

KIET Manufacturing Business Survey Index (BSI) for the 1st Quarter 2021

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1. Overview

The overall composite Business Survey Index for the manufacturing sector in Q1 2021 remained under the baseline (100). Moreover, all feeder indices have slightly decreased compared to the previous quarter. Business conditions (92), sales (91), domestic demand (90), ordinary profit (88), and financial conditions (86) in the manufacturing sector all posted

slight decreases, while exports (97), facilities investment (102) and employment (100) recorded increases. BSI forecasts for the 2nd quarter of 2021 indicate that manufacturers anticipate the most favorable business environment in a long time. Most indices for the manufacturing sector are forecast to be over the baseline; only financial conditions (97) is projected to stay below baseline levels in this quarter.

Table 1. Manufacturing Sector Business Survey Indices

	2020				2021	
	1/4	2/4	3/4	4/4	1/4	2/4
Business conditions	71 (86)	69 (84)	84 (84)	92 (88)	92 (92)	(103)
Sales	70 (86)	68 (88)	84 (85)	96 (89)	91 (94)	(107)
Domestic demand	71 (86)	69 (88)	85 (84)	96 (88)	90 (94)	(107)
Exports	75 (94)	69 (87)	91 (84)	94 (92)	97 (97)	(109)
Ordinary profit	74 (87)	70 (87)	82 (83)	92 (88)	88 (92)	(100)
Facilities investment	97 (100)	95 (97)	99 (96)	100 (97)	102 (99)	(103)
Operation ratio of facilities	80 (92)	76 (93)	91 (90)	97 (91)	95 (96)	(107)
Inventory	100 (100)	103 (100)	100 (100)	101 (99)	101 (99)	(101)
Employment	96 (98)	91 (97)	97 (96)	98 (97)	100 (101)	(107)
Financial condition	74 (85)	74 (83)	83 (83)	89 (86)	86 (90)	(97)

Note : 1) Figures in () represent outlooks.

2. Sales BSI and Outlook by Industry

In Q1 2021, sales conditions in most industries worsened compared to the previous quarter. Only chemicals (95), textiles (77), displays (94) and secondary batteries (101) posted modest

growth, though as the figures demonstrate, the most sales BSIs in the manufacturing sectors were under the baseline. Electronic products (73), refined petroleum products (100) and wireless communication products (77) industries plunged. The sales outlook for the next quarter

Table 2. Sales BSI by Industry

	2020				2021	
	1/4	2/4	3/4	4/4	1/4	2/4
Overall	70 (86)	68 (88)	84 (85)	96 (89)	91 (94)	(107)
Semiconductors	74 (89)	82 (93)	88 (97)	99 (83)	98 (100)	(105)
Automobiles	58 (90)	37 (79)	91 (68)	93 (98)	86 (93)	(108)
Shipbuilding	76 (89)	76 (81)	62 (75)	79 (80)	70 (82)	(86)
General machinery	70 (88)	67 (85)	73 (86)	93 (85)	87 (90)	(108)
Steel	66 (83)	58 (85)	73 (57)	96 (80)	91 (88)	(108)
Chemicals	81 (93)	70 (96)	90 (75)	94 (97)	95 (95)	(113)
Textiles	50 (80)	55 (65)	73 (83)	68 (87)	77 (66)	(99)
Displays	78 (75)	72 (99)	94 (97)	90 (91)	94 (97)	(109)
Electronic products	58 (83)	68 (87)	84 (84)	101 (98)	73 (88)	(107)
Wireless communication products	68 (80)	95 (93)	95 (111)	111 (99)	77 (88)	(115)
Refined petroleum products	67 (82)	68 (86)	80 (100)	117 (80)	100 (101)	(110)
Bio/Health care	68 (107)	91 (82)	81 (94)	96 (90)	84 (101)	(111)
Secondary batteries	78 (96)	60 (89)	83 (100)	99 (89)	101 (97)	(97)
ICT	67 (83)	80 (92)	89 (97)	98 (87)	94 (97)	(107)
Material industry	65 (85)	65 (81)	82 (78)	96 (88)	93 (91)	(110)
Machinery industry	67 (89)	54 (82)	81 (76)	92 (90)	85 (90)	(106)
New industries	70 (105)	83 (84)	82 (95)	97 (90)	89 (100)	(107)
Large companies	74 (97)	74 (90)	88 (92)	105 (95)	102 (99)	(110)
Small and medium-sized enterprises (SMEs)	66 (87)	64 (83)	80 (81)	90 (89)	84 (88)	(106)

Note: 1) Figures in () represent projections.

predicts most groups will post upper-baseline figures, while sales conditions in a few industries are projected to worsen compared to the previous quarter. In addition, most industries and companies are expected to improve their current economic conditions in the next quarter. In particular, automobiles (108), general machinery (108), steel (108), chemicals (113), displays (109), electronic products (107), wireless communication products (115), bio/health care (111), ICT (107), machinery industries (106), material industries (110) and large companies (110) anticipate double digit increases from the previous quarter.

3. Export BSI and Outlook by Industry

The overall export indices for the 1st quarter were below the baseline (100), much as they were in the quarter previous. However, export conditions in most industries got better compared to the previous quarter, excepting the steel (86), electronic products (91), bio/health care (80) and new industries (88). The semiconductors (111) and chemicals (105) industries in particular recorded large decreases, while bio/health care (80) lagged among all groups. The current conditions will hold for the next quarter with regards to the outlook for the 2nd quarter, as many industries are forecasted to post upper-baseline performances. In particular, the textiles (103), displays (115), shipbuilding (107), wireless communication products (122) industries and SMEs are expected to post particularly

strong performances. Only the refined petroleum products (100) and secondary batteries (100) industries are expected to stay around the baseline.

4. Industrial Weather Chart for the 1st Quarter 2021

Overall, indices gauging sales, domestic demand, and ordinary profits in the manufacturing sector were slightly depressed in Q1 2021. Specifically, the BSI for all but a few manufacturing activities remained lower than the baseline figure of 100. Among all manufacturing activities, sales, domestic demand, exports and ordinary profit have been stagnant. On the other hand, facilities investment and employment in most manufacturing sectors have been favorable the excepting shipbuilding, general machinery, textiles, machinery industries and SMEs. Moreover, refined petroleum products industries and large companies have recorded relatively high scores in all manufacturing activities, which suggests robust overall economic performance, especially compared to other sectors.

5. Industrial Weather Forecast for the 2nd Quarter 2021

Overall BSI prospects in Q2 2021 are optimistic for a strong economic performance given the business climate chart of major index components. In Table 5's industrial weather chart, there are numerous partly sunny items mixed

Table 3. Export BSI by Industry

	2020				2021	
	1/4	2/4	3/4	4/4	1/4	2/4
Overall	75 (94)	69 (87)	91 (84)	94 (92)	97 (97)	(109)
Semiconductors	83 (104)	91 (91)	101 (100)	97 (93)	111 (105)	(109)
Automobiles	65 (94)	34 (77)	92 (63)	89 (99)	88 (96)	(108)
Shipbuilding	84 (99)	83 (89)	79 (85)	83 (79)	91 (83)	(107)
General machinery	73 (93)	62 (84)	74 (80)	91 (83)	93 (94)	(106)
Steel	74 (88)	52 (80)	71 (48)	102 (75)	86 (94)	(104)
Chemicals	85 (100)	70 (95)	97 (71)	95 (96)	105 (95)	(114)
Textiles	55 (86)	40 (65)	84 (81)	75 (85)	72 (69)	(103)
Displays	71 (69)	81 (96)	97 (98)	74 (95)	83 (88)	(115)
Electronic products	59 (95)	60 (84)	93 (95)	101 (104)	91 (99)	(121)
Wireless communication products	75 (89)	77 (86)	86 (119)	111 (93)	104 (98)	(122)
Refined petroleum products	76 (92)	78 (91)	90 (100)	109 (92)	110 (106)	(100)
Bio/Health care	77 (109)	82 (93)	84 (89)	104 (92)	80 (108)	(109)
Secondary batteries	75 (102)	70 (86)	90 (93)	103 (87)	108 (100)	(100)
ICT	70 (92)	86 (88)	99 (100)	94 (95)	103 (101)	(112)
Material industry	71 (92)	64 (80)	88 (74)	97 (89)	97 (94)	(107)
Machinery industry	72 (94)	51 (82)	83 (72)	89 (90)	90 (94)	(107)
New industries	76 (108)	79 (91)	85 (90)	103 (91)	88 (106)	(106)
Large companies	77 (97)	67 (90)	94 (88)	102 (93)	102 (103)	(106)
Small and medium-sized enterprises (SMEs)	71 (94)	61 (83)	85 (78)	91 (89)	89 (92)	(109)

Note: 1) Figures in () represent projections.

with the sunny ones, illustrating the challenging economic conditions faced by most industries. The displays, wireless communication products and electronic products industries are projected to enjoy a favorable business climate, while the shipbuilding, textiles, and

secondary batteries industries are expected to see less improved business conditions. Yet overall conditions should turn around from the depression and record a slight improvement. Also, while a few major indices are expected to stay below the baseline, most manufac-

Table 4. Major Index Components of Current Manufacturing Activity

	Sales	Domestic Demand	Exports	Ordinary Profit	Facilities Investment	Employment
Overall	91 ☁️	90 ☁️	97 ☁️	88 ☁️	102 🌤️	100 🌤️
Semiconductors	98 ☁️	97 ☁️	111 🌤️	96 ☁️	109 🌤️	103 🌤️
Displays	94 ☁️	95 ☁️	83 🌧️	87 ☁️	99 ☁️	100 🌤️
Wireless communication products	77 🌧️	78 🌧️	104 🌤️	94 ☁️	102 🌤️	100 🌤️
Electronic products	73 🌧️	76 🌧️	91 ☁️	74 🌧️	97 ☁️	100 🌤️
Automobiles	86 ☁️	86 ☁️	88 ☁️	79 🌧️	100 🌤️	100 🌤️
Shipbuilding	70 🌧️	72 🌧️	91 ☁️	70 🌧️	93 ☁️	82 🌧️
General machinery	87 ☁️	86 ☁️	93 ☁️	87 ☁️	99 ☁️	99 ☁️
Refined petroleum products	100 🌤️	100 🌤️	110 🌤️	100 🌤️	102 🌤️	104 🌤️
Chemicals	95 ☁️	94 ☁️	105 🌤️	89 ☁️	103 🌤️	103 🌤️
Steel	91 ☁️	88 ☁️	86 ☁️	89 ☁️	100 🌤️	94 ☁️
Textiles	77 🌧️	78 🌧️	72 🌧️	76 🌧️	93 ☁️	93 ☁️
Bio/Health care	84 🌧️	84 🌧️	80 🌧️	89 ☁️	97 ☁️	102 🌤️
Secondary batteries	101 🌤️	94 ☁️	108 🌤️	93 ☁️	107 🌤️	107 🌤️
ICT	94 ☁️	94 ☁️	103 🌤️	92 ☁️	106 🌤️	102 🌤️
Machinery industry	85 ☁️	84 🌧️	90 ☁️	81 🌧️	99 ☁️	97 ☁️
Material industry	93 ☁️	92 ☁️	97 ☁️	90 ☁️	101 🌤️	100 🌤️
New industries	89 ☁️	87 ☁️	88 ☁️	90 ☁️	100 🌤️	103 🌤️
Large companies	102 🌤️	100 🌤️	102 🌤️	98 ☁️	100 🌤️	101 🌤️
Small and medium-sized enterprises (SMEs)	84 🌧️	84 🌧️	89 ☁️	82 🌧️	99 ☁️	98 ☁️

Note: 🌤️ 115 above, 🌤️ 100~115, ☁️ 85~100, 🌧️ 85 below.

turing activities in every industry and among most companies should post figures measurably better than those recorded in recent quarters.

Table 5. Manufacturing Outlook Major Index Components

	Sales	Domestic Demand	Exports	Ordinary Profit	Facilities Investment	Employment
Overall	107 ☀️☁️	107 ☀️☁️	109 ☀️☁️	100 ☀️☁️	103 ☀️☁️	104 ☀️☁️
Semiconductors	105 ☀️☁️	108 ☀️☁️	109 ☀️☁️	101 ☀️☁️	109 ☀️☁️	106 ☀️☁️
Displays	109 ☀️☁️	108 ☀️☁️	115 ☀️	102 ☀️☁️	101 ☀️☁️	101 ☀️☁️
Wireless communication products	115 ☀️	114 ☀️☁️	122 ☀️	99 ☁️	102 ☀️☁️	101 ☀️☁️
Electronic products	107 ☀️☁️	106 ☀️☁️	121 ☀️	99 ☁️	102 ☀️☁️	104 ☀️☁️
Automobiles	108 ☀️☁️	107 ☀️☁️	108 ☀️☁️	97 ☁️	100 ☀️☁️	103 ☀️☁️
Shipbuilding	86 ☁️	87 ☁️	107 ☀️☁️	87 ☁️	96 ☁️	93 ☁️
General machinery	108 ☀️☁️	107 ☀️☁️	106 ☀️☁️	99 ☁️	100 ☀️☁️	105 ☀️☁️
Refined petroleum products	110 ☀️☁️	110 ☀️☁️	100 ☀️☁️	106 ☀️☁️	108 ☀️☁️	106 ☀️☁️
Chemicals	113 ☀️☁️	112 ☀️☁️	114 ☀️☁️	100 ☀️☁️	103 ☀️☁️	104 ☀️☁️
Steel	108 ☀️☁️	106 ☀️☁️	104 ☀️☁️	105 ☀️☁️	102 ☀️☁️	103 ☀️☁️
Textiles	99 ☁️	100 ☀️☁️	103 ☀️☁️	92 ☁️	99 ☁️	97 ☁️
Bio/Health care	111 ☀️☁️	109 ☀️☁️	109 ☀️☁️	104 ☀️☁️	99 ☁️	104 ☀️☁️
Secondary batteries	97 ☁️	96 ☁️	100 ☀️☁️	92 ☁️	103 ☀️☁️	100 ☀️☁️
ICT	107 ☀️☁️	108 ☀️☁️	112 ☀️☁️	101 ☀️☁️	107 ☀️☁️	105 ☀️☁️
Machinery industry	106 ☀️☁️	105 ☀️☁️	107 ☀️☁️	97 ☁️	100 ☀️☁️	103 ☀️☁️
Material industry	110 ☀️☁️	108 ☀️☁️	107 ☀️☁️	101 ☀️☁️	103 ☀️☁️	103 ☀️☁️
New industries	107 ☀️☁️	105 ☀️☁️	106 ☀️☁️	101 ☀️☁️	100 ☀️☁️	103 ☀️☁️
Large companies	110 ☀️☁️	110 ☀️☁️	106 ☀️☁️	105 ☀️☁️	104 ☀️☁️	104 ☀️☁️
Small and medium-sized enterprises (SMEs)	106 ☀️☁️	105 ☀️☁️	109 ☀️☁️	97 ☁️	100 ☀️☁️	102 ☀️☁️

Note: ☀️ 115 above, ☀️☁️ 100~115, ☁️ 85~100, ☁️ 85 below.

< Appendix >

Outline of KIET Quarterly Manufacturing Business Survey Index

- BSI figures were compiled through surveys completed by representatives at 1014 domestic manufacturing firms, with 90.4 percent of the respondents who complied with the survey identifying as a small or medium-sized enterprise. The survey was conducted from March 10 to 22, 2021.
- The questionnaire issued comprises 10 sections on business conditions, sales, domestic demand, exports, ordinary profit, facilities investment, operation ratio of facilities, inventory, employment, and financial conditions. This survey is intended to assess quarterly performance and grasp the economic climate of the upcoming quarter.