TDB Trends Research (Research & Summary for May 2020)

Decline in production activities continued in domestic economy

 \sim Rapid economic contraction has come to a halt, but global economic outlook is a cause for concern \sim

(Companies researched: 23,675; Valid responses: 11,979; Response rate: 50.6%; Survey start date: May 2002)

< Overview of March 2020: Recession phase >

The economic diffusion index (DI) in May 2020 was 25.2, down 0.6 points from the previous month, worsening for the eighth consecutive month. Rapid contraction of the domestic economy came to a halt, but production activities continued to decline.

< Future outlook: Recession continues >

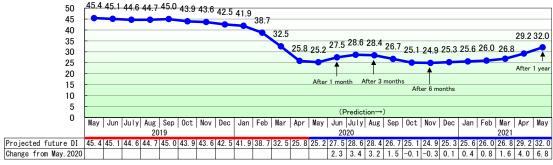
The recessionary trend is expected to temporarily stop, while there are domestic and foreign matters of concern.

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By industry: Five of the ten industries deteriorated. Lowest-ever economic DI was recorded in seven business categories.

By size: Decline in all sizes for the eighth consecutive month, while creating new demands.

By region: Nine of the ten regions, and 33 prefectures deteriorated, with the impact of reduced movement of people and goods.



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

Economic Diffusion Index (Economic DI)1/2

	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Ratio to tHM PrFDious Month
Total	45.4	45.1	44.6	44. 7	45.0	43.9	43.6	42.5	41.9	38. 7	32. 5	25.8	25. 2	▲ 0.6
Large Firms		48.7	47.7	47. 9	48.0	47. 1	47.0	45.7	45.3	42.0	34. 8	28. 2	28. 1	▲ 0.1
Small to Medium-sized Firms		44. 2	43.9	43.9	44. 2	43.2	42.8	41.7	41.1	38.0	32.0	25.3	24.6	▲ 0.7
Micro Firms	44. 5	44. 1	43.8	44. 2	45. 1	43.9	43.5	42.1	41.4	38.8	32. 3	25. 4	24. 6	▲ 0.8

		May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Ratio to tHM PrFDious Month
Agriculture,Forest	try,Fisheries	40.5	43.2	39. 1	41.5	41.8	42.3	42.5	41.7	38.4	37. 9	32.8	28.2	25. 1	▲ 3.1
Finance			44.8	45.1	44.7	45.8	45.4	46.8	44. 5	44.8	42. 2	33. 3	27.3	28. 7	1.4
Construction		51.7	51.6	51.7	52. 1	53. 1	52.1	52. 2	51.6	50.0	47.8	41.5	33.9	33. 5	▲ 0.4
Real Estate			48.3	47.4	46.5	48.0	45.9	46.0	44. 2	45.9	42.0	31.6	21.9	23.5	1. 6
	Food,BEWerages,Livestock Feed	41.3	40.3	40.4	41.1	39.8	39.1	39. 7	39.9	38.0	34. 5	28.4	24.8	24. 6	▲ 0.2
	Textile,Textile Products,Clothing	36.6	36.5	36.4	36. 9	36.3	36.1	34.6	32.6	30.5	29. 3	23. 2	16.7	17.7	1. 0
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	45. 4	43.5	43.8	45. 2	44. 1	44.8	43.8	40. 2	39. 9	37. 2	33. 4	29. 2	26. 5	▲ 2.7
	Pulp, Paper and Paper Products	43.0	41.7	39.6	42.3	42.8	40.2	41.7	40.6	37.3	32.0	29. 2	24.0	21.4	▲ 2.6
	Publishing, Printing	34. 3	33.9	32.5	33. 1	34. 1	33.0	32.7	32.9	30.9	29.7	23. 1	16.8	14. 4	▲ 2.4
Manufacturing	Chemical	43.9	42.5	41.9	41.8	41.0	41.2	40.6	40.1	39.0	35.8	32. 1	27.5	25.3	▲ 2.2
	Steel, Nonferrous Metals, Mining	42.9	41.8	41.5	41.2	40.4	39.8	38. 1	37.6	36.3	32. 9	29.0	23.6	21.5	▲ 2.1
	General Machinery	46.0	45.1	44.0	41.5	41.1	40.8	39. 9	38.4	37.3	35. 4	31.1	25.3	23.6	▲ 1.7
	Electrical Machinery	43. 1	43.0	42.8	43.9	41.2	42.2	40.5	40.4	41.0	38. 5	32. 7	27.6	26. 1	▲ 1.5
	Transportation Machinery, Equipment	48. 1	47.5	46.4	43.4	42.3	43.5	41.2	40.9	39.4	36. 5	34. 2	22.2	18. 2	▲ 4. (
	Precision Machinery, Medical Instruments and Equipment	44. 4	42.4	43.9	43. 4	42.0	41.3	42.0	39. 9	40.4	39. 0	34. 8	27. 2	26. 3	▲ 0.9
	Other	40.2	40.2	38.0	40.7	41.8	37.4	38. 4	38.0	36.9	36.8	31.1	20.7	19.8	▲ 0.9
	Total	42.9	42.0	41.5	41.4	40.6	40.3	39.6	38.6	37.6	34. 9	30.3	24.7	23.0	▲ 1.7
	Food,BEWerages	40.8	40.4	38.8	39.0	38.8	38. 1	37. 9	37.4	37.3	33. 1	25.6	21.3	21.0	▲ 0.3
	Textile, Textile Products, Clothing	33. 2	31.6	29.8	30.8	31.6	28.8	28.8	26.5	26.2	22.0	16.4	10.3	11.4	1. 1
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	44. 7	43.8	44.7	44. 6	46.0	45.1	43. 4	43. 1	42.8	38. 5	34. 4	27.9	27. 7	▲ 0.2
Wholesale	Paper Products, Stationery, Books	39.0	36.4	37.0	37. 1	38.0	37.7	36. 3	35.0	34.9	33. 5	27.5	22.0	19. 1	▲ 2.9
	Chemical	41.8	41.2	42.7	42.0	42.7	41.0	40.4	39.0	38.7	35. 5	33. 2	28.9	27.4	▲ 1.8
	Recycled Resources	40.2	37.1	32.8	32.8	30.6	34.8	29.0	33.3	30.8	27. 1	21.2	18.7	18.8	0. 1
	Steel, Nonferrous Metals, Mining Products	40.8	40.4	39.0	38.8	37. 6	38.0	37. 0	34. 8	33. 9	31. 9	27.8	23. 2	22.8	▲ 0.4
	Machinery, Equipment	44. 2	44. 4	43.8	43.3	44.6	42.7	42.3	41.7	41.2	38.2	33.0	25.9	25. 1	▲ 0.8
	Other	40.6	40.6	40.2	40.2	40.7	37. 9	37.6	37. 1	36. 7	31.5	26.5	21.4	19.8	▲ 1.6
	Total	41.9	41.4	41.0	40.8	41.4	39. 9	39.3	38.4	37. 9	34. 4	29.4	23.7	23.0	▲ 0.7

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TDB Trends Research May 2020

Economic Diffusion Index (Economic DI)2/2

		May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Ratio to tHM PrFDious Month
	Food,BEWerages	44. 8	42.9	41.5	41.3	41.8	40.5	40.2	38. 4	39. 1	36.7	25.8	26.3	27. 4	1.1
	Textile, Textile Products, Clothing	36. 9	36.6	34.6	36.5	37. 9	32.7	31.5	28.7	28.0	24.2	16.2	11.4	8.8	▲ 2.6
	Drugs,Sundries	41.0	38. 5	40.0	37.7	40.6	35.8	37.3	40.2	37. 7	34.7	27.5	28.7	25. 3	▲ 3.4
	Furniture	39. 6	48.5	40.9	45.0	53.0	33.3	26.9	31.8	31.9	29.2	22.6	10.8	15.5	4.7
Retail	Electrical Household Appliances, Information Machinery and Equipment	39. 1	43. 5	34. 3	38. 9	45. 0	34. 3	32. 3	38. 1	38. 2	36.0	28. 4	19. 3	21. 9	2.6
	Motor Vehicles, Motor Vehicle Parts	41.5	42.5	39.2	41.1	41.4	34.5	31.4	31.9	36.7	32.9	27.9	17.0	15.8	▲ 1.2
	Special Merchandise	41.3	41.1	40.6	40.7	43.5	38.2	39.1	36.0	35. 2	34.7	27.4	20.2	19.9	▲ 0.3
	Various Merchandise	43.8	44.7	39.3	38. 9	43. 1	36.5	36.5	36. 2	37. 4	34.4	29. 3	32.3	29. 9	▲ 2.4
	Other	39. 6	46.3	41.7	41.7	40.5	48.1	40.7	47.9	48. 1	43.9	31.8	26. 9	30.6	3.7
	Total	41.6	42.0	39.5	40.2	42.6	37.0	36.1	35.8	36. 3	34.1	26.7	21. 2	21. 1	▲ 0.1
Transportation	on,Warehousing	46.7	45.6	44.5	45.5	46.0	44.9	45.1	42.6	39. 5	34.0	27.7	22.4	22. 7	0.3
	Restaurants	40.6	42.9	39.6	38. 1	43.6	37.3	39.4	40.7	41.0	32.3	14.2	4.3	5. 5	1.2
	Postal, Telecommunications	56. 7	60.0	58.3	60.6	56. 9	56.1	59.5	52.8	64.6	57.1	50.0	30.3	33. 3	3.0
	Electricity,Gas,Water,Heat	55. 6	54. 5	54.2	52.6	51.3	51.2	52.2	47.4	52.4	46.7	40.5	28.4	32. 4	4.0
	Leasing,Rentals	50.9	52. 5	51.8	51.7	53.5	54.5	53.1	50.4	50.8	46.9	34.0	27.8	29. 1	1.3
	Lodging, Hotels	50.0	44. 9	40.3	39.9	47. 2	41.3	42.0	39. 1	38. 5	23.2	7.0	1.5	2. 9	1.4
	Recreation	42.0	41.5	41.8	40.9	38. 7	38. 2	40.7	37.5	39. 4	35.7	17.0	5. 6	9.3	3.7
	Broadcasting	44. 1	43.3	41.1	45.2	43. 1	42.9	41.7	38. 2	38. 1	38.9	29.8	22.9	22.5	▲ 0.4
Service	Maintenance, Guarding, Testing	48. 2	48.8	49.3	49.8	48.6	49.1	47.3	46.6	46. 4	42.6	36.0	27.5	26.6	▲ 0.9
	Advertising	40.5	40.7	40.4	38.9	40.3	40.4	39.6	37.8	40.0	34.1	21.3	11.3	10.7	▲ 0.6
	Information	58.0	57.8	58.5	58.7	57.7	57.4	57.8	56. 2	56. 5	54.2	43.9	33. 7	34.0	0.3
	Labor Dispatching	53. 9	52.8	52.7	51.0	53. 2	53.3	50.9	46.2	49.2	42.5	34. 1	21.0	20.0	▲ 1.0
	Special Services	49.5	50.1	49.9	51.1	51.8	51.5	50.8	49.9	50.3	45.8	40.4	31.4	32. 2	0.8
	Medical, Welfare, Public Health	47.8	47.0	48.7	46.5	47. 3	46.5	48.5	47.7	47.8	43.2	35. 9	26. 4	26. 1	▲ 0.3
	Education	43.6	44.0	41.1	39.5	40.0	42.4	37.8	43.1	41.4	40.0	29.7	13.9	18.8	4.9
	Other	47. 9	48.5	47.9	48.3	48.4	47.9	47.9	45.6	46.2	39.8	29. 2	21.2	21.8	0.6
	Total	50.6	50.8	50.8	50.7	51.0	50.6	50.4	48.8	49.5	45.1	35.3	25.8	26. 1	0.3
Other		43. 2	42.6	44.1	43.2	42. 1	43.1	40.4	41.7	42.7	39.2	29.8	24.4	26. 2	1.8

	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Ratio to tHM PrFDious Month
Hokkaido	45.3	45. 1	45.7	46.4	46.6	45.7	45.0	43.8	42.4	39.0	31.0	28. 4	27.5	▲ 0.9
Tohoku	42.2	41.9	41.7	41.7	43.2	41.9	42.2	40.9	38.8	36.7	30.7	26.0	25.3	▲ 0.7
kitakanto	43. 1	42.5	42.5	42.6	42.2	40.9	40.0	40.0	39.4	36. 9	31.8	25.8	24.5	▲ 1.3
minamikanto	46.0	46.0	45.5	45.7	46.1	45.5	45.5	44.3	44.5	41.1	34. 1	26.3	25.5	▲ 0.8
Hokuriku	44.6	44. 2	43.5	44.1	43.5	42.1	40.4	39.5	37.6	35.6	29.7	24.9	25. 1	0. 2
Tokai	46.8	45.8	44.7	45.0	45.2	43.6	42.7	41.8	40.6	37. 3	31.4	23.7	23. 4	▲ 0.3
Kinki	45.0	44.6	44.0	43.8	43.9	42. 2	41.9	40.5	39.8	36.3	30.4	23.9	23.8	▲ 0.1
Chugoku	45.6	45.5	45.0	44.8	45.0	44.0	43.6	42.6	41.2	39.0	33.8	27.0	25.7	▲ 1.3
Shikoku	46.7	44.8	43. 1	43.8	43.9	44.4	44. 0	43.8	42.7	39. 5	36. 4	30.8	28.5	▲ 2.3
Kyushu	46.9	47.0	47.6	46.3	47.1	46.5	46.8	45. 1	45.2	41.5	35. 3	27.5	27.4	▲ 0.1

Appendix

1.Research Subjects(Companies researched: 23,675; Valid responses: 11,979; Response rate: 50.6%)

Appendix

1.Region

Hokkaido	596	Tokai	1,341
Tohoku	823	Kinki	2,010
kitaKanto	926	Chugoku	655
minamikanto	3,696	Shikoku	364
Hokuriku	665	Kyushu	903
		Total	11,979

2.Industry (10 Industries 51 Lines of business)

Agriculture,For	estry, Fisheries	68
Finance		133
Construction		1,974
Real Estate		384
	Food,Beverages,Livestock Feed	396
	Textile,Textile Products,Clothing	133
Manufacturing (3,280)	Construction Materials, Furniture, Ceramics, Stone and Clay Products	250
	Pulp, Paper and Paper Products	115
	Publishing, Printing	208
	Chemical	452
	Steel, Nonferrous Metals, Mining	573
	General Machinery	510
	Electrical Machinery	360
	Transportation Machinery, Equipment	110
	Precision Machinery, Medical Instruments and Equipment	88
	Others	98
	Food, Beverages	426
	Textile,Textile Products,Clothing	210
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	368
Wholesale	Paper Products, Stationery, Books	111
(3,171)	Chemical	28'
	Recycled Resources	40
	Steel, Nonferrous Metals, Mining Products	338
	Machinery, Equipment	1,012
	Others	385

	Textile, Textile Products, Clothing	210	(1,906)	Maintenance,Guarding,Testing
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	365		Advertising
ale	Paper Products,Stationery,Books	111		Information
,171)	Chemical	287		Labor Dispatching
	Recycled Resources	40		Special Services
	Steel, Nonferrous Metals, Mining Products	335		Medical,Welfare,Public Health
	Machinery, Equipment	1,012		Education
	Others	385		Others
			Others	
				m . 1

ood,Beverages

Drugs,Sundries

Special Merchandise

Various Merchandise

elecommunications

Lodging, Hotels

ecreation

Electricity,Gas,Water,Heat Leasing,Rentals

Retail

Service

Transportation, Warehousing

Textile, Textile Products, Clothing

Motor Vehicles, Motor Vehicle Parts

Electrical Household Appliances, Information Machinery and Equipment

34

27

45

96

158

48

12 508

55

18

134

34 63

17

3.Size

Large Firms	2,143	17.9%
Small to Medium-sized Firms	9,836	82.1%
micro Firms	3,509	29.3%
Total	11,979	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 May 18 – 31 2020

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

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

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

An economic DI of 50 is **the point separating good and bad**, 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 Other Industries*	Capital: More than 300 million yen and No. of Employee: Over 300	Capital: Below 300 million yen or No. of Employee: Below 300	No. of Employee: Below 20
Wholesale Trade	Capital: More than 100 million yen and No. of Employee: Over 100	Capital: Below 100 million yen or No. of Employee: Below 100	No. of Employee: Below 5
Retail Trade	Capital: More than 50 million yen and No. of Employee: Over 50	Capital: Below 50 million yen or No. of Employee: Below 50	No. of Employee: Below 5
Service**	Capital: More than 50 million yen and No. of Employee: Over 100	Capital: Below 50 million yen or No. of Employee: Below 100	No. of Employee: Below 5

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.