

# Factors Affecting Supply and Demand in The Automobile Industry of The Republic of Uzbekistan

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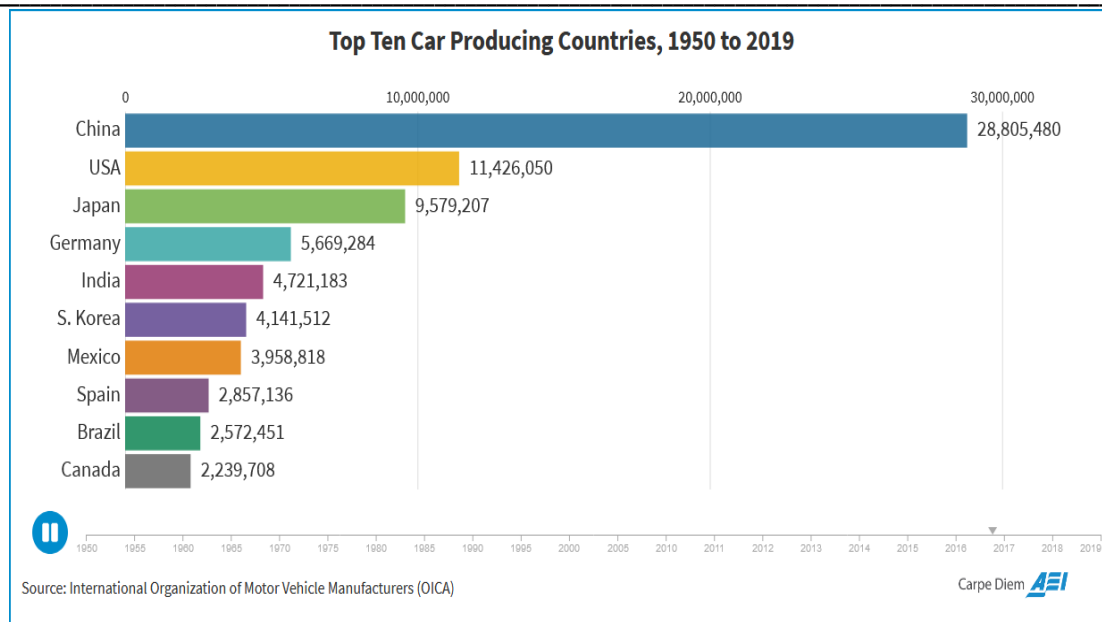
**Annotation:** The article considers the history of the existence of the national automotive industry. The main attention was paid to the formation of national and foreign automobile companies on the territory of the Republic of Uzbekistan, and an analysis was made of foreign motor transport manufacturers in the world. The factors of formation of supply and demand in the automotive market, as well as an analysis of world production and national output in recent years, have been studied. Problems are considered and proposals for solutions in this industry are given.

**Key words:** automobile industry, automobile industry, foreign investment, competitiveness, innovation, ecology, supply and demand, export, automobile production.

Currently, industry in Uzbekistan is one of the main sectors of the economy of the republic. The role and special importance of the industry is to meet the needs of the population and a high degree of quality of produced competitive products in the Republic of Uzbekistan. One of them is our automobile industry, which has been functioning for more than 25 years in the domestic as well as foreign automobile market.

Production and sale of cars is traditionally one of the largest and fastest growing sectors of the world economy in the 21st century. Today, China, the U.S., Japan and Germany can be attributed to the main leaders of the world car production. The importance of the automobile industry in the development of national economies is certainly an acknowledged fact, so many other countries are also trying to develop their automobile industry, inevitably entering into competition with the world leaders.

In developing countries over the past 10-15 years the automotive industry has shown unique growth rates, which are explained by changes in the standard of living of the population, active government policies to stimulate and attract foreign investment in this segment of the economy. For example, China's share of car production in 2001 was less than 5%, and a few years later, in 2016, it reached 30% of the global car industry. Similarly, during the period under review, India's share rose from 1% to 5%. A different picture was observed in developed countries: the share of U.S. auto production fell from 20% in 2001 to 13% in 2019; Japan and Germany showed a decline, from 17 and 10% in 2000 to 10 and 6% in 2019, respectively. Vehicle production statistics are shown in Fig.1



**Figure 1. Volumes of the leading countries in the world production of cars in 1950-2019yy.**

In this regard, we can make predictions that by 2030 the world car market will form a new big three and the shares of China, USA, Japan and India will be respectively high. Together the shares of these three countries will reach more than 60% of world car sales. In the long term, the markets of developed countries will retain their key role, but will not be able to demonstrate high growth rates. Global car production and sales will change over the next decade due to rising per capita incomes, as well as a significant vehicle recycling base in the world.

Since the beginning of the 21st century, the annual number of cars produced in China has increased 12-fold, while global production has increased only 1.6-fold. India and Brazil are also among the few countries where the automotive industry is developing at a fairly rapid pace.

According to world experts, in the near future unmanned cars will be able to radically transform the transport system, turning it into a highly intelligent digital environment. According to the forecast of Boston Consulting Group (BCG) the market volume of autonomous driving technologies by 2025 will increase to 42 billion dollars, and the share of autonomous cars in total world sales by that time will be 12-13% or 14.5 million units, of which about 600 thousand will be fully autonomous. Some experts believe that if the legal framework, technical support and infrastructure are properly developed by 2030. 15% of cars sold could have an automated control system. The Institute of Electrical and Electronics Engineers (IEEE) estimates that cars with autonomous technology will account for 75% of all cars worldwide by 2040.

The Uzbek automotive market is one of the main industrial areas in the country and the main source of exports. Indeed, the domestic market has always been controlled by the state-owned company GM Uzbekistan, forcing buyers to pay high prices or wait a long time for a car.

Despite the fact that Uzbekistan has difficulties with the landscape and road surface. Motorists prefer to drive small cars and oversized vehicles. Foreign car industry initially focuses on the solvency of the citizens of Uzbekistan. Nowadays, the concern DEU and General Motors operate in the territory of the country. Daewoo produces minivans Damas with 5 speed transmission. It is a budget variant. There are no airbags, ventilation, and the seats are rigid. General Motors makes Chevrolet CMV and Daewoo Attiv. They go exclusively for export. Since October 2015, Chevrolet Spark, Daewoo Gentra and Chevrolet Matiz models are produced under the national brand Ravon.

Paying attention to the statistics of last year's automotive market performance, we can note that according to the State Statistics Committee, the automotive industry produced in January-December 2020: 79908 Cobalt cars (growth rate to the same period of 2019 was 142.2%), 66402 - Nexia (90.8%), 50052 - Gentra (112.5%), 51692 - Damas (99.8%), 23003 - Spark (94.9%) and 9023 - Labo (123.8%).

Next, let us analyze in detail the automobile market conditions. Considering the supply of cars on the market, let us analyze the availability of motor transport enterprises and the dynamics of their production.

In 1994, on the basis of agreement between Korean Daewoo Corporation and national company UzAutoSanoat was formed a joint motor transport enterprise UzDaewooAuto in Asaka town of Andijan region. The first cars of the first automobile plant were Damas and Tico.

Over the years, the company has successfully passed compliance certification twice (1999 and 2003), and produced the following brands of cars: Matiz, Matiz Best, Nexia.

The most popular models released before the reorganization of the company are the Nexia with DOHC engine type and the Matiz. It was them that began to actively promote export, winning the markets of neighboring countries and, above all, Russia.

It is noted the fact that almost all the staff was trained in Daewoo and other car companies in the world, which significantly increased the quality of the car produced.

In 2008, JSC UzAutoSanoat and the U.S. concern General Motors, which absorbed the bankrupt Korean company Daewoo, formed the enterprise "General Motors Uzbekistan", and Daewoo cars began to be produced under the brand name "Chevrolet".

This year was unique for the Uzbek car industry: not only were three new models - Tacuma, Epica and Captiva - introduced, but also two most popular cars - Nexia and Matiz - were equipped with EURO 3 engines.

In August 2010 began serial production of a more advanced and technologically advanced Spark, which became a kind of Matiz heir.

In 2011, a restyled version of Captiva was presented.

In 2012 began production of the second series Cobalt and a business sedan Malibu.

During the state visit of President Shavkat Mirziyoyev to the Republic of Korea, the company Uzavtosanoat reached an agreement on organization of production in Uzbekistan of Tracker car and upgraded version of Cobalt, as well as motorcycles and scooters.

Production of both models will be set up at the Asaka car plant with the launch of serial production in 2019.

The General Motors Uzbekistan enterprise is part of the giant Uzavtosanoat JSC, which in turn includes the other companies:

- SamAvto LLC - Samarkand automobile plant was organized in 1996 to produce medium-density buses and light and medium-duty trucks. It started its activity on March 19, 1999. From 1999 to 2006, vehicles were produced under the Otoyol brand, under contract with Koç Holding, and from 2006 to the present time under the Isuzu brand. Currently, the plant produces four models of buses and five models of trucks.

- Uz Truck and Bus Motors JV LLC produces MAN trucks with gross weight from 15 to 50 tons;

- GM Powertrain Uzbekistan JSC - production of 1.2 and 1.5 liter DOHC engines.

Samarkand Automobile Plant (JV LLC SamAvto) is an enterprise producing commercial vehicles: buses, trucks and specialized vehicles. The founders of the company are JSC Uzavtosanoat (Uzbekistan) - 51.9%, Asaka Bank (Uzbekistan) - 23.3%, Itochu Corporation (Japan) - 12.4%, ISUZU Motors Ltd (Japan) - 12.4%.

Uz Truck and Bus Motors LLC - joint stock company Uzavtosanoat and German MAN Truck & Bus AG founded JV MAN Auto-Uzbekistan, now JV UZ TRUCK AND BUS MOTORS LLC.

A great achievement of the company is the beginning of serial production of MAN A22 compressed natural gas-powered low-floor city buses and MAN RR2 COACH intercity buses since 2016. The start of bus production will mark the acquisition by the plant in the Central Asian region of the status of a center for the production of buses of various modifications.

Establishment of JV GM Powertrain Uzbekistan JSC was a natural step in the development of the machine building industry of Uzbekistan. The enterprise produces DOHC engines with the volume of 1.2 and 1.5 liters that are installed in cars manufactured at Asaka Automobile Plant and a considerable part of manufactured automobile engines is exported to General Motors assembly plants in India, South Korea and other countries.

A key feature of the engine plant is that it was the first and only facility for casting aluminum cylinder heads in Central Asia. This is a truly unique production, since GM Powertrain Uzbekistan combines casting and assembly production in one area. This ensures a reduction in the cost of transporting components.

- JV UzKodji - The enterprise JV UzKodji for production of electric harnesses for vehicles produced at Asaka automobile plant is located in Khanabad city of Andijan region and was established in 1999. The Uzbek side was founded by JSC Uzavtosanoat and the Korean side by I-RAE Co. LTD. and Koji Ind. LTD.

- JV LLC "O`ZERAERALTERNATOR" - products of the enterprise - automobile generators and compressors.

- LLC "Avtosanoat Invest" - The main directions are:

- investing in existing and newly created enterprises;

- participation in the development and implementation of a unified policy of "Uzavtosanoat" on the management of subsidiaries and affiliated enterprises of the company in order to make a profit as a shareholder (participant);

- participation in creation of new enterprises both inside and outside the Republic of Uzbekistan.

- Jizzakh Battery Plant JSC specializes in production of lead acid starter batteries and recycling of secondary lead, was founded on the basis of Resolution 51 of the Cabinet of Ministers of the Republic of Uzbekistan dated 25th of March 2010.

- O`ZERAEL CLIMATE CONTROL" JV LLC - signing of tripartite agreement on the 2nd of September 2010 between the South Korean company "ERAEL Cs Ltd," JSC "O`ZAVTOSANOAT" and "Avtosanoat" LLC, the founder of the JV "O`zERAEL Climate Control" LLC.

Purpose of establishment of the enterprise: provision of further sustainable development of the automotive industry of the Republic of Uzbekistan, establishment of hi-tech capacities for production of components for vehicles of "General Motors Uzbekistan" JSC, and also rational usage of production area of "Babur" OJSC in Andijan.

The main products are Heating, Cooling, Ventilation and Air Conditioning Systems for car interiors.

If we consider statistics of supply of motor vehicles and units for the whole concern of JSC Uzavtosanoat, we can come to some conclusions based on the company's data:

**Table 1.**

**Information about the production of the main types of products of large production enterprises of JSC "Uzavtosanoat" for 2017-2019 yy.**

Name	Measure ment unit	2017	2018	Tempo	2019	Tempo	2020
<b>Passenger cars</b>	Unit	140247	220667	+80420	271113	+50446	168712
<b>Buses ISUZU</b>	Unit	1007	904	-103	1464	+560	472
<b>ISUZU trucks</b>	Unit	2593	2466	-127	2727	+261	1142
<b>MAN Buses</b>	Unit	1150	1 170	+20	1203	+33	0
<b>MAN Trucks</b>	Unit	50	45	-5	70	+25	470

This table shows that in general the enterprises of this concern work with interruptions in the growth rate of production.

"General Motors Uzbekistan" works uninterruptedly, but with a reduction in the growth rate, producing cars.

As to export orientation of the concern, there are some changes in this sector.

For example, in recent years, the average price of an exported car has doubled, from \$4,845 to \$9,201.

For years, cars from Uzbekistan have been the cheapest in major export markets. In the summer of 2018, the Spark and Nexia were recognized as the cheapest foreign cars in Russia and cost \$6,900 and \$7,100, respectively. At the same time, domestically, the same models cost several thousand dollars more.

Due to the export reorientation, exports were temporarily suspended in 2018, but the resumption of exports was due to a price increase of \$5,000 on average.

UzAuto Motors cars have since stopped costing less abroad. For example, a Cobalt in Kazakhstan now costs between 4.7 million and 5 million tenge, depending on the configuration. That's from 113 million to 120 million in terms of sums; in Uzbekistan, the model costs from 97 million to 116 million sum.

Since 2018, both exports and receipts are gradually increasing. However, if in 2016 Uzbekistan sold a car abroad for an average of \$5,132, in 2020 - already for \$9,201:

**Table 2.**  
**Export of UzAuto Motors vehicles in 2016-2020yy.**

<b>The Year</b>	<b>How many sold (in units)</b>	<b>How much did it bring in (in \$ million)</b>	<b>Price of one car (average, in \$)</b>
2016	7 677	39,4	5 132
2017	26 849	130,1	4 845
2018	4 827	29,3	6 070
2019	14 732	121,5	8 247
2020	18 552	170,7	9 201

The growth in quantity and prices is due not only to the fact that prices have changed, but the model range has also changed in these years.

Geography has also changed - if before the lion's share was in Russia, now almost 90% is taken by Kazakhstan. In the neighboring republic, Chevrolet competes with Hundai, and Cobalt with Accent. The sales of the brand this year grew by 4697%.

While there are relatively positive points, there are current obstacles to the full functioning of the market:

1. The market for passenger cars is not yet saturated. For example, as of 2021 the total number of cars was 2.77 million, which is 79 cars per 1,000 people. For comparison, in Kazakhstan the figure is 198 cars per 1,000 people. (3,756,000 cars / 18,877,000 inhabitants \*1000)

2. Annual increase in the cost of fuel. On the one hand, the Republic of Uzbekistan annually reduces the production of petroleum products, so for the period 2018-2020, the production of petroleum products decreased by 1 million tons. While in neighboring Kazakhstan, on the contrary, production is increasing. At the same time, the cost of a liter of gasoline in Kazakhstan is 0.21 c.u. (90.98 tenge brand AI-80), while in Uzbekistan - 0.56 c.u. (6000 soum brand AI-80).

3. On the other hand, the government consistently indexes foreign fuel tariffs in order to support domestic producers, which also leads to higher fuel prices.

4. Of course, we can not exclude the fact that the Uzbek market is closed to foreign cars with high duties and VAT. On one hand there is a support of domestic manufacturer and jobs, on the other hand there is a risk to strengthen monopoly.

5. There is also a problem with purchase and sale of products just off the assembly line. The fact is that today, consumers are increasingly buying used products because of the long queues in car dealerships and of course because of the low prices.

As suggestions for solving these problems were the main factors:

1. We believe it is necessary to open the market of automobile production, to allow foreign companies to produce in our country. High competition will have a positive effect on the cost and volume of production.

2. optimize fuel prices, take measures to eliminate fuel shortages.

3. Eliminate barriers to market entry, lower fuel prices, and optimize the volume of petroleum products production - all this will encourage consumers to buy new, not second-hand automobile products.

4. To develop localization and innovations in motor transport industry.

In conclusion I would like to note that the production potential of Uzbekistan is high, and the fact that four big foreign motor transport companies, "Daewoo", "General Motors", "Man" and "ERAE Cs Ltd.

At the same time the joint work of the united concerns at various stages of the automobile industry gave high results. The annual output was ahead of the curve. Within a period of twelve years the one-millionth car was produced, while the 500,000th and 1-millionth cars were produced three years apart.

The development of the industry did not stay within the local market, the products began to be exported at an accelerated rate at underpriced prices.

Another mainstream development of the national automobile industry is the focus on the electric car. According to studies in the automotive industry, the global market for electric passenger cars will approach 15% in 2025. However, this figure will reach 30% in 2030, up from 1.7% in 2015. Auto exporters believe that limiting the registration of conventional cars in major Chinese cities due to extremely polluted air and providing financial incentives from the government will serve as an impetus for the development of electric car sales in China.

Today it is obvious that the demand for automotive products in Uzbekistan is growing every year, as well as for electric cars due to the constant increase in fuel and lubricants as well as environmental preservation, which are imported from other countries, especially China. Only in 2020 the number of car registrations has increased by 14%, of which electric cars are about 2% compared to 2020.

However, there are also obstacles to a more efficient operation of the car market. Low market saturation, fuel prices, high demand for used products, high duties on foreign supplies, and a virtually closed market for foreign automakers are all problems that must be solved for the market to work perfectly.

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