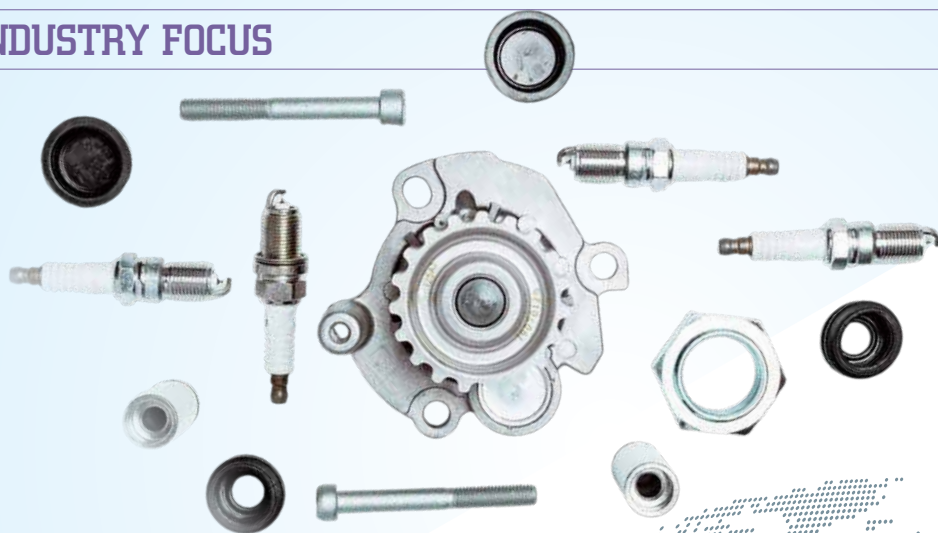




Observations on Shifts in the Automotive Fastener Supply Chain in 2026

Introduction: When the Automotive Supply Chain Begins to Focus on Risk, Not Just Cost

Taiwan's fastener exports account for up to 94% of its total production, with automotive fasteners representing nearly 40% of that total. However, after the orders that had temporarily surged in 2022 due to the pandemic were fully fulfilled, the export of major global automotive fastener-producing countries has not shown any significant explosive growth. Behind these market figures, the procurement strategies of OEMs and T1 suppliers are quietly shifting.

Over the past 2 decades, the global automotive industry has largely organized its supply chains according to the logic of global optimization, with procurement decisions primarily centered on 3 key indicators: price, quality, and lead time. Component production has also gradually become concentrated in regions offering advantages in terms of cost, production capacity, and industrial clusters. Under this model, supply chain efficiency has been a key source of corporate competitiveness.

However, events such as escalating geopolitical risks in the post-pandemic era, adjustments to trade policies, and supply chain disruptions during the pandemic have prompted many automakers to reevaluate their supply chain strategies. Compared to the past practice of pursuing the lowest-cost procurement model, the importance of supply chain resilience and risk management is rapidly increasing.

Taking the N. American market as an example, some automakers and parts suppliers have been gradually increasing the proportion of "Local for Local" production, hoping to reduce the uncertainty caused by cross-border logistics, tariffs, and policy changes through local supply chains. Meanwhile, European automakers are reevaluating the possibility of diversifying their supply sources amid energy price volatility, supply chain security concerns, and pressure to transition to EVs.

For the automotive fastener industry, such changes may not be immediately reflected in order volumes, but they are likely to first manifest in pricing strategies, supplier selection criteria, and requirements for production location planning. For example, some customers have begun requiring suppliers to provide plans for overseas production facilities, details on raw material sources, and even an assessment of their ability to secure alternative supply sources. In other words, a company's competitiveness is no longer determined solely by price and quality, but by its ability to help customers mitigate supply chain risks.

Therefore, this article will first examine the export and production of major global automotive fastener-producing countries in H1 2026 to observe development trends in markets such as Japan, Taiwan, Thailand, and Indonesia; it will then use the Mexican market, which has rapidly emerged in recent years due to the impacts of nearshoring and the USMCA, as a case study to explore how adjustments in automakers' production layouts affect supply chain configurations; Finally, it'll further analyze the future opportunities and challenges the fastener industry may face amid the development of EVs, smart vehicles, and high-value-added application markets.

What truly deserves attention in the current market may no longer be just the shift in production capacity, but rather the changing rules of the game in the global automotive



supply chain. As automakers begin to redefine the importance of supply security and supply chain resilience, the competitive landscape for the automotive fastener industry will also be reshaped.

It is worth noting that, although automotive production capacity has gradually expanded to regions such as Mexico and Southeast Asia in recent years, the technical capabilities, certification systems, and customer relationships within the global automotive fastener supply chain remain largely in the hands of companies from Europe, the U.S., and Japan. Therefore, before examining the shifts in the automotive fastener industry, it may be prudent to first revisit the global automotive supply chain system itself and examine its market landscape and current state of development.

An Overview of the Global Automotive Fastener Supply Chains

a. From HS 7318 to HS 8708: Potential Blind Spots in Automotive Fastener Market Statistics

Traditionally, the fastener industry has primarily used HS Code 7318 (screws, bolts, nuts, washers, and other iron and steel fasteners) as the key indicator for assessing market size and trade flows. Consequently, analyses of the global fastener industry, comparisons of export competitiveness among countries, and industry research reports are typically based on data from HS Code 7318.

However, I have found that if one focuses on the automotive fastener market, examining trade data under HS 7318 alone may not fully reflect the actual state of the industry. According to U.S. CBP and relevant customs practice guidelines, automotive bolts, nuts, and fasteners are generally classified under HS 7318; however, in actual applications, demand for automotive fasteners is often highly correlated with the business cycle of the automotive components

industry. Therefore, using trade flows under HS 8708 (automotive components) as a supplementary indicator reveals a higher degree of consistency between the rankings of exporting countries and the global distribution of major automotive fastener suppliers, thereby more effectively reflecting the automotive industry clusters and supply chain distribution on which demand for automotive fasteners depends.

In other words, HS 7318 reflects the “product market,” while HS 8708 reflects the “demand market.” Therefore, this study uses HS 7318 as the basis for assessing the scale of the global fastener industry, while cross-validating the findings with trade flows of automotive components under HS 8708 to more accurately reflect the actual competitive landscape of the global automotive fastener supply chain.



Table 1. Export Value and Market Share for the Top 15 Markets in the Global Automotive Fastener Supply Chain

Unit: US\$ 0.1 bn

Rank	Market	2021	2022	2023	2024	2025	2025 Market Share
1	Germany	644.7	615.3	675.6	643.6	627.3	13.90%
2	China	455.7	497.3	533.3	566.9	590.5	13.10%
3	USA	357.3	407.3	474.9	450.8	432.8	9.60%
4	Mexico	305.3	379.8	405.7	410.8	400.4	8.90%
5	Japan	325.5	290.9	272.3	258.8	242.6	5.40%
6	Poland	142.5	150.6	182	191.5	202	4.50%
7	S. Korea	192.7	199.2	194.3	188.1	178.1	3.90%
8	Czech	147	144.8	169.2	165.1	176.6	3.90%
9	Italy	150.5	148.1	162.6	149.3	159.8	3.50%
10	France	138.5	130.7	148.6	137.8	136.8	3.00%
11	Canada	109.1	128.2	134	131.5	125.9	2.80%
12	Spain	101.2	101.8	120	111.8	118.7	2.60%
13	Thailand	86.7	84.2	86.1	88.4	98.5	2.20%
14	Hungary	77.8	77.8	93.5	94.1	91.1	2.00%
15	Türkiye	57.8	65.4	72.3	76	82.8	1.80%

Source: ITC (June, 2026)

Table 1 lists the top 15 markets in the global automotive fastener supply chain, with 3 key observations.

(1) Although the European automotive supply chain is well-established, Chinese automakers are making a strong push into the market.

First, Europe remains the world’s most comprehensive automotive parts manufacturing hub. Looking at HS 8708 (automotive parts), Germany’s market share reached 13.9% in 2025, maintaining its position as the global leader; If we further include major European countries in the automotive supply chain—such as Poland (4.5%), the Czech Rep. (3.9%), Italy (3.5%), France (3.0%), Spain (2.6%), and Hungary (2.0%)—their combined market share reached 33.4%, accounting for around 1/3 of the global total. These figures indicate that even with the rapid rise of China’s automotive parts exports, Europe continues to maintain the world’s largest and most comprehensive automotive parts supply chain system, supported by traditional automotive industry hubs such as Germany, France, and Italy, as well as nearshore manufacturing bases in Central and Eastern Europe.

This structure also helps explain why the global automotive fastener industry remains highly concentrated in Europe. Companies such as German Kamax, Swedish Bulten, and French LISI have long served European automakers and T1



suppliers, accumulating technical expertise and certification advantages in areas such as high-strength bolts, chassis fasteners, powertrain fasteners, and structural fasteners. In other words, the competitiveness of Europe's leading automotive fastener manufacturers does not stem from the capabilities of any single company, but rather is built upon Europe's vast, comprehensive, and highly specialized automotive supply chain ecosystem.

It is worth noting that while Germany remains the world's largest exporter of automotive components, China has been rapidly catching up in recent years. By 2025, China's exports had reached US\$59.05 bn, narrowing the gap with Germany's US\$62.73 bn to US\$3.68 bn. This shift not only reflects China's growing capacity to export automotive components but is also closely linked to the rapid expansion of China's EV supply chain.

In recent years, Chinese automakers have developed a strong competitive edge in battery technology, electronic control systems, software integration, and cost control, putting European and U.S. automakers under unprecedented price and technological pressure. Ford CEO Jim Farley has described the situation as a "do-or-die battle" for Western automakers against Chinese EV competition, noting that the progress made by Chinese EVs in terms of cost and product competitiveness has forced traditional automakers to reevaluate their engineering designs and supply chain efficiency.

As can be seen, the fact that China is rapidly closing the gap with Germany in exports under HS Code 8708 is not merely a change in trade figures, but a concrete sign that the center in the global automotive supply chain is gradually shifting from the traditional European, U.S., and Japanese systems toward China's EV supply chain.

(2) The N. American supply chain is highly integrated, and the USMCA is robust

Second, the N. American market is characterized by a high degree of regional integration. In 2025, the combined market share of the U.S., Mexico, and Canada under HS Code 8708 (automotive parts) reached 21.3%, indicating that a tightly integrated N. American automotive supply chain has been established under the USMCA framework. Regional Value Content (RVC) is one of the criteria used to determine origin eligibility in FTAs; it refers to "percentage of value added." The USMCA raises the RVC requirement for passenger cars and light-duty trucks to 75%, requiring automakers and parts manufacturers to increase the proportion of their procurement within N. America, thereby further strengthening the allocation of production capacity and supply chain linkages among the U.S., Mexico, and Canada.

This trend is particularly significant for automotive fastener manufacturers. Mexico is no longer merely a low-cost assembly base for U.S. automakers; it has become a key manufacturing hub in the N. American automotive supply chain. According to data from the U.S. DoC, Mexico's automotive parts industry comprises 2,135 companies, of which more than 700 are T1 suppliers, indicating that a significant cluster of parts manufacturers supplying directly to automakers has formed



in Mexico. For automotive fasteners, demand comes not only from the automakers themselves but also from T1 system suppliers such as those specializing in brakes, chassis, body, seats, battery enclosures, and electronic control modules. Therefore, Mexico's rising prominence in the N. American supply chain also means that demand for the procurement, certification, and local service of automotive fasteners will simultaneously shift toward Mexico.

In other words, when examining the N. American market through the lens of HS 8708, Mexico's high ranking is no coincidence but rather the result of the combined effects of USMCA rules of origin, nearshore production, and the clustering of T1 suppliers; for Taiwanese automotive fastener manufacturers, Mexico has become an indispensable strategic base for entering the N. American automotive supply chain.

(3) The rise of the East Asian automotive sector, with the center of the Japanese supply chain gradually shifting overseas



(See *Table 1*) It is worth noting for Taiwanese automotive fastener manufacturers that the value of Japan's automotive parts exports declined from US\$32.55 bn in 2021 to US\$24.26 bn in 2025—a decrease of US\$8.29 bn over 4 years, representing a 25.5% drop. This makes it the major market with the steepest decline among the top 15 exporting countries. However, Japan's overall automotive industry has not experienced a decline of the same magnitude, indicating that this shift is not due to shrinking market demand but rather reflects Japanese automakers' continued push in recent years toward overseas production and localized procurement strategies.

The main reasons are labor shortages in Japan, rising manufacturing costs in Europe, stricter tariffs and rules of origin in the U.S., and increased uncertainty in China's supply chains, prompting automakers to reevaluate their production layouts and supply chain strategies. A prime example of this is Toyota's 2026 announcement that it would produce the Noah and Voxy models at the Taoyuan plant in Taiwan and export them back to the Japanese market.

In the past, vehicles sold in the Japanese market were mostly produced locally in Japan; the current arrangement, in which vehicles are manufactured in Taiwan and then re-exported to Japan, is quite rare. The reason behind this is not the geopolitical factor, but rather reflects the challenges facing the Japanese automotive industry including labor shortages, rising production costs, and production capacity allocation, which have prompted automakers to rethink their production and supply chain flexibility within the Asian region.

Consequently, as the ASEAN, N. American, and Chinese markets have gradually emerged as global hubs for automotive production, Japanese automakers such as Toyota, Honda, and Nissan have been gradually shifting part of their production capacity and supply chains to Thailand, Indonesia, Mexico, and China, among other locations, thereby establishing a global operational model centered on R&D in Japan and overseas production. This trend has also led to a decline in the share of automotive parts exported from Japan, while the importance of overseas production bases continues to grow.



A closer look at the market structure reveals that Japan (5.4%), S. Korea (3.9%), and Thailand (2.2%) collectively hold a market share of 11.5%, surpassing that of the U.S. (9.6%) and forming a supply chain cluster with economies of scale. For Taiwanese fastener manufacturers, in addition to the Japanese market, they should also pay close attention to development opportunities in Thailand and the ASEAN supply chain.

b. Market Opportunities Within the 3 Major Automotive Supply Chain Systems

Current global demand for automotive fasteners is primarily concentrated in the 3 major supply chain systems in Europe, N. America, and Asia (See **Table 2**- Major Automotive Supply Chain Systems).

Table 2. Major Automotive Supply Chain Systems

Supply Chain	Major Markets	Major Carmakers	Benchmark Fastener Companies	Main Competitiveness	Opportunities for Taiwanese Companies
Europe	Germany, France, Italy, Poland, the Czech Rep.	Volkswagen, BMW, Mercedes-Benz, Stellantis	Kamax, Bulten, LISI	High-value, high-strength fasteners; OEM-certified; high technical entry barriers	High-Value Products, Specialized Processes, Joint Development
N. America	The U.S., Mexico, and Canada	GM, Ford, Tesla	ITW, MacLean-Fogg...etc	USMCA, Nearshoring, Local for Local, Supply Chain Resilience	Deployment in Mexico, Secondary Supply Sources, Local Services
East Asia	Japan, S. Korea, Thailand	Toyota, Honda, Nissan, Hyundai, Kia	Meidoh, Aoyama, Sungwoo...etc	R&D in Japan, Overseas Production, Regional Division of Labor	Japanese Supply Chains, ASEAN Expansion, and Overseas Production Partnerships

Source: public info of each company (June, 2026)

However, upon closer examination of HS 7318, which covers steel screws, bolts, nuts, rivets, and similar fasteners, it becomes evident that this tariff code encompasses fasteners that are indispensable in all basic industries. Widely used in int'l trade across sectors such as automotive, machinery, and construction, this category reveals distinct characteristics in terms of product structure, customer demand, and competitive dynamics across different regional supply chains, making it worthy of closer scrutiny.

(1) Europe: Highest Value-Added Potential and Most Stringent Certification Requirements

Europe remains a key market for high-end automotive fasteners worldwide. Companies such as Kamax, Bulten, and LISI have long been deeply embedded in the supply chains of European automakers including BMW, Mercedes-Benz, Volkswagen, and Stellantis, and possess a strong technical foundation in high-strength bolts, chassis

components, powertrain systems, and body structural components. Compared to price competition, the European market places greater emphasis on quality, reliability, and the ability to obtain automaker certifications; therefore, high-value-added products remain the primary focus of competition.



As shown in **Table 3**, the average export unit prices of major European fastener-producing countries have generally remained at a high level. In particular, Germany's average export unit price rose gradually from US\$8.7/kg in Q1 2025 to US\$9.8 in Q1 2026; Poland, the Czech Rep., and Belgium also showed a steady upward trend, indicating that the added value of European fasteners continues to increase. On the other hand, prices in traditional automotive fastener powerhouses such as France and Italy remained relatively stable, reflecting their established, mature product structures focused on high-value-added items. It is worth noting that the average export unit prices for the UK and Switzerland reached US\$26/kg and US\$21/kg, respectively—significantly higher than those of other countries. It is presumed that their exports consist primarily of high-value-added fasteners for the aerospace, high-performance, medical device, and other specialized industrial sectors, rather than large volumes of standard automotive fasteners.

Table 3. Observations on Recent Changes in Unit Prices in the European Fastener Market

Unit: USD/kg

European Market	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026
Germany	8.7	9.1	9.6	9.7	9.8
Italy	5.6	6	6.3	6.3	6.2
France	11	11	11	12	12
Netherlands	3.3	3.3	3.5	3.4	3.4
U.K.	15	22	22	23	26
Switzerland	18	20	20	20	21
Poland	4.4	4.6	4.8	4.8	4.9
Austria	9.8	10	11	12	11
Czech	4.7	5	5.3	5.3	5.3
Belgium	5.5	6	6.3	6.7	6.6

Source: ITC (June, 2026)



(2) N. America: USMCA Drives Regional Supply Chains

The USMCA promotes “Local for Local” regional production in North America, enabling Mexico to gradually transition from a low-cost assembly hub to a key node in the N. American automotive supply chain. It is worth noting that, although Mexico is one of the most important manufacturing hubs in the restructuring of the N. American automotive supply chain, its statistical data on HS 7318 fasteners is relatively incomplete, making it difficult to directly assess its product mix based on export unit prices.

For fastener manufacturers, the real change goes beyond production locations; it involves OEMs and T1 suppliers reevaluating their suppliers’ local supply capabilities, second source, and supply chain resilience. As a result, the focus of competition in the N. American market will gradually shift from price to regional presence and local service capabilities.

As shown in **Table 4**, the average unit price of U.S. fastener exports rose from US\$11/kg in Q1 2025 to US\$13/kg in Q1 2026, showing an overall steady upward trend. This indicates that U.S. fastener exports continue to be dominated by high-value-added products, reflecting the high technical and quality thresholds required in the automotive, aerospace, defense, and high-end industrial application sectors. In contrast, the average unit price of Canadian 7318 series fastener exports rebounded from US\$0.4/kg to US\$2.4/kg, but remained significantly lower than that of the U.S., indicating that the structure of its export products differs from that of the U.S.

Table 4. Observations on Recent Changes in Unit Prices in the N. American Fastener Market

Unit: USD/kg

N. American Markets	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026
USA	11.0	12.0	12.0	13.0	13.0
Canada	0.4	0.6	2.6	1.2	2.4

Note: Mexico has not submitted statistical data for several consecutive years; data is unavailable.

Source: ITC (June, 2026)



(3) Asia: Japan’s Overseas Expansion Drives Regional Division of Labor

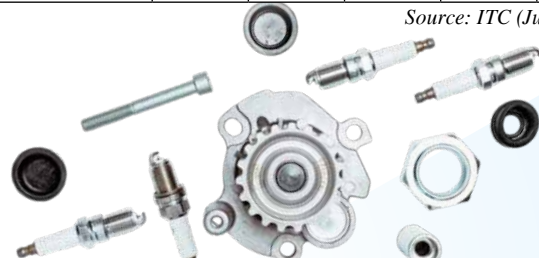
As shown in **Table 5**, there is a clear tiering in export unit prices across the major fastener markets in East Asia. Japan has long maintained a price of around US\$8/kg, ranking first among major Asian markets, indicating that its primary competitive advantage remains in high-precision, high-reliability, and high-value-added automotive fasteners; S. Korea, meanwhile, has maintained a price of around US\$4.7-US\$4.8, falling between Japan and Taiwan, reflecting its stable supply capacity for mid- to high-end fasteners in the automotive and electronics industries. Taiwan’s average export unit price rose from US\$3.4 to US\$3.6, showing steady growth and indicating a continued shift toward higher-value-added products in recent years. On the other hand, Thailand’s export unit price is around US\$3, while India’s and Malaysia’s are around US\$2.4—relatively low figures that suggest these countries continue to focus primarily on standardized products and serve as manufacturing hubs.

Table 5. Observations on Recent Changes in Unit Prices in the Asian Fastener Market

Unit: US\$/kg

Asian Market	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026
Taiwan	3.4	3.5	3.5	3.6	3.6
Japan	8.0	8.2	8.0	7.9	8.0
S. Korea	4.7	4.8	4.8	4.7	4.8
India	2.4	2.4	2.4	2.4	2.4
Thailand	2.8	2.9	2.9	3.0	3.0
Malaysia	2.4	2.4	2.4	2.5	2.4

Source: ITC (June, 2026)



Conclusion

In recent years, the global automotive fastener market has not experienced explosive growth; instead, the rules of competition have gradually shifted due to geopolitical factors, regionalized production, and the transition to EVs. In this context, Europe continues to rely on high-value-added products and automaker certifications as its core competitive advantages; N. America, influenced by the USMCA and nearshoring, is accelerating the establishment of regionalized supply chains; East Asia, driven by Japanese automakers’ overseas expansion, is gradually forming a regional production network centered on Japan, S. Korea, and Thailand. Therefore, for Taiwanese automotive fastener suppliers, the key concern is whether the existing supply chain will face reconfiguration following adjustments to production bases. When changes occur in vehicle manufacturing bases, automakers and T1 suppliers often reassess suppliers’ cross-border supply capabilities, delivery reliability, country-of-origin requirements, and ability to plan for second-source alternatives, which in turn influences future procurement strategies and supplier lists. ■

