

**Domestic economy improved for the second straight month, albeit slightly**

~ Although increased flow of people due to decreased number of infections contributed, impact of yen depreciation is a cause for concern. ~

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(Companies researched: 26,494; Valid responses: 11,621; Response rate: 43.9%; Survey start date: May 2002)

< Overview of September 2022: Slightly improved >

The economic diffusion index (DI) in September 2022 was 41.9, up 0.5 points from the previous month, and improved for the second straight month. The domestic economy improved for two months in a row, albeit slightly, with some last-minute demand, etc.

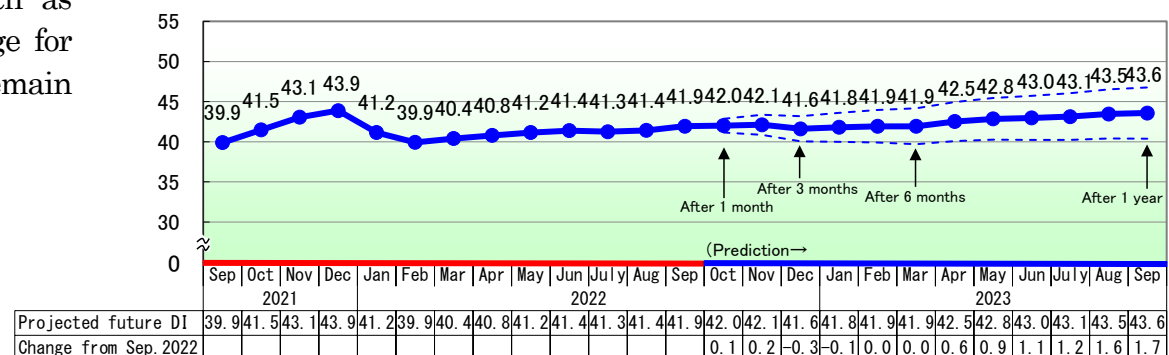
< Future outlook: Remain almost unchanged >

Although hereafter there are many downward factors such as geopolitical risk, it is expected that positive factors will emerge for normalization of economic conditions, and the economy will remain almost unchanged.

By industry: Improved in eight industries. Last-minute demand occurred in part before the price increase from October onward.

By size: Improve in “Small to Medium-sized Firms” for the second straight month, but food price rise badly affected “Large Firms”.

By region: Improved in nine of the ten regions. Strong consumer spending-related performance in tourist area.



\*: 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

	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Ratio to the Previous Month
Total	39.9	41.5	43.1	43.9	41.2	39.9	40.4	40.8	41.2	41.4	41.3	41.4	41.9	0.5
Large Firms	42.5	43.8	45.7	45.9	44.0	42.9	43.4	43.1	43.5	43.5	43.4	43.8	43.6	▲ 0.2
Small to Medium-sized Firms	39.4	41.0	42.5	43.5	40.6	39.3	39.8	40.3	40.7	41.0	40.8	41.0	41.6	0.6
Micro Firms	38.7	40.0	41.3	42.1	39.1	37.9	38.4	38.9	39.5	40.0	39.7	39.8	40.7	0.9

	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Ratio to the Previous Month	
Agriculture,Forestry,Fisheries	38.1	41.1	42.6	38.2	38.7	36.4	34.8	35.0	37.6	34.7	36.3	35.9	35.8	▲ 0.1	
Finance	41.5	43.0	43.3	43.8	41.9	41.6	42.5	41.1	42.7	42.3	41.9	41.7	43.6	1.9	
Construction	43.7	44.7	45.4	45.2	43.3	42.5	42.8	41.8	42.2	42.5	43.1	43.3	44.0	0.7	
Real Estate	42.6	43.6	44.7	46.7	42.9	42.6	42.8	43.2	44.7	45.9	44.7	44.8	45.3	0.5	
Manufacturing	Food,BEWerages,Livestock Feed	34.1	38.1	39.6	40.8	35.4	33.4	34.2	36.4	37.6	37.8	36.7	36.1	35.5	▲ 0.6
	Textile,Textile Products,Clothing	28.2	30.2	31.4	34.1	31.6	31.7	33.0	34.6	33.8	34.4	36.1	32.6	36.2	3.6
	Construction Materials,Furniture,Ceramics,Stone and Clay Products	42.7	43.7	44.9	46.4	44.1	42.7	41.1	41.7	41.1	40.4	40.8	39.8	40.2	0.4
	Pulp, Paper and Paper Products	36.2	39.3	41.4	42.9	40.2	36.4	37.2	40.3	38.3	37.4	37.5	36.6	38.0	1.4
	Publishing,Printing	27.1	29.4	30.2	32.1	28.6	29.5	29.6	30.7	30.3	29.7	29.1	29.6	30.0	0.4
	Chemical	41.9	42.6	45.7	46.7	44.5	42.3	42.7	42.3	41.7	41.1	41.8	42.6	42.3	▲ 0.3
	Steel,Nonferrous Metals,Mining	43.8	44.2	45.9	46.4	44.6	43.8	42.6	42.1	40.9	41.2	42.9	42.7	43.0	0.3
	General Machinery	46.2	47.2	47.8	49.1	47.7	46.7	46.7	45.9	46.9	46.3	46.3	46.2	45.4	▲ 0.8
	Electrical Machinery	45.8	47.5	47.0	48.5	46.6	46.1	44.3	44.8	44.3	44.8	44.7	44.2	45.2	1.0
	Transportation Machinery,Equipment	37.6	37.7	43.4	45.6	41.6	39.9	40.0	38.1	37.6	36.8	40.3	41.2	40.2	▲ 1.0
	Precision Machinery,Medical Instruments and Equipment	50.8	50.4	49.8	53.0	52.0	49.5	47.1	46.8	48.2	48.8	48.5	46.5	46.2	▲ 0.3
	Other	35.3	35.5	36.9	41.1	35.9	36.1	35.4	37.3	39.2	38.1	37.8	38.2	37.5	▲ 0.7
Total	40.7	42.1	43.6	45.1	42.5	41.2	40.9	41.2	41.0	40.8	41.3	41.0	41.1	0.1	
Wholesale	Food,BEWerages	29.8	33.0	36.9	38.2	32.7	30.1	32.6	36.2	37.3	37.1	37.0	35.6	35.8	0.2
	Textile,Textile Products,Clothing	22.4	24.5	27.4	29.3	27.6	24.9	25.4	28.7	31.4	31.3	29.9	29.9	29.9	0.0
	Construction Materials,Furniture,Ceramics,Stone and Clay Products	39.6	39.9	42.6	42.4	40.0	39.7	40.5	38.6	38.1	38.3	38.6	38.5	37.5	▲ 1.0
	Paper Products,Stationery,Books	29.6	31.8	35.0	34.2	32.7	31.9	34.6	33.8	34.2	32.8	33.0	33.5	34.5	1.0
	Chemical	42.2	44.2	45.3	45.3	43.2	41.9	43.5	42.3	42.3	41.6	43.5	43.0	43.4	0.4
	Recycled Resources	51.8	53.4	52.9	52.8	45.8	50.5	53.2	54.0	47.5	41.4	40.9	39.6	47.0	7.4
	Steel,Nonferrous Metals,Mining Products	41.6	41.6	43.2	45.2	42.3	40.5	41.1	40.3	40.0	39.7	39.3	39.3	39.8	0.5
	Machinery,Equipment	41.8	42.6	44.4	44.7	42.8	42.4	41.9	42.5	42.0	42.9	43.1	42.6	43.3	0.7
	Other	34.4	37.8	39.7	40.1	36.3	33.7	35.5	37.3	37.8	38.1	37.7	37.7	38.2	0.5
	Total	37.6	39.1	41.3	41.8	39.0	37.7	38.6	39.2	39.4	39.4	39.5	39.2	39.6	0.4

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

		Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Ratio to the Previous Month
Retail	Food,BEverages	33.1	38.0	39.7	41.1	36.5	36.3	38.6	37.7	41.8	42.7	40.3	39.9	40.2	0.3
	Textile,Textile Products,Clothing	21.5	27.9	34.1	40.0	31.8	23.8	30.6	33.6	33.9	33.6	37.7	33.6	34.9	1.3
	Drugs,Sundries	34.6	45.8	37.5	38.4	36.0	32.1	36.8	32.1	38.9	40.1	37.1	41.9	39.5	▲ 2.4
	Furniture	32.2	35.6	34.5	42.9	35.6	29.8	30.6	39.2	34.3	39.8	35.2	36.1	40.0	3.9
	Electrical Household Appliances, Information Machinery and Equipment	33.8	34.6	35.9	35.5	32.3	30.2	33.0	33.7	34.7	34.0	36.7	32.7	37.1	4.4
	Motor Vehicles,Motor Vehicle Parts	37.2	35.9	37.8	36.5	35.0	33.5	34.7	35.1	37.1	36.4	32.4	35.9	38.8	2.9
	Special Merchandise	31.7	32.8	33.5	36.0	33.3	30.9	29.9	31.3	33.1	34.3	33.2	34.7	34.0	▲ 0.7
	Various Merchandise	33.0	35.9	38.0	37.5	36.2	32.6	34.0	36.4	39.9	37.8	40.2	38.0	36.1	▲ 1.9
	Other	35.4	31.7	37.9	43.3	40.0	40.0	43.9	34.7	41.0	39.7	36.9	42.3	32.1	▲ 10.2
	Total	32.6	34.8	36.0	37.7	34.4	31.9	33.3	34.0	36.4	36.7	35.7	36.3	36.7	0.4
Transportation,Warehousing		35.8	37.1	39.1	40.3	37.7	35.5	35.4	36.6	37.2	37.1	37.8	37.3	38.2	0.9
Service	Restaurants	15.2	27.8	31.4	34.7	24.2	16.9	23.8	32.8	34.3	38.0	34.0	28.1	31.8	3.7
	Postal,Telecommunications	41.7	50.0	40.5	41.7	46.7	50.0	48.5	50.0	53.0	56.0	47.0	47.9	51.9	4.0
	Electricity,Gas,Water,Heat	45.8	42.6	38.9	39.7	40.0	37.5	33.3	35.7	40.6	34.3	37.7	35.9	36.1	0.2
	Leasing,Rentals	39.6	43.9	44.9	44.8	42.0	41.0	40.2	42.0	43.3	44.9	40.8	44.7	45.6	0.9
	Lodging, Hotels	10.4	22.6	30.2	29.5	12.9	12.8	18.1	28.3	33.0	33.3	30.3	38.0	37.4	▲ 0.6
	Recreation	29.0	34.0	36.7	38.4	33.3	31.2	35.1	35.6	38.9	41.6	40.7	40.1	42.2	2.1
	Broadcasting	39.2	49.1	48.1	46.9	45.8	47.6	44.4	43.9	43.3	41.7	43.0	38.3	46.1	7.8
	Maintenance,Guarding,Testing	44.0	44.3	45.3	45.7	42.3	40.2	42.3	43.1	42.5	44.2	42.2	43.4	42.8	▲ 0.6
	Advertising	29.5	32.4	36.8	37.7	32.7	31.5	36.4	36.9	34.8	37.3	34.3	36.7	39.3	2.6
	Information	48.5	50.5	51.2	52.5	50.1	50.2	51.1	50.8	50.8	52.0	51.5	52.7	53.0	0.3
	Labor Dispatching	41.9	39.7	44.3	43.3	45.1	41.5	44.4	45.7	47.6	45.7	46.5	49.8	47.4	▲ 2.4
	Special Services	45.5	47.9	49.2	50.3	47.2	46.2	46.9	48.1	48.1	49.6	48.7	48.3	49.4	1.1
	Medical,Welfare,Public Health	41.4	42.8	45.7	43.2	42.4	41.0	42.5	44.5	44.4	43.5	42.5	41.2	41.7	0.5
	Education	39.0	43.5	39.1	43.2	39.7	40.2	37.8	39.6	35.6	40.1	38.8	39.7	43.7	4.0
	Other	39.2	40.6	41.7	42.4	39.3	36.9	39.3	42.1	42.7	42.8	42.4	41.2	42.8	1.6
Total	41.1	43.6	45.3	46.1	42.8	41.4	43.1	44.5	44.8	45.9	44.4	45.4	46.3	0.9	
Other		35.6	38.0	39.6	40.5	36.3	37.3	38.7	36.8	38.1	35.6	36.6	38.3	37.2	▲ 1.1

		Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Jul-22	Aug-22	Sep-22	Ratio to the Previous Month
Hokkaido		38.5	40.8	40.8	41.1	38.6	37.0	36.5	37.9	38.9	40.1	41.0	40.2	40.7	0.5
Tohoku		39.0	40.2	42.1	41.7	38.1	37.0	37.0	37.6	39.1	39.0	38.8	38.1	39.3	1.2
kitakanto		40.4	42.8	44.4	45.0	42.3	40.7	40.7	42.0	42.1	42.6	42.9	43.8	42.5	▲ 1.3
minamikanto		41.4	42.4	43.9	44.8	42.6	41.5	42.1	42.4	42.7	43.2	42.6	43.3	43.6	0.3
Hokuriku		40.4	41.2	42.6	43.6	40.9	39.2	39.2	39.9	40.6	40.5	41.5	40.8	41.7	0.9
Tokai		39.1	40.1	42.4	44.4	41.1	39.7	40.2	40.2	40.1	39.5	39.5	39.7	40.4	0.7
Kinki		39.3	41.3	42.7	43.3	40.8	39.8	40.5	40.8	40.9	40.9	40.9	41.1	41.5	0.4
Chugoku		38.7	41.2	42.3	42.9	40.7	40.0	40.7	39.8	40.6	41.1	41.3	40.9	41.8	0.9
Shikoku		38.3	39.0	41.8	43.2	39.3	37.1	38.9	38.1	38.7	38.4	38.3	37.7	38.7	1.0
Kyushu		39.1	42.0	44.3	44.5	41.3	39.5	40.9	41.5	41.6	42.2	41.5	41.3	43.0	1.7

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## Survey of Corporate Attitudes towards Promoting DX (September 2022)

### 15.5% of corporations engaging in DX; labor shortage is an issue

#### – 20% are proactively considering accepting side jobbers –

One year has now passed since the establishment of the Digital Agency in September of 2021. Companies are being called upon to seek a competitive advantage through digital transformation (DX) that brings innovation to products, services, and business models through data and digital technologies. Amidst this movement, Prime Minister Kishida has announced that public-private investment will be accelerated in the four fields of “science, technology, and innovation”, “startups”, “GX”, and “DX”, and that public support on the scale of 1 trillion yen over 5 years will be provided for individual reskilling to prepare individuals to move into growth fields. Teikoku Databank has therefore conducted a survey on corporate efforts in the areas of DX and reskilling.

\*Survey period: September 15, 2022 – September 30, 2022; Companies Surveyed: 26,494 nationwide; Valid Responses: 11,621 (Response Rate: 43.9%)

\*Details of this survey can be found on the dedicated Economic Trend Survey website (<https://www.tdb-di.com>)

### Survey results (Summary)

#### 1. 15.5% are engaging in DX; among those with over 1,000 employees, close to half

The percentage of corporations that “understand the meaning of the term ‘DX’ and are engaging in it” is now 15.5%. In particular, close to half of corporations with over 1,000 employees (47.8%) are putting efforts into DX. On the other hand, over 50% have still made no progress on DX, with 35.3% reporting that they “understand the meaning of the term but are not engaging in it”, 12.4% having “heard the term but do not understand what it means”, and 5.4% having “never heard the term before”.

#### 2. Dearth of human resources, skills, and know-how impede DX in close to half

The issues confronted when engaging in DX have been “lack of human resources who can handle it” (47.4%) and “lack of the necessary skills and know-how” (43.6%) in more than 40 percent of corporations, respectively. Time and expense constraints are also an issue in many corporations, with 33.3% indicating that they “cannot make time for DX” and 27.5% stating that they “cannot allocate expenses for DX”

#### 3. 48.1% making efforts in reskilling; progress in learning on new digital tools

Efforts at reskilling are now being made in some form at 48.1% of corporations. However, 41.5% of corporations are making no efforts in particular in this regard. The area in which efforts are most commonly being made (48.4%) is “learning about new digital tools”, such as those employed in online meeting systems and BI (business intelligence). Efforts continue to be made in “learning and grasping of new skills by management” (38.6%), “grasping and visualization of digital skills by employees” (32.3%), and “communication by management to employees of the skills that they need to learn” (29.5%).

#### 4. 20% are proactively considering accepting side jobbers from outside the company

Over 20% of corporations (21.9%) are either currently accepting side jobbers from outside who have digital skills or are proactively considering doing so. On the other hand, 62.7% “are not currently accepting side jobbers and do not plan to do so in the future”.

## Appendix

### 1. Research Subjects (Companies researched: 26,494; Valid responses: 11,621; Response rate: 43.9%)

#### 1. Region

Hokkaido	572	Tokai	1,280
Tohoku	768	Kinki	1,990
kitaKanto	881	Chugoku	799
minamikanto	3,404	Shikoku	382
Hokuriku	596	Kyushu	949
		<b>Total</b>	<b>11,621</b>

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

Agriculture, Forestry, Fisheries		128
Finance		168
Construction		1,829
Real Estate		405
Manufacturing (2,905)	Food, Beverages, Livestock Feed	354
	Textile, Textile Products, Clothing	111
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	224
	Pulp, Paper and Paper Products	90
	Publishing, Printing	165
	Chemical	392
	Steel, Nonferrous Metals, Mining	515
	General Machinery	468
	Electrical Machinery	321
	Transportation Machinery, Equipment	111
	Precision Machinery, Medical Instruments and Equipment	70
	Others	84
Wholesale (2,712)	Food, Beverages	366
	Textile, Textile Products, Clothing	170
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	306
	Paper Products, Stationery, Books	97
	Chemical	275
	Recycled Resources	33
	Steel, Nonferrous Metals, Mining Products	285
	Machinery, Equipment	856
	Others	324

Retail (611)	Food, Beverages	90
	Textile, Textile Products, Clothing	52
	Drugs, Sundries	35
	Furniture	15
	Electrical Household Appliances, Information Machinery and Equipment	49
	Motor Vehicles, Motor Vehicle Parts	109
	Special Merchandise	198
	Various Merchandise	49
Others	14	
Transportation, Warehousing		556
Service (2,260)	Restaurants	99
	Telecommunications	9
	Electricity, Gas, Water, Heat	12
	Leasing, Rentals	113
	Lodging, Hotels	81
	Recreation	116
	Broadcasting	17
	Maintenance, Guarding, Testing	205
	Advertising	109
	Information	691
	Labor Dispatching	101
	Special Services	315
	Medical, Welfare, Public Health	109
Education	45	
Others	238	
Others		47
<b>Total</b>		<b>11,621</b>

#### 3. Size

Large Firms	1,835	15.8%
Small to Medium-sized Firms	9,786	84.2%
micro Firms	3,689	31.7%
<b>Total</b>	<b>11,621</b>	<b>100.0%</b>

## 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 Sep 15 – 30 2022

### 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 25,000 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 <sub>6</sub>	N <sub>5</sub>	N <sub>4</sub>	N <sub>3</sub>	N <sub>2</sub>	N <sub>1</sub>	N <sub>0</sub>

Economic DI

$$= \frac{\text{Total of (Points for each category} \times \text{Number of responses for each category)}}{\text{Number of valid responses } N} \times \frac{1}{6} \times 100$$

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

An economic DI of 50 is **the point separating good and bad**, 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 Other Industries*	Capital: More than 300 million yen and No. of Employee: Over 300	Capital: Below 300 million yen or No. of Employee: Below 300	No. of Employee: Below 20
Wholesale Trade	Capital: More than 100 million yen and No. of Employee: Over 100	Capital: Below 100 million yen or No. of Employee: Below 100	No. of Employee: Below 5
Retail Trade	Capital: More than 50 million yen and No. of Employee: Over 50	Capital: Below 50 million yen or No. of Employee: Below 50	No. of Employee: Below 5
Service**	Capital: More than 50 million yen and No. of Employee: Over 100	Capital: Below 50 million yen or No. of Employee: Below 100	No. of Employee: Below 5

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 medium-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 medium-sized corporations in Small to Medium-Sized Enterprises Basic Act.