TDB Trends Research (Research & Summary for March 2020)

Domestic Economy, biggest drop on record

 $\sim\,$ Declined to the level following the Great East Japan Earthquake.Growing uncertainty over the future $\,\sim\,$

(Companies researched: 23,676; Valid responses: 11,330; Response rate: 47.9%; Survey start date: May 2002)

< Overview of March 2020: Recession phase >

The economic diffusion index (DI) in March 2020 was 32.5, down by 6.2 points from the previous month, it has continued to worsen for the sixth consecutive month, and the largest drop on record. The domestic economy recorded its largest decline amid a recession phase, due to the widening impact of COVID-19.

< Future outlook: Recession continues >

With growing uncertainty about overseas trends and COVID-19, the recession is expected to continue.

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- By industry : Worsening in 51 business categories in all ten industries. Among these, 23 business categories recorded their largest drop.
- By size : The largest decline was recorded in all sizes. Stagnation of human resources, goods and capital held down business confidence.
- By region : Nationwide worsening in 47 prefectures in all ten regions. COVID-19 impact spread nationwide.



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

		Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Ratio to tHK PrFDious Month
	Total	46.9	46.8	45.4	45.1	44.6	44.7	45.0	43.9	43.6	42.5	41.9	38.7	32.5	▲ 6.2
	Large Firms	49.8	49.7	48.8	48.7	47.7	47.9	48.0	47.1	47.0	45.7	45.3	42.0	34.8	▲ 7.2
Sma	ll to Medium-sized Firms	46.2	46.1	44.6	44.2	43.9	43.9	44.2	43.2	42.8	41.7	41.1	38.0	32.0	▲ 6.0
	Micro Firms	46.3	46.2	44.5	44.1	43.8	44.2	45.1	43.9	43.5	42.1	41.4	38.8	32.3	▲ 6.5
		Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Ratio to tHK PrFDious Month
Agriculture,Forest	try,Fisheries	42.3	41.3	40.5	43.2	39.1	41.5	41.8	42.3	42.5	41.7	38.4	37.9	32.8	▲ 5.1
Finance		45.9	45.1	44.7	44.8	45.1	44.7	45.8	45.4	46.8	44.5	44.8	42.2	33.3	▲ 8.9
Construction		53.6	52.8	51.7	51.6	51.7	52.1	53.1	52.1	52.2	51.6	50.0	47.8	41.5	▲ 6.3
Real Estate		47.4	48.7	47.6	48.3	47.4	46.5	48.0	45.9	46.0	44.2	45.9	42.0	31.6	▲ 10.4
	Food,BEWerages,Livestock Feed	40.6	42.2	41.3	40.3	40.4	41.1	39.8	39.1	39.7	39.9	38.0	34.5	28.4	▲ 6.1
	Textile, Textile Products, Clothing	39.2	39.0	36.6	36.5	36.4	36.9	36.3	36.1	34.6	32.6	30.5	29.3	23.2	▲ 0.1
	Construction Materials,Furniture, Ceramics,Stone and Clay Products	44.1	45.7	45.4	43.5	43.8	45.2	44.1	44.8	43.8	40.2	39.9	37.2	33. 4	▲ 3.8
	Pulp, Paper and Paper Products	44.1	45.7	43.0	41.7	39.6	42.3	42.8	40.2	41.7	40.6	37.3	32.0	29.2	▲ 2.8
	Publishing, Printing	34.4	35.6	34.3	33.9	32.5	33.1	34.1	33.0	32.7	32.9	30.9	29.7	23.1	▲ 6.0
Manufacturing	Chemical	45.4	46.2	43.9	42.5	41.9	41.8	41.0	41.2	40.6	40.1	39.0	35.8	32.1	▲ 3. ⁷
	Steel,Nonferrous Metals,Mining	45.4	45.5	42.9	41.8	41.5	41.2	40.4	39.8	38.1	37.6	36.3	32.9	29.0	▲ 3.9
	General Machinery	48.9	49.0	46.0	45.1	44.0	41.5	41.1	40.8	39.9	38.4	37.3	35.4	31.1	▲ 4.3
	Electrical Machinery	46.0	44.7	43.1	43.0	42.8	43.9	41.2	42.2	40.5	40.4	41.0	38.5	32.7	▲ 5.8
	Transportation Machinery, Equipment	49.3	49.4	48.1	47.5	46.4	43.4	42.3	43.5	41.2	40.9	39.4	36.5	34.2	▲ 2.3
	Precision Machinery, Medical Instruments and Equipment	45.5	47.3	44.4	42.4	43.9	43.4	42.0	41.3	42.0	39.9	40.4	39.0	34.8	▲ 4.1
	Other	45.3	40.2	40.2	40.2	38.0	40.7	41.8	37.4	38.4	38.0	36.9	36.8	31.1	▲ 5. ′
	Total	44.5	44.8	42.9	42.0	41.5	41.4	40.6	40.3	39.6	38.6	37.6	34.9	30.3	▲ 4.0
	Food,BEWerages	40.5	41.1	40.8	40.4	38.8	39.0	38.8	38.1	37.9	37.4	37.3	33.1	25.6	▲ 7.
	Textile, Textile Products, Clothing	33.6	33.2	33.2	31.6	29.8	30.8	31.6	28.8	28.8	26.5	26.2	22.0	16.4	▲ 5.0
	Construction Materials, Furniture,Ceramics, Stone and Clay Products	46.4	45.6	44.7	43.8	44.7	44.6	46.0	45.1	43.4	43.1	42.8	38.5	34.4	▲ 4.
Wholesale	Paper Products, Stationery, Books	39.0	39.2	39.0	36.4	37.0	37.1	38.0	37.7	36.3	35.0	34.9	33.5	27.5	▲ 6.0
	Chemical	44.3	44.2	41.8	41.2	42.7	42.0	42.7	41.0	40.4	39.0	38.7	35.5	33.2	▲ 2.3
	Recycled Resources	48.6	41.0	40.2	37.1	32.8	32.8	30.6	34.8	29.0	33.3	30.8	27.1	21.2	▲ 5.
	Steel,Nonferrous Metals, Mining Products	43.7	43.4	40.8	40.4	39.0	38.8	37.6	38.0	37.0	34.8	33.9	31.9	27.8	▲ 4.
	Machinery, Equipment	46.5	45.9	44.2	44.4	43.8	43.3	44.6	42.7	42.3	41.7	41.2	38.2	33.0	▲ 5.
	Other	42.5	42.7	40.6	40.6	40.2	40.2	40.7	37.9	37.6	37.1	36.7	31.5	26.5	▲ 5.
	Total	43.7	43.3	41.9	41.4	41.0	40.8	41.4	39.9	39.3	38.4	37.9	34.4	29.4	▲ 5.

Economic Diffusion Index (Economic DI)1/2

LICOHO	mic Diffusion much		100		JII (1/4								
		Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Ratio to tHK PrFDious Month
	Food,BEWerages	42.5	42.5	44.8	42.9	41.5	41.3	41.8	40.5	40.2	38.4	39.1	36.7	25.8	▲ 10.9
	Textile, Textile Products, Clothing	38.9	39.1	36.9	36.6	34.6	36.5	37.9	32.7	31.5	28.7	28.0	24.2	16.2	▲ 8.0
	Drugs,Sundries	39.7	40.9	41.0	38.5	40.0	37.7	40.6	35.8	37.3	40.2	37.7	34.7	27.5	▲ 7.1
	Furniture	33.3	38.9	39.6	48.5	40.9	45.0	53.0	33.3	26.9	31.8	31.9	29.2	22.6	▲ 6.0
Retail	Electrical Household Appliances, Information Machinery and Equipment	38.9	41.7	39.1	43.5	34.3	38.9	45.0	34.3	32.3	38.1	38.2	36.0	28.4	▲ 7.6
	Motor Vehicles, Motor Vehicle Parts	45.2	43.3	41.5	42.5	39.2	41.1	41.4	34.5	31.4	31.9	36.7	32.9	27.9	▲ 5.
	Special Merchandise	40.8	42.1	41.3	41.1	40.6	40.7	43.5	38.2	39.1	36.0	35.2	34.7	27.4	▲ 7.
	Various Merchandise	43.5	43.3	43.8	44.7	39.3	38.9	43.1	36.5	36.5	36.2	37.4	34.4	29.3	▲ 5.
	Other	33.3	43.8	39.6	46.3	41.7	41.7	40.5	48.1	40.7	47.9	48.1	43.9	31.8	▲ 12.
	Total	41.4	42.1	41.6	42.0	39.5	40.2	42.6	37.0	36.1	35.8	36.3	34.1	26.7	▲ 7.
Transportatio	on,Warehousing	48.1	48.2	46.7	45.6	44.5	45.5	46.0	44.9	45.1	42.6	39.5	34.0	27.7	▲ 6.3
	Restaurants	37.8	42.9	40.6	42.9	39.6	38.1	43.6	37.3	39.4	40.7	41.0	32.3	14.2	▲ 18.
	Postal, Telecommunications	62.1	57.6	56.7	60.0	58.3	60.6	56.9	56.1	59.5	52.8	64.6	57.1	50.0	▲ 7.
	Electricity,Gas,Water,Heat	56.3	58.3	55.6	54.5	54.2	52.6	51.3	51.2	52.2	47.4	52.4	46.7	40.5	▲ 6.
	Leasing,Rentals	52.7	54.1	50.9	52.5	51.8	51.7	53.5	54.5	53.1	50.4	50.8	46.9	34.0	▲ 12.
	Lodging, Hotels	42.3	41.0	50.0	44.9	40.3	39.9	47.2	41.3	42.0	39.1	38.5	23.2	7.0	▲ 16.
	Recreation	41.0	38.8	42.0	41.5	41.8	40.9	38.7	38.2	40.7	37.5	39.4	35.7	17.0	▲ 18.
	Broadcasting	43.3	41.7	44.1	43.3	41.1	45.2	43.1	42.9	41.7	38.2	38.1	38.9	29.8	▲ 9.
Service	Maintenance,Guarding,Testing	50.0	48.1	48.2	48.8	49.3	49.8	48.6	49.1	47.3	46.6	46.4	42.6	36.0	▲ 6.
	Advertising	40.3	40.7	40.5	40.7	40.4	38.9	40.3	40.4	39.6	37.8	40.0	34.1	21.3	▲ 12.
	Information	60.3	59.6	58.0	57.8	58.5	58.7	57.7	57.4	57.8	56.2	56.5	54.2	43.9	▲ 10.
	Labor Dispatching	53.8	53.5	53.9	52.8	52.7	51.0	53.2	53.3	50.9	46.2	49.2	42.5	34.1	▲ 8.
	Special Services	52.5	51.5	49.5	50.1	49.9	51.1	51.8	51.5	50.8	49.9	50.3	45.8	40.4	▲ 5.
	Medical,Welfare,Public Health	47.1	46.9	47.8	47.0	48.7	46.5	47.3	46.5	48.5	47.7	47.8	43.2	35.9	▲ 7.3
	Education	45.8	44.2	43.6	44.0	41.1	39.5	40.0	42.4	37.8	43.1	41.4	40.0	29.7	▲ 10.
	Other	49.0	50.2	47.9	48.5	47.9	48.3	48.4	47.9	47.9	45.6	46.2	39.8	29.2	▲ 10.
	Total	51.9	51.6	50.6	50.8	50.8	50.7	51.0	50.6	50.4	48.8	49.5	45.1	35.3	▲ 9.3
Other		45.2	44.9	43.2	42.6	44.1	43.2	42.1	43.1	40.4	41.7	42.7	39.2	29.8	▲ 9.4
		Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Ratio to tHK PrFDious Month
	Hokkaido	44.6	45.5	45.3	45.1	45.7	46.4	46.6	45.7	45.0	43.8	42.4	39.0	31.0	▲ 8.
Tohoku		42.8	43.1	42.2	41.9	41.7	41.7	43.2	41.9	42.2	40.9	38.8	36.7	30.7	▲ 6.
	kitakanto	44.7	44.3	43.1	42.5	42.5	42.6	42.2	40.9	40.0	40.0	39.4	36.9	31.8	▲ 5.
	minamikanto	47.8	47.7	46.0	46.0	45.5	45.7	46.1	45.5	45.5	44.3	44.5	41.1	34.1	▲ 7.
	Hokuriku	45.3	45.3	44.6	44.2	43.5	44.1	43.5	42.1	40.4	39.5	37.6	35.6	29.7	▲ 5.
	Tokai	48.4	48.0	46.8	45.8	44.7	45.0	45.2	43.6	42.7	41.8	40.6	37.3	31.4	▲ 5.
	Kinki	47.3	46.9	45.0	44.6	44.0	43.8	43.9	42.2	41.9	40.5	39.8	36.3	30.4	▲ 5.
	Chugoku	46.7	47.2	45.6	45.5	45.0	44.8	45.0	44.0	43.6	42.6	41.2	39.0	33.8	▲ 5.
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Economic Diffusion Index (Economic DI)2/2

Shikoku

Kyushu

▲ 3.1

▲ 6.2

44.

43.8 43.9

46 3 47

44.4 44.0

46.5 46.8

43.8 42.7

45.1 45.2

39.

41.5 35.3

36.4

46.8

48.6 48.3 46.9 47.0 47.

46.9 46.7

Appendix

1.Research Subjects(Companies researched: 23,676; Valid responses: 11,330; Response rate: 47.9%)

Appendix

1.Region

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Hokkaido	571	Tokai	1,273
Tohoku	763	Kinki	1,925
kitaKanto	831	Chugoku	610
minamikanto	3,574	Shikoku	335
Hokuriku	614	Kyushu	834
		Total	11,330

2.Industry (10 Industries 51 Lines of business)

Agriculture, Forestry, Fisheries		65		Food,Beverages		
inance		126		Textile, Textile Products, Clothing		
Construction		1,829		Drugs,Sundries		
eal Estate		361	Retail	Furniture		
	Food,Beverages,Livestock Feed	359	(467)	Electrical Household Appliances, Information Machinery and Equipment		
	Textile, Textile Products, Clothing	120		Motor Vehicles,Motor Vehicle Parts		
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	233		Special Merchandise		
	Pulp, Paper and Paper Products	109		Various Merchandise		
	Publishing, Printing	176		Others		
Ianufacturing	Chemical		Transportation,	Warehousing		
(3,108)	Steel,Nonferrous Metals,Mining	546		Restaurants		
	General Machinery	510		Telecommunications		
	Electrical Machinery	341		Electricity, Gas, Water, Heat		
	Transportation Machinery, Equipment	112		Leasing,Rentals		
	Precision Machinery, Medical Instruments and Equipment	80		Lodging, Hotels		
	Others	88		Recreation		
	Food,Beverages	393	Service	Broadcasting		
	Textile, Textile Products, Clothing	207	(1,814)	Maintenance, Guarding, Testing		
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	350		Advertising		
Vholesale	Paper Products,Stationery,Books	103		Information		
(3,032)	Chemical	288		Labor Dispatching		
	Recycled Resources	37		Special Services		
	Steel,Nonferrous Metals,Mining Products	320		Medical,Welfare,Public Health		
	Machinery, Equipment	964		Education		
	Others	370		Others		

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J.:	DIZE		
	Large Firms	2,081	18.4%
	Small to Medium-sized Firms	9,249	81.6%
	micro Firms	3,249	28.7%
	Total	11,330	100.0%

11,330

Total

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 March $17 - 31\,2020$

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

 $= \frac{\text{Total of (Points for each category \times Number of responses for each category)}}{\text{Number of valid responses}N} \times \frac{1}{6} \times 100$ $\equiv \frac{\sum_{i=0}^{6} i \times N_i}{N} \times \frac{1}{6} \times 100$

An economic DI of 50 is <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.