

Analysis of the automobile industry

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Introduction

The automobile industry is very important for the Czech Republic and is one of the traditional drivers of the Czech economy, not only because it employs a lot of people, has a long-term tradition and regularly produces more than a million vehicles, but also because of its position within Europe. Even despite the relatively small size of our country and economy compared to other member states, the Czech Republic's developed automobile industry is not losing pace, but is even remaining ahead, according to some indicators. These indicators include the number of produced vehicles and the share of employees in the automobile sector in relation to the overall work force. The share of gross added value in the automobile industry in relation the overall added value for all sectors in the national economy has long enabled the Czech Republic to rank in the highest positions compared to other EU states. Even despite the economic crisis, the automobile industry has been maintaining its importance, and if the anticipated economic recovery occurs next year, it will be not only for the industry, but also for the Czech Republic a new impulse for growth and increasing of the Czech Republic's position on the European market and elsewhere.

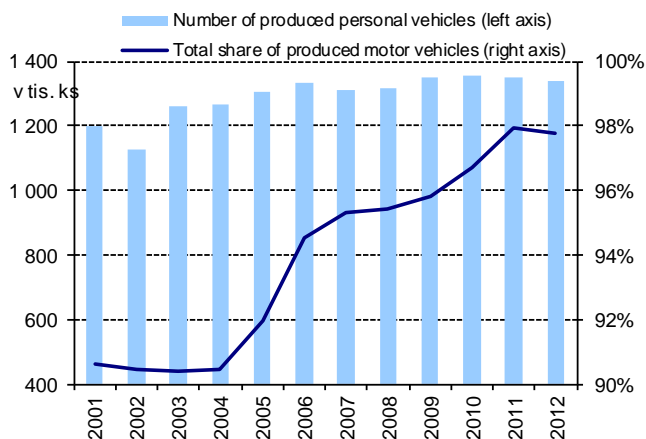
Importance of automobile industry in Czech Republic

Czech automobile production

From 2001 to 2012, just under 10 million personal vehicles were manufactured in the Czech Republic. Between 2001 and 2004, annual production remained stably at around 450,000 vehicles, and as of 2005 production grew sharply due to the arrival of new automobile production plants to the Czech Republic (TPCA in Kolín and Hyundai in Nošovice). The most personal vehicles were produced in the Czech Republic in 2011, 1,195,000 vehicles, double the quantity in 2005. Most of the vehicles produced in the Czech Republic are personal vehicles, which make up 99% of all motor vehicles produced in the Czech Republic.

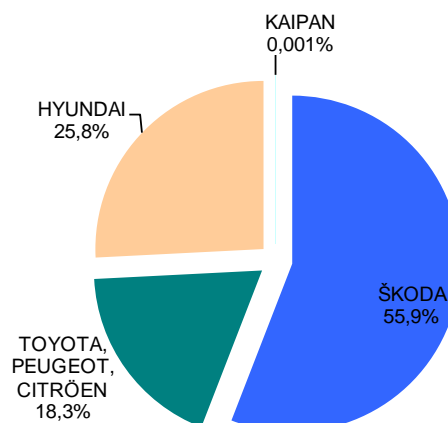
The remaining approximately 1% is divided among production of buses, service vehicles and motorcycles. However, in 2013 the automobile industry has been fully affected by the economic crisis, and during the first quarter of the year only 285,715 vehicles were produced, an 18.14%

Development of the production of personal automobiles in the Czech Republic



Source: Automobile Industry Association, small service vehicles of up to 3.5 t also included in the personal vehicle category

Produced personal automobile brands in the Czech Republic in 2012



Source: Automobile Industry Association

decline in production compared to the first quarter of 2012. All three large automobile firms in the country registered production declines.

Four personal automobile manufacturers have a presence in the Czech Republic. According to the Automobile Industry Association's data from 2012, the most vehicles were produced by Mladá Boleslav-based Škoda Auto (656,306 vehicles), giving it a majority 55.9% share of all produced personal vehicles in that year. Hyundai has also been successfully producing vehicles in the Czech Republic. In 2012 it produced 303,035 personal vehicles. The joint venture of Toyota, Peugeot and Citroen in Kolín produced just under 200,000 automobiles. The small Czech manufacturer of sport roadster vehicles, Kaipan, has the smallest share of the market of produced automobiles (0.001%).

Czech automobile market according to registered vehicles

According to data from the Automobile Industry Association, for the period from 2003 to 2012 a total of 1,471,180 newly produced automobiles were registered in the Czech Republic. A total of 1,533,307 imported used vehicles were registered for the first time during the same period. The registration of imported used vehicles grew the most between 2006 and 2008 (an average of 209,000 registrations), and the most were registered in 2008 (230,974 vehicles).

In the last four years, we have observed increased numbers of registration among newly produced vehicles, which indicates that people are more interested in new vehicles than used ones, while the opposite situation was true previously. The turning point was 2008.

According to the most recent data, a total of 298,352 personal vehicles were first registered in the Czech Republic in 2012, of which 174,009 were newly produced and 124,343 were imported used vehicles.

It is interesting to observe the development of personal vehicle brands according to the number of first registrations in the Czech Republic. In 2001, just under 80,000 Škoda brand vehicles were registered, giving that brand more than a 50% share of all registered vehicles on the Czech market.

Other brands fared worse than Škoda in the share of registered brands. However, if we move a few years, specifically to 2012, we can notice a change at first glance. Although the most registered vehicles were again of the Škoda brand, its dominant market share, 30.9%, is not nearly as large as it was in 2001. Volkswagen, Hyundai, Ford and Renault have been catching up to Škoda, and their individual shares of the overall number of first registrations range from 6% to 8.7%.

Hyundai in particular has jumped a few percentage points forward. While in 2001 Hyundai vehicles made up only 1% of newly registered vehicles, that share was 8.7% in 2012. The jump is certainly related to the opening of the new Hyundai production plant in Nošovice, North Moravia, and the brand's popularity in the Czech Republic continues to grow.

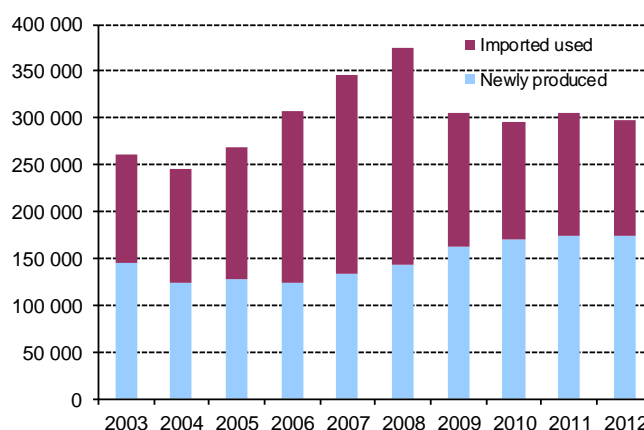
Among the 15 most popular brands in 2012 compared to 2012 were South Korean Kia, Japanese Toyota as well as luxurious European brands BMW, Mercedes-Benz and Audi.

Development of personal vehicle brands according to the number of first registrations in the Czech Republic

Brand	Year 2001		Year 2012		Share (%)
	Quant.	Share (%)	Brand	Quant.	
Škoda	79 948	52.5	Škoda	53 778	30.9
VW	9 517	6.3	VW	15 185	8.7
Renault	8 838	5.8	Hyundai	15 162	8.7
Opel	8 369	5.5	Ford	12 719	7.3
Peugeot	8 344	5.5	Renault	10 456	6.0
Ford	4 609	3.0	Kia	8 564	4.9
Citroën	4 259	2.8	Peugeot	6 725	3.9
Toyota	3 750	2.5	Citroën	5 711	3.3
Seat	2 793	1.8	Toyota	3 951	2.3
Fiat	2 773	1.8	BMW	3 901	2.2
Nissan	2 546	1.7	Opel	3 836	2.2
Mazda	2 358	1.5	Audi	3 810	2.2
Daewoo	1 995	1.3	Dacia	3 805	2.2
Suzuki	1 767	1.2	MB*	3 236	1.9
Hyundai	1 463	1.0	Nissan	3 163	1.8
Others	8 816	5.8	Others	20 007	11.5
Total	152 145	100.0	Total	174 009	100.0

Source: Automobile Industry Association, * MB = Mercedes-Benz

Development of the number of first registered personal vehicles



Source: Automobile Industry Association

Czech automobile market according to performance and job market indicators

The development from the beginning of the new millennium has shown that the automobile industry is among the most dynamic sectors of the Czech economy.

The development of the year-to-year tempo of revenues in the automobile industry was reflected partially by the development of the economy. The Czech Republic's economy between 2003 and 2006 grew at tempos that we can only dream of today. In 2006 there was 7% GDP growth with a subsequent decline to the "bottom" (-4.5% GDP growth) in 2009, when the economic crisis was fully hitting. This growth and subsequent decline is also noticeable in domestic revenues in the automobile industry.

However, the economic crisis has not only affected the Czech Republic, and therefore even relatively stable revenues from direct exports fell in 2009 by tens of percentage points. The economic growth a year later and a certain apparent improvement in the situation on the market restarted both domestic revenues and revenues from direct exports.

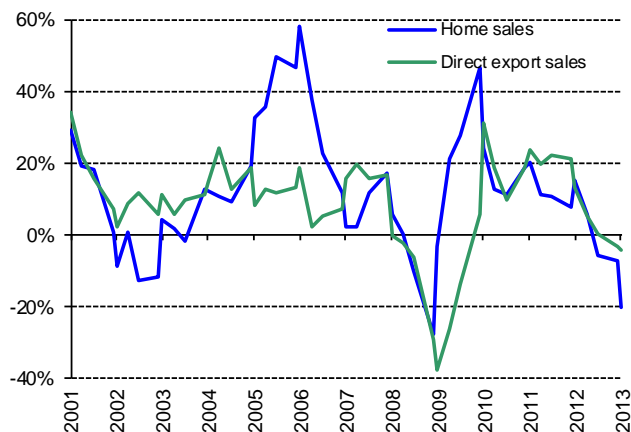
However, the current situation shows that the economic crisis is far from behind us, and if we consider other impulses, including increasing of VAT, uncertainty and reduction in consumption, it certainly will not come as a surprise that domestic revenues in the automobile industry have again begun declining.

The European Commission forecasts for 2013 for the Czech Republic stagnation, which could even lead to a slight decline, followed by slight growth in 2014 in the amount of 16% of GDP in the Czech Republic and 1.4% in the EU as a whole, which may also give a boost to the automobile industry and subsequent revenues.

The automobile industry, with just under 150,000 employees, is now approximately at the level it was at in 2007, when it was not yet apparent that a subsequent decline would occur not only in that sub-sector or that there would be an economic crisis. Between 2008 and 2009, the number of employees in the automobile industry in the Czech Republic fell by nearly 15%, which represented more than 20,000 employees. Since then, the number of employees in the industry has been rising gradually, as the market has recovered.

A certain momentary problem in the automobile industry is shown by the reduction in the number of employees in the last two quarters in 2012. However, this decline is not expected to be long-term, and if the already mentioned economic recovery occurs, the situation on the job market within the automobile industry will calm down, and the number of employees in that sector could grow again.

Year-to-year pace of growth in revenues in the automobile industry



Source: Czech Statistical Office

Importance of automobile industry in EU

In terms of the automobile industry's share of overall employment in the EU, the Czech Republic was in first place in 2011, followed by Slovakia and Hungary. In the EU, the number of employees in the automobile industry has been declining and is approximately 2.3 million people. In absolute expression, we are exceeded by Germany, Italy and France. It will be difficult for us to compete with Germany, which has more than 800,000 employees in the automobile industry. However, the trend in the development of their number in Germany is the opposite compared to the Czech Republic. Gone are the days when the sector of motor vehicle (except motorcycles) and trailer and semi-trailer production in Germany employed more than 900,000 people.

However, the situation is even worse in France. While in 2000 over 220,000 people were employed in the automobile industry, in 2010 the number was 60,000 fewer employees. A slight decline was also registered in Italy, when in ten years employment in the automobile industry fell by approximately 10%.

It can generally be stated that the decline in employment in the past ten years has occurred mainly in western countries, and growth has occurred in the east, depending on how production has moved. One of the highest increases in the number of automobile industry employees was recorded in Slovakia, where in 2000 approximately 20,000 people were employed in the automobile industry, compared to just under 60,000 in 2011, nearly triple the number in 2000.

Member states according to the number of produced vehicles

Among motor vehicle production in the entire EU over the past 10 years we can observe a relatively dynamic development. The most motor vehicles were produced in the EU between 2006 and 2007 (19.725 million motor vehicles of all categories in 2007, including 17,104 million personal vehicles). In subsequent years as a result of the global economic crisis a sharp decline in production in the automobile industry occurred. In 2008 there was a year-to-year

Number of produced motor vehicles in member states in 2012

Country	Personal vehicles	Service vehicles	Total number of motor vehicles	Population	Motor vehicles per 1,000 inhabitants
Germany	5 388 456	260 813	5 649 269	81 843 743	69.03
France	1 682 814	284 951	1 967 765	65 327 724	30.12
Spain	1 539 680	439 499	1 979 179	46 196 276	42.84
UK	1 464 906	112 039	1 576 945	63 256 141	24.93
Czech Republic	1 171 774	7 164	1 178 938	10 505 445	112.22
Slovakia	900 000	0	900 000	5 404 322	166.53
Poland	540 000	107 803	647 803	38 538 447	16.81
Belgium	507 204	34 670	541 874	11 094 850	48.84
Italy	396 817	274 951	671 768	60 820 696	11.05
Romania	326 556	11 209	337 765	21 355 849	15.82
Hungary	215 440	2 400	217 840	9 957 731	21.88
Sweden	162 814	n/a	162 814	9 482 855	17.17
Slovenia	126 836	4 113	130 949	2 055 496	63.71
Austria	124 000	19 060	143 060	8 443 018	16.94
Portugal	115 735	47 826	163 561	10 541 840	15.52
The Netherlands	28 000	29 462	57 462	16 730 348	3.43
Finland	2 900	-	2 900	5 401 267	0.54
EU-27	14 611 682	-	16 240 476	466 956 048	34.78

Source: International Organisation of Motor Vehicle Manufacturers; service vehicles include the category of light commercial vehicles, freight vehicles and buses, *) the total for the EU 27 is lower than the total for individual countries, since it is stripped of double counted performance.

decline by 6.6% compared to 2007, and in 2009, which was economically the weakest year, there was a year-to-year decline in motor vehicle production by 17% compared to the previous year. Since 2010 there has been a slight stabilisation of production, but the European automobile industry has not managed to return to the values that it achieved before the crisis.

According to the most recent from the International Organisation of Motor Vehicle Manufacturers, in 2012 more than 16 million motor vehicles were produced in the EU, the overwhelming majority of which (14.6 million) were personal vehicles.

From the point of view of individual countries, the largest producer of personal vehicles was clearly Germany, which produced just under 5.5 million motor vehicles. It needs to be added that Germany is the largest, the most populous and the most economically developed EU state, and in Germany there are a number of production plants of various automobile manufacturers. The long-term most successful automobile manufacturers have historically included states of western and southern Europe (Germany, France, Belgium, the UK, Spain and Italy), which, however, recently have stepped on the feet of Central and Eastern European Countries (the Czech Republic, Poland and Slovakia).

In 2012, production rapidly declined in Italy, where as a result of low sales of automobiles and cost reduction, several factories were closed. The country that ended up in fifth place was the Czech Republic, which can boast of over 1 million produced personal vehicles, and per 1,000 inhabitants in the particular year produced the most motor vehicles after Slovakia (112.22). In the category of service vehicles, the largest manufacturer in 2012 was Spain, where there are large Nissan production plants in Barcelona and Ávila, where most of the service vehicles produced in Spain originate.

It is apparent from the specified statistics that the trend of recent years has been a shift of motor vehicle production from western Europe towards the east. This trend is most apparent with personal vehicles. While in 2003, the main producers were developed western and southern states, in 2012 there was an apparent radical shift of production to Eastern Europe. The most drastic change is visible with Romania, where there was a 331.3% growth in production in 2012 compared to 2003. Within a couple of years, there was a huge growth in production also in Slovakia and the Czech Republic.

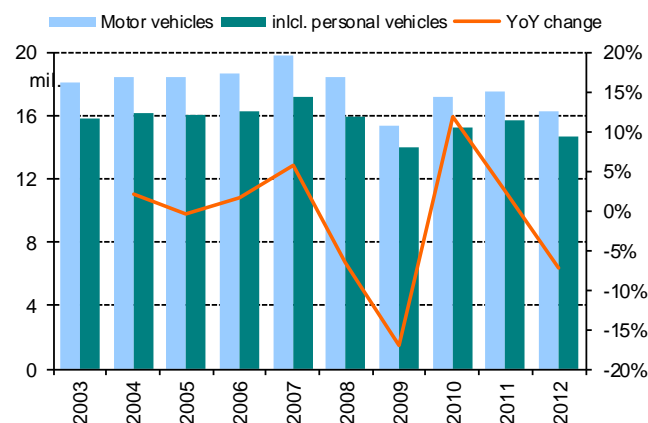
Currently, three times more personal vehicles are produced in Slovakia and in the Czech Republic 2.5 times more vehicles than ten years ago. Contrastingly, production in wealthier western states and in southern states in recent years has been declining rapidly, car factories there have been closing and relocated to Eastern European countries with cheaper labour. The largest decline in production occurred during recent years in Finland (by 84.9%) and the Netherlands (by 82.8%), which, however, already ten years ago produced low numbers of vehicles. Of the automobile powerhouses, Italy suffered the greatest decline in production (-61.3%), followed by France (-47.7%).

Member states according to the number of registered vehicles

As far as statistics regarding the number of registered vehicles in EU countries are concerned, according to data from Eurostat valid as of 31 December 2011, the country with the largest number of registered vehicles per 1,000 inhabitants is Luxembourg. This can be attributed to the fact that Luxembourg is a rich country with few inhabitants, where citizens of neighbouring countries such as Belgium, France and Germany often also work and use their registered service vehicles in Luxembourg.

A large number of vehicles per 1,000 inhabitants are also registered in southern and western EU states. It is apparent that on average every other citizen has a registered vehicle. Eastern European countries have far fewer registered vehicles compared to Europe as a whole. The fewest vehicles per 1,000 inhabitants are registered in Romania, where as of 31 December 2010 there were a mere 202 vehicles per 1,000 inhabitants. Romania is one of the poorest countries in

Development of the number of produced vehicles in the EU 27



Source International Organization of Motor Vehicle Manufacturers

the EU, and therefore these statistics are not at all surprising. In the Czech Republic as of 31 December 2010 (newer statistics are not available), there were 429 registered vehicles per 1,000 inhabitants.

If we take into consideration only the number of registered vehicles, the most are in Germany, as the country with the largest population and a wealthy country. There is also a relatively large number of registrations in Italy, where 37,113 vehicles have been registered, which amounts to 612 vehicles per 1,000 inhabitants. Somewhat of a paradox is the fact that in recent years there has been a sharp decline in production in Italy, although the country truly has many registered vehicles.

Something else that is certainly interesting is a comparison of individual countries within the share of registered vehicles that are more than 10 years old. The largest share of registered older vehicles as of 31 December 2011 was in Lithuania (85.7%). Poland and Latvia also have a large share of older vehicles. Even in the Czech Republic, there is not a higher share of new vehicles, but 60% of the registered vehicles are more than 10 years old. Contrastingly, the newest vehicles are driven in Luxembourg, where there is a large concentration of wealthy inhabitants, and vehicles more than 10 years old make up a mere 19.2% of the total number of registered personal vehicles. Three quarters of the vehicles in the UK and Belgium are also less than 10 years old. Therefore, it applies that the wealthier the countries, the more relatively new vehicles there are there. It can be stated generally that in poorer Central and Eastern European countries, people tend to drive older vehicles and cannot afford to buy new ones.

Outlook of automobile market in Europe

The automobile industry in Western Europe is not currently going through a growth period, according to the prognosis from the investment bank Goldman Sachs, it can even expect a decline this year. However, in 2014 according to the forecast, the dynamics of new vehicle sales will get out of red numbers.

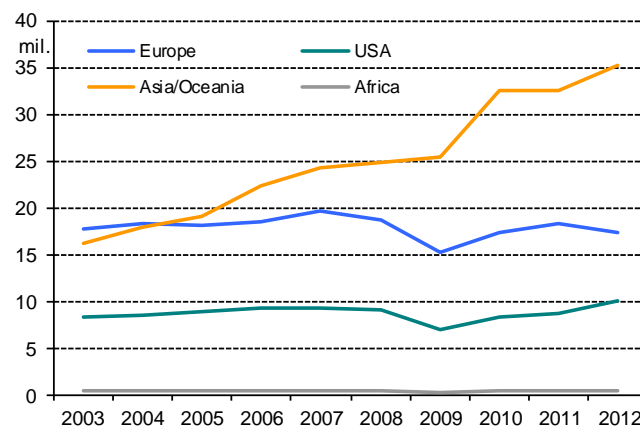
This will increase both the number of sold vehicles and the indicator in the number of vehicles per 1,000 inhabitants. This year according to the prognosis, 12.7 million new vehicles will be sold in the EU-15, Iceland, Norway and Switzerland, and that number is even expected to rise slightly in subsequent years.

Overview of global automobile market

The development of the number of produced vehicles has undergone major changes in recent years. Europe has already lost its dominant position, and Asia is replacing it at an unstoppable pace. Europe began losing its dominant position in 2005, and since then Asia's advance has accelerated (in our case also with Oceania). In both Europe and America, there was an apparent decline in production during the years of the economic crisis, which also had a major effect on the automobile industry.

The decline in production in 2009 compared to 2008 in Europe and America amounted to more than 5 million fewer personal vehicles. Europe still has not reached its pre-crisis levels, especially since in 2012 it registered a further decline in the number of produced vehicles. However, Asia and Oceania already produced half of the approximately 60 million personal vehicles produced in 2012 and are leaving other regions far behind.

Global production of personal vehicles



Source: International Organization of Motor Vehicle Manufacturers

Conclusion

The automobile industry is still maintaining its important position both in the Czech Republic and in the whole European Union. The developing growth in the sector was hit by the economic crisis, which had a harsh effect both on Europe and on the markets for European vehicles with a resulting decline in sales and revenues in the automobile industry.

The economic crisis also led to lay-offs and labour downsizing in this industry. However, not all EU member states have managed to return to their positions before the economic crisis, and it is apparent from the most recent statistical data that automobile production is being shifted from traditional western countries (France, Italy) to eastern EU countries as well as to Asia, where, for example, China and India have ideal conditions both for growth in the number of produced vehicles and in the number of sold vehicles.

Undoubtedly, a new impulse for the automobile industry is and shall remain new technology, along with the transition from traditional fuels to alternative sources, whether these involve electric vehicles, hybrids or other designs. However, the largest impulse for the automobile industry may be the long awaited economic recovery, which according to numerous prognoses could occur next year.