TDB Trends Research (Research & Summary for September 2018)

Economic DI decreased by 0.1 point, economy continues at a standstill

 \sim Worsened in "Hokkaido" and "Kinki" regions due to successive disasters \sim

(Companies researched: 23,101 ; Valid responses: 9,746 ; Response rate: 42.2 %; Survey start date: May 2002)

< Overview of September 2018: Economy continues at a standstill >

The economic diffusion index (DI) in September 2018 was 49.4, down 0.1 point from the previous month, and worsened for the first time in three months. The domestic economy continued at a standstill, being supported by strong construction demand, etc., while business confidence worsened mainly in the areas stricken by successive disasters.

<Future outlook: Uncertainty has intensified >

Although capital investment and exports continue to be strong and reconstruction demand is expected, uncertainty over the domestic economy is growing amid increasing overseas risks.

- By industry: While successive typhoons and earthquakes spread negative effects, the construction industry improved for the fifth consecutive month.
- By size: "Large enterprises" and "SMEs" worsened. "Large enterprises" continue at a standstill.
- By region: Six of the ten regions worsened. Successive natural disasters hold down the economy.



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

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	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Ratio to the PrFDious Month
Total	48.4	49.1	50.0	50.9	51.1	50.3	50.4	49.8	49.4	49.0	49.5	49.5	49.4	▲ 0.1
Large Firms	51.3	51.6	52.1	53.0	53.2	52.2	52.5	52.2	51.6	51.3	51.8	51.6	51.4	▲ 0.2
Small to Medium-sized Firms	47.7	48.5	49.4	50.4	50.5	49.8	49.9	49.3	48.8	48.5	48.9	49.0	48.9	▲ 0.1
Micro Firms	46.7	47.6	48.7	49.8	49.6	49.0	49.2	48.1	48.1	47.6	48.1	48.4	48.4	0.0

Economic Diffusion Index (Economic DI)1/2

		Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Ratio to the PrFDious Month
Agriculture,Forest	ry,Fisheries	45.6	47.5	46.7	49.2	47.1	45.5	44.4	43.5	44.2	43.3	43.4	45.7	43.8	▲ 1.9
Finance		48.0	47.9	49.0	48.9	49.6	48.0	50.3	49.4	47.8	47.2	49.5	47.5	48.5	1.0
Construction		51.7	52.7	53.7	54.2	54.0	53.4	52.9	51.4	51.8	51.9	52.8	53.1	53.8	0.7
Real Estate		49.9	50.9	50.3	51.3	52.3	52.1	53.1	50.9	51.0	51.1	50.5	51.1	50.7	▲ 0.4
	Food,BEWerages,Livestock Feed	43.0	42.8	42.9	44.8	44.0	43.2	41.9	42.9	43.4	43.2	43.1	43.3	42.9	▲ 0.4
	Textile, Textile Products, Clothing	37.7	38.6	39.6	42.0	39.1	41.3	42.4	42.4	42.7	42.8	42.1	41.8	41.9	0.1
	Construction Materials,Furniture, Ceramics,Stone and Clay Products	45.6	47.0	46.8	48.0	46.8	46.2	46.3	45.7	45.8	45.9	46.6	45.6	45.2	▲ 0.4
	Pulp, Paper and Paper Products	44.4	46.6	45.6	48.7	46.6	44.1	45.8	46.3	43.1	45.2	44.5	44.5	45.4	0.9
	Publishing, Printing	36.4	35.7	35.4	35.8	36.4	37.4	37.1	36.2	36.3	33.7	35.0	33.8	34.6	0.8
Manufacturing	Chemical	51.8	52.5	53.3	54.1	53.9	53.2	53.8	52.3	51.8	51.6	52.2	51.3	51.4	0.1
	Steel,Nonferrous Metals,Mining	53.0	54.3	56.6	56.3	57.6	55.6	55.6	53.7	53.5	53.3	54.1	54.2	52.8	▲ 1.4
	General Machinery	57.2	59.3	59.3	60.8	62.4	62.0	61.2	60.9	60.6	60.3	60.7	59.9	59.1	▲ 0.8
	Electrical Machinery	52.2	53.7	54.5	55.7	56.9	56.5	54.8	54.9	53.4	53.4	52.8	52.0	53.3	1.3
	Transportation Machinery, Equipment	54.8	54.2	58.6	56.9	57.9	56.6	59.8	57.6	58.4	57.3	56.6	58.7	58.3	▲ 0.4
	Precision Machinery, Medical Instruments and Equipment	51.5	53.2	55.1	54.7	57.4	56.2	54.8	57.5	56.6	57.2	55.1	54.8	54.3	▲ 0.5
	Other	41.6	39.6	40.9	42.6	43.4	43.1	43.8	43.2	44.3	42.5	41.5	40.7	42.6	1.9
	Total	49.4	50.3	51.2	52.1	52.6	51.9	51.6	51.0	50.8	50.4	50.6	50.2	50.0	▲ 0.2
	Food,BEWerages	41.6	41.1	42.4	43.5	42.9	42.1	43.0	42.9	42.8	42.4	40.9	41.9	41.3	▲ 0.6
	Textile, Textile Products, Clothing	35.3	35.4	36.1	37.4	37.2	35.5	37.2	37.2	36.8	37.3	35.9	37.3	35.1	▲ 2.2
	Construction Materials, Furniture,Ceramics, Stone and Clay Products	44.0	44.2	45.1	46.7	46.2	44.9	44.7	45.0	43.3	44.4	44.8	44.2	44.8	0.6
Wholesale	Paper Products, Stationery, Books	38.8	38.4	38.9	38.4	37.6	34.9	36.8	38.0	37.5	36.2	35.4	36.6	36.9	0.3
	Chemical	47.5	48.1	48.6	50.7	49.7	49.0	49.1	49.1	49.1	46.8	48.9	48.1	47.1	▲ 1.0
	Recycled Resources	52.4	51.6	57.8	58.3	56.2	51.0	51.9	49.5	46.6	50.6	48.2	51.2	47.8	▲ 3.4
	Steel,Nonferrous Metals, Mining Products	46.2	49.5	50.5	52.3	53.1	51.9	50.8	49.7	48.2	47.8	48.0	50.3	49.2	▲ 1.1
	Machinery, Equipment	48.5	49.3	50.9	52.1	52.3	51.4	51.8	51.1	50.6	50.0	50.9	51.0	50.2	▲ 0.8
	Other	42.0	42.0	42.7	43.7	43.9	42.8	43.8	45.4	43.4	43.3	43.2	42.4	42.4	0.0
	Total		45.5	46.5	47.9	47.8	46.6	47.1	47.0	46.1	45.7	45.9	46.3	45.6	▲ 0.7

		Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb 18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Ratio to the PrFDious Month
	Food,BEWerages	44.4	42.1	45.2	45.3	44.1	45.6	46.1	47.4	45.7	45.2	44.5	45.3	45.7	0.4
	Textile, Textile Products, Clothing	34.4	37.5	32.7	35.6	41.0	38.2	37.3	38.9	36.7	32.1	34.6	32.7	30.6	▲ 2.1
	Drugs,Sundries	44.2	44.9	46.2	44.4	46.4	45.7	47.2	44.9	47.1	42.9	41.0	41.3	40.2	▲ 1.1
	Furniture	41.7	40.9	45.0	40.7	43.9	35.2	35.0	36.7	35.2	38.3	38.3	37.0	37.0	0.0
Retail	Electrical Household Appliances, Information Machinery and Equipment	40.2	43.9	43.9	47.7	41.9	40.4	45.7	46.5	40.2	41.9	45.5	43.7	42.8	▲ 0.9
	Motor Vehicles, Motor Vehicle Parts	46.2	45.3	45.6	44.2	49.2	47.8	48.3	48.2	43.5	42.9	45.0	43.5	46.1	2.0
	Special Merchandise	39.7	39.6	38.8	41.5	41.9	42.5	42.9	41.0	39.7	39.7	40.7	39.1	39.1	0.0
	Various Merchandise	45.7	46.3	45.7	46.4	46.9	46.0	47.5	49.6	44.1	44.2	48.2	46.5	43.6	▲ 2.9
	Other	46.7	46.7	43.3	50.0	50.0	43.3	41.7	36.1	41.7	33.3	36.1	40.5	38.9	▲ 1.
	Total	42.2	42.4	42.4	43.4	44.3	43.8	44.8	44.6	42.0	41.3	42.7	41.7	41.6	▲ 0.
Transportati	ansportation,Warehousing		49.9	50.7	52.5	50.7	49.6	50.5	50.0	49.3	48.7	50.3	50.3	49.5	▲ 0.1
	Restaurants	45.2	45.1	42.9	44.9	45.2	43.6	44.2	44.7	45.0	42.5	42.7	42.5	39.3	▲ 3.1
	Postal, Telecommunications	59.1	54.5	57.7	56.4	56.1	59.1	57.7	56.9	50.0	54.5	55.6	55.0	56.1	1.
	Electricity,Gas,Water,Heat	57.1	58.3	59.5	54.2	60.4	58.3	61.1	54.2	56.3	57.4	56.3	57.4	59.3	1.
	Leasing,Rentals	52.0	54.2	54.9	55.9	56.9	56.0	56.0	55.2	51.5	52.9	54.5	54.2	55.9	1.
	Lodging, Hotels	41.7	43.6	51.9	48.0	46.9	48.7	52.0	51.7	50.6	50.0	45.2	46.6	43.6	▲ 3.
	Recreation	40.0	39.1	39.0	42.2	41.7	42.2	42.5	41.5	39.5	40.9	39.8	40.0	39.9	▲ 0.
	Broadcasting	47.2	46.2	44.4	47.6	47.6	47.4	47.0	39.7	37.2	40.3	42.3	38.5	41.7	3. :
Service	Maintenance, Guarding, Testing	51.3	50.3	51.6	50.3	51.5	50.7	51.1	49.9	50.2	48.5	50.5	52.3	51.8	▲ 0.
	Advertising	40.5	43.6	41.8	41.5	46.1	42.3	43.4	44.2	43.0	40.2	41.7	41.4	42.3	0.9
	Information	57.2	57.9	57.6	58.4	59.4	58.8	58.6	59.4	58.4	58.8	58.7	59.1	59.7	0.
	Labor Dispatching	57.5	58.2	59.0	57.9	58.6	56.5	57.9	57.8	59.0	59.1	59.3	59.2	58.0	▲ 1.5
	Special Services	53.2	53.3	53.2	55.5	53.4	53.1	54.3	53.6	53.7	54.6	54.8	55.3	53.9	▲ 1.4
	Medical,Welfare,Public Health	47.4	44.1	47.9	48.3	47.6	48.6	48.1	48.8	48.0	46.8	46.1	48.2	48.3	0.
	Education	41.7	41.0	40.5	42.4	45.1	41.7	44.2	42.4	42.8	40.6	42.6	46.5	46.4	▲ 0.
	Other	50.7	50.6	53.9	52.6	51.6	51.3	51.8	50.7	50.8	50.0	51.3	50.2	51.6	1.
	Total	51.5	51.8	52.5	53.0	53.4	52.7	53.1	52.8	52.1	52.0	52.4	52.8	52.9	0.
Other		43.6	43.3	47.9	48.2	47.8	47.9	50.8	49.2	50.0	46.3	46.1	45.0	46.3	1.

Economic Diffusion Index (Economic DI)2/2

	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb 18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Ratio to the PrFDious Month
Hokkaido	48.6	48.6	48.6	48.4	47.8	45.7	46.6	46.2	45.8	46.5	46.6	47.5	44.3	▲ 3.2
Tohoku	45.9	45.9	47.2	47.9	46.9	46.1	46.4	45.7	45.0	44.2	46.8	46.6	46.4	▲ 0.2
kitakanto	49.1	50.2	51.2	52.9	52.3	51.7	51.4	50.7	49.8	49.4	50.6	50.0	50.0	0.0
minamikanto	49.1	49.7	50.5	51.3	51.8	51.0	51.5	50.7	50.3	50.2	50.3	50.0	50.4	0.4
Hokuriku	48.8	49.3	49.0	49.9	49.7	47.7	48.5	48.7	48.5	48.7	49.4	49.8	49.3	▲ 0.5
Tokai	49.2	50.0	51.2	52.5	52.6	52.5	52.3	51.9	51.9	50.9	51.6	51.8	51.4	▲ 0.4
Kinki	46.7	48.0	49.0	50.8	51.1	50.3	50.0	49.7	48.8	48.4	48.6	49.4	48.9	▲ 0.5
Chugoku	47.8	48.6	50.1	50.6	50.8	50.1	49.6	48.7	48.7	47.9	47.0	47.1	48.0	0.9
Shikoku	48.5	48.2	48.5	49.0	49.4	48.5	48.4	48.2	47.8	47.2	47.5	47.9	47.0	▲ 0.9
Kyushu	49.9	50.5	51.3	51.7	51.7	51.8	51.7	51.4	50.4	49.8	50.9	50.6	50.8	0.2

Appendix

1.Research Subjects(Companies Researched 23,101 ; Valid responses: 9,746 ; Response rate: 42.2%)

Appendix

1.Region

Hokkaido	514	Tokai	1,080
Tohoku	612	Kinki	1,614
kitaKanto	731	Chugoku	551
minamikanto	3,130	Shikoku	285
Hokuriku	533	Kyushu	696
		Total	9,746

2.Industry (10 Industries 51 Lines of business)

Agriculture, For	estry, Fisheries	51		Food,Beverages	69
Finance		124		Textile, Textile Products, Clothing	24
Construction		1,425		Drugs,Sundries	22
Real Estate		290	Retail	Furniture	9
	Food,Beverages,Livestock Feed	308	480	Electrical Household Appliances, Information Machinery and Equipment	37
	Textile,Textile Products,Clothing	105		Motor Vehicles, Motor Vehicle Parts	60
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	215		Special Merchandise	128
	Pulp, Paper and Paper Products	98		Various Merchandise	47
	Publishing, Printing	173		Others	6
Manufacturing	Chemical	398	Transportation	Warehousing	417
3,223	Steel,Nonferrous Metals,Mining	468		Restaurants	39
	General Machinery	427		Telecommunications	11
	Electrical Machinery	315		Electricity,Gas,Water,Heat	9
	Transportation Machinery, Equipment	96		Leasing,Rentals	110
	Precision Machinery, Medical Instruments and Equipment	73		Lodging, Hotels	26
	Others	88		Recreation	56
	Food,Beverages	342	Service	Broadcasting	16
	Textile,Textile Products,Clothing	169	1,384	Maintenance,Guarding,Testing	156
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	317		Advertising	104
Wholesale	Paper Products,Stationery,Books	98		Information	418
3,959	Chemical	266		Labor Dispatching	54
	Recycled Resources	31		Special Services	240
	Steel,Nonferrous Metals,Mining Products	295		Medical,Welfare,Public Health	99
	Machinery,Equipment	870		Education	23
	Others	332		Others	152
		· · ·	Others	·	40
				Total	9,746

3.Size

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	Large Firms	1,992	20.4%
	Small to Medium-sized Firms	7,754	79.6%
	micro Firms	2,536	26.0%
	Total	9,746	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 September 13-30 2018

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 Calculation

The DI (Diffusion Index) is calculated by multiplying the number of responses for each assessment category by the number given in parentheses in the table below, to a seven-level assessment rated by companies.

Selection category	Extremely good	good	fairly good	neither good nor bad	fairly bad	bad	very bad
points	6	5	4	3	2	1	0
number of responses for each category	N ₆	N_5	N ₄	N ₃	N ₂	N ₁	N ₀

Economic DI

 $=\frac{\text{Total of (Points for each category \times Number of responses for each category)}}{\times \frac{1}{2} \times 100}$

Number of valid responses/V

$$\equiv \frac{\sum_{i=0}^{6} i \times N_i}{N} \times \frac{1}{6} \times 100$$

An economic DI of 50 is <u>the point separating good and bad</u>, so a DI over 50 means "good," and below 50 means "bad." (The numbers are rounded off to one decimal place.) No weight is given according to a company's size, and calculations are made on the basis of "one company, one vote."

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.

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