Taiwan Fastener Export Market Development and Outlook for 2025

1. Introduction

On January 17, 2024, CommonWealth Magazine published a report titled "World Economic Forum: How 800 CEOs Think About the Economy in 2024," which revealed a survey result that 45% of the CEOs expect the economy to enter a recession, significantly down from 73% last year. Only 18% of the CEOs believe their companies will be affected by geopolitical issues in the next 12 months. Executives in the banking and finance sectors expressed concerns that the impacts of the Ukraine war and Middle Eastern conflicts have not yet fully reflected in the markets, worrying about significant fluctuations in oil and energy prices. In 2024, over 60 countries will hold elections, affecting about half of the global population. The Central Bank of Taiwan forecasts the global economic and financial landscape, saying there is "an upward reversal in manufacturing and service sector outlooks, which will increase global economic growth momentum 2024; and trade growth is also expected to rebound. However, due to high interest rates, S&P Global Market Intelligence predicts a slight decrease in global economic growth from 2.7% last year to 2.6% in 2024, remaining stable at 2.6% in 2025." It is anticipated that manufacturing will shift from contraction to expansion. Additionally, the service sector's PMI continues to rise from its lowest point, indicating accelerated expansion in the service sector. The outlook for both manufacturing and services is reversing upward and becoming more optimistic, with expectations for global economic growth to regain momentum in Q2 to Q3, 2024 (Fig. 1). It is also expected that the global trade volume will increase over the next two years due to a recovery in commodity trade, expanded opportunities in emerging technologies, and a strong rebound in international tourism (Table 1). The forecast for global economic growth in 2024 is 2.6%, slightly lower than last year's 2.7%, and expected to remain flat at 2.6% next year.

However, with rising bond yields in major economies and an upward trend in global stock markets, will Taiwan's fastener industry also show signs of recovery? Is the global fastener market demand being impacted by rising international oil prices and the expansion of overall global inflation? Or is it experiencing price drops due to weak economic conditions in China? Since 2023, Taiwan's fastener industry has felt the severe market changes following the COVID-19 pandemic, making it quite challenging for fastener companies. Global fastener market customers have significantly replenished inventories due to post-COVID-19 shipping conditions;

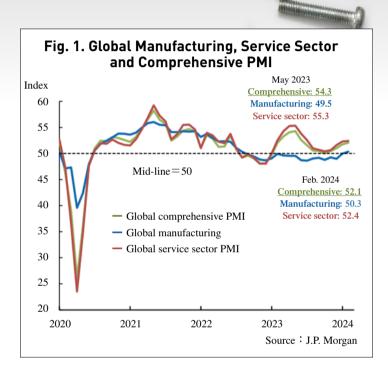


Table 1. Global Trade Volume Growth Rate

Unit: %

Institutions	Forecast Date	2023	2024(f)	2025(f)
UN	2024/1/4	0.6	▲ 2.4	▲ 3.2
World Bank	2024/1/9	0.2	▲ 2.3	▲ 3.1
IMF	2024/1/30	0.4	▲ 3.3	▲ 3.6

Note: 1. Including merchandize, service and trade 2. \triangle = Growth 3. (f) = Forecast Source: Institutions

however, the pace of inventory reduction has been slow after the pandemic situation improved. Additionally, international conflicts such as the Ukraine war and Middle Eastern tensions have affected global shipping conditions. As a result, Taiwan's fastener industry faces ongoing uncertainty amid a harsh market environment. Although the government supported Taiwan International Fastener Show scheduled for June 5-7, 2024, whether this event can inject vitality into Taiwan's fastener export market remains to be validated through the exhibitors' actual export statistics and customs data for fastener products, through which we can evaluate the status and prospect of the fastener export market.

2. Customs Export Statistics for Taiwanese **Fastener Products**

After World War II, many American and European countries moved basic manufacturing to Asian countries due to factors like labor costs, providing development opportunities for Taiwan's fastener industry. The structure of Taiwan's fastener industry includes upstream, midstream, downstream, and peripheral distributors, forming a complete ecosystem. Today, Taiwan ranks as the third-largest fastener exporter globally and holds a leading position in the international fastener industry. The demand for global fastener products can be observed through Taiwan's actual export value and weight data. In other words, changes in Taiwan's actual export value and weight can also be used to assess shifts in global market demand for Taiwanese fasteners. Since changes in export value and weight involve fluctuations across upstream, midstream, downstream industries and peripheral distributors, we can observe these statistics to present and predict the market conditions faced by fastener companies.

Analyzing the trends before and after COVID-19, I compared customs export values and annual export value growth rates for Taiwanese fasteners from Q1 2021 to Q2 2024 (Table 2) along with statistics on annual export weight growth (Table 3).

Observing the data on Taiwan's fastener export value: The customs value of Taiwanese fasteners exported globally rose from USD 1,192.27 million per quarter in Q1 2021 to USD 1,593.66 million per quarter in Q2 2022, but began declining from Q4 2022 to only USD 715.68 million per quarter by Q2 2024. When examining Taiwan's export value statistics categorized by regions such as Europe, North America, Latin America, Oceania, and Asia from Q1 2021 to Q2 2024, North America remains the primary market followed by Europe, Asia, Latin America, and Oceania. Thus, there has been little change in the ranking of regions for Taiwanese fastener exports; however, since Q4 2022 onward, the export values have begun decreasing across all regions quarterly. By Q2 2024, the export value reached its lowest quarterly level since Q4 2022.

Looking at annual growth rates for Taiwanese fastener exports, regardless of global or individual regional markets, Taiwanese fastener export value exhibited positive annual growth rates starting from Q1 2021, but shifted to negative rates beginning in Q4 2022. While there was positive growth observed in Latin America during Q1 2024, the overall global annual growth rates transitioned into negative trend from Q4 2022 through Q2 2024.

Examining the data on export weight: The ranking of primary destination markets based on export weight remains the same with North America on top, followed by Europe, Asia, Latin America, and Oceania. During the period from Q4 2021 to Q2 2022, Taiwanese fastener global export weight reached a peak; however, the export to Asia began slowing during this same period—from an export weight of 53,960.48 tons per quarter in Q4 2021 down to 25,226.637 tons per quarter by Q2 2024. The global export weights as well as those for North America and Europe began decreasing from Q4 2022 onward to Q2 2024 without recovering back to levels seen in Q1 2021.

Observing the annual growth rates for Taiwanese fastener export weight: Except for Asia and Latin America—where negative growth was reflected on (Q4 2021 and Q2 2022 respectively)—other markets began showing negative annual growth rates after Q3-Q4 of 2022. Although North America and Latin America showed positive annual growth rates during Q1 2024 for export weight, overall global annual growth rates remained negative by Q2 2024. Therefore, whether market demand is recovering should still be assessed with a more cautious mindset regarding the situation's development.

Calculating the average unit prices based on export values (Table 2) and weights (Table 3), we derive statistics on unit price changes for Taiwanese fasteners exported between Q1 2021 and Q2 2024 (Table 4). Observing changes in unit prices from Q1 2021 through O2 2024 reveals similar trends among global markets indicating that individual market trends do not deviate significantly from overall trends. Based on the average unit price of global and other individual markets, it shows that during Q2 2024 unit prices have approximately returned to levels seen between O3-O4 of 2021.

3. Outlook on Demand for Taiwan's **Fastener Exports**

In basic economic markets related to fasteners, customer demand is typically influenced by several factors including: changes in disposable income among customers; shifts in customer preferences; costs; changes regarding substitutes and complements; product source quantities and structures; expectations about future conditions.

Fastener production must trace back through raw material sources and the use and design of dies, as well as automated processes such as stamping, forging, threading, plastic forming, heat treatment, surface treatment—all necessary to meet customer quality standards. On basis of meeting the quality standards set by customers themselves, changes regarding preferences or product source quantities have less impact on demand on condition that lowercost alternatives or substitutes meet customers' quality requirements. Post-COVID-19 inventory reduction speeds, or actual demand after inventory reduction, are the ones that truly reflect customer disposable income needs.

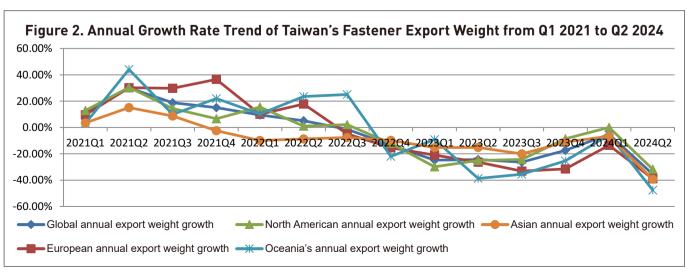
In basic economic markets, supply and demand closely intertwine and they dictate pricing. Customs export statistics for Taiwanese fastener products indicate that from Q1 2022 to Q2 2022, Taiwan's global export weight reached nearly 430,000 tons per quarter to meet the demand at that time, resulting in a supply shortage in the fastener market. In Q1 2024 and Q2 2024, the global export weight was only approximately 305,000 tons per quarter and 203,000 tons per quarter, respectively. Compared to the highest export weight, these figures represent only about 71% and 47% of those peak levels. Under conditions of oversupply, the export market has led to price declines, and despite optimistic forecasts for economic growth in 2024, demand remains insufficient, resulting in weakness.

Table 2. Statistics on Export Value and Annual Growth Rate of Taiwan Fasteners from Q1 2021 to Q2 2024 (C.C.C. code 731811-731829, Unit: USD Million)

Quarterly/ By Region	2021Q1	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3
Global Value	1192.27	1254.90	1384.93	1487.31	1589.17	1593.66	1560.48
Global Annual Growth Rate	16.14%	43.86%	38.44%	39.02%	33.29%	27.00%	12.68%
European Value	384.28	373.91	454.03	506.13	494.77	513.46	480.73
European Annual Growth Rate	14.93%	42.11%	44.63%	56.87%	28.75%	37.32%	5.88%
North American Value	537.69	591.94	633.46	663.84	779.30	754.74	757.80
North American Annual Growth Rate	18.68%	45.48%	37.49%	33.33%	44.94%	27.50%	19.63%
Central And South American Value	41.57	47.38	43.31	50.15	55.46	53.87	50.57
Central And South American Annual Growth Rate	22.70%	118.30%	38.49%	37.80%	33.40%	13.71%	16.78%
Oceania Value	24.94	29.21	28.50	38.10	33.45	43.31	40.03
Oceania Annual Growth Rate	8.50%	45.81%	29.75%	50.11%	34.11%	48.27%	40.45%
Asian Value	196.44	207.60	219.57	222.18	219.48	221.44	223.53
Asian Annual Growth Rate	11.61%	31.70%	31.38%	22.13%	11.73%	6.66%	1.80%
Quarterly/ By Region	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2
Quarterly/ By Region Global Value	2022Q4 1397.36	2023Q1 1253.80	2023Q2 1184.85	2023Q3 1092.01	2023Q4 1069.38	2024Q1 1073.55	2024Q2 715.68
Global Value	1397.36	1253.80	1184.85	1092.01	1069.38	1073.55	715.68
Global Value Global Annual Growth Rate	1397.36 -6.05%	1253.80 -21.10%	1184.85 -25.65%	1092.01 -30.02%	1069.38 -23.47%	1073.55 -14.38%	715.68 -39.60%
Global Value Global Annual Growth Rate European Value	1397.36 -6.05% 457.54	1253.80 -21.10% 426.08	1184.85 -25.65% 391.92	1092.01 -30.02% 330.76	1069.38 -23.47% 306.94	1073.55 -14.38% 333.16	715.68 -39.60% 216.73
Global Value Global Annual Growth Rate European Value European Annual Growth Rate	1397.36 -6.05% 457.54 -9.60%	1253.80 -21.10% 426.08 -13.88%	1184.85 -25.65% 391.92 -23.67%	1092.01 -30.02% 330.76 -31.20%	1069.38 -23.47% 306.94 -32.91%	1073.55 -14.38% 333.16 -21.81%	715.68 -39.60% 216.73 -44.70%
Global Value Global Annual Growth Rate European Value European Annual Growth Rate North American Value	1397.36 -6.05% 457.54 -9.60% 650.47	1253.80 -21.10% 426.08 -13.88% 570.97	1184.85 -25.65% 391.92 -23.67% 541.05	1092.01 -30.02% 330.76 -31.20% 520.72	1069.38 -23.47% 306.94 -32.91% 522.93	1073.55 -14.38% 333.16 -21.81% 507.60	715.68 -39.60% 216.73 -44.70% 349.61
Global Value Global Annual Growth Rate European Value European Annual Growth Rate North American Value North American Annual Growth Rate	1397.36 -6.05% 457.54 -9.60% 650.47 -2.02%	1253.80 -21.10% 426.08 -13.88% 570.97 -26.73%	1184.85 -25.65% 391.92 -23.67% 541.05 -28.31%	1092.01 -30.02% 330.76 -31.20% 520.72 -31.29%	1069.38 -23.47% 306.94 -32.91% 522.93 -19.61%	1073.55 -14.38% 333.16 -21.81% 507.60 -11.10%	715.68 -39.60% 216.73 -44.70% 349.61 -35.38%
Global Value Global Annual Growth Rate European Value European Annual Growth Rate North American Value North American Annual Growth Rate Central And South American Value	1397.36 -6.05% 457.54 -9.60% 650.47 -2.02% 46.44	1253.80 -21.10% 426.08 -13.88% 570.97 -26.73% 41.04	1184.85 -25.65% 391.92 -23.67% 541.05 -28.31% 44.56	1092.01 -30.02% 330.76 -31.20% 520.72 -31.29% 45.81	1069.38 -23.47% 306.94 -32.91% 522.93 -19.61% 45.15	1073.55 -14.38% 333.16 -21.81% 507.60 -11.10% 46.25	715.68 -39.60% 216.73 -44.70% 349.61 -35.38% 30.988
Global Value Global Annual Growth Rate European Value European Annual Growth Rate North American Value North American Annual Growth Rate Central And South American Value Central And South American Annual Growth Rate	1397.36 -6.05% 457.54 -9.60% 650.47 -2.02% 46.44 -7.41%	1253.80 -21.10% 426.08 -13.88% 570.97 -26.73% 41.04 -26.00%	1184.85 -25.65% 391.92 -23.67% 541.05 -28.31% 44.56 -17.28%	1092.01 -30.02% 330.76 -31.20% 520.72 -31.29% 45.81 -9.42%	1069.38 -23.47% 306.94 -32.91% 522.93 -19.61% 45.15 -2.78%	1073.55 -14.38% 333.16 -21.81% 507.60 -11.10% 46.25 12.71%	715.68 -39.60% 216.73 -44.70% 349.61 -35.38% 30.988 -30.46%
Global Value Global Annual Growth Rate European Value European Annual Growth Rate North American Value North American Annual Growth Rate Central And South American Value Central And South American Annual Growth Rate Oceania Value	1397.36 -6.05% 457.54 -9.60% 650.47 -2.02% 46.44 -7.41% 33.22	1253.80 -21.10% 426.08 -13.88% 570.97 -26.73% 41.04 -26.00% 32.38	1184.85 -25.65% 391.92 -23.67% 541.05 -28.31% 44.56 -17.28% 26.19	1092.01 -30.02% 330.76 -31.20% 520.72 -31.29% 45.81 -9.42% 23.58	1069.38 -23.47% 306.94 -32.91% 522.93 -19.61% 45.15 -2.78% 22.36	1073.55 -14.38% 333.16 -21.81% 507.60 -11.10% 46.25 12.71% 27.63	715.68 -39.60% 216.73 -44.70% 349.61 -35.38% 30.988 -30.46% 13.022

Source: Taiwan Ministry of Economic Affairs, July 2, 2024

A trend chart was drawn based on the annual growth rate of Taiwan's fastener export weight from 2021Q1 to 2024Q2 (Figure 2). Observing fastener export demand in terms of weight, if we use the annual growth rate of export weight as an indicator of the supply-demand relation, a high market demand will result in a positive growth rate indicator for export weight. When there is insufficient demand in the market, the growth rate indicator will show negative values. When the market is stable, supply and demand are balanced, and the growth rate indicator approaches zero. Therefore, by observing the trend chart of the growth rate indicator for weight, we can assess the trends in the supply-demand relation. When this indicator approaches zero, we can use the actual export weight as a benchmark to evaluate future demand conditions.



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Table 3. Statistics on Export Weight and Annual Growth Rate of Taiwan Fasteners from Q1 2021 to Q2 2024 (C.C.C. code 731811-731829, Unit: ton)

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Quarterly/ By Region	2021Q1	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3
World	391018.48	396395.35	409201.06	414082.72	428245.02	416832.98	403926.16
Global Annual Growth Rate	10.38%	30.13%	18.79%	15.06%	9.52%	5.16%	-1.29%
Europe	131354.98	123206.65	143495.85	150941.00	144502.55	145162.12	136525.62
European Annual Growth Rate	9.65%	30.27%	29.78%	36.56%	10.01%	17.82%	-4.86%
North America	183261.20	195209.07	191115.13	187216.85	211772.18	197330.20	195227.14
North American Annual Growth Rate	12.89%	30.45%	14.45%	6.66%	15.56%	1.09%	2.15%
Central And South America	13739.91	15183.54	12938.99	13972.48	14392.73	14238.43	12641.55
Central And South American Annual Growth Rate	20.03%	106.77%	26.48%	14.17%	4.75%	-6.22%	-2.30%
Oceania	6536.84	7622.78	6709.51	8680.98	7208.54	9421.85	8391.10
Oceania Annual Growth Rate	3.16%	44.11%	9.99%	22.03%	10.28%	23.60%	25.06%
Asia	53960.48	53709.00	53280.35	51284.60	48617.12	49017.49	49209.16
Asian Annual Growth Rate	3.50%	15.13%	8.79%	-2.47%	-9.90%	-8.74%	-7.64%
Quarterly/ By Region	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2
World	358477.19	322030.74	315182.62	297450.14	296268.56	305034.97	203,342.53
Global Annual Growth Rate	-13.43%	-24.80%	-24.39%	-26.36%	-17.35%	-5.28%	-35.48%
Europe	127724.25	114180.92	106940.60	91305.71	87473.62	98701.44	65275.20
European Annual Growth Rate	-15.38%	-20.98%	-26.33%	-33.12%	-31.51%	-13.56%	-38.96%
North America	164700.79	148491.31	148045.53	147925.45	150485.22	148562.03	101022.19
North American Annual Growth Rate	-12.03%	-29.88%	-24.98%	-24.23%	-8.63%	0.05%	-31.76%
Central And South America	11554.82	9800.89	11029.88	11732.22	10886.47	11827.58	7769.966
		7000.07					
Central And South American Annual Growth Rate	-17.30%	-31.90%	-22.53%	-7.19%	-5.78%	20.68%	
							-29.56% 3025.267
Growth Rate	-17.30%	-31.90%	-22.53%	-7.19%	-5.78%	20.68%	-29.56% 3025.267
Growth Rate Oceania	-17.30% 6771.36	-31.90% 6547.74	-22.53% 5772.88	-7.19% 5409.24	-5.78% 5055.94	20.68% 6182.84	-29.56%
Growth Rate Oceania Oceania Annual Growth Rate	-17.30% 6771.36 -22.00%	-31.90% 6547.74 -9.17%	-22.53% 5772.88 -38.73%	-7.19% 5409.24 -35.54%	-5.78% 5055.94 -25.33%	20.68% 6182.84 -5.57%	-29.56% 3025.267 -47.60%

Source: Taiwan Ministry of Economic Affairs, July 2, 2024

Table 4. Statistics on Changes in Average Export Unit Price of Taiwan Fasteners from Q1 2021 to Q2 2024 (C.C.C. code 731811-731829, Unit: USD USD/Kg)

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Quarterly/ By Region	2021Q1	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2	2022Q3
World	3.05	3.17	3.38	3.59	3.71	3.82	3.86
Europe	2.93	3.03	3.16	3.35	3.42	3.54	3.52
North America	2.93	3.03	3.31	3.55	3.68	3.82	3.88
Central and South America	3.03	3.12	3.35	3.59	3.85	3.78	4.00
Oceania	3.82	3.83	4.25	4.39	4.64	4.60	4.77
Asia	3.64	3.87	4.12	4.33	4.51	4.52	4.54
Quarterly/ By Region	2022Q4	2023Q1	2023Q2	2023Q3	2023Q4	2024Q1	2024Q2
World	3.90	3.89	3.76	3.67	3.61	3.52	3.52
Europe	3.58	3.73	3.66	3.62	3.51	3.38	3.32
North America	3.95	3.85	3.65	3.52	3.47	3.42	3.46
Central and South America	4.02	4.19	4.04	3.90	4.15	3.91	3.99
Oceania	4.91	4.95	4.54	4.36	4.42	4.47	4.30
	4.71	4.70	4.54	4.50	7.72	7.77	4.00
Asia	4.40	4.75	4.18	4.17	4.06	3.98	4.02

Note: Average export unit price in the current quarter = export value of fasteners /export weight of fasteners in the current quarter

Trends suggest that while annual growth rates in Q1 of 2024 are moving close to the market's supply demand—the actual figures recorded during Q2 revealed declines suggesting sharp downturns below anticipated thresholds in terms of fastener market demands. The outlook for the demand in the fastener export market still requires analysis of actual export weights in Q3 and Q4 of 2024 to determine whether Taiwan's fastener industry has begun to show signs of recovery. From the trend chart of annual growth rates in export weight, it can be observed that the fastener industry may still be in a state of unpredictable market in Q3 and Q4 of 2024, failing to show adequate recovery. Given the uncertainties caused by the Ukraine war, the conflict between Israel and Hamas in the Middle East, and the U.S. elections, along with competition from fastener producers in Southeast Asia such as Vietnam and Thailand, as well as the threat of low-priced Chinese fasteners due to China's weak economy, it is also worth observing whether global fastener orders will shift towards Vietnam, Thailand, or China, which could delay or reduce the demand for Taiwanese fastener products.



Many small-to-medium sized fastener companies rely heavily upon orders outsourced from larger firms—thus facing immediate repercussions when order volumes decline significantly. Since 2023, there has been a noticeable decrease in order demand, leading many fastener factories to halt operations or adjust their production lines due to a lack of incoming orders. When customer demand is uncertain, the market is conservative in placing orders and adopts a more cautious approach to inventory, resulting in a decline in orders for fastener companies. From the trend of annual growth rates, trade wars and tariffs are not the key determinants of market conditions. If supply and demand cannot be balanced, standard fastener products—except for those that are specialized or require high certification barriers—will likely face a situation of price cuts to secure orders, leading to significant impacts on the industry.

In the context of the global fastener market orders potentially being difficult to grasp in Q3 and Q4 of 2024, fastener companies should be more proactive and place greater emphasis on existing customer relationship management. By engaging in direct communication with customers and utilizing data analysis, they can effectively and promptly gather information on customer product needs and quality requirements, allowing them to develop optimal marketing strategies to secure orders. Internally, fastener companies can analyze existing production quality data to formulate strategies for optimizing production techniques and costs based on customer demands, thereby enhancing efficiency in fulfilling subsequent orders. During capacity adjustments, it is also essential to utilize downtime for equipment maintenance and training in production techniques to better meet the technical quality and capacity requirements of future orders.

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