TDB Trends Research (Research & Summary for April 2020)

Rapid deterioration continues in domestic economy

 \sim Many market functions restricted due to State of Emergency declaration. SMEs experienced the biggest drop on record \sim

(Companies researched: 23,672; Valid responses: 11,961; Response rate: 50.5%; Survey start date: May 2002)

< Overview of April 2020: Contraction >

The economic diffusion index (DI) in April 2020 was 25.8, down 6.7 points from the previous month, worsening for the seventh consecutive month, and the biggest drop on record, continued from last month. While the economy contracts, corporate activities are restricted, and rapid deterioration continued in the domestic economy.

< Future outlook: Recession continues >

With strong uncertainty, such as about the COVID-19 situation returning to normal, the recession is expected to continue.

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By industry: Worsening in all ten industries. Lowest-ever economic DI was recorded in 14 business categories.

By size: Decline in all sizes for the seventh consecutive month. SMEs recorded their biggest-ever drop.

By region: Nationwide worsening in 47 prefectures in all ten regions for the second consecutive month. Stagnation in local economic activities.



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

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Economic	Diffusion	Index	LEconomic	10101/2

	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Ratio to tHL PrFDious Month
Total	46.8	45.4	45.1	44.6	44.7	45.0	43.9	43.6	42.5	41.9	38. 7	32.5	25.8	▲ 6.7
Large Firms	49.7	48.8	48.7	47.7	47.9	48.0	47. 1	47.0	45.7	45.3	42.0	34.8	28. 2	▲ 6.6
Small to Medium-sized Firms	46.1	44.6	44.2	43.9	43.9	44.2	43.2	42.8	41.7	41.1	38. 0	32.0	25.3	▲ 6.7
Micro Firms	46.2	44.5	44. 1	43.8	44. 2	45. 1	43.9	43. 5	42.1	41.4	38. 8	32. 3	25.4	▲ 6.9

		Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Ratio to tHL PrFDious Month
Agriculture,Forestry,Fisheries		41.3	40.5	43.2	39. 1	41.5	41.8	42.3	42. 5	41.7	38. 4	37. 9	32.8	28.2	▲ 4.6
Finance		45.1	44.7	44.8	45. 1	44.7	45.8	45.4	46.8	44.5	44.8	42. 2	33.3	27.3	▲ 6.0
Construction		52.8	51.7	51.6	51.7	52.1	53.1	52. 1	52. 2	51.6	50.0	47.8	41.5	33.9	▲ 7.6
Real Estate		48.7	47.6	48.3	47. 4	46.5	48.0	45.9	46.0	44. 2	45.9	42.0	31.6	21.9	▲ 9.7
	Food,BEWerages,Livestock Feed	42.2	41.3	40.3	40.4	41.1	39.8	39. 1	39. 7	39.9	38.0	34. 5	28. 4	24.8	▲ 3.6
	Textile,Textile Products,Clothing	39. 0	36.6	36.5	36. 4	36. 9	36.3	36. 1	34. 6	32.6	30.5	29. 3	23. 2	16.7	▲ 6.5
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	45. 7	45. 4	43.5	43. 8	45. 2	44. 1	44. 8	43.8	40.2	39. 9	37. 2	33. 4	29. 2	▲ 4.2
	Pulp, Paper and Paper Products	45.7	43.0	41.7	39. 6	42.3	42.8	40.2	41.7	40.6	37.3	32.0	29. 2	24.0	▲ 5.2
	Publishing, Printing	35. 6	34.3	33.9	32.5	33. 1	34. 1	33.0	32. 7	32.9	30.9	29.7	23. 1	16.8	▲ 6.3
Manufacturing	Chemical	46.2	43.9	42.5	41.9	41.8	41.0	41.2	40.6	40.1	39.0	35. 8	32. 1	27.5	▲ 4.6
	Steel,Nonferrous Metals,Mining	45.5	42.9	41.8	41.5	41.2	40.4	39.8	38. 1	37.6	36.3	32. 9	29.0	23.6	▲ 5.4
	General Machinery	49.0	46.0	45.1	44.0	41.5	41.1	40.8	39. 9	38.4	37.3	35. 4	31.1	25.3	▲ 5.8
	Electrical Machinery	44.7	43.1	43.0	42.8	43.9	41.2	42.2	40.5	40.4	41.0	38. 5	32.7	27.6	▲ 5.1
	Transportation Machinery, Equipment	49.4	48.1	47.5	46. 4	43.4	42.3	43.5	41.2	40.9	39.4	36.5	34. 2	22.2	▲ 12.0
	Precision Machinery, Medical Instruments and Equipment	47. 3	44. 4	42.4	43. 9	43. 4	42.0	41.3	42.0	39. 9	40.4	39. 0	34. 8	27. 2	▲ 7.6
	Other	40.2	40.2	40.2	38. 0	40.7	41.8	37. 4	38. 4	38.0	36.9	36.8	31. 1	20.7	▲ 10.4
	Total	44.8	42.9	42.0	41.5	41.4	40.6	40.3	39. 6	38.6	37.6	34. 9	30.3	24.7	▲ 5.6
	Food,BEWerages	41. 1	40.8	40.4	38.8	39. 0	38.8	38. 1	37. 9	37.4	37.3	33. 1	25. 6	21.3	▲ 4.3
	Textile, Textile Products, Clothing	33. 2	33.2	31.6	29.8	30.8	31.6	28.8	28.8	26.5	26.2	22.0	16.4	10.3	▲ 6.1
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	45. 6	44.7	43.8	44. 7	44. 6	46.0	45.1	43. 4	43. 1	42.8	38. 5	34. 4	27.9	▲ 6.5
Wholesale	Paper Products, Stationery, Books	39.2	39.0	36.4	37.0	37. 1	38.0	37. 7	36. 3	35.0	34.9	33. 5	27.5	22.0	▲ 5.5
	Chemical	44. 2	41.8	41.2	42.7	42.0	42.7	41.0	40.4	39.0	38.7	35. 5	33. 2	28.9	▲ 4.3
	Recycled Resources	41.0	40.2	37.1	32.8	32.8	30.6	34.8	29.0	33.3	30.8	27. 1	21.2	18.7	▲ 2.5
	Steel,Nonferrous Metals, Mining Products	43. 4	40.8	40. 4	39. 0	38. 8	37.6	38. 0	37. 0	34.8	33. 9	31. 9	27.8	23. 2	▲ 4.6
	Machinery, Equipment	45. 9	44.2	44.4	43.8	43.3	44.6	42.7	42. 3	41.7	41.2	38. 2	33.0	25.9	▲ 7.1
	Other	42.7	40.6	40.6	40.2	40.2	40.7	37. 9	37. 6	37. 1	36.7	31.5	26.5	21.4	▲ 5.1
	Total	43. 3	41.9	41.4	41.0	40.8	41.4	39. 9	39. 3	38. 4	37.9	34. 4	29. 4	23.7	▲ 5.7

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		Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oet-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Ratio to tHL PrFDious Month
	Food,BEWerages	42.5	44.8	42.9	41.5	41.3	41.8	40.5	40.2	38.4	39.1	36.7	25.8	26.3	0.
	Textile, Textile Products, Clothing	39. 1	36. 9	36.6	34.6	36.5	37.9	32.7	31.5	28.7	28.0	24. 2	16. 2	11.4	▲ 4.
	Drugs, Sundries	40.9	41.0	38.5	40.0	37.7	40.6	35.8	37.3	40.2	37.7	34.7	27.5	28.7	1.
	Furniture	38. 9	39.6	48.5	40.9	45.0	53.0	33.3	26.9	31.8	31.9	29. 2	22.6	10.8	▲ 11.
Retail	Electrical Household Appliances, Information Machinery and Equipment	41.7	39. 1	43.5	34. 3	38. 9	45.0	34. 3	32. 3	38. 1	38. 2	36. 0	28. 4	19. 3	A 9.
	Motor Vehicles, Motor Vehicle Parts	43. 3	41.5	42.5	39. 2	41.1	41.4	34.5	31.4	31.9	36.7	32. 9	27. 9	17.0	▲ 10.
	Special Merchandise	42. 1	41.3	41.1	40.6	40.7	43.5	38. 2	39. 1	36.0	35. 2	34.7	27. 4	20. 2	▲ 7.
	Various Merchandise	43.3	43.8	44.7	39. 3	38. 9	43.1	36.5	36.5	36.2	37.4	34. 4	29. 3	32. 3	3.
	Other	43.8	39. 6	46.3	41.7	41.7	40.5	48.1	40.7	47.9	48.1	43.9	31.8	26. 9	▲ 4.
Total		42. 1	41.6	42.0	39. 5	40.2	42.6	37.0	36. 1	35.8	36.3	34. 1	26. 7	21. 2	▲ 5.
Transportation	on,Warehousing	48. 2	46.7	45.6	44.5	45.5	46.0	44.9	45.1	42.6	39.5	34.0	27.7	22. 4	▲ 5.
	Restaurants	42. 9	40.6	42.9	39.6	38. 1	43.6	37.3	39. 4	40.7	41.0	32. 3	14. 2	4.3	▲ 9.
	Postal, Telecommunications	57.6	56.7	60.0	58.3	60.6	56.9	56.1	59.5	52.8	64.6	57.1	50.0	30.3	▲ 19.
	Electricity,Gas,Water,Heat	58. 3	55. 6	54.5	54. 2	52.6	51.3	51.2	52.2	47.4	52.4	46.7	40.5	28. 4	▲ 12.
	Leasing,Rentals	54. 1	50.9	52.5	51.8	51.7	53.5	54.5	53.1	50.4	50.8	46.9	34.0	27.8	▲ 6.
	Lodging, Hotels	41.0	50.0	44.9	40.3	39. 9	47.2	41.3	42.0	39.1	38.5	23. 2	7.0	1.5	▲ 5.
	Recreation	38.8	42.0	41.5	41.8	40.9	38.7	38.2	40.7	37.5	39.4	35.7	17.0	5.6	▲ 11.
	Broadcasting	41.7	44. 1	43.3	41.1	45.2	43.1	42.9	41.7	38.2	38. 1	38. 9	29.8	22. 9	▲ 6.
Service	Maintenance, Guarding, Testing	48. 1	48.2	48.8	49.3	49.8	48.6	49.1	47.3	46.6	46.4	42.6	36.0	27.5	A 8.
	Advertising	40.7	40.5	40.7	40.4	38. 9	40.3	40.4	39.6	37.8	40.0	34. 1	21.3	11.3	▲ 10.
	Information	59.6	58.0	57.8	58. 5	58.7	57.7	57.4	57.8	56.2	56.5	54. 2	43.9	33. 7	▲ 10.
	Labor Dispatching	53. 5	53. 9	52.8	52.7	51.0	53.2	53.3	50.9	46.2	49.2	42.5	34. 1	21.0	▲ 13.
	Special Services	51.5	49.5	50.1	49.9	51.1	51.8	51.5	50.8	49.9	50.3	45.8	40.4	31.4	▲ 9.
	Medical,Welfare,Public Health	46. 9	47.8	47.0	48.7	46.5	47.3	46.5	48.5	47.7	47.8	43.2	35. 9	26. 4	▲ 9.
	Education	44. 2	43.6	44.0	41.1	39. 5	40.0	42.4	37.8	43.1	41.4	40.0	29. 7	13.9	▲ 15.
	Other	50.2	47.9	48.5	47.9	48.3	48.4	47.9	47.9	45.6	46.2	39.8	29. 2	21. 2	A 8.
	Total	51.6	50.6	50.8	50.8	50.7	51.0	50.6	50.4	48.8	49.5	45. 1	35. 3	25.8	▲ 9.
Other		44. 9	43. 2	42.6	44. 1	43. 2	42.1	43.1	40.4	41.7	42.7	39. 2	29.8	24. 4	▲ 5.

	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oet-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	Ratio to tHL PrFDious Month
Hokkaido	45.5	45.3	45.1	45.7	46.4	46.6	45.7	45.0	43.8	42.4	39.0	31.0	28. 4	▲ 2.6
Tohoku	43. 1	42.2	41.9	41.7	41.7	43.2	41.9	42.2	40.9	38.8	36.7	30.7	26.0	▲ 4.7
kitakanto	44. 3	43. 1	42.5	42.5	42.6	42.2	40.9	40.0	40.0	39.4	36.9	31.8	25.8	▲ 6.0
minamikanto	47.7	46.0	46.0	45.5	45.7	46.1	45.5	45.5	44.3	44.5	41.1	34. 1	26. 3	▲ 7.8
Hokuriku	45.3	44.6	44. 2	43.5	44. 1	43.5	42.1	40.4	39.5	37.6	35.6	29.7	24. 9	▲ 4.8
Tokai	48.0	46.8	45.8	44.7	45.0	45.2	43.6	42.7	41.8	40.6	37.3	31.4	23.7	▲ 7.7
Kinki	46.9	45.0	44.6	44.0	43.8	43.9	42.2	41.9	40.5	39.8	36.3	30.4	23. 9	▲ 6.5
Chugoku	47.2	45.6	45.5	45.0	44.8	45.0	44.0	43.6	42.6	41.2	39.0	33.8	27.0	▲ 6.8
Shikoku	46. 9	46.7	44.8	43.1	43.8	43.9	44.4	44.0	43.8	42.7	39.5	36. 4	30.8	▲ 5.6
Kyushu	48.3	46.9	47.0	47.6	46.3	47.1	46.5	46.8	45.1	45.2	41.5	35. 3	27.5	▲ 7.8

Survey of Corporate Attitudes Toward Capital Investment for 2020

Capital investment decreases markedly from last year, although 52.8% of companies planned to do so

 Rapid increase in companies citing "the future cannot be foreseen" as the reason for not making capital investments —

With respect to capital investment trends, demands for labor saving and efficiency to improve productivity are expected through progress in work-style reforms, etc., while there are concerns that uncertainty about the outlook will heighten, such as with the slowdown in overseas economies and the impact of COVID-19, and that capital investment may be adversely affected. The government is adopting capital investment promotion measures targeting large-sized companies in the "Package of Tax Revisions for 2020," and is also promoting capital investment support, etc., as COVID-19 subsidized projects for SMEs.

Therefore, Teikoku Databank has conducted a survey of corporate attitudes toward capital investment plans, etc. for 2020. This survey was conducted in conjunction with the April 2020 TDB Trends Research.

- * Survey period: April 16-30, 2020; Companies Surveyed: 23,672; Valid Responses: 11,961 (Response Rate: 50.5%). The survey of capital investment has been conducted every April since April 2017, and this is the 4th such survey.
- * Details of this survey can be found on the dedicated Economic Trend Survey HP (http://www.tdb-di.com).

Survey results (Summary)

- 1. Companies responding that they "have" plans to make capital investments in 2020 decreased by 9.5 points from that in the previous survey (April 2019), to 52.8%. By size, any size companies responding that they have plans decreased from last year. By industry, "agriculture, forestry and fisheries," "manufacturing," "wholesale" and "retail" in particular showed large decreases. On the other hand, those responding that they "have no plans" increased by 8.4 points from that in the previous survey, to 38.0%.
- 2. With respect to capital investment details, "replacement of equipment" was top (40.4%), followed by "maintenance and repair of existing equipment" (31.5%), "informatization-related (IT investments)" (31.2%), and "labor saving/rationalization" (28.5%). The percentage for items pertaining to existing equipment has decreased despite being at a high level, but companies that make capital investments for the purpose of improving productivity are increasing. Amid ongoing self-restraint in leaving one's home, there were many opinions about introducing telework.
- 3. With respect to capital procurement methods, "own resources" accounted for the highest percentage (44.2%). In particular, the percentage is high in companies with over 300 employees. In second place, "long-term borrowing from a financial institution" was also high (31.3%).
- 4. Reasons for not making capital investments included, "the future cannot be foreseen" (64.4%) at the top, followed by "equipment in its current state is at the appropriate level" (25.3%), and "income commensurate with the investment cannot be secured" (20.1%). SMEs particularly had higher percentages of "income commensurate with the investment cannot be secured," "the burden of borrowing is large," and "cash on hand is small" than did the large companies, and the results show the severity of the current business environment.

Appendix

1.Research Subjects(Companies researched: 23,672; Valid responses: 11,961; Response rate: 50.5%)

Appendix

1.Region

Hokkaido	586	Tokai	1,354
Tohoku	819	Kinki	1,997
kitaKanto	909	Chugoku	647
minamikanto	3,736	Shikoku	357
Hokuriku	665	Kyushu	891
		Total	11,961

2.Industry (10 Industries 51 Lines of business)

Agriculture,For	estry,Fisheries	58
Finance		128
Construction		1,945
Real Estate		388
	Food,Beverages,Livestock Feed	403
	Textile, Textile Products, Clothing	133
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	243
	Pulp, Paper and Paper Products	10'
	Publishing, Printing	20-
Manufacturing	Chemical	46
(3,290)	Steel, Nonferrous Metals, Mining	560
	General Machinery	523
	Electrical Machinery	35'
	Transportation Machinery, Equipment	114
	Precision Machinery, Medical Instruments and Equipment	85
	Others	99
	Food,Beverages	419
	Textile, Textile Products, Clothing	21
	Construction Materials, Furniture, Ceramics, Stone and Clay Products	364
Wholesale	Paper Products, Stationery, Books	109
(3,174)	Chemical	29
	Recycled Resources	45
	Steel, Nonferrous Metals, Mining Products	338
	Machinery, Equipment	1,015
	Others	383

	Food,Beverages	70			
	Textile, Textile Products, Clothing	38			
	Drugs,Sundries	2			
Retail	Furniture	1			
(511)	Electrical Household Appliances, Information Machinery and Equipment	4			
	Motor Vehicles, Motor Vehicle Parts	9			
	Special Merchandise	15			
	Various Merchandise	4			
	Others	1			
ransportation	n, Warehousing	51			
	Restaurants	5			
	Telecommunications	1			
	Electricity, Gas, Water, Heat	1			
	Leasing, Rentals				
	Lodging, Hotels	3			
	Recreation	6			
Service	Broadcasting				
(1,914)	Maintenance,Guarding,Testing	19			
	Advertising	11			
	Information	53			
	Labor Dispatching	7			
	Special Services	30			
	Medical, Welfare, Public Health				
	Education				
	Others	20			
thers		4			
	Total	11.96			

3.Size

Large Firms	2,118	17.7%
Small to Medium-sized Firms	9,843	82.3%
micro Firms	3,506	29.3%
Total	11,961	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 April 16 – 30 2020

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

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

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

An economic DI of 50 is <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 Enterorises Basic Act.