

KIET Manufacturing Business Survey Index (BSI) for the 3rd Quarter 2020

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1. Overview

The overall composite Business Survey Index for the manufacturing sector in Q3 2020 still remained under the baseline (100). However, for the first time this year, all feeder indices excepting only inventory (100) have considerably improved compared to the previous quarter. Specifically, business conditions (84), sales (84), domestic demand (85), exports (91), ordinary profit (82), and operation ratio of facilities (91) in the manufacturing sector have

shown double-digit increases in this quarter. The BSI outlook for the 4th quarter of 2020 indicates that the business environment for manufacturers will worsen compared to this 3rd quarter, because all BSI outlook indices still remain under the baseline (100). However, it is important to note that all BSI outlook indices are projected to slightly increase quarter on quarter. These means that the business expectations of corporations in the manufacturing sector for the next quarter are expected to improve gradually.

Table 1. Business Survey Indices for the Manufacturing Sector

	2019		2020			
	3/4	4/4	1/4	2/4	3/4	4/4
Business conditions	78 (90)	84 (87)	71 (86)	69 (84)	84 (84)	(88)
Sales	78 (96)	85 (88)	70 (86)	68 (88)	84 (85)	(89)
Domestic demand	80 (95)	86 (88)	71 (86)	69 (88)	85 (84)	(88)
Exports	92 (98)	90 (96)	75 (94)	69 (87)	91 (84)	(92)
Ordinary profit	78 (91)	85 (86)	74 (87)	70 (87)	82 (83)	(88)
Facilities investment	94 (98)	101 (94)	97 (100)	95 (97)	99 (96)	(97)
Operation ratio of facilities	85 (96)	90 (91)	80 (92)	76 (93)	91 (90)	(91)
Inventory	99 (101)	104 (98)	100 (100)	103 (100)	100 (100)	(99)
Employment	93 (98)	99 (94)	96 (98)	91 (97)	97 (96)	(97)
Financial condition	84 (87)	83 (86)	74 (85)	74 (83)	83 (83)	(86)

Note : 1) Figures in () represent outlooks.

2. Sales BSI and Outlook by Industry

In Q3 2020, sales indices in most industries

have gotten better compared to the previous quarter. Despite these improvements, sales indices in most industries stayed under the baseline.

Table 2. Sales BSI by Industry

	2019		2020			
	3/4	4/4	1/4	2/4	3/4	4/4
Overall	78 (96)	85 (88)	70 (86)	68 (88)	84 (85)	(89)
Electronics*	- (107)	- -	- -	- -	- -	-
Semiconductors	73 (94)	85 (82)	74 (89)	82 (93)	88 (97)	(83)
Automobiles	74 (92)	87 (90)	58 (90)	37 (79)	91 (68)	(98)
Shipbuilding	84 (99)	86 (87)	76 (89)	76 (81)	62 (75)	(80)
General machinery	75 (89)	87 (83)	70 (88)	67 (85)	73 (86)	(85)
Steel	84 (89)	83 (93)	66 (83)	58 (85)	73 (57)	(80)
Chemicals	85 (102)	89 (88)	81 (93)	70 (96)	90 (75)	(97)
Electricity*	- (94)	- -	- -	- -	- -	-
Precision machines*	- (107)	- -	- -	- -	- -	-
Textiles	63 (87)	76 (86)	50 (80)	55 (65)	73 (83)	(87)
Nonmetallic minerals*	- (98)	- -	- -	- -	- -	-
Displays**	78 -	73 (82)	78 (75)	72 (99)	94 (97)	(91)
Electronic products**	69 -	81 (78)	58 (83)	68 (87)	84 (84)	(98)
Wireless communication products**	92 -	89 (102)	68 (80)	95 (93)	95 (111)	(99)
Refined petroleum products**	80 -	90 (96)	67 (82)	68 (86)	80 (100)	(80)
Bio/Health care**	99 -	105 (105)	68 (107)	91 (82)	81 (94)	(90)
Secondary batteries**	81 -	89 (96)	78 (96)	60 (89)	83 (100)	(89)
ICT	77 (100)	83 (89)	67 (83)	80 (92)	89 (97)	(87)
Heavy-chemical industry	- (95)	- -	- -	- -	- -	-
Light industry	- (94)	- -	- -	- -	- -	-
Material industry	77 -	83 (89)	65 (85)	65 (81)	82 (78)	(88)
Machinery industry	76 -	87 (86)	67 (89)	54 (82)	81 (76)	(90)
New industries	95 -	101 (104)	70 (105)	83 (84)	82 (95)	(90)
Large companies	94 (101)	96 (100)	74 (97)	74 (90)	88 (92)	(95)
Small and medium-sized enterprises (SMEs)	77 (94)	85 (87)	66 (87)	64 (83)	80 (81)	(89)

Note : 1) Figures in () represent projections.

2) Due to reforms made to the survey panel and the reorganization of industries, direct quarterly comparisons of indices may not be statistically significant.

3) * represent industries surveyed prior to reforms, while ** represent industries surveyed following reforms to the survey methodology.

But most importantly, drastic increases in automobiles (91), displays (94), chemicals (90) and secondary batteries (83) industries is noticeable. The sales outlook for the next quarter predicts all groups will post lower-than-baseline figures. In particular, most corporations in ICT and new industries express that expectations for improvement in the next quarter are down a great deal compared to the previous quarter. However, for the first time in this year, most material industries including steel, chemicals and others are all expected to record increases from the previous quarter.

3. Exports BSI and Outlook by Industry

The overall export indices of manufacturing industries for the 3rd quarter indicate poor business conditions, much as they did in the quarter previous. To wit, most feeder indices have still remained under the baseline (100), excepting semiconductors (101). However, displays (97), electronic products (93), automobiles (92), chemicals (97), textiles (84), steel (71), and secondary batteries (90) showed dramatic increases among all industries amid continued sluggish performance. The outlook for the 4th quarter does not look very promising compared to the previous quarter, as many industries are forecast to post below-baseline performances. In particular the semiconductors, displays, wireless communication products, shipbuilding, refined petroleum products, and secondary batteries industries are set to

deliver poor export performances. Despite sluggish expectations regarding export performances for the next quarter, the majority of firms in the machinery and materials industries, such as automobiles, chemicals, steel and other industries express expectations for slight improvement in the next quarter compared to the previous quarter.

4. Industrial Weather Chart for the 3rd Quarter 2020

Overall, it is clear that indices gauging sales and ordinary profits in the manufacturing sector in Q3 2020 have been stagnant. These means that the economic environment of manufacturing sector has worsened since last quarter. Moreover, the BSI for most manufacturing activities remained lower than the baseline figure of 100. But the only positive part is that most major indices improved compared to the previous quarter. Specifically, exports, facilities investment, and employment in the semiconductors, displays, wireless communication products, refined petroleum products, chemicals, and secondary batteries industries improved compared to the previous quarter. On the other hand, sales, domestic demand, and ordinary profit in most industries showed continued weak economic performance given the business climate. In particular, major indices of the shipbuilding, general machinery, steel, textile, and bio/healthcare industries have been unfavorable, especially compared to other industries.

Table 3. Exports BSI by Industry

	2019		2020			
	3/4	4/4	1/4	2/4	3/4	4/4
Overall	92 (98)	90 (96)	75 (94)	69 (87)	91 (84)	(84)
Electronics*	- (104)	- -	- -	- -	- -	-
Semiconductors	93 (92)	96 (93)	83 (104)	91 (91)	101 (100)	(93)
Automobiles	90 (96)	92 (96)	65 (94)	34 (77)	92 (63)	(99)
Shipbuilding	101 (100)	81 (99)	84 (99)	83 (89)	79 (85)	(79)
General machinery	88 (91)	84 (91)	73 (93)	62 (84)	74 (80)	(83)
Steel	94 (91)	86 (99)	74 (88)	52 (80)	71 (48)	(75)
Chemicals	93 (104)	90 (95)	85 (100)	70 (95)	97 (71)	(96)
Electricity*	- (95)	- -	- -	- -	- -	-
Precision machines*	- (103)	- -	- -	- -	- -	-
Textiles	92 (93)	85 (97)	55 (86)	40 (65)	84 (81)	(85)
Nonmetallic minerals*	- (101)	- -	- -	- -	- -	-
Displays**	84 -	67 (92)	71 (69)	81 (96)	97 (98)	(95)
Electronic products**	91 -	82 (91)	59 (95)	60 (84)	93 (95)	(104)
Wireless communication products**	97 -	93 (103)	75 (89)	77 (86)	86 (119)	(93)
Refined petroleum products**	89 -	103 (96)	76 (92)	78 (91)	90 (100)	(92)
Bio/Health care**	100 -	111 (103)	77 (109)	82 (93)	84 (89)	(92)
Secondary batteries**	86 -	100 (98)	75 (102)	70 (86)	90 (93)	(87)
ICT	92 (98)	85 (95)	70 (92)	86 (88)	99 (100)	(95)
Heavy-chemical industry	- (97)	- -	- -	- -	- -	-
Light industry	- (98)	- -	- -	- -	- -	-
Material industry	93 -	88 (97)	71 (92)	64 (80)	88 (74)	(89)
Machinery industry	91 -	86 (94)	72 (94)	51 (82)	83 (72)	(90)
New industries	97 -	109 (102)	76 (108)	79 (91)	85 (90)	(91)
Large companies	99 (102)	93 (102)	77 (97)	67 (90)	94 (88)	(93)
Small and medium-sized enterprises (SMEs)	92 (96)	89 (95)	71 (94)	61 (83)	85 (78)	(89)

Note : 1) Figures in () represent projections.

2) Due to reforms made to the survey panel and the reorganization of industries, direct quarterly comparisons of indices may not be statistically significant.

3) * represent industries surveyed prior to reforms, while ** represent industries surveyed following reforms to the survey methodology.

5. Industrial Weather Forecast for the 4th Quarter 2020

Overall BSI figures for Q4 2020 do not suggest a

very promising business climate. In particular, major indices of most industries are expected to post figures under the baseline, except for some specific indices in the semiconductor, wireless

Table 4. Major Index Components of Current Manufacturing Activity

	Sales	Domestic Demand	Exports	Ordinary Profit	Facilities Investment	Employment
Overall	84	85	91	82	99	97
Semiconductors	88	91	101	83	103	101
Displays**	94	96	97	94	99	99
Wireless communication products**	95	99	86	94	99	99
Electronic products**	84	85	93	84	99	95
Automobiles	91	91	92	87	95	93
Shipbuilding	62	65	79	67	96	88
General machinery	73	74	74	72	96	96
Refined petroleum products**	80	77	90	83	101	100
Chemicals	90	87	97	88	101	97
Steel	73	70	71	73	92	89
Textiles	73	74	84	76	96	89
Bio/Health care**	81	84	84	81	96	99
Secondary batteries**	83	81	90	81	101	97
ICT	89	92	99	86	102	100
Machinery industry**	81	81	83	79	96	93
Material industry**	82	79	88	82	98	95
New industries**	82	84	85	81	97	98
Large companies	88	90	94	86	94	94
Small and medium-sized enterprises (SMEs)	80	80	85	79	97	94

Note : 1) 115 above, 100~115, 85~100, 85 below.
 2) ** represent industries surveyed following reforms to the survey methodology.

communication products, electronic products, and secondary batteries industries. Most major indices in the manufacturing sector indicate a gloomy business climate. However they should post figures better than those recorded in the

previous quarters. In particular, some of the major indices in several materials industry sectors improved slightly compared to the previous quarter. It can be seen as a clearly positive signal of the emergence from a slump.

Table 5. Major Index Components of the Manufacturing Outlook

	Sales	Domestic Demand	Exports	Ordinary Profit	Facilities Investment	Employment
Overall	89 ☁	88 ☁	92 ☁	88 ☁	97 ☁	97 ☁
Semiconductors	83 🌧	83 🌧	93 ☁	84 🌧	101 🌤	98 ☁
Displays**	91 ☁	91 ☁	95 ☁	90 ☁	94 ☁	91 ☁
Wireless communication products**	99 ☁	101 🌤	93 ☁	94 ☁	99 ☁	101 🌤
Electronic products**	98 ☁	98 ☁	104 🌤	92 ☁	98 ☁	97 ☁
Automobiles	98 ☁	97 ☁	99 ☁	97 ☁	96 ☁	98 ☁
Shipbuilding	80 🌧	81 🌧	79 🌧	80 🌧	95 ☁	93 ☁
General machinery	85 ☁	85 ☁	83 🌧	84 🌧	96 ☁	98 ☁
Refined petroleum products**	80 🌧	81 🌧	92 ☁	81 🌧	96 ☁	99 ☁
Chemicals	97 ☁	96 ☁	96 ☁	94 ☁	99 ☁	98 ☁
Steel	80 🌧	81 🌧	75 🌧	80 🌧	95 ☁	92 ☁
Textiles	87 ☁	88 ☁	85 ☁	85 ☁	96 ☁	93 ☁
Bio/Health care**	90 ☁	88 ☁	92 ☁	85 ☁	97 ☁	99 ☁
Secondary batteries**	89 ☁	88 ☁	87 ☁	89 ☁	99 ☁	100 🌤
ICT	87 ☁	87 ☁	95 ☁	87 ☁	99 ☁	97 ☁
Machinery industry**	90 ☁	90 ☁	90 ☁	90 ☁	96 ☁	97 ☁
Material industry**	88 ☁	89 ☁	89 ☁	87 ☁	97 ☁	96 ☁
New industries**	90 ☁	88 ☁	91 ☁	86 ☁	98 ☁	99 ☁
Large companies	95 ☁	95 ☁	93 ☁	93 ☁	96 ☁	97 ☁
Small and medium-sized enterprises (SMEs)	89 ☁	89 ☁	89 ☁	87 ☁	97 ☁	96 ☁

Note : 1) 🌤 115 above, ☁ 100~115, ☁ 85~100, 🌧 85 below.
 2) ** represent industries surveyed following reforms to the survey methodology.

< Appendix >

Outline of KIET Quarterly Manufacturing Business Survey Index

- BSI figures were compiled through surveys completed by representatives at 1033 domestic manufacturing firms, with 91.3 percent of the respondents who complied with the survey identifying as a small or medium-sized enterprise. The survey was conducted from September 10 to 23, 2020.
- 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.