2023 全球汽车产销统计

Global Car Production and Sales in 2023

Automobile production and sales have always been one of the indicators for determining whether the related industries are doing well or not. The production of an automobile requires the use of many small parts and fastening components, so the fluctuations of production and sales will have an impact on the orders received in the supply chain of these products. According to the International Organization of Motor Vehicle Manufacturers (OICA), the global automobile production and sales have been on a general growth trend over the past three years, with more significant growth margin between 2022 and 2023. In this article, we will analyze the latest automobile sales and production figures for 2023, and further compare them with those for 2021-2022 to give readers a glimpse of the changes in the automobile industry's outlook.

Overall Upward Trend in Global Production and Sales, with More Significant Year-on-year Growth

Global automobile production was about 80 million units in 2021, which grew to nearly 85 million units in 2022, and then expanded to nearly 94 million units in 2023, an increase of about 10% over the 2022 figure; the global sales were in a slight decline from nearly 84 million units in 2021 to nearly 83 million units in 2022, but grew sharply to nearly 93 million units in 2023, with a similar increase of more than 10% over the previous year. The goal of annual production and sales of more than 100 million vehicles seems to be within reach.

Europe and Asia are the Most Productive, While the Americas Need More Incentives

Europe's automobile production grew from approximately 16 million units 3 years ago to more than 18 million units in 2023, representing a 13% year-over-year increase. It is the world's 3rd largest automobile production region, with Germany, Spain, France, the Czech Republic and Slovakia being the top 5 automobile producers in 2023. Germany and the Czech Republic in particular showed the most significant year-on-year changes, which were 18% and 15%, respectively. Production in most European countries remained at growth levels, except for Serbia, Finland and Slovenia, which experienced significant production declines of 96%, 59% and 11%, respectively. In addition, **Turkey**, which is actively seeking to become a member state of the European Union, has also seen its automobile production grow year by year, reaching a level of more than 1.45 million vehicles in 2023, a year-on-year growth of 9%. These figures fully demonstrate that the momentum of the automobile manufacturing industry in Europe and neighboring countries is slowly picking up.

In **Russia, Ukraine, and Central Asian countries**, Russia's vehicle production in 2023 significantly reduced by more than 50% compared to the 2021 figure, and Ukraine shrank from more than 7,000 to less than 2,000 vehicles. However, Uzbekistan, Kazakhstan and Azerbaijan all showed significant growth over 2021.

The **Americas**, the world's 2nd largest automobile production region, grew from about 16 million units in 2021 all the way to more than 19 million units in 2023, an 8% increase from 2022. In North America, although Canada had the largest year-on-year increase; however, in terms of volume, more than 90% of production was still concentrated in the U.S. and Mexico. The overall production in South America was below 3 million units, with no significant year-on-year change. Brazil is the largest producer of automobiles in South America, with production of more than 2.3 million vehicles in 2023, which still showed a slight year-on-year decline of 2%. Argentina and Colombia rank 2nd and 3rd respectively.

The **Asia-Pacific** region is the world's largest automobile production region, with its production volume rising from over 46 million units in 2021 to over 50 million units in 2022, and surpassing the 55 million-unit mark in 2023, representing a 10% year-on-year increase. The top 5 automobile producing countries were China (more than 30 million vehicles), Japan (nearly 9 million vehicles), India (about 5.9 million vehicles), South Korea (more than 4 million vehicles) and Thailand (nearly 1.9 million vehicles). Among the top 5 countries, except for Thailand, which experienced a slight decline compared to the year before last, the other countries still maintained positive growth. In addition, Indonesia in ASEAN and Iran in the Middle East also showed a production scale of more than one million units of strength. Malaysia's production volume was less than one million, but still had a 10% growth year-on-year.

Africa's production, though small compared to other regions, was still over a million units

World Motor Vehicle Production by Country/Region and Type

UNITS(ALL VEHICLES)	2021	2022	2023	VARIATION 2023/2022
EUROPE	**16,137,638**	**16,032,840**	**18,122,449**	**13%**
GERMANY, cars and LCV only	**3,096,165**	**3,480,357**	**4,109,371**	**18%**
SPAIN	2,098,133	2,219,436	2,451,221	10%
FRANCE, cars and LCV only	1,352,226	1,383,173	1,505,076	9%
CZECH REPUBLIC	1,111,432	1,224,456	1,404,501	15%
SLOVAKIA	1,030,000	982,194	1,080,000	10%
UNITED KINGDOM	932,488	876,614	1,025,474	17%
ITALY	797,243	796,394	880,085	11%
POLAND	439,421	483,840	612,882	27%
ROMANIA	420,755	509,465	513,050	1%
HUNGARY	416,725	441,729	507,225	15%
BELGIUM	261,038	285,473	332,103	16%
PORTUGAL	289,954	322,404	318,231	-1%
SWEDEN, yearly only	258,023	238,955	276,750	16%
NETHERLANDS, yearly only	107,021	101,670	123,379	21%
AUSTRIA	136,700	121,428	114,191	-6%
SLOVENIA	95,797	68,130	60,881	-11%
FINLAND, cars only	85,934	73,044	30,191	-59%
SERBIA	21,263	4,498	186	-96%
CIS (excluding Belarus & Ukraine)	**1,911,188**	**1,066,932**	**1,309,259**	**23%**
BELARUS	29,891	N/A	N/A	-
RUSSIA	1,567,007	609,082	729,864	20%
UZBEKISTAN	242,104	341,167	425,876	25%
KAZAKHSTAN	92,417	112,720	146,989	30%
AZERBAIJAN	2,318	2,473	4,537	84%
UKRAINE	7,342	1,490	1,993	34%
TURKEY	**1,276,140**	**1,352,648**	**1,468,393**	**9%**

Estimate　CARS: Audi, BMW, JLR, Mercedes not reported　**N/A** : Not Available
COMMERCIAL VEHICLES: SINCE 2015Q1: Scania, Daimler Trucks, Volvo Buses not reported

UNITS (ALL VEHICLES)	2021	2022	2023	VARIATION 2023/2022
AMERICA	**16,190,835**	**17,753,536**	**19,136,891**	**8%**
NAFTA	**13,467,065**	**14,795,419**	**16,166,628**	**9%**
USA	9,157,205	10,052,958	10,611,555	6%
MEXICO	3,194,858	3,509,101	4,002,047	14%
CANADA	1,115,002	1,233,360	1,553,026	26%
SOUTH AMERICA	**2,723,770**	**2,958,117**	**2,970,263**	**0%**
BRAZIL	2,248,253	2,369,769	2,324,838	-2%
ARGENTINA ,cars and LCV only	434,753	536,893	610,725	14%
COLOMBIA	**40,764**	**51,455**	**34,700**	-33%
ASIA-OCEANIA	**46,768,800**	**50,021,217**	**55,115,837**	**10%**
CHINA	26,121,712	27,020,615	30,160,966	12%
JAPAN	7,836,908	7,835,539	8,997,440	15%
INDIA	4,399,112	5,457,242	5,851,507	7%
SOUTH KOREA	3,462,404	3,757,049	4,243,597	13%
THAILAND	1,685,705	1,883,515	1,841,663	-2%
INDONESIA	1,121,967	1,470,146	1,395,717	-5%
IRAN, yearly only	894,298	1,064,215	1,188,471	12%
MALAYSIA	481,651	702,275	774,600	10%
TAIWAN	265,320	261,263	285,962	10%
VIETNAM, yearly only	167,799	232,410	177,435	-24%
PHILIPPINES, yearly only	85,874	92,223	110,350	20%
PAKISTAN	238,702	235,454	79,513	-66%
AUSTRALIA, yearly only	5,391	6,096	7,141	17%
MYANMAR, yearly only	1,957	3,175	1,475	-54%
AFRICA (excluding Egypt)	**907,302**	**1,022,783**	**1,171,422**	**15%**
EGYPT, yearly only	N/A	N/A	N/A	-
SOUTH AFRICA	499,087	555,889	633,337	14%
MOROCCO	403,007	464,864	535,825	15%
ALGERIA	5,208	2,773	2,456	-11%
TOTAL	**80,004,575**	**84,830,376**	**93,546,599**	**10%**

Estimate CARS: Audi, BMW, JLR, Mercedes not reported **N/A** : Not Available
COMMERCIAL VEHICLES: SINCE 2015Q1: Scania, Daimler Trucks, Volvo Buses not reported

in size and grew by around 15% year-on-year to 2023. Automobile production in the region was concentrated in South Africa and Morocco, with more than 600,000 and 500,000 vehicles respectively. Egypt, on the other hand, had no published data on vehicle production between 2021 and 2023.

Overall, **Europe's automobile production rebounded the most significantly. Except for the Americas, where growth did not reach more than 10%, all other regions saw at least 10% growth, indicating that the outlook for global automobile production remains favorable.**

Europe Leads Americas, Asia in Sales Gains / Automotive Market Remains Robust

The car sales of **Europe (plus the UK)** and their production can be said to be very close, which were about 17 million units in 2021, a short decline to about 15 million units in 2022, and a substantial growth of 18.7% to nearly 18 million units in 2023. The top 5 countries in terms of sales were Germany, the UK, France, Italy, and Spain. Except for Germany, the other four countries all had an year-over-year increase of at least 10%. Among all European countries, only Norway showed a 21% decline and Hungary showed less than 1% increase, while all the other European countries showed significant growth.

Turkey's sales grew by more than 55% in 2023, dramatically increasing to nearly 1.3 million units. Its sales were just under a million units in 2021 and 2022.

In **Russia and Ukraine**, the data showed a significant decline in sales in 2022, but a significant growth has already begun since 2023, reaching more than 1.3 million and more than 700,000 units of vehicles, respectively.

The **Americas** is the world's 2nd largest market for automobile sales, only second to the Asia-Pacific region. Its sales in the past three years all crossed the mark of 20 million units and reached more than 23 million in 2023, an year-on-year increase of 11.4%. In North America, unlike Mexico, which also accounted for a large share of the region's production data, sales were almost exclusively within the U.S., with less than 2 million units sold in both Mexico and Canada. In the Central and South American region, sales were between 3.8 million and 4.1 million units, a slight increase of about 2.8% over the previous year. Brazil alone accounted for more than half of the region's sales, followed by Argentina and Chile with only about 300,000-400,000 units, respectively. Sales in Chile and Colombia both contracted by almost 30%.

Asia-Pacific/Oceania/the Middle East are the world's most important automotive sales regions. The overall sales grew from around 44 million units in 2021 to more than 50 million units in 2023, a year-on-year increase of 10.2%. The region alone accounted for about 55% of the global sales. The top 5 countries with the highest car sales were China (more than 30 million units), India (more than 5 million units), Japan (nearly 4.8 million units), South Korea (about 1.8 million units), and Australia (about 1.2 million units). Among these five countries, the year-on-year ratios of China, Japan and Australia were all over 12%. It is worth noting that the sales of ASEAN countries declined marginally by 0.1%, with only the Philippines, Malaysia and Vietnam showing growth of 16.4%, 9.2% and 2.6% respectively, while the other ASEAN countries were all in a decline. In the Middle East, Saudi Arabia, the UAE and Israel all posted sales growth of more than 20%.

Africa's sales, similar to its production, reached only about 1 million units in size, with a slight decrease of 2.4% year-on-year in 2023. South Africa alone accounted for more than half of the region's total sales, and its sales in 2023 were up slightly by 3.4% year-on-year. Morocco and Egypt, which rank 2nd and 3rd, had sales of only 160,000 and less than 100,000, respectively, making their market sizes less influential.

Overall, **Europe's automobile sales growth was significantly higher than those of the Americas and Asia, but all these three regions showed growth, with only a small contraction in Africa. This shows that in 2023, the automobile sales activities in Europe, America and Asia continued to be active.**

Summary

According to the aforementioned data, the current global automobile production and sales still maintain a trend of positive development, and if the general environment does not change and there are no other major external factors to make any impact, the 2024 global automobile production and sales should be very likely to approach or even exceed the 100 million units mark.

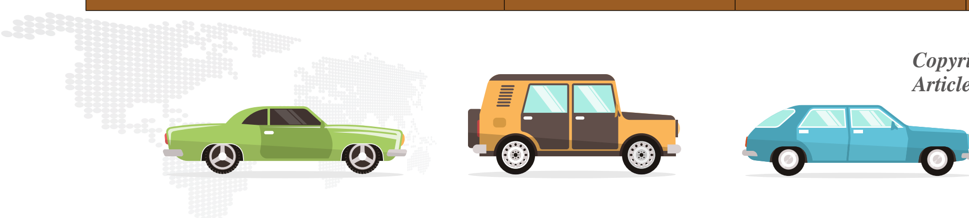
In recent years, many Chinese, Japanese, European and American automakers have started to invest more resources in R&D of new vehicle models (such as electric vehicles, hybrid vehicles, new energy vehicles, etc.) in the hope of stimulating consumers' desire to buy and stimulating the market. Coupled with the fact that the average replacement cycle of automobiles is generally around 5-10 years, it is estimated that with the support of these favorable factors, automotive peripheral related components and fastening components suppliers should also be able to get some orders under the trend of growing demand.

Registrations or Sales of New Vehicles - All Types

REGIONS/COUNTRIES	2021	2022	2023	2023 / 2022
EUROPE	**16,882,486**	**15,079,901**	**17,898,967**	**18.7%**
EU 27 countries + EFTA + UK	**14,141,084**	**13,295,670**	**15,128,471**	**13.8%**
GERMANY	2,973,319	2,963,748	3,204,298	8.1%
UNITED KINGDOM	2,049,005	1,943,572	2,263,666	16.5%
FRANCE	2,142,284	1,926,554	2,209,102	14.7%
ITALY	1,669,855	1,505,052	1,794,655	19.2%
SPAIN	1,034,084	958,978	1,127,868	17.6%
POLAND	554,619	517,683	576,850	11.4%
BELGIUM	463,811	431,594	555,002	28.6%
NETHERLANDS	402,823	385,198	457,984	18.9%
SWEDEN	343,880	329,868	341,842	3.6%
SWITZERLAND	272,087	254,683	287,436	12.9%
AUSTRIA	306,176	244,694	278,896	14.0%
CZECH REPUBLIC	236,221	219,172	255,676	16.7%
OTHER COUNTRIES	237,574	228,751	254,206	11.1%
PORTUGAL	180,287	186,139	229,885	23.5%
DENMARK	221,916	180,976	203,951	12.7%
ROMANIA	145,400	150,641	170,718	13.3%
NORWAY	217,464	210,007	164,053	-21.9%
IRELAND	136,126	131,398	154,247	17.4%
GREECE	112,364	115,878	145,606	25.7%
HUNGARY	150,387	135,571	135,648	0.1%

REGIONS/COUNTRIES	2021	2022	2023	2023/ 2022
FINLAND	115,291	96,622	102,730	6.3%
SLOVAKIA	87,349	90,074	101,842	13.1%
CROATIA	54,290	51,322	67,313	31.2%
BULGARIA	34,472	37,495	44,997	20.0%
RUSSIA, TURKEY & OTHER EUROPE	**2,741,402**	**1,784,231**	**2,770,496**	**55.3%**
RUSSIA	1,741,965	808,604	1,317,438	62.9%
TURKEY	772,850	831,220	1,288,678	55.0%
OTHER COUNTRIES/REGIONS	96,819	90,279	81,844	-9.3%
UKRAINE	121,772	45,661	73,769	61.6%
AMERICA	**22,003,539**	**20,876,860**	**23,247,296**	**11.4%**
USMCA (former NAFTA)	**18,160,147**	**16,927,732**	**19,187,705**	**13.4%**
USA	15,408,565	14,230,324	16,009,268	12.5%
CANADA	1,704,850	1,562,965	1,764,516	12.9%
MEXICO	1,046,732	1,134,443	1,413,921	24.6%
CENTRAL & SOUTH AMERICA	**3,843,392**	**3,949,128**	**4,059,591**	**2.8%**
BRAZIL	2,119,851	2,104,461	2,308,689	9.7%
ARGENTINA	370,341	395,562	439,173	11.0%
OTHER COUNTRIES/REGIONS	340,213	387,908	426,586	10.0%
CHILE	415,582	426,781	308,170	-27.8%
COLOMBIA	229,493	237,249	169,058	-28.7%
PERU	152,856	162,095	165,146	1.9%
ECUADOR	109,707	126,050	124,059	-1.6%
PUERTO RICO	105,349	109,022	118,710	8.9%
ASIA/OCEANIA/MIDDLE EAST	**43,618,875**	**45,838,945**	**50,528,563**	**10.2%**
ASEAN	**2,779,838**	**3,269,405**	**3,266,588**	**-0.1%**
CHINA	26,314,263	26,863,745	30,093,698	12.0%
INDIA	3,759,398	4,725,560	5,079,985	7.5%
JAPAN	4,448,340	4,201,320	4,779,086	13.8%
OTHER COUNTRIES/REGIONS	1,340,520	1,753,132	1,866,944	6.5%
SOUTH KOREA	1,734,581	1,683,657	1,749,729	3.9%
AUSTRALIA	1,049,831	1,081,429	1,216,780	12.5%
INDONESIA	887,205	1,048,040	1,005,802	-4.0%
THAILAND	748,580	849,388	775,780	-8.7%
SAUDI ARABIA	556,559	616,491	758,791	23.1%
MALAYSIA	508,911	607,000	663,000	9.2%
TAIWAN	422,000	415,195	434,000	4.5%
PHILIPPINES	286,734	359,370	418,249	16.4%
ISRAEL	311,291	288,126	359,337	24.7%

REGIONS/COUNTRIES	2021	2022	2023	2023/ 2022
VIETNAM	260,850	330,280	338,854	2.6%
UAE	188,844	207,539	259,139	24.9%
UZBEKISTAN	184,500	205,145	195,500	-4.7%
KAZAKHSTAN	113,600	101,527	173,506	70.9%
NEW ZEALAND	165,287	164,491	148,717	-9.6%
KUWAIT	100,157	110,118	129,448	17.6%
PAKISTAN	237,424	227,392	82,218	-63.8%
AFRICA	**1,133,520**	**1,075,388**	**1,049,842**	**-2.4%**
SOUTH AFRICA	450,674	514,178	531,787	3.4%
OTHER COUNTRIES/REGIONS	229,606	224,676	270,507	20.4%
MOROCCO	175,435	161,409	161,504	0.1%
EGYPT	277,805	175,125	86,044	-50.9%
ALL COUNTRIES/REGIONS	**83,638,420**	**82,871,094**	**92,724,668**	**11.9%**



Article by Gang Hao Chang, Vice Editor-in-Chief

AI Applications from the Perspective of Taiwan Fastener Industry

以台湾扣件产业角度解析AI应用

The export of Taiwan fastener industry in 2023 entered into a deep freeze suddenly under the impact of the market recession. Compared to 2022, its turnover in 2013 declined by 1,540,583,000 U.S. dollars, down 25.09%, while its export weight dropped by 376,549 metric tons, a decline of 23.42%. Generally speaking, its capacity and sales value appeared a reduction of about 1/4. After considering the exchange rate conversion between USD and NTD, the export value in 2019 was NTD 87.482/KG, and in 2023 it was NTD 114.661/KG, and the sales value/KG increased by 31.068%, thanks to the depreciation of NTD in 2022, which actually made up for part of the loss of the fastener industry's declining business performance. In Table 1 "Taiwan's Steel Fastener (7318) Export Statistics from 2019 to 2023", under the impact of the trade war between China and the U.S. in 2019 and the AD duty of the EU on Chinese fasteners in 2022, the orders to China began to be redirected to Taiwan and Taiwan fastener