## TDB Trends Research (Research & Summary for August 2017)

# Highest economic DI since consumption tax increase

- Continuous upswing thanks to a strong consumer durable goods market

and despite the adverse impact of an exceptional rainy season on some industries -

(Companies researched: 23,621; Valid responses: 10,265; Response rate: 43.5%; Survey start date: May 2002)

# < Trends as of August: Continuous recovery >

Economic diffusion index (DI) in August 2017 was 47.7, up 0.1 from the previous month. This was the third consecutive month of recorded improvement.

Some industries and areas in Japan were adversely impacted by a long span of wet weather. However, Japan's economy as a whole, exhibited a steady recovery mostly thanks to strong sales of consumer durable goods. The economic DI was the highest since the increase in the consumption tax

# < Future outlook: Recovery trend continues >

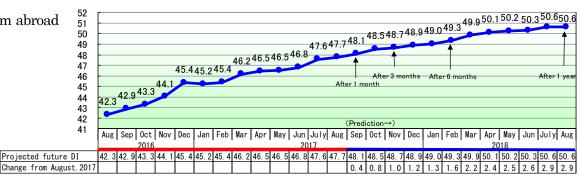
This rebounding economy will continue due to strong demand from abroad and the expansion of domestic demand (such as capital investiconsumer spending).

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By industry: Seven out of ten industries showed improvement. A strong consumer durable goods market helped to lift the "retail" industry.

By size: 'Nationwide economic DI marked the highest since the consumption tax increase.

By region: Five out of ten areas saw improvement. However, some areas were negatively impacted by a long span of wet weather.



<sup>\*:</sup> 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

	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Ratio to the PrFDious Month
Total	42.3	42.9	43.3	44. 1	45.4	45.2	45. 4	46.2	46.5	46.5	46.8	47.6	47.7	0.1
Large Firms		46.5	46.5	47.0	48.4	48.2	48.3	48.9	49.4	49.9	49.8	50.3	50.5	0.2
Small to Medium-sized Firms		41.9	42.4	43.3	44.5	44.4	44.6	45.4	45.7	45.6	46.0	46.8	47.0	0. 2
Micro Firms	40.6	41.3	41. 9	42. 9	43.9	43.5	44. 1	44. 4	44.5	44. 4	44. 4	45.6	45.7	0.1

		Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Ratio to the PrFDious Month
Agriculture, Forestry, Fisheries			41.8	41.2	44. 6	47.3	43.3	45. 1	45.5	47.0	45.4	45.3	44.9	44.5	▲ 0.4
Finance		43.7	44.5	44. 1	45. 2	45.9	46.4	45. 5	45.6	46.0	46.4	46.3	47.2	46.8	▲ 0.4
Construction		46.9	48.1	48.6	49. 2	49.7	49.2	49.5	49.3	49.0	49.5	49.5	50.4	50.7	0.3
Real Estate		47.3	47.0	46. 2	47.7	48.7	49.3	49. 9	49.4	49.7	50.7	49.4	49.6	49.3	▲ 0.3
	Food,BEWerages,Livestock Feed	42.1	41.8	42.2	42.2	43.4	41.9	42. 1	42.7	43.0	42.6	43.5	43.5	42.9	▲ 0.6
	Textile, Textile Products, Clothing		37.3	36. 6	36. 7	38.0	36.3	37. 7	38.6	38.8	39. 4	37.8	37.9	38.4	0.5
	Construction Materials, Furniture, Ceramics, Stone and Clay Products		40.5	41.7	42.5	43.5	43.3	42.8	43. 2	42.4	43. 4	43. 4	45. 3	45.9	0.6
	Pulp, Paper and Paper Products	39.4	39.1	40.1	40.3	43.0	43.3	42.0	42.0	42.9	42.5	43.4	43.8	41.9	<b>▲</b> 1.9
	Publishing, Printing	32.8	33.7	34. 4	35.0	35.7	33.9	34. 6	36.5	35.6	33. 4	35. 1	34.2	34.6	0.4
Manufacturing	Chemical	41.8	44.0	43.8	45.5	48.2	47.5	47. 9	48.5	49.9	50.3	50.2	51.4	50.5	▲ 0.9
	Steel, Nonferrous Metals, Mining	39.8	41.4	42.5	44. 3	45.7	45.9	46. 2	47.0	47.5	47.3	49.6	51.1	51.6	0.5
	General Machinery	44. 3	45.3	46.7	47. 9	50.3	49.9	51.1	52.9	54.1	54.5	54.8	56.5	56.2	▲ 0.3
	Electrical Machinery	41.5	42.6	44. 5	44. 4	45.5	46.3	47.1	47.8	48.6	49.3	49.7	50.3	51.5	1.2
	Transportation Machinery, Equipment	44. 9	44.2	46. 9	46.6	48.6	49.5	49. 3	52.5	50.3	52.0	52.7	52.2	54.7	2.5
	Precision Machinery, Medical Instruments and Equipment		44.8	44. 0	44.8	46. 3	46. 7	49. 4	48. 1	50.0	51. 7	51.5	50. 4	51.8	1.4
	Other	35.7	37.7	37. 3	39. 4	39.6	39. 2	41.3	41.3	40.1	38. 2	38. 5	40.3	39.7	▲ 0.6
	Total	40.9	41.8	42.7	43.5	45.2	44.8	45. 4	46.3	46.7	46.9	47.5	48.5	48.6	0.1
	Food,BEWerages	40.4	39.9	39. 9	40.1	41.5	40.6	40.4	41.0	41.7	42.7	41.8	42.2	41.3	▲ 0.9
	Textile, Textile Products, Clothing	34. 5	32.9	31. 9	33. 1	34.0	33.7	33. 4	32.6	34.7	34. 5	35.0	34.3	34.2	▲ 0.1
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	38. 9	39.9	40.3	42.6	43. 2	42.1	42.6	42.8	41.8	43. 2	42.8	43.0	43.8	0.8
Wholesale	Paper Products, Stationery, Books	36.3	37.4	36. 1	37. 5	37.7	38.6	38. 4	38.3	38.5	36. 1	38. 4	37.4	35.7	<b>▲</b> 1.7
	Chemical	39. 4	39.6	40.9	40.4	43.1	44.4	42.8	44.5	46.0	45. 1	45.3	46.5	47.2	0.7
	Recycled Resources	35.0	33.8	36. 9	44.0	49.5	49.1	50.0	54.9	49.5	49.0	51.8	49.5	55.4	5. 9
	Steel,Nonferrous Metals, Mining Products	36.0	35. 5	36.8	39. 6	42.6	42.5	42. 9	44.0	43.5	41.3	43. 1	45. 1	45.6	0.5
	Machinery, Equipment	40.5	41.2	41.6	42.5	44. 2	44.8	44.3	45.8	46.3	46.1	46.6	48.0	48.2	0.2
	Other	38. 7	38. 2	37.6	37.9	39. 9	40.1	39. 2	39. 9	41.1	42.0	41.4	42.1	41.3	▲ 0.8
	Total	38.9	39. 0	39.3	40.4	42.1	42.2	41.8	42.8	43. 2	43. 1	43.4	44.2	44. 3	0. 1

# Economic Diffusion Index (Economic DI)2/2

		Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Ratio to the PrFDious Month
	Food,BEWerages	40.0	39. 5	37.6	37.7	40.6	37.4	41.5	41.4	39.0	39.9	42.9	41.1	44.3	3. 2
	Textile, Textile Products, Clothing		28.0	27.6	32.4	31.3	32.7	29.0	30.9	31.8	33.9	34.4	34.6	35. 1	0.5
	Drugs,Sundries	42.5	42.0	38.3	41.1	42.0	43.5	46.0	44.3	46.0	46.4	44.4	43.8	46.8	3.0
	Furniture	35.4	33. 3	37.5	37.5	30.0	33.3	38. 1	33.3	35.7	35.7	40.7	39.6	37.5	▲ 2.1
Retail	Electrical Household Appliances, Information Machinery and Equipment	37. 9	42.7	41.2	37.8	38. 6	40.5	39. 9	43.0	41. 7	38. 1	41.9	41. 7	44. 6	2. 9
	Motor Vehicles, Motor Vehicle Parts	40.1	42.3	39.3	40.2	41.0	43.5	46.3	47.7	41.9	41.5	44.4	44. 4	45.5	1. 1
	Special Merchandise	36.7	38. 1	36.5	36.3	37. 1	38.3	39. 1	38.8	38.3	39. 1	39.8	39.7	39.8	0.1
	Various Merchandise	39. 9	40.6	41.7	44.4	44.6	42.0	45.3	44.6	44.3	45.0	48.7	46.5	45.8	▲ 0.7
	Other	47.2	50.0	46.7	46.7	46.7	45.8	45.8	40.0	40.0	41.7	41.7	38.9	44.4	5. 5
	Total		39. 3	37.5	38.3	39.1	39.4	40.9	41.1	39.8	40.2	42.1	41.5	42.7	1.2
Transportation	n,Warehousing	42.0	42.7	44.0	44.4	46.1	45.0	43.8	45.6	47.0	46.8	45.7	47.7	48.4	0.7
	Restaurants	42.2	39.0	37.0	38.0	37.5	42.3	39.0	45.1	45.0	41.1	43.0	43.9	41.9	<b>▲</b> 2.0
	Postal, Telecommunications	51.1	52.0	53.7	57.7	46.2	55.1	52.8	58.3	54. 2	51.3	56.9	55.6	54. 2	▲ 1.4
	Electricity,Gas,Water,Heat	46.3	43.8	43.3	50.0	41.7	50.0	52.4	47.2	52.4	52.4	57.1	52.4	52.8	0.4
	Leasing,Rentals	47.2	47.4	49.0	49.3	48.9	47.9	48.2	50.1	48.9	50.2	50.0	50.6	49.7	▲ 0.9
	Lodging, Hotels	50.0	49.0	49.4	44.3	47.5	43.5	45.6	49.4	48.9	49.4	47.9	46.9	47.4	0.5
	Recreation	38.0	38. 1	37.8	37.0	36.9	37.7	37.1	39.2	39. 1	40.9	40.8	40.1	38.3	▲ 1.8
	Broadcasting	44.4	44.0	47.9	50.0	49.0	45.6	47.8	47.8	47.8	46.7	42.9	46.2	47.2	1.0
Service	Maintenance, Guarding, Testing	46.4	47.0	47.0	48.2	47.1	47.4	47.8	48.6	49.4	48.9	49.7	50.2	51.4	1. 2
	Advertising	39.2	39.0	39.8	38.9	40.9	38.6	39.8	41.0	42.3	41.8	40.6	41.0	41.9	0.9
	Information	52.2	52.6	52.3	52.7	53.2	54.3	54.8	55.3	56. 1	55.6	55.7	56.6	56. 1	▲ 0.5
	Labor Dispatching	52.7	51.8		51.4	54.4	54.4	50.8		_	52.3	54.8	54.8	58.6	3.8
	Special Services	48.8	50.3	50.8	50.3	52.8	51.9	51.8	52.6	53. 2	52.3	52.3	52.6	53.4	0.8
	Medical,Welfare,Public Health	42.6	44. 1	43.5	43.6	44.0	43.6	44.7	46.4	47.7	47.9	48.3	45. 2	46.1	0.9
	Education	43.1	45.0	45.6	43.1	43.7	46.7	44. 4	43.7	41.1	43.5	42.1	42.5	42.5	0.0
	Other	48.2	47.5	47.4	47.9	47.9	47.1	49.6		50.0	49.3	50.8	50.2	50.5	0.3
	Total	47.7	47. 9	48.1	48.2	48.7	48.8	49.1	50.4	50.9	50.4	50.7	50.9	51.1	0.2
Other		40.1	39. 4	41.5	38.6	39.5	39.9	40.8	40.2	42.1	41.7	42.2	41.7	42.4	0.7

	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb 17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Ratio to the PrFDious Month
Hokkaido	40.6	41.0	42.1	42.5	42.6	42.2	43.2	43.9	44. 3	46.1	45.7	48.4	48.8	0.4
Tohoku	42.9	43.6	44.7	44.8	44.6	44. 2	43.6	44.7	45.2	45.4	45.4	45.7	45.4	▲ 0.3
kitakanto	41.1	42.3	42.3	43.3	45.0	44. 9	44.2	45.4	46.6	46.4	47.0	48.3	47.8	▲ 0.5
minamikanto	43. 2	43.5	44.0	45.0	46.1	46.3	46.5	47.1	47.4	47.3	47.7	48.2	48.2	0.0
Hokuriku	39.6	40.2	40.1	41.8	43.0	43.4	42.8	44.1	44.3	45.3	45.9	47.5	48.0	0.5
Tokai	43.1	43.7	43.6	44.2	46.4	45.7	45.9	46.6	46.8	46.4	47.3	48.1	48.8	0.7
Kinki	40.4	41.1	41.6	42.4	43.7	43.7	44. 1	45.1	45.2	44.7	44.9	45.6	46.1	0.5
Chugoku	42.2	43.0	43.6	43.9	45.8	44.6	45.1	46.3	46.1	46.0	46.5	47.0	47.7	0.7
Shikoku	44.5	45.6	45. 1	45.8	47.2	46.2	46.5	46. 1	46.9	46.8	47.0	47.0	46.8	▲ 0.2
Kyushu	44.7	45.1	45.6	46.7	48.0	48. 1	49.0	48.7	49.1	49.5	48. 9	49.4	49.4	0.0

# **Appendix**

# 1.Research Subjects(Companies Researched 23,621; Valid responses: 10,265; Response rate: 43.5%)

#### Appendix

#### 1.Region

U			
Hokkaido	530	Tokai	1,144
Tohoku	628	Kinki	1,736
kitaKanto	705	Chugoku	575
minamikanto	3,362	Shikoku	311
Hokuriku	558	Kyushu	716
		Total	10,265

#### 2.Industry (10 Industries 51 Lines of business)

Agriculture, For	estry,Fisheries	55
Finance		132
Construction		1,476
Real Estate		299
	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
Manufacturing	Chemical	432
3,223	Steel, Nonferrous Metals, Mining	521
	General Machinery	444
	Electrical Machinery	337
	Transportation Machinery, Equipment	100
	Precision Machinery, Medical Instruments and Equipment	74
	Others	84
	Food,Beverages	366
	Textile, Textile Products, Clothing	192
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	350
Wholesale	Paper Products, Stationery, Books	105
3,959	Chemical	285
	Recycled Resources	31
	Steel, Nonferrous Metals, Mining Products	306
	Machinery, Equipment	934
	Others	349

	Food, Beverages	67
	Textile, Textile Products, Clothing	29
	Drugs,Sundries	2
Retail	Furniture	
480	Electrical Household Appliances, Information Machinery and Equipment	3
	Motor Vehicles,Motor Vehicle Parts	6
	Special Merchandise	12
	Various Merchandise	5
	Others	
Transportation	n,Warehousing	45
	Restaurants	39
	Telecommunications	1:
	Electricity,Gas,Water,Heat	(
	Leasing,Rentals	108
	Lodging, Hotels	20
	Recreation	6
Service	Broadcasting	1:
1,384	Maintenance,Guarding,Testing	15
	Advertising	109
	Information	420
	Labor Dispatching	5-
	Special Services	248
	Medical,Welfare,Public Health	99
	Education	20
	Others	14
Others		48
	Total	10.26

#### 3.Size

٠.	EIEC		
	Large Firms	2,159	21.0%
	Small to Medium-sized Firms	8,106	79.0%
	micro Firms	2,641	25.7%
	Total	10,265	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 August 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=6/6x100(%)=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	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
1	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.