

1021 was a year full of various challenges to Lthe global automotive industry. Production line stoppages, material supply shortages, and many other problems caused by the COVID pandemic have led to the insufficient capacities of many car manufacturers, which have been also worsened by the short supply of chips. In addition, the price hike of int'l crude oil and the regulations formulated by the EU, UK, USA, Japan and many other advanced countries aiming at gradually making fuel vehicles withdraw from the market within a few years have both boosted the development of the EV industry. Several external factors all deeply influence the development and transformation of the supply chain of the automotive industry and are also closely tied with the future trends of the global automotive industry.

According to the detailed 2021 statistics of car production and sales in countries and regions OICA recently released, the originally expected pandemic-incurred declining car purchasing demand and slump in global car production did not happen and even appeared a slight growth, which is beyond everyone's expectations. The reasons are worth further observation and discussion in the future.

Now let's review together the global car production and sales statistics for 2021 below and compare them with those in 2019 and 2020 to observe if there is any changes and possible trends in the global automotive industry.

In 2021, 80,145,988 units of vehicles were produced in the world, slightly up 3% from 2020; in terms of global sales, 82,684,788 units of vehicles were sold, slightly up 5% from 2020 but still below the production and sales recorded in 2019.

Below are the global car production and sales in 2019-2021:

Production in Europe (Incl. UK)

Europe (incl. UK) is the world's 2nd largest car manufacturing area with the annual production in 2021 reaching 16,330,509 units, only second to China. Compared with 2020, car production in Europe contracted by 4%. Top 5 manufacturers in Europe were Germany, Spain, France, Czech Rep., and Slovakia (representing 54% of Europe's total). The country showing the most significant drop was Slovenia, while the country showing the most significant increase was Portugal. The total production in Europe was in a slight decline, making it the only region in the world appearing a drop.

Total Production

World Motor Vehicle Production by Country/Region and Type				2021/2020
Regions/Countries	Q1-Q4 2019	Q1-Q4 2020	Q1-Q4 2021	2021/2020
EUROPE	21,575,118	16,942,248	16,330,509	-4%
Germany, cars and LCV only	4,947,316	3,742,570	3,308,692	-12%
Spain	2,822,632	2,268,185	2,098,133	-8%
France, cars and LCV only	2,175,350	1,316,371	1,351,308	3%
Czech Republic	1,433,961	1,159,151	1,111,432	-4%
Slovakia	1,107,902	990,598	1,000,000	1%
United Kingdom	1,381,405	987,044	932,488	-6%
Italy	915,291	777,057	795,856	2%
Poland	649,864	451,382	439,421	-3%
Romania	490,412	438,107	420,755	-4%
Hungary	498,158	406,497	394,302	-3%
Portugal	345,688	264,236	289,954	10%





Production in Russia/Central Asia/E. Europe

Production in Russia/Central Asia/E. Europe in 2021 reached over 3.2 million units, up 3% from 2020, not to mention that the production in this region appeared 3 consecutive years of growth since 2019. Nearly 50% of the region's car manufacturing capacity was in Russia (around 1.57 million units and up 9% from 2020). Turkey, following after Russia, showed the record of nearly 1.3 million units, a slight 2% YoY drop. However, with the war between Russia and Ukraine which has been launched for months, sanctions from the West against Russia that made car manufacturers stop operation in Russia, plummeting depreciation of Ruble that weakened Russian people's purchasing power and demand for new cars, it is estimated that Russia's car production in 2022 may appear a significant drop and Turkey may take advantage of this opportunity to become the largest car manufacturing country in the region.

World Motor Vehicle Pro	duction by Co	Juliti y/ itegio	i allu Type	2021/202
Regions/Countries	Q1-Q4 2019	Q1-Q4 2020	Q1-Q4 2021	2021,2020
Belgium	285,797	267,293	261,038	-2%
Sweden, yearly only	279,000	249,000	258,000	4%
Austria	179,400	125,000	136,700	9%
Netherlands, yearly only	176,113	127,058	105,458	-17%
Slovenia	199,114	141,714	95,797	-32%
Finland, cars only	114,785	86,270	93,172	8%
Serbia	35,120	23,375	21,263	-9%
CIS + Turkey	2,527,810	3,121,340	3,216,740	3%
Russia	1,719,146	1,435,551	1,566,317	9%
Turkey	1,461,244	1,297,878	1,276,140	-2%
Uzbekistan	277,967	284,885	241,649	-15%
Kazakhstan	49,400	74,831	92,417	24%
Belarus, cars only	20,427	21,295	29,891	40%
Ukraine	7,266	4,951	8,153	65%
Azerbaijan, cars only	2,360	1,949	2,173	12%
AMERICA	20,160,401	15,692,927	16,151,639	3%
NAFTA	16,822,606	13,374,404	13,427,869	0%
USA	10,892,884	8,821,026	9,167,214	4%
Mexico	4,013,137	3,177,251	3,145,653	-1%
Canada	1,916,585	1,376,127	1,115,002	-19%
South America	3,337,795	2,318,523	2,723,770	18%
Brazil	2,944,988	2,014,055	2,248,253	12%
Argentina, cars and LCV only	314,787	257,187	434,753	69%
Colombia	78,020	47,281	40,764	-14%
ASIA-OCEANIA	49,333,841	44,276,549	46,732,785	6%
China	25,750,650	25,225,242	26,082,220	3%
Japan	9,684,507	8,067,943	7,846,955	-3%
India	4,524,366	3,381,819	4,399,112	30%
South Korea	3,950,614	3,506,774	3,462,404	-1%
Thailand	2,013,710	1,427,074	1,685,705	18%
Indonesia	1,286,848	690,176	1,121,967	63%
Iran, yearly only	821,060	880,997	894,298	2%
Malaysia	571,632	485,186	481,651	-1%
Taiwan	251,304	245,615	265,320	8%
Pakistan	186,751	117,375	238,702	103%
Vietnam, yearly only	176,203	165,568	163,250	-1%
Philippines, yearly only	95,094	67,297	83,852	25%
Australia, yearly only	5,606	4,730	5,391	14%
Myanmar, yearly only	15,496	10,753	1,957	-82%
AFRICA	1,113,651	800,001	931,056	16%
South Africa	631,921	447,213	499,087	12%
Morocco	403,218	328,280	403,007	23%
Egypt, yearly only	18,500	23,754	23,754	0%
Algeria	60,012	754	5,208	591%
TOTAL	92,183,011	77,711,725	80,145,988	3%



America was the world's 3rd largest car manufacturing continent. Being very close to its European counterpart, car production in America in 2021; reached 16,151,639 units, a slight 3% growth from 2020. Different from Europe's 3 consecutive years of decline in car production, America appeared a significant drop in production in 2020, however, it rose again in 2021, but was still below 2019's record. The U.S., Mexico, and Canada in N. America, as well as Brazil in S. America are the 4 largest car manufacturing countries in the region. Among these 4 countries, the U.S. showed the highest production record at more than 9 million units (around 56% of America's total). On the other hand, Argentina appeared the highest growth at 69%, though its production was comparatively low.

Production in Asia/the Oceania

In 2021, nearly 47 million units of vehicles were produced in Asia/the Oceania, up 6% from 2020, making this region the world's largest car manufacturing heartland. China, in particular, represented over 55% of the region's total and showed the annual production of over 26 million units. Following after China, Japan, India, S. Korea, Thailand, and Indonesia were also the top car manufacturing countries in the region. Compared to the respective 3% and 1% YoY drop in Japan and S. Korea, Indonesia, India, and Thailand all appeared the YoY growths of 63%, 30%, and 18%, respectively. In the entire Asia/the Oceania, Pakistan appeared the highest YoY growth of 103%, while Myanmar appeared the lowest one at -82% (probably due to the political chaos last year). What's worth mentioning is that, although Vietnam has been one of the investment focuses of many foreign investors, its conditions and scale of car production seem to be not quite mature yet.



Africa's share in the global car production is quite low. Although in 2019 its production exceeded a million units, its production scale



has dropped to below a million units since 2020. However, its production of around 930 thousand units in 2021 was still 16% higher than the record in 2020. Major car manufacturing countries in this region were South Africa and Morocco and both countries appeared two-digit YoY growths. Other countries such as Egypt and Algeria also produced certain units of vehicles, but the volumes were quite low.

Registrations or Sales of New Vehicles - All Types				2021/2022
Regions/Countries	Q1-Q4 2019	Q1-Q4 2020	Q1-Q4 2021	2021/2020
EUROPE	20,930,716	16,712,898	16,874,893	1%
Germany	4,017,059	3,266,759	2,973,319	-9%
France	2,755,728	2,100,030	2,142,284	2%
United Kingdom	2,736,559	1,964,660	2,044,091	4%
Italy	2,132,630	1,564,756	1,664,483	6%
Spain	1,501,244	1,030,746	1,034,063	0%
Poland	656,258	510,153	554,613	9%
Belgium	642,000	509,994	462,536	-9%
Netherlands	538,739	427,162	405,061	-5%
Sweden	418,478	330,215	343,880	4%
Austria	371,934	301,617	306,176	2%
Switzerland	352,968	269,391	272,249	1%
Other Countries	285,560	215,910	237,203	10%
Czech Republic	281,423	228,834	236,221	3%
Denmark	264,073	233,271	221,937	-5%
Norway	189,824	180,592	217,572	20%
Portugal	265,827	173,989	183,390	5%
Hungary	190,090	153,978	150,387	-2%
Romania	189,504	145,507	144,222	-1%
Ireland	145,104	112,122	136,126	21%
Finland	133,505	112,988	115,291	2%
Greece	122,990	88,710	112,364	27%
Slovakia	113,863	84,909	87,349	3%
Croatia	73,862	43,800	54,330	24%
Bulgaria	44,977	29,663	34,472	16%
RUSSIA, TURKEY & OTHER EUROPE	2,506,517	2,633,142	2,741,274	4%
Russia	1,778,841	1,631,163	1,741,965	7%
Turkey	491,947	796,150	772,722	-3%
Ukraine	102,542	98,986	121,772	23%
Other Countries/Regions	133,187	106,843	96,819	-9%
AMERICA	25,384,924	20,814,832	22,001,152	6 %
NAFTA	20,824,602	17,445,480	18,160,120	4%
United States Of America	17,488,154	14,881,356	15,408,565	4%
Canada	1,976,440	1,586,474	1,704,850	7%
Mexico	1,360,008	977,650	1,046,705	7%
CENTRAL & SOUTH AMERICA	4,560,322	3,369,352	3,841,032	14%
Brazil	2,787,850	2,058,437	2,119,851	3%
Chile	348,575	258,835	415,582	61%
Argentina	452,200	334,316	370,283	11%
Other Countries/Regions	346,376	253,970	337,911	33%
Colombia	248,689	173,121	229,493	33%
Peru	155,507	108,999	152,856	40%
Ecuador	119,197	78,187	109,707	40%
Puerto Rico	101,928	103,487	105,349	2%



In the previous paragraphs, we mentioned that Europe was the world's 2nd largest car manufacturing region. However, in terms of Europe's sales, its performance was still behind America and was in the 3rd place. Its sales in 2021 reached around 16.9 million units, a slight 1% growth from 2020. Top 5 car sales markets in Europe were Germany, France, UK, Italy, and Spain (Germany, France and UK shared over 42% of the Europe's total car sales). Among these 5 countries, except that Germany with the top sales record appeared a 9% YoY drop from 2020, the other countries all appeared a growth in the range of 0-6%.

_Sales in Russia/ E. Europe/Turkey

Car sales in Russia/E. Europe/Turkey reached 2.74 million units in 2021, up 4% from 2020. Sales in this region were mainly concentrated in Russia and reached 1.74 million units. So far, Russia has been the world's 9th largest car sales market. Turkey was the 2nd largest car sales market in the region, but sales in Turkey dropped by 3% from 2020. The 3rd car sales market in the region, Ukraine, appeared a significant 23% YoY growth in 2021. However, with Russian invasion of Ukraine in the beginning of this year, economic activities in Ukraine almost stagnated. As a result, car sales in Ukraine may appear a significant decline and it may take a long period of time for full recovery.

Sales in America

In 2021, more than 22 million units of vehicles were sold in America, up 6% from 2020. Over 70% of America's sales were in the U.S. Brazil was in the 2nd place with the sales of around 2.12 million units, better than Canada's 1.7 million units and Mexico's 1.05 million units. Other countries such as Chile, Argentina, Colombia, Peru, Ecuador, Puerto Rico, though with a smaller market scale, were still major car sales markets in the region. Compared with 2020, car sales in all S. American countries appeared growth.

Sales in Asia/the Oceania

The same as production, car sales in Asia/the Oceania have been in the



unbeatable 1st place in the world for years. Its sales in 2021 were around 42.66 million units (up 6% from 2020) and this figure was even much higher than the total sales in Europe and America. Top 5 car sales markets in this region were China (26.27 million units), Japan (4.45 million units), India (3.76 million units), S. Korea (1.73 million units) and Australia (1.05 million units). During 2019-2021, China being the world's largest car sales market even appeared consecutive years of growth and its YoY growth in 2021 was 4%. India among the top 5 sales markets appeared the most significant YoY growth at 28%. If such a growing trend continues, India is very likely to outpace Japan within a few years to become the 2nd largest car sales market in Asia/the Oceania.

Sales in Africa

Car sales in Africa in 2021 reached around 1.15 million units, up 24% from 2020. Major car sales markets were South Africa, Egypt, and Morocco. The production of South Africa was similar to its sales. As for Egypt, its car production was comparatively low (only 23,000 units), but its car sales reached nearly 0.3 million units, higher than the scale of Morocco.



Registrations or Sales of New Vehicles - All Types				0004/0000
Regions/Countries	Q1-Q4 2019	Q1-Q4 2020	Q1-Q4 2021	2021/2020
ASIA/OCEANIA/MIDDLE EAST	43,713,696	40,322,544	42,663,736	6%
China	25,796,931	25,311,069	26,274,820	4%
Japan	5,195,216	4,598,615	4,448,340	-3%
India	3,816,858	2,938,575	3,759,398	28%
South Korea	1,795,134	1,905,972	1,734,581	-9%
Australia	1,062,867	916,968	1,049,831	14%
Indonesia	1,030,486	532,077	887,205	67%
Thailand	1,007,552	792,146	748,580	-5%
Saudi Arabia	533,904	452,544	556,559	23%
Malaysia	604,287	529,434	508,911	-4%
Other Countries/Regions	534,707	399,580	435,754	9%
Taiwan	425,000	444,161	422,000	-5%
Israel	268,220	226,338	306,012	35%
Philippines	410,406	244,178	286,734	17%
Vietnam	281,262	262,823	260,850	-1%
Pakistan	187,714	124,429	237,424	91%
United Arab Emirates	232,305	158,711	188,844	19%
Uzbekistan	197,103	195,000	184,500	-5%
New Zealand	149,293	115,435	159,636	38%
Kazakhstan*	71,818	89,202	113,600	27%
Kuwait	112,633	85,287	100,157	17%
AFRICA	1,197,846	924,046	1,145,007	24%
South Africa	532,898	372,633	464,493	25%
Egypt	170,568	219,732	277,805	26%
Other Countries/Regions	328,464	198,373	227,274	15%
Morocco	165,916	133,308	175,435	32%
ALL COUNTRIES/REGIONS	91,227,182	78,774,320	82,684,788	5%

Observing the global car production and sales, we found that the global automotive industry faced the severe pandemic in 2020 and the pandemic-incurred side effects also made the production and sales to drop slightly. However, starting from 2021, the industry appeared gradual recovery again and both production and sales returned to the level of 80 million units (although still below the record in 2019, the growing trend continues). Germany, France, Spain, and Italy of W. Europe, UK, Czech Rep. and Slovakia of E. Europe, China, Japan, India, S. Korea, and Thailand of Asia, the U.S., Mexico, Canada, and Brazil of America, Russia, and Turkey are all the world's major car production and sales markets. The author thinks that if the global pandemic could be gradually under control after 2023 and more countries open their borders, many problems the industry is facing will be fixed in the end. In addition, if the technology and construction of infrastructure of EV can make a significant breakthrough, people will be more willing to replace their old cars with new ones, which will boost the market demand and purchasing power, then the global car production and sales are very likely to reach the mark of 0.1 bn units within 2-3 years.



