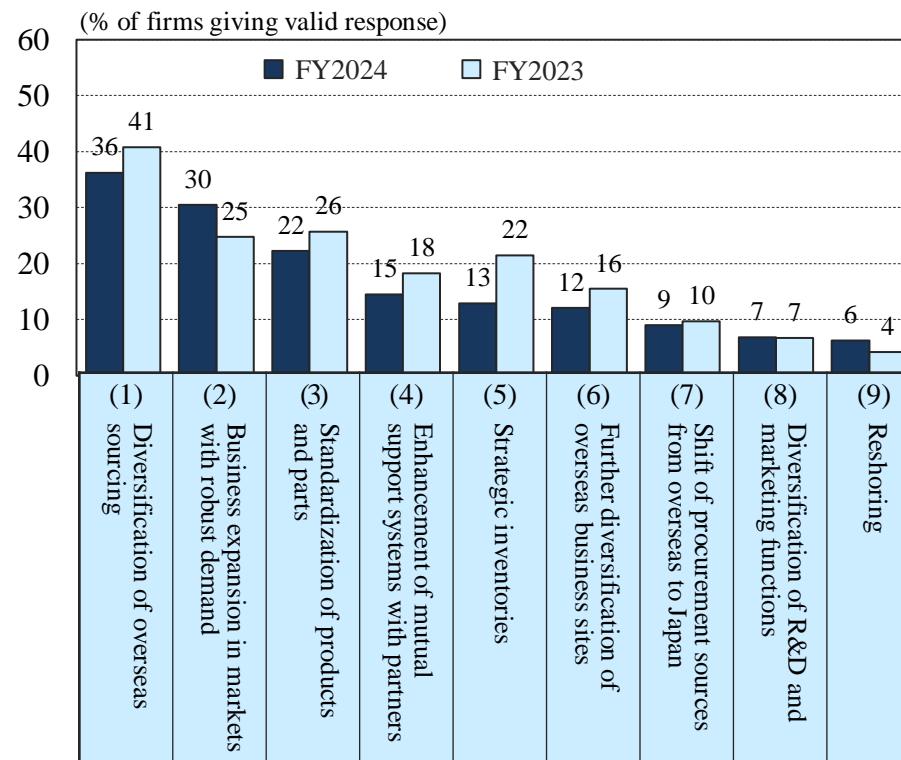
- Among the **factors for reviewing supply chains**, an overwhelming number of firms continue to cite rising raw material prices, but their share is declining on the previous year, along with the **semiconductor supply shortage** and the **Covid-19 pandemic**. Meanwhile, the **yen depreciation** and **rising labor costs** are emerging as factors to be reckoned with.
- Among the actions to revise supply chains, the shares of **diversification of overseas sourcing** and standardization of products and parts are declining from the high levels recorded over the years, while the building of strategic inventories is easing as constraints on supply loosen. On the other hand, firms seeking **business expansion in markets with robust demand** have increased their share. Although the share of reshoring shows a slight increase on the previous year, mainly in manufacturing, it remains at around 5%, following the trend of the last three years.

### Opportunities for revision of supply chains



Notes: 1. Major firms in all industries.  
2. Respondents may choose up to three answers.

### Actions to revise supply chains



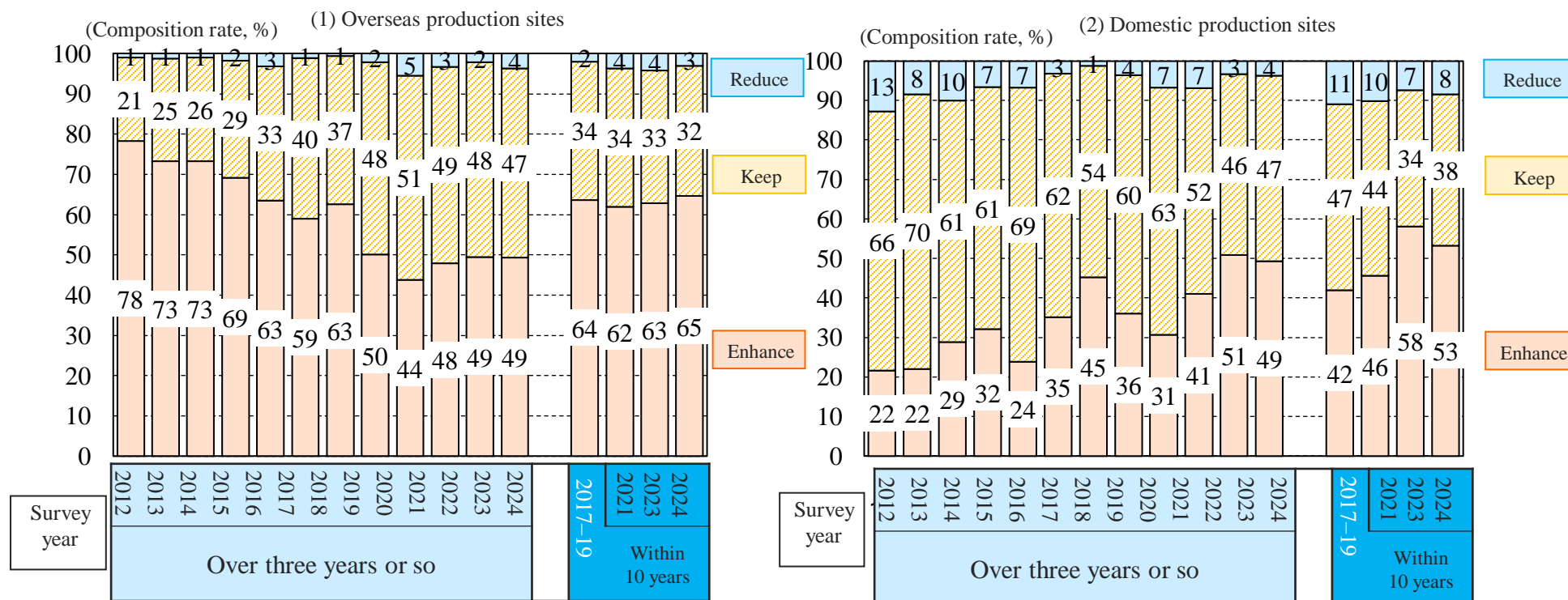
Notes: 1. Major firms in all industries.  
2. Respondents may choose up to three answers.

Major firms		Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Continued Trend to Reinforce Domestic Production Sites

- Regarding the perspective of manufacturers regarding supply capacity in the medium term, the share of companies seeking to **enhance overseas production sites** over the coming three years or so has not returned to the pre-pandemic level of 2019. Nevertheless, those intending to enhance overseas production capacity within 10 years now account for over 60%.
- Regarding **domestic production**, the share of firms looking to increase capacity over the coming three years shows a slight decline on the previous year, but still far exceeds the pre-pandemic level. **Over half of the manufacturers intend to enhance** domestic production capacity within 10 years, a trend continuing from FY2023 and exceeding the pre-pandemic average of 2017–2019.

### Medium-term Domestic and Overseas Supply Capacity (Manufacturing)



Notes: 1. Major firms.

2. Data covers the firms reporting both domestic and overseas operations (FY2024: 217 firms (three-year perspective), 201 firms (10-year perspective, survey not conducted in FY2022).

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Capital Spending Overseas to Continue Rapid Growth in FY2024

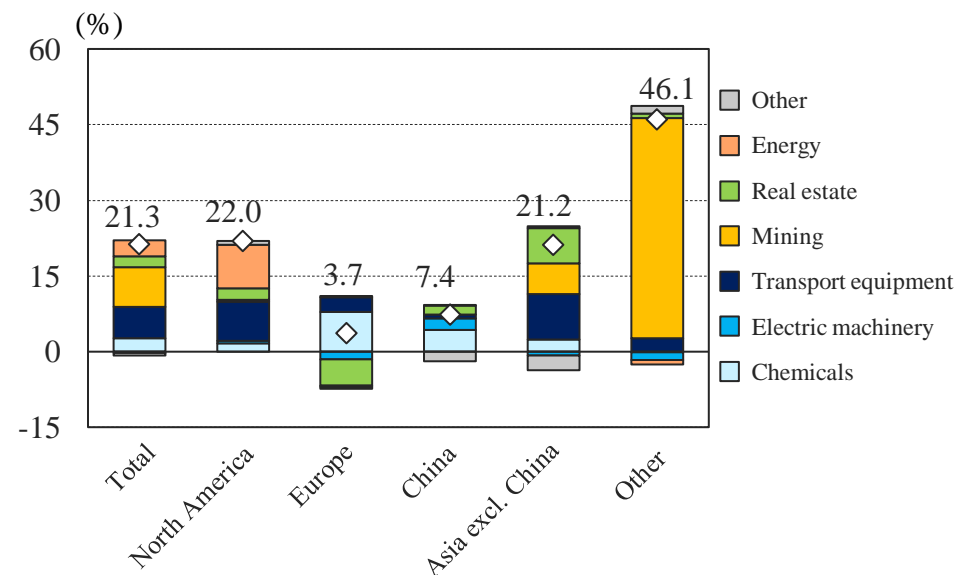
- Capital spending overseas grew substantially in FY2023, up 15.4%. By region, investment in China remained almost unchanged due to concerns about slower economic growth and geopolitical risks. In contrast, investment grew sharply in North America, Europe and Asia excluding China, with contributions from automobiles and chemicals.
- Planned spending for FY2024 shows additional substantial growth, up 21.3%. In North America, investment will increase in automobiles, mainly for compliance with environmental regulations, accompanied by rapid growth in spending on energy, including natural gas and hydrogen. Automobiles and real estate are expected to lead the growth in Asia excluding China. Substantial spending is also expected in “Other” regions, led by mining. Investment in China will accelerate slightly with increased spending on real estate to capture the growing domestic demand. In Europe, spending growth is expected to slow, as reduced investment in real estate and other industries will be partially offset by continued increases in materials-based industries, including chemicals.

### Changes in capital spending overseas

(Year-on-Year, %)	FY2023 Actual (491 firms)	FY2024 Planned (599 firms)
Total	15.4	21.3
North America	22.3	22.0
Europe	19.2	3.7
China	0.6	7.4
Asia (excl. China)	16.6	21.2
Other	2.7	46.1

Note: Major firms, on a consolidated basis.

### Changes by region and by industry



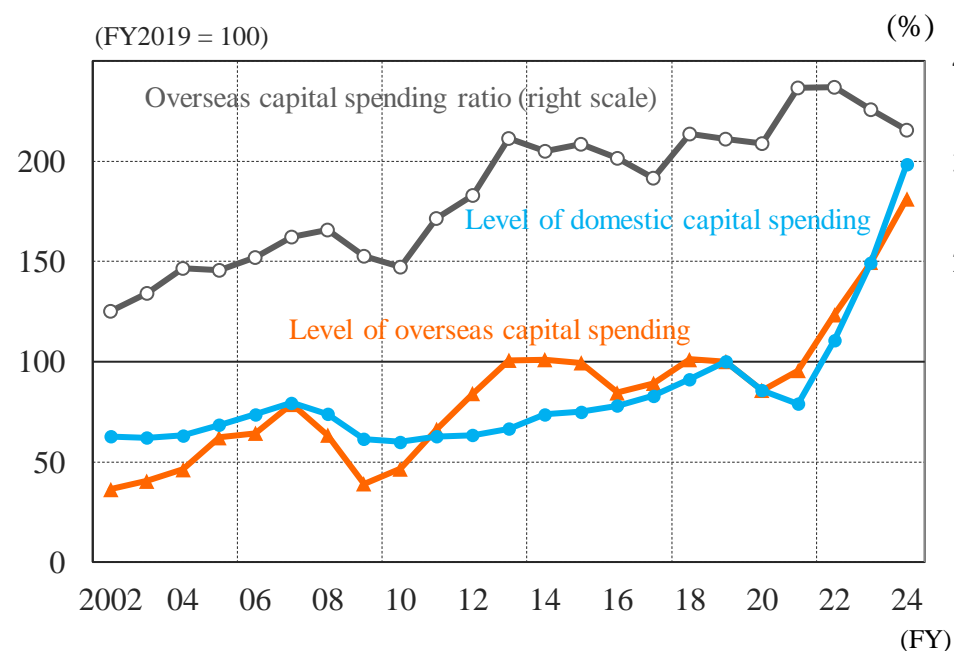
Notes: 1. Major firms, on a consolidated basis.  
2. Energy includes petroleum, electric power and gas.

Major firms		Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Reduced Share of Investment Overseas in Total Capital Spending, Surpassed by Growth of Domestic Investment: Many Firms Maintaining Status Quo in China

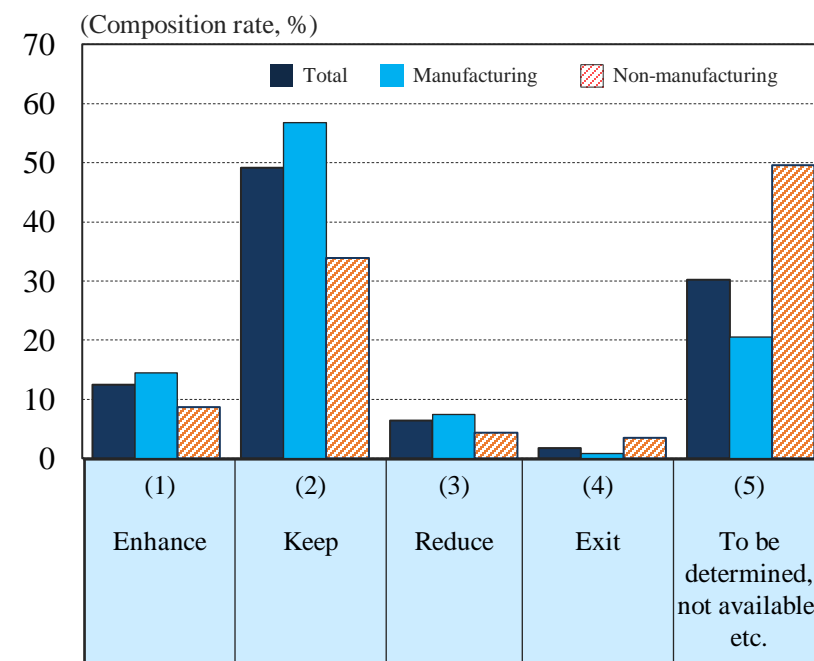
- Largely buoyed by the yen appreciation following the Great Recession, capital spending soared until 2013, only to level off due to the weaker yen, slower growth in China, the Sino-US trade conflict and the Covid-19 pandemic. It has recovered since 2021, with another sizable increase planned for FY2024. The overseas capital spending ratio rose early in the post-pandemic period, as overseas investment recovered faster than domestic investment. It has declined since FY2023, however, as overseas investment is **growing slower than domestic investment**.
- **Investment policies for business sites in China** over the coming three years show that most firms, particularly manufacturers, will **keep** their investment, while many of the other companies remain undecided. Firms seeking to enhance investment exceed those seeking to reduce spending in number, with only a few companies thinking about exit.

### Levels of domestic and overseas capital spending and the overseas capital spending ratio



Notes: 1. Consolidated basis, except for domestic spending up to 2009, shown on an unconsolidated basis.  
2. Overseas capital spending ratio = Overseas capital spending ÷ Domestic capital spending.

### Investment policies for business sites in China (3-year perspective)



Note: Major firms.

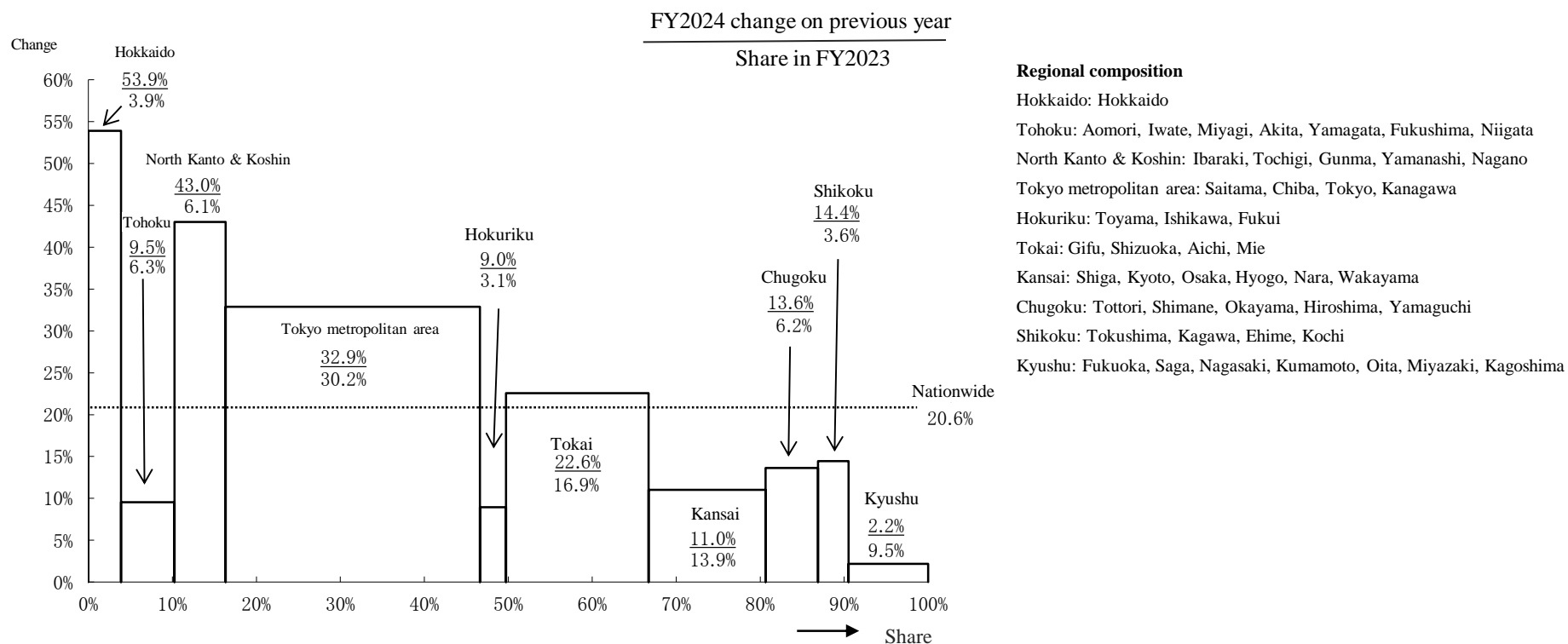
## **8. Characteristics of Capital Spending by Region and by Medium-Sized Firms**

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	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	SC/overseas	Local

## Increase Expected in All Regions, with Rapid Growth in Hokkaido, North Kanto & Koshin and the Tokyo Metropolitan Area

- Planned capital spending by major and medium-sized firms shows a substantial increase of 20.6% nationwide. Although increased spending is planned across the board, the growth is particularly significant in **Hokkaido**, **North Kanto & Koshin** and the **Tokyo metropolitan area**.
- The Tokyo metropolitan area accounts for the largest share, 30%, of total spending, followed by Tokai and Kansai. The largest contribution to the change in total spending on the previous year comes from the **Tokyo metropolitan area**, **Tokai** and **North Kanto & Koshin**.



- Notes: 1. Nationwide change on previous year 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.

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	SC/overseas	Local

## (Double-Digit Growth Planned in Many Regions, Led by Manufacturing)

	Change on previous year (%)				Overview of capital spending by region
	FY2023 Actual Total	Planned for FY2024			
		Total	Manufacturing	Non-manufacturing	
Hokkaido	13.0	53.9	14.7	63.4	Spending will increase for the second consecutive year with substantial acceleration, driven by <u>electric power</u> , with facility replacement; <u>real estate</u> , with acquisition of new properties; <u>transport equipment</u> , with production capacity-building to switch production lines; and <u>electric power</u> , with facility replacement.
Tohoku	-12.8	9.5	6.0	15.5	Spending will turn up as a whole, mainly driven by <u>chemicals</u> , with plant construction and expansion to help meet the rising demand for electric vehicles and pharmaceuticals.
North Kanto & Koshin	7.2	43.0	62.4	8.9	Spending will increase for the fourth year in a row with substantial acceleration, as robust investment continues in <u>electric machinery</u> , <u>chemicals</u> , <u>transport equipment</u> , <u>precision machinery</u> and <u>electric power</u> .
Tokyo metropolitan area	9.6	32.9	35.8	32.1	Spending will increase for the third straight year with substantial acceleration, led by <u>chemicals</u> , with investment related to semiconductor materials; <u>real estate</u> , with redevelopment and logistics facility construction in city centers; and <u>transport equipment</u> , with investment in capacity enhancement and safety measures.
Hokuriku	-2.6	9.0	9.7	7.0	Spending will increase for the first time in five years, led by capacity and R&D investment, mainly for semiconductors in <u>electric machinery</u> , and by investment for stepping up and streamlining production in <u>non-ferrous metals</u> .
Tokai	14.3	22.6	23.9	18.7	Spending will increase for the fourth consecutive year, with substantial acceleration, driven by <u>transport equipment</u> , with continued growth in investment related to electric vehicles; and <u>chemicals</u> and other industries, with investment in new areas, including those related to semiconductors.
Kansai	20.1	11.0	19.2	7.5	Spending will increase by double digits for the third consecutive year, with strong investment appetite in <u>transportation</u> for the development of new lines and areas along railroads, including for the post-Expo era; development of drugs and components for decarbonization in <u>chemicals</u> ; and capacity investment in decarbonization-related equipment in <u>non-ferrous metals</u> .
Chugoku	12.5	13.6	11.8	18.6	Overall spending will grow by double digits, as a considerable increase in investment is planned in <u>chemicals</u> for carbon neutral action and plant construction, and in <u>transport equipment</u> , including for various streamlining measures and R&D.
Shikoku	1.7	14.4	22.3	-4.6	Non-ferrous metals and paper & pulp are among the industries to drive growth for the third consecutive year, and with double-digit growth this time, with investment in production capacity-building for decarbonization, resource recycling and new materials manufacture.
Kyushu	46.2	2.2	3.6	0.8	Despite the completion of development projects in real estate, spending is expected to increase for the fourth straight year overall, led by <u>precision machinery</u> , with equipment replacement for new products; and <u>electric power</u> , with investment related to renewables.
Nationwide	7.4	20.6	23.1	19.2	Spending will follow an uptrend, continuing from FY2023, with a substantial increase in FY2024.

Note: Nationwide change on previous year includes data on unlocated firms and Okinawa Prefecture.

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	SC/overseas	Local

## Investment for Decarbonization Focused on Renewables and EVs Nationwide, with Some Projects for Installation of Grid-Scale Batteries

- Investment related to electric vehicles, including in renewables and power devices, is the mainstay of spending for decarbonization nationwide.
- The rising necessity of grid enhancement to accompany the increase in renewables and other distributed power sources has led to projects for installation of grid-scale batteries in some regions.

	Hokkaido	Tohoku	North Kanto & Koshin	Tokyo metropolitan area	Hokuriku	Tokai	Kansai	Chugoku	Shikoku	Kyushu
Energy efficiency	Smart logistics centers	Factory automation	Shift to LED	Smart meters	ZEB construction		Low-carbon complexes	Factory automation	Fuel conversion	Energy efficiency and shift to LED
	Environmentally sound factories	Efficiency in logistics		District heating and cooling	Energy-efficient facilities		Heat supply facilities	Energy efficiency and shift to LED		Refrigerating & air-conditioning facility replacement
Renewable energy	Photovoltaic	Biomass power	Photovoltaic	Photovoltaic	Photovoltaic	Photovoltaic	Biomass power	Photovoltaic	Photovoltaic	Offshore wind power
	Offshore wind power	Photovoltaic		Offshore wind power	Biomass boilers		Photovoltaic	Biomass power	Biomass power	Biomass power
	Methane fermentation	Offshore wind power					Geothermal utilization		Geothermal power	Photovoltaic
Electric vehicles	EV-related production facilities	EV materials production facilities	Power devices	EV-related investment	Power devices	EV-related investment	EV component production facilities	Magnetic steel sheet production capacity enhancement	Battery component production facilities	Introduction of electric buses
		EV-component production facilities	EV-component production facilities	EV-component production facilities		EV-component production facilities		Response to vehicle electrification	EV battery production facilities	Power devices
Hydrogen, Ammonia	Hydrogen production facilities			New liquefied hydrogen production facilities		Hydrogen and ammonia supply chains	Hydrogen co-combustion	Ammonia supply chain	High-pressure hydrogen generation technology	
	Ammonia supply centers					Facilities using hydrogen from renewable sources		Collection of CO <sub>2</sub> for use as raw material		
CCUS	CCS demonstration	CCS demonstration						Collection of CO <sub>2</sub> to be used for strawberry cultivation		
Resource recycling	Methane fermentation equipment	LiB battery recycling centers		Chemical recycling plants	Aluminum can recycling facilities	On-vehicle battery recycling facilities	Plastic recycling facilities			
Other	Enhancement of HVDC converter stations and DC trunk lines		Grid-scale battery systems	Volume production of SAF	Air-conditioning control system development	High-capacity battery systems	SAF production	Ships powered by next-generation fuels	Gas cogeneration	
	Installation of grid-scale battery stations	Research on electric furnaces		Research on electric furnaces	Waste plastic crushers	V2H equipment	Research on electric furnaces	Research on electric furnaces	Waste plastic crushers	Research on electric furnaces

Notes: 1. List of investment projects identified from published information, including corporate disclosures in addition to the Survey on Planned Capital Spending.

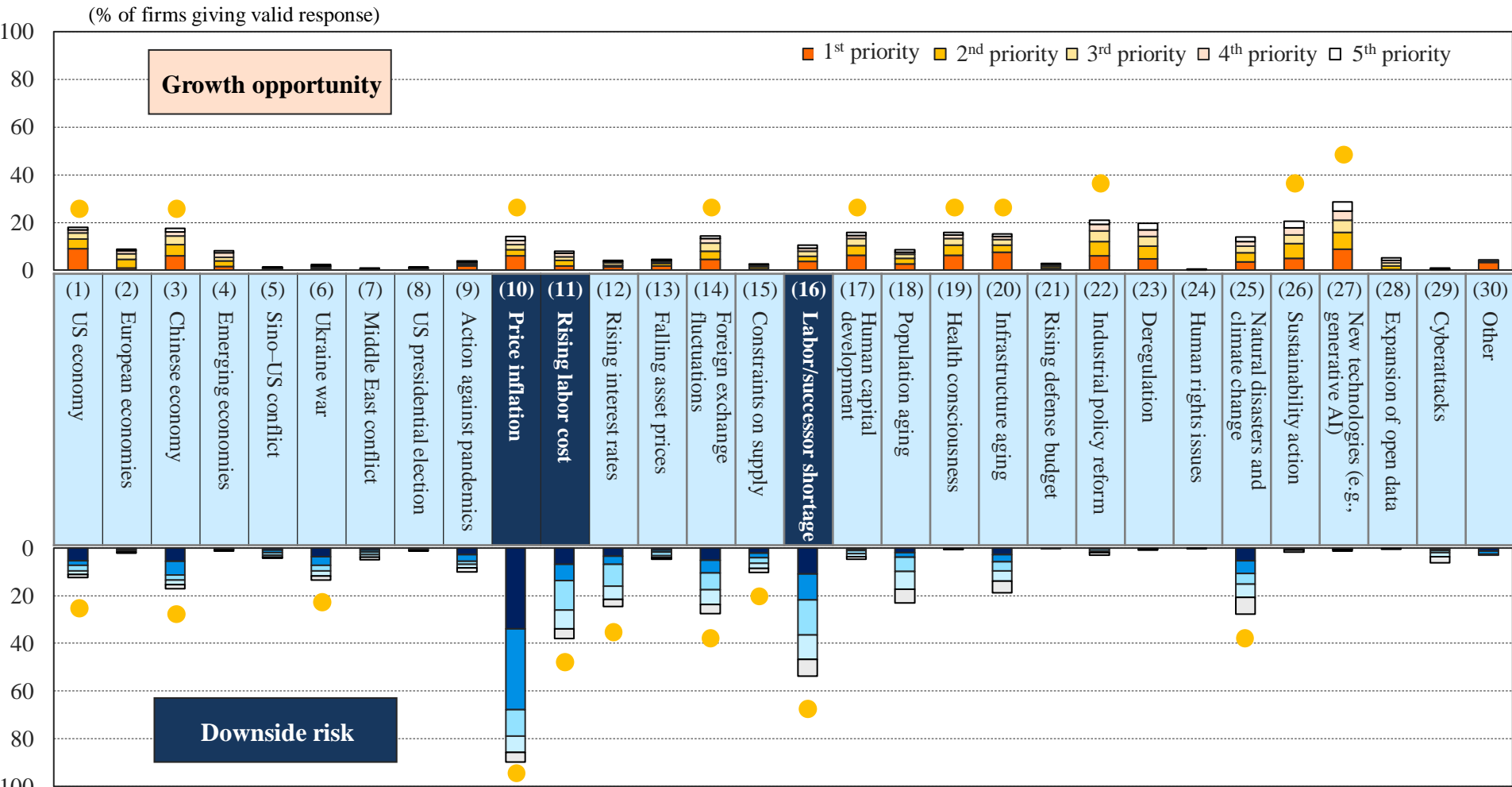
Blue, capital spending; black, R&D investment.

2. Coloration depends on the amount identified. Darker colors indicate particularly active industries and regions.



	Major firms	Medium firms
CAPEX	Management	HR investment
Innovation	Decarbonization	SC/overseas
		Digitization
		Local

# Medium-Sized Firms More Sensitive to Price Inflation and Labor/Successor Shortage as Risk Factors than Major Firms



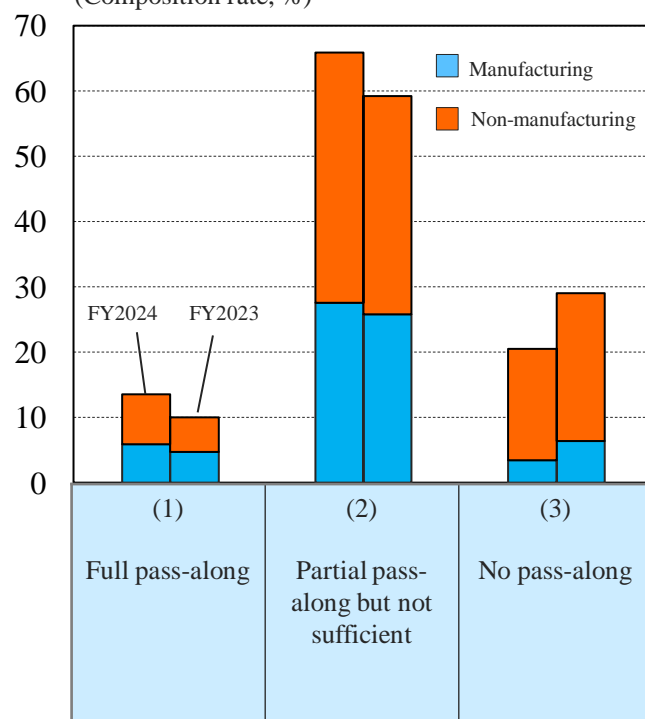
Notes: 1. Medium-sized firms.  
2. Respondents may choose up to three answers in order of impact.  
3. ● indicates top 10 concerns for major companies.

## Trend of Pass-along and Pay Raises Also Continues for Medium-Sized Firms

- As prices continue to rise, medium-sized firms are also seeking **to pass along the rising costs to product/service prices**, a trend which has gained momentum over the previous year. At the same time, many medium-sized firms have implemented or are considering **pay raises** that exceed the previous year's level to cope with the price inflation and labor shortage.

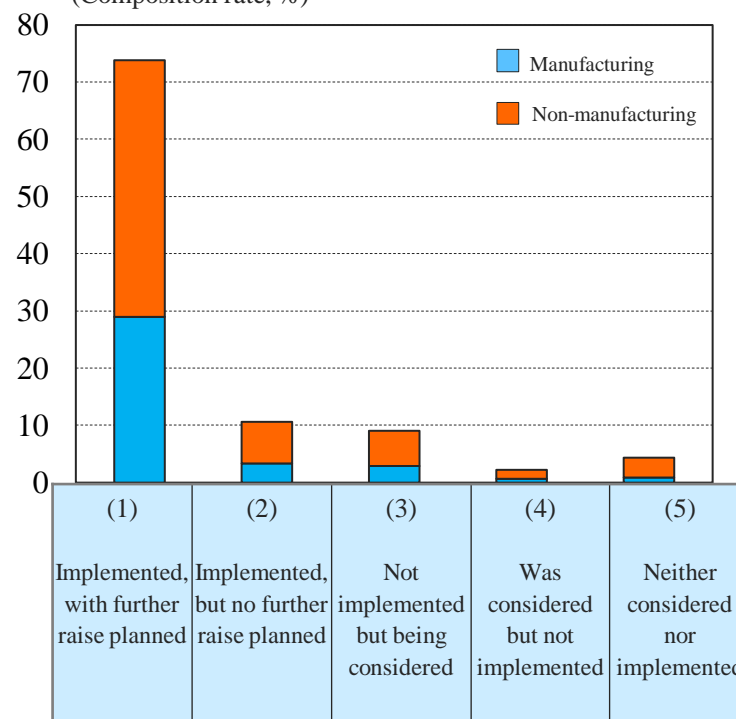
### Costs passed along to sales prices

(Composition rate, %)



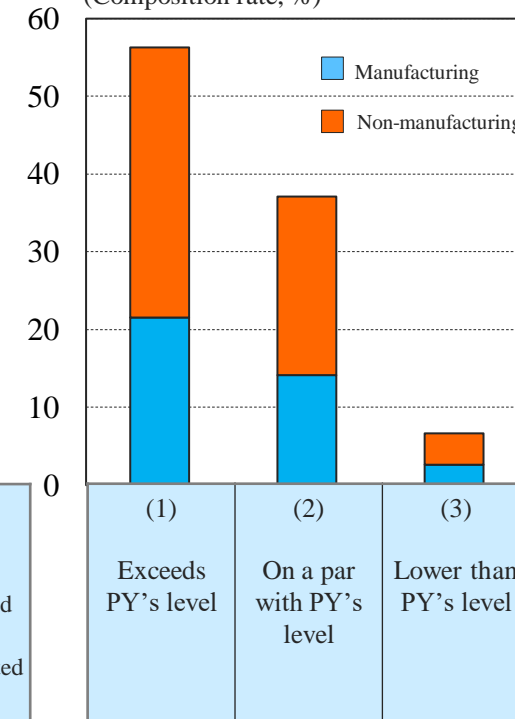
### Pay raise

(Composition rate, %)



### Pay raise rate

(Composition rate, %)



Notes: 1. Medium-sized firms.

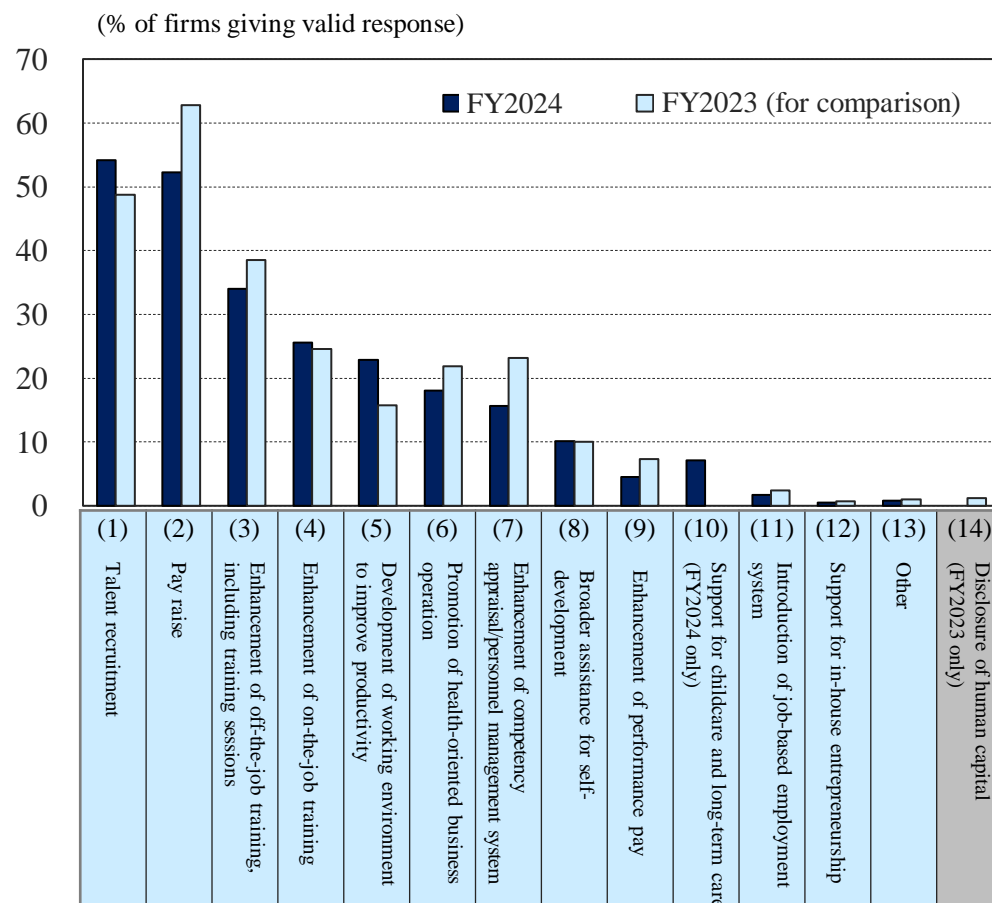
2. Data on pay raise rate only cover those firms that have actually raised wages.

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	SC/overseas	Local

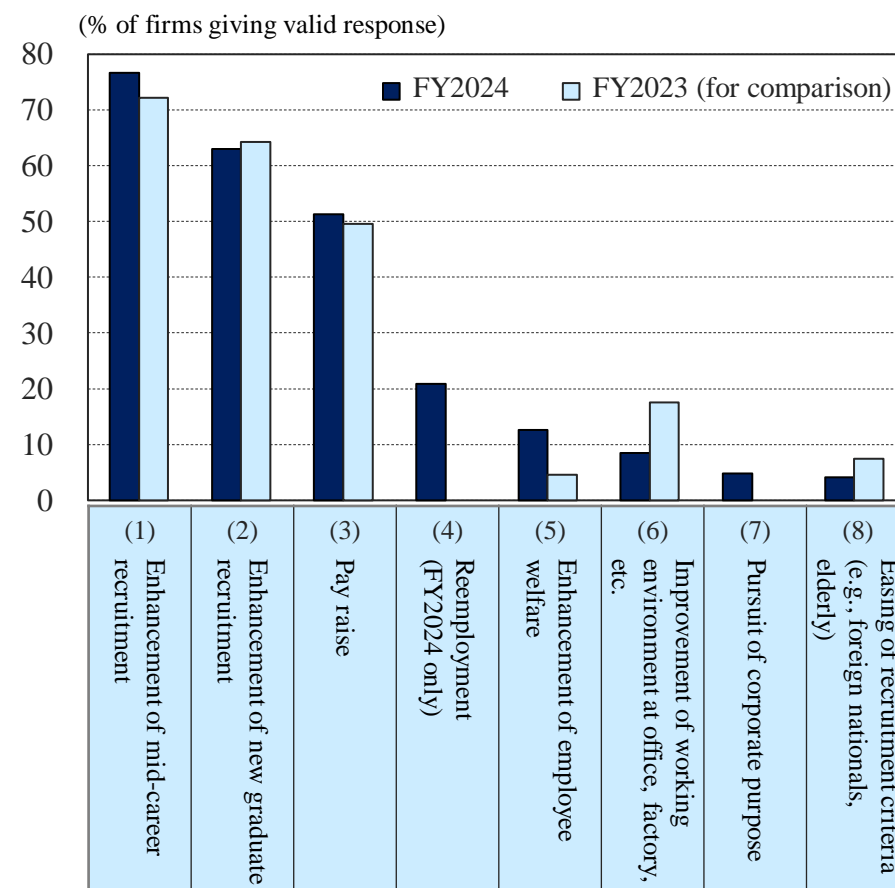
## Medium-Sized Firms: Almost Half Introducing Pay Raises to Accompany Enhanced Recruitment

- More than half of the firms cited “Pay raise” and “Talent recruitment” as essential objectives of **human resource investment** to ensure business growth. Key measures for recruiting talent include “**Enhancement of (new graduate and mid-career) recruitment**” and “**Pay raise**.”

### Composition of HR investment



### Actions for talent recruitment (major actions)



Notes:

- Medium-sized firms in all industries.
- Respondents may choose up to three answers.

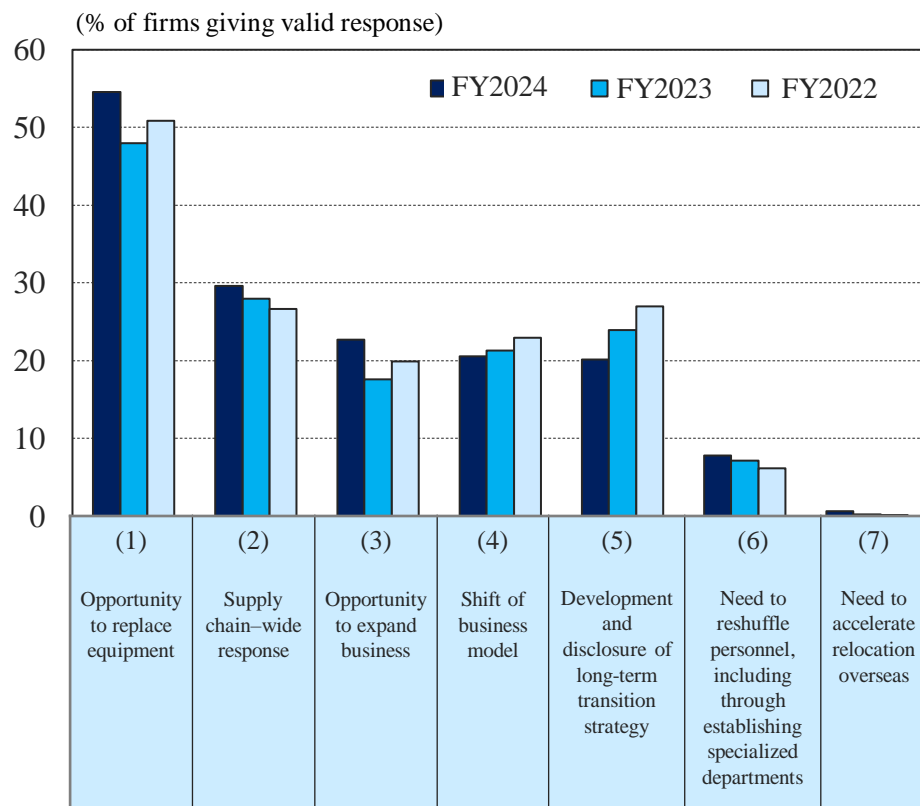
Notes:

- Medium-sized firms in all industries.
- Respondents may choose up to three answers.

## Medium-Sized firms: Need to Pass along Increased Costs to Prices in Order to Achieve Carbon Neutrality

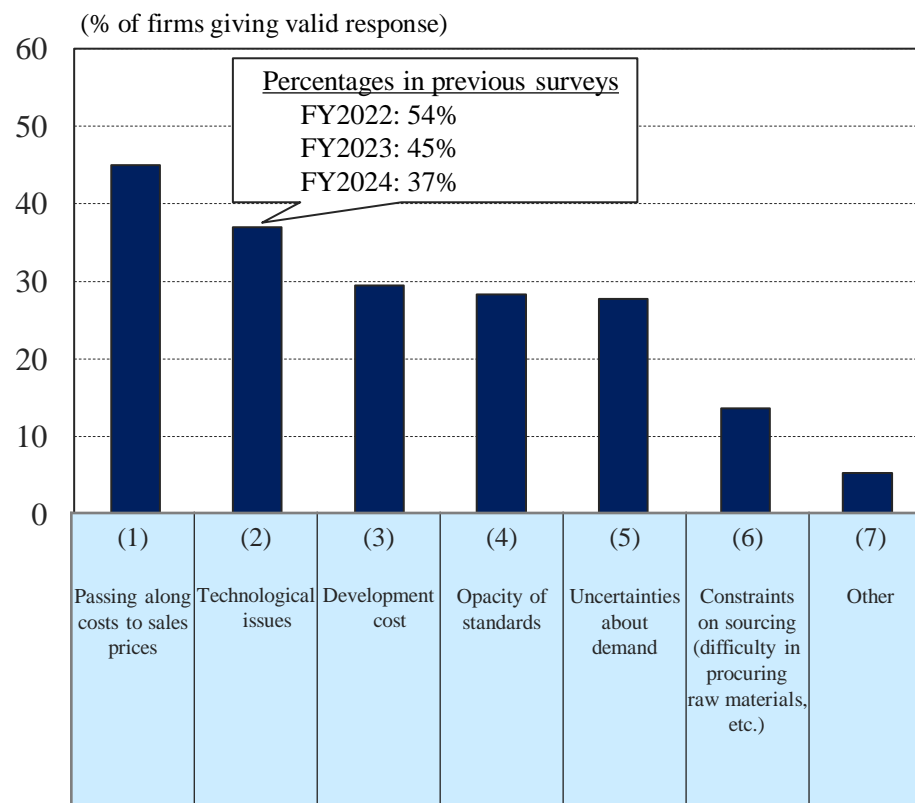
- The accelerated push toward **carbon neutrality** entails costs for medium-sized companies, including for **facility replacement**. As fewer companies now cite “Technological issues,” future challenges include how to pass along those higher costs to product and service prices.

### Business impact of carbon neutrality



- Notes: 1. Medium-sized firms in all industries.  
2. Respondents may choose up to three answers.

### Challenges for achieving carbon neutrality



- Notes: 1. Medium-sized firms in all industries.  
2. Respondents may choose up to three answers.

## 9. Appendices

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## Composition of Research

<u>Research item</u>	<u>Coverage</u>		<u>Corresponding section in this report</u>
Nonconsolidated capital spending in Japan	Major firms		1. Domestic Capital Spending
Capital spending by region	Major firms	Medium-sized firms	8. Characteristics of Capital Spending by Region and by Medium-sized Firms
Investment in digitization	Major firms		4. Digitization
R&D expenses	Major firms		5. Investment in Innovation
Consolidated and overseas capital spending	Major firms		7. Supply Chains and Capital Spending Overseas
Investment motives	Major firms		9. Appendices
P/L	Major firms		9. Appendices
Survey of attitudes on corporate activities (special survey)	Major firms	Medium-sized firms	All sections

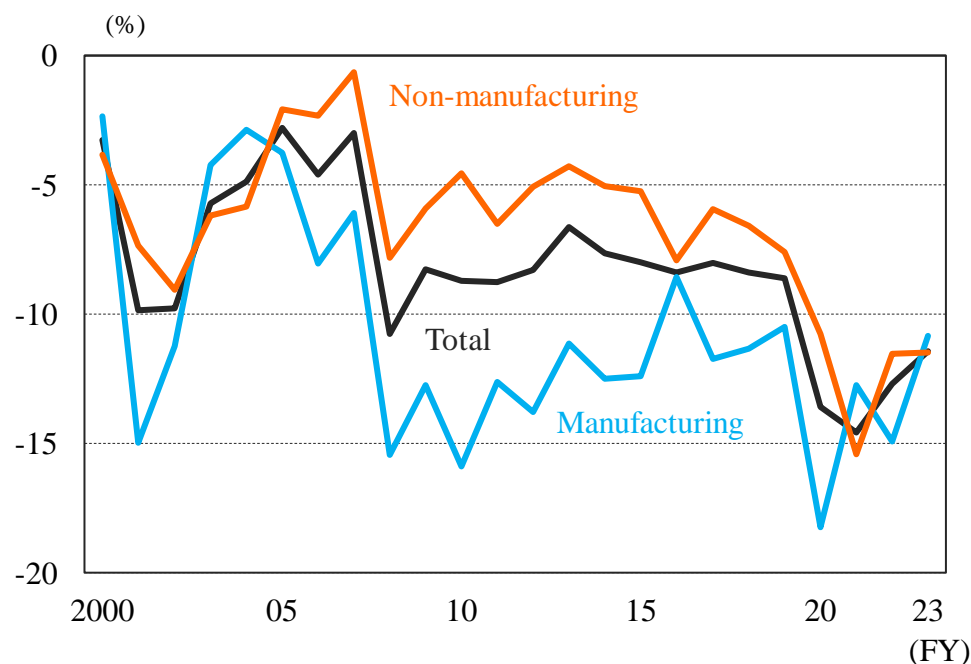
Note: Capital spending by region shows aggregates of nonconsolidated capital spending in Japan by survey location.

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Domestic Capital Spending Rising Mildly in Real Terms despite Increased Downward Revision post-Pandemic

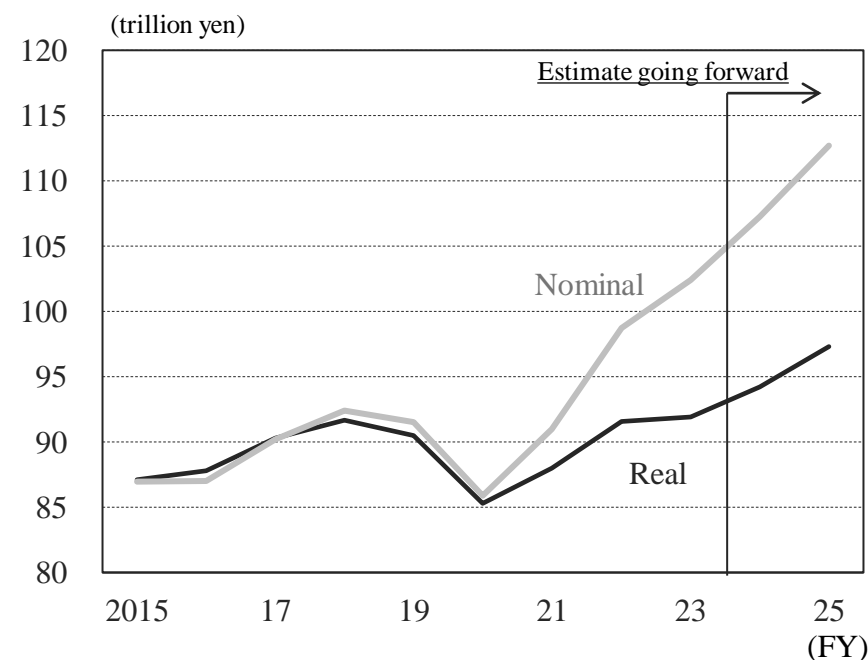
- Downward revisions to planned capital spending have been increasing compared with the pre-pandemic period, particularly in non-manufacturing.
- Based on the results of present research, an estimate of domestic capital spending (GDP basis), including R&D and software, points to a continued mild uptrend exceeding the pre-pandemic level, even in real terms excluding the impact of price inflation.

**Rate of revision to domestic capital spending**



- Notes: 1. Major firms.  
 2. Rate of realization calculated by comparing the planned spending and the actual growth of spending in each year.  
 3. Larger negative figures indicate increased downward revisions.

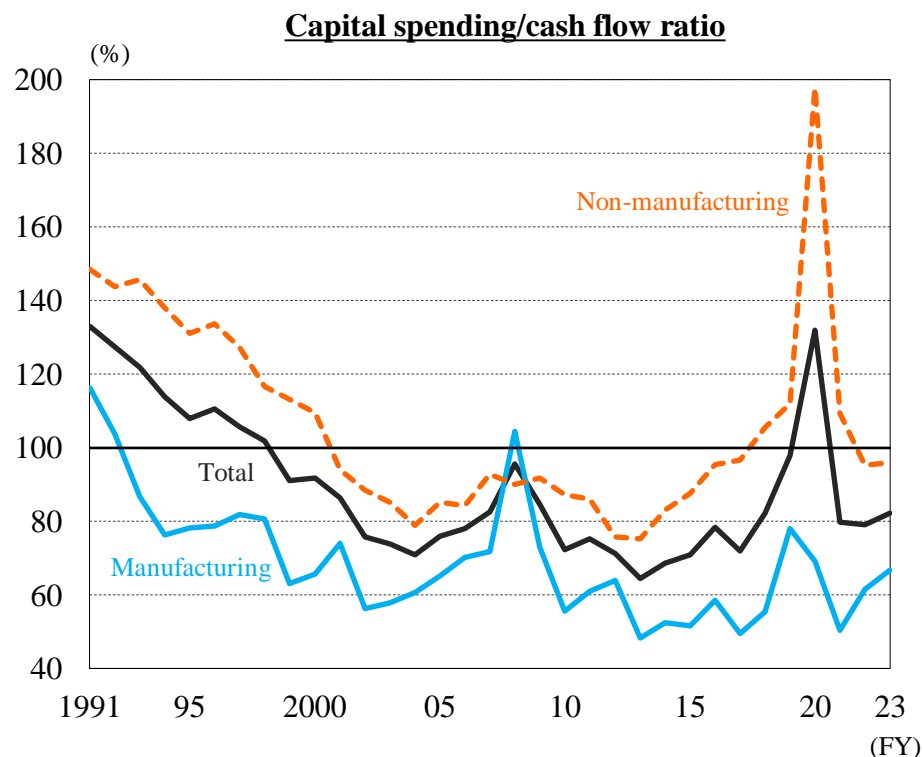
**Estimated capital spending on a GDP basis**



- Notes: 1. Cabinet Office, DBJ, Ministry of Finance.  
 2. Estimate using the DBJ survey result and the Ministry of Finance's Financial Statements Statistics of Corporations by Industry.

## Domestic Capital Spending Staying within Cash Flow

- In FY2023, the **domestic capital spending/cash flow ratio** rose in the manufacturing sector for the second consecutive year, as capital spending increased sharply while ordinary profit stagnated. The ratio rose slightly in the non-manufacturing sector, as the increase in capital spending was accompanied by improved profits. **Domestic capital spending stayed within the limits of cash flow** in both sectors.
- The diffusion index on ordinary profit, which substantially improved in FY2023, is expected to decline for both sectors in FY2024.



- Notes: 1. Major firms in all industries.  
2. Cash flow is calculated as ordinary profit/2 + depreciation expenses (simplified formula assuming an effective corporate tax rate of 50%).

## Diffusion index on ordinary profit

(in % pts)

	Diffusion index on ordinary profit		
	FY2022 Actual 848 firms	FY2023 Actual 813 firms	FY2024 Planned 1,003 firms
Total	6.5	22.3	6.0
Manufacturing	- 6.0	13.8	10.6
Non-manufacturing	15.3	28.4	2.5

Notes: 1. Major firms.

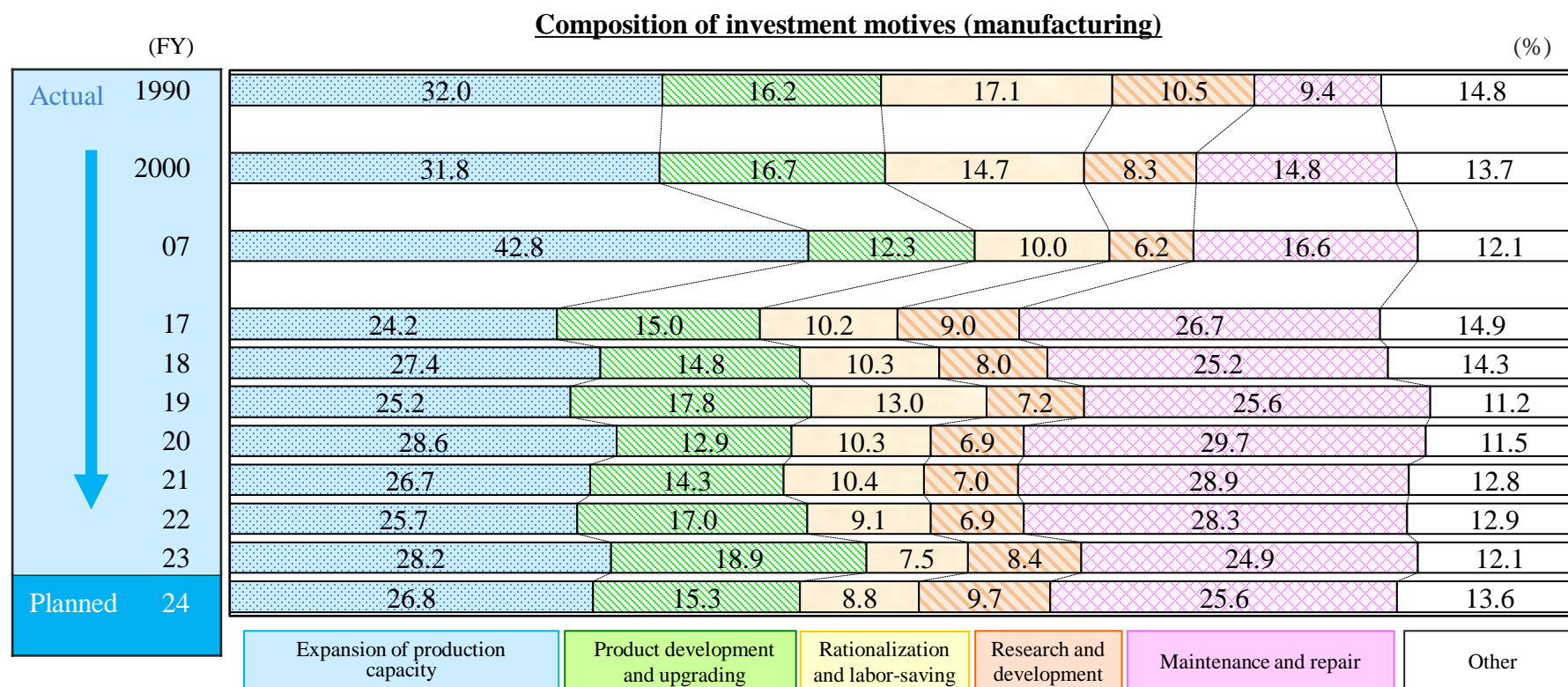
2. Diffusion index on ordinary profit =  $\frac{\text{No. of responses: Profit increase} - \text{Profit decrease}}{\text{Total valid responses}}$



	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Composition of Investment Motives in Manufacturing: Rising Demand for Maintenance & Repair and Rationalization & Labor-saving

- Among the investment motives of manufacturers in FY2024, “Rationalization and labor-saving” will increase its share, along with “Research and development” and “Maintenance and repair.” In contrast, the weight of “Expansion of production capacity” and “Product development and upgrading” will decline, after rising throughout the process of recovery from the Covid-19 pandemic.

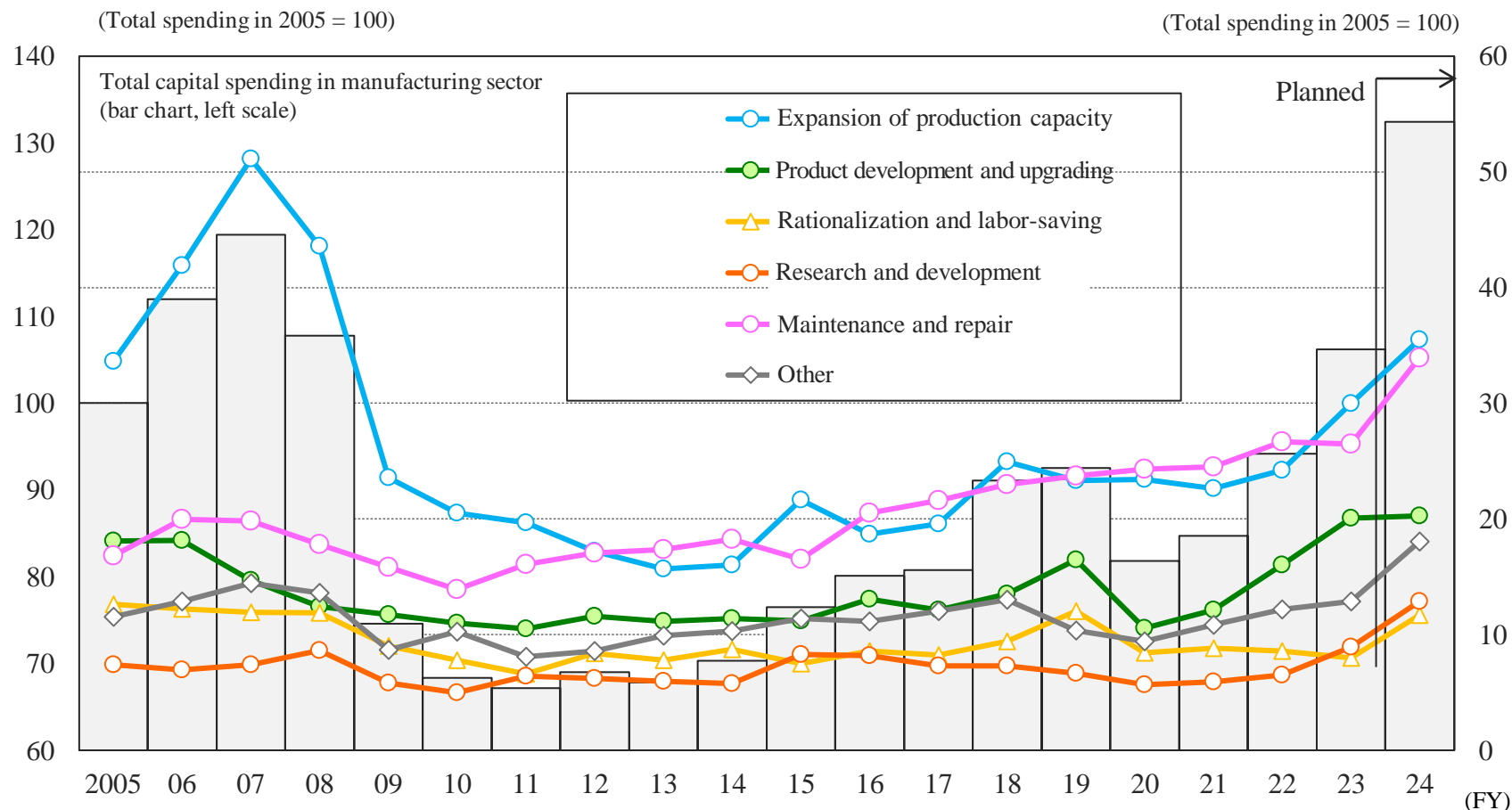


Notes: 1. Major firms.

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

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Index of Investment Motives (Manufacturing)

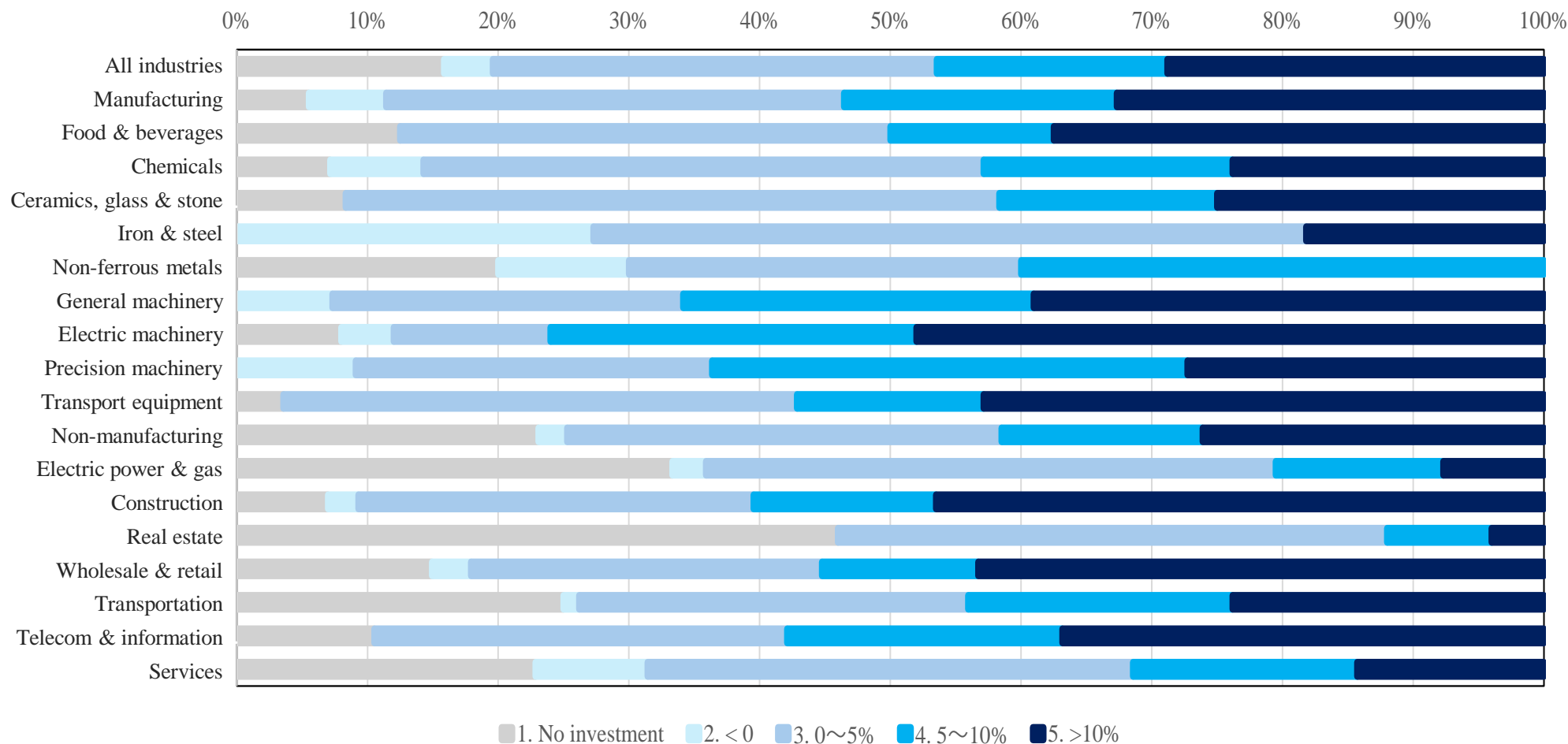


Notes: 1. Major firms.

2. 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.

	Major firms		Medium firms	
CAPEX	Management	HR investment	Digitization	
Innovation	Decarbonization	Overseas/SC	Local	

## Digitization Investment/Cash Flow Ratio by Industry: Rising Trend in Processing & Assembly, Construction and Retail Industries



Notes: 1. Major firms. 2. Ratio to cash flow.\* 3. Cash flow: actual 2023, digitization investment: planned 2024.

\*Where ordinary profit  $\geq 0$ : Ordinary profit  $\times 1/2$  + Depreciation expenses.

Where ordinary profit  $< 0$ : Ordinary profit + Depreciation expenses.

## Unique Corporate Initiatives to Prop up Birth Rate and Cope with Labor Shortage

- Asked about concrete measures to cope with the labor shortage, companies cited various initiatives, including creating **opportunities for internal communication** to increase retention and establishing **diversity/inclusion policies** to ensure enabling workplaces.
- Companies also presented many unique measures to prop up the birth rate and support childcare, including advanced initiatives such as **support for fertility treatment and promotion**, **payment of benefits to colleagues covering for employees taking childcare leave**, and a **grandchild care leave scheme**.

### Measures to cope with labor shortage

Category	Action
Improvement of working environment	<ul style="list-style-type: none"> <li>Promotion of health-oriented business operation</li> <li>Creation of <b>opportunities for internal communication</b> (between team leaders and members, between management and employees, between departments, between parent and subsidiaries, etc.)</li> <li>Promotion of <b>work sharing</b></li> <li>Promotion of leave-taking, introduction of telework</li> </ul>
Talent recruitment	<ul style="list-style-type: none"> <li>Recruitment through <b>social media</b></li> <li>Job experience sessions</li> <li>Increase in base amount for calculating contribution to retirement benefits</li> <li>Partnerships with municipal governments</li> </ul>
Women's empowerment, etc.	<ul style="list-style-type: none"> <li>Development and internal communication of <b>diversity/inclusion policies</b></li> <li>Development of enabling environment for female workers in the field</li> </ul>
Outsourcing	<ul style="list-style-type: none"> <li>Backoffice operation</li> <li>Part of production process</li> </ul>

Notes: 1. Major and medium-sized firms.  
2. Free description.

### Unique measures to prop up birth rate and support childcare

Category	Action
Momentum-building in-house	<ul style="list-style-type: none"> <li>Enhancement of follow-up arrangements for employees taking childcare leave</li> <li><b>Point of contact for fertility treatment and promotion</b></li> <li>Seminars for fathers</li> <li>Introduction of a job resumption scheme</li> </ul>
Employee welfare	<ul style="list-style-type: none"> <li><b>Day-care service</b> at the workplace and in company-owned housing</li> <li>Subsidy for baby-sitting service</li> </ul>
Financial support	<ul style="list-style-type: none"> <li>Baby gifts (<b>increased for the third child and beyond</b>)</li> <li>Childcare allowance, educational allowance, <b>sick child allowance</b></li> <li>Financial incentive for paternal leave</li> <li><b>Benefit for employees covering the work of childcare leave takers ("thank-you pay")</b></li> </ul>
Enhancement of leave schemes	<ul style="list-style-type: none"> <li>Hourly leave, nursing care leave, childrearing leave</li> <li>Shorter working days</li> <li><b>Grand-childcare leave</b></li> </ul>
Flexible working hours	<ul style="list-style-type: none"> <li>Telework, flexible hours, satellite office</li> <li>Shorter working hours for <b>parents of primary school children</b></li> </ul>

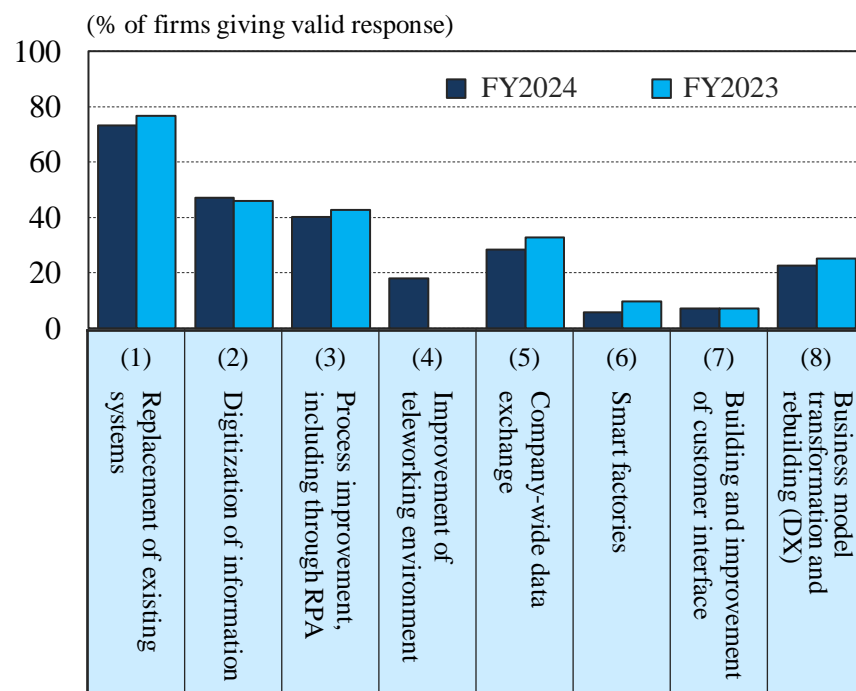
Notes: 1. Major and medium-sized firms.  
2. Free description.

Major firms		Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

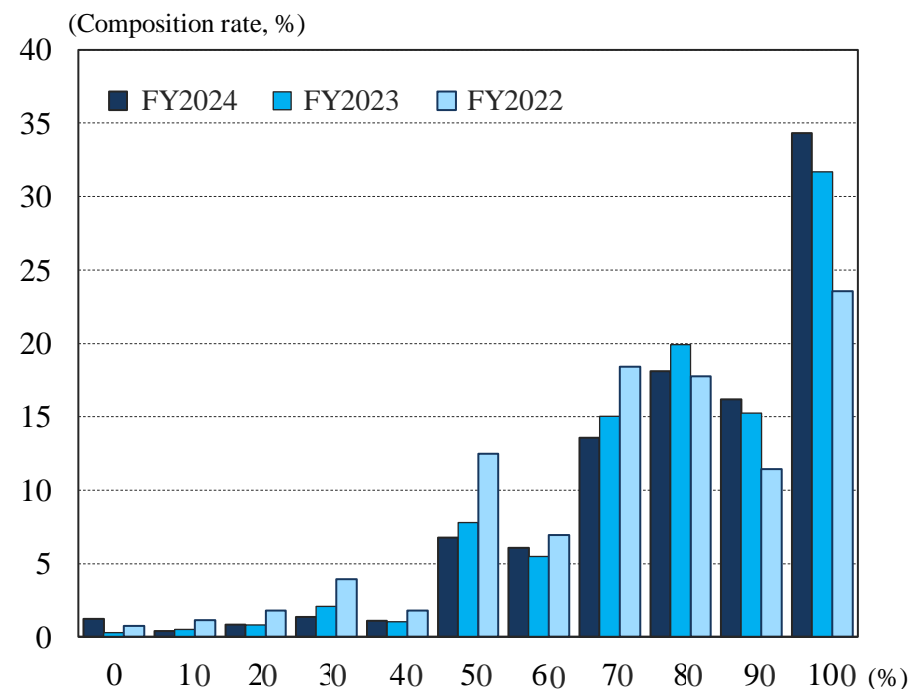
## Long Road to Digital Transformation: Return to Workplace despite Improvement in Teleworking Environment

- No significant progress has been observed since last year in digitization, as more than 70% of the firms have been satisfied with replacing existing systems. Only about 20% of the firms have reached the DX stage (i.e., business model transformation and rebuilding).
- About 20% of the firms are engaged in improving the teleworking environment. Asked about the ideal percentage of employees present at the workplace, the share of companies preferring 100% of their employees present at the workplace has been increasing year after year. Meanwhile, the number of companies content with 0% of the workforce present at the workplace is still small but increasing, pointing to very typical initiatives taken by those firms.

### Actions for digitization



### Ideal percentage of employees present at the workplace



Notes: 1. Major firms in all industries.

2. Respondents may choose up to three answers.

3. Option 4: Improvement of teleworking environment was newly added in this year's survey.

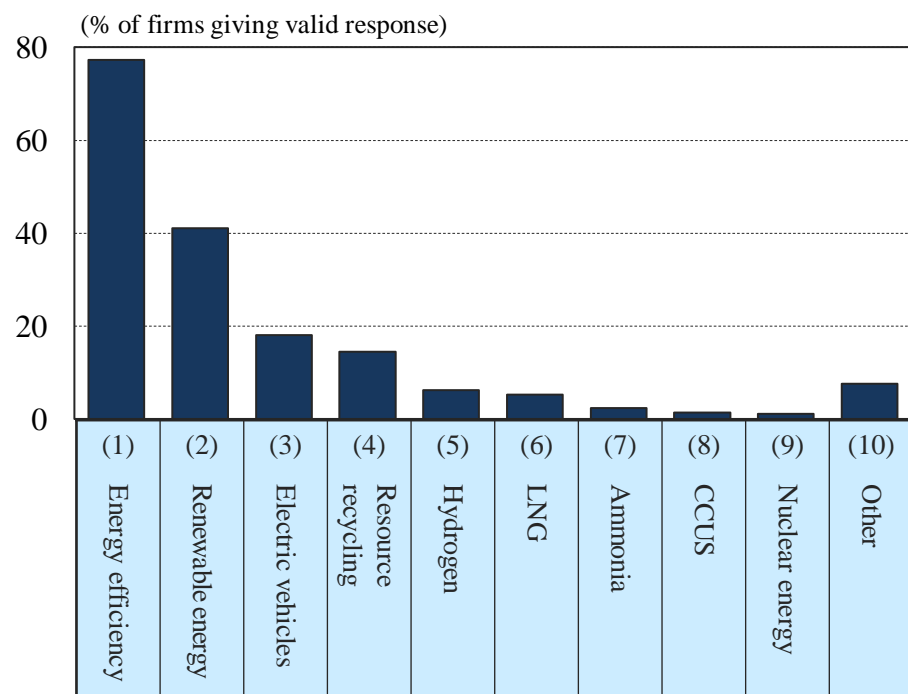
Note: Major firms in all industries.

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Capital Spending and R&D on Decarbonization Focused on Energy Efficiency and Renewables

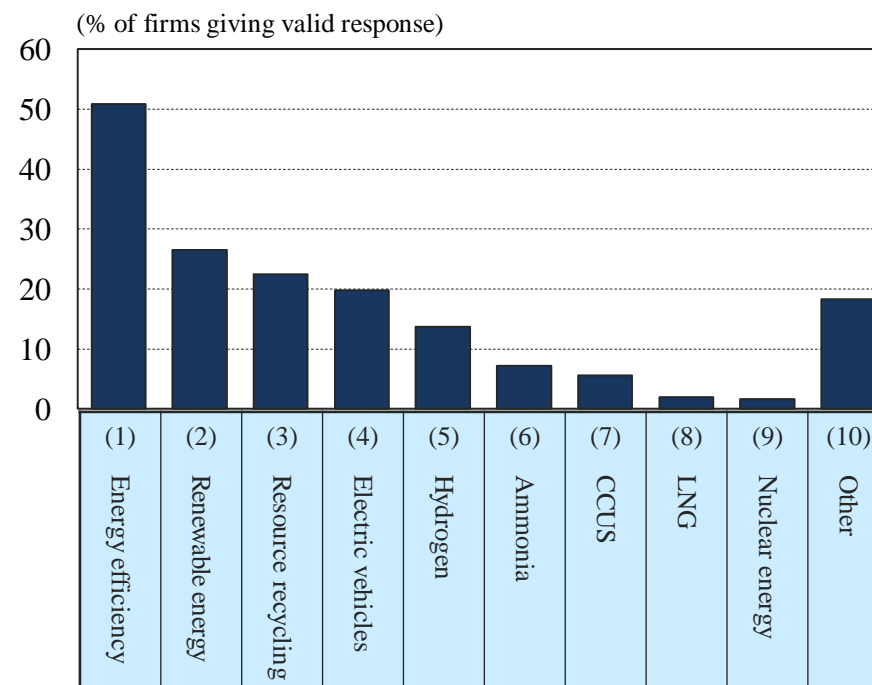
- Capital spending on decarbonization remains mostly focused on energy efficiency and renewable energy. All other elemental technologies have shares of less than 10%, except for those related to electric vehicles and resource recycling.
- As regards R&D expenses, other elemental technologies have slightly larger shares than in capital spending, but the focus remains on energy efficiency and renewables.

### Composition of decarbonization investment



Notes: 1. Major firms in all industries.  
2. Respondents may choose up to three answers.

### Composition of R&D on decarbonization



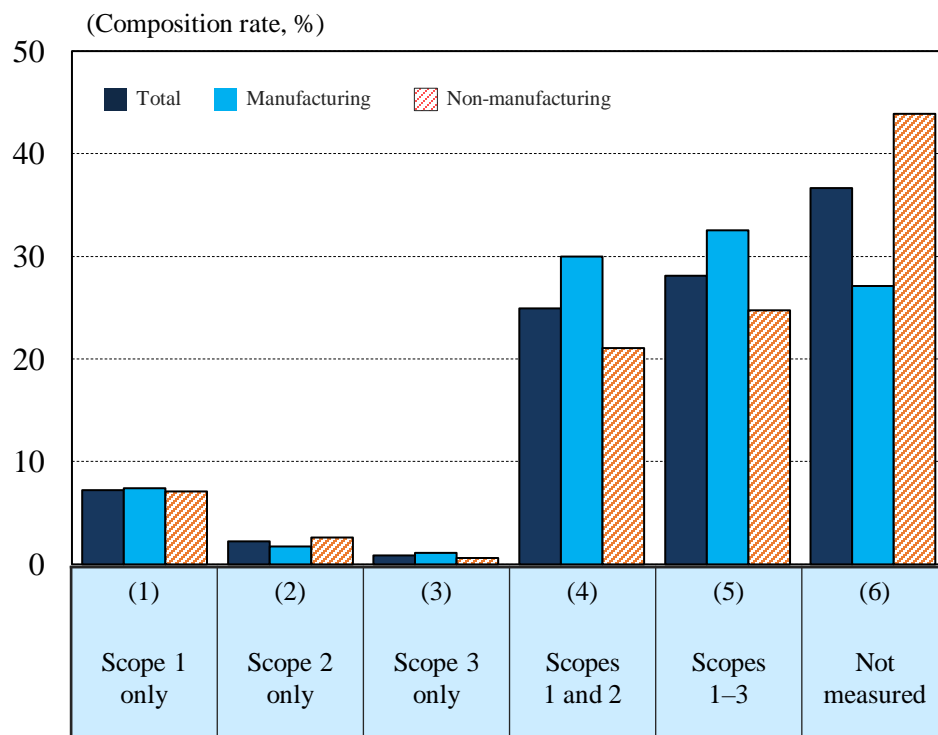
Notes: 1. Major firms in all industries.  
2. Respondents may choose up to three answers.

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Most Firms Measure Their Scope 1, 2 or 3 Emissions, with Gradual Progress in ICP

- Over 70% of manufacturers and almost 60% of non-manufacturers now identify their Scope 1, 2 or 3 emissions. Moreover, over 30% of manufacturers and 20% of non-manufacturers measure their own Scope 1, 2 and 3 emissions in their entirety.
- Less than 10% of the firms have introduced internal carbon pricing (ICP), but the percentage is steadily rising in both the manufacturing and non-manufacturing sectors. The average price rose to 11,326 yen/t-CO<sub>2</sub>.

### Measurement of Scope 1, 2 and 3 emissions



Note: Major firms.

### Internal carbon pricing

	System introduced (%)	Average price (core business, yen/t-CO <sub>2</sub> )
Total	8.8	11,326
	6.6	7,577
Manufacturing	12.6	10,539
	10.6	7,574
Non-manufacturing	6.1	12,857
	3.5	7,585

Notes: 1. Major firms.

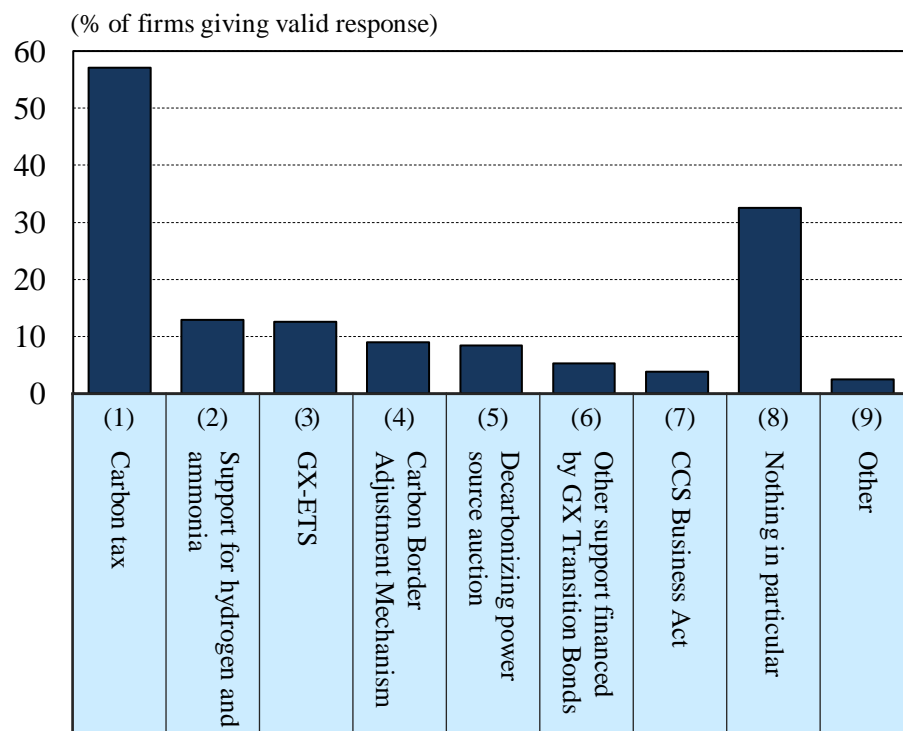
2. Italicized figures on the lower lines are previous year's figures.

Major firms		Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Largest Impact on Business Coming from Carbon Tax, with Attention Focused on Metals for Resource Recycling

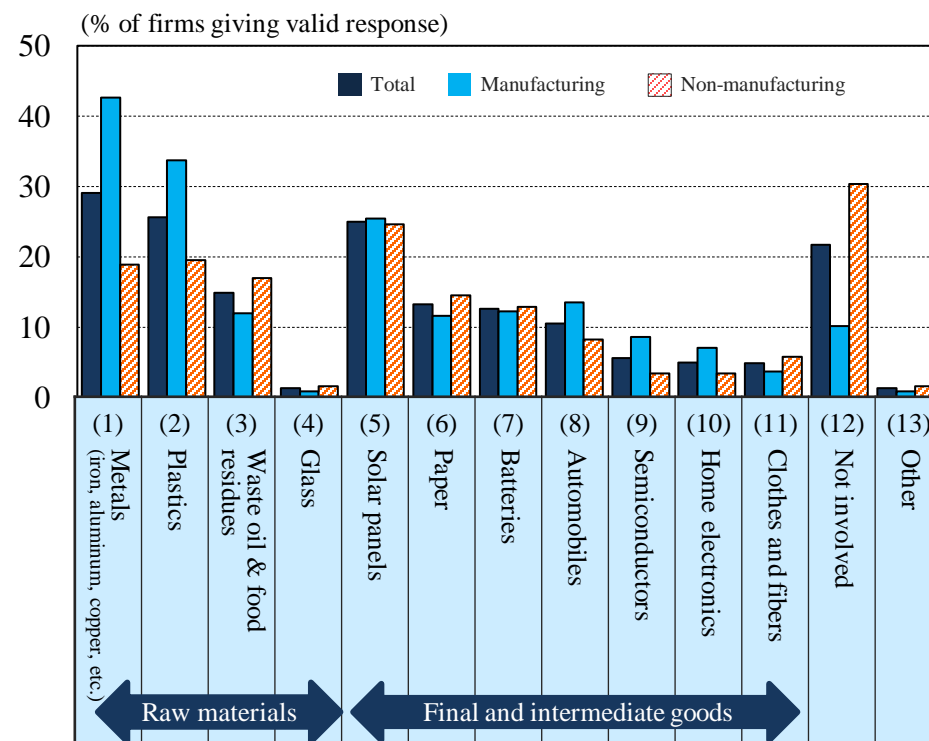
- Asked about **the regulations or systems with substantial impact on their business**, an overwhelming percentage of the firms (50%) cited the **carbon tax**, but 30% of the firms cited nothing in particular.
- In terms of **resource recycling**, attention is focused on **metals** and plastics as raw materials, particularly in the manufacturing sector. As regards final and intermediate goods, **solar panels** are the focus of attention across a wide range of industries in both the manufacturing and non-manufacturing sectors, reflecting their accelerated market penetration since the introduction of the feed-in tariff (FIT). Elsewhere, batteries are also attracting some attention in anticipation of the Battery Regulation being introduced by the EU.

### Regulations or systems to be introduced with substantial impact on business



Notes: 1. Major firms in all industries.  
2. Respondents may choose up to three answers.

### Products, components or materials of interest in driving resource recycling



Notes: 1. Major firms in all industries.  
2. Respondents may choose up to three answers.

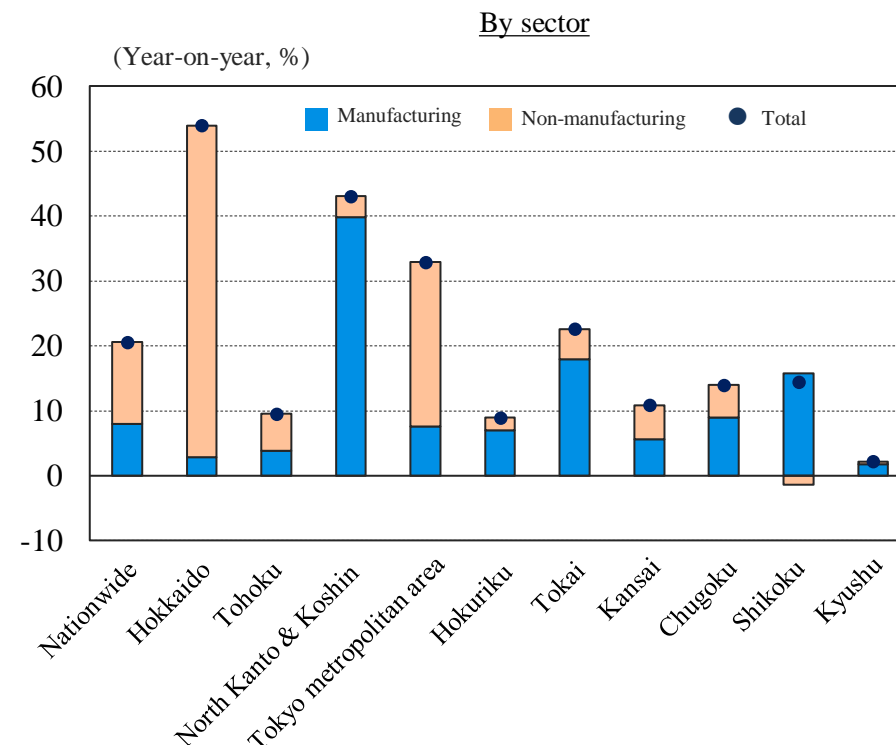
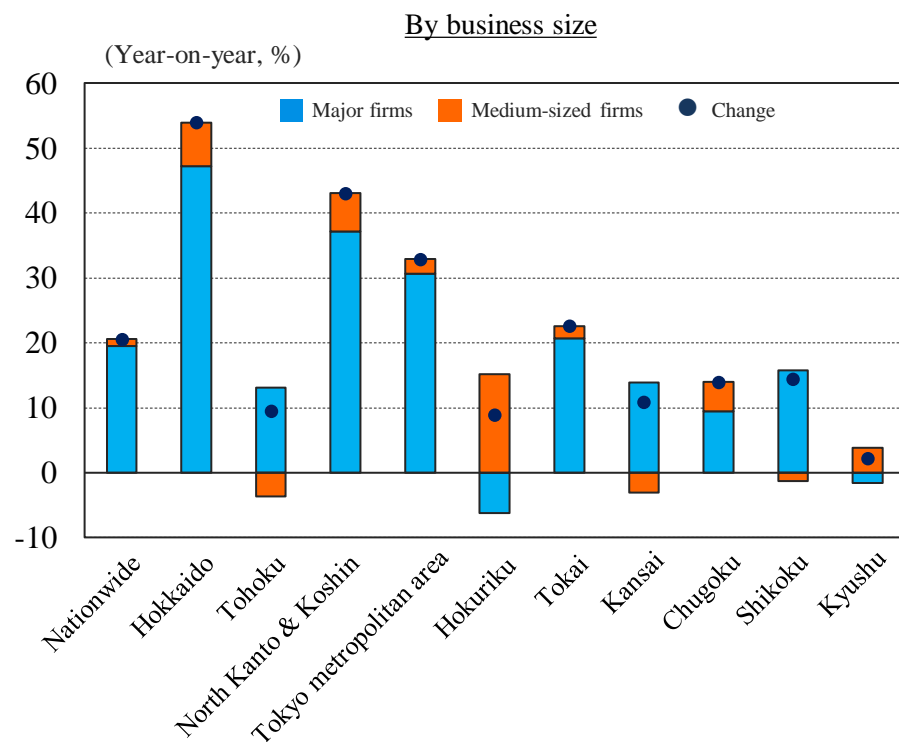


	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	SC/overseas	Local

## Medium-Sized Firms: Increased Capital Spending by Medium-Sized Firms Contributes to Overall Growth in Seven of the Ten Regions

- By sector, among the regions with the highest growth in capital spending, **manufacturers** lead the growth in **North Kanto & Koshin**, while **non-manufacturers** lead the growth in **Hokkaido** and the **Tokyo metropolitan area**.
- By business size, major firms make the greatest contributions, but the contribution of **medium-sized firms** is relatively large in some regions, including **Hokkaido**, **Hokuriku**, **Chugoku** and **Kyushu**.

### Trend of capital spending, by region



Note: All companies (major firms and medium-sized firms).

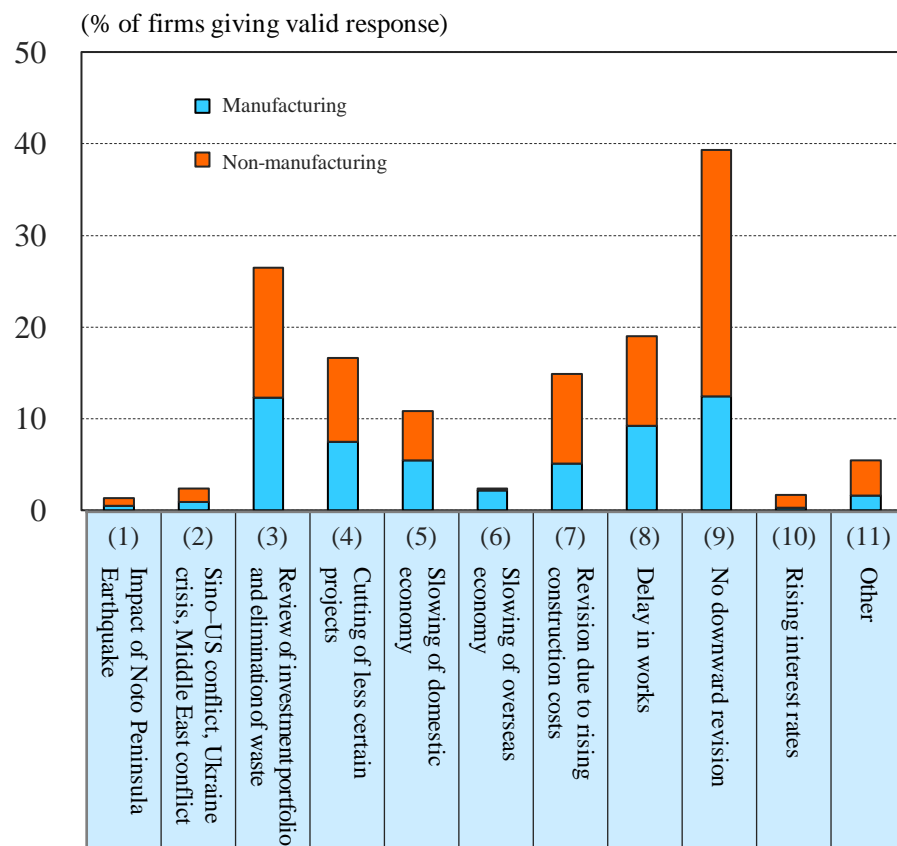
Note: All companies (major firms and medium-sized firms).

	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	SC/overseas	Local

## Medium-Sized Firms: Downward Revision, Mainly Due to Review of Investment Portfolio, with Emphasis on HR Investment Going Forward

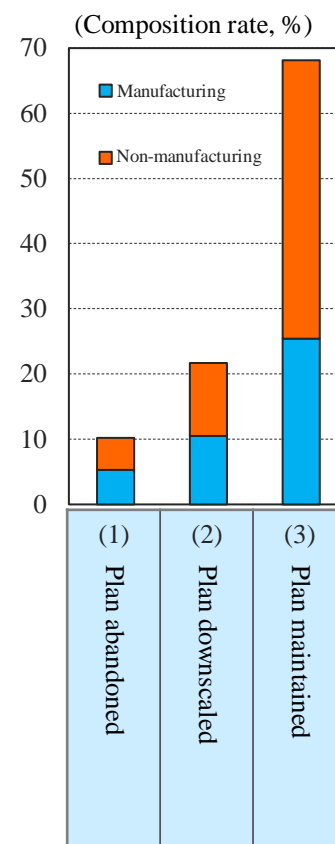
- Among the medium-sized firms, actual spending did not reach the initially planned level, mainly due to “Review of investment portfolio and elimination of waste.” More firms cited **HR investment** as a priority investment area going forward, exceeding those prioritizing capital spending.

**Reason for actual spending below planned level**



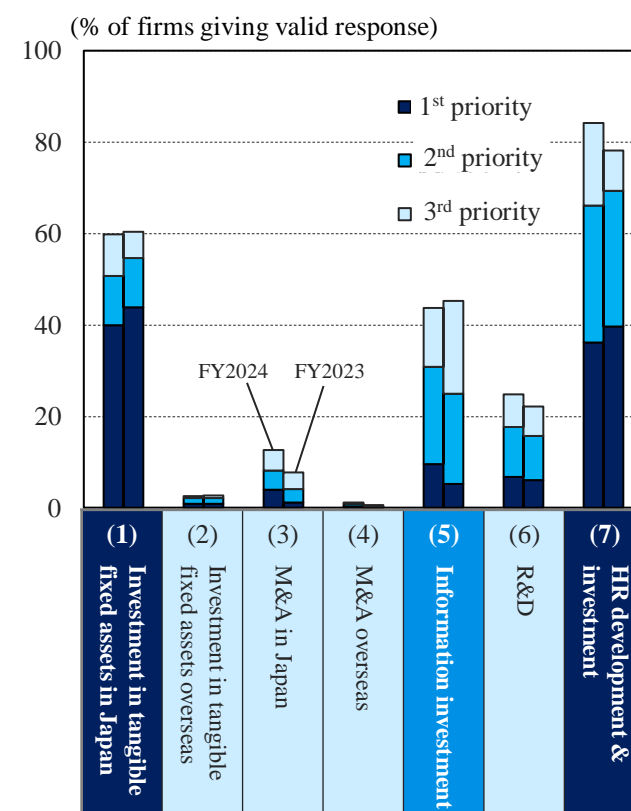
- Notes: 1. Medium-sized firms.  
2. Respondents may choose up to three answers.

**Action after postponement of capital spending**



Note: Medium-sized firms.

**Priority investment area for business growth**



- Notes: 1. Medium-sized firms in all industries.  
2. Respondents may choose up to three answers.

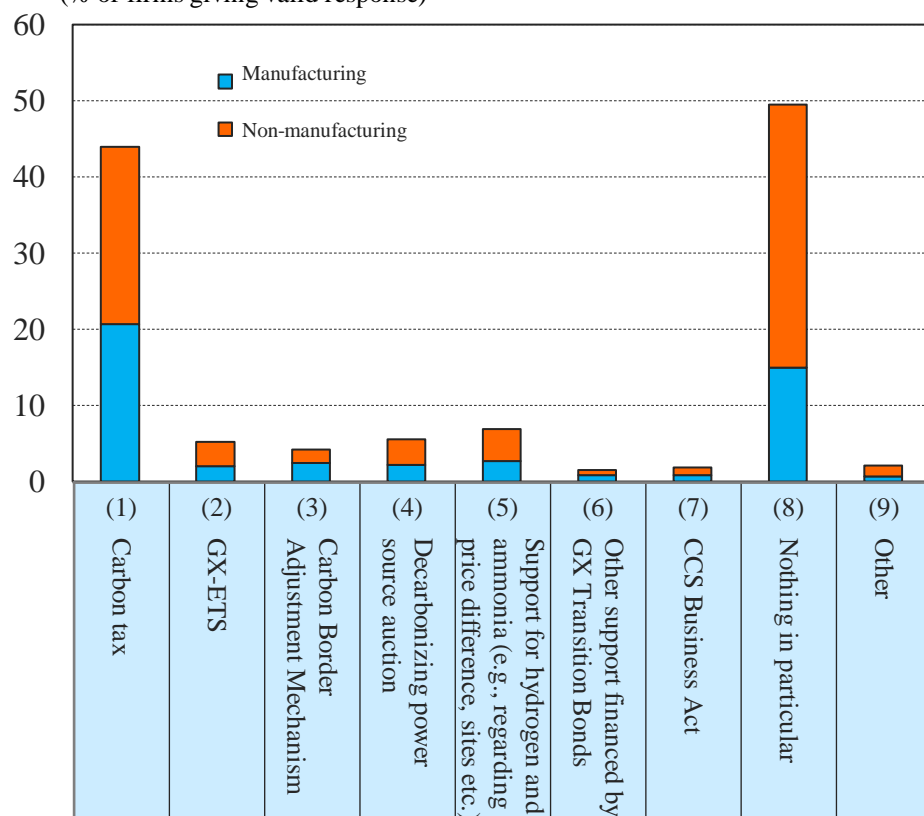
	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	SC/overseas	Local

## Medium-Sized Firms: Carbon Tax Recognized as Business Risk, but Own Emissions Not Measured

- Asked about regulations or systems with substantial impact on their business, over 40% of the medium-sized firms cited the carbon tax, but few have started to measure emissions from their own supply chains.

### Regulations or systems to be introduced with substantial impact on business

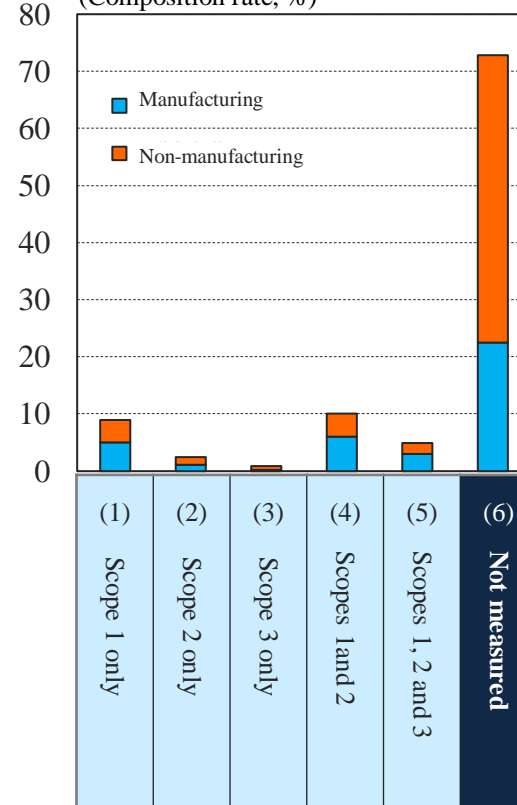
(% of firms giving valid response)



Notes: 1. Medium-sized firms. 2. Respondents may choose up to three answers.

### Measurement of Scope 1, 2 and 3 emissions

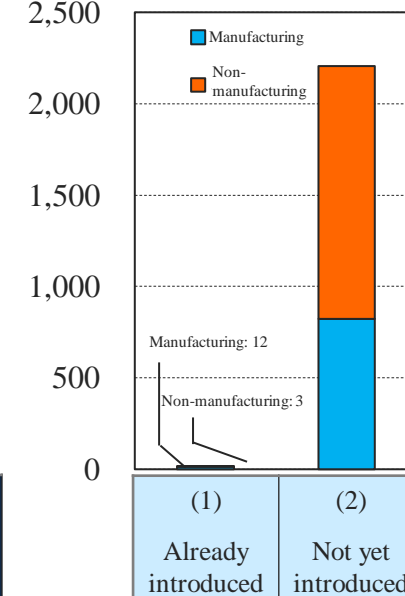
(Composition rate, %)



Note: Medium-sized firms.

### Introduction of internal carbon pricing

(Composition rate, %)



Carbon prices set (n=12, yen/t-CO<sub>2</sub>)

Average	JPY 11,675
Low	JPY 5,000
Highest	JPY 21,600

Note: Medium-sized firms.

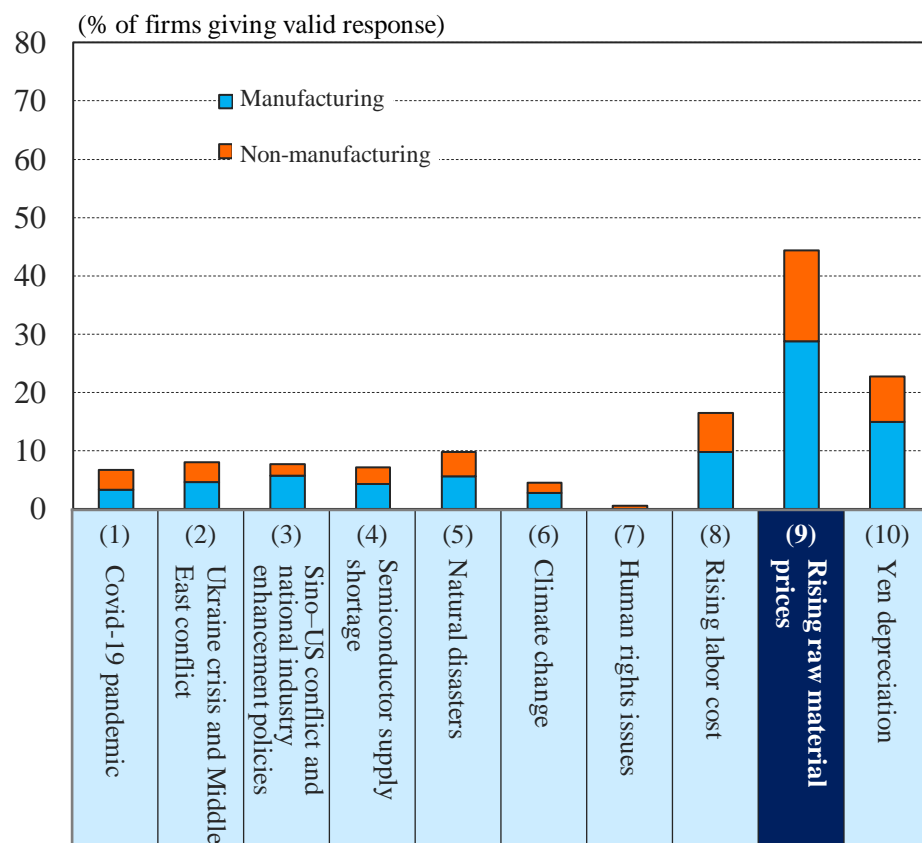
	Major firms	Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	SC/overseas	Local

## Medium-Sized Firms:

### Standardization of Parts and Mutual Support with Partners Triggered by Rising Raw Material Prices

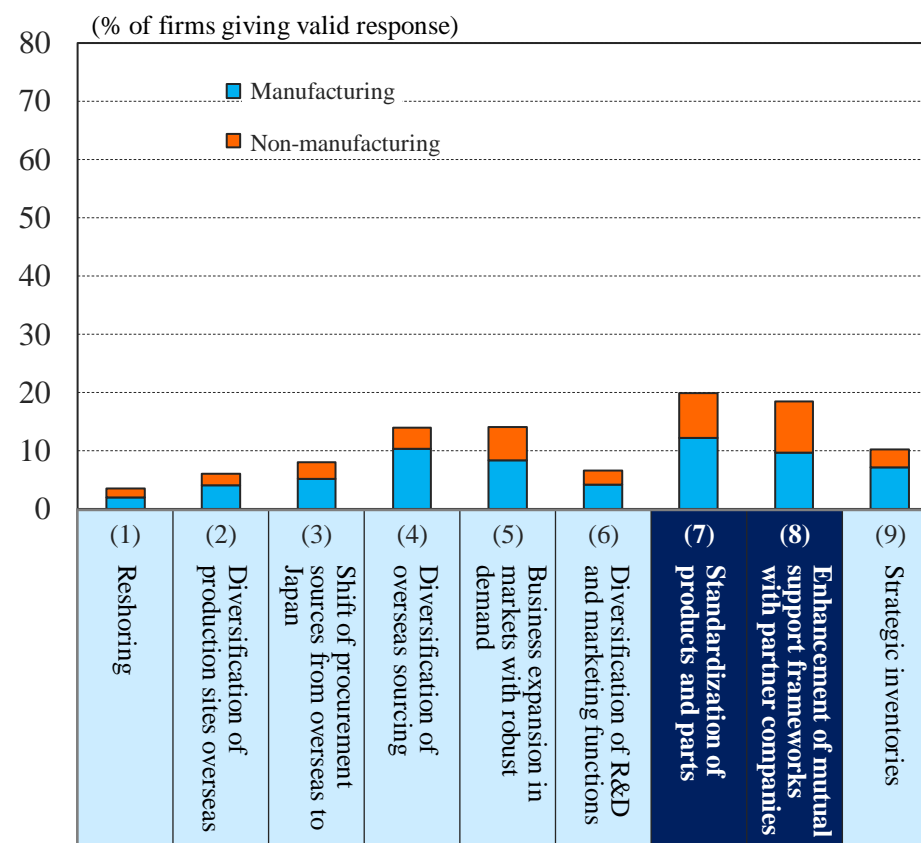
- Asked about opportunities for revision of supply chains, many firms cited rising raw material prices and labor cost.
- As regards actions to revise supply chains, most firms referred to “Standardization of products and parts,” followed by “Enhancement of mutual support frameworks with partner companies.”

#### Opportunities for revision of supply chains



- Notes: 1. Medium-sized firms.  
2. Respondents may choose up to three answers.

#### Actions to revise supply chains



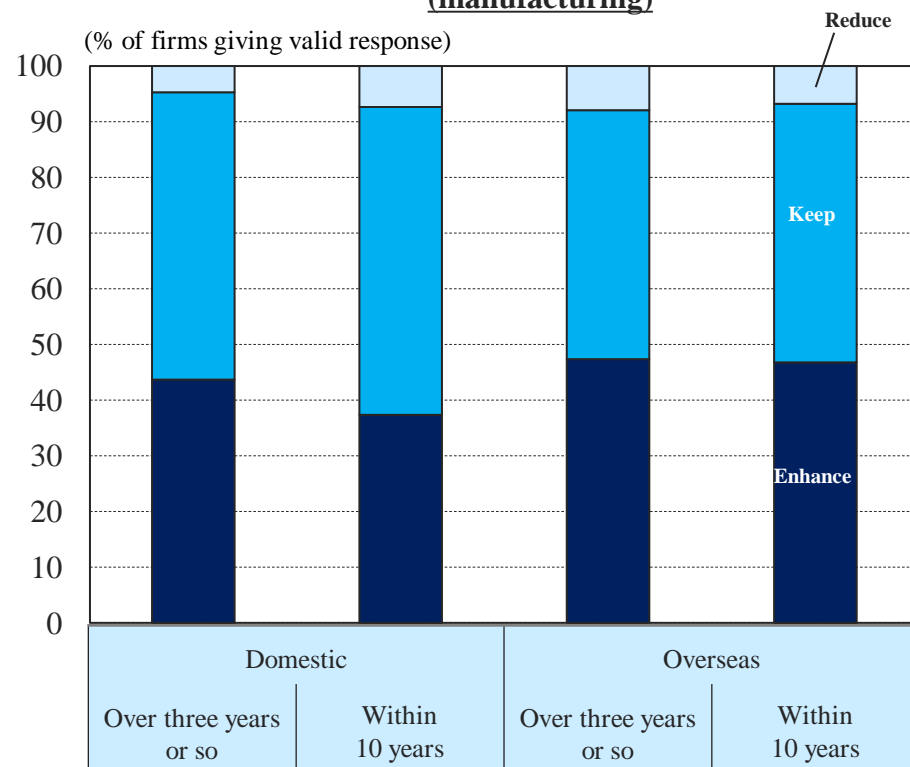
- Notes: 1. Medium-sized firms.  
2. Respondents may choose up to three answers.

Major firms		Medium firms	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	SC/overseas	Local

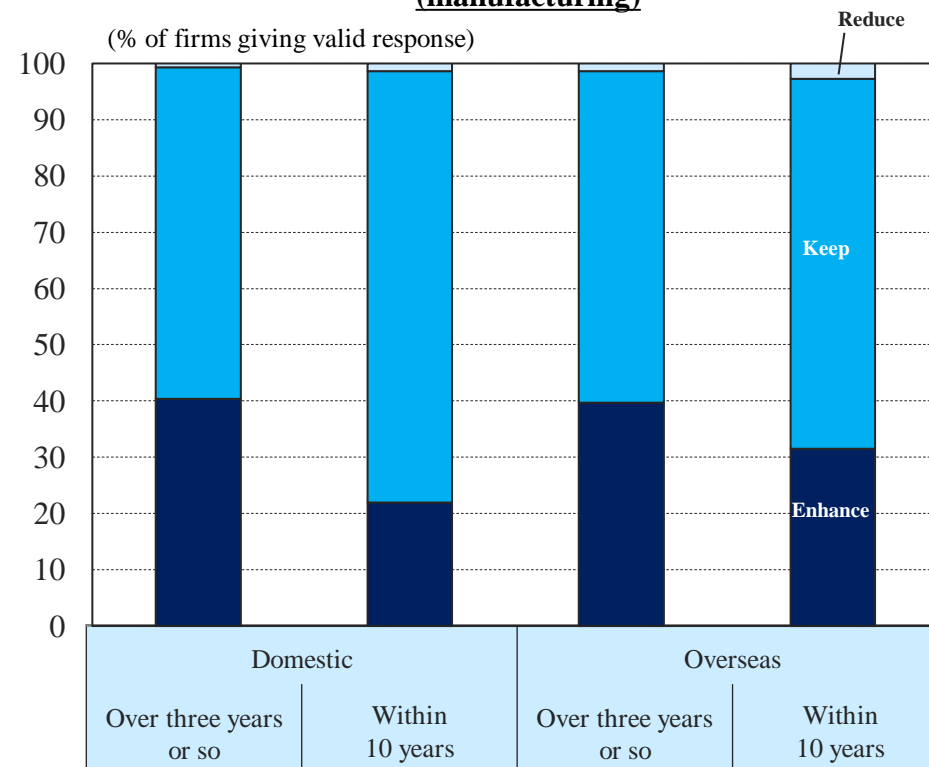
## Medium-Sized Firms: No Moves to Enhance Production Sites in Japan

- Asked about the medium-term prospects for supply capacity, slightly more firms now intend to enhance overseas production sites over the next three years and within the next 10 years. With regard to the longer-term perspectives for R&D activities, the number of firms responding affirmatively about planning enhancement over the next three years exceeds that of those responding affirmatively about envisaging enhancement within 10 years.

**Medium-term domestic and overseas supply capacity  
(manufacturing)**



**Longer-term perspective for R&D activities  
(manufacturing)**

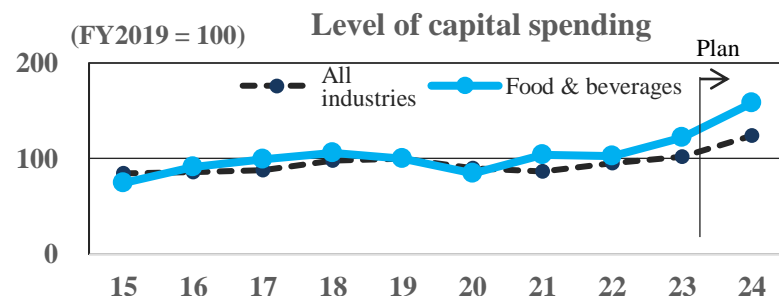


- Notes: 1. Medium-sized firms.  
2. Data cover the firms reporting both domestic and overseas operations (190 firms in FY2024).  
3. Firms reporting research activities both in Japan and overseas (146 in FY2024).

	Major firm	Medium firm	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Characteristics of Industries (Food & Beverages, Paper & Pulp)

### Food & beverages



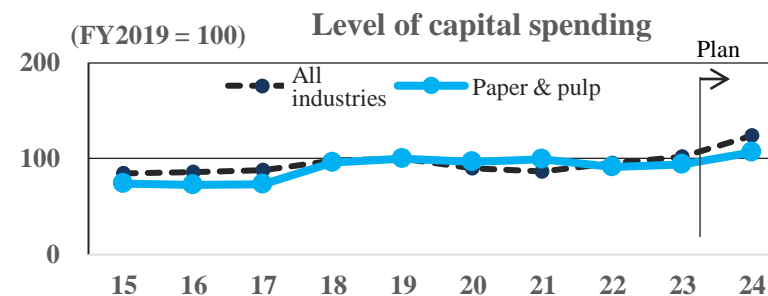
#### Current investment trend

- Spending has increased on the development and production of health-conscious food. The development and increased production of products with higher added value are progressing in response to the changes in eating habits.
- Restructuring of production systems, including through capacity enhancement and efficiency in logistics, is expected going forward, in addition to the maintenance and replacement of aging facilities.

#### Long-term trend

- Projects are being implemented to support the increase in touchpoints with consumers and locally to enhance corporate brands.
- Efforts for decarbonization include the introduction of renewable energy production facilities at factories and the switching of fuel used to produce machines.
- Food companies will also implement projects to produce fuel by effectively utilizing byproducts from food production.

### Paper & pulp



#### Current investment trend

- Traditional demand for paper has been declining with the progress of paperless management, but the cardboard business remains robust thanks to the increase in teleshopping demand since the Covid-19 pandemic.
- Capital investment has been curbed as the costs of raw materials and fuels continue to rise due to the Ukraine crisis and the yen depreciation.
- Nevertheless, companies remain proactive toward investments for decarbonization.

#### Long-term trend

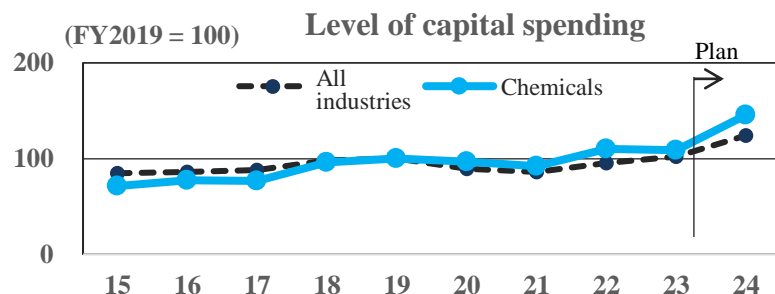
- Expectations are rising for businesses leveraging wood-derived new materials, including cellulose nanofiber.
- Efforts to reduce waste plastics might drive up demand for paper drinking straws.
- Capital spending to switch to LNG from dirtier fossil fuels and to other cleaner fuels will enter full swing throughout the industry for decarbonization.

Note: Compiled from the Survey on Planned Capital Spending and published information, including corporate disclosures.

	Major firm	Medium firm	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Characteristics of Industries (Chemicals, Petroleum)

### Chemicals



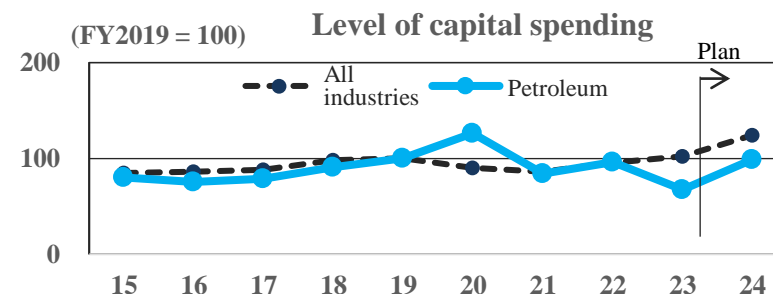
#### Current investment trend

- The business environment for petrochemicals has been deteriorating due to stagnant demand caused by economic recession and price inflation, as well as by the rising supply capacity in other Asian countries.
- Companies are investing managerial resources in products with higher value, such as materials for semiconductors and electric vehicles, as well as pharmaceuticals, regarding these as growth businesses.
- Although spending did not reach the planned level in FY2023, companies are proactive toward investment, aiming to increase production capacity in growth businesses.

#### Long-term trend

- Spending will continue on product development using bio-based and recycled raw materials and on chemical recycling technology, in response to the rising need for environmental soundness.
- The less profitable petrochemical business will be subject to streamlining and greening in partnership with other companies.

### Petroleum



#### Current investment trend

- In anticipation of falling demand for petroleum, capital spending has been increasing through subsidiaries and SPCs on renewables, hydrogen and SAF, among others.
- The closure and line stoppage of refineries has led to the restructuring of production systems and transformation of vacant lots into carbon-neutral fuel production sites.

#### Long-term trend

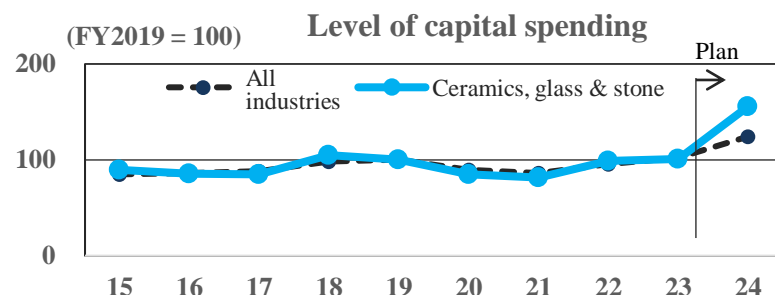
- The most serious risk is petroleum demand, as demand for fuel oil in Japan in 2030 is expected to be about 20% less than the 2020 level.
- To manage the risk, companies will accelerate the development of next-generation energy businesses to achieve carbon neutrality, including with hydrogen, ammonia and SAF.

Note: Compiled from the Survey on Planned Capital Spending and published information, including corporate disclosures.

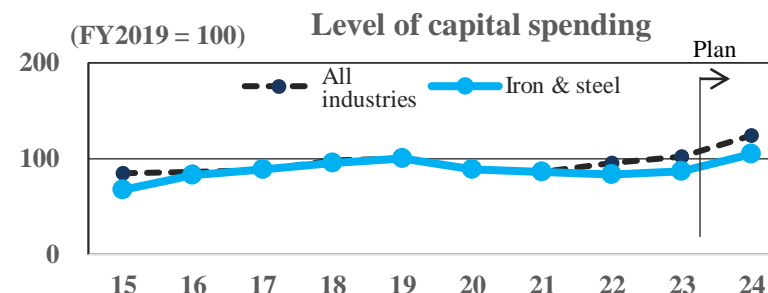
	Major firm	Medium firm	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Characteristics of Industries (Ceramics, Glass & Stone and Iron & Steel)

### Ceramics, glass & stone



### Iron & steel



#### Current investment trend

- Due to the slump in the sheet glass business, major companies have downscaled their factories and production facilities, or shifted their focus to other businesses.
- Demand for cement remains robust, supported by active urban development.
- Investment is shifting from traditional core businesses to more promising segments in terms of value added, including those related to semiconductors.

#### Long-term trend

- Investment in cement will focus on spending for decarbonization, including that related to changing fuels.
- Projects are ongoing for the development of products that are expected to help realize carbon neutrality, such as EV-related parts and super-insulated glass, as well as for the enhancement of related production capacity.

#### Current investment trend

- A correction is underway for the supply-demand gap (demand < production capacity) resulting from the shrinking domestic market and intensified competition in markets overseas.
- Against this backdrop, capital spending is declining.
- Going forward, capital spending will focus on upgrading of facilities, EV components and large electric furnaces, working toward carbon neutrality (including in the long term, the expanded use of hydrogen to reduce carbon emissions).

#### Long-term trend

- Relocation overseas is accelerating to capture growth markets. Capital spending overseas will continue to increase going forward.
- It is also possible that production systems will be optimized both in Japan and overseas, including for utilizing hydrogen.

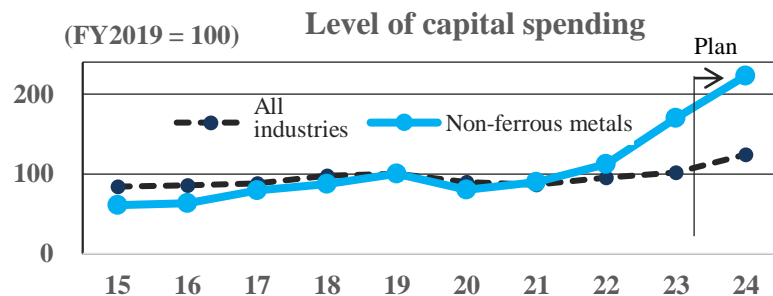
Note: Compiled from the Survey on Planned Capital Spending and published information, including corporate disclosures.



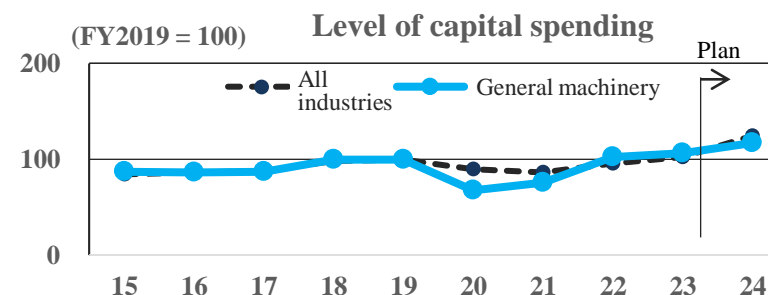
	Major firm	Medium firm	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Characteristics of Industries (Non-ferrous Metals, General Machinery)

### Non-ferrous metals



### General machinery



#### Current investment trend

- Investment is increasing to meet the strong demand of clients, including for semiconductors and vehicle electrification.
- Companies are building production capacity where large users exist, and plan to increase investment overseas (provided that joint ventures with local partners are feasible).

#### Long-term trend

- As compared with other materials-based manufacturing industries, carbon emissions in the production process are limited. Companies will therefore contribute to decarbonization in user industries, including by providing materials for electric vehicles.
- Initiatives for improving the recycling ratio, for example, are still limited in terms of investment scale.

#### Current investment trend

- Capacity investment in machine tools and logistics equipment is increasing on the back of the growing need for automation due to the labor shortage and rising labor costs.
- Going forward, investment in machine tools for capacity expansion and product upgrading will grow in response to the need for automation and the demand for semiconductors.
- Capacity investment in aerospace and defense will also increase on the back of recovering demand in civil aviation and the buildup of national defense capability.

#### Long-term trend

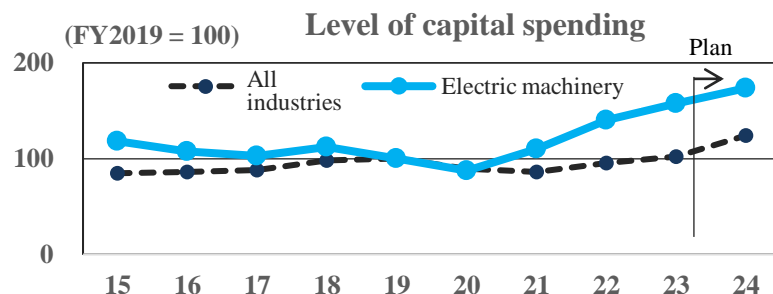
- In addition to the traditional capacity and rationalization investment, emerging cases include spending on improving the working environment (wellbeing), raising the environmental soundness of factories, constructing environmentally conscious logistics facilities, and introducing facilities that encourage innovation.

Note: Compiled from the Survey on Planned Capital Spending and published information, including corporate disclosures.

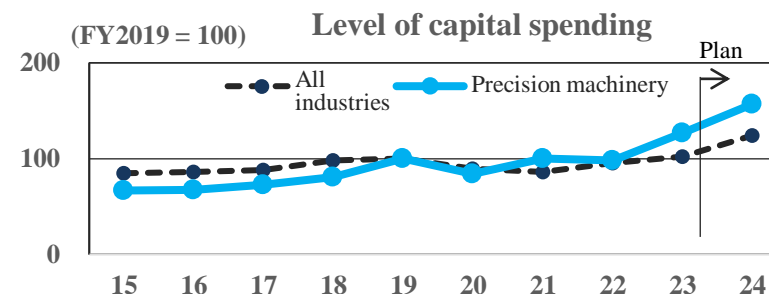
	Major firm	Medium firm	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Characteristics of Industries (Electric Machinery, Precision Machinery)

### Electric machinery



### Precision machinery



#### Current investment trend

- Capital spending is focused on capacity investment in electric vehicles and data centers.
- Amid the rising demand for pressure-resistant devices, multi-year large-scale projects continue for semiconductor package substrates, power devices, laminated ceramic capacitors and other components of next-generation products.

#### Long-term trend

- Investment in factories for automating production processes and saving labor is a notable development, along with the establishment of research and development facilities.

#### Current investment trend

- Capacity investment in semiconductor production equipment has been rising on the back of increased semiconductor demand, mainly for electric vehicles and data centers.
- Capacity investment in production facilities related to biotechnology-based drugs is also increasing for the growing contract manufacturing organization (CMO) and contract development and manufacturing organization (CDMO) markets.

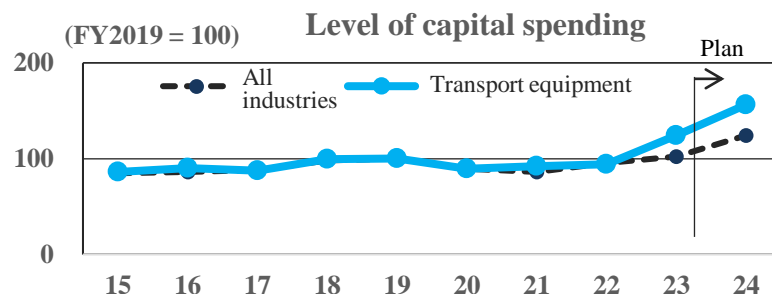
#### Long-term trend

- A wide range of decarbonization investment initiatives may be observed, including for reducing total carbon emissions from business establishments and setting targets for renewables in the energy mix.

Note: Compiled from the Survey on Planned Capital Spending and published information, including corporate disclosures.

## Characteristics of Industries (Transport Equipment)

### Transport equipment



#### Current investment trend

- Capital spending is increasing substantially following the easing of constraints on semiconductor supply, led by active investment in product development and in batteries and electrification to achieve carbon neutrality.

#### Long-term trend

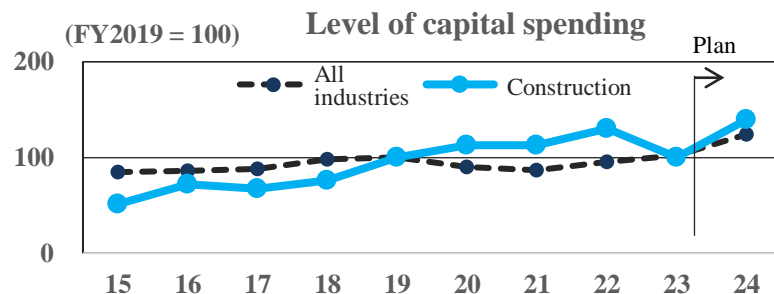
- Finished car makers are proactively investing in the scaling of projects for electrification to achieve environmental soundness and for software-defined vehicles (SDVs).
- Capital spending for expansion of production capacity is spreading to car parts manufacturers, which are following the trend of finished car makers with parts development and capacity enhancement.

Note: Compiled from the Survey on Planned Capital Spending and published information, including corporate disclosures.

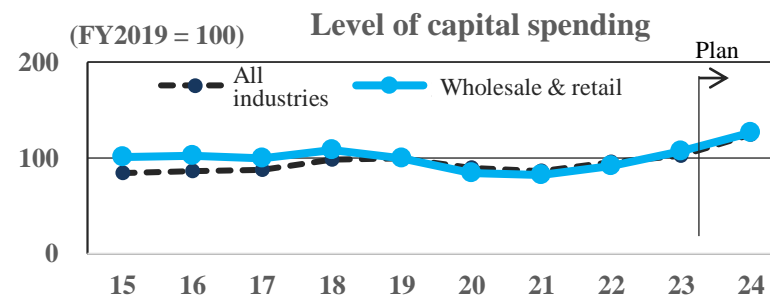
	Major firm	Medium firm	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Characteristics of Industries (Construction and Wholesale & Retail)

### Construction



### Wholesale & retail



#### Current investment trend

- Demand for construction is rising, backed by companies' recovering appetite for investment.
- Development of technological R&D facilities is also underway, reflecting heightened interest both in tackling the labor shortage and in technological innovation.
- Investment is increasing in own offices/leasehold property to ensure profitability.

#### Long-term trend

- Building replacement with ZEB-grade and BCP-oriented offices in an effort to achieve carbon neutrality is observed, mainly among super general contractors and other large/medium-sized companies.
- Introduction of ICT-controlled construction equipment and construction machines powered by next-generation fuels is also underway.
- Offshore wind farms are under construction in collaboration with infrastructure-building companies.

#### Current investment trend

- Department stores are increasing their investments in large-scale refurbishment and e-commerce.
- Supermarkets are improving labor efficiency, including through AI-based order placement, electronic shelf labels, self-serve lanes and display shelves, as well as through investment in deli and logistics centers.
- Convenience stores are investing in the enhancement of app-controlled delivery systems and in DX through AI-powered operation, self-service lanes and AI-based order placement, among other initiatives.

#### Long-term trend

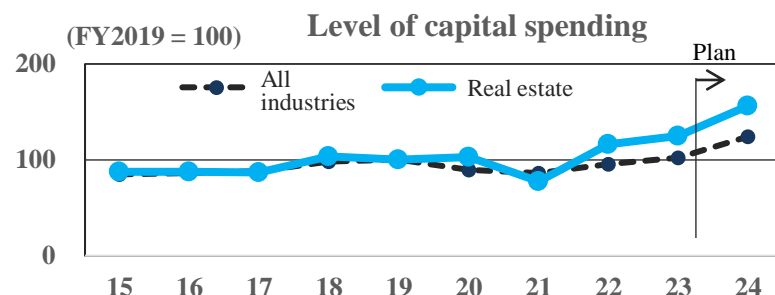
- Department stores will enhance specialized shops to meet local demand and shift into the real-estate rental business.
- Supermarkets will continue investing to increase productivity in response to the labor shortage.
- Convenience stores will seek to improve the efficiency of outlets, offering value other than price and leveraging AI.

Note: Compiled from the Survey on Planned Capital Spending and published information, including corporate disclosures.

	Major firm	Medium firm	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Characteristics of Industries (Real Estate, Transportation)

### Real estate



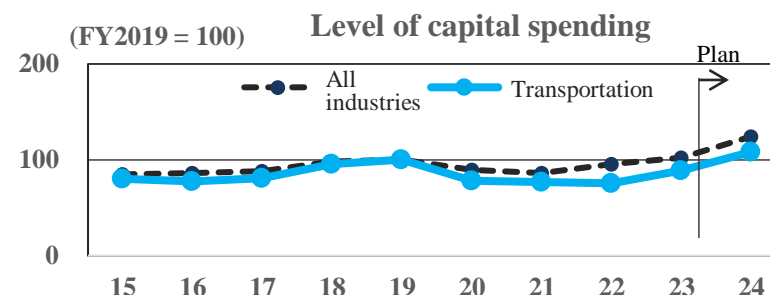
#### Current investment trend

- Most of the office buildings under construction in city centers are slated for completion in 2025 and 2026.
- Although not many buildings will be completed in 2024, investment is expected to increase as the construction of buildings scheduled to be completed in 2025 and beyond enters full swing.

#### Long-term trend

- General real estate service companies are planning to enhance their property portfolio by investing in a variety of assets, including commercial facilities, hotels, logistics facilities and rented accommodation.
- Other than office buildings in city centers, the development of logistics facilities will be a focus of investment.
- Investment will also be activated with the acquisition of used leasehold property.

### Transportation



#### Current investment trend

- Investment continues in new train car production, safety and environmental soundness.
- Large-scale development to enhance the profit base is underway to add more value to station areas.
- Investment in logistics is gaining momentum as a third pillar, in addition to railways and real estate.

#### Long-term trend

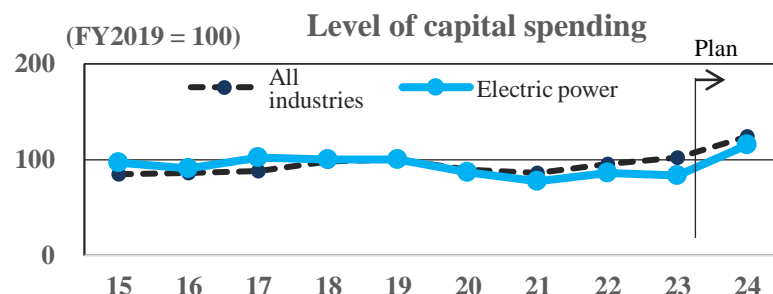
- Spending will increase in reaction to the growing inbound demand.  
Railways: Increased added value (expansion of sightseeing trains and first-class cars)  
Airways: Acquisition of aircraft and increased flights  
Airports: Increased convenience with runway extension and facility reorganization
- Large-scale redevelopment of station areas will continue.
- The 2024 logistics crisis may trigger spending on digitization and automation.

Note: Compiled from the Survey on Planned Capital Spending and published information, including corporate disclosures.

	Major firm	Medium firm	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Characteristics of Industries (Electric Power, Gas)

### Electric power



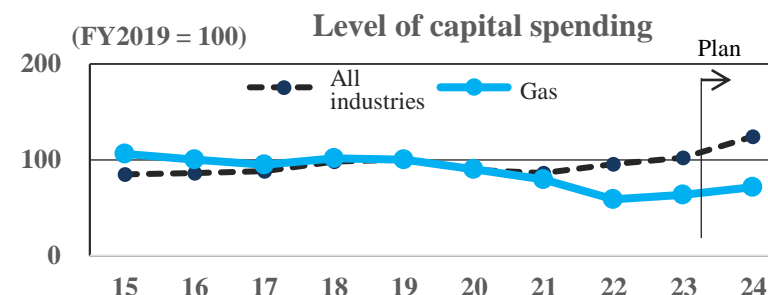
#### Current investment trend

- In power generation, investment in power source development and maintenance/replacement to achieve carbon neutrality is gaining momentum.
- In power transmission, investment in the maintenance and replacement of existing facilities has been accompanied by grid reinforcement to relieve congestion.
- In power distribution, investment in the replacement of smart meters is ongoing.

#### Long-term trend

- Investment will make headway in safety measures for nuclear power generation and the establishment of a nuclear fuel cycle.
- Spending to achieve carbon neutrality will also include investment in renewables such as photovoltaic stations and wind farms.

### Gas



#### Current investment trend

- Spending is driven by the maintenance and extension of conduit pipes for the stable supply of city gas and the expansion of service areas.
- Investment in DX is also accelerating to optimize energy supply.

#### Long-term trend

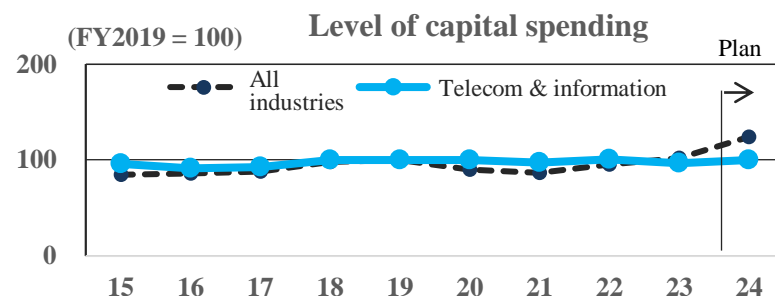
- Renewable energy sources, including photovoltaic and wind power, are being developed in anticipation of electrification at the expense of demand for gas.
- Technology development and piloting of e-methane will be pursued.
- Demonstration experiments will also start for utilizing hydrogen.

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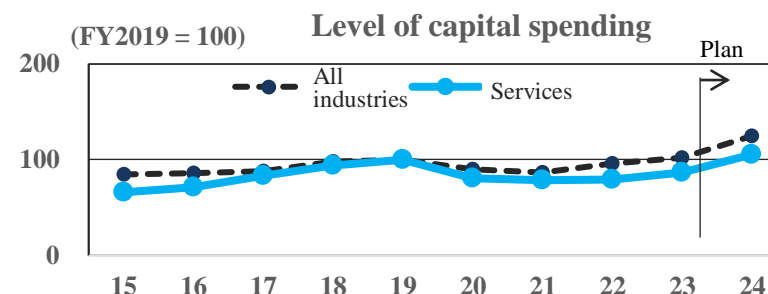
	Major firm	Medium firm	
CAPEX	Management	HR investment	Digitization
Innovation	Decarbonization	Overseas/SC	Local

## Characteristics of Industries (Telecom & Information and Services)

### Telecom & information



### Services



#### Current investment trend

- Investment in 5G base stations and networks has peaked after driving the expansion of capital spending in the telecom and information industry for many years.
- Growth drivers going forward include (1) building of large-scale, low-delay computing platforms for AI; (2) creation and expansion of data centers on the back of rising demand for the cloud and AI; and (3) investment to reinforce optical fiber networks to accompany greater communication data volumes in rural areas.

#### Long-term trend

- Japan has identified three technological areas (all-photonic networks, non-terrestrial networks and virtualized networks) as key focal points in building Beyond 5, the next-generation communication infrastructure for 5G, for the purpose of R&D and early piloting.

#### Current investment trend

- Widespread investment to raise average customer-focused spending can be observed, including that to meet diversifying customer needs and improve customer satisfaction.

#### Long-term trend

- Accommodation facilities will phase out plastics in amenities as an environmentally sound initiative.
- Investment for decarbonization may also include the introduction of electric vehicles for pickup and in-house buses.
- Positive factors include rising inbound demand due to the yen depreciation, while risk factors include the lack of growth of domestic tourists due to price inflation and subdued demand for travel.

Note: Compiled from the Survey on Planned Capital Spending and published information, including corporate disclosures.

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