

Chapter 17

Automotive Industry Challenges: Crises, Disruptions, and Taxes

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ABSTRACT

The automotive sector is one of the important sectors in both the developed world and the developing countries. For developing countries, this industry is a course of income coming from export models. For the developed nations, the automotive sector can create quality jobs and offer after-sales and service job opportunities as well. The automotive industry was challenged during the COVID-19 pandemic as shortages for some parts halted production in different parts of the world. Also, sales of automobiles increased in some parts due to commuters avoiding mass transit in fear of the pandemic. Tax collection is also another issue associated with this industry. In some countries, heavy taxes are levied on the vehicles with some possible drawbacks. This chapter will talk about the causes and remedies for the disruptions in the supply chain. The issue of taxation will also be discussed offering some possible solutions. Green energy and public transportation will be offered as remedies to the problems of the industry and the more general problem of global warming.

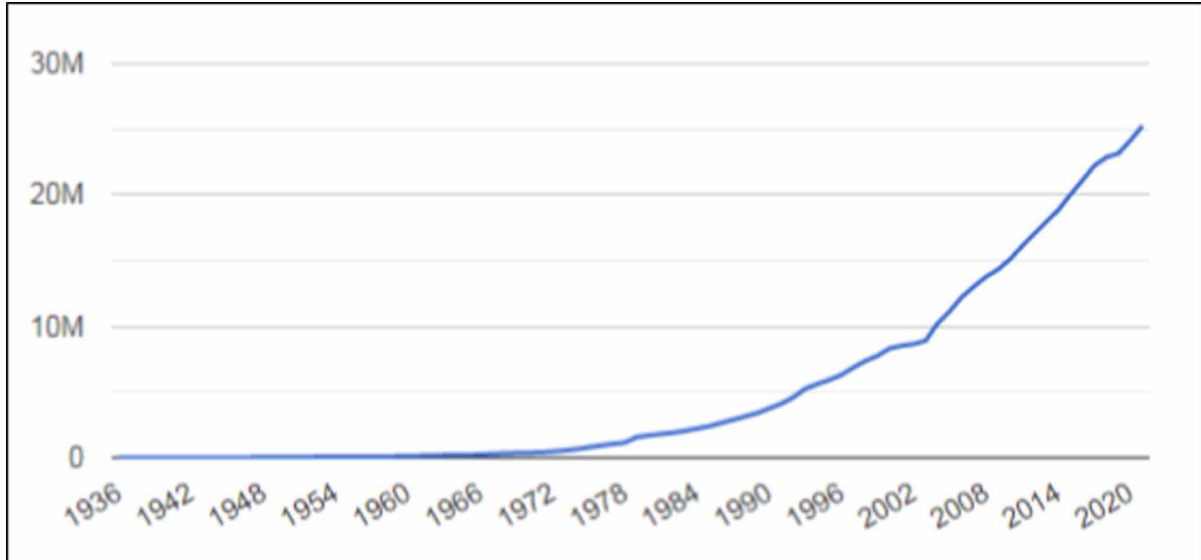
INTRODUCTION

The automotive sector is considered as the most important sector in developed countries and drives a major supplier industry as well. Automotive supplies range from tires to stereo equipment and automotive companies are major customers for many different types of industries. Direct automotive manufacture provides high quality jobs for a skilled labor force. On the other hand the sales and after sales services create jobs for many, regardless of whether the cars are manufactured domestically or imported. Also even imported cars may be using some parts purchased from the host country. Automotive industry was born in Europe but also flourished in the US and Japan later on. Turkey started importing automobiles

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Figure 1. Number of motor vehicles in Turkey from 1936 until 2021

Source: Dynamic chart generated by drdatastats.com using TUIK data.



but later on during the 60s decided to manufacture its own brands. Figure 1 provides the time series chart of the number of motor vehicles registered in Turkey starting with 1936. Here we can see the dramatic increase in the number of vehicles from 7536 in 1936 to 25 million and above in 2021. Naturally most people associate the level of welfare of a country with the number of motor vehicles registered but especially passenger cars are more important as in developed countries the ownership rates are very high. Figure 2 provides the number of registered passenger cars in Turkey from 1936 to 2021. We can also see here a sharp increase from 3815 vehicles in 1936 to over 13.5 million vehicles in 2021. There is still a long way to go as the ownership rate per capita is lagging behind many developed countries. The other types of vehicles registered range from buses, motorcycles, trucks to tractors. We can immediately see that about half of the registered vehicles are passenger vehicles and the rest are commercial or special duty vehicles. Motorcycles are showing a dramatic increase and the numbers are close to four million now. This is due to the high fuel efficiency of the motorcycles and the low purchase costs. As the number of passenger vehicles per capita is concerned Turkey has leveled off around 15 vehicles per 100 people and this number does not seem to increase lately. As for the total motor vehicles this ratio corresponds to roughly 25 vehicles. It seems that there is still a long way to go for Turkey to reach the levels of car ownership that is seen in the developed world.

Taking the above into consideration, factors that may be effective in the increase of car ownership may be manifold. Prices may be driven up by supply side shortages. Also as is the case with Turkey the government simply sees passenger cars as an easy way to generate revenue and this is clearly not sustainable. This paper will proceed as follows: First the literature concerning the disruptions in the automotive supply chain will be discussed. Following that a brief review of past crises and the effects on the automotive sector will be presented. Finally the relationship between special car taxes and car sales will be explored, especially with a focus on Turkey. The chapter will then end with a conclusion

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