

Heavy snow and manpower shortage lead to stagnant corporate activities

~ Domestic economy worsened for the first time in a year and a month, a pause in the expansion trend ~

e-mail : keiki@mail.tdb.co.jp

(Companies researched: 23,173 ; Valid responses: 10,070 ; Response rate: 43.5%;
Survey start date: May 2002)

< Overview of February 2018: A pause in the expansion trend >

The economic diffusion index (DI) in February 2018 was 50.3, down 0.8 points from the previous month, a downturn for the first time in a year and a month, since January 2017, although it remained in the 50s range. In the domestic economy's continuing expansion trend, heavy snow, an escalating manpower shortage, and an increase in the cost burden caused downward pressure and stalled the expansion trend.

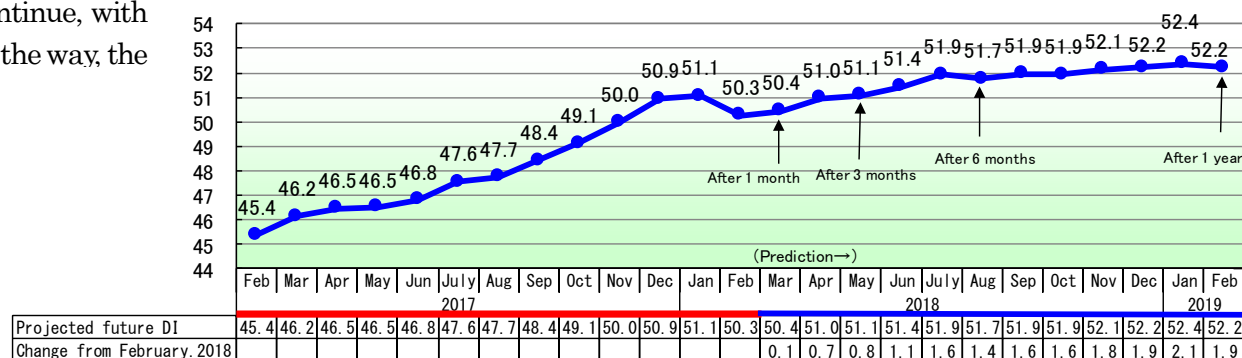
<Future outlook: Expansion continues>

While the expansion in the domestic economy is expected to continue, with the corporate sector such as export and capital investment leading the way, the trend in the financial market has to be closely monitored.

By industry : Nine industries have worsened, while increased cost burden coincided with heavy snow.

By size : All sizes have worsened, for the first time in a year and a month.

By region : Of the ten regions, nine have worsened. Heavy snow mainly put downward pressure especially on northern Japan.



*: 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-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Ratio to the PrFDious Month
Total	45.4	46.2	46.5	46.5	46.8	47.6	47.7	48.4	49.1	50.0	50.9	51.1	50.3	▲ 0.8
Large Firms	48.3	48.9	49.4	49.9	49.8	50.3	50.5	51.3	51.6	52.1	53.0	53.2	52.2	▲ 1.0
Small to Medium-sized Firms	44.6	45.4	45.7	45.6	46.0	46.8	47.0	47.7	48.5	49.4	50.4	50.5	49.8	▲ 0.7
Micro Firms	44.1	44.4	44.5	44.4	44.4	45.6	45.7	46.7	47.6	48.7	49.8	49.6	49.0	▲ 0.6

		Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Ratio to the PrFDious Month
Agriculture,Forestry,Fisheries		45.1	45.5	47.0	45.4	45.3	44.9	44.5	45.6	47.5	46.7	49.2	47.1	45.5	▲ 1.6
Finance		45.5	45.6	46.0	46.4	46.3	47.2	46.8	48.0	47.9	49.0	48.9	49.6	48.0	▲ 1.6
Construction		49.5	49.3	49.0	49.5	49.5	50.4	50.7	51.7	52.7	53.7	54.2	54.0	53.4	▲ 0.6
Real Estate		49.9	49.4	49.7	50.7	49.4	49.6	49.3	49.9	50.9	50.3	51.3	52.3	52.1	▲ 0.2
Manufacturing	Food,BEWerages,Livestock Feed	42.1	42.7	43.0	42.6	43.5	43.5	42.9	43.0	42.8	42.9	44.8	44.0	43.2	▲ 0.8
	Textile,Textile Products,Clothing	37.7	38.6	38.8	39.4	37.8	37.9	38.4	37.7	38.6	39.6	42.0	39.1	41.3	2.2
	Construction Materials,Furniture,Ceramics,Stone and Clay Products	42.8	43.2	42.4	43.4	43.4	45.3	45.9	45.6	47.0	46.8	48.0	46.8	46.2	▲ 0.6
	Pulp, Paper and Paper Products	42.0	42.0	42.9	42.5	43.4	43.8	41.9	44.4	46.6	45.6	48.7	46.6	44.1	▲ 2.5
	Publishing,Printing	34.6	36.5	35.6	33.4	35.1	34.2	34.6	36.4	35.7	35.4	35.8	36.4	37.4	1.0
	Chemical	47.9	48.5	49.9	50.3	50.2	51.4	50.5	51.8	52.5	53.3	54.1	53.9	53.2	▲ 0.7
	Steel,Nonferrous Metals,Mining	46.2	47.0	47.5	47.3	49.6	51.1	51.6	53.0	54.3	56.6	56.3	57.6	55.6	▲ 2.0
	General Machinery	51.1	52.9	54.1	54.5	54.8	56.5	56.2	57.2	59.3	59.3	60.8	62.4	62.0	▲ 0.4
	Electrical Machinery	47.1	47.8	48.6	49.3	49.7	50.3	51.5	52.2	53.7	54.5	55.7	56.9	56.5	▲ 0.4
	Transportation Machinery,Equipment	49.3	52.5	50.3	52.0	52.7	52.2	54.7	54.8	54.2	58.6	56.9	57.9	56.6	▲ 1.3
	Precision Machinery,Medical Instruments and Equipment	49.4	48.1	50.0	51.7	51.5	50.4	51.8	51.5	53.2	55.1	54.7	57.4	56.2	▲ 1.2
	Other	41.3	41.3	40.1	38.2	38.5	40.3	39.7	41.6	39.6	40.9	42.6	43.4	43.1	▲ 0.3
Total		45.4	46.3	46.7	46.9	47.5	48.5	48.6	49.4	50.3	51.2	52.1	52.6	51.9	▲ 0.7
Wholesale	Food,BEWerages	40.4	41.0	41.7	42.7	41.8	42.2	41.3	41.6	41.1	42.4	43.5	42.9	42.1	▲ 0.8
	Textile,Textile Products,Clothing	33.4	32.6	34.7	34.5	35.0	34.3	34.2	35.3	35.4	36.1	37.4	37.2	35.5	▲ 1.7
	Construction Materials,Furniture,Ceramics,Stone and Clay Products	42.6	42.8	41.8	43.2	42.8	43.0	43.8	44.0	44.2	45.1	46.7	46.2	44.9	▲ 1.3
	Paper Products,Stationery,Books	38.4	38.3	38.5	36.1	38.4	37.4	35.7	38.8	38.4	38.9	38.4	37.6	34.9	▲ 2.7
	Chemical	42.8	44.5	46.0	45.1	45.3	46.5	47.2	47.5	48.1	48.6	50.7	49.7	49.0	▲ 0.7
	Recycled Resources	50.0	54.9	49.5	49.0	51.8	49.5	55.4	52.4	51.6	57.8	58.3	56.2	51.0	▲ 5.2
	Steel,Nonferrous Metals,Mining Products	42.9	44.0	43.5	41.3	43.1	45.1	45.6	46.2	49.5	50.5	52.3	53.1	51.9	▲ 1.2
	Machinery,Equipment	44.3	45.8	46.3	46.1	46.6	48.0	48.2	48.5	49.3	50.9	52.1	52.3	51.4	▲ 0.9
	Other	39.2	39.9	41.1	42.0	41.4	42.1	41.3	42.0	42.0	42.7	43.7	43.9	42.8	▲ 1.1
	Total		41.8	42.8	43.2	43.1	43.4	44.2	44.3	44.8	45.5	46.5	47.9	47.8	46.6

Economic Diffusion Index (Economic DI)2/2

		Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Ratio to the PrFDious Month
Retail	Food,BEVerages	41.5	41.4	39.0	39.9	42.9	41.1	44.3	44.4	42.1	45.2	45.3	44.1	45.6	1.5
	Textile,Textile Products,Clothing	29.0	30.9	31.8	33.9	34.4	34.6	35.1	34.4	37.5	32.7	35.6	41.0	38.2	▲ 2.8
	Drugs,Sundries	46.0	44.3	46.0	46.4	44.4	43.8	46.8	44.2	44.9	46.2	44.4	46.4	45.7	▲ 0.7
	Furniture	38.1	33.3	35.7	35.7	40.7	39.6	37.5	41.7	40.9	45.0	40.7	43.9	35.2	▲ 8.7
	Electrical Household Appliances, Information Machinery and Equipment	39.9	43.0	41.7	38.1	41.9	41.7	44.6	40.2	43.9	43.9	47.7	41.9	40.4	▲ 1.5
	Motor Vehicles,Motor Vehicle Parts	46.3	47.7	41.9	41.5	44.4	44.4	45.5	46.2	45.3	45.6	44.2	49.2	47.8	▲ 1.4
	Special Merchandise	39.1	38.8	38.3	39.1	39.8	39.7	39.8	39.7	39.6	38.8	41.5	41.9	42.5	0.6
	Various Merchandise	45.3	44.6	44.3	45.0	48.7	46.5	45.8	45.7	46.3	45.7	46.4	46.9	46.0	▲ 0.9
	Other	45.8	40.0	40.0	41.7	41.7	38.9	44.4	46.7	46.7	43.3	50.0	50.0	43.3	▲ 6.7
Total		40.9	41.1	39.8	40.2	42.1	41.5	42.7	42.2	42.4	42.4	43.4	44.3	43.8	▲ 0.5
Transportation,Warehousing		43.8	45.6	47.0	46.8	45.7	47.7	48.4	49.0	49.9	50.7	52.5	50.7	49.6	▲ 1.1
Service	Restaurants	39.0	45.1	45.0	41.1	43.0	43.9	41.9	45.2	45.1	42.9	44.9	45.2	43.6	▲ 1.6
	Postal,Telecommunications	52.8	58.3	54.2	51.3	56.9	55.6	54.2	59.1	54.5	57.7	56.4	56.1	59.1	3.0
	Electricity,Gas,Water,Heat	52.4	47.2	52.4	52.4	57.1	52.4	52.8	57.1	58.3	59.5	54.2	60.4	58.3	▲ 2.1
	Leasing,Rentals	48.2	50.1	48.9	50.2	50.0	50.6	49.7	52.0	54.2	54.9	55.9	56.9	56.0	▲ 0.9
	Lodging, Hotels	45.6	49.4	48.9	49.4	47.9	46.9	47.4	41.7	43.6	51.9	48.0	46.9	48.7	1.8
	Recreation	37.1	39.2	39.1	40.9	40.8	40.1	38.3	40.0	39.1	39.0	42.2	41.7	42.2	0.5
	Broadcasting	47.8	47.8	47.8	46.7	42.9	46.2	47.2	47.2	46.2	44.4	47.6	47.6	47.4	▲ 0.2
	Maintenance,Guarding,Testing	47.8	48.6	49.4	48.9	49.7	50.2	51.4	51.3	50.3	51.6	50.3	51.5	50.7	▲ 0.8
	Advertising	39.8	41.0	42.3	41.8	40.6	41.0	41.9	40.5	43.6	41.8	41.5	46.1	42.3	▲ 3.8
	Information	54.8	55.3	56.1	55.6	55.7	56.6	56.1	57.2	57.9	57.6	58.4	59.4	58.8	▲ 0.6
	Labor Dispatching	50.8	54.6	55.8	52.3	54.8	54.8	58.6	57.5	58.2	59.0	57.9	58.6	56.5	▲ 2.1
	Special Services	51.8	52.6	53.2	52.3	52.3	52.6	53.4	53.2	53.3	53.2	55.5	53.4	53.1	▲ 0.3
	Medical,Welfare,Public Health	44.7	46.4	47.7	47.9	48.3	45.2	46.1	47.4	44.1	47.9	48.3	47.6	48.6	1.0
	Education	44.4	43.7	41.1	43.5	42.1	42.5	42.5	41.7	41.0	40.5	42.4	45.1	41.7	▲ 3.4
	Other	49.6	50.1	50.0	49.3	50.8	50.2	50.5	50.7	50.6	53.9	52.6	51.6	51.3	▲ 0.3
Total		49.1	50.4	50.9	50.4	50.7	50.9	51.1	51.5	51.8	52.5	53.0	53.4	52.7	▲ 0.7
Other		40.8	40.2	42.1	41.7	42.2	41.7	42.4	43.6	43.3	47.9	48.2	47.8	47.9	0.1

		Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Ratio to the PrFDious Month
Hokkaido		43.2	43.9	44.3	46.1	45.7	48.4	48.8	48.6	48.6	48.6	48.4	47.8	45.7	▲ 2.1
Tohoku		43.6	44.7	45.2	45.4	45.4	45.7	45.4	45.9	45.9	47.2	47.9	46.9	46.1	▲ 0.8
kitakanto		44.2	45.4	46.6	46.4	47.0	48.3	47.8	49.1	50.2	51.2	52.9	52.3	51.7	▲ 0.6
minamikanto		46.5	47.1	47.4	47.3	47.7	48.2	48.2	49.1	49.7	50.5	51.3	51.8	51.0	▲ 0.8
Hokuriku		42.8	44.1	44.3	45.3	45.9	47.5	48.0	48.8	49.3	49.0	49.9	49.7	47.7	▲ 2.0
Tokai		45.9	46.6	46.8	46.4	47.3	48.1	48.8	49.2	50.0	51.2	52.5	52.6	52.5	▲ 0.1
Kinki		44.1	45.1	45.2	44.7	44.9	45.6	46.1	46.7	48.0	49.0	50.8	51.1	50.3	▲ 0.8
Chugoku		45.1	46.3	46.1	46.0	46.5	47.0	47.7	47.8	48.6	50.1	50.6	50.8	50.1	▲ 0.7
Shikoku		46.5	46.1	46.9	46.8	47.0	47.0	46.8	48.5	48.2	48.5	49.0	49.4	48.5	▲ 0.9
Kyushu		49.0	48.7	49.1	49.5	48.9	49.4	49.4	49.9	50.5	51.3	51.7	51.7	51.8	0.1

Appendix

1. Research Subjects (Companies Researched 23,173 ; Valid responses: 10,070 ; Response rate: 43.5%)

Appendix

1. Region

Hokkaido	518	Tokai	1,109
Tohoku	631	Kinki	1,712
kitaKanto	731	Chugoku	560
minamikanto	3,235	Shikoku	302
Hokuriku	552	Kyushu	720
Total		10,070	

2. Industry (10 Industries 51 Lines of business)

Agriculture, Forestry, Fisheries		52
Finance		119
Construction		1,480
Real Estate		315
Manufacturing 3,223	Food, Beverages, Livestock Feed	320
	Textile, Textile Products, Clothing	104
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	226
	Pulp, Paper and Paper Products	102
	Publishing, Printing	187
	Chemical	419
	Steel, Nonferrous Metals, Mining	500
	General Machinery	464
	Electrical Machinery	328
	Transportation Machinery, Equipment	104
	Precision Machinery, Medical Instruments and Equipment	73
	Others	82
Wholesale 3,959	Food, Beverages	345
	Textile, Textile Products, Clothing	181
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	331
	Paper Products, Stationery, Books	108
	Chemical	277
	Recycled Resources	32
	Steel, Nonferrous Metals, Mining Products	296
	Machinery, Equipment	906
	Others	336

Retail 480	Food, Beverages	64
	Textile, Textile Products, Clothing	24
	Drugs, Sundries	23
	Furniture	9
	Electrical Household Appliances, Information Machinery and Equipment	38
	Motor Vehicles, Motor Vehicle Parts	67
	Special Merchandise	126
	Various Merchandise	42
	Others	5
Transportation, Warehousing		426
Service 1,384	Restaurants	39
	Telecommunications	11
	Electricity, Gas, Water, Heat	8
	Leasing, Rentals	108
	Lodging, Hotels	26
	Recreation	58
	Broadcasting	13
	Maintenance, Guarding, Testing	152
	Advertising	97
	Information	425
	Labor Dispatching	56
	Special Services	239
	Medical, Welfare, Public Health	98
	Education	24
	Others	157
Others		48
Total		10,070

3. Size

Large Firms	2,045	20.3%
Small to Medium-sized Firms	8,025	79.7%
micro Firms	2,650	26.3%
Total	10,070	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 February 15 – 28 2018

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 Formula

The DI (Diffusion Index) is calculated by attaching a number (in parenthesis in the diagram below) to each of seven possible responses. Then multiplying the percentage of each response by the appropriate number, and adding the results.

Very Bad	Bad	Moderately Bad	Neither Good or Bad	Moderately Good	Good	Very Good
(0)	(1/6)	(2/6)	(3/6)	(4/6)	(5/6)	(6/6)
0	16.7	33.3	DI=50 Dividing point	66.7	83.3	100

A DI over 50 is in the range of “Good.” A score under 50 is “Bad.” The number 50 is the dividing point (“Neither Good or Bad”). All numbers are rounded off to the hundredth. It should be noted that no weight is given to a company's responses based on its size. Calculations are made according to a “one company, one vote” rule.

For example, all corporations rated ‘Very Good’.

$$DI=6/6 \times 100(\%)=100$$

All corporations rated ‘Neither Good nor Bad’.

$$DI=3/6 \times 100(\%)=50$$

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 medium-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 medium-sized corporations in Small to Medium-Sized Enterprises Basic Act.