

# Overview of Emerging Central & E. European Fastener Markets

## 1. Foreword

Central & E. Europe is located at the critical region of the European continent, is favorably adjacent to W. European market, is full of high-quality labor force and industrial technology potential, and has established complementary and interconnected relationship with many Taiwanese industries. In recent years, many emerging Central & E. European markets have demonstrated eye-catching trade performance and the trade between Taiwan and Central & E. Europe is also growing significantly. Over the past three years, Taiwan exported approx. USD 2.8-3.2 bn of merchandise to Central & E. Europe per year; in H1 2022, Taiwan already exported over USD 2 bn of merchandise to Central & E. Europe, reaching a historic high at 31.7%, which is worth the attention of export-oriented Taiwanese suppliers to this region.

In order to respond to the geopolitical aftereffect of the Ukraine-Russia war and the war-induced material/energy shortages that lashed the global industrial structure, many countries have successively strengthened their trade with Central & E. Europe. Hence, avoiding excessive dependence upon a single market and establishing diversified supply chains are Taiwan's priority; this article will be focused on 7 emerging Central & E. European markets (incl. Poland, Czech, Rep., Hungary, Lithuania, Latvia, Estonia, and Slovakia) and elaborate on the current development of Central & E. European fastener industry. Two countries (Czech Rep. and Poland) with higher fastener import & export values will be also analyzed for giving suggestions and strategies for Taiwanese fastener industry to extend reach to Central & E. Europe.

## 2. Central & E. Europe's Fastener Trade with the World

### a. Import

Table 1 shows the trend of Central & E. Europe's fastener import from the world in 2017-2021. **Its top fastener importers in 2021 were Poland (about NTD 34.77 bn), Czech Rep. (about NTD 28.64 bn), and Slovakia (about NTD 19 bn).** Although imports are not always equivalent to actual demands, productions of importers should be also considered. However, imports also reflect the importers' demands. The average CAGR of imports of 7 major Central & E. European markets over the last 5 years was 7.2% and all of them showed no negative growth. Among them, the top 3 countries with the highest CAGR were: Poland (13.0%), Latvia (12.9%), and Estonia (11.4%).

Table 1. Central & E. European Markets' Fastener Import from the World in 2017-2021					Unit: USD 0.1 bn; %	
Central & E. European Countries	2017	2018	2019	2020	2021	CAGR
Poland	7.61	9.54	4.96	9.33	12.41	13.0%
Czech Rep.	9.29	10.33	9.70	8.40	10.22	2.4%
Slovakia	5.25	6.40	5.81	5.77	6.78	6.6%
Hungary	4.72	5.34	4.95	4.68	5.85	5.5%
Lithuania	0.67	0.69	0.70	0.72	0.96	9.3%
Estonia	0.37	0.44	0.44	0.46	0.58	11.4%
Latvia	0.27	0.31	0.34	0.37	0.44	12.9%
Total	28.19	33.04	26.90	29.73	37.24	7.2%

Source: ITC/MIRDC



## b. Export

Table 2 shows the trend of Central & E. Europe's fastener export to the world in 2017-2021. **Its top fastener exporters in 2021 were Czech Rep. (about NTD 16.9 bn), Poland (about NTD 8.7 bn), and Slovakia (about NTD 7.48 bn).** The average CAGR of export of 7 major Central & E. European markets over the last 5 years was 1.5%. Poland was the only country that showed negative growth, while the rest of them showed stable fastener export. The top 3 countries with the highest CAGR were Latvia (22.5%), Estonia (14.5%), and Slovakia (10.7%). Central & E. European markets are worth the continuous attention of Taiwanese companies.

Table 2. Central & E. European Markets' Fastener Export to the World in 2017-2021						Unit: USD 0.1 bn;%	
Central & E. European Countries	2017	2018	2019	2020	2021	CAGR	
Czech Rep.	5.25	5.91	5.67	4.93	6.03	3.5%	
Poland	4.06	5.05	2.28	2.34	2.88	-8.2%	
Slovakia	1.78	2.01	1.86	2.03	2.67	10.7%	
Hungary	1.04	1.22	1.05	0.97	1.17	3.0%	
Lithuania	0.29	0.39	0.33	0.29	0.35	5.0%	
Estonia	0.08	0.08	0.09	0.12	0.14	14.5%	
Latvia	0.04	0.06	0.06	0.07	0.09	22.5%	
Total	12.54	14.73	11.35	10.74	13.33	1.5%	

Source: ITC/MIRDC

## 3. Taiwan's Fastener Trade with Central & E. European Markets

### a. Import

Table 3 shows Taiwan's fastener import from Central & E. European markets in 2016-2021. In 2021 Taiwan imported NTD 34,332 million worth of fasteners from Central & E. European markets and the 6-year CAGR of imports was -2.9%. Although the total amount was not high, it still imported NTD 19,493 million and NTD 11,261 million worth of fasteners from Czech Rep. and Poland respectively.

Table 3. Taiwan's Fastener Import from Central & E. European Markets in 2016-2021						Unit: NTD 10,000;%	
Central & E. European Countries	2016	2017	2018	2019	2020	2021	CAGR
Czech Rep.	3129.8	3082.4	5455.1	4130.7	2306.6	1949.3	-9.0%
Poland	669.3	795.5	735.7	670.8	882.7	1126.1	11.0%
Hungary	161.7	274.6	226.2	227	135.6	239.5	8.2%
Slovakia	15.8	27.1	126.6	50.5	59.9	48.9	25.4%
Latvia	0.5	0.8	1.8	233.5	3.2	45.7	146.7%
Estonia	1.6	2.8	1.4	3.7	11.3	12.4	50.6%
Lithuania	0.9	1.6	9.1	8.8	7.4	11.3	65.9%
Total	3979.6	4184.8	6555.9	5325	3406.7	3433.2	-2.9%

Source: Taiwan Customs/MIRDC

### b. Export

Table 4 shows Taiwan's fastener export to 7 major Central and E. European markets in 2016-2021. **The top 3 importers of Taiwanese fasteners in Central & E. European markets were Poland (NTD 2.285 bn), Slovakia (NTD 0.663 bn), and Czech Rep. (NTD 0.396 bn).** The 6-year CAGR of Taiwan's fastener export to Central & E. European markets was 4.5% and the CAGR of Taiwan's fastener export to the top 3 importers (Poland, Slovakia, and Czech Rep.) remained stable as well.

Table 4. Taiwan's Fastener Export to 7 Major Central and E. European Markets in 2016-2021						Unit: NTD 0.1 bn;%	
Central & E. European Countries	2016	2017	2018	2019	2020	2021	CAGR
Poland	17.70	18.18	21.35	20.92	17.32	22.85	5.2%
Slovakia	5.61	6.29	8.10	6.11	5.41	6.63	3.4%
Czech Rep.	2.63	3.20	4.16	3.73	3.14	3.96	8.6%
Hungary	1.62	1.71	2.06	1.80	1.53	1.90	3.3%
Estonia	1.41	1.41	1.67	1.70	1.53	1.68	3.5%
Lithuania	1.10	1.03	1.05	0.83	0.76	0.71	-8.2%
Latvia	0.68	0.50	0.60	0.75	0.59	0.58	-3.2%
Total	30.75	32.32	38.98	35.85	30.27	38.31	4.5%

Source: Taiwan Customs/MIRDC

## 4. Fastener Trade Analysis of Major Central & E. European Markets

### a. Czech Rep.

In terms of import, Czech Rep. imported about USD 1.022 bn worth of fasteners in 2021 and its 5-year CAGR of fastener imports was 2.4%. **Major import origins (value/share) were: Germany (USD 0.432 bn/42.2%), China (USD 0.086 bn/8.4%), Italy (USD 0.068 bn/6.7%),**



Taiwan (USD 0.056 bn/5.5%), S. Korea (USD 0.042 bn/4.1%). Table 5 shows Czech Rep.'s fastener import in 2017-2021. Major fasteners Czech Rep. imported from the world in 2021 were: Other Screws and Bolts of Iron and Steel (USD 0.35 bn) and Other Non-Threaded Articles of Iron and Steel (USD 0.142 bn). Its imported fasteners with the highest CAGR were Wood Screws of Iron and Steel (7.4%) and Threaded Articles of Iron and Steel (6.9%).

Table 5. Czech Rep.'s Fastener Import in 2017-2021					Unit: USD 0.1 bn;%	
Category	2017	2018	2019	2020	2021	CAGR
Other Screws and Bolts of Iron and Steel	3.37	3.61	3.33	2.82	3.50	0.9%
Other Non-threaded Articles of Iron and Steel	1.26	1.46	1.37	1.19	1.42	3.0%
Nuts of Iron and Steel	1.11	1.33	1.33	1.14	1.35	4.9%
Self-tapping Screws of Iron and Steel	1.18	1.30	1.17	1.03	1.23	1.1%
Threaded Articles of Iron and Steel (Other)	0.61	0.71	0.73	0.59	0.80	6.9%
Other Washers of Iron and Steel	0.69	0.77	0.71	0.65	0.77	2.8%
Wood Screws of Iron and Steel (Other)	0.27	0.32	0.29	0.33	0.36	7.4%
Spring Washers and Other Lock Washers of Iron and Steel	0.27	0.29	0.27	0.23	0.28	0.4%
Rivets of Iron and Steel	0.24	0.26	0.22	0.20	0.24	-0.7%
Pins and Cotter Pins of Iron and Steel	0.14	0.14	0.16	0.13	0.17	5.6%
Automotive Screws of Iron and Steel	0.09	0.08	0.06	0.05	0.06	-11.5%
Screws Hooks and Screw Rings of Iron and Steel	0.05	0.06	0.06	0.05	0.05	3.8%
Total	9.29	10.33	9.70	8.40	10.22	2.4%

Source: ITC/MIRDC

In terms of export, Czech Rep. exported USD 0.603 bn worth of fasteners in 2021 and the 5-year CAGR of fastener exports was 3.5%. Major export destinations (value/share) were Germany (USD 0.219 bn/36.3%), Slovakia (USD 0.052 bn/8.6%), Hungary (USD 0.040 bn/6.6%), Poland (USD 0.039 bn/6.5%), Italy (USD 0.029 bn/4.8%). Table 6 shows Czech Rep.'s fastener trade in 2017-2021 and its main exported fasteners were Other Screws and Bolts of Iron and Steel (USD 0.186 bn) and Self-tapping Screws of Iron and Steel (USD 0.176 bn). Its exported fasteners with the highest CAGR were Rivets of Iron and Steel (12.1%) and Nuts of Iron and Steel (5.9%).

Table 6. Czech Rep.'s Fastener Trade Export in 2017-2021					Unit: USD 0.1 bn;%	
Category	2017	2018	2019	2020	2021	CAGR
Other Screws and Bolts of Iron and Steel	1.59	1.69	1.62	1.48	1.86	4.0%
Self-tapping Screws of Iron and Steel	1.61	1.90	1.75	1.45	1.76	2.3%
Threaded Articles of Iron and Steel (Other)	0.44	0.50	0.52	0.42	0.49	2.8%
Other Non-threaded Articles of Iron and Steel	0.42	0.47	0.44	0.38	0.46	2.6%
Nuts of Iron and Steel	0.32	0.34	0.43	0.32	0.40	5.9%
Automotive Screws of Iron and Steel	0.24	0.27	0.24	0.22	0.28	4.3%
Pins and Cotter Pins of Iron and Steel	0.18	0.20	0.19	0.17	0.22	5.4%
Other Washers of Iron and Steel	0.18	0.19	0.17	0.18	0.21	3.8%
Wood Screws of Iron and Steel (Other)	0.13	0.18	0.16	0.16	0.17	5.7%
Spring Washers and Other Lock Washers of Iron and Steel	0.09	0.09	0.08	0.08	0.09	2.3%
Rivets of Iron and Steel	0.04	0.05	0.05	0.04	0.06	12.1%
Screw Hooks and Screw Rings of Iron and Steel	0.02	0.03	0.03	0.02	0.02	-1.5%
Total	5.25	5.91	5.67	4.93	6.03	3.5%

Source: ITC/MIRDC

Before WWI, Czech Rep. was one of the world's 8 major industrialized countries. Being located at the center of Europe, it is well-connected to German, Austrian, Slovakian, and Polish markets. Czech Rep.'s main foreign investors are from the Netherlands, Luxembourg, Germany, and Austria, while investors from Japan, S. Korea, China, and other Asian countries also gradually follow suit. Many family-owned SMEs of Czech Rep. focus on producing low-volume, custom-made, and high value-added products and the automotive, machinery, tooling, precision metal parts industries in Czech Rep. feature solid strengths, global competitiveness, and potential. In addition, although there is no high speed rail in Czech Rep. the demand for construction and maintenance of highways still exists. Taiwanese fastener companies can consider market expansion and further analyses based on Czech Rep.'s domestic demand, as Czech Rep.'s businesses have established close collaboration with many countries (such as Taiwan, Switzerland, Sweden, etc.) and is a potential country Taiwanese companies can consider technology collaboration.

## b. Poland

In terms of import, Poland imported USD 1.241 bn worth of fasteners in 2021 and the 5-year CAGR of fastener imports was 13.0%. Major import origins (value/share) were Germany (USD 0.324 bn/26.1%), China (USD 0.227 bn/18.3%), Taiwan (USD 0.120 bn/9.7%), Italy (USD 0.098 bn/7.9%), USA (USD 0.047 bn/3.8%). Table 7 shows Poland's fastener import in 2017-2021. Major imported fasteners were: Other Screws and Bolt of Iron and Steel (USD 0.483 bn) and Nuts of Iron and Steel (USD 0.189 bn). The imported fasteners with the highest CAGR were Automotive Screws of Iron and Steel (29.5%) and Screw Hooks and Screw Rings of Iron and Steel (21.0%). The demand for automotive screws in Poland is huge, which can be directly attributed to the Polish government's active propaganda for EV and new energy policies.





Table 7. Poland's Fastener Import in 2017-2021					Unit: USD 0.1 bn;%	
Category	2017	2018	2019	2020	2021	CAGR
Other Screws and Bolts of Iron and Steel	2.87	3.66	0.09	3.65	4.83	13.9%
Nuts of Iron and Steel	1.06	1.43	0.40	1.33	1.89	15.6%
Self-tapping Screws of Iron and Steel	0.73	0.85	0.87	0.92	1.22	13.8%
Other Non-threaded Articles of Iron and Steel	0.82	0.88	0.83	0.80	0.96	4.0%
Threaded Articles of Iron and Steel (Other)	0.52	0.76	0.76	0.73	0.95	16.6%
Wood Screws of Iron and Steel (Other)	0.48	0.59	0.65	0.65	0.92	17.9%
Other Washers of Iron and Steel	0.56	0.67	0.66	0.55	0.75	7.6%
Spring Washers and Other Lock Washers of Iron and Steel	0.19	0.24	0.22	0.22	0.31	13.3%
Rivets of Iron and Steel	0.23	0.25	0.26	0.24	0.28	5.2%
Pins and Cotter Pins of Iron and Steel	0.09	0.11	0.12	0.10	0.11	6.5%
Automotive Screws of Iron and Steel	0.04	0.05	0.04	0.05	0.10	29.5%
Screw Hooks and Screw Rings of Iron and Steel	0.04	0.06	0.06	0.08	0.10	21.0%
<b>Total</b>	<b>7.61</b>	<b>9.54</b>	<b>4.96</b>	<b>9.33</b>	<b>12.41</b>	<b>13.0%</b>

Source: ITC/MIRDC

In terms of export, Poland exported USD 0.288 bn worth of fasteners in 2021 and the 5-year CAGR of fastener exports was -8.2%. Major export destinations (value/share) were Germany (USD 0.081 bn/28.1%), Slovakia (USD 0.018 bn/6.3%), France (USD 0.015 bn/5.4%), Czech Rep. (USD 0.015 bn/5.2%), Ukraine (USD 0.014 bn/5.0%). **Table 8** shows Poland's fastener export in 2017-2021. Major exported fasteners were: Self-tapping Screws of Iron and Steel (USD 0.089 bn) and Threaded Articles of Iron and Steel (USD 0.052 bn). The exported fasteners with the highest CAGR were Automotive Screws of Iron and Steel (37.9%) and Other Wood Screws of Iron and Steel (22.7%).

Table 8. Poland's Fastener Export in 2017-2021					Unit: USD 0.1 bn;%	
Category	2017	2018	2019	2020	2021	CAGR
Self-tapping Screws of Iron and Steel	0.50	0.59	0.69	0.79	0.89	15.4%
Threaded Articles of Iron and Steel (Other)	0.31	0.37	0.47	0.41	0.52	13.9%
Other Non-threaded Articles of Iron and Steel	0.29	0.38	0.36	0.31	0.45	11.5%
Wood Screws of Iron and Steel (Other)	0.17	0.21	0.24	0.30	0.40	22.7%
Other Washers of Iron and Steel	0.14	0.14	0.14	0.12	0.17	5.4%
Nuts of Iron and Steel	0.20	0.26	0.08	0.13	0.14	-8.8%
Spring Washers and Other Lock Washers of Iron and Steel	0.04	0.08	0.07	0.08	0.10	21.0%
Rivets of Iron and Steel	0.05	0.06	0.11	0.09	0.09	14.8%
Other Screws and Bolts of Iron and Steel	2.30	2.89	0.06	0.06	0.05	-61.9%
Screw Hooks and Screw Rings of Iron and Steel	0.02	0.03	0.03	0.02	0.04	12.6%
Pins and Cotter Pins of Iron and Steel	0.02	0.02	0.02	0.02	0.03	9.9%
Automotive Screws of Iron and Steel	0.00	0.01	0.01	0.01	0.02	37.9%
<b>Total</b>	<b>4.06</b>	<b>5.05</b>	<b>2.28</b>	<b>2.34</b>	<b>2.88</b>	<b>-8.2%</b>

Source: ITC/MIRDC

Although Poland achieved a trade surplus of up to USD13.7 bn in 2021, it still suffered impacts from the US-China trade conflict, the geopolitical tension in the Middle East and Asia, and its major trade partners in the euro zone still suffering the pandemic influences, causing impacts on Polish machinery, electric machinery industries (incl. automotive components, vehicle production & furniture as well as other consumables companies). In addition, as the infrastructure of some regions in Poland still lag behind, **Polish government has continuously invested in public infrastructure (such as railway & highway, seaports, central transportation hub, etc.) and households projects to stimulate the domestic economy.** These national-level infrastructure plans can also boost fastener demand in Poland and Taiwanese fastener companies can consider further expansion to the Polish market.

## 5. Conclusion

With the pandemic around, concerns about int'l geopolitics, and the Russia-Ukraine War bringing uncertainties to the global economy, European economic growth is forecast to continuously trend downward, however, the reconstruction after the Russia-Ukraine War will generate further demand for fasteners and fastening-related articles. To Russia and Ukraine, the most cost-effective way to getting fastener supply would be from Central and E. Europe where they can quickly gain access to support and import fasteners, which further reinforces the importance of Central & E. Europe to Taiwanese fastener companies when it comes to market expansion. Taiwanese fastener companies should grasp opportunities to make early deployment and strengthen the awareness and market share of Taiwanese fasteners in Central & E. European markets. Although Taiwanese companies are active in introducing their products to more markets, competition from Germany, Italy in Europe, as well as challenges from China, S. Korea and other Asian countries still exist, plus certain investment restrictions in Central & E. European countries, it is suggested that Taiwanese companies should turn to reinforcing collaboration with local supply chains and associate systems in Central & E. Europe in order to create favorable conditions for Taiwanese fasteners. ■

