



## Business Survey and Economic Sentiment Index (ESI) for Aug 2024

- The Composite Business Sentiment Index (CBSI) in all industries for Aug 2024 was 92.5, down 2.6 points from the previous month, and that for the outlook for the following month also fell by 0.7 points to 92.7.
  - In the manufacturing sector, the CBSI for Aug 2024 was 92.8, down 2.9 points from the previous month, and that for the outlook for the following month also fell by 0.5 points to 93.7.
  - In the non-manufacturing sector, the CBSI for Aug 2024 was 92.2, down 2.4 points from the previous month, and that for the outlook for the following month also fell by 0.8 points to 92.0.
  
- The Economic Sentiment Index (ESI)—a composite of the BSI and the CSI (Consumer Survey Index)— for Aug 2024 was 94.2, down 1.7 points from the previous month.

### Major Index Components

		avg. <sup>1)</sup>	2024							Month-on-month changes	
			Feb	Mar	Apr	May	June	July	Aug	Aug	
Manufacturing	CBSI	- (-)	91.2 (91.7)	91.1 (93.1)	93.4 (91.3)	94.4 (92.7)	97.4 (93.7)	95.7 (95.1)	92.8 (94.2)	(93.7)	-2.9 (-0.5)
	Business condition	<b>79</b> <b>(81)</b>	70 (71)	71 (75)	73 (73)	74 (74)	78 (76)	73 (75)	71 (72)	(73)	-2 (+1)
	Production	<b>93</b> <b>(95)</b>	81 (82)	78 (85)	84 (81)	85 (84)	88 (86)	85 (88)	84 (86)	(86)	-1 (0)
	New orders	<b>88</b> <b>(91)</b>	75 (78)	75 (80)	78 (77)	80 (79)	81 (81)	81 (82)	77 (81)	(81)	-4 (0)
	Inventories	<b>106</b> <b>(104)</b>	104 (104)	105 (104)	105 (104)	104 (103)	104 (104)	104 (103)	105 (103)	(103)	+1 (0)
	Financial situation	<b>85</b> <b>(86)</b>	79 (82)	81 (81)	81 (81)	80 (80)	83 (81)	83 (82)	81 (83)	(81)	-2 (-2)
Non-manufacturing	CBSI	- (-)	85.0 (85.1)	88.1 (87.6)	89.8 (86.8)	91.8 (91.0)	94.3 (90.4)	94.6 (91.7)	92.2 (92.8)	(92.0)	-2.4 (-0.8)
	Business condition	<b>75</b> <b>(77)</b>	67 (68)	68 (70)	69 (69)	72 (71)	71 (72)	71 (70)	70 (72)	(71)	-1 (-1)
	Sales	<b>84</b> <b>(86)</b>	75 (75)	74 (75)	77 (75)	77 (76)	80 (76)	81 (78)	79 (80)	(78)	-2 (-2)
	Profitability	<b>84</b> <b>(85)</b>	74 (74)	77 (77)	78 (76)	79 (79)	81 (79)	81 (81)	79 (81)	(81)	-2 (0)
	Financial situation	<b>85</b> <b>(86)</b>	76 (77)	79 (78)	79 (78)	80 (82)	82 (80)	82 (81)	81 (81)	(81)	-1 (0)
ESI		-	93.3	92.2	94.5	93.8	94.7	95.9	94.2	-	-1.7
Cyclical component of ESI <sup>3)</sup>		-	92.9	92.9	93.0	93.1	93.3	93.6	93.9	-	+0.3

Notes: 1) Long-term average from January 2003 to December 2023, updated annually.  
 2) 3,524 companies were surveyed during Aug 6 to 13, among which, 3,292 responded.  
 3) Obtained by removing seasonal and irregular components from the ESI.  
 4) Figures in ( ) represent the outlooks.

## Overview of Business Survey Index

### What it means

- The Business Survey Index (BSI) is compiled to grasp the business conditions for the current month and their outlook for the month following, by conducting surveys on entrepreneurs' perceptions of them.

### What is surveyed

- A total of 15 items, including business conditions, sales and profitability, are surveyed at 3,524 corporations, which are selected using stratified systematic sampling and fall into the following classifications per the 10th revision of the KSIC (Korean Standard Industrial Classification):
  - o Manufacturing industry: 23 sub-sectors\* classified by sections
    - \* Manufacture of tobacco products has been included in the 'other manufacturing' sub-sector from 2012.
  - o Non-manufacturing industry: 13 sub-sectors\* classified by divisions
    - \* The 'sewerage, waste management and materials recovery activities' sub-sector has been added and compiled from 2012.

		Items Surveyed	Periods Surveyed
Level		business conditions (overall conditions), inventories <sup>1)</sup> , facilities investment, labor force situation <sup>1)</sup>	conditions for current month and outlooks for following month
Change	Year-on-year	new orders, production, sales (domestic and exports), capacity utilization	
	Month-on-month	sales prices, raw material purchase prices, profitability, financial situation	
Other		operational difficulties	

Note: 1) These items are countercyclical series, in that their values fall during cyclical upturns and rise during downturns.

### How it is compiled

- The survey responses are translated into indices in accordance with the following formulas:

#### o Sub-sector BSI\*

$$= \frac{\text{number of companies responding 'up/above normal'} - \text{number of companies responding 'down/below normal'}}{\text{total number of companies responding}} \times 100 + 100$$

\* A BSI reading of 100, equivalent to the benchmark, implies that the number of firms whose responses were positive was equal to that of the negative ones; a reading above (below) 100 indicates the number of firms responding positively to have exceeded (has been less than) that of the negatively responding ones.

#### o Industry (manufacturing/non-manufacturing) BSI = $\sum_{i=1}^n w_i \cdot BSI_i$ ,

where  $w_i$ : each sub-sector's GDP weight

$BSI_i$ : each sub-sector's BSI

## Overview of Composite Business Sentiment Index

### □ What it is

- The Composite Business Sentiment Index (CBSI) is made up of major business survey indices (5 for manufacturing and 4 for non-manufacturing), by standardizing the average and standard deviation of figures from January 2003 to December of the previous year. A CBSI above 100 indicates positive business expectations compared to long-term average, while a CBSI below 100 indicates negative expectations.
- The CBSI is calculated using individual averages and standard deviations, so caution is needed when comparing the levels between indices

### □ How it is compiled

Component Indices
<ul style="list-style-type: none"> <li>· Manufacture : Business Condition BSI, Production BSI, New orders BSI, Inventories BSI, Financial Situation BSI</li> <li>· Non-manufacture : Business Condition BSI, Sales BSI, Profitability BSI, Financial Situation BSI</li> </ul>



Standardization of each index
Standardization of each indices using its individual averages and standard deviations
<ul style="list-style-type: none"> <li>– Individual standardized index : <math>Y_{i,t} = \frac{X_{i,t} - \bar{X}_i}{S_i}</math></li> <li>· <math>X_{i,t}</math> : individual BSI of corresponding month * <math>i</math> : target individual index, <math>t</math> : Corresponding month</li> <li>· <math>\bar{X}_i</math> (average of individual indices within the standardization interval) = <math>\frac{1}{T} \sum_{t=1}^T X_{i,t}</math> * <math>t (= 1, \dots, T)</math> : Standardization interval, which extends until the previous December at the beginning of each year</li> <li>· <math>S_i</math> (Standard deviation of individual indices) = <math>\sqrt{\frac{1}{T-1} \sum_{t=1}^T (X_{i,t} - \bar{X}_i)^2}</math></li> </ul>



Derivation of CBSI
Average each of their standardized indices, and then scale the index so that it will have a long-term average of 100 and a standard deviation of 10
<ul style="list-style-type: none"> <li>– <math>CBSI_t = \left( \frac{Z_t - \bar{Z}}{S_Z} \right) \times 10 + 100</math></li> <li>· <math>Z_t = \sum_{i=1}^n Y_{i,t}</math> : Sum of <math>n</math> individual standardized indices at time <math>t</math> (5 for manufacturing, 4 for non-manufacturing)</li> <li>· <math>\bar{Z} = \frac{1}{T} \sum_{t=1}^T Z_t</math> : average of <math>Z_t</math> within the standardization interval</li> <li>· <math>S_Z = \sqrt{\frac{1}{T-1} \sum_{t=1}^T (Z_t - \bar{Z})^2}</math> : standard deviation of <math>Z_t</math> within the standardization interval</li> </ul>

## Overview of Economic Sentiment Index

### What it is

- The Economic Sentiment Index (ESI), a composite of the BSI (business survey index) and the CSI (consumer survey index), is compiled to comprehensively grasp the private sector perception of economic conditions, including the sentiments of both businesses and consumers.

### What it means

- An ESI reading above 100 is interpreted as meaning that economic sentiment in the private sector, including that of both businesses and consumers, is on a level better than past averages (and vice versa when the reading is below 100), since the ESI is constructed so that it is distributed around a long-term mean of 100 and a standard deviation of 10.

\* BSI and CSI readings of 100 imply, as defined by their formulas, that the shares of positive and negative responses are equal.

- o A long-term mean of 100 implies that the mean of ESI values is 100 over the standardization interval, from January 2003 to December 2023—the period for which BSI and CSI time series data are obtainable.
- o The cyclical component of the ESI is compiled to track the cyclical patterns of economic sentiment, and is calculated by removing seasonal and irregular components from its original series.

### How it is compiled

- The ESI is calculated by first choosing seven component indices that are highly responsive to the economy, from among the 32 BSI and 17 CSI component indices, weighted averaging each of their standardized indices, and then scaling the index so that it will have a long-term mean of 100 and a standard deviation of 10.
- o The component indices and their weights are selected so that the ESI will be highly correlated with and responsive to GDP, a representative indicator of the real economy.

### ESI Component Indices and their Weights

		Component Indices <sup>1)</sup>	Weights	
BSI	Manufacturing	Exports	0.150	0.45
		Capacity utilization	0.150	
		Financial situation	0.150	
Non-manufacturing	Business conditions	0.150	0.30	
	Financial situation	0.150		
CSI		Household income	0.125	0.25
		Spending decisions	0.125	

Note: 1) Each index is based on the outlooks for each of the components — those of the BSI component indices are for the following month and those of the CSI for six months ahead.

※ More detailed statistics can be found at the Bank of Korea's Economic Statistics System, <http://ecos.bok.or.kr>.