TDB Trends Research (Research & Summary for July 2016)

# Domestic economy stopped worsening, negative shock moderated

- Nationwide improvement for the first time in a year and five months -

(Companies Researched 23,639; Valid responses: 10,285; Response rate: 43.5%; Survey Start Date: May 2002)

< Overview of July 2016: Domestic economy stopped worsening >

The economic diffusion index (DI) in July was 42.4, up 1.1 points from the previous month. This reflects an improvement for the first time in four months. The impact of negative shocks, such as the Kumamoto Earthquake, falsified fuel economy data, the British decision to leave the EU, moderated, and Japan's economy stopped worsening.

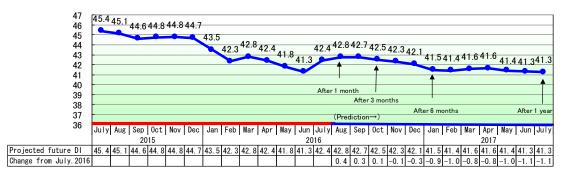
< Future Outlook: Keep on leveling off, while continuing to seesaw >

Economic conditions will keep on leveling off while continuing to seesaw. An expansionary economic policy is a positive factor, but on the other hand, there are many concerns in overseas economies.

# By industry: <u>Eight industries have improved. Among these, six industries</u> improved by more than 1 point.

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- By size: <u>The economy improved in all sizes for the first time in four</u> months. Recovery of "large companies" is noticeable.
- By region: <u>All regions improved for the first time in a year and five</u> <u>months. Restoration and reconstruction after the Kumamoto</u> <u>Earthquake are advancing.</u>



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

Economic Diffusion Inde	ex (E	co	nor	nic	D	I)1	/2							
	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Ratio to the PrFDious Month
Total	45.4	45.1	44.6	44.8	44.8	44.7	43.5	42.3	42.8	42.4	41.8	41.3	42.4	1.1
Large Firms	48.8	48.9	48.2	48.4	48.4	47.9	47.1	46.0	46.5	46.2	45.7	45.1	46.6	1.5
Small to Medium-sized Firms	44.5	44.1	43.6	43.7	43.7	43.8	42.5	41.3	41.8	41.4	40.8	40.3	41.3	1.0
Micro Firms	43.4	43.2	43.2	43.2	43.1	43.3	41.8	40.3	40.8	40.3	39.7	39.6	40.3	0.7
	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb 16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Ratio to the PrFDious Month
Agriculture, Forestry, Fisheries	42.9	44.7	44.7	44.6	45.2	46.4	43.6	44.5	42.3	42.4	42.1	43.7	42.5	▲ 1.2

		Jul-15	Aug-15	Sep · 15	Oct-15	Nov-15	Dec-15	Jan-16	Feb 16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Ratio to the PrFDious Month
Agriculture,Forest	try,Fisheries	42.9	44.7	44.7	44.6	45.2	46.4	43.6	44.5	42.3	42.4	42.1	43.7	42.5	▲ 1.2
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	45.1	0.1
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	46.5	1.8
Real Estate		49.8	48.4	48.7	48.7	48.9	48.4	47.1	48.0	48.2	48.1	48.3	48.4	47.8	▲ 0.6
	Food,BEWerages,Livestock Feed	43.4	43.0	43.6	44.3	44.5	44.1	44.2	43.2	44.2	44.6	43.4	43.0	43.0	0.0
	Textile,Textile Products,Clothing	39.4	40.2	38.8	39.8	39.4	39.3	36.4	37.6	39.8	38.2	38.4	38.2	37.0	▲ 1.2
	Construction Materials,Furniture, Ceramics,Stone and Clay Products	41.2	41.2	40.9	40.2	38.9	40.7	38.5	38.0	38.6	37.9	38.3	37.8	40.5	2.7
	Pulp, Paper and Paper Products	39.7	42.0	40.8	41.1	42.4	41.7	40.3	36.8	37.6	40.2	38.6	38.5	40.4	1.9
	Publishing,Printing	33.7	34.9	34.8	34.8	34.6	34.7	34.0	34.6	35.3	34.1	34.0	32.9	33.5	0.6
Manufacturing	Chemical	44.7	45.3	44.4	44.4	44.9	45.4	44.3	42.8	42.7	43.0	42.7	42.2	43.3	1.1
	Steel,Nonferrous Metals,Mining	43.6	42.8	41.7	41.4	41.8	41.5	41.1	38.8	38.3	38.3	38.1	37.6	38.7	1.1
	General Machinery	51.9	50.3	47.3	47.9	47.3	48.6	46.0	45.5	45.7	45.3	44.0	43.6	44.9	1.3
	Electrical Machinery	47.4	44.8	45.2	45.2	45.2	44.9	43.0	42.8	42.8	42.3	40.4	40.4	41.9	1.5
	Transportation Machinery, Equipment	50.9	50.8	48.3	46.3	47.0	46.2	45.7	44.6	46.8	46.8	43.8	42.7	44.0	1.3
	Precision Machinery, Medical Instruments and Equipment	50.4	51.2	47.9	48.6	47.9	46.1	46.2	43.1	44.6	44.6	43.2	43.2	42.6	▲ 0.6
	Other	39.2	37.7	40.0	39.8	40.0	39.6	39.4	39.1	40.6	37.5	37.8	37.0	39.1	2.1
	Total	44.6	44.2	43.2	43.3	43.3	43.5	42.2	41.2	41.6	41.3	40.6	40.1	41.2	1.1
	Food,BEWerages	44.1	42.7	43.6	43.0	43.1	42.6	41.9	40.9	42.2	42.6	41.0	40.1	41.1	1.0
	Textile,Textile Products,Clothing	34.4	34.7	36.5	37.8	34.4	34.4	33.5	32.7	33.8	35.7	34.6	35.3	33.5	▲ 1.8
	Construction Materials, Furniture,Ceramics, Stone and Clay Products	39.8	39.7	39.5	41.3	41.5	41.8	40.5	39.1	39.4	39.2	38.4	37.6	39.0	1.4
Wholesale	Paper Products, Stationery, Books	37.1	36.5	36.8	36.8	37.4	37.2	38.1	37.4	38.0	36.6	36.7	34.2	35.9	1.7
	Chemical	43.9	42.6	42.3	42.5	42.8	43.2	40.8	39.2	40.2	39.5	39.4	38.8	39.5	0.7
	Recycled Resources	35.8	36.0	25.8	29.9	26.7	32.1	25.6	28.4	30.7	39.3	33.3	28.3	29.4	1.1
	Steel,Nonferrous Metals, Mining Products	40.4	40.3	38.5	38.8	39.4	37.7	36.4	35.8	36.1	35.2	34.6	33.2	35.7	2.5
	Machinery,Equipment	45.6	45.3	43.6	43.6	43.4	43.6	42.6	41.2	41.7	40.9	41.1	39.7	40.9	1.2
	Other	42.4	41.4	40.8	41.0	41.1	41.1	39.9	39.0	39.6	39.1	38.6	38.2	38.0	▲ 0.2
	Total	42.5	41.9	41.2	41.5	41.4	41.4	40.1	39.0	39.7	39.4	38.9	37.9	38.8	0.9

ECOHO	mic Diffusion index		100	101			1/4					-			
		Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb <sup>-</sup> 16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Ratio to the PrFDious Month
	Food,BEWerages	45.0	44.0	44.5	44.6	41.4	43.2	39.9	40.4	43.4	42.1	38.9	38.6	40.7	2.1
	Textile, Textile Products, Clothing	38.6	38.7	36.9	40.1	36.8	32.1	34.8	31.6	33.3	35.1	32.9	32.5	33.8	1.3
	Drugs,Sundries	49.3	48.7	46.7	48.6	50.0	49.4	45.3	45.4	46.1	42.0	41.1	37.9	42.5	4.6
	Furniture	41.7	41.7	42.9	42.9	42.9	47.2	42.9	40.5	40.5	38.1	42.9	41.7	36.1	▲ 5.6
Retail	Electrical Household Appliances, Information Machinery and Equipment	38.9	38.3	44.6	39.6	38.7	40.7	43.8	39.2	40.4	40.7	35.8	36.6	40.2	3.6
	Motor Vehicles, Motor Vehicle Parts	38.3	38.7	38.6	39.9	38.2	37.9	40.0	37.9	38.6	40.4	37.2	37.0	39.8	2.8
	Special Merchandise	39.9	41.6	40.7	39.2	39.8	38.4	40.4	39.2	37.4	38.9	37.0	37.4	37.6	0.2
	Various Merchandise	48.8	49.0	47.3	46.5	47.3	43.8	45.0	43.7	44.8	43.3	43.7	42.6	43.2	0.6
	Other	35.7	44.4	44.4	36.1	38.9	43.3	44.4	41.7	44.4	41.7	42.9	41.7	46.7	5.0
	Total	41.9	42.4	42.2	41.6	40.9	40.2	41.0	39.5	40.1	40.2	38.0	37.7	39.3	1.6
Transportati	on,Warehousing	44.4	44.9	45.1	44.7	45.4	45.3	43.2	41.9	41.9	41.5	41.5	40.0	41.5	1.5
	Restaurants	47.4	51.3	45.3	49.2	46.2	44.4	47.1	42.1	43.6	43.1	42.3	40.2	45.3	5.1
	Postal, Telecommunications	47.0	53.0	59.3	57.6	53.0	51.5	58.3	54.2	50.0	59.1	52.4	46.2	52.6	6.4
	Electricity,Gas,Water,Heat	50.0	51.9	56.7	55.0	55.0	55.0	52.4	53.7	50.0	51.9	47.6	44.4	42.9	▲ 1.5
	Leasing,Rentals	48.7	49.9	48.0	48.0	49.2	49.7	48.1	46.2	47.1	45.9	46.7	45.5	45.9	0.4
	Lodging, Hotels	59.2	59.0	58.3	61.4	59.1	55.4	56.9	54.7	56.1	50.5	44.4	46.8	47.8	1.0
	Recreation	37.3	38.0	37.9	38.0	38.0	38.6	39.1	37.3	36.9	38.0	36.8	38.4	37.1	▲ 1.3
	Broadcasting	49.1	46.1	41.7	45.1	46.9	47.8	43.8	46.9	45.6	46.7	44.4	42.7	43.6	0.9
Service	Maintenance, Guarding, Testing		47.4	46.0	46.1	47.1	46.4	44.8	43.8	43.9	44.4	44.3	44.3	46.3	2.0
	Advertising		40.7	40.8	40.7	40.3	40.3	39.2	37.2	40.9	37.5	36.8	37.9	38.9	1.0
	Information	56.4	55.8	55.5	56.0	54.9	54.9	55.2	53.3	53.4	53.4	52.5	52.2	53.0	0.8
	Labor Dispatching	54.4	55.0	54.2	54.7	52.5	53.1	50.9	52.7	54.7	53.1	52.5	49.4	52.4	3.0
	Special Services	52.0	51.4	51.5	49.0	50.3	52.1	49.1	48.9	49.6	48.3	48.6	49.2	50.5	1.3
	Medical,Welfare,Public Health	45.3	43.6	42.8	42.3	44.1	42.2	39.9	39.2	42.5	41.5	41.4	41.5	41.6	0.1
	Education	40.6	44.1	42.1	45.0	50.8	46.7	46.3	46.8	47.4	43.0	42.2	43.9	48.2	4.3
	Other	50.9	48.5	49.3	49.2	50.1	49.0	45.9	47.5	47.1	46.7	45.7	46.8	46.6	▲ 0.2
	Total	50.4	50.1	49.6	49.6	49.6	49.6	48.4	47.4	48.2	47.5	46.8	46.7	47.8	1.1
Other		42.6	40.7	41.4	42.3	41.9	43.8	40.9	39.4	38.8	37.4	37.5	37.5	38.8	1.3
		Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Ratio to the PrFDious Month
	Hokkaido	41.8	41.8	41.8	39.3	39.8	39.4	39.0	37.9	38.6	39.2	39.6	39.4	40.5	1.1
	Tohoku	46.3	46.1	45.9	45.8	45.9	45.6	43.9	43.2	43.1	43.3	41.7	42.9	43.4	0.5
kitakanto			45.2	42.6	43.3	43.8	43.0	41.1	40.3	41.5	40.8	41.2	40.0	41.5	1.5
	minamikanto	46.8	46.1	45.4	45.8	45.8	45.8	44.6	43.2	43.9	43.6	43.0	42.3	43.4	1.1
	Hokuriku	44.3	44.6	44.2	43.9	43.9	43.8	41.1	40.3	40.4	39.2	39.3	38.4	39.4	1.0
	Tokai	46.9	46.5	46.0	46.0	45.9	46.4	45.4	43.6	43.6	43.3	42.7	41.5	43.1	1.6
	Kinki	43.2	43.1	42.7	42.6	42.3	42.5	41.7	40.7	41.1	40.8	40.3	39.4	40.5	1.1
	Chugoku	45.5	44.9	45.0	45.6	45.8	45.8	44.8	43.7	44.3	43.1	41.5	41.5	42.4	0.9
	Shikoku	45.6	47.7	46.5	47.3	48.3	47.5	46.7	45.1	45.7	45.2	45.0	43.4	44.6	1.2
	Kyushu	44.9	44.5	45.7	46.6	46.0	45.6	44.8	44.0	44.3	43.4	41.7	42.5	44.2	1.7

## Economic Diffusion Index (Economic DI)2/2

# Appendix

## 1.Research Subjects(Companies Researched 23,639: ; Valid Responses10,285 ; Response Rate 43.5%)

#### Appendix

1.Region

Hokkaido	535	Tokai	1,149
Tohoku	662	Kinki	1,719
kitaKanto	704	Chugoku	574
minamikanto	3,340	Shikoku	315
Hokuriku	550	Kyushu	737
		Total	10,285

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

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Agriculture, For	restry, Fisheries	58		Food,Beverages	72
Finance		127		Textile, Textile Products, Clothing	38
Construction		1,463		Drugs,Sundries	29
Real Estate		300	Retail	Furniture	6
	Food,Beverages,Livestock Feed	338	480	Electrical Household Appliances, Information Machinery and Equipment	41
	Textile, Textile Products, Clothing	114		Motor Vehicles,Motor Vehicle Parts	59
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	240		Special Merchandise	145
	Pulp, Paper and Paper Products	108		Various Merchandise	44
	Publishing, Printing	197		Others	5
Manufacturing	Chemical	421	Transportation	Warehousing	445
3,223	Steel,Nonferrous Metals,Mining	508		Restaurants	39
	General Machinery	463		Telecommunications	13
	Electrical Machinery	335		Electricity,Gas,Water,He at	7
	Transportation Machinery, Equipment	95		Leasing,Rentals	119
	Precision Machinery, Medical Instruments and Equipment	81		Lodging, Hotels	31
	Others	90		Recreation	57
	Food,Beverages	349	Service	Broadcasting	13
	Textile, Textile Products, Clothing	189	1,384	Maintenance,Guarding,Testing	152
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	346		Advertising	117
Wholesale	Paper Products, Stationery, Books	115		Information	433
3,959	Chemical	288		Labor Dispatching	49
	Recycled Resources	38		Special Services	214
	Steel,Nonferrous Metals,Mining Products	304		Medical,Welfare,Public Health	113
	Machinery, Equipment	926		Education	19
	Others	352		Others	134
	-		Others	•	46
				Total	10,285

#### 3.Size

Large Firms	2,197	21.4%
Small to Medium-sized Firms	8,088	78.6%
micro Firms	2,524	24.5%
Total	10,285	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 July  $15 - 31\ 2016$ 

#### 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(%)=100All 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			

Note 1: 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.