TDB Trends Research (Research & Summary for February 2017)

Improved manufacturing industry performance creates a boost in domestic economy

- Mild recovery continues despite being exposed to overseas risks -

(Companies Researched: 23,804; Valid responses: 10,082; Response rate: 42.4%; Survey Start Date: May 2002)

< Overview of February 2017: Upward trend continues >

The economic diffusion index (DI) in February 2017 was 45.4, up 0.2 points from the previous month, and improved for the first time in two months. The domestic economy continued to recover due to an improvement in the performance of the manufacturing industry brought about by the strong performance of automotive and machinery manufacturing businesses.

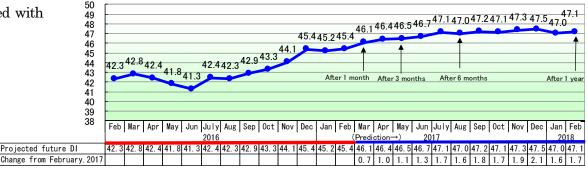
< Future Outlook: Mild recovery continues >

Gradual recovery of economic conditions is expected to continue, despite having a large exposure to overseas risks, including those associated with the U.S. e-mail : <u>keiki@mail.tdb.co.jp</u>

By industry: <u>The good performance of the automotive sales and parts export</u> businesses had a good impact on related sectors.

By size: There was a full-scale improvement for the first time in two months, and small businesses have strong business confidence.

By region: An increase in the volume of public works and active real estate transactions created a boost in the domestic economy.



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

Economic Diffusion Index (Economic DI)1/2

	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Ratio to the PrFDious Month
Total	42.3	42.8	42. 4	41.8	41.3	42.4	42.3	42.9	43.3	44. 1	45.4	45. 2	45.4	0.2
Large Firms		46.5	46. 2	45.7	45. 1	46.6	45.7	46.5	46.5	47.0	48.4	48. 2	48.3	0.1
Small to Medium-sized Firms		41.8	41.4	40.8	40.3	41.3	41.4	41.9	42.4	43.3	44.5	44. 4	44.6	0.2
Micro Firms	40.3	40.8	40. 3	39. 7	39. 6	40.3	40.6	41.3	41.9	42. 9	43.9	43.5	44. 1	0.6

		Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Ratio to the PrFDious Month
Agriculture,Forest	Agriculture,Forestry,Fisheries			42.4	42.1	43.7	42.5	40.1	41.8	41.2	44.6	47.3	43.3	45.1	1.8
Finance		44.3	44.8	45. 5	44.3	45.0	45.1	43.7	44.5	44. 1	45.2	45.9	46.4	45.5	▲ 0.9
Construction		45.9	46.3	45. 2	44. 9	44.7	46.5	46.9	48. 1	48.6	49. 2	49.7	49. 2	49.5	0.3
Real Estate		48.0	48.2	48. 1	48.3	48.4	47.8	47.3	47.0	46.2	47.7	48.7	49.3	49.9	0.6
	Food,BEWerages,Livestock Feed	43.2	44. 2	44. 6	43.4	43.0	43.0	42.1	41.8	42.2	42.2	43.4	41.9	42.1	0. 2
	Textile, Textile Products, Clothing	37.6	39.8	38. 2	38. 4	38. 2	37.0	37.8	37.3	36.6	36. 7	38.0	36. 3	37.7	1.4
	Construction Materials, Furniture,	38. 0	38. 6	37. 9	38. 3	37. 8	40. 5	40.7	40.5	41.7	42.5	43.5	43.3	42.8	▲ 0.5
	Ceramics,Stone and Clay Products	36.0	30.0	31.9	30. 3	31.0	40. 5	40.7	40. 5	41. /	42. 5	45. 5	45. 5	42.0	▲ 0.5
	Pulp, Paper and Paper Products	36.8	37.6	40.2	38.6	38.5	40.4	39.4	39. 1	40.1	40.3	43.0	43.3	42.0	▲ 1.3
	Publishing, Printing	34.6	35.3	34. 1	34.0	32.9	33.5	32.8	33.7	34.4	35.0	35.7	33.9	34.6	0.7
Manufacturing	Chemical	42.8	42.7	43.0	42.7	42.2	43.3	41.8	44.0	43.8	45.5	48.2	47.5	47.9	0.4
	Steel, Nonferrous Metals, Mining	38.8	38.3	38. 3	38. 1	37.6	38.7	39.8	41.4	42.5	44.3	45.7	45.9	46.2	0.3
	General Machinery	45.5	45.7	45.3	44.0	43.6	44.9	44.3	45.3	46.7	47.9	50.3	49.9	51.1	1.2
	Electrical Machinery	42.8	42.8	42.3	40.4	40.4	41.9	41.5	42.6	44.5	44.4	45.5	46.3	47.1	0.8
	Transportation Machinery, Equipment	44.6	46.8	46.8	43.8	42.7	44.0	44.9	44.2	46.9	46.6	48.6	49.5	49.3	▲ 0.2
	Precision Machinery, Medical Instruments and Equipment	43. 1	44.6	44. 6	43. 2	43. 2	42.6	43. 2	44. 8	44. 0	44.8	46.3	46. 7	49. 4	2. 7
	Other	39. 1	40.6	37. 5	37.8	37.0	39. 1	35.7	37.7	37.3	39. 4	39.6	39. 2	41.3	2.1
	Total	41.2	41.6	41.3	40.6	40.1	41.2	40.9	41.8	42.7	43.5	45.2	44.8	45.4	0.6
	Food,BEWerages	40.9	42.2	42.6	41.0	40.1	41.1	40.4	39. 9	39. 9	40.1	41.5	40.6	40.4	▲ 0.2
	Textile, Textile Products, Clothing	32.7	33.8	35. 7	34.6	35.3	33.5	34.5	32.9	31.9	33. 1	34.0	33. 7	33. 4	▲ 0.3
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	39. 1	39. 4	39. 2	38. 4	37.6	39. 0	38.9	39. 9	40. 3	42.6	43. 2	42. 1	42.6	0.5
Wholesale	Paper Products, Stationery, Books	37.4	38.0	36. 6	36.7	34. 2	35. 9	36.3	37.4	36. 1	37.5	37. 7	38.6	38. 4	▲ 0.2
	Chemical	39. 2	40.2	39. 5	39. 4	38.8	39.5	39.4	39.6	40.9	40.4	43.1	44. 4	42.8	▲ 1.6
	Recycled Resources	28.4	30.7	39. 3	33. 3	28.3	29.4	35.0	33.8	36.9	44.0	49.5	49.1	50.0	0.9
	Steel,Nonferrous Metals, Mining Products	35. 8	36. 1	35. 2	34. 6	33. 2	35. 7	36.0	35. 5	36. 8	39. 6	42.6	42.5	42.9	0. 4
	Machinery, Equipment	41.2	41.7	40.9	41.1	39. 7	40.9	40.5	41.2	41.6	42.5	44. 2	44.8	44.3	▲ 0.5
	Other	39.0	39. 6	39. 1	38. 6	38. 2	38.0	38.7	38. 2	37. 6	37. 9	39. 9	40.1	39. 2	▲ 0.9
	Total	39.0	39.7	39. 4	38. 9	37.9	38.8	38.9	39.0	39.3	40.4	42.1	42.2	41.8	▲ 0.4

Economic Diffusion Index (Economic DI)2/2

		Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb 17	Ratio to the PrFDious Month
	Food,BEWerages	40.4	43. 4	42.1	38. 9	38. 6	40.7	40.0	39.5	37.6	37.7	40.6	37. 4	41.5	4. 1
	Textile, Textile Products, Clothing	31.6	33. 3	35.1	32.9	32.5	33.8	32.8	28.0	27.6	32.4	31.3	32.7	29.0	▲ 3.7
	Drugs,Sundries	45.4	46. 1	42.0	41.1	37. 9	42.5	42.5	42.0	38.3	41.1	42.0	43.5	46.0	2. 5
	Furniture	40.5	40.5	38.1	42.9	41.7	36. 1	35. 4	33.3	37.5	37.5	30.0	33. 3	38.1	4.8
Retail	Electrical Household Appliances, Information Machinery and Equipment	39. 2	40. 4	40.7	35. 8	36. 6	40. 2	37. 9	42.7	41. 2	37.8	38. 6	40.5	39. 9	▲ 0.6
	Motor Vehicles, Motor Vehicle Parts	37. 9	38. 6	40.4	37.2	37.0	39.8	40.1	42.3	39.3	40.2	41.0	43.5	46.3	2.8
	Special Merchandise	39. 2	37. 4	38.9	37.0	37.4	37.6	36. 7	38. 1	36.5	36.3	37.1	38. 3	39.1	0.8
	Various Merchandise	43.7	44.8	43.3	43.7	42.6	43.2	39. 9	40.6	41.7	44.4	44.6	42.0	45.3	3. 3
	Other	41.7	44. 4	41.7	42.9	41.7	46.7	47.2	50.0	46.7	46.7	46.7	45.8	45.8	0.0
	Total	39. 5	40.1	40.2	38.0	37.7	39.3	38. 4	39.3	37.5	38.3	39. 1	39.4	40.9	1.5
Transportation,V	Varehousing	41.9	41.9	41.5	41.5	40.0	41.5	42.0	42.7	44.0	44. 4	46. 1	45.0	43.8	▲ 1.2
	Restaurants	42. 1	43.6	43.1	42.3	40.2	45.3	42. 2	39.0	37.0	38.0	37. 5	42.3	39.0	▲ 3.3
	Postal, Telecommunications	54. 2	50.0	59.1	52.4	46. 2	52.6	51.1	52.0	53.7	57.7	46. 2	55. 1	52.8	▲ 2.3
	Electricity,Gas,Water,Heat	53.7	50.0	51.9	47.6	44.4	42.9	46.3	43.8	43.3	50.0	41.7	50.0	52.4	2.4
	Leasing,Rentals	46.2	47. 1	45.9	46.7	45.5	45.9	47.2	47.4	49.0	49.3	48.9	47.9	48.2	0.3
	Lodging, Hotels	54.7	56. 1	50.5	44. 4	46.8	47.8	50.0	49.0	49.4	44. 3	47.5	43.5	45.6	2. 1
	Recreation	37.3	36. 9	38.0	36.8	38. 4	37. 1	38.0	38. 1	37.8	37.0	36. 9	37.7	37.1	▲ 0.6
	Broadcasting	46. 9	45.6	46.7	44. 4	42.7	43.6	44. 4	44.0	47.9	50.0	49.0	45.6	47.8	2. 2
Service	Maintenance, Guarding, Testing	43.8	43.9	44.4	44. 3	44.3	46.3	46.4	47.0	47.0	48.2	47. 1	47.4	47.8	0.4
	Advertising	37. 2	40.9	37.5	36.8	37. 9	38. 9	39. 2	39.0	39.8	38.9	40.9	38.6	39.8	1.2
	Information	53.3	53.4	53.4	52.5	52.2	53.0	52. 2	52.6	52.3	52.7	53.2	54.3	54.8	0.5
	Labor Dispatching	52.7	54.7	53.1	52.5	49.4	52.4	52.7	51.8	52.5	51.4	54.4	54.4	50.8	▲ 3.6
	Special Services	48.9	49.6	48.3	48.6	49.2	50.5	48.8	50.3	50.8	50.3	52.8	51.9	51.8	▲ 0.1
	Medical,Welfare,Public Health	39. 2	42.5	41.5	41.4	41.5	41.6	42.6	44. 1	43.5	43.6	44.0	43.6	44.7	1.1
	Education	46.8	47.4	43.0	42.2	43.9	48. 2	43.1	45.0	45.6	43.1	43.7	46.7	44.4	▲ 2.3
	Other	47.5	47. 1	46.7	45.7	46.8	46.6	48. 2	47.5	47.4	47.9	47.9	47. 1	49.6	2. 5
Total 4		47. 4	48. 2	47.5	46.8	46.7	47.8	47.7	47. 9	48.1	48.2	48.7	48.8	49.1	0.3
Other		39. 4	38.8	37.4	37.5	37.5	38.8	40.1	39.4	41.5	38.6	39. 5	39. 9	40.8	0.9

	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Ratio to the PrFDious Month
Hokkaido	37.9	38. 6	39.2	39.6	39. 4	40.5	40.6	41.0	42.1	42.5	42.6	42.2	43.2	1.0
Tohoku	43.2	43. 1	43.3	41.7	42.9	43.4	42.9	43.6	44.7	44.8	44.6	44. 2	43.6	▲ 0.6
kitakanto	40.3	41.5	40.8	41.2	40.0	41.5	41.1	42.3	42.3	43.3	45.0	44. 9	44.2	▲ 0.7
minamikanto	43.2	43. 9	43.6	43.0	42.3	43.4	43.2	43.5	44.0	45.0	46.1	46.3	46.5	0.2
Hokuriku	40.3	40.4	39. 2	39.3	38. 4	39. 4	39.6	40.2	40.1	41.8	43.0	43.4	42.8	▲ 0.6
Tokai	43.6	43.6	43.3	42.7	41.5	43.1	43.1	43.7	43.6	44.2	46.4	45.7	45.9	0.2
Kinki	40.7	41. 1	40.8	40.3	39.4	40.5	40.4	41.1	41.6	42.4	43.7	43.7	44.1	0.4
Chugoku	43.7	44. 3	43.1	41.5	41.5	42.4	42.2	43.0	43.6	43.9	45.8	44.6	45.1	0.5
Shikoku	45.1	45.7	45.2	45.0	43.4	44.6	44.5	45.6	45.1	45.8	47. 2	46. 2	46.5	0.3
Kyushu	44.0	44. 3	43.4	41.7	42.5	44. 2	44.7	45.1	45.6	46.7	48.0	48. 1	49.0	0.9

Appendix

1.Research Subjects(Companies Researched 23,804; Valid responses: 10,082; Response rate: 42.4%)

Appendix

1.Region

Hokkaido	537	Tokai	1,123
Tohoku	628	Kinki	1,686
kitaKanto	697	Chugoku	557
minamikanto	3,262	Shikoku	318
Hokuriku	561	Kyushu	713
		Total	10,082

2.Industry (10 Industries 51 Lines of business)

Agriculture,For	estry,Fisheries	58
Finance		128
Construction		1,446
Real Estate		290
	Food,Beverages,Livestock Feed	322
	Textile, Textile Products, Clothing	100
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	240
	Pulp, Paper and Paper Products	104
	Publishing, Printing	185
Manufacturing 3,223	Chemical	424
	Steel, Nonferrous Metals, Mining	518
	General Machinery	435
	Electrical Machinery	340
	Transportation Machinery, Equipment	105
	Precision Machinery, Medical Instruments and Equipment	7'
	Others	88
	Food,Beverages	356
	Textile, Textile Products, Clothing	183
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	339
Wholesale	Paper Products, Stationery, Books	111
3,959	Chemical	278
	Recycled Resources	38
	Steel, Nonferrous Metals, Mining Products	314
	Machinery, Equipment	888
	Others	360

	Total	10,082
Others		38
	Others	136
	Education	18
	Medical,Welfare,Public Health	107
	Special Services	224
	Labor Dispatching	59
	Information	403
	Advertising	116
1,384	Maintenance, Guarding, Testing	154
Service	Broadcasting	15
	Recreation	57
	Lodging, Hotels	30
	Leasing, Rentals	112
	Electricity, Gas, Water, Heat	7
	Telecommunications	12
	Restaurants	38
ransportation	n,Warehousing	436
	Others	4
	Various Merchandise	43
	Special Merchandise	142
	Motor Vehicles, Motor Vehicle Parts	58
480	Electrical Household Appliances, Information Machinery and Equipment	33
Retail	Furniture	7
	Drugs,Sundries	25
	Textile, Textile Products, Clothing	65
	Food, Beverages	

3.Size

	Large Firms	2,126	21.1%
Sm	nall to Medium-sized Firms	7,956	78.9%
	micro Firms	2,507	24.9%
	Total	10,082	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 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=6/6x100(%)=100

All corporations rated 'Neither Good nor Bad'.

DI=3/6x100(%)=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	Capital: Below 300 million yen	No. of Employee: Below 20
Other maustries	No. of Employee: Over 300	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.