

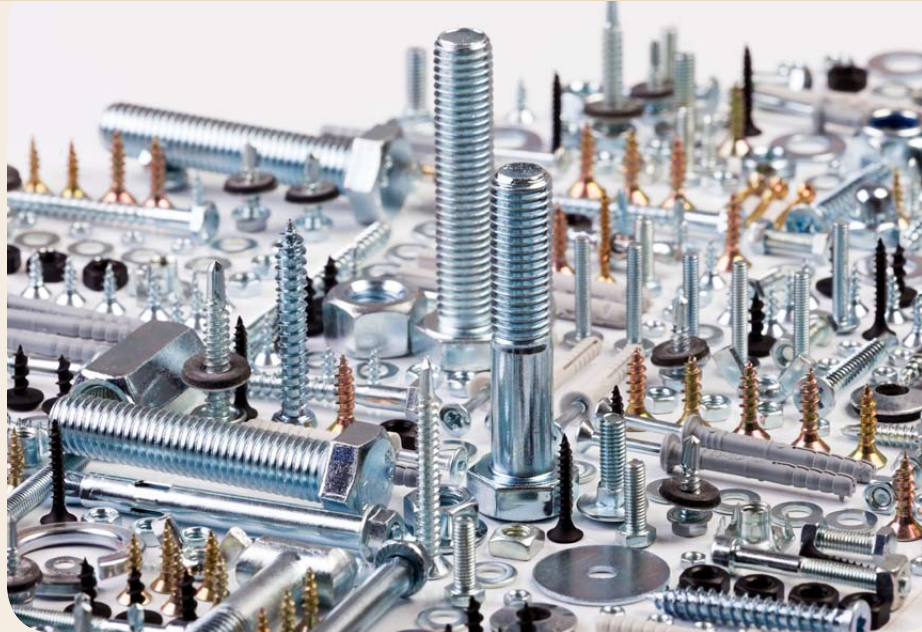
Taiwan Fastener Industry Before and After the Covid-19 Pandemic

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Foreword

Since the first outbreak of Covid-19 in Wuhan, China in Dec. 2019, the total cases in the whole world accumulated as of June 2020 has reached more than 7 million and more than 0.4 million people lost their lives. According to the “2020 World Economic Outlook” IMF published, it forecast that in 2020 the global economic momentum will shrink by over 3% due to the pandemic. Bloomberg even estimated that the pandemic might result in a global economic loss of 2,700 billion US dollars. The Covid-19 forced over 80 cities in mainland China to announce lockdown measures, which then led to the disruption of transportation, logistics, warehousing & retailing, as well as shortages of materials and workers. As industries of Taiwan have been in close collaboration with those of China for so long a time, the outbreak in China unquestionably has caused some significant impacts on Taiwan’s economy, which not only influenced Taiwanese investors who established their own factories in China, but also dragged USA,

Taiwan’s largest fastener export destination, down further. As up to 90% of Taiwan’s fastener production is for export and Europe and USA are Taiwan’s major fastener export destinations, it may cause lots of impacts during this pandemic. This article will be focused on how much impact Taiwan’ fastener industry have been facing and on how these fastener manufacturers will adjust their operating strategy on the post-pandemic market.



The Condition of Taiwan Fastener Industry Before the Pandemic and Under the Influence of U.S.-China Trade War

“Fastener” has been one of the critical industries for Taiwan to earn foreign exchange. In 2019, its production value reached NT\$150.5 billion, the import value reached NT\$ 5.2 billion, and the export value reached NT\$139.4 billion. The production value and the export value both hit the highest record in history in 2018 and the average CAGR over the past 6 years was 1.6%. **Table 1** shows Taiwan’s fastener import/export in 2014-2019 and its market share in certain regions. In terms of market share, in 2019 Taiwan exported around NT\$57.8 billion of fasteners (about 41.5% of its total export) to the U.S., and also exported NT\$37.4 billion of fasteners (around 26.8% of its total export) to the EU. Taiwan fastener industry has been influenced by U.S.-China trade war and has been feeling quite difficult in getting more orders since the second half of 2019. The macroeconomic situation has reshuffled the industries, pushing certain fastener manufacturers with

better operating results influenced by U.S.-China trade war to adjust their production lines in order to respond to the labor shortage and arrange automatic production and imported more advanced machines and 5-spindle processing centers. Many large-size fastener plants have also spent some time renewing their tooling design equipment and even introduced robotic arms to reinforce its automation application. As a result, under the U.S.-China trade war, Taiwanese companies have also made the most of time to re-adjust their operating structure in order to respond to future market scenarios.

Table 1. Taiwan’s Fastener Import/Export in 2014-2019 and Its Market Share in Certain Regions

	2014	2015	2016	2017	2018	2019	CAGR
Production Value	1388	1389	1318	1406	1573	1505	1.6%
Import Value	45	44	44	42	50	52	2.9%
Export Value	1291	1296	1226	1307	1461	1394	1.6%
Domestic Market Demand	142	137	136	141	162	163	2.7%
Export to the U.S. (by Value)	478	502	474	503	575	578	3.9%
Export to the U.S. (by Share)	37.0%	38.7%	38.6%	38.5%	39.4%	41.5%	2.3%
Export to the EU (by Value)	373	347	342	371	414	374	0.0%
Export to the EU (by Share)	28.9%	26.8%	27.9%	28.4%	28.3%	26.8%	-1.5%
Export to China (by Value)	41	38	41	46	45	37	-1.9%
Export to China (by Share)	3.1%	2.9%	3.3%	3.5%	3.1%	2.6%	-3.4%

Source: Import/export data of Taiwan Customs



The Impact of the Pandemic on Taiwan Fastener Industry

a. A Comparison Between Q1 2020 and Q1 2019

U.S.-China trade war has not come to an end yet, and in the beginning of 2020 the Covid-19 has also brought many uncertainties to Taiwan fastener industry, disarranging the original deployment of Taiwan fastener companies. In the beginning of Feb. 2020 when the pandemic broke out, many orders European and U.S. buyers originally made out to China were quickly switched to Taiwan. Although this greatly offset the -20.2% decline recorded in Jan, making the decline margin recorded in Feb. appeared only a reduction of -1.8% compared to the same month of 2019, the orders for Feb. still could not last through March; In mid-March, the spread of the pandemic in Europe and USA gradually led to problems like cancelled orders, shipment delay, or bad debts for products already delivered. Plus, the pandemic has almost stopped the operation of sea/air/land shipments. Although some customers could still maintain their shipments, the market as a whole still did not turn well, resulting in a larger decline in Mar. compared to that in Feb. and a decline of -5.5% from Mar. 2019. Such a market situation then forced Taiwanese fastener manufacturers to suspend purchasing materials from wire rod suppliers, disappointing those wire rod suppliers who originally expected to see a market recovery. In Q1 2020, Taiwan fastener industry exported around NT\$32.1 billion of fasteners to the world (a decline of around -10.0% from the same period of 2019) and imported about 369 thousand tons of fasteners from the world (a decline of 9.0% from the same period last year). **Table 2** shows the impact of the pandemic on Taiwan fastener industry in Q1 2020.

Table 2. The Impact of the Pandemic on Taiwan Fastener Industry in Q1 2020

	Export Value	Change from Same Period 2019	Export Volume	Change from Same Period 2019
Jan. 2020	109.9	-19.9%	12.4	-20.2%
Feb. 2020	90.6	-1.8%	10.5	0.0%
Mar. 2020	120.5	-5.5%	14.0	-3.4%
Q1 2020	321.0	-10.0%	36.9	-9.0%

Source: Import/export data of Taiwan Customs

Although in May some European/U.S. customers have gradually resumed their operations, the current protest of “Black Lives Matter” in the U.S., negatively slowed down the economic recovery. In addition, as many leading manufacturers still have lots of finished fasteners in stock, it will take some time to have those products sold and shipped to their buyers. Generally speaking, the recovery isn’t yet strong enough to be revealed on the volume of orders. Even if no second spiking in cases would happen, we could only expect to see a recovery at the earliest in the second half of this year.

b. The Impact of the Pandemic on Taiwan’s Certain Fastener Categories Exported to the U.S.

The U.S. is Taiwan’s largest fastener export destination. This article will use the data of Q1 2020 as the base. **Table 3** shows the value and change of Taiwan’s fastener export to the U.S. In Q1 2020 Taiwan’s top 1 fastener category exported to the U.S. was Other Iron and Steel Screws and Bolts (HS code 731815) and the export value was NT\$ 6.54 billion, down 17.8% from Q2 2019; the top 2 fastener category exported to the U.S. was Iron and Steel Nuts (HS code 731816) and the export value was NT\$ 2.51 billion, down 13.2% from the same period last year; the top 3 fastener category exported to the U.S. was Iron and Steel Self-tapping Screws and the export value was NT\$ 1.85 billion, one of the few categories showing growth (+13.2%).

On the other hand, the categories showing comparatively significant decline margins were Iron and Steel Nails, Tacks, Drawing Pins, Corrugated Nails, Staples, and Similar Articles (HS Code 731700) and the export value was NT\$ 0.44 billion (down 27.7%); Iron and Steel Washers (HS Code 731822) and the export value was NT\$ 0.44 billion (down 13.1%); Other Iron and Steel Threaded Articles (HS Code 731819) and the export value was NT\$ 0.19 billion (down 26.5%).

Table 3. The Value and Change of Taiwan’s Fastener Export to the U.S.

Ranking	Category	HS Code	Q1 2019	Q1 2020	Change
1	Other Iron and Steel Screws and Bolts	731815	79.6	65.4	-17.8%
2	Iron and Steel Nuts	731816	28.9	25.1	-13.2%
3	Iron and Steel Self-tapping Screws	731814	16.3	18.5	13.2%
4	Other Iron and Steel Wood Screws	731812	4.7	6.8	42.3%
5	Iron and Steel Nails, Tacks, Drawing Pins, Corrugated Nails, Staples, and Similar Articles	731700	6.1	4.4	-27.7%
6	Other Iron and Steel Washers	731822	3.3	2.9	-13.1%
7	Other Iron and Steel Non-threaded Articles	731829	1.9	2.0	3.4%
8	Other Iron and Steel Threaded Articles	731819	2.6	1.9	-26.5%
9	Other Copper Threaded Articles: Screws; Bolts and Nuts	741533	1.6	1.7	6.1%
10	Iron and Steel Rivets	731823	1.1	1.2	12.7%

Source: Import/export data of Taiwan Customs

c. The Value and Change of Taiwan’s Fastener Export to the EU

Europe is Taiwan’s second largest fastener export destination. This article will use the data of Q1 2020 as the base. **Table 4** shows the value and change of Taiwan’s fastener export to the EU. In Q1 2020 Taiwan’s top 1 fastener category exported to the EU was Other Iron and Steel Screws and Bolts (HS code 731815) and the export value was NT\$ 4.6 billion, down 20.0% from Q2 2019; the top 2 fastener category exported to the EU was Iron and Steel Nuts (HS code 731816) and the export value was NT\$ 2.15 billion, down 13.0% from the same period last year;



the top 3 fastener category exported to the EU was Iron and Steel Self-tapping Screws (HS code 731814) and the export value was NT\$ 1.37 billion, one of the few categories showing growth (+11.4%); on the other hand, the category showing the comparatively significant decline margin was Other Iron and Steel Wood Screws (HS code 731812) and the export value was NT\$ 0.95 billion, down 11.1%.

Responses and Solutions of Taiwanese Government and Companies

a. For Domestic Taiwanese Fastener Manufacturers:

- i. As the pandemic spreads throughout the world, geopolitics plays a crucial role in influencing the sales of products and many fastener manufacturers had started to relocate their manufacturing sites since the issue of U.S.-China trade war emerged. According to a survey of Swiss Bank, 1/3 of the manufacturers focusing on export to China moved part of their production lines out of China, another 1/3 of the manufacturers also relocate their capacity to other countries in 2019, such as Vietnam and Malaysia, as well as India, Indonesia and Thailand. With the influence of the pandemic, factory relocation to other countries less impacted by the pandemic will become more significant. However, as the number of India's Covid-19 cases has been continuously surging, manufacturers' plans to relocate production lines to India should be postponed.
- ii. U.S.-China trade war and the Covid-19 have forced the fastener supply chain to be reorganized and restructured, so it is suggested that Taiwan fastener industry should adopt the risk management strategy of a multi-layered supply chain, figure out a plan B in advance, and adopt the strategy of various supply origins in order to avoid too much reliance upon a single market.

b. For Taiwanese Fastener Manufacturers in China:

So far, the pandemic in China has been in a little bit control and more than 80% of factories in China have resumed their operations. For those Taiwanese fastener manufacturers relying on the domestic demand in China, the lifting of lockdown orders in China will be helpful to relieve the pressure of labor and materials shortages. Moreover, if the second spiking in cases in Beijing can be well controlled, orders and the market are still very likely to gradually return to their previous levels. For other Taiwanese fastener manufacturers focusing on the global market, though there seems to be a sign that orders from European and U.S. customers are gradually back, the problem of obvious delayed shipments still exists. As a result, the future development must depend on the measures adopted in European/U.S. markets to control the pandemic and the trade and economic policies they are going to propose.

c. For Taiwanese Government:

- i. Taiwanese government should accelerate to guide Taiwanese fastener manufacturers to transform their business in order to respond to the risk of broken supply chains or urgent orders. The Covid-19 and U.S.-China trade war both revealed the fact that these manufacturers should reinforce their automation systems and have emergency solutions to deal with broken supply chains or urgent orders. In this case, some Taiwanese companies provide intelligence exchange and business matchmaking platforms for the risk management of multi-layered supply chains or help reinforce the efficacy of similar platforms like Taiwan Fastener Service Cloud.
- ii. Taiwanese Government is very active in providing financial relief to fastener companies. As of June 2020, the total relief applied by Taiwanese fastener companies reached nearly NT\$ 0.4 billion, benefiting around 8,000 workers. The continuously simplified application procedure and the larger coverage of the financial relief will effectively ease the pressure to fastener companies.
- iii. Taiwanese Government is encouraging Taiwanese companies to keep their HQs in Taiwan and guide them to do business with the whole world via global operating resources coordination, risk management, etc., which means Taiwan-headquartered industries should maintain their core technology and high value-added activities (like branding, design, R&D, intellectual properties, data, etc.) in Taiwan on the one hand, and integrate their overseas production or sales operations into the local application and service systems in respective regions on the other hand. Utilizing their global market experience, highly-automated production lines, technical service, and localization to help Taiwan fastener industry export their solutions.

Table 4. The Value and Change of Taiwan's Fastener Export to the EU

Ranking	Category	HS Code	Q1 2019	Q1 2020	Change
1	Other Iron and Steel Screws and Bolts	731815	57.5	46.0	-20.0%
2	Iron and Steel Nuts	731816	24.7	21.5	-13.0%
3	Iron and Steel Self-tapping Screws	731814	12.3	13.7	11.4%
4	Iron and Steel Wood Screws	731812	10.7	9.5	-11.1%
5	Other Iron and Steel Non-threaded Articles	731829	1.7	1.8	6.0%
6	Other Iron and Steel Threaded Articles	731819	1.1	1.1	-3.7%
7	Iron and Steel Washers	731822	1.1	1.0	-8.2%
8	Iron and Steel Rivets	731823	0.5	0.6	2.9%
9	Other Copper Threaded Articles: Screws; Bolts and Nuts	741533	0.5	0.4	-15.5%
10	Iron and Steel Nails, Tacks, Drawing Pins, Corrugated Nails, Staples, and Similar Articles	731700	0.5	0.4	-18.3%

Source: Import/export data of Taiwan Customs

Conclusion

Considering the U.S.-China trade war and the Covid-19 pandemic causing dual impacts on Taiwan fastener industry, Taiwanese Government has coordinated with steel materials suppliers to do their best to satisfy the industrial demands and help reduce the possible impacts on Taiwan fastener industry. In addition, Taiwanese Government is also strengthening its communication with Taiwan Industrial Fasteners Institute about the current problem of order acceptance confronted by fastener manufacturers to figure out better solutions together. No matter how the pandemic is going to develop, Taiwan fastener industry should still dedicate itself to the business transformation and develop high value-added metallic products in order to increase the competitive edge of Taiwan fastener industry and ensure that Taiwan fastener industry can weather this crisis, turn the crisis into an opportunity, and continue to consolidate its presence in the global market. ■

