

Economic recovery halted, with a challenge in labor shortage

- Expectation for continuing recovery, pushed up by exports and capital investment -

(Companies researched: 23,983; Valid responses: 10,142; Response rate: 42.3%;
Survey start date: May 2002)

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< Overview of May 2017: Recovery stopped >

The economic diffusion index (DI) in May was 46.5, unchanged from the previous month. Construction-related businesses, such as Tokyo 2020, and demand for reconstruction were strong, but an increased burden due to a labor shortage was seen, and the recovery in the domestic economy, which had been ongoing lately, halted.

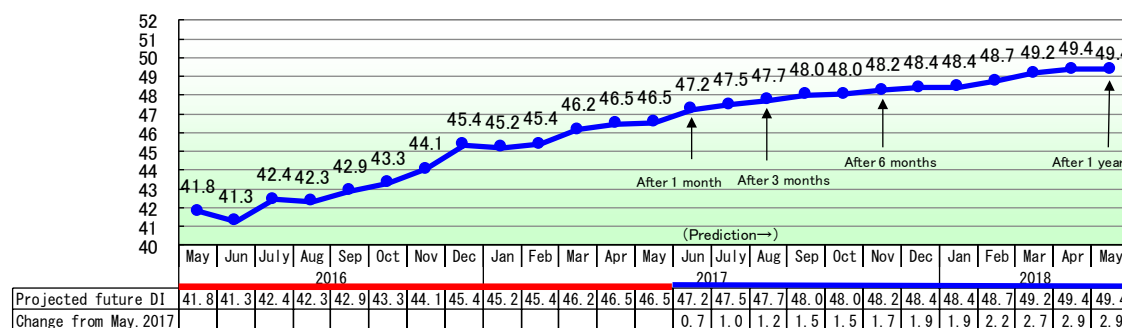
< Future Outlook: Recovery trend continues >

The recovery trend in the domestic economy is expected to continue, pushed up by exports and capital investment, although overseas risk is a cause for concern.

By industry: Five industries have improved, while “Service” has worsened for the first time in nine months.

By size: “Large-scale enterprises” have improved for four consecutive months.

By region: “Hokkaido” has significantly improved for the first time in three years and ten months.



*: 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-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Ratio to the PrFDious Month
Total	41.8	41.3	42.4	42.3	42.9	43.3	44.1	45.4	45.2	45.4	46.2	46.5	46.5	0.0
Large Firms	45.7	45.1	46.6	45.7	46.5	46.5	47.0	48.4	48.2	48.3	48.9	49.4	49.9	0.5
Small to Medium-sized Firms	40.8	40.3	41.3	41.4	41.9	42.4	43.3	44.5	44.4	44.6	45.4	45.7	45.6	▲ 0.1
Micro Firms	39.7	39.6	40.3	40.6	41.3	41.9	42.9	43.9	43.5	44.1	44.4	44.5	44.4	▲ 0.1

		May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Ratio to the PrFDious Month
Agriculture,Forestry,Fisheries		42.1	43.7	42.5	40.1	41.8	41.2	44.6	47.3	43.3	45.1	45.5	47.0	45.4	▲ 1.6
Finance		44.3	45.0	45.1	43.7	44.5	44.1	45.2	45.9	46.4	45.5	45.6	46.0	46.4	0.4
Construction		44.9	44.7	46.5	46.9	48.1	48.6	49.2	49.7	49.2	49.5	49.3	49.0	49.5	0.5
Real Estate		48.3	48.4	47.8	47.3	47.0	46.2	47.7	48.7	49.3	49.9	49.4	49.7	50.7	1.0
Manufacturing	Food,BEWerages,Livestock Feed	43.4	43.0	43.0	42.1	41.8	42.2	42.2	43.4	41.9	42.1	42.7	43.0	42.6	▲ 0.4
	Textile,Textile Products,Clothing	38.4	38.2	37.0	37.8	37.3	36.6	36.7	38.0	36.3	37.7	38.6	38.8	39.4	0.6
	Construction Materials,Furniture, Ceramics,Stone and Clay Products	38.3	37.8	40.5	40.7	40.5	41.7	42.5	43.5	43.3	42.8	43.2	42.4	43.4	1.0
	Pulp, Paper and Paper Products	38.6	38.5	40.4	39.4	39.1	40.1	40.3	43.0	43.3	42.0	42.0	42.9	42.5	▲ 0.4
	Publishing,Printing	34.0	32.9	33.5	32.8	33.7	34.4	35.0	35.7	33.9	34.6	36.5	35.6	33.4	▲ 2.2
	Chemical	42.7	42.2	43.3	41.8	44.0	43.8	45.5	48.2	47.5	47.9	48.5	49.9	50.3	0.4
	Steel,Nonferrous Metals,Mining	38.1	37.6	38.7	39.8	41.4	42.5	44.3	45.7	45.9	46.2	47.0	47.5	47.3	▲ 0.2
	General Machinery	44.0	43.6	44.9	44.3	45.3	46.7	47.9	50.3	49.9	51.1	52.9	54.1	54.5	0.4
	Electrical Machinery	40.4	40.4	41.9	41.5	42.6	44.5	44.4	45.5	46.3	47.1	47.8	48.6	49.3	0.7
	Transportation Machinery,Equipment	43.8	42.7	44.0	44.9	44.2	46.9	46.6	48.6	49.5	49.3	52.5	50.3	52.0	1.7
	Precision Machinery, Medical Instruments and Equipment	43.2	43.2	42.6	43.2	44.8	44.0	44.8	46.3	46.7	49.4	48.1	50.0	51.7	1.7
	Other	37.8	37.0	39.1	35.7	37.7	37.3	39.4	39.6	39.2	41.3	41.3	40.1	38.2	▲ 1.9
Total		40.6	40.1	41.2	40.9	41.8	42.7	43.5	45.2	44.8	45.4	46.3	46.7	46.9	0.2
Wholesale	Food,BEWerages	41.0	40.1	41.1	40.4	39.9	39.9	40.1	41.5	40.6	40.4	41.0	41.7	42.7	1.0
	Textile,Textile Products,Clothing	34.6	35.3	33.5	34.5	32.9	31.9	33.1	34.0	33.7	33.4	32.6	34.7	34.5	▲ 0.2
	Construction Materials, Furniture,Ceramics, Stone and Clay Products	38.4	37.6	39.0	38.9	39.9	40.3	42.6	43.2	42.1	42.6	42.8	41.8	43.2	1.4
	Paper Products,Stationery,Books	36.7	34.2	35.9	36.3	37.4	36.1	37.5	37.7	38.6	38.4	38.3	38.5	36.1	▲ 2.4
	Chemical	39.4	38.8	39.5	39.4	39.6	40.9	40.4	43.1	44.4	42.8	44.5	46.0	45.1	▲ 0.9
	Recycled Resources	33.3	28.3	29.4	35.0	33.8	36.9	44.0	49.5	49.1	50.0	54.9	49.5	49.0	▲ 0.5
	Steel,Nonferrous Metals, Mining Products	34.6	33.2	35.7	36.0	35.5	36.8	39.6	42.6	42.5	42.9	44.0	43.5	41.3	▲ 2.2
	Machinery,Equipment	41.1	39.7	40.9	40.5	41.2	41.6	42.5	44.2	44.8	44.3	45.8	46.3	46.1	▲ 0.2
	Other	38.6	38.2	38.0	38.7	38.2	37.6	37.9	39.9	40.1	39.2	39.9	41.1	42.0	0.9
	Total		38.9	37.9	38.8	38.9	39.0	39.3	40.4	42.1	42.2	41.8	42.8	43.2	43.1

Economic Diffusion Index (Economic DI)2/2

		May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Ratio to the PrFDious Month
Retail	Food,BEWerages	38.9	38.6	40.7	40.0	39.5	37.6	37.7	40.6	37.4	41.5	41.4	39.0	39.9	0.9
	Textile,Textile Products,Clothing	32.9	32.5	33.8	32.8	28.0	27.6	32.4	31.3	32.7	29.0	30.9	31.8	33.9	2.1
	Drugs,Sundries	41.1	37.9	42.5	42.5	42.0	38.3	41.1	42.0	43.5	46.0	44.3	46.0	46.4	0.4
	Furniture	42.9	41.7	36.1	35.4	33.3	37.5	37.5	30.0	33.3	38.1	33.3	35.7	35.7	0.0
	Electrical Household Appliances, Information Machinery and Equipment	35.8	36.6	40.2	37.9	42.7	41.2	37.8	38.6	40.5	39.9	43.0	41.7	38.1	▲ 3.6
	Motor Vehicles,Motor Vehicle Parts	37.2	37.0	39.8	40.1	42.3	39.3	40.2	41.0	43.5	46.3	47.7	41.9	41.5	▲ 0.4
	Special Merchandise	37.0	37.4	37.6	36.7	38.1	36.5	36.3	37.1	38.3	39.1	38.8	38.3	39.1	0.8
	Various Merchandise	43.7	42.6	43.2	39.9	40.6	41.7	44.4	44.6	42.0	45.3	44.6	44.3	45.0	0.7
	Other	42.9	41.7	46.7	47.2	50.0	46.7	46.7	46.7	45.8	45.8	40.0	40.0	41.7	1.7
	Total	38.0	37.7	39.3	38.4	39.3	37.5	38.3	39.1	39.4	40.9	41.1	39.8	40.2	0.4
Transportation,Warehousing		41.5	40.0	41.5	42.0	42.7	44.0	44.4	46.1	45.0	43.8	45.6	47.0	46.8	▲ 0.2
Service	Restaurants	42.3	40.2	45.3	42.2	39.0	37.0	38.0	37.5	42.3	39.0	45.1	45.0	41.1	▲ 3.9
	Postal,Telecommunications	52.4	46.2	52.6	51.1	52.0	53.7	57.7	46.2	55.1	52.8	58.3	54.2	51.3	▲ 2.9
	Electricity,Gas,Water,Heat	47.6	44.4	42.9	46.3	43.8	43.3	50.0	41.7	50.0	52.4	47.2	52.4	52.4	0.0
	Leasing,Rentals	46.7	45.5	45.9	47.2	47.4	49.0	49.3	48.9	47.9	48.2	50.1	48.9	50.2	1.3
	Lodging, Hotels	44.4	46.8	47.8	50.0	49.0	49.4	44.3	47.5	43.5	45.6	49.4	48.9	49.4	0.5
	Recreation	36.8	38.4	37.1	38.0	38.1	37.8	37.0	36.9	37.7	37.1	39.2	39.1	40.9	1.8
	Broadcasting	44.4	42.7	43.6	44.4	44.0	47.9	50.0	49.0	45.6	47.8	47.8	47.8	46.7	▲ 1.1
	Maintenance,Guarding,Testing	44.3	44.3	46.3	46.4	47.0	47.0	48.2	47.1	47.4	47.8	48.6	49.4	48.9	▲ 0.5
	Advertising	36.8	37.9	38.9	39.2	39.0	39.8	38.9	40.9	38.6	39.8	41.0	42.3	41.8	▲ 0.5
	Information	52.5	52.2	53.0	52.2	52.6	52.3	52.7	53.2	54.3	54.8	55.3	56.1	55.6	▲ 0.5
	Labor Dispatching	52.5	49.4	52.4	52.7	51.8	52.5	51.4	54.4	54.4	50.8	54.6	55.8	52.3	▲ 3.5
	Special Services	48.6	49.2	50.5	48.8	50.3	50.8	50.3	52.8	51.9	51.8	52.6	53.2	52.3	▲ 0.9
	Medical,Welfare,Public Health	41.4	41.5	41.6	42.6	44.1	43.5	43.6	44.0	43.6	44.7	46.4	47.7	47.9	0.2
	Education	42.2	43.9	48.2	43.1	45.0	45.6	43.1	43.7	46.7	44.4	43.7	41.1	43.5	2.4
	Other	45.7	46.8	46.6	48.2	47.5	47.4	47.9	47.9	47.9	49.6	50.1	50.0	49.3	▲ 0.7
	Total	46.8	46.7	47.8	47.7	47.9	48.1	48.2	48.7	48.8	49.1	50.4	50.9	50.4	▲ 0.5
Other		37.5	37.5	38.8	40.1	39.4	41.5	38.6	39.5	39.9	40.8	40.2	42.1	41.7	▲ 0.4

		May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Ratio to the PrFDious Month
Hokkaido		39.6	39.4	40.5	40.6	41.0	42.1	42.5	42.6	42.2	43.2	43.9	44.3	46.1	1.8
Tohoku		41.7	42.9	43.4	42.9	43.6	44.7	44.8	44.6	44.2	43.6	44.7	45.2	45.4	0.2
kitakanto		41.2	40.0	41.5	41.1	42.3	42.3	43.3	45.0	44.9	44.2	45.4	46.6	46.4	▲ 0.2
minamikanto		43.0	42.3	43.4	43.2	43.5	44.0	45.0	46.1	46.3	46.5	47.1	47.4	47.3	▲ 0.1
Hokuriku		39.3	38.4	39.4	39.6	40.2	40.1	41.8	43.0	43.4	42.8	44.1	44.3	45.3	1.0
Tokai		42.7	41.5	43.1	43.1	43.7	43.6	44.2	46.4	45.7	45.9	46.6	46.8	46.4	▲ 0.4
Kinki		40.3	39.4	40.5	40.4	41.1	41.6	42.4	43.7	43.7	44.1	45.1	45.2	44.7	▲ 0.5
Chugoku		41.5	41.5	42.4	42.2	43.0	43.6	43.9	45.8	44.6	45.1	46.3	46.1	46.0	▲ 0.1
Shikoku		45.0	43.4	44.6	44.5	45.6	45.1	45.8	47.2	46.2	46.5	46.1	46.9	46.8	▲ 0.1
Kyushu		41.7	42.5	44.2	44.7	45.1	45.6	46.7	48.0	48.1	49.0	48.7	49.1	49.5	0.4

Appendix

1. Research Subjects (Companies Researched 23,983; Valid responses: 10,142; Response rate: 42.3%)

Appendix

1. Region

Hokkaido	532	Tokai	1,148
Tohoku	620	Kinki	1,672
kita Kanto	708	Chugoku	560
minamikanto	3,273	Shikoku	311
Hokuriku	568	Kyushu	750
		Total	10,142

2. Industry (10 Industries 51 Lines of business)

Industry (10 Industries or Lines of Business)		
Agriculture, Forestry, Fisheries		58
Finance		121
Construction		1,454
Real Estate		294
Manufacturing 3,223	Food, Beverages, Livestock Feed	325
	Textile, Textile Products, Clothing	112
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	234
	Pulp, Paper and Paper Products	109
	Publishing, Printing	187
	Chemical	422
	Steel, Nonferrous Metals, Mining	519
	General Machinery	457
	Electrical Machinery	345
	Transportation Machinery, Equipment	99
	Precision Machinery, Medical Instruments and Equipment	78
	Others	85
Wholesale 3,959	Food, Beverages	349
	Textile, Textile Products, Clothing	184
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	350
	Paper Products, Stationery, Books	116
	Chemical	282
	Recycled Resources	34
	Steel, Nonferrous Metals, Mining Products	305
	Machinery, Equipment	884
	Others	341

3. Size

Large Firms	2,088	20.6%
Small to Medium-sized Firms	8,054	79.4%
micro Firms	2,622	25.9%
Total	10,142	100.0%

Retail 480	Food, Beverages	63
	Textile, Textile Products, Clothing	30
	Drugs, Sundries	28
	Furniture	7
	Electrical Household Appliances, Information Machinery and Equipment	42
	Motor Vehicles, Motor Vehicle Parts	61
	Special Merchandise	137
	Various Merchandise	47
	Others	4
Transportation, Warehousing		442
Service 1,384	Restaurants	43
	Telecommunications	13
	Electricity, Gas, Water, Heat	7
	Leasing, Rentals	110
	Lodging, Hotels	28
	Recreation	57
	Broadcasting	15
	Maintenance, Guarding, Testing	153
	Advertising	108
	Information	415
	Labor Dispatching	58
	Special Services	226
	Medical, Welfare, Public Health	102
	Education	18
	Others	144
Others		40
Total		10,142

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 2017

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.