

Outlook Report on Taiwan's Fastener Export Momentum

2025

Cross-analyzing Export Statistics, Exchange Rates, and Major Events

Since the start of 2024, Taiwan's fastener industry has faced a series of escalating challenges. After the pandemic ended, Taiwan's fastener exports to the world dropped sharply by 40.4% in 2024 compared to 2022, falling from the historic peak of USD 6 billion to USD 4 billion mark, returning to pre-pandemic normal levels. Looking ahead to 2025, with Donald Trump's second term as U.S. president, a new phase of the U.S.-China trade war and global tariff conflicts has begun. In March, a 25% tariff on steel and aluminum was imposed on Taiwan and all other countries. As of June 4, 2025, Trump doubled this tariff to 50%, with the UK being the sole exemption allowed to maintain the 25% rate. Coinciding with these trade tensions, the New Taiwan dollar (NTD) sharply appreciated against the U.S. dollar in early May by as much as 9%, indicating an overly rapid strengthening of the NTD. By June 4, the exchange rate hovered around 30 NTD to 1 USD. This sustained NTD appreciation over more than a month has caused significant exchange rate losses for many export-oriented Taiwanese fastener companies (see Fastener World Magazine, May issue, No. 212, "Taiwan's Fastener Industry Faces Four Major Crises: Tariffs, Exchange Rates, Market Downturn, and CBAM Amid Rapid TWD Appreciation").

Given these multiple headwinds, can Taiwan's fastener industry maintain positive export momentum in 2025? This report conducts a three-dimensional cross-analysis of the past 20 years of exchange rate fluctuations (dimension 1), major historical events (dimension 2), and export statistics (dimension 3) to provide a forward-looking forecast. Before diving into the analysis, readers are encouraged to review Figure 1 and Figure 2. Figure 1 shows the monthly USD-to-NTD exchange rate trends over the past 20 years, while Figure 2 presents Taiwan's fastener trade statistics over the same period, marking key historical events on the timeline. This report is divided into two parts. The first part analyzes these two figures to identify the "pattern of change" in Taiwan's fastener export momentum. The second part uses this pattern to predict the industry's outlook for the next five years.

Part 1: The "Pattern of Change" in Taiwan's Fastener Export Momentum

New Taiwan Dollar (NTD) Tends to Strengthen During "Black Swan" Events

By cross-referencing the dimension 1 (exchange rates) and the dimension 2 (major events) shown in Figure 1, Fastener World has identified that over the past 20 years, the NTD has notably strengthened during 5 critical years associated with major global shocks: 2008 (Global Financial Crisis), 2011 (depreciated USD, and appreciated NTD unfavorable for Taiwanese merchandise exports), 2017-2018 (Trump's first term as President and the initial U.S.-China trade war), 2022 (the peak of COVID-19), and May 2025 (Trump's second term and the escalated U.S.-China trade war).

Conversely, there were 4 critical years when the NTD clearly weakened: 2009 (the year following the financial crisis), 2016 (the year before Trump's first term), 2019 (the year before COVID-19 outbreak), and early 2025 (just before Trump's second term).

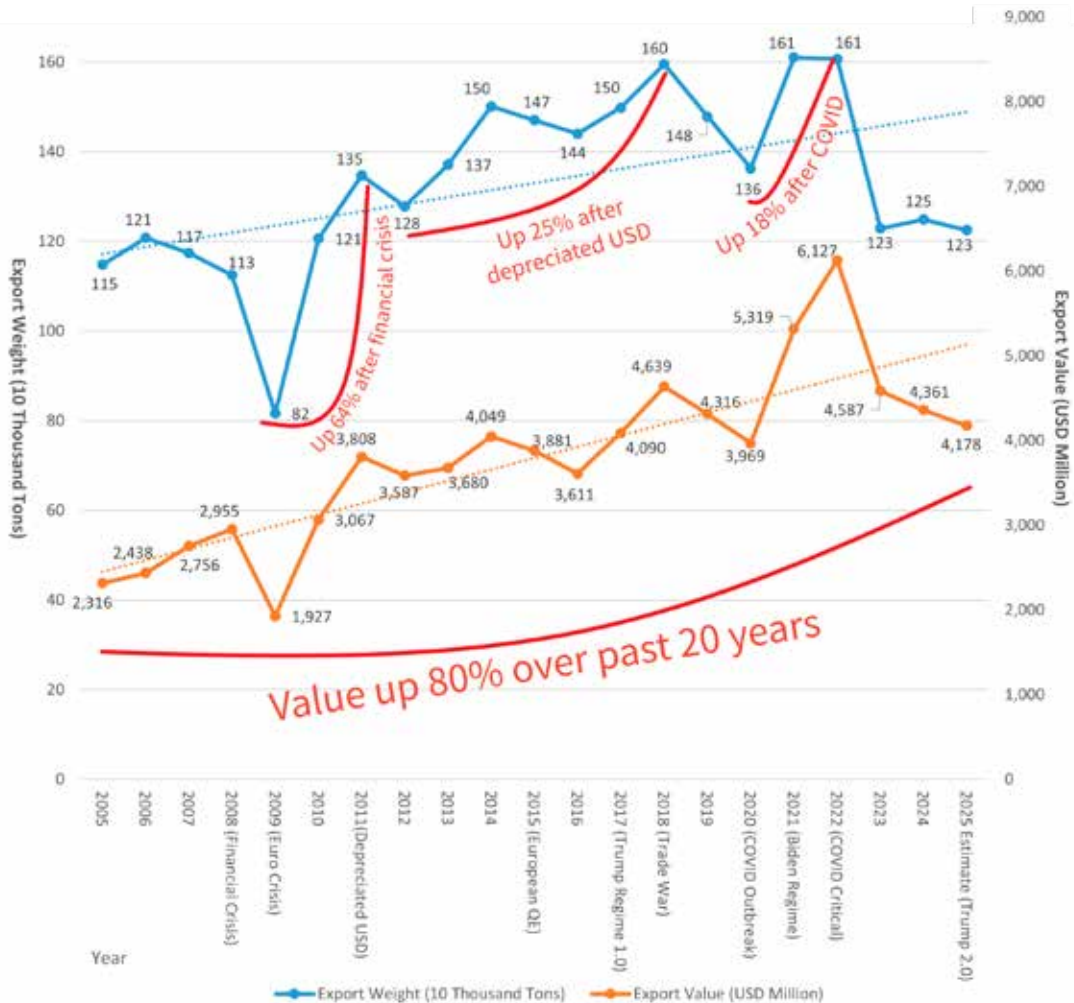
Looking at these 8 critical years collectively, a clear pattern emerges: the NTD tends to strengthen significantly during major global economic downturns (or "black swan" events), often approaching or even breaking the alert threshold of 30 NTD to 1 USD. For many export-driven Taiwanese fastener companies, this 30 NTD mark serves as a warning line. When the USD-to-NTD rate falls below this level — even dipping to 28 NTD to 1 USD as it did in 2022 — it can cause substantial challenges to export competitiveness.



Figure 1.
Monthly USD to NTD Exchange Rate from 2005 to June 2025
 (NTD Strength and Weakness Trend;
 Source from Anue)



Fig. 2. Taiwan's Global Fastener Exports by Weight and Value from 2005 to 2025
 (Source: Taiwan Customs)



Over the longer term, **within one to five years after such black swan events, the NTD often weakens considerably**, which benefits Taiwan's export sector. For example, during the 2008 financial crisis, the exchange rate was about 30.5 NTD to 1 USD, but by 2009 it had weakened to 35.0 NTD to 1 USD, a margin of 14.7%. Similarly, during the peak of the pandemic in 2022, the rate was approximately 27.5 NTD to 1 USD, but by early 2025, just before Trump's second term, it had weakened to about 33.25 NTD to 1 USD — a margin of 20.9%. This weakening of the NTD makes Taiwanese goods more competitively priced for export. **By understanding this pattern of NTD exchange rate fluctuations, we can better predict changes in Taiwan's fastener export momentum going forward.**

Exchange Rate Changes — A Precursor of Taiwan's Fastener Export Momentum

Figure 2 shows Taiwan's fastener export weight and value over the past 20 years. These two factors move proportionally, so they can be combined into a single analytical element (dimension 3: Taiwan's fastener export statistics, representing export momentum).

By examining dimension 1 (exchange rate changes), dimension 2 (major events), and dimension 3 together, Fastener World found that **exchange rate fluctuations serve as a precursor for the ebb and flow of Taiwan's fastener export momentum**. For example, in 2008 during the global financial crisis, the NTD strengthened sharply, and in the following year, 2009, Taiwan's fastener export weight plunged by 27.4%. In 2011, the USD weakened causing the NTD to strengthen, and in 2012, the export weight declined by 5.1%. During the 2018 U.S.-China trade war under Trump's first term, the NTD strengthened again, and over the next two years (until 2020), the export volume dropped by a total of 15.0%. In 2022 at the peak of COVID-19, the NTD strengthened again, followed by a sharp 23.6% drop in export weight in 2023. Up to this point, you would tell that Taiwan's fastener export weight and value tend to decline significantly in the year following a marked strengthening of the NTD. In other words, **exchange rate changes act as a precursor for Taiwan's fastener export momentum, and can be used to forecast export trends in the coming years.**

Crisis, the Turning Point for a V-Shaped Recovery in Taiwan's Fastener Exports

An even more interesting phenomenon is that **exchange rate trends can help us estimate when Taiwan's fastener exports could rebound from contraction to growth**. Looking at the historical data, after a sharp 27.4% drop in export weight in 2009, Taiwan's fastener exports surged an astonishing 64% over the next two years (2010 and 2011). After a 5.1% decline in 2012, exports then grew a total of 25% over the following six years through 2018. Similarly, after a combined 15.0% drop in 2020, exports rebounded by 18% by 2022.

Table 1. Taiwan Fastener Export by Region

Region	Weight (KG)				Value (USD)			Average Price (USD/KG)		
	2025 Jan-Apr	2024 Jan-Apr	YOY	Share	2025 Jan-Apr	2024 Jan-Apr	YOY	2025 Jan-Apr	2024 Jan-Apr	YOY
1 World	408,594,951	401,260,813	1.83	100.00	1,392,635,726	1,410,769,319	-1.29	3.40	3.51	-3.13
2 USA	185,308,952	182,775,388	1.39	45.35	621,020,590	625,961,852	-0.79	3.35	3.42	-2.04
3 EU +UK	129,926,510	124,508,357	4.35	31.79	402,976,039	418,976,579	-3.81	3.10	3.36	-7.73
4 ASEAN + Japan/S. Korea/India	35,753,347	33,420,588	6.98	8.75	142,716,339	129,073,921	10.5	3.99	3.86	3.36
5 Other Regions	57,606,142	60,556,480	-4.87	14.0	225,922,758	236,756,967	-4.57	3.92	3.90	0.51

This pattern shows that **whenever a major black swan event occurs, its impact hits Taiwan's fastener export momentum hard in the following year. However, the momentum then significantly rebounds strongly the year after that, with growth potentially lasting one to three years. This is the "pattern of change" in Taiwan's fastener export momentum. In other words, crises serve as opportunities for a V-shaped recovery for Taiwan's fastener export, and Taiwan's rebound strength is robust.**

If we can estimate Taiwan's export weight and value for the full year 2025, we can use this pattern to forecast the future trajectory. The second half of this report will analyze Taiwan's fastener export data from the first four months of 2025 and then project the full-year figures and outlook.

Part 2 : Forecasting Export Momentum Over the Next Five Years

Taiwan's Fastener Export Volume Grows 1.3% in First 4 Months of 2025, While Average Price Declines

In the first four months of 2025, Taiwan exported a total of 408,594,951 kgs of fasteners worldwide (Table 1), marking a 1.83% increase compared to the same period last year. However, the average unit price dropped by 3.13% to USD3.40 per kilogram, resulting in a total export value of USD 1.392 billion, a decrease of 1.29% from the previous year. Exports to the United States accounted for nearly half of the total volume at 45.35%, with a slight volume increase of 1.39% to 185,308,952 kgs. Exports to European countries grew by 4.35% to 129,926,510 kgs, representing 31.79% of the total. Combined exports to Europe and the U.S. made up 77.14% of Taiwan's fastener exports.

Export to the World (Jan.-Apr.)

Table 2 highlights the top five Taiwanese fastener categories by global export weight:

- 73181590 – Other Screws and Bolts
- 73181400 – Self-tapping Screws
- 73181600 – Nuts
- 73181200 – Wood Screws
- 73170090 – Other Steel Nails

Among all product categories, 74153300 – Copper Wood Screws showed the highest growth, soaring by 20.12%. 73181400 (Self-tapping Screws), 73181200 (Wood Screws), 73182200 (Other Washers) and 74152100 (Copper Washers Including Spring Washers) experienced strong increases, each growing over 5%. On the other hand, 73181100 – Automotive Screws saw a significant decline, dropping nearly 20%.



Table 2. Taiwan's Fastener Export to the World by Product Category

- 73181590 - Other Screws and Bolts
- 73181400 - Self-Tapping Screws
- 73181600 - Nuts
- 73181200 - Wood Screws
- 73170090 - Other Steel Nails
- 73182200 - Other Washers
- 73182900 - Other Non-Threaded Products
- 73181900 - Unspecified Threaded Products
- 73182300 - Rivets
- 73182400 - Pins And Split Pins
- 74153300 - Copper Wood Screws
- 73181100 - Automotive Screws
- 76161000 - Aluminum Screw Products
- 73182100 - Spring Washers and Lock Washers
- 74153900 - Other Copper Threaded Products
- 83082000 - Base Metal Open-End Rivets
- 74151000 - Copper Nails
- 73181300 - Spiral Hooks and Spiral Rings
- 74152990 - Other Copper Non-Threaded Products
- 74152100 - Copper Washers (Including Spring Washers)

Product Categories	Weight (KG)			Value (USD)			Average Price (USD/KG)		
	2025 Jan-Apr	2024 Jan-Apr	YOY	2025 Jan-Apr	2024 Jan-Apr	YOY	2025 Jan-Apr	2024 Jan-Apr	YOY
1 73181590	208,168,625	199,538,903	4.32	679,868,220	678,712,154	0.17	3.27	3.40	-3.82
2 73181400	75,556,167	71,781,117	5.25	235,176,615	225,782,695	4.16	3.11	3.15	-1.27
3 73181600	69,812,310	77,208,125	-9.57	273,910,646	306,143,431	-10.52	3.92	3.97	-1.26
4 73181200	37,242,602	34,906,425	6.69	95,417,957	92,059,239	3.64	2.56	2.64	-3.03
5 73170090	11,328,523	13,329,703	-15.01	18,052,300	22,240,341	-18.83	1.59	1.67	-4.79
6 73182200	5,038,991	4,631,091	8.81	31,455,488	30,346,696	3.65	6.24	6.55	-4.73
7 73182900	4,495,227	4,744,143	-5.24	21,874,428	24,282,196	-9.91	4.87	5.12	-4.88
8 73181900	3,562,512	3,370,241	5.70	25,253,817	22,444,776	12.51	7.09	6.66	6.46
9 73182300	2,070,002	2,321,432	-10.83	11,477,127	11,910,129	-3.63	5.54	5.13	7.99
10 73182400	1,965,397	1,964,579	0.04	13,240,755	13,456,329	-1.60	6.74	6.85	-1.61
11 74153300	899,367	748,672	20.12	18,069,737	14,812,071	21.99	20.09	19.78	1.57
12 73181100	344,877	425,022	-18.85	1,430,590	1,721,709	-16.90	4.15	4.05	2.47
13 76161000	276,879	293,760	-5.74	5,889,239	5,867,229	0.37	21.27	19.97	6.51
14 73182100	255,655	249,957	2.27	2,891,176	3,086,626	-6.33	11.31	12.35	-8.42
15 74153900	207,468	218,731	-5.14	5,655,561	5,734,010	-1.36	27.26	26.21	4.01
16 83082000	100,335	96,510	3.96	1,285,492	921,947	39.43	12.81	9.55	34.14
17 74151000	92,363	140,952	-34.47	1,731,519	2,115,508	-18.15	18.75	15.01	24.92
18 73181300	82,586	119,778	-31.05	638,907	823,339	-22.40	7.74	6.87	12.66
19 74152990	68,653	113,831	-39.68	1,937,547	2,818,172	-31.24	28.22	24.76	13.97
20 74152100	22,333	20,136	10.91	850,861	807,146	5.41	38.10	40.08	-4.94
Sum	421,590,872	416,223,108	1.28	1,446,107,982	1,466,085,743	-1.36	3.43	3.52	-2.56

Export to the U.S. (Jan.-Apr.)

Table 3 shows the top five Taiwanese fastener categories by export weight to the United States:

- 73181590 – Other Screws and Bolts
- 73181400 – Self-tapping Screws
- 73181600 – Nuts
- 73181200 – Wood Screws
- 73170090 – Other Steel Nails

Although Taiwan's total fastener export weight to the U.S. increased slightly by 1.39%, nearly half of the product categories (9 items) experienced a decline in export weight. The fastest-growing category was 74153300 – Copper Wood Screws, which surged by 43.91% in exports to the U.S.

Export to the EU (Jan.-Apr.)

Table 4 shows the top five Taiwanese fastener categories by export weight to the European Union:

- 73181590 – Other Screws and Bolts
- 73181600 – Nuts
- 73181400 – Self-tapping Screws
- 73181200 – Wood Screws
- 73182900 – Other Threadless Products

Similar to Table 2, Taiwan's fastener exports to the EU grew by about 4.35% in weight, but more than half of the product categories (13 items) experienced a decline in export weight.



Table 3. Taiwan's Fastener Export to USA by Product Category

- 73181590 - Other Screws and Bolts
- 73181400 - Self-Tapping Screws
- 73181600 - Nuts
- 73181200 - Wood Screws
- 73170090 - Other Steel Nails
- 73182200 - Other Washers
- 73181900 - Unspecified Threaded Products
- 73182300 - Rivets
- 73182900 - Other Non-Threaded Products
- 73182400 - Pins And Split Pins
- 74153300 - Copper Wood Screws
- 73181100 - Automotive Screws
- 73182100 - Spring Washers and Lock Washers
- 76161000 - Aluminum Screw Products
- 74153900 - Other Copper Threaded Products
- 73181300 - Spiral Hooks and Spiral Rings
- 74152990 - Other Copper Non-Threaded Products
- 83082000 - Base Metal Open-End Rivets
- 74151000 - Copper Nails
- 74152100 - Copper Washers (Including Spring Washers)

Product Categories	Weight (KG)			Value (USD)			Average Price (USD/KG)		
	2025 Jan-Apr	2024 Jan-Apr	YOY	2025 Jan-Apr	2024 Jan-Apr	YOY	2025 Jan-Apr	2024 Jan-Apr	YOY
1 73181590	103,963,699	96,556,078	7.67	318,909,857	311,078,184	-12.53	3.07	3.22	-4.66
2 73181400	28,683,178	31,490,574	-8.91	95,726,124	100,788,434	-5.02	3.34	3.20	4.37
3 73181600	27,604,689	30,639,816	-9.90	112,228,604	125,006,708	-10.22	4.07	4.08	-0.25
4 73181200	16,494,757	16,317,110	1.08	41,692,504	42,070,480	-0.89	2.53	2.58	-1.94
5 73170090	9,384,216	11,081,124	-15.31	12,804,052	16,390,855	-21.88	1.36	1.48	-8.11
6 73182200	3,372,567	2,746,311	22.80	18,303,684	16,078,835	13.83	5.43	5.85	-7.18
7 73181900	1,665,759	1,443,012	15.43	12,513,592	9,216,305	35.78%	7.51	6.39	17.53
8 73182300	1,165,380	1,069,921	8.92%	6,041,109	5,495,622	9.92	5.18	5.14	0.78
9 73182900	1,027,832	1,161,723	-11.52	6,791,402	7,306,435	-7.04	6.61	6.29	5.09
10 73182400	898,172	907,577	-1.03	6,132,581	6,107,147	0.41	6.83	6.73	1.49
11 74153300	570,470	396,396	43.91	11,141,990	7,640,063	45.83	19.53	19.27	1.35
12 73181100	228,546	235,126	-2.79	927,658	872,187	6.35	4.06	3.71	9.43
13 73182100	172,467	144,459	19.38	1,610,292	1,662,641	-3.14	9.34	11.51	-18.85
14 76161000	115,387	105,637	9.22	2,300,882	2,063,840	11.48	19.94	19.54	2.05
15 74153900	106,923	104,231	2.58	2,887,635	2,520,904	14.54	27.01	24.19	11.66
16 73181300	31,906	63,681	-49.89	143,183	278,874	-48.65	4.49	4.38	2.51
17 74152990	24,590	31,825	-22.73	771,318	491,315	56.99	31.37	15.44	103.17
18 83082000	15,559	13,748	13.17	145,900	172,511	-15.42	9.38	12.55	-25.26
19 74151000	15,062	15,580	-3.32	363,800	314,766	15.57	24.15	20.20	19.55
20 74152100	10,586	9,897	6.96	413,746	337,898	22.44	39.08	34.14	14.47
Sum	195,551,745	194,533,826	0.52	651,849,913	655,894,004	-0.61	3.33	3.37	-1.19

Full Year 2025 Forecast

Although Taiwan's fastener export volume to Europe and the U.S. increased in the first four months of this year—signaling a recovery from the challenges faced in 2024 and a return to minor growth momentum—many fastener product categories still saw declines in export weight. Whether towards the whole world, U.S., or EU markets, Taiwan's fastener export value has decreased.

In the first quarter, Taiwan's fastener industry faced the challenge of the 25% steel and aluminum tariffs imposed by the Trump administration. Additionally, in early May, Taiwan experienced an anomaly of sudden and sharp appreciation of the New Taiwan Dollar, creating further uncertainties. These factors are likely to impact order volumes and profit margins for Taiwanese manufacturers. As a result, Taiwan's fastener industry must remain cautiously optimistic throughout the year, balancing hope for growth with vigilance against ongoing risks.

Five-Year Outlook Forecast

As far as we currently know, Taiwan's fastener exports to the world in the first four months of 2025 totaled 408,000 tons, with a value of USD 1.392 billion. Based on this, the full-year 2025 export weight is projected to reach approximately 1.23 million tons, with a total value of about USD 4.178 billion. As shown in Figure 1, this estimated value suggests that Taiwan's export momentum in 2025 is likely still in a downward phase, primarily due to the tariff turmoil under Trump's administration as well as the rapid strengthening of the NTD.

According to the aforementioned "pattern of change" in exchange rates and export momentum, if the NTD remains strong for an extended period and if Trump continues to trigger black swan events, the export



Table 4. Taiwan Fastener Export to EU by Product Category

- 73181590 - Other Screws and Bolts
- 73181600 - Nuts
- 73181400 - Self-Tapping Screws
- 73181200 - Wood Screws
- 73182900 - Other Non-Threaded Products
- 73181900 - Unspecified Threaded Products
- 73182200 - Other Washers
- 73170090 - Steel Nails (Other)
- 73182400 - Pins And Split Pins
- 73182300 - Rivets
- 74153300 - Copper Wood Screws
- 76161000 - Aluminum Screw Products
- 74153900 - Other Copper Threaded Products
- 73181100 - Automotive Screws
- 74152990 - Other Copper Non-Threaded Products
- 73182100 - Spring Washers and Lock Washers
- 74151000 - Copper Nails
- 73181300 - Spiral Hooks and Spiral Rings
- 83082000 - Base Metal Open-End Rivets
- 74152100 - Copper Washers (Including Spring Washers)

Product Categories	Weight (KG)			Value (USD)			Average Price (USD/KG)		
	2025 Jan-Apr	2024 Jan-Apr	YOY	2025 Jan-Apr	2024 Jan-Apr	YOY	2025 Jan-Apr	2024 Jan-Apr	YOY
1 73181590	56,473,074	54,339,602	3.92	170,980,030	181,080,550	-5.5	3.03	3.33	-9.01
2 73181600	23,339,647	26,062,218	-10.44	75,591,640	87,713,344	-13.81	3.24	3.37	-3.86
3 73181400	21,886,515	18,583,278	17.77	62,154,516	54,716,727	13.59	2.84	2.94	-3.40
4 73181200	12,988,490	10,032,303	29.46	32,218,080	26,536,104	21.41	2.48	2.65	-6.42
5 73182900	2,178,828	2,085,939	4.45	7,614,568	8,617,564	-11.63	3.49	4.13	-15.50
6 73181900	552,837	553,428	-0.10	3,362,448	3,918,787	-14.19	6.08	7.08	-14.12
7 73182200	425,463	443,851	-4.14	2,947,405	3,530,671	-16.52	6.93	7.95	-12.83
8 73170090	388,036	409,381	-5.21	1,321,044	1,416,282	-6.72	3.40	3.46	-1.73
9 73182400	386,404	469,587	-17.71	1,992,469	2,492,561	-20.06	5.16	5.31	-2.82
10 73182300	322,955	524,053	-38.37	1,331,645	2,043,874	-34.84	4.12	3.90	5.64
11 74153300	130,668	102,795	27.11	1,744,921	1,853,066	-5.83	13.35	18.03	-25.96
12 76161000	107,677	122,547	-12.13	1,612,332	1,524,175	5.78	14.97	12.44	20.34
13 74153900	52,245	47,840	9.20	1,217,050	1,081,536	12.52	23.30	22.61	3.05
14 73181100	43,996	128,281	-65.70	148,534	507,639	-70.74	3.38	3.96	-14.65
15 74152990	28,950	58,934	-50.87	672,783	1,500,167	-55.15	23.24	25.46	-8.72
16 73182100	14,523	37,118	-60.87	236,274	375,999	3.64	16.27	10.13	60.61
17 74151000	13,824	16,787	-17.65	163,962	186,118	-11.90	11.86	11.09	6.94
18 73181300	13,421	17,039	-21.23	106,735	165,513	-35.51	7.95	9.71	-18.13
19 83082000	4,521	24,867	-81.81	81,534	172,121	-52.62	18.03	6.92	160.55
20 74152100	2,766	1,004	175.49	62,419	63,162	-1.17	22.57	62.91	-64.12
Sum	119,354,840	114,060,852	4.64	365,560,389	379,495,960	-3.67	3.06	3.33	-8.11

momentum could continue to decline for at least another year. On the other hand, once the NTD begins to weaken, it could trigger a rebound in export momentum. Therefore, a **long-term perspective is necessary for us to ponder: when will the black swan events end and when will the NTD begin to weaken? This question is the key to forecasting the outlook.**

Looking back at Trump’s first term, he repeatedly used black swan events as leverage in trade negotiations, a tactic that has intensified in his second term. This implies that the export momentum may remain suppressed throughout the next four years of his presidency. However, on the flip side, Taiwanese fastener companies that can weather the “Trump Crisis” stand to seize significant opportunities from the eventual V-shaped recovery in export momentum.

It is important to remember that **Figure 2** shows Taiwan’s fastener exports to the world grew an whopping 80% from the past two decades (2005 to 2025). This means that despite facing four major global economic crises in the past, Taiwan’s fastener industry has consistently managed to “grow through volatility” — a defining characteristic of Taiwan’s fastener export momentum. From this perspective, the Trump mayhem in 2025 is but a fleeting headwind within a 20-year timeline. Enduring this period will enable Taiwan’s fastener industry with a strong potential to achieve outstanding results again over the next five years. ■