TDB Trends Research (Research & Summary for June 2019)

Domestic economy has worsened for seven months in a row

 $\sim\,$ While deterioration in manufacturing continues, last-minute demand appeared in part of the retail industry $\,\sim\,$

(Companies researched: 23,632; Valid responses: 9,977; Response rate: 42.2%; Survey start date: May 2002)

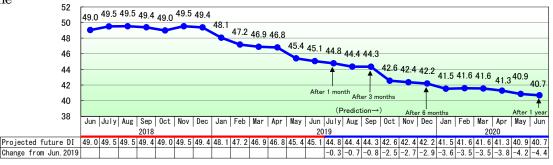
< Overview of May 2019: Possibility of entering a recession phase >

The economic diffusion index (DI) in June 2019 was 45.1, down 0.3 points from the previous month, and worsened for the seventh consecutive month. Stagnant exports and the cost burden remaining at a high level continued to exert a downward pressure on the domestic economy, and it may have entered a recession phase.

< Future outlook: Uncertainty has further intensified >

With the decrease in consumption due to the consumption tax hike, and concerns over the future of US-China trade friction, uncertainty about the domestic economy has further intensified.

- By industry : Machinery manufacturing continued to show a deteriorating trend. Durable goods-related business in "retail" improved.
- By size : All sizes worsened for the third consecutive month. US-China trade friction exerted a downward pressure on machinery and export-related businesses.
- By region : Eight of the ten regions worsened. "Kinki" was also impacted by the convening of the G20 summit.



*: Economic DIs are calculated based on the structural ARIMA model, in which economic statistics are incorporated to the ARIMA model.



	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Ratio to the PrFDious Month
Total	49.0	49.5	49.5	49.4	49.0	49.5	49.4	48.1	47.2	46.9	46.8	45.4	45.1	▲ 0.3
Large Firms	51.3	51.8	51.6	51.4	51.4	51.4	51.7	50.6	49.8	49.8	49.7	48.8	48.7	▲ 0.1
Small to Medium-sized Firms	48.5	48.9	49.0	48.9	48.4	49.0	48.8	47.4	46.5	46.2	46.1	44.6	44.2	▲ 0.4
Micro Firms	47.6	48.1	48.4	48.4	47.9	48.2	48.2	47.0	46.5	46.3	46.2	44.5	44.1	▲ 0.4

		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Ratio to the PrFDious Month
Agriculture,Forest	ry,Fisheries	43.3	43.4	45.7	43.8	41.5	40.7	40.7	41.8	41.7	42.3	41.3	40.5	43.2	2.7
Finance		47.2	49.5	47.5	48.5	46.2	47.1	46.5	46.1	45.2	45.9	45.1	44.7	44.8	0.1
Construction		51.9	52.8	53.1	53.8	53.4	53.9	54.1	53.9	53.6	53.6	52.8	51.7	51.6	▲ 0.1
Real Estate		51.1	50.5	51.1	50.7	49.3	49.3	49.7	49.1	47.5	47.4	48.7	47.6	48.3	0.7
	Food, BEWerages, Livestock Feed	43.2	43.1	43.3	42.9	42.0	42.4	43.0	41.6	40.6	40.6	42.2	41.3	40.3	▲ 1.0
	Textile, Textile Products, Clothing	42.8	42.1	41.8	41.9	41.4	41.6	41.3	37.7	38.8	39.2	39.0	36.6	36.5	▲ 0.1
	Construction Materials,Furniture, Ceramics,Stone and Clay Products	45.9	46.6	45.6	45.2	46.1	47.5	48.3	47.1	45.5	44.1	45.7	45.4	43.5	▲ 1.9
	Pulp, Paper and Paper Products	45.2	44.5	44.5	45.4	44.3	46.5	49.3	44.6	45.2	44.1	45.7	43.0	41.7	▲ 1.3
	Publishing, Printing	33.7	35.0	33.8	34.6	33.2	34.8	35.0	33.5	33.2	34.4	35.6	34.3	33.9	▲ 0.4
Manufacturing	Chemical	51.6	52.2	51.3	51.4	50.4	51.4	50.2	48.1	46.3	45.4	46.2	43.9	42.5	▲ 1.4
	Steel,Nonferrous Metals,Mining	53.3	54.1	54.2	52.8	53.0	54.4	52.5	50.4	48.0	45.4	45.5	42.9	41.8	▲ 1.1
	General Machinery	60.3	60.7	59.9	59.1	58.1	57.5	55.9	52.5	51.4	48.9	49.0	46.0	45.1	▲ 0.9
	Electrical Machinery	53.4	52.8	52.0	53.3	52.9	52.5	50.5	49.2	47.6	46.0	44.7	43.1	43.0	▲ 0.1
	Transportation Machinery, Equipment	57.3	56.6	58.7	58.3	56.9	56.4	53.8	52.3	50.9	49.3	49.4	48.1	47.5	▲ 0.6
	Precision Machinery, Medical Instruments and Equipment	57.2	55.1	54.8	54.3	53.7	53.4	54.0	51.3	48.6	45.5	47.3	44.4	42.4	▲ 2.0
	Other	42.5	41.5	40.7	42.6	42.8	41.8	42.8	42.7	42.1	45.3	40.2	40.2	40.2	0.0
	Total	50.4	50.6	50.2	50.0	49.5	50.0	49.2	47.1	45.8	44.5	44.8	42.9	42.0	▲ 0.9
	Food,BEWerages	42.4	40.9	41.9	41.3	40.6	41.9	41.1	39.4	40.5	40.5	41.1	40.8	40.4	▲ 0.4
	Textile, Textile Products, Clothing	37.3	35.9	37.3	35.1	35.3	33.5	34.3	34.0	32.0	33.6	33.2	33.2	31.6	▲ 1.6
	Construction Materials, Furniture,Ceramics, Stone and Clay Products	44.4	44.8	44.2	44.8	43.9	46.9	47.8	47.4	46.5	46.4	45.6	44.7	43.8	▲ 0.9
Wholesale	Paper Products, Stationery, Books	36.2	35.4	36.6	36.9	36.5	38.1	39.3	37.9	36.0	39.0	39.2	39.0	36.4	▲ 2.6
	Chemical	46.8	48.9	48.1	47.1	47.0	47.8	47.7	45.3	44.3	44.3	44.2	41.8	41.2	▲ 0.6
	Recycled Resources	50.6	48.2	51.2	47.8	49.4	44.0	47.6	39.8	45.6	48.6	41.0	40.2	37.1	▲ 3.1
	Steel,Nonferrous Metals, Mining Products	47.8	48.0	50.3	49.2	49.4	48.8	50.2	46.3	45.0	43.7	43.4	40.8	40.4	▲ 0.4
	Machinery, Equipment	50.0	50.9	51.0	50.2	49.6	49.9	50.0	48.4	46.9	46.5	45.9	44.2	44.4	0.2
	Other	43.3	43.2	42.4	42.4	43.4	44.0	43.9	41.9	41.2	42.5	42.7	40.6	40.6	0.0
	Total	45.7	45.9	46.3	45.6	45.4	46.0	46.3	44.4	43.6	43.7	43.3	41.9	41.4	▲ 0.5

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		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Ratio to the PrFDious Month
	Food, BEWerages	45.2	44.5	45.3	45.7	44.4	45.5	42.8	43.4	41.5	42.5	42.5	44.8	42.9	▲ 1.9
	Textile, Textile Products, Clothing	32.1	34.6	32.7	30.6	32.7	31.3	34.0	30.9	32.7	38.9	39.1	36.9	36.6	▲ 0.
	Drugs,Sundries	42.9	41.0	41.3	40.2	38.4	42.4	44.4	44.8	39.7	39.7	40.9	41.0	38.5	▲ 2.
	Furniture	38.3	38.3	37.0	37.0	37.9	37.5	35.4	38.9	33.3	33.3	38.9	39.6	48.5	8.
Retail	Electrical Household Appliances, Information Machinery and Equipment	41.9	45.5	43.7	42.8	40.6	39.7	43.1	39.0	40.7	38.9	41.7	39.1	43.5	4.
	Motor Vehicles, Motor Vehicle Parts	42.9	45.0	43.5	46.1	40.8	41.5	42.2	44.6	44.3	45.2	43.3	41.5	42.5	1.
	Special Merchandise	39.7	40.7	39.1	39.1	39.7	43.3	43.2	41.9	41.3	40.8	42.1	41.3	41.1	▲ 0.1
	Various Merchandise	44.2	48.2	46.5	43.6	46.4	43.6	44.7	42.9	41.9	43.5	43.3	43.8	44.7	0.
	Other	33.3	36.1	40.5	38.9	41.7	38.1	35.7	35.7	31.3	33.3	43.8	39.6	46.3	6.
	Total	41.3	42.7	41.7	41.6	40.9	42.1	42.3	41.6	40.8	41.4	42.1	41.6	42.0	0.
Fransportatio	on,Warehousing	48.7	50.3	50.3	49.5	48.7	50.1	50.5	49.1	48.2	48.1	48.2	46.7	45.6	▲ 1.
	Restaurants	42.5	42.7	42.5	39.3	37.0	37.6	40.7	37.9	41.0	37.8	42.9	40.6	42.9	2.
	Postal, Telecommunications	54.5	55.6	55.0	56.1	59.7	57.1	54.5	60.0	57.6	62.1	57.6	56.7	60.0	3.
	Electricity, Gas, Water, Heat	57.4	56.3	57.4	59.3	56.7	57.1	61.9	57.4	57.4	56.3	58.3	55.6	54.5	▲ 1.
	Leasing,Rentals	52.9	54.5	54.2	55.9	56.5	57.1	55.7	55.0	52.0	52.7	54.1	50.9	52.5	1.
	Lodging, Hotels	50.0	45.2	46.6	43.6	41.0	45.5	45.7	44.9	44.2	42.3	41.0	50.0	44.9	▲ 5.
	Recreation	40.9	39.8	40.0	39.9	35.5	40.6	39.3	38.9	37.8	41.0	38.8	42.0	41.5	▲ 0.
	Broadcasting	40.3	42.3	38.5	41.7	40.5	40.0	36.7	40.5	44.4	43.3	41.7	44.1	43.3	▲ 0.
Service	Maintenance, Guarding, Testing	48.5	50.5	52.3	51.8	51.4	51.6	50.7	50.7	51.0	50.0	48.1	48.2	48.8	0.
	Advertising	40.2	41.7	41.4	42.3	42.3	41.2	41.7	40.4	40.1	40.3	40.7	40.5	40.7	0.
	Information	58.8	58.7	59.1	59.7	59.8	60.7	59.3	60.1	59.0	60.3	59.6	58.0	57.8	▲ 0.
	Labor Dispatching	59.1	59.3	59.2	58.0	59.4	58.8	59.0	57.2	54.6	53.8	53.5	53.9	52.8	▲ 1.
	Special Services	54.6	54.8	55.3	53.9	55.0	54.6	53.6	53.5	52.8	52.5	51.5	49.5	50.1	0.
	Medical,Welfare,Public Health	46.8	46.1	48.2	48.3	48.8	48.3	47.4	47.5	46.5	47.1	46.9	47.8	47.0	▲ 0.
	Education	40.6	42.6	46.5	46.4	43.8	43.5	46.2	38.5	44.7	45.8	44.2	43.6	44.0	0.
	Other	50.0	51.3	50.2	51.6	49.3	49.8	52.0	50.2	49.7	49.0	50.2	47.9	48.5	0.
	Total	52.0	52.4	52.8	52.9	52.9	53.2	52.7	52.4	51.7	51.9	51.6	50.6	50.8	0.1
Other		46.3	46.1	45.0	46.3	46.2	45.3	46.6	44.1	48.3	45.2	44.9	43.2	42.6	▲ 0.6
		Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Ratio to the PrFDious Month
	Hokkaido	46.5	46.6	47.5	44.3	43.9	45.2	45.2	43.9	44.4	44.6	45.5	45.3	45.1	▲ 0.
	Tohoku	44.2	46.8	46.6	46.4	45.9	46.5	45.4	44.4	43.1	42.8	43.1	42.2	41.9	▲ 0.

Economic Diffusion Index (Economic DI)2/2

kitakanto

minamikanto

Hokuriku

Tokai

Kinki

Chugoku

Shikoku

Kyushu

48.5

51.8 51.8 50.1

50.4 50.1

49.8

49.4

51.3

49.1 50.6 50.7 49.7 48.5 48.6 48.

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50.0 50.4

51.8 51.4

48.4 48.6 49.4 48.9 48.8

47.9 47.0 47.1 48.0 48.6

47.2 47.5 47.9 47.0 47.6

50.6 50.

48.7 49.4 49.8 49.3

45.8 44.8 44.7 44.3 43.1 42.5

49.0 48.1 47.8 47.7

49.3 48.6 47.7 46.3 45.3 45.3

48.5 48.7 47.7 47.2 46.7 47.2

47.2 48.4 46.8 47.6 46.8 46.9

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49.7 49.7 48.4 47.6 47.3 46.9 45.0 44.6

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45.6 45.5

46.7 44.8

48.0

49.4 50.6 50.0

50.2 50.3

50.9 51.6

49.8 50.9

Appendix

1.Research Subjects(Companies researched: 23,632; Valid responses: 9,977; Response rate: 42.2%)

Appendix

1.Region

integron			
Hokkaido	499	Tokai	1,114
Tohoku	658	Kinki	1,666
kitaKanto	737	Chugoku	545
minamikanto	3,194	Shikoku	299
Hokuriku	547	Kyushu	718
		Total	9,977

2.Industry (10 Industries 51 Lines of business)

Agriculture, For	estry, Fisheries	54	
Finance		112	
Construction		1,498	
Real Estate		308	Retail
	Food,Beverages,Livestock Feed	317	480
	Textile, Textile Products, Clothing	104	
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	212	
	Pulp, Paper and Paper Products	101	
	Publishing, Printing	182	
Manufacturing	Chemical	390	Transportation
3,223	Steel,Nonferrous Metals,Mining	486	
	General Machinery	449	
	Electrical Machinery	313	
	Transportation Machinery, Equipment	99	
	Precision Machinery, Medical Instruments and Equipment	85	
	Others	88	
	Food,Beverages	332	Service
	Textile, Textile Products, Clothing	177	1,384
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	318	
Wholesale	Paper Products,Stationery,Books	92	
3,959	Chemical	263	
	Recycled Resources	31	
	Steel,Nonferrous Metals,Mining Products	292	
	Machinery, Equipment	875	
	Others	332	1

	Total	9,977
hers	÷	36
	Others	165
	Education	25
	Medical,Welfare,Public Health	105
	Special Services	249
	Labor Dispatching	53
	Information	443
	Advertising	100
1,384	Maintenance,Guarding,Testing	159
Service	Broadcasting	15
	Recreation	59
	Lodging, Hotels	26
	Leasing,Rentals	114
	Electricity,Gas,Water,Heat	11
	Telecommunications	10
	Restaurants	42
ansportation	n.Warehousing	433
	Others	9
	Various Merchandise	44
	Special Merchandise	128
	Motor Vehicles.Motor Vehicle Parts	69
480	Electrical Household Appliances, Information Machinery and Equipment	36
Retail	Furniture	11
	Drugs.Sundries	26
	Food,Beverages Textile.Textile Products.Clothing	68

3.Size

υ.	DIZE		
	Large Firms	1,914	19.2%
	Small to Medium-sized Firms	8,063	80.8%
	micro Firms	2,713	27.2%
	Total	9,977	100.0%

2.Research Items

*Business Confidence (current, in 3 months, in 6 months, in 1 year) *Business Conditions (sales, purchasing and selling unit price, inventory, capacity utilization ratio, number of employees, overtime work hours)

3. Research Period and Methodology

Internet-based survey conducted June $17 - 31\ 2019$

The explanation of the Economic Diffusion Index

Research Purpose/Researched Terms

TDB Economic Trend Research (started from May 2002) is a monthly statistical survey conducted for over 20,000 nationwide corporations on their general business activities including the current condition and future outlook of the industry business performance and operating climate. The primary purpose of such a survey is to assess the current state of Japan's economy.

Selection of the Subject Corporations

Companies of all sizes in all domestic industries are eligible to participate in the survey.

DI Calculation

The DI (Diffusion Index) is calculated by multiplying the number of responses for each assessment category by the number given in parentheses in the table below, to a seven-level assessment rated by companies.

Selection category	Extremely good	good	fairly good	neither good nor bad	fairly bad	bad	very bad
points	6	5	4	3	2	1	0
number of responses for each category	N ₆	N_5	N ₄	N ₃	N ₂	N ₁	N ₀

Economic DI

 $=\frac{\text{Total of (Points for each category \times Number of responses for each category)}}{\text{Number of valid responses}N} \times \frac{1}{6} \times 100$

$$= \frac{\sum_{i=0}^{6} i \times N_i}{N} \times \frac{1}{6} \times 100$$

An economic DI of 50 is <u>the point separating good and bad</u>, so a DI over 50 means "good," and below 50 means "bad." (The numbers are rounded off to one decimal place.) No weight is given according to a company's size, and calculations are made on the basis of "one company, one vote."

Size Classification

Industry	Large Firms	Small to Medium-Sized Firms (Micro Firms included)	Micro Firms
Manufacturing and	Capital: More than 300 million yen	Capital: Below 300 million yen	
Other Industries*	and	or	No. of Employee: Below 20
	No. of Employee: Over 300	No. of Employee: Below 300	
Wholesale Trade	Capital: More than 100 million yen	Capital: Below 100 million yen	
	and	or	No. of Employee: Below 5
	No. of Employee: Over 100	No. of Employee: Below 100	
Retail Trade	Capital: More than 50 million yen	Capital: Below 50 million yen	
	and	or	No. of Employee: Below 5
	No. of Employee: Over 50	No. of Employee: Below 50	
Service**	Capital: More than 50 million yen	Capital: Below 50 million yen	
	and or		No. of Employee: Below 5
	No. of Employee: Over 100	No. of Employee: Below 100	

Note1: Large Firms refer to companies that rank in the top 3% in terms of sales volume according to the type of business, among small to midium-sized corporations excluding micro firms, which are defined in Small and Medium Enterprises Basic Act.

Note2: Small to Medium-Sized Firms refer to companies that rank in the bottom 50% in terms of sales volume according to the type of business, among those not categorized as small to midium-sized corporations in Small to Medium-Sized Enterprises Basic Act.