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Introduction

The automotive industry in the Republic of Turkey is almost as old as the country itself, dating back to the 1920s. Trade Minister Nihat Ergünhas has said that the automotive industry is "the locomotive of our economy." ("Premier Erdoğan's . . .") Over the last 20 years, thanks to favorable trade agreements and many unique Turkish competitive advantages, large investments have made Turkey home to numerous automotive products destined for European and other markets. Within Turkey the entire automotive sector accounts for a substantial portion of industrial production and employs over one half million people. Manufacturing more than half of its vehicles for export, Turkey is one of the largest producers of commercial vehicles and buses for Europe. In short, Turkey's auto industry has developed into a cornerstone of the modern Turkish economy, and it will play a vital part in Turkey's economic future.

In this article I present an overview of the Turkish automotive industry as a whole, encompassing both commercial and private vehicles. Within the overall automotive sector, there is also a large automotive parts industry supporting the many manufacturers and assemblers as well as the Turkish defense industry. Although I focus mainly on the major producers who build complete vehicles, it is important to note that the parts industry contributes significantly to overall production, exports, and employment. First, I look at the factors that have led to this industry becoming so prominent in Turkey. After describing the history of the industry's development, I discuss its recent growth and analyze how the industry will impact the country's future. What makes Turkey a unique place in the EU to produce cars? How does Turkey compare to other auto-producing nations? How has the recent economic crisis affected the industry's future? The complete story of this industry's rise to prominence and future importance within Turkey is a fascinating blend of history and political economy.

Industry History

In 1929 Turks first ventured into the automotive industry when the founder of Turkish mega-conglomerate Koç Holdings, Vehbi Koç, became a Ford retailer. Under his import and retail agreement with Ford, Koç assembled cars from kits of prepackaged parts. This remained the only automotive activity in Turkey until 1964, when Koç created the Anadol brand. (Bursa, p. 4) The Anadols were innovative in design for their time, yet borrowed heavily from Ford's and other foreign auto companies' technologies. Over 100,000 Anadols were built by Koç's Otosan company, which was also under agreement to assemble Fords in Turkey. The success of Otosan opened the door for other auto companies to enter the country. Through the late 1960s until the 1980s, numerous foreign companies opened their own plants in Turkey, including Renault, Fiat, and Ford. Ford eventually purchased part of Koç's Otosan company; and this partnership still exists today. (Koç also maintains a joint venture with Fiat.) Of the more than 1,300 automotive companies in Turkey ("Turkey's Automotive Parts . . . ," p. 18), many are foreign owned, thanks to various governmental policy changes throughout the late 1980s and into the 1990s.

Starting in the 1980s Turkey initiated an economic liberalization policy that privatized many industries and allowed Turkish businesses to be open to foreign investors and trade. The government's previous policy was one of import substitution, a policy that did not allow for the competitive development of the auto industry. (Wasti and Wasti, p. 120) Despite Turkey's ongoing liberalization in the 1980s, production in Turkey was still mainly geared for internal consumption due to high export tariffs and trade barriers with Europe. This changed with the Customs Union agreement between the EU and Turkey in December 1995. This agreement can be viewed as the turning point for Turkish industry and provided the jumpstart for auto industry growth, as it allowed the automotive export market to flourish. The changes that this agreement effected greatly altered how the auto industry was able to operate and compete; Turkey could now be a regional and worldwide participant. The Customs Union, and its crucial role in the industry's history, will be discussed in more detail later.

In 2001 the Turkish economy took a drastic turn for the worst as the financial system suffered a collapse. The meltdown of the Turkish financial system reinforced the importance of exports and external markets to Turkish auto companies. During a conversation I had while in Turkey with Nuri Özsüer, Chairman and past CEO of the Maya Group (a Turkish real estate developer), he noted the event's importance, saying that it forced Turkish companies to look for more stable markets outside their borders and to place a greater emphasis on exports. (Özsüer) The changes caused by the collapse helped to establish Turkey as an auto exporter to the EU, a valuable arrangement, yet one that must be vigilantly cultivated.

The effects of the changes that Turkey's economy and auto industry experienced between the late 1990s and the early 2000s are easily seen. Turkey's GDP (in current U.S.$) increased from $169.71 billion in 1995 to $794.23 billion in 2008. (World Bank . . .) Though there were a few years of negative growth due to financial and economic turmoil, this is impressive growth overall. The increase in foreign direct investment (FDI) spurred by opening the economy enabled the auto industry to reach its current position of prominence. Foreign direct investment helped to fund increases in capacity and product quality as well as research and development for new models being made in Turkey. By some estimates, 40 percent or more of the Turkish auto industry has been financed by outside sources even as far back as 1999. ("Turkey's Automotive Parts . . . ," p. 19) Auto production increased from about 320,000 units in 1995 to over 1.1 million units in 2008. (Tezer) An important statistic, capacity utilization, which illustrates to what degree the factory's throughput is being maximized, greatly improved for Turkish auto manufacturers as exports grew. Capacity utilization increased from 29 percent in 2002 to nearly 90 percent in 2007. (Bursa, p. 6) The emergence of Turkey as a production center for Europe provided the necessary demand to grow the industry through an export-oriented strategy. At the same time, the industry became inseparable from Turkey's economic success and long-term development.

This success is evident today, as the Turkish automotive industry accounts for the largest portion of Turkey's exports, eclipsing even textiles and other iron and steel products. (Undersecretariat . . .) In 2008 auto exports were valued at over $22 billion. (Ergün) Nearly 80 percent of the production of the Turkish automotive industry ends up overseas. The industry and its affiliates employ over 500,000 people. ("Is Turkey Worth It?") The auto industry now has the capacity to build over 1.5 million vehicles a year ("General and Statistical Information . . ."), an impressive quantity considering the industry's youth. The presence of an auto industry in a developing country also often causes other interdependent industries to develop as well. (Bekmez and Komut, p. 184) Manufacturing systems expert Dr. Mustafa Yurdakul of Gazi University in Turkey goes further to say that the automotive industry has close relationships with many other sectors and that the large volume of business between the auto industry and its partners has a substantial effect on the country's economy. (Yurdakul and Tansel, p. 2) What caused the development of the Turkish auto industry and how does it compare to those of other countries? The answer leads to an understanding of Turkey's rapid growth and how recent economic events will shape the future of both the auto industry and the country.

Why Turkey? Domestic Factors Leading to Growth

Knowledge of Turkey's domestic market is necessary in order to appreciate what competitive factors caused Turkey to become an automotive manufacturing center. Even before international trade had such a large impact on the industry, factors existed that made Turkey attractive to automotive producers. These factors not only helped prepare Turkey to benefit from trade deregulation, but also helped to shape Turkey's manufacturing strengths.

As many Turks are proud to share, their country has an educated, skilled, and relatively inexpensive workforce. Furthermore, Turkey's large population is rather young compared to those of other EU countries, giving it a good base from which to increase employment. The assembly of durable goods and even automobiles dates back decades; and the education system in Turkey produces a work force with many valuable technical skills and advanced degrees.

Turkey is also fortunate to be in a highly strategic location — well positioned to serve markets in Europe, Asia, the Middle East, and Africa. It is also at the crossroads of many developed and developing countries. Its unique location makes it an ideal place for industries to host operations which can easily serve a variety of markets. Most automotive companies are located close to the gateway city of Istanbul, along the busy shipping lanes of the Bosporus. The proximity to a vast international transport network and an abundance of workers makes this region an ideal one for export-based auto production.

Turkey's automotive parts sector, which has grown concurrently with the auto producing sector, was greatly improved by Turkey's long-established aftermarket parts sector. These companies, which don't produce whole cars and sell directly to consumers, make their own brands of replacement and add-on parts for vehicles. In 2008 automotive parts production of all kinds surpassed $7 billion in exports alone. (Sonmez and Sari, p. 10) Turkey has also had to sustain a large parts business for its own consumption. ("Turkey's Automotive Parts . . . ," p. 21) The poor quality of roads in Turkey and the lack of an extensive modern road system make for harsh operating conditions. The aftermarket and replacement parts business thrived for years in Turkey, enabling Turks to modify, repair, and maintain their vehicles that were constantly abused by the poor roads.

The road problems are compounded by how dispersed the Turkish population is. The rail system is undeveloped, and therefore goods must travel mostly by truck or other commercial vehicle. (Barnett, p. 60) The market demand and subsequent specialization that this creates are reasons for Turkey's becoming a major exporter of commercial vehicles to the rest of the world. Turkey's underdeveloped rail transportation system and low rate of personal automobile ownership also affect personal travel. Turkey is the largest bus producer in the EU due to this internal demand for other forms of transportation. ("Turkey's Automotive Industry," p. 1)

As Turkey continues to develop and its GDP rises, more Turks will be in the market for personal automobiles. In many areas, personal cars are the only transportation choice other than buses. This is particularly evident in Turkey's largest city of Istanbul. During my trip to Istanbul the huge volume of vehicle traffic was frustratingly noticeable; and the number of bikes and scooters was surprisingly low. Because of the large area of the city and its hilly topography, motorcycles and bikes are uncommon; and cars are seen as the best alternative.

Turkey's rapid development at the end of the twentieth century and its favorable demographics make the domestic market attractive to major auto companies and provide motivation for these companies to produce in Turkey. With a large portion of its population under 40 years old, Turkey provides a source of future consumers and a foundation upon which to base future domestic growth. It was estimated in 2005 that there were only 92 cars for every 1000 people. ("Is Turkey Worth It?" p. 2) Despite the growth in the industry during those years, domestic automobile ownership remains low; clearly there is room to grow.

Messe Frankfurt, the German trade show producer, issues reports about local markets that are published in tandem with its shows. Its automotive market report for the Automechankia Istanbul show states that "foreign investors can anticipate significant potential in the Turkish automotive industry" and that "these receptive market conditions, combined with a growing population and increasing purchasing power, stimulate extremely favorable opportunities on all levels of operation and production." ("Turkish Automotive Market . . .") While there are many domestic factors that have helped the Turkish automotive industry to thrive, the essential factors in the industry's impressive growth have been international ones. These same factors will continue to drive the industry forward in the future, as I discuss in the following sections.

External Influences

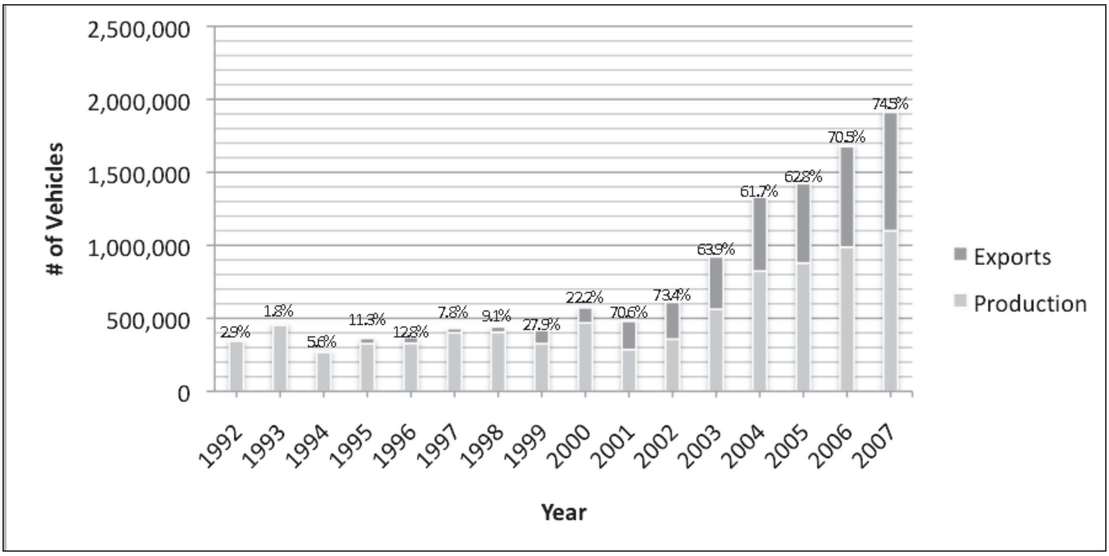
The Past: Customs Union with the EU

As mentioned earlier, the 1995 Customs Union Agreement had a large impact on Turkey and its industries. The agreement was part of the Ankara Treaty, which was seen as a first step towards future EU accession. It was intended to foster convergence of Turkish policies towards already established EU ones. Entrance to the Customs Union required the elimination of some taxes, tariffs, and quotas and was intended to pave the way for full EU membership. (Bekmez and Komut, p. 186) Turkey's bid to join the EU has also significantly bolstered the country's financial and legal standards. Although the Customs Union agreement was signed in December 1995 and took effect in January 1996, the full benefits were not realized until 1999. It took a number of years for the necessary legal framework and tax law modifications to become completed. (Bekmez and Komut, p. 186)

The fully implemented Customs Union has had a trade creation effect on Turkey, as well as a positive trade diversion effect. Trade creation results when a country's trade increases upon entering a customs agreement because the country then becomes a low-cost competitor. Trade diversion results when a country trades more with its union partners due to its union commitment, even when it might not be the most economically advantageous trade option. Both effects have been observed in the Turkish economy in the years after the implementation of the agreement with the EU. (Bekmez and Komut, p. 186) The effect of the agreement on the automotive industry can be easily seen by the ratio of Turkey's EU automotive exports and imports, as shown in Bekmez and Komut's research on the competitiveness of the Turkish auto industry compared to that of the EU. Between 1996 and 1998 (and presumably before this time period as well) the vehicle export-to-import ratio between Turkey and the EU ranged from .15 to .20; Turkey imported much but exported little. By 1999 the export-to-import ratio had increased to .33. In the five years immediately after, the ratio ranged between .7 and 1.1. In vehicle terms, Turkey exported over 900,000 vehicles in 2008. ("Turkish Automotive Industry," p. 1) The Customs Union greatly benefitted the industry, and it also forced Turkey into a new competitive arena, pitting it against established European manufacturing powerhouses and up-and-coming low cost producers. Figure 1 breaks down Turkey's total yearly production into domestic and exported components and shows the percentage

Figure 1

Turkish Auto Production



Source: Adapted by the author from data in Tezer's "The Automotive Industry in Turkey . . ."

of vehicles that were exported. The year 1999 marks the beginning of the increase in exports that the Customs Union agreement allowed.

Because of this agreement, Turkey has flourished not only as a producer of vehicles but also of white goods (e.g., textiles and linens) for Europe. Due to its decades of experience, established producers, and low costs, Turkey has proven to be a great production alternative to the post-communist countries of central Europe. Also, Turkey is seen by some manufacturers trying to break into the EU marketplace, such as the Chinese auto manufacturer Cherry, as a steppingstone and entrance point. (Bursa, pp. 3, 18) In 2005 the Turkish Automotive Manufacturers Association General Secretary, Ercan Tezer, summarized the effects of the Customs Union agreement by saying that "focus shifted to international markets, and Turkey became an extraordinarily attractive option for whoever wanted to produce for the European Markets." ("Is Turkey Worth It?" p. 2)

The Present: The World Auto Crisis

In the last few years the biggest challenge for the Turkish automotive industry has been the economic crisis and its effect on world auto sales, not competition from foreign competitors. The drastic economic downturn has hurt individuals and businesses alike, damaging all elements of auto industry sales and production. In contrast to the 2001 Turkish financial crisis, which occurred only in Turkey and which caused Turkish producers to look to external markets, this downturn is the opposite. Turkey's financial sector and domestic economy remain relatively strong; however, the auto industry's export markets, which are now far more important, have been negatively affected.

In a country where the automotive industry is so closely tied to the overall economy, the repercussions are very serious. Despite a 17 percent decrease in domestic sales in 2008, total production was still up 4 percent and exports were up 11 percent, thanks to a strong first half of the year. ("Turkish Automotive Industry," p. 1) Foreshadowing a gloomy 2009, December 2008 year-over-year production, sales, and exports were all down 50 percent or more. Turkey's 2009 sales were indeed poor, as the recession and auto industry contraction took hold. Yearly production and exports both fell by over 30 percent ("Automotive Industry Monthly Report . . . ,"

p. 2), resulting in the unemployment of thousands of auto workers and a surge in excess production capacity as plants scaled back.

Despite the poor current conditions, Turkey's auto industry is in a good position to recover. Support from stronger domestic market prospects, expansion in the export market, and an eventual recovery in Europe should stabilize Turkey and facilitate its recovery. As of October 2009, there are already signs of a turnaround in many markets. ("Auto Sector Sees . . .") It is expected that the Turkish auto industry's sales should almost fully return to 2008 levels in 2010 and enjoy a full recovery by 2013. ("Turkey Autos Report . . . ," p. 11) Business Monitor International's "Middle East and East Africa Automotives Insight" report concurs with a predicted recovery by 2013 and adds that "industry majors are more likely to resume output in Turkey than their West European plants, where production costs are higher and markets will remain depressed." ("Middle East . . . ," p. 9)

The Future: Increased Global Competition

The Middle East remains an untapped and lucrative market, one which Turkey is well-positioned to serve. New auto competitors are also trying to establish themselves in the region. Competition arises on many fronts within the broader region of Africa and the Middle East. For example, Turkey's neighbor Iran is a developing automotive manufacturer, although so far only a domestically oriented one. Nevertheless, Iran is looking to expand throughout the Middle East (though there are a number of political complications to this objective) and considers Turkey both a potential export market and a threat. (Ahedini and Perdy) Developing auto industries in Egypt, the UAE, and South Africa are likewise trying to become players in the world car market. Business Monitor International also publishes quarterly reports on Turkey's auto industry. These reports include a comparison of the "business environment" for the auto industry in African and Middle Eastern countries. When aspects such as sales, growth, trade, and location are considered, Turkey emerges on top of all other countries in these regions. ("Turkey Autos Report . . . ," p. 13)

Turkey's experience in auto manufacturing also helps differentiate it from new regional competitors. Among other advantages that have resulted from the Customs Union, quality investments made by the industry have set it apart from other countries in the area. ("Turkey Has Transformed . . .") Obtaining world class quality certifications, such as International Organization for Standardization certifications, has turned into an "institutional norm." (Wasti and Wasti, p. 120) In the four years prior to 2007, Ford Otosan, Ford's long established joint venture with Koç, had Ford's highest European quality rating. (Uludag, p. 1) Quality, business climate, and alignment with EU financial and legal standards have helped Turkey to outshine its competition. Despite the increased international competition, Turkey is still a destination for manufacturers looking to serve a large domestic and export market simultaneously.

Driving Forward

Recovering from this downturn and maintaining a competitive edge are absolutely essential for both the auto industry and the country. Turks must embrace the potential for this industry to propel them into the international community. Strengthening and building on the industry's unique advantages while providing a favorable business environment are imperative for continuing success.

The Turkish government has attempted to soften the blow of the world economic downturn on auto producers' domestic sales by offering tax breaks to private consumers. One of the major factors restricting domestic sales is Turkey's high taxes. The average VAT is 18 percent, and there are additional special consumption taxes and motor vehicle taxes on autos. ("Taxes . . .") As mentioned in many conversations that I have had with individuals in Turkey, taxes on autos make ownership very expensive and severely stifle sales. A series of tax breaks were implemented at the start of 2009 to try to lessen the impact of the auto crisis; however, the tax breaks were not permanent. According to the monthly sales numbers, there was a temporary increase in the middle of the year; yet, just as with the incentives, the increased sales did not last. Turkey's domestic auto industry will eventually recover, but Turkey could jumpstart this process and stoke future growth by making the tax breaks permanent. Unfortunately, the Turkish government decided to impose a higher gas tax in 2009, increasing prices on an already expensive product in Turkey by another 8 percent. ("Turkey Autos Report . . . ," p. 34) This increase in the cost of fuel is not what the industry needs and surely comes at a bad time, especially since the domestic market is becoming more and more important.

Perhaps the current crisis will have effects similar to the 2001 financial meltdown for the auto industry. Whereas the 2001 crisis forced manufacturers to look outwards for markets, the current crisis and its lessened effect on Turkey might open producers' eyes to the very lucrative domestic market once again. With the help of the government through tax reductions, the industry could be prompted to shift its focus internally and further develop its programs for domestic sale and production.

The manufacturing and assembly services that Turkey can provide to EU companies bring Turkey and the EU closer together, an important factor considering Turkey's accession aspirations. The link between them has been strengthened by trade partnerships such as the Customs Union, the success of which reflects positively on Turkey's membership bid. Additionally, Turkey must continue to nurture export markets outside the EU. In 2009 Ford started to import Turkish-made Transit vans to the United States, which have been quite successful in terms of both sales and reviews, proving that Turkish manufacturing is up to meeting rigorous U.S. standards. The Transit even won the 2010 North American Truck of the Year award at the 2010 Detroit Auto Show. Renault has also embraced Turkey in the aftermath of the world auto crisis, announcing that it would shift production of a popular model, the Clio, to Turkey in 2010. ("Renault to Shift Clio . . .") Koç Holdings' joint venture with Fiat, Tofas, has opened a design center in Turkey and is now starting to manage entire product lines within the country. (Tofas Turk . . .) Tofas hopes to continue to expand this ability and show that Turkey can be an end-to-end development center for personal vehicles for both the domestic and export markets. Continuing to build international and diversified relationships such as these will help to make Turkey more valuable to manufacturers while it will make the industry better positioned for long-term growth and success.

Realizing the importance of the auto industry, the Turkish government has recently passed many incentive programs. To stimulate automotive companies, Turkey has established trade regions called "free zones" which allow for attractive tax breaks. (Undersecretariat . . .) While automotive manufacturers are scattered across the country, many are centered around the city of Bursa, the first free zone, which has developed into Turkey's Detroit. (Bursa, p. 8) The government has also put in place other incentives for qualifying firms, regardless of location, such as tax credits, energy support, land allocation, and tax law provisions to make R&D expenditures 100 percent tax deductible. (Investment Support . . .)

The sustainability of all auto manufacturers' current production and product development functions in Turkey is vital. The foreign firms in Turkey all have varying degrees of production and development managed on site. It will be important for Turkey to continue to bring in new models to replace current ones as those models mature. ("Is Turkey Worth It?" p. 2) Many Turkish auto companies find it especially important to establish Turkey as a regional center of excellence, where completely new vehicles can be designed and specific technical expertise can be developed. This sentiment was echoed by General Secretary Tezer of the Turkish Automotive Manufacturers Association, who says that in the Turkish auto industry's development "the final phase is to move from being a 'production hub' to a 'centre of excellence' by developing product design, research and development." (Tezer, as quoted in Turgut) Increased investments from manufacturers will be crucial for companies to expand their current operations. As General Secretary Tezer said in an interview with *Foreign Direct Investment* magazine, "The present-day success of Turkey's motor vehicle industry is the result of investments made in the past. If the nation wants to maintain its position and to make new moves it must make new investments. FDI is the key in this area." (Tezer, as quoted in Demirsar) The Turkish Automotive Manufacturers Association estimates that with the proper investments and expansion the industry could sustain auto exports of $40 billion per year, a very sizeable amount for Turkey.

In short, Turkey is on its way to becoming more than just a manufacturing center and auto exporter. Untapped domestic and local markets as well as favorable new government policies have the potential to put Turkey on the map as a permanent location for automotive companies.

Conclusion

Turkey's economy and the country's future growth depend on the vitality of its automotive industry. Automotive industries are key sectors in developing countries, and in Turkey the industry has played a large role in the country's industrialization. The industry must complete the transformation it has started, from manufacturing hub to regional center of excellence and development. As important as foreign investment and increased exports are, Turkey must not forget to look inwards at its currently underappreciated and underdeveloped domestic automotive sales opportunities.

In the last few decades, thanks to the right combination of developmental ingredients, the Turkish automotive industry has become an important driving force behind Turkey's export-oriented economic success. By combining the large potential of domestic growth with Turkey's well established export opportunities the auto industry is now poised to lead Turkey forward.

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