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

Domestic economy improved for four consecutive months, boosted by manufacturing industry - Construction industry exceeded 50 points in all of "large-scale enterprises," "SMEs" and "small-scale enterprises

(Companies researched: 23,341 ; Valid responses: 10,212; Response rate: 43.8%; Survey start date: May 2002)

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## < Overview of September 2017: Recovery continues >

The economic diffusion index (DI) in September 2017 was 48.4, up 0.7 points from the previous month, which is an improvement for four consecutive months.

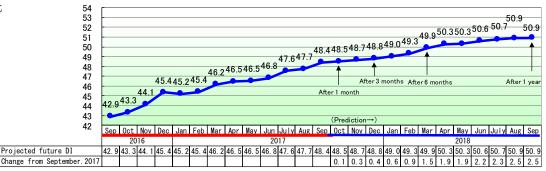
Recovery of the domestic economy continued, with an upturn in the stock market and active investment in construction, in addition to overall business confidence boosted by a manufacturing industry whose exports grew.

### < Future outlook: Recovery trend continues >

The recovery trend in the domestic economy is expected to continue, driven by strong domestic demand such as an increase in future capital investment and recovery in personal consumption. By industry:" Manufacturing" industry that continues to improve as a result of export growth hit a new high since the consumption tax rate increase.

By size: The economy improved in all sizes for three consecutive months.

By region: Eight of the ten regions hit new highs since the consumption tax rate increase.



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

	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Ratio to the PrFDious Month
Total	42.9	43.3	44.1	45.4	45.2	45.4	46.2	46.5	46.5	46.8	47.6	47.7	48.4	0.7
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	51.3	0.8
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	47.7	0.7
Micro Firms	41.3	41.9	42.9	43.9	43.5	44.1	44.4	44.5	44.4	44.4	45.6	45.7	46.7	1.0

# Economic Diffusion Index (Economic DI)1/2

		Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Ratio to the PrFDious Month
Agriculture,Forest	try,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	45.6	1.1
Finance	44.5	44.1	45.2	45.9	46.4	45.5	45.6	46.0	46.4	46.3	47.2	46.8	48.0	1.2	
Construction	astruction				49.7	49.2	49.5	49.3	49.0	49.5	49.5	50.4	50.7	51.7	1.0
Real Estate		47.0	46.2	47.7	48.7	49.3	49.9	49.4	49.7	50.7	49.4	49.6	49.3	49.9	0.6
	Food,BEWerages,Livestock Feed	41.8	42.2	42.2	43.4	41.9	42.1	42.7	43.0	42.6	43.5	43.5	42.9	43.0	0.1
	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	37.7	▲ 0.7
	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	45.6	▲ 0.3
	Pulp, Paper and Paper Products	39.1	40.1	40.3	43.0	43.3	42.0	42.0	42.9	42.5	43.4	43.8	41.9	44.4	2.5
	Publishing, Printing	33.7	34.4	35.0	35.7	33.9	34.6	36.5	35.6	33.4	35.1	34.2	34.6	36.4	1.8
Manufacturing	Chemical	44.0	43.8	45.5	48.2	47.5	47.9	48.5	49.9	50.3	50.2	51.4	50.5	51.8	1.3
	Steel,Nonferrous Metals,Mining	41.4	42.5	44.3	45.7	45.9	46.2	47.0	47.5	47.3	49.6	51.1	51.6	53.0	1.4
	General Machinery	45.3	46.7	47.9	50.3	49.9	51.1	52.9	54.1	54.5	54.8	56.5	56.2	57.2	1.0
	Electrical Machinery	42.6	44.5	44.4	45.5	46.3	47.1	47.8	48.6	49.3	49.7	50.3	51.5	52.2	0.7
	Transportation Machinery, Equipment	44.2	46.9	46.6	48.6	49.5	49.3	52.5	50.3	52.0	52.7	52.2	54.7	54.8	0.1
	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	51.5	▲ 0.3
	Other	37.7	37.3	39.4	39.6	39.2	41.3	41.3	40.1	38.2	38.5	40.3	39.7	41.6	1.9
	Total	41.8	42.7	43.5	45.2	44.8	45.4	46.3	46.7	46.9	47.5	48.5	48.6	49.4	0.8
	Food,BEWerages	39.9	39.9	40.1	41.5	40.6	40.4	41.0	41.7	42.7	41.8	42.2	41.3	41.6	0.3
	Textile, Textile Products, Clothing	32.9	31.9	33.1	34.0	33.7	33.4	32.6	34.7	34.5	35.0	34.3	34.2	35.3	1.1
	Construction Materials, Furniture,Ceramics, Stone and Clay Products	39.9	40.3	42.6	43.2	42.1	42.6	42.8	41.8	43.2	42.8	43.0	43.8	44.0	0.2
Wholesale	Paper Products, Stationery, Books	37.4	36.1	37.5	37.7	38.6	38.4	38.3	38.5	36.1	38.4	37.4	35.7	38.8	3.1
	Chemical	39.6	40.9	40.4	43.1	44.4	42.8	44.5	46.0	45.1	45.3	46.5	47.2	47.5	0.3
	Recycled Resources	33.8	36.9	44.0	49.5	49.1	50.0	54.9	49.5	49.0	51.8	49.5	55.4	52.4	<b>▲</b> 3.0
	Steel,Nonferrous Metals, Mining Products	35.5	36.8	39.6	42.6	42.5	42.9	44.0	43.5	41.3	43.1	45.1	45.6	46.2	0.6
	Machinery, Equipment	41.2	41.6	42.5	44.2	44.8	44.3	45.8	46.3	46.1	46.6	48.0	48.2	48.5	0.3
	Other	38.2	37.6	37.9	39.9	40.1	39.2	39.9	41.1	42.0	41.4	42.1	41.3	42.0	0.7
	Total	39.0	39.3	40.4	42.1	42.2	41.8	42.8	43.2	43.1	43.4	44.2	44.3	44.8	0.5

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		Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Ratio to the PrFDious Month
	Food, BEWerages	39.5	37.6	37.7	40.6	37.4	41.5	41.4	39.0	39.9	42.9	41.1	44.3	44.4	0.1
	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	34.4	▲ 0.7
	Drugs,Sundries	42.0	38.3	41.1	42.0	43.5	46.0	44.3	46.0	46.4	44.4	43.8	46.8	44.2	▲ 2.6
	Furniture	33.3	37.5	37.5	30.0	33.3	38.1	33.3	35.7	35.7	40.7	39.6	37.5	41.7	4.2
Retail	Electrical Household Appliances, Information Machinery and Equipment	42.7	41.2	37.8	38.6	40.5	39.9	43.0	41.7	38.1	41.9	41.7	44.6	40.2	▲ 4.4
	Motor Vehicles, Motor Vehicle Parts	42.3	39.3	40.2	41.0	43.5	46.3	47.7	41.9	41.5	44.4	44.4	45.5	46.2	0.7
	Special Merchandise	38.1	36.5	36.3	37.1	38.3	39.1	38.8	38.3	39.1	39.8	39.7	39.8	39.7	▲ 0.1
	Various Merchandise	40.6	41.7	44.4	44.6	42.0	45.3	44.6	44.3	45.0	48.7	46.5	45.8	45.7	▲ 0.1
	Other	50.0	46.7	46.7	46.7	45.8	45.8	40.0	40.0	41.7	41.7	38.9	44.4	46.7	2.3
	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	42.2	▲ 0.5
Transportatio	n,Warehousing	42.7	44.0	44.4	46.1	45.0	43.8	45.6	47.0	46.8	45.7	47.7	48.4	49.0	0.6
	Restaurants	39.0	37.0	38.0	37.5	42.3	39.0	45.1	45.0	41.1	43.0	43.9	41.9	45.2	3.3
	Postal, Telecommunications	52.0	53.7	57.7	46.2	55.1	52.8	58.3	54.2	51.3	56.9	55.6	54.2	59.1	4.9
	Electricity,Gas,Water,Heat	43.8	43.3	50.0	41.7	50.0	52.4	47.2	52.4	52.4	57.1	52.4	52.8	57.1	4.3
	Leasing,Rentals	47.4	49.0	49.3	48.9	47.9	48.2	50.1	48.9	50.2	50.0	50.6	49.7	52.0	2.3
	Lodging, Hotels	49.0	49.4	44.3	47.5	43.5	45.6	49.4	48.9	49.4	47.9	46.9	47.4	41.7	▲ 5.7
	Recreation	38.1	37.8	37.0	36.9	37.7	37.1	39.2	39.1	40.9	40.8	40.1	38.3	40.0	1.7
	Broadcasting	44.0	47.9	50.0	49.0	45.6	47.8	47.8	47.8	46.7	42.9	46.2	47.2	47.2	0.0
Service	Maintenance,Guarding,Testing	47.0	47.0	48.2	47.1	47.4	47.8	48.6	49.4	48.9	49.7	50.2	51.4	51.3	▲ 0.1
	Advertising	39.0	39.8	38.9	40.9	38.6	39.8	41.0	42.3	41.8	40.6	41.0	41.9	40.5	▲ 1.4
	Information	52.6	52.3	52.7	53.2	54.3	54.8	55.3	56.1	55.6	55.7	56.6	56.1	57.2	1.1
	Labor Dispatching	51.8	52.5	51.4	54.4	54.4	50.8	54.6	55.8	52.3	54.8	54.8	58.6	57.5	▲ 1.1
	Special Services	50.3	50.8	50.3	52.8	51.9	51.8	52.6	53.2	52.3	52.3	52.6	53.4	53.2	▲ 0.2
	Medical,Welfare,Public Health	44.1	43.5	43.6	44.0	43.6	44.7	46.4	47.7	47.9	48.3	45.2	46.1	47.4	1.3
	Education	45.0	45.6	43.1	43.7	46.7	44.4	43.7	41.1	43.5	42.1	42.5	42.5	41.7	▲ 0.8
	Other	47.5	47.4	47.9	47.9	47.1	49.6	50.1	50.0	49.3	50.8	50.2	50.5	50.7	0.2
	Total	47.9	48.1	48.2	48.7	48.8	49.1	50.4	50.9	50.4	50.7	50.9	51.1	51.5	0.4
Other		39.4	41.5	38.6	39.5	39.9	40.8	40.2	42.1	41.7	42.2	41.7	42.4	43.6	1.2
		Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Ratio to the PrFDious Month

# Economic Diffusion Index (Economic DI)2/2

	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-17	Jul-17	Aug-17	Sep-17	Ratio to the PrFDious Month
Hokkaido	41.0	42.1	42.5	42.6	42.2	43.2	43.9	44.3	46.1	45.7	48.4	48.8	48.6	▲ 0.2
Tohoku	43.6	44.7	44.8	44.6	44.2	43.6	44.7	45.2	45.4	45.4	45.7	45.4	45.9	0.5
kitakanto	42.3	42.3	43.3	45.0	44.9	44.2	45.4	46.6	46.4	47.0	48.3	47.8	49.1	1.3
minamikanto	43.5	44.0	45.0	46.1	46.3	46.5	47.1	47.4	47.3	47.7	48.2	48.2	49.1	0.9
Hokuriku	40.2	40.1	41.8	43.0	43.4	42.8	44.1	44.3	45.3	45.9	47.5	48.0	48.8	0.8
Tokai	43.7	43.6	44.2	46.4	45.7	45.9	46.6	46.8	46.4	47.3	48.1	48.8	49.2	0.4
Kinki	41.1	41.6	42.4	43.7	43.7	44.1	45.1	45.2	44.7	44.9	45.6	46.1	46.7	0.6
Chugoku	43.0	43.6	43.9	45.8	44.6	45.1	46.3	46.1	46.0	46.5	47.0	47.7	47.8	0.1
Shikoku	45.6	45.1	45.8	47.2	46.2	46.5	46.1	46.9	46.8	47.0	47.0	46.8	48.5	1.7
Kyushu	45.1	45.6	46.7	48.0	48.1	49.0	48.7	49.1	49.5	48.9	49.4	49.4	49.9	0.5

## Appendix

## 1.Research Subjects(Companies Researched 23,341; Valid responses: 10, 212; Response rate: 43.8%)

#### Appendix

1.Region

.itegion			
Hokkaido	530	Tokai	1,143
Tohoku	635	Kinki	1,747
kitaKanto	712	Chugoku	568
minamikanto	3,306	Shikoku	310
Hokuriku	543	Kyushu	718
		Total	10,212

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

Agriculture, For	estry, Fisheries	53	
Finance		131	
Construction		1,477	
Real Estate		304	Retail
	Food,Beverages,Livestock Feed	322	480
	Textile,Textile Products,Clothing	114	
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	236	
	Pulp, Paper and Paper Products	107	
	Publishing, Printing	185	
Manufacturing	Chemical	421	Transportation
3,223	Steel,Nonferrous Metals,Mining	513	
	General Machinery	451	
	Electrical Machinery	332	
	Transportation Machinery, Equipment	105	
	Precision Machinery, Medical Instruments and Equipment	78	
	Others	85	
	Food,Beverages	363	Service
	Textile, Textile Products, Clothing	191	1,384
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	349	
Wholesale	Paper Products, Stationery, Books	101	
3,959	Chemical	288	
	Recycled Resources	35	
	Steel,Nonferrous Metals,Mining Products	309	
	Machinery,Equipment	896	
	Others	348	
			Others

thers		4
	Others	14
	Education	2
	Medical,Welfare,Public Health	10
	Special Services	24
	Labor Dispatching	4
	Information	42
	Advertising	1
1,384	Maintenance,Guarding,Testing	10
Service	Broadcasting	
	Recreation	(
	Lodging, Hotels	5
	Leasing,Rentals	10
	Electricity,Gas,Water,Heat	
	Telecommunications	
-	Restaurants	
ansportation	,Warehousing	4
	Others	
	Various Merchandise	
	Special Merchandise	15
	Motor Vehicles.Motor Vehicle Parts	
480	Electrical Household Appliances, Information Machinery and Equipment	
Retail	Furniture	
	Drugs.Sundries	
	Food,Beverages Textile.Textile Products,Clothing	

3.Size

0120		
Large Firms	2,122	20.8%
Small to Medium-sized Firms	8,090	79.2%
micro Firms	2,644	25.9%
Total	10,212	100.0%

# The explanation of the Economic Diffusion Index

2.Research Items

## Research Purpose/Researched Terms

3. Research Period and Methodology

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.

\*Business Conditions (sales, purchasing and selling unit price, inventory, capacity

\*Business Confidence (current, in 3 months, in 6 months, in 1 year)

utilization ratio, number of employees, overtime work hours)

Internet-based survey conducted September 15 - 302017

## **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 Other Industries*	Capital: More than 300 million yen and	Capital: Below 300 million yen 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.