TDB Trends Research (Research & Summary for February 2020)

COVID-19 significantly holding down the domestic economy

 \sim Nationwide worsening with the movement of people and goods stagnating \sim

(Companies researched: 23,668; Valid responses: 10,704; Response rate: 45.2%; Survey start date: May 2002)

< Overview of February 2020: Recession phase >

The economic diffusion index (DI) in February 2020 was 38.7, down 3.2 points from the previous month, worsening for the fifth consecutive month, and below 40 for the first time in seven years. Amid a continuing recession phase, the domestic economic situation deteriorated markedly, with the additional impact of COVID-19.

< Future outlook: Moderate recession continues >

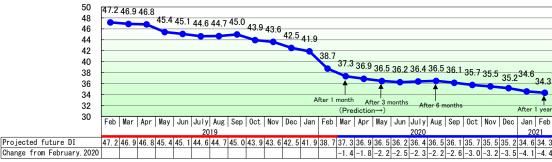
Due to a number of risk factors, including COVID-19, a moderate recession is expected to continue in the domestic economy.

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By industry: All ten industries deteriorated. The impact of COVID-19 rippled through various industries.

By size: All sizes deteriorated for the fifth month in a row, with a drop of over 2 points across the board due to COVID-19.

By region: Nationwide worsening with the movement of people and goods stagnating in 45 prefectures in all ten regions.



*: 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

	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb·20	Ratio to tHJ PrFDious Month
Total	47. 2	46.9	46.8	45. 4	45. 1	44.6	44.7	45.0	43.9	43.6	42.5	41.9	38. 7	▲ 3.2
Large Firms	49.8	49.8	49.7	48.8	48.7	47.7	47. 9	48.0	47.1	47.0	45. 7	45.3	42.0	▲ 3.3
Small to Medium-sized Firms	46.5	46.2	46.1	44. 6	44. 2	43.9	43.9	44.2	43.2	42.8	41.7	41.1	38.0	▲ 3.1
Micro Firms	46. 5	46.3	46. 2	44. 5	44. 1	43.8	44. 2	45. 1	43.9	43. 5	42. 1	41.4	38.8	▲ 2.6

		Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Ratio to tHJ PrFDious Month
Agriculture,Forestry,Fisheries		41.7	42.3	41.3	40.5	43. 2	39. 1	41.5	41.8	42.3	42.5	41.7	38. 4	37. 9	▲ 0.5
Finance		45. 2	45.9	45.1	44.7	44.8	45.1	44.7	45.8	45.4	46.8	44. 5	44.8	42. 2	▲ 2.6
Construction		53.6	53.6	52.8	51.7	51.6	51.7	52. 1	53. 1	52. 1	52. 2	51.6	50.0	47.8	▲ 2.2
Real Estate		47.5	47.4	48.7	47.6	48.3	47.4	46.5	48.0	45.9	46.0	44. 2	45.9	42.0	▲ 3.9
	Food,BEWerages,Livestock Feed	40.6	40.6	42.2	41.3	40.3	40.4	41.1	39.8	39.1	39. 7	39. 9	38.0	34. 5	▲ 3.5
	Textile, Textile Products, Clothing	38.8	39.2	39.0	36.6	36.5	36.4	36. 9	36.3	36.1	34. 6	32.6	30.5	29. 3	▲ 1.2
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	45. 5	44.1	45.7	45. 4	43.5	43.8	45. 2	44. 1	44.8	43.8	40. 2	39. 9	37. 2	▲ 2.7
	Pulp, Paper and Paper Products	45.2	44.1	45.7	43.0	41.7	39.6	42.3	42.8	40.2	41.7	40.6	37.3	32.0	▲ 5.3
	Publishing, Printing	33. 2	34.4	35.6	34.3	33. 9	32.5	33. 1	34.1	33.0	32. 7	32. 9	30.9	29. 7	▲ 1.2
Manufacturing	Chemical	46.3	45.4	46.2	43.9	42.5	41.9	41.8	41.0	41.2	40.6	40.1	39.0	35.8	▲ 3.2
	Steel, Nonferrous Metals, Mining	48.0	45.4	45.5	42.9	41.8	41.5	41.2	40.4	39.8	38. 1	37. 6	36.3	32. 9	▲ 3.4
	General Machinery	51.4	48.9	49.0	46.0	45.1	44.0	41.5	41.1	40.8	39. 9	38. 4	37.3	35. 4	▲ 1.9
	Electrical Machinery	47.6	46.0	44.7	43.1	43.0	42.8	43.9	41.2	42.2	40.5	40.4	41.0	38. 5	▲ 2.5
	Transportation Machinery, Equipment	50.9	49.3	49.4	48. 1	47.5	46.4	43.4	42.3	43.5	41.2	40.9	39.4	36. 5	▲ 2.9
	Precision Machinery, Medical Instruments and Equipment	48. 6	45.5	47.3	44. 4	42. 4	43.9	43. 4	42.0	41.3	42. 0	39. 9	40. 4	39. 0	▲ 1.4
	Other	42. 1	45.3	40.2	40.2	40.2	38.0	40.7	41.8	37.4	38. 4	38. 0	36.9	36.8	▲ 0.1
	Total	45.8	44.5	44.8	42.9	42.0	41.5	41.4	40.6	40.3	39. 6	38. 6	37.6	34. 9	▲ 2.7
	Food,BEWerages	40.5	40.5	41.1	40.8	40.4	38.8	39.0	38.8	38. 1	37. 9	37. 4	37.3	33. 1	▲ 4.2
	Textile,Textile Products,Clothing	32.0	33.6	33.2	33. 2	31.6	29.8	30.8	31.6	28.8	28.8	26. 5	26.2	22.0	▲ 4.2
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	46. 5	46. 4	45.6	44. 7	43.8	44.7	44. 6	46.0	45. 1	43. 4	43. 1	42.8	38. 5	▲ 4.3
Wholesale	Paper Products, Stationery, Books	36.0	39.0	39.2	39.0	36. 4	37.0	37. 1	38.0	37.7	36. 3	35.0	34.9	33. 5	▲ 1.4
	Chemical	44. 3	44.3	44.2	41.8	41.2	42.7	42.0	42.7	41.0	40.4	39.0	38.7	35. 5	▲ 3.2
	Recycled Resources	45.6	48.6	41.0	40.2	37. 1	32.8	32.8	30.6	34.8	29.0	33. 3	30.8	27. 1	▲ 3.7
	Steel, Nonferrous Metals, Mining Products	45. 0	43. 7	43. 4	40.8	40. 4	39. 0	38. 8	37. 6	38.0	37.0	34. 8	33. 9	31.9	▲ 2.0
	Machinery, Equipment	46.9	46.5	45.9	44.2	44. 4	43.8	43.3	44.6	42.7	42.3	41.7	41.2	38.2	▲ 3.0
	Other	41.2	42.5	42.7	40.6	40.6	40.2	40.2	40.7	37. 9	37.6	37.1	36. 7	31.5	▲ 5.2
	Total	43.6	43.7	43.3	41.9	41.4	41.0	40.8	41.4	39. 9	39. 3	38.4	37. 9	34. 4	▲ 3.5

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Economic Diffusion Index (Economic DI)2/2

		Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Ratio to tHJ PrFDious Month
	Food,BEWerages	41.5	42.5	42.5	44.8	42.9	41.5	41.3	41.8	40.5	40.2	38. 4	39.1	36. 7	▲ 2.4
	Textile,Textile Products,Clothing	32. 7	38. 9	39.1	36. 9	36.6	34.6	36.5	37.9	32. 7	31.5	28.7	28.0	24. 2	▲ 3.8
	Drugs,Sundries	39. 7	39. 7	40.9	41.0	38. 5	40.0	37.7	40.6	35.8	37.3	40.2	37.7	34. 7	▲ 3.0
	Furniture	33. 3	33. 3	38.9	39.6	48.5	40.9	45.0	53.0	33. 3	26.9	31.8	31.9	29. 2	▲ 2.7
Retail	Electrical Household Appliances, Information Machinery and Equipment	40. 7	38. 9	41.7	39. 1	43. 5	34. 3	38. 9	45.0	34. 3	32. 3	38. 1	38. 2	36. 0	▲ 2.2
	Motor Vehicles, Motor Vehicle Parts	44. 3	45. 2	43.3	41.5	42.5	39. 2	41.1	41.4	34. 5	31.4	31.9	36.7	32. 9	▲ 3.8
	Special Merchandise	41.3	40.8	42.1	41.3	41.1	40.6	40.7	43.5	38. 2	39.1	36.0	35. 2	34. 7	▲ 0.5
	Various Merchandise	41.9	43.5	43.3	43.8	44.7	39.3	38.9	43.1	36. 5	36.5	36. 2	37.4	34. 4	▲ 3.0
	Other	31.3	33. 3	43.8	39.6	46.3	41.7	41.7	40.5	48. 1	40.7	47.9	48.1	43.9	▲ 4.2
	Total	40.8	41.4	42.1	41.6	42.0	39.5	40.2	42.6	37.0	36. 1	35.8	36.3	34. 1	▲ 2.2
Transportatio	n,Warehousing	48. 2	48. 1	48.2	46.7	45.6	44.5	45.5	46.0	44. 9	45.1	42.6	39.5	34.0	▲ 5.5
	Restaurants	41.0	37.8	42.9	40.6	42. 9	39.6	38. 1	43.6	37. 3	39.4	40.7	41.0	32. 3	▲ 8.7
	Postal, Telecommunications	57. 6	62. 1	57.6	56.7	60.0	58.3	60.6	56. 9	56. 1	59.5	52.8	64.6	57. 1	▲ 7.5
	Electricity, Gas, Water, Heat	57. 4	56. 3	58.3	55.6	54. 5	54.2	52.6	51.3	51.2	52.2	47.4	52.4	46.7	▲ 5.7
	Leasing,Rentals	52.0	52.7	54.1	50.9	52. 5	51.8	51.7	53.5	54. 5	53.1	50.4	50.8	46.9	▲ 3.9
	Lodging, Hotels	44. 2	42.3	41.0	50.0	44. 9	40.3	39.9	47.2	41.3	42.0	39. 1	38. 5	23. 2	▲ 15.3
	Recreation	37.8	41.0	38.8	42.0	41.5	41.8	40.9	38. 7	38. 2	40.7	37.5	39.4	35.7	▲ 3.7
	Broadcasting	44. 4	43.3	41.7	44.1	43.3	41.1	45.2	43.1	42.9	41.7	38. 2	38. 1	38. 9	0.8
Service	Maintenance,Guarding,Testing	51.0	50.0	48.1	48.2	48.8	49.3	49.8	48.6	49. 1	47.3	46.6	46.4	42.6	▲ 3.8
	Advertising	40.1	40.3	40.7	40.5	40.7	40.4	38.9	40.3	40.4	39.6	37.8	40.0	34. 1	▲ 5.9
	Information	59.0	60.3	59.6	58.0	57.8	58.5	58.7	57.7	57.4	57.8	56.2	56.5	54. 2	▲ 2.3
	Labor Dispatching	54.6	53.8	53.5	53.9	52.8	52.7	51.0	53.2	53.3	50.9	46.2	49.2	42.5	▲ 6.7
	Special Services	52.8	52.5	51.5	49.5	50.1	49.9	51.1	51.8	51.5	50.8	49.9	50.3	45.8	▲ 4.5
	Medical, Welfare, Public Health	46.5	47.1	46.9	47.8	47.0	48.7	46.5	47.3	46.5	48.5	47.7	47.8	43.2	▲ 4.6
	Education	44.7	45.8	44.2	43.6	44.0	41.1	39.5	40.0	42.4	37.8	43.1	41.4	40.0	▲ 1.4
	Other	49.7	49.0	50.2	47.9	48.5	47.9	48.3	48.4	47. 9	47.9	45.6	46.2	39.8	▲ 6.4
Total		51.7	51.9	51.6	50.6	50.8	50.8	50.7	51.0	50.6	50.4	48.8	49.5	45.1	▲ 4.4
Other		48.3	45. 2	44.9	43.2	42.6	44. 1	43.2	42. 1	43. 1	40.4	41.7	42.7	39. 2	▲ 3.5

	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Ratio to tHJ PrFDious Month
Hokkaido	44. 4	44.6	45.5	45.3	45. 1	45.7	46.4	46.6	45.7	45.0	43.8	42.4	39.0	▲ 3.4
Tohoku	43. 1	42.8	43.1	42.2	41.9	41.7	41.7	43.2	41.9	42.2	40.9	38.8	36.7	▲ 2.1
kitakanto	44.8	44.7	44.3	43. 1	42.5	42.5	42.6	42.2	40.9	40.0	40.0	39.4	36.9	▲ 2.5
minamikanto	48.1	47.8	47.7	46.0	46.0	45.5	45.7	46.1	45.5	45.5	44. 3	44.5	41.1	▲ 3.4
Hokuriku	46.3	45.3	45.3	44.6	44. 2	43.5	44. 1	43.5	42.1	40.4	39.5	37.6	35. 6	▲ 2.0
Tokai	48.6	48.4	48.0	46.8	45.8	44.7	45.0	45.2	43.6	42.7	41.8	40.6	37. 3	▲ 3.3
Kinki	47.6	47.3	46.9	45.0	44.6	44.0	43.8	43.9	42.2	41.9	40.5	39.8	36. 3	▲ 3.5
Chugoku	47. 2	46.7	47.2	45.6	45.5	45.0	44.8	45.0	44.0	43.6	42.6	41. 2	39. 0	▲ 2.2
Shikoku	47.6	46.8	46.9	46.7	44.8	43.1	43.8	43.9	44.4	44.0	43.8	42.7	39.5	▲ 3.2
Kyushu	48. 5	48.6	48. 3	46. 9	47.0	47.6	46.3	47. 1	46.5	46.8	45. 1	45.2	41.5	▲ 3.7

Appendix

1.Research Subjects(Companies researched: 23,668; Valid responses: 10,704; Response rate: 45.2%)

Appendix

1.Region

Hokkaido	531	Tokai	1,212
Tohoku	717	Kinki	1,800
kitaKanto	779	Chugoku	596
minamikanto	3,399	Shikoku	315
Hokuriku	594	Kyushu	761
		Total	10,704

2.Industry (10 Industries 51 Lines of business)

Agriculture,For	estry, Fisheries	58
Finance		118
Construction		1,709
Real Estate		328
	Food,Beverages,Livestock Feed	338
	Textile, Textile Products, Clothing	112
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	230
	Pulp, Paper and Paper Products	101
	Publishing, Printing	166
Manufacturing	Chemical	405
(2,928)	Steel, Nonferrous Metals, Mining	514
	General Machinery	475
	Electrical Machinery	331
	Transportation Machinery, Equipment	105
	Precision Machinery, Medical Instruments and Equipment	70
	Others	81
	Food, Beverages	370
	Textile,Textile Products,Clothing	196
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	335
Wholesale	Paper Products, Stationery, Books	100
(2,903)	Chemical	283
	Recycled Resources	32
	Steel, Nonferrous Metals, Mining Products	316
	Machinery, Equipment	916
	Others	355

Rec	cycled Resources	32		Special Services	
Ste	eel,Nonferrous Metals,Mining Products	316		Medical,Welfare,Public Health	
Mac	chinery, Equipment	916		Education	
Oth	hers	355		Others	
			Others		
				Te	tol

$3.\underline{\mathrm{Size}}$

Large Firms	2,056	19.2%
Small to Medium-sized Firms	8,648	80.8%
micro Firms	2,962	27.7%
Total	10,704	100.0%

ood,Beverages

Drugs,Sundries

Special Merchandise

Various Merchandise

Electricity,Gas,Water,Heat Leasing,Rentals

Maintenance, Guarding, Testing

estaurants Telecommunications

Lodging, Hotels

Recreation

Advertising

Information

Labor Dispatching

Retail

Service

Transportation, Warehousing

Textile, Textile Products, Clothing

Motor Vehicles, Motor Vehicle Parts

Electrical Household Appliances, Information Machinery and Equipment

64 31

25

12

38 82

142

48

11 456

47

15

117

28 57

15

172

104 492

62

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 February 14 – 29 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

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

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

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.