# TDB Trends Research (Research & Summary for June 2016)

# Worsening domestic economy, a spate of domestic and overseas negative shocks

- Impact of Brexit lingers and downward swing continues -

(Companies Researched 23,606; Valid Responses 10,471; Response Rate 44.4%; Survey Start Date: May 2002)

## < Overview of June 2016: Shift to decline >

The economic diffusion index (DI) in June was 41.3, down 0.5 points from the previous month. This reflects a declining trend for three consecutive months. Japan's economy has been on a downward trend due to a spate of domestic and overseas bad news, such as the Kumamoto Earthquake, falsified fuel economy data, and the Britain's decision to leave the EU.

# < Future Outlook: Remain with an enhanced downward trend >

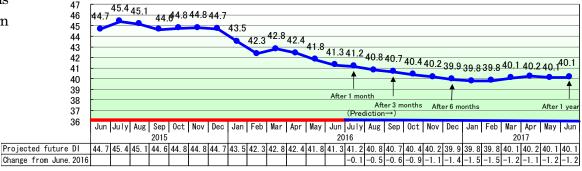
Brexit is likely to continue to shock for a while, and economic conditions are expected to remain with an enhanced downward trend amid concern over the impact on corporate performances.

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By industry: Of the 12 sectors in the "Manufacturing" industry, 10 sectors deteriorate.

By size: The economy worsened "nationwide" for three consecutive months.

By region: <u>Seven regions deteriorate</u>. <u>In the "Tokai" region, automobile-related business is sluggish.</u>



\*: 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

	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan·16	Feb-16	Mar·16	Apr-16	May-16	Jun-16	Ratio to the PrFDious Month
Total	44.7	45.4	45.1	44.6	44.8	44.8	44.7	43.5	42.3	42.8	42. 4	41.8	41.3	<b>▲</b> 0.5
Large Firms	48.4	48.8	48.9	48.2	48.4	48.4	47.9	47. 1	46.0	46.5	46. 2	45. 7	45.1	▲ 0.6
Small to Medium-sized Firms	43.6	44.5	44. 1	43.6	43.7	43.7	43.8	42.5	41.3	41.8	41.4	40.8	40.3	▲ 0.5
Micro Firms	43.1	43.4	43.2	43.2	43.2	43.1	43.3	41.8	40.3	40.8	40.3	39. 7	39.6	▲ 0.1

		Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May- 16	Jun-16	Ratio to the PrFDious Month
Agriculture,Forest	try,Fisheries	41.9	42.9	44.7	44.7	44.6	45.2	46.4	43.6	44.5	42.3	42. 4	42.1	43.7	1.6
Finance			48.1	46.5	46.3	47.3	46.6	46.3	45.3	44.3	44.8	45. 5	44. 3	45.0	0.7
Construction			48.6	48.8	49.1	49.5	49.6	49.3	47. 9	45.9	46.3	45. 2	44. 9	44.7	▲ 0.2
Real Estate		49.1	49.8	48.4	48.7	48.7	48.9	48.4	47. 1	48.0	48.2	48. 1	48.3	48.4	0.1
	Food,BEWerages,Livestock Feed	43.1	43.4	43.0	43.6	44.3	44.5	44.1	44. 2	43.2	44.2	44. 6	43. 4	43.0	▲ 0.4
	Textile,Textile Products,Clothing	39.4	39.4	40.2	38.8	39.8	39.4	39.3	36. 4	37.6	39.8	38. 2	38. 4	38.2	▲ 0.2
	Construction Materials,Furniture, Ceramics,Stone and Clay Products	40.3	41. 2	41. 2	40. 9	40.2	38. 9	40.7	38. 5	38.0	38.6	37. 9	38. 3	37.8	▲ 0.5
	Pulp, Paper and Paper Products	39.0	39.7	42.0	40.8	41.1	42.4	41.7	40.3	36.8	37.6	40.2	38. 6	38.5	▲ 0.1
	Publishing, Printing	33.5	33.7	34.9	34.8	34.8	34.6	34.7	34.0	34.6	35.3	34. 1	34.0	32.9	<b>▲</b> 1.1
Manufacturing	Chemical	43.9	44.7	45.3	44.4	44.4	44.9	45.4	44. 3	42.8	42.7	43.0	42.7	42.2	▲ 0.5
	Steel,Nonferrous Metals,Mining	42.9	43.6	42.8	41.7	41.4	41.8	41.5	41.1	38.8	38.3	38. 3	38. 1	37.6	▲ 0.5
	General Machinery	51.3	51.9	50.3	47.3	47.9	47.3	48.6	46.0	45.5	45.7	45. 3	44.0	43.6	▲ 0.4
	Electrical Machinery	47.4	47.4	44.8	45.2	45.2	45.2	44.9	43.0	42.8	42.8	42. 3	40.4	40.4	0.0
	Transportation Machinery, Equipment	49.7	50.9	50.8	48.3	46.3	47.0	46.2	45.7	44.6	46.8	46.8	43.8	42.7	<b>▲</b> 1.1
	Precision Machinery, Medical Instruments and Equipment	49. 4	50.4	51.2	47.9	48.6	47.9	46. 1	46. 2	43. 1	44.6	44. 6	43. 2	43. 2	0.0
	Other	37.8	39. 2	37.7	40.0	39.8	40.0	39.6	39. 4	39. 1	40.6	37. 5	37.8	37.0	▲ 0.8
	Total	44.0	44.6	44.2	43.2	43.3	43.3	43.5	42. 2	41.2	41.6	41.3	40.6	40.1	▲ 0.5
	Food,BEWerages	43.0	44. 1	42.7	43.6	43.0	43.1	42.6	41. 9	40.9	42.2	42.6	41.0	40.1	▲ 0.9
	Textile, Textile Products, Clothing	34.8	34.4	34.7	36.5	37.8	34.4	34.4	33. 5	32.7	33.8	35. 7	34. 6	35.3	0.7
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	38. 1	39.8	39. 7	39. 5	41.3	41.5	41.8	40. 5	39. 1	39. 4	39. 2	38. 4	37.6	▲ 0.8
Wholesale	Paper Products,Stationery,Books	34. 5	37.1	36.5	36.8	36.8	37.4	37. 2	38. 1	37.4	38.0	36. 6	36. 7	34.2	<b>▲</b> 2.5
	Chemical	43.1	43.9	42.6	42.3	42.5	42.8	43.2	40.8	39.2	40.2	39. 5	39. 4	38.8	▲ 0.6
	Recycled Resources	40.1	35.8	36.0	25.8	29.9	26.7	32.1	25.6	28.4	30.7	39. 3	33. 3	28.3	▲ 5.0
	Steel,Nonferrous Metals, Mining Products	39. 3	40. 4	40.3	38. 5	38.8	39. 4	37. 7	36. 4	35.8	36. 1	35. 2	34. 6	33. 2	▲ 1.4
	Machinery, Equipment	45.1	45.6	45.3	43.6	43.6	43.4	43.6	42.6	41.2	41.7	40.9	41. 1	39.7	<b>▲</b> 1.4
	Other	42.0	42.4	41.4	40.8	41.0	41.1	41.1	39. 9	39.0	39.6	39. 1	38. 6	38.2	▲ 0.4
	Total	41.7	42.5	41.9	41.2	41.5	41.4	41.4	40.1	39.0	39.7	39. 4	38. 9	37.9	<b>▲</b> 1.0

Economic Diffusion Index (Economic DI)2/2

		Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Ratio to the PrFDious Month
	Food,BEWerages	42.7	45.0	44.0	44.5	44.6	41.4	43.2	39.9	40.4	43.4	42.1	38. 9	38.6	▲ 0.3
	Textile, Textile Products, Clothing	37.0	38.6	38.7	36. 9	40.1	36.8	32.1	34.8	31.6	33.3	35. 1	32.9	32.5	▲ 0.4
	Drugs,Sundries	48.6	49.3	48.7	46.7	48.6	50.0	49.4	45.3	45.4	46.1	42.0	41.1	37. 9	▲ 3.2
	Furniture	43.3	41.7	41.7	42.9	42.9	42.9	47.2	42.9	40.5	40.5	38. 1	42.9	41.7	<b>▲</b> 1.2
Retail	Electrical Household Appliances, Information Machinery and Equipment	40.6	38. 9	38. 3	44. 6	39. 6	38. 7	40. 7	43.8	39. 2	40. 4	40.7	35. 8	36. 6	0.8
	Motor Vehicles, Motor Vehicle Parts	37. 2	38. 3	38.7	38.6	39.9	38. 2	37.9	40.0	37.9	38.6	40.4	37. 2	37.0	▲ 0.2
	Special Merchandise	38.0	39. 9	41.6	40.7	39. 2	39.8	38. 4	40.4	39. 2	37. 4	38. 9	37.0	37. 4	0.4
	Various Merchandise	48.1	48.8	49.0	47.3	46.5	47.3	43.8	45.0	43.7	44.8	43.3	43.7	42.6	<b>▲</b> 1.1
	Other	43.3	35. 7	44.4	44. 4	36.1	38.9	43.3	44. 4	41.7	44.4	41.7	42.9	41.7	<b>▲</b> 1.2
	Total	40.7	41.9	42.4	42.2	41.6	40.9	40.2	41.0	39.5	40.1	40.2	38.0	37. 7	▲ 0.3
Transportation	n,Warehousing	42.6	44. 4	44. 9	45.1	44.7	45.4	45.3	43.2	41.9	41.9	41.5	41.5	40.0	<b>▲</b> 1.5
	Restaurants	48.3	47.4	51.3	45.3	49.2	46. 2	44.4	47.1	42.1	43.6	43.1	42.3	40.2	<b>▲</b> 2.1
	Postal, Telecommunications	50.0	47.0	53.0	59.3	57.6	53.0	51.5	58.3	54.2	50.0	59.1	52.4	46.2	▲ 6.2
	Electricity,Gas,Water,Heat	53.0	50.0	51.9	56.7	55.0	55.0	55.0	52.4	53.7	50.0	51.9	47.6	44. 4	▲ 3.2
	Leasing, Rentals	47.9	48.7	49.9	48.0	48.0	49. 2	49.7	48.1	46.2	47.1	45.9	46.7	45.5	<b>▲</b> 1.2
	Lodging, Hotels	54. 2	59. 2	59.0	58.3	61.4	59.1	55.4	56.9	54.7	56.1	50.5	44.4	46.8	2.4
	Recreation	37. 9	37. 3	38.0	37. 9	38.0	38.0	38.6	39. 1	37.3	36. 9	38.0	36.8	38. 4	1.6
	Broadcasting	46.1	49.1	46. 1	41.7	45.1	46.9	47.8	43.8	46.9	45.6	46.7	44.4	42.7	<b>▲</b> 1.7
Service	Maintenance, Guarding, Testing	47.4	47.6	47.4	46.0	46.1	47.1	46.4	44.8	43.8	43.9	44.4	44.3	44.3	0.0
	Advertising	41.0	39.8	40.7	40.8	40.7	40.3	40.3	39.2	37.2	40.9	37.5	36.8	37. 9	1.1
	Information	55.4	56.4	55.8	55.5	56.0	54.9	54.9	55.2	53.3	53.4	53.4	52.5	52.2	▲ 0.3
	Labor Dispatching	56.3	54.4	55.0	54.2	54.7	52.5	53.1	50.9	52.7	54.7	53.1	52.5	49.4	▲ 3.1
	Special Services	50.9	52.0	51.4	51.5	49.0	50.3	52.1	49.1	48.9	49.6	48.3	48.6	49. 2	0.6
	Medical,Welfare,Public Health	43.3	45.3	43.6	42.8	42.3		42.2	39.9	39.2	42.5	41.5	41.4	41.5	0.1
	Education	44.4	40.6	44. 1	42.1	45.0	50.8	46.7	46.3	46.8	47.4	43.0	42.2	43.9	1. 7
	Other	49.5	50.9	48.5	49.3	49.2	50.1	49.0	45.9	47.5	47.1	46.7	45.7	46.8	1. 1
	Total	49.7	50.4	50.1	49.6	49.6	49.6	49.6	48.4	47.4	48.2	47.5	46.8	46.7	▲ 0.1
Other		41.9	42.6	40.7	41.4	42.3	41.9	43.8	40.9	39.4	38.8	37.4	37.5	37.5	0.0

	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb·16	Mar-16	Apr-16	May-16	Jun-16	Ratio to the PrFDious Month
Hokkaido	40.9	41.8	41.8	41.8	39. 3	39.8	39.4	39.0	37.9	38.6	39. 2	39.6	39. 4	▲ 0.2
Tohoku	45.0	46.3	46.1	45.9	45.8	45.9	45.6	43.9	43.2	43.1	43.3	41.7	42.9	1. 2
kitakanto	44.8	45.0	45.2	42.6	43.3	43.8	43.0	41.1	40.3	41.5	40.8	41.2	40.0	<b>▲</b> 1.2
minamikanto	46.1	46.8	46.1	45.4	45.8	45.8	45.8	44.6	43.2	43.9	43.6	43.0	42.3	▲ 0.7
Hokuriku	43.8	44. 3	44.6	44. 2	43.9	43.9	43.8	41.1	40.3	40.4	39. 2	39. 3	38. 4	▲ 0.9
Tokai	45.3	46. 9	46.5	46.0	46.0	45.9	46.4	45.4	43.6	43.6	43.3	42.7	41.5	<b>▲</b> 1.2
Kinki	42.6	43. 2	43.1	42.7	42.6	42.3	42.5	41.7	40.7	41.1	40.8	40.3	39. 4	▲ 0.9
Chugoku	44.8	45. 5	44. 9	45.0	45.6	45.8	45.8	44.8	43.7	44. 3	43.1	41.5	41.5	0.0
Shikoku	46.3	45.6	47.7	46.5	47.3	48.3	47.5	46.7	45.1	45.7	45. 2	45.0	43.4	▲ 1.6
Kyushu	44.3	44. 9	44. 5	45.7	46.6	46.0	45.6	44.8	44.0	44.3	43.4	41.7	42.5	0.8

# **Appendix**

# 1.Research Subjects(Companies Researched: 23,606; Valid Responses10,471; Response Rate 44.4%)

#### Appendix

## 1.Region

Hokkaido	553	Tokai	1,188
Tohoku	652	Kinki	1,736
kitaKanto	716	Chugoku	581
minamikanto	3,382	Shikoku	334
Hokuriku	557	Kyushu	772
		Total	10,471

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

Agriculture, For	estry, Fisheries	58
Finance		130
Construction		1,50′
Real Estate		27'
	Food, Beverages, Livestock Feed	34'
	Textile, Textile Products, Clothing	115
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	24
	Pulp, Paper and Paper Products	109
	Publishing, Printing	208
Manufacturing	Chemical	42
3,223	Steel, Nonferrous Metals, Mining	52
	General Machinery	43
	Electrical Machinery	345
	Transportation Machinery, Equipment	90
	Precision Machinery, Medical Instruments and Equipment	78
	Others	100
	Food, Beverages	35'
	Textile, Textile Products, Clothing	18
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	36
Wholesale	Paper Products,Stationery,Books	115
3,959	Chemical	290
	Recycled Resources	40
	Steel, Nonferrous Metals, Mining Products	33
	Machinery, Equipment	93
	Others	35

	Food, Beverages  Textile, Textile Products, Clothing	38
	Drugs,Sundries	25
Retail	Furniture	- (
480	Electrical Household Appliances, Information Machinery and Equipment	4
	Motor Vehicles, Motor Vehicle Parts	6
	Special Merchandise	14
	Various Merchandise	4
	Others	
Γransportation	n, Warehousing	47
	Restaurants	3:
	Telecommunications	13
	Electricity, Gas, Water, Heat	
	Leasing, Rentals	12
	Lodging, Hotels	3
	Recreation	5
Service	Broadcasting	1
1,384	Maintenance, Guarding, Testing	169
	Advertising	12
	Information	430
	Labor Dispatching	5
	Special Services	21
	Medical,Welfare,Public Health	10
	Education	1:
	Others	13
Others	1	4
	Total	10,47

#### 3.Size

~120			
	Large Firms	2,209	21.1%
S	Small to Medium-sized Firms	8,262	78.9%
	micro Firms	2,595	24.8%
	Total	10,471	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 June 17 – 30 2016

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		
	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.