

THE COMPETITION POWER OF THE EUROPEAN UNION AFTER THE ENLARGEMENT



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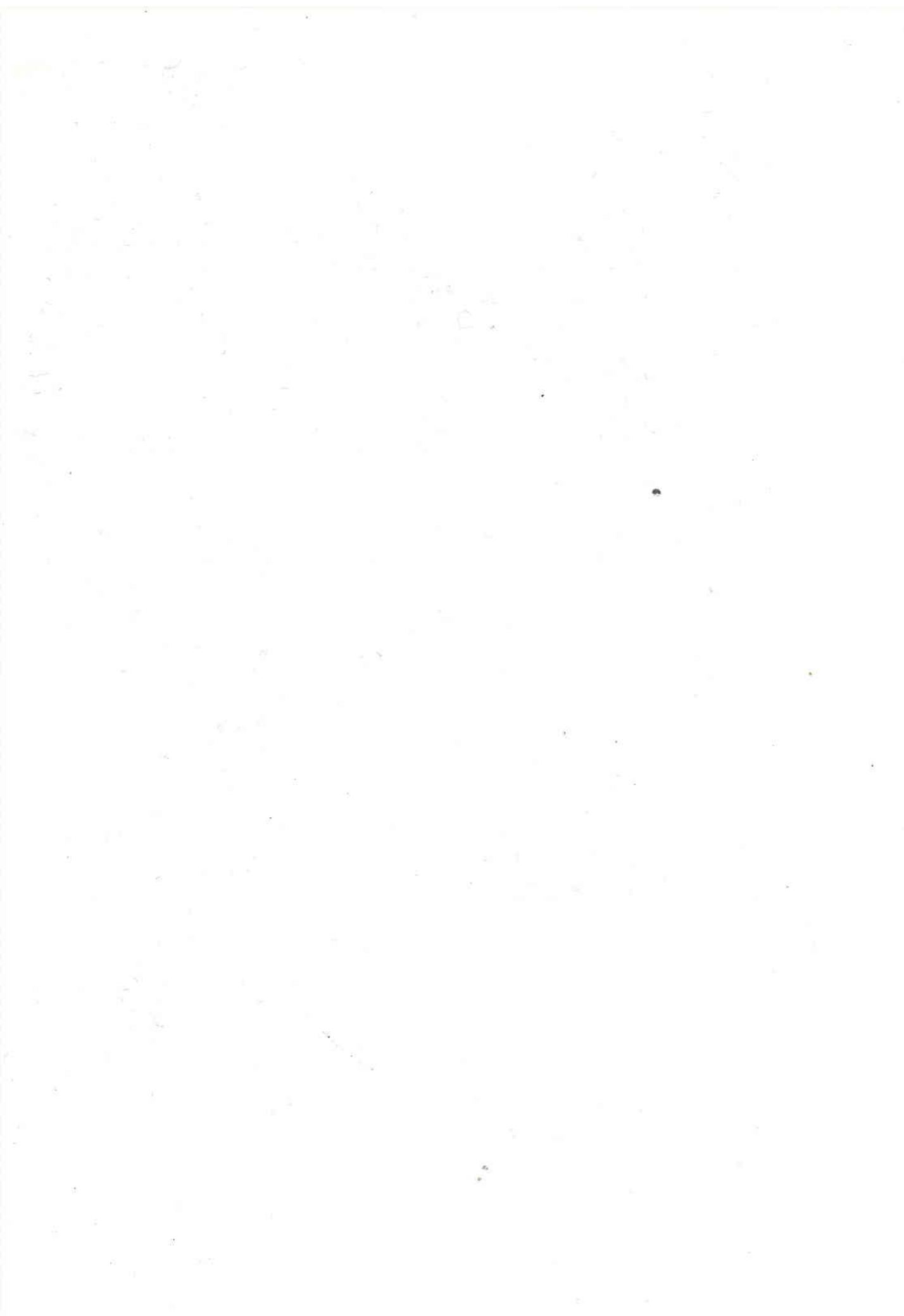
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COMPETITIVENESS OF THE TURKISH AUTOMOTIVE INDUSTRY AND ITS POSSIBLE EFFECTS ON THE EU COMPETITIVE POWER

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ABSTRACT

Until very recently, the Turkish automotive industry is used to suffer from several major setbacks, which prevented it to be internationally competitive. One of these set backs is related to the three severe financial crises that Turkey experienced in the last decade. These crises culminated in deterioration of domestic demand, which led to increase of production costs due to under-used capacity. Another major setback was the fierce competition from the European automobile producers in the Turkish domestic market since the customs union agreement with the European Union (EU) that was put into effect at the beginning of 1996. All these together made survival of the domestic automobile producers extremely difficult. Nevertheless, the substantial increases in the export share of production in the industry in the last few years implies that the domestic producers apparently manage not only to survive but also make significant progress in terms of competitiveness. The aim of this paper is first to discover the reasons behind this improving competitiveness and then try to predict the industry's possible effects on the EU competitive power, if Turkey joins the EU.

1. INTRODUCTION

The increasing globalization and interdependence of economies offer opportunities as well as posing some threats. Competitiveness is a dynamic process that could be achieved, maintained, or lost over time. Achieving a sustainable export performance is a reflection of international competitiveness. Although its sustainability remains to be seen, there has been a dramatic export drive in the Turkish motor vehicle industry (particularly in the passenger car sector) in the recent years. While export share of production in the passenger car sector was less than 6 percent in the early 1990s, it reached to 76,7 percent in 2003 (see Table 1).

Table 1: Passenger Car Domestic Market Sales, Production, Import and Export Figures for Turkey

Year	1995	1996	1997	1998	1999	2000	2001	2002	2003
Demand	221,841	231,832	345,193	326,804	275,503	466,437	102,145	94,537	227,036
Production	233,414	207,757	242,780	239,937	222,041	297,476	175,343	204,198	294,116
Import	21,651	57,479	125,025	111,536	131,215	258,987	72,259	60,283	164,445
Export	33,224	33,404	22,612	24,669	77,753	90,026	145,457	169,944	225,534

Source: AMA (2003, 2004).

This is a rather surprising result when we take into account that the Turkish economy has long suffered from several serious problems, such as huge external and domestic debts, high inflation, and high interest rates. These problems crippled the Turkish economy and led to an extreme economic instability

leading to three severe financial crises in the last decade. These crises culminated in deterioration of domestic demand, which led to increase of production costs mainly due to under-used capacity. Consequently, there was only limited capital available for investment in human capacity, and technology development in the industry. These problems hugely affected the automotive industry and made motor vehicle producers very vulnerable against foreign competition, especially after the customs union agreement (CU) with the European Union (EU). There are also several sector specific problems that has created set backs for the industry. For instance, there are too many firms which were established under the minimum optimum scales. This over-crowded structure is probably the most important reason for high production costs in the industry. All these made survival of the domestic automobile producers extremely difficult and seemed that achieving international competitiveness is far on the sight. The reality, however, appears that the industry not only managed to survive but also made significant progress particularly in the last few years.

Although the automotive sector has been affected by the volatility of the Turkish economy and the other setbacks mentioned, it has proved its flexibility and adaptability to changes, by lowering costs, diversifying models and enhancing its capacity to export at times of crisis. Motor vehicles and parts and components made in Turkey have recently reached a standard of high quality roughly equal to the level of those produced in the advanced nations. In the last decade and particularly in the last few years, major domestic motor vehicle and component manufacturers in Turkey are engaged in substantial programs to improve their production quality and productivity. Currently, the Turkish automotive sector, with all its attendant sub-sectors, is an important player in the Turkish Economy and has matured into manufacturing vehicles for export sales. There has been a dramatic export drive in the recent years and the export share of production in the Turkish automotive industry reached to amazingly high levels.

One of the aims of this paper is to unveil the reasons behind the recent export success. Another aim of the paper is to discover what effect the customs union have had on the competitiveness of the Turkish automotive industry, and what possible contributions would the Turkish Automotive industry bring to the EU competitive power if Turkey joins the EU. The following section evaluates the current outlook of the industry in terms of production, export and import trends, the market structure, and investments. Next section assesses the effects of the customs union on competitiveness of the Turkish automotive industry and then likely effects of the Turkish automotive industry on the EU competitive power is investigated. The final section summarises the main findings of the paper.

2. THE DEVELOPMENT AND CURRENT OUTLOOK OF THE TURKISH AUTOMOTIVE INDUSTRY

We will first briefly review the development of the automotive industry before engaging evaluation of its current outlook.

2.1. THE DEVELOPMENT OF THE TURKISH AUTOMOTIVE INDUSTRY

The beginning of automotive industry in Turkey dates back to the mid-1950s and the industry gained momentum in the early 1960s. In the beginning, the production started in the form of montage and gradually transformed into manufacture. The industry has lived through the import substitution industrialization (ISI) and export oriented policy periods.

In the early 1960s, Turkey had only the beginnings of an industrial base and virtually all vehicles had to be imported. In addition to technological inability, the size of the Turkish market was hardly viable for a domestic automotive industry to flourish. To build the industry the state offered the risk-shy transnational companies (TNCs) incentives and subsidies, largely in the form of beneficial exchange rates on investment and financing, as well as exemptions from various duties and taxes. In order to convert assembly activities into a locally integrated industry and promote the development of a local components industry, the state issued 'Regulations of Assembly Industry' (RAI) in 1964. In order to increase the positive effects of foreign investment on indigenous suppliers and to reduce the level of imported materials and components, the RAI set minimum standards for investment in fixed machinery and equipment and the rules for foreign exchange allocation among the automobile companies¹. Each year, vehicles had to contain an

¹ H. Ansal. "Technical Change and Industrial Policy: The Case of Truck Manufacturing in Turkey", *World Development*, Vol. 18, No. 11, pp. 1513-1528.

increased percentage of domestically purchased components. The system of import permits required that certain parts be imported only with a permit issued by the state².

The unexpectedly high demand for passenger cars led to establishment of two new passenger car plants. Tofaş and Oyak Renault signed joint venture and licensing agreements with *Fiat Auto SpA* and *Renault SA* and began to establish their plants in 1968 and 1969 respectively. To encourage local value added and improve the linkages between local component suppliers and assemblers, the state negotiated specific terms with the two investing TNCs. However, the Turkish state did not actively bargain with the TNCs over the terms of technology transfer and the sectoral composition of foreign investment. The state's bargaining was limited to localization rates, minimum level of production capacity,³ the sale price and profit margin of the cars, royalty payments, and equity participation.⁴ In return⁵, the state guaranteed the joint-venture firms fiscal and financial incentives and massive tariff and non-tariff barriers against foreign competition⁶. Because of buoyant domestic demand, car production expanded rapidly and both Tofaş and Oyak-Renault increased their production capacity. There was not a clear policy or concern for the development of a local supplier industry. As a result, the assembly firms had to undertake vast in-house production of parts and components. Although local content reached 85 percent at the end of 1975 as demanded by the state, the requirement for automobile companies to export 5 percent of their output could not be achieved⁷.

Political instability and weakening in economy started in 1978 resulting in the huge external debt and an accelerating inflation rate. Significant increases in oil prices, the decline in Turkish workers remittances, and low levels of exports resulted in shortages of foreign exchange and seriously restricted the importation of necessary parts and components for the industry. All these problems, combined with daily electricity cuts of up to 3 hours, led to dramatic declines in production levels⁸. As a response to the 'exhaustion' of the ISI and the acute economic crisis, the government introduced a stabilization and structural adjustment program on January 24th 1980. This marked a major policy shift from the ISI to export-led development strategy. Some major implications of this strategy change for the automotive industry were a gradual reduction of tariffs and liberalization of imports. This course was adopted with a view to increase the competitive pressures on both vehicle and component manufacturers by gradually decreasing import protection. In line with the general trend of its basic economic concept of liberalization, state policy after 1980 has followed a relatively liberal, non-interventionist course with regard to production licensing and price policy in the automotive industry. In order to promote export efforts, the state changed its previous policy of giving investment incentives with export incentives. In this way, the state expected to increase exports and capacity usage levels⁹. However, because the problems of exporting stem from the very structure of the industry, export incentives and subsidies proved to be inadequate¹⁰.

M. Ceylan. *Türk Otomotiv Sanayinin Gelişim Sürecinde Otomobilin Yeri ve Geleceği* (The Place of Automobile in the Development of Turkish Automotive Industry), *Specialization Thesis*, (Ankara: SPO, 1992), p.2.

² T. Aksoy. *Ortak Pazarla Muhtemel Bir Entegrasyon Işığında Türk Otomotiv Sanayii Yatırımları* (The Turkish Automotive Industry Investments in the Light of a Possible Integration with the European Community), (İstanbul: Otomotiv Sanayii Derneği Yayınları, 1990).

³ Minimum level of production capacity was decided as only 20,000 vehicles a year for each of the two passenger car plants.

⁴ The state required that each company reach the capacity to produce 20,000 units within 30 months and local content of 67.5 percent at the end of 1.5 year-period and 85 percent at the end of the 5th year.

⁵ It granted 70 percent corporate tax incentive and 80 percent custom duty reduction in investment goods and also supplied incentives to import CKD (completely knocked-down) kits and inputs for a five-year period for both companies.

⁶ M. M. Erdoğan. *The Developmental Capacity and Role of States in Technological Change: An Analysis of the Turkish and South Korean Car Manufacturing Industries*, (Unpublished PhD thesis), The University of Manchester, 1999.

⁷ Nedimoğlu. "Gümrük Birliğine Hazırlık Sürecinde Türk Otomotiv Yan Sanayii Durum Değerlendirmesi" (An Evolution of Automobile Ancillary Sector in the Preparation Period for the Custom Union), *TMMOB Makina Mühendisleri Odası IV. Otomotiv ve Yan Sanayi Sempozyumu*, (İstanbul: MMO Yayını, 1995), p.67.

⁸ H. Ansal, "Technical...", p.1515.

⁹ F. Nedimoğlu. "Gümrük...", p.69.

¹⁰ H. Ansal. *Technical Change in the Turkish Truck Manufacturing Industry*. Unpublished DPhil dissertation, (Brighton: University of Sussex, 1988), p.330.

All the quantitative restrictions in the industry were abolished in 1984. However¹¹, high customs duties and levies were still in effect and therefore import prices were as high as two to three times of their original level¹². The restrictive foreign investment regime has been progressively dismantled during the course of the 1980s and has been replaced by a highly liberal trade regime. While the nominal rate of protection in the motor vehicle industry was 70.7% in 1984, it was gradually reduced to 27.7% in 1992¹³. These reductions significantly increased the competitive pressures on the domestic car manufacturers. During the 1980s, passenger car production increased swiftly (see Table 2). This was in response to growing domestic demand as a result of relatively rapid GNP growth¹⁴ and availability of consumer credit at low interest rates and long-term instalment payment campaigns during the period. Thus, production capacity stayed unchanged between 1975 and 1985 began to increase.

FDI inflow increased steadily following the elimination of quantitative restrictions and bureaucratic barriers against FDI in 1984 and abolition of restrictions on foreign ownership in 1986¹⁵. The policy of encouraging the global incorporation of the car industry was set in 1989, through the new investment permits. This new policy led General Motors (GM) to establish its fully owned small-scale car assembly facility, Opel Türkiye, in 1990. This combined with tariff reductions. Customs duties and levies were reduced dramatically in 1989 and a further reduction was made at the beginning of 1990.¹⁶ As a result, the cost of imported cars became more or less equal to the current prices of locally manufactured cars and imports increased sharply in 1990. These all increased the competitive pressures in domestic market and caused acceleration of modernization investments in the industry.

Table 2: The Turkish Motor Vehicle Production

Years	Passenger Cars	Commercial Vehicles	Total
1963	30	11,082	11,112
1964	100	11,089	11,189
1965	60	10,390	10,450
1966	18	18,129	18,147
1967	1,760	25,475	27,235
1968	2,852	28,157	31,009
1969	3,902	29,362	33,264
1970	3,660	19,863	23,523
1971	12,888	27,471	40,359
1972	29,628	42,264	71,897
1973	46,855	58,804	105,659
1974	59,906	53,660	113,566
1975	67,291	72,269	139,560
1976	62,992	83,103	146,095
1977	58,245	72,792	131,037
1978	54,085	42,275	96,360
1979	43,808	43,155	86,963
1980	31,529	36,288	67,817
1981	25,306	47,300	72,606
1982	31,195	62,978	94,173
1983	42,509	76,193	118,702

¹¹ Despite that imports of passenger cars increased 175% within one year. As a result, the market share of imported cars increased from 7.6% in 1983 to 16.1% in 1984, indicating that a growing number of people were prepared to pay for higher quality.

¹² H. Ansal, "Technical...", p.1516.

¹³ SPO, Ankara: 1993, p.112-3.

¹⁴ The average GNP growth rate between 1984 and 1988 was 5.9 percent (SPO, 1996: 4).

¹⁵ F. Nedimoğlu, "Gümrük...", p.74.

¹⁶ While customs duties and levies were between 81% and 154% for cars under 2000cc-engine capacity, they were reduced to 33% and 62% at the end of 1989 and a uniform 32% tariff started to be applied in 1990. However, they had to be increased to 48% in the last quarter of 1990, because of a sudden nine fold increase of imports. Customs duties and levies were reduced again to 39% at the beginning of 1991. For further information: Derya Sevinç. "The Harmonisation of Turkish Foreign Trade Policy with EC in the Preparation Period of the Custom Union: A Sample Study on the Import of Passenger Cars" (in Turkish), *Specialization Thesis*, (Ankara: SPO, 1996), p. 140-1.

1984	54,832	83,555	138,387
1985	60,353	75,105	135,458
1986	82,032	58,943	140,975
1987	107,185	67,708	174,893
1988	120,796	59,133	179,929
1989	118,314	46,041	164,355
1990	167,556	71,459	239,015
1991	195,574	67,228	262,802
1992	265,245	79,237	344,482
1993	348,095	105,370	453,465
1994	212,651	55,190	268,343
1995	233,412	88,741	326,508
1996	207,757	121,580	329,337
1997	242,780	157,137	399,917
1998	239,937	165,065	405,002
1999	222,041	103,256	325,297
2000	297,476	170,905	468,381
2001	175,343	110,394	285,737
2002	204,198	153,019	357,217
2003	294,116	239,556 (exc trac)	562,460 (533,672)

Source: Calculated from AMA (2003, 2004).

Note: Commercial Vehicle figures include special vehicles such as tractors and passenger car figures include multi purpose vehicles (MPVs).

The demand boom for passenger cars that started in the mid-1980s, accelerated in the early 1990s as a result of significant real wage increases in this period and postponed demand for cars. This demand boom led passenger car production to reach its peak with 348,095 units at the end of 1993. From 1994 onwards, further reductions have been made on custom duties and levies. Attracted by the growth potential of Turkey's domestic demand and its prospects to enter to the EU and thus to be able to export without tariffs, Toyotasa began production in the late 1994. In order to remain competitive in the domestic market after arrival of Toyotasa, other prospective entrants and the scheduled CU with the EU in 1996, car manufacturers continued their investments even though profits declined sharply in 1994 as a result of the severe crises experienced in that year. The slow recovery in the market after the crisis revitalized the interest of foreign investors who had suspended their investments and Hyundai Assan and Anadolu Honda started to establish their production facilities.

A new period of restructuring started in the Turkish automobile industry following the CU agreement with the EU that was put into force at the beginning of 1996. As a result of this agreement, custom duties and levies were eliminated altogether on EU-made cars and all subsidies that the state used to give were phased out. A period of 5 years is granted for transition and during the transition period, the products of the industry and its distribution system along with the administrative and regulatory structure of the industry are intended to reach the EU norms. The CU agreement with the EU has profound effects on the domestic car manufacturers. Since custom duties and levies were eliminated on EU-made cars, imported car sales have increased significantly. The financial crises of 2000 and 2001, however, severely affected the Turkish automotive industry. Because of reduced demand, motor vehicle production recorded a sharp decline of 39% in 2001, compare to a year earlier.

2.2. THE CURRENT OUTLOOK OF THE TURKISH AUTOMOTIVE INDUSTRY

The Turkish motor vehicle industry is dominated by joint-venture operations developed with Western and Far Eastern vehicle producers. There are currently seventeen vehicle manufacturing companies. Fourteen of these are joint ventures, two are licensing agreements, and one is a fully owned subsidiary of an international automaker. Despite small size of the domestic market, two medium and four small passenger car producers and 1 small and 10 very small commercial vehicle producers are currently operating in the Turkish motor vehicle industry. Some may argue that the next two passenger car producers with the passenger car production capacity of 150,000 and 100,000 units per year are not small. However, most production engineers believe that the minimum efficient scale for a simple, basic design is 200,000-300,000 units per annum and that economic viability requires an annual production of 1-2

million vehicles¹⁷. For a similar view see also Dicken¹⁸ and Gersbach *et al*¹⁹. Total annual established production capacity for passenger cars is 776,000 units, and for commercial vehicles, including tractors is 354,155 units (see Table 3).

Table 3: Automobile Production Capacity in Turkey, 2003

	Annual Capacity
Passenger Car Producers	776,000
Commercial Vehicle Producers	354,155
Total	1,130,155

Source: AMA (2004).

Table 4 Passenger Car Producers in Turkey, 2004

Companies	Place	Start-up	License	Foreign Capital	Annual Capacity
Tofaş	Bursa	1971	Fiat	37.86	250,000
Oyak Renault	Bursa	1971	Renault	51.00	226,000
Toyota	Adapazarı	1994	Toyota	100.00	150,000
Hyundai Assan	Kocaeli	1997	Hyundai Motor Comp.	50.00	100,000
Honda Türkiye	Gebze/Kocaeli	1997	Honda Motor Co. Ltd.	100.00	30,000
Ford Otosan	İstanbul Kocaeli	1959 2001	Ford	41.00	20,000

Source: AMA (2003, 2004).

There is a significant amount of established production capacity in Turkey. However, established domestic production capacity of the producers is either substantially lower than worldwide minimum efficient scales or just close to it. In addition to having production facilities under minimum efficient scales, the firms utilize only a limited level of their production capacity. The capacity utilization rate was 52 percent in the motor industry and 41 percent in the passenger car industry at the end of 2003 despite the buoyant domestic demand and a significant export drive. There are currently too many producers within a limited domestic market and this is the most important reason for the very low capacity utilization rate in the industry. Unless motor vehicle producers cannot increase their export levels, their capacity utilization rate is likely to remain low. Because the domestic market is small to absorb the established excess capacity.

Table 5: Passenger Car Production in Turkey by Make

Year	2000		2001		2002		2003	
	Volume	Percent	Volume	Percent	Volume	Percent	Volume	Percent
Oyak-Renault	140,159	47	96,860	55	100,131	49	132,257	45
Tofaş	105,775	36	65,690	37	51,383	25	66,093	22
Toyota	14,715	5	2,862	2	38,899	19	70,839	24
Hyundai Assan	19,967	7	2,717	2	8,401	4	13,957	5
Honda Türkiye	9,821	3	5,134	3	5,384	3	10,970	4
Ford Otosan	–	– 0 –	–	– 0 –	–	– 0 –	–	– 0 –
Opel Türkiye	7,039	2	2,080	1	–	– 0 –	–	– 0 –
Total	297,476	100	175,343	100	204,198	100	294,116	100

Source: AMA (2003, 2004).

Turkey has a very low rate of car ownership – about 67 vehicles per 1,000 inhabitants, while worldwide average is about 95. There are a wide variety of vehicle types and models in the Turkish market with more than 40-45 brands. Service life for automobiles is long in Turkey. The average vehicle life of eight years is much longer than the two year average life found in the EU countries. This longer vehicle life stimulates the Turkish automotive parts/service equipment suppliers. Old cars enjoy a remarkable re-sale market for various reasons including taxes on automobiles. Consequently, automobiles

¹⁷ A. H. Amsden and K. Linsu. "A Comparative Analysis of Local and Transnational Corporations in the Korean Automobile Industry", in Dong-Ki Kim and Linsu Kim (eds.) *Management Behind Industrialization: Readings in Korean Business*, (Seoul: Korea University Press, 1989), p.582.

¹⁸ P. Dicken. *Global Shift: The Internationalization of Economic Activity*, (London: Paul Chapman Publishing Ltd, 1992).

¹⁹ Gersbach, H., W. Lewis, G. Mercer and J. Sinclair. "Production in the automotive assembly industry", *International Motor Business*, 1st Quarter, 1994.

are kept in service for several years. This situation is aided by inexpensive and readily available repair labor. Nearly 40 percent of the total sales of automobile parts in Turkey go to the aftermarket, while 35-40 percent is destined for the Original Equipment Manufacturer (OEM) industry, and 20-25 percent are exported.

The industry is very sensitive to adverse developments in the domestic economy and its performance is closely related with the macro economic stability and increase in GNP. The Turkish automobile market took a sharp upturn from the 1980s, with more than 440,000 passenger cars sold in 1993, all brands combined. Since then it has been hit by three economic crises: in 1994, at the end of 1998 and the twin crises experienced in the late 2000 and the early 2001. The most recent collapse slashed total sales to 135,000 after an all-time high of 456,000 in 2000. The market continued to fall in 2002, dipping below a total 95,000 cars sold. However, 2003 has witnessed a significant recovery in the industry. The annual motor vehicle production excluding tractors has reached 533,672 units at the end of 2003. This is the highest level of production since the establishment of the industry. If we look at solely passenger cars, however, the production level of 294,116 units in 2003 has still been below the peak level of 348,095 units in 1993 (see Table 2). Affordability, disposable income and interest rates are the critical determinants of demand. It is not expected a significant improvement in disposable income and purchasing power in the near future. However, lower interest rates may continue to provide a strong enough incentive to stimulate domestic demand. Domestic demand is getting stronger and is bound to get stronger as interest rates continue to fall. As a result of increasing buyer confidence –backed by the Government's commitment to the economic reforms and EU-related reforms, domestic market auto sales have continued to rise significantly in 2004 so far. Nevertheless, affordability is still low and this makes domestic demand fragile and vulnerable to domestic economic fluctuations. Thus, exporters have a better chance of survival²⁰.

Domestic producers need to reduce their production costs in order to be internationally competitive and increase their export level. However, that is extremely difficult with low capacity utilization. Thus, the fragmented character of the industry has created a vicious circle.²¹ Recently, there is an intense effort from domestic producers to overcome this vicious circle through increasing their exports. One of the effective ways to increase exports appears as being the sole producer of a new model, which has an appeal. Thus, domestic producers have put a lot of effort to convince their licensors to give them such a privilege. These efforts started to give fruit and while export share of production in the motor vehicle industry was less than 10 percent in the early 1990s, it reached to 65 percent in 2003²². Although such a result can be regarded as an achievement, it is far from solving low capacity utilization problem in the industry. Because, import share of domestic market for passenger cars continue to increase. Import share of domestic market for passenger cars was 67,7 percent in 2003 (see Table 1). This is a verh high import share, which indicates not only the adherence of the Turkish market to free market principles but also makes a person wonder if the domestic producers are competitive enough. We will try to find a valid answer to this question by focusing on changing competitiveness of the domestic producers after CU agreement of Turkey with the EU.

3. EFFECTS OF THE CUSTOMS UNION ON THE CHANGING COMPETITIVENESS OF THE TURKISH AUTOMOTIVE INDUSTRY

Worldwide competition among unequals leads to the survival of whichever is strongest in knowledge, experience, established markets, and resources. In 2002, Turkey ranked 46th (as opposed to 38th in 1999) in the world competitiveness league among a list of 49 countries, according to a poll of business leaders by the International Institute for Management Development in Switzerland. Turkey was ranked the 52nd among more than 100 countries in the Global Competitiveness Report of World Economic Forum for the years 2003-2004.

Competitiveness consists of all actions at different levels from conventional macroeconomic policies to questions related to technology, infrastructure and human resources development. Increasing the competitiveness of the industry in international markets has considerable importance in achieving a

²⁰ C. Demirtas, "The Turkish Automotive Industry", *TSKB Research*, March 2004, pp.1-11.

²¹ This is clearly related to the Turkish state's misguided policies. Instead of restricting entry of new producers or indeed rationalizing them, it promoted over capacity in the industry by providing incentives for companies, which are well under optimum scale for the industry.

²² OSD, 2004.

sustainable export performance, taking into consideration the factors, which affect competitiveness other than price. Closing the technology gap with developed countries and increasing the quality of the products, developing trade marks acceptable in international markets, producing environment-friendly goods and diversifying both export products and markets are therefore all highly desirable²³.

As a result of outward orientation since 1980 the Turkish automotive industry obliged to become more competitive. The import of motor vehicles rose strikingly after 1990 and continued afterwards. Competition become stiffer due to an influx of vehicle imports after the Customs Union between Turkey and the EU came into effect, abolishing import duties from January 1, 1996. Protectionist practices imposed through customs barriers have been abolished in the EU countries and the common customs tariffs towards non-member countries have been reduced to six percent in Turkey, as well. The EU certificate and ISO 9000 quality certificate have become prerequisites for local companies to effectively compete. These changes have encouraged the sector to pay greater attention to subjects such as patents, industrial and intellectual property rights, research and development (R&D) activities, and environmental problems.²⁴

Despite of an environment disturbed by economic instability, the 1990s has been a decade of renovation for the Turkish automotive sector. R&D developments took pace, production capacities were expanded, quality management systems were launched, technological innovations and investments in new models proliferated. The annual 25% growth of demand in the early 1990s deepened the success of the sector while increasing the capacity and quality of the components sector. The importance given to the quality of products by manufacturing firms has been significantly increased. The application of Turkish firms for quality certification to European notified bodies, such as CE or ISO 9000 series certification, has been accelerated. The automotive parts industry has developed concurrently with the expansion of Turkish automotive production and the sales of imported vehicles. In the last decade, the quality of Turkish parts and components producers have reached to international standards together with exports to Western Industrialised Countries. Major domestic component manufacturers are engaged in substantial programs to improve their production. More than 100 major foreign parts manufacturers, primarily EU firms, have close ties with local producers either via joint ventures or licensing agreements. With Turkey's accession to the EU customs union, automotive parts exporters have begun increasing their market share in the EU countries. Local manufacturers are producing for both local and export OEMs and aftermarkets.

Increasing productivity together with decreasing unit labor cost has improved the competitive position of the industry. Currently, Turkey has the lowest labor costs found in EU customs union countries. Increasing productivity together with decreasing unit labor cost has improved the competitive position of the Turkish automotive industry in the world markets.

Table 6: The Productivity of Motor Vehicle Producers in Turkey (Vehicles/Employee)

	Oyak-Renault	Tofaş	Toyota	Hyundai Assan	Honda Türkiye	Ford Otosan
1975	11.39	12.77	—	—	—	7.61
1980	6.89	7.26	—	—	—	4.30
1985	12.97	12.42	—	—	—	4.42
1990	16.27	14.40	—	—	—	7.72
1991	16.30	15.82	—	—	—	8.13
1992	22.44	17.46	—	—	—	10.11
1993	25.19	22.58	—	—	—	10.21
1994	20.96	21.38	—	—	—	10.17
1995	20.90	21.09	26.82	—	—	11.26
1996	19.31	17.99	28.58	—	—	13.15
1997	25.38	20.32	26.10	9.19	—	12.81

²³ M. Ögütçü, "Navigating Towards Turkey's 2023 Vision Dreams Can Come True: Food for thought" available at (<http://www.mfa.gov.tr/grupd/dc/dcb/Indus96.htm>), 05.05.2003.

²⁴ Since 1995, vehicles have required catalytic converters. Turkey's automotive industry signed an agreement with the Turkish Environment Ministry and adapted the EU's automobile emission standards. The implementation of EU standards began with 1,800 cc and larger engines in 1995 and 1,600 cc engines in 1996. By 2000, all new vehicles were equipped with catalytic converters. Local producers have already started using engines enabling the use of unleaded fuel. Additionally, new cars are using automatic fuel injection systems thereby replacing carburetors. This is also true for commercial vehicles.

1998	22,65	19,11	17,22	38,20	18,75	11,55
1999	30,63	16,52	11,01	21,19	14,78	8,80
2000	34,74	20,86	21,96	39,25	22,27	9,95
2001	25,42	23,13	2,73	8,59	12,05	5,68
2002	26,84	25,76	23,81	14,76	12,85	10,99
2003	34,71	31,04	27,35	23,02	24,54	19,25

Source: Calculation based on company records and AMA figures (various years).

Foreign firms that have been attentive to the potential that the Turkish automotive industry possesses have invested in Turkey. Especially since Turkey's entrance to the EU and its moves for the EU membership, Asian firms have sought to increase their investments and to control the Turkish automotive sector which offers geographic advantages and strong Turkish counterparts to exploit export possibilities. Capital partnerships between Tofaş-Fiat, Oyak-Renault, Ford-Otosan, and Toyota and the recent capital increases in their Turkish plants, reveals the full integration of Turkey into the strategic market expansion plans of foreign firms. These companies are considering producing mainly for export markets in Europe, the Middle East, the former Soviet Union countries, and the North African countries. The Turkish automotive sector companies producing motor vehicles have been trying hard to increase their exports as much as possible particularly in the recent years. Main reasons for this export effort are underutilised capacity and fierce competition for the limited domestic market particularly after the severe crises experienced in the late 2000 and the early 2001. This effort gave fruit and the automotive industry has recently shown great export performance in international markets. In 2003, the automotive industry's export was 4.0 billion dollars in main automotive industry, 2.1 billion dollars in supplier industry and around 6.1 billion dollars in total. Passenger car export reached 225,534 units in 2003 while it was 12,707 units in 1994²⁵. This export success is strongly related to a domestic producer obtaining the privilege of being the sole producer for a new model, which has an appeal. Thus, domestic producers have put a lot of effort to convince their licensors to give them such a privilege. They could become successful in that mainly because Turkey has a strategic geographic location to become an export base along with a growing domestic demand, it has low level of worker wages and there has been an improving quality and productivity particularly in the recent years. As a result, major domestic motor vehicle and component manufacturers in Turkey are engaged in substantial programs to establish an export base for foreign markets. Tofaş's 'Doblo' model has become its export weapon as 85% of this series is exported with a return of 700 million USD. Oyak-Renault has produced its 'Megan' and 'Clio' models as its export item. The success of these two companies export models has awarded them the prize for the largest exporters in the industry. Oyak-Renault is now producing the new Mégane II Sport Saloon in Turkey for sale worldwide. Ford Otosan realised the biggest automotive investment (550 million \$) to design and become sole producer of a light commercial vehicle. With this project Ford Otosan is targeting 1 billion \$ export. Toyota re-emphasized Turkey's geo-strategic importance as an export base by disclosing its plans to renovate its production center and play an important role in increasing Toyota's current market share (3%) in the European market. Hyundai-Assan invested 52 million USD to renovate its production plant, in an attempt to transform Turkey into its export base. Karsan, the Turkish automotive group that has an agreement with Automobiles Peugeot begun the shipment of Peugeot automobiles to France. Honda announced a plan to produce one of its latest models (Jazz Sedan) to produce in Turkey and target export markets.

Table 7: Passenger Car Imports and Exports

Years	New/Old	Imports		Export	
		Units	Value (1000\$)	Units	Value (1000\$)
1970		3,400		--	
1975		379		--	
1976		19,062		226	
1977		8,641		282	
1978		13,511		208	
1979		12,758		1,194	
1980		4,887		4,515	
1981		4,205		5,659	

²⁵ AMA. *Foreign Trade in the Automotive Industry between 1992-2003*, (İstanbul: Otomotiv Sanayii Derneği Yayınları, March 2004).

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1982		2,795		3,967	
1983		3,219		3,343	
1984		8,849		3,888	
1985		12,806		3,760	
1986		6,974		4,997	
1987		5,115		4,987	
1988		4,665		6,818	
1989		7,094		8,474	
1990		65,391		5,533	
1991		33,651		5,790	
1992	New	52,502	361,005	8,751	72,860
	Old	333	1,477		
1993	New	96,707	704,292	7,812	53,943
	Old	708	3,381		
1994	New	24,986	218,556	12,707	70,288
	Old	148	1,057		
1995	New	19,941	316,961	32,715	250,929
	Old	65	555		
1996	New	58,832	844,163	25,716	197,594
	Old	8,609	177,223		
1997	New	135,795	1,606,746	20,715	108,607
	Old	5,504	64,123		
1998	New	110,552	1,318,048	18,185	103,455
	Old	5,808	44,132		
1999	New	121,309	1,267,807	73,320	674,472
	Old	4,832	28,736		
2000	New	272,110	2,553,731	83,314	623,310
	Old	5,012	33,808		
2001	New	74,165	567,990	151,393	969,671
	Old	795	4,732		
2002	New	61,294	808,359	166,851	1,270,718
	Old	184	3,442		
2003	New	164,445	2,213,025	225,534	2,196,799
	Old	2,125	2,137		

Source: AMA (2003); AMA (2004); DİE (2004).

As a general trend imports have followed high in the automotive sector. The steady rise in demand in the early 1990s led to a proliferation in the figures of imported vehicles, especially from EU countries. The Turkish automotive industry's import was 3,4 billion dollars in main automotive industry, 3,9 billion dollars in supplier industry and around 7.3 billion dollars in total in 2003. The share of total automotive industry import made from EU countries for the same year was a staggering 82,3 percent. The share of the imported motor vehicles (passenger cars and commercial vehicles) reached to 55 percent of domestic demand in 2003. The proportion of imported cars stood at 67.7% in 2003, 60.8% in 2002, 55.0% in 2001 and 55.5% in 2000²⁶ (AMA, 2004). Imports has become cheaper due to the value of the Turkish Lira against other foreign currencies and this creates a big problem for exporting companies. The overvalued exchange rate, which was about 27 percent according to an estimate in the early 2004, was a very important factor increasing import rate in the domestic market.

4. LIKELY EFFECTS OF THE TURKISH AUTOMOTIVE INDUSTRY ON THE EU COMPETITIVE POWER

Before the likely effects of the Turkish automotive industry on the EU competitive power can be discussed, the basic effects of the integration should be taken into consideration. As related literature clearly indicates, economic integration can affect member countries in social, cultural, political, and economic ways, and produces both static effects developed by trade creation and trade diversion, and dynamic effects. While static effects are the shifting of resources from inefficient to efficient companies,

²⁶ AMA *Monthly Statistical Bulletin*, (İstanbul: Otomotiv Sanayii Derneği Yayınları, March 2004.

dynamic effects are the overall growth in the market and the impact on a company of expanding production and achieving greater economies of scale²⁷. The other effects are income distribution effect, macroeconomic stability effect, and peace dividend and stability effects²⁸. Turkey being in the second stage of the five economic integration levels of "freetrade area, customs union, common market, economic union, and political union or total economic union"²⁹, and the Turkish automotive industry seems to benefit from the static effect of the integration and thus may have positive effects on the EU's competitiveness as pointed earlier. If Turkey were at the stage of the stronger integration level of economic union as being a member of the EU, both the EU and Turkey may improve their competitive positions since both parties would get benefit from the dynamic effects and the other effects of the integration. Particularly, Turkey being part of the European Monetary Union may have positive effects on the EU's competitive power if reduced exchange cost and reduced risk of the gains of single currency³⁰ stated in literature is correct. Besides single currency disabling companies to charge different prices in different EU countries is accepted to result in economic welfare and to force businesses to become more efficient³¹. This should all be good for the EU economy and its competitiveness as Turkey being an "upper middle-income economy"³² with large and young population may have more positive dynamic effect on the economic integration. Obviously, the Turkish automotive industry's integration with the EU through customs union has profound effects on the industry. The major positive effects were to improve the quality of the Turkish automotive products and them to comply with the international norms, which made possible the industry to increase its export levels significantly. It can be argued that positive effects of the customs union on the Turkish automotive industry, in turn, may improve the EU's competitive power. This is not only through more competitive price and quality but also benefiting from the accumulated innovation capacity (potentials) of the Turkish automotive industry, particularly in the light commercial vehicle producing sector.

5. SUMMARY AND CONCLUSION

The measures implemented by the Turkish state were far from targeting structural change and building competitive advantages for the automotive industry during both the import substitution industrialization and the liberal period. Because there were neither an explicit technology policy nor any serious concern to benefit from economies of scale and achieve high capacity utilization in the industry. The Turkish state attempted to impose a modest export target to overcome negative effects of limited domestic market on production costs and to reduce the adverse impact of automobile production on the balance of payments. However, the state's attempts were not effective. This was because of the fact that it could not supply needed support to overcome export difficulties. Moreover, export requirements that it set were not strict and did not bring serious punishment mechanisms were the targets not met. Consequently, the targets were not met and the export levels remained very low.

Another problem, which had serious consequences was incentives that the state provided for the prospective investors to establish new motor vehicle production sites, which are well under optimum scale for the industry. This would mean excessive number of producers and over capacity in the industry, which was culminated in high production costs and low capacity utilization. Nevertheless, although the industry had serious structural problems, it has gained some dynamism since mid 1980s, as a result of diminished import restrictions and investments by major motor vehicle producers such as Toyota, Hyundai and Honda. The resulting competition has stimulated interest in increased productivity, quality improvement

²⁷ J. D. Daniels and L. H. Radebaugh. *International Business: Environments and Operations*, (London: Prentice Hall, 2001), p.233.

²⁸ D. Özdemir. "Accession of Turkey to the EU: Implications of Economic Integration and A Case for Peace Dividend", *Turkey and EU Enlargement Process of Incorporation Conference*, (Istanbul: Bilgi University, 19 March 2004).

²⁹ A. M. Rugman and R. M. Hodgetts. *International Business: A Strategic Management Approach*, (Harlow: Prentice Hall, 2000), p.106.

³⁰ M. Feldstein. "Political Economy of the European Economic and Monetary Union", *Journal of Economic Perspectives*, Vol. 11, 1997, pp. 23-42.

³¹ C. W. Hill, *International Business: Competing in the Global Marketplace*, (Boston: Irwin McGraw Hill, 2001), p.244-245.

³² P. R. Krugman and M. Obstfeld. *International Economics: Theory and Policy*, (Reading: Addison-Westley Publishing, 2000), p.679.

and product diversity. As the market started to become more liberalized, domestic producers started to invest in capacity expansion to benefit from enhanced economies of scale and to phase out older models.

There are currently too many producers within a limited domestic market and this is the main reason for the very low capacity utilization rate in the industry. Since domestic market is small, excessive number of producers creates a 'harmful competition' situation with underutilised capacity and fierce competition. Competitiveness is closely related to high quality and low production costs. However, it is unlikely to increase productivity and quality and achieve international competitiveness with a low capacity utilization rate since the level of production is crucial to reduce costs in the automotive industry. Although there is a significant recovery after the 2001 crisis, domestic demand is still modest mainly because of low level of disposable income and punishingly high tax rates for motor vehicles. Under these conditions, it is over optimistic to expect enough increase in domestic demand to absorb the excess capacity. Thus, the fragmented character of the industry constitutes a vicious circle. The only viable option for the motor vehicle producers to brake this vicious circle and survive from fierce competition in the domestic market remains as increasing their export levels. As a result, motor vehicle producers have been increasingly targeting export markets particularly since the second half of 1990s. These efforts gain intensity in the last few years and recently gave fruit. While export share of production in the motor vehicle industry was less than 10 percent in the early 1990s, it has dramatically increased and reached to 65 percent in 2003. Although such a result can be regarded as a significant achievement, it is far from solving low capacity utilization problem in the industry. Because, import share of domestic market for passenger cars are very high (67,7 percent in 2003) and have a tendency to remain so.

One of the most effective way for a domestic producer to increase its export level is to obtain the privilege of being the sole producer for a new model, which has an appeal. Thus, domestic producers have put a lot of effort to convince their licensors to give them such a privilege. These efforts started to give fruit in the late 1990s and export share of production in the Turkish motor vehicle industry reached to 65.0 percent in 1999 following the colaps of domestic demand as a result of the crisis experienced. It became clearer later on that this was beginning of a new trend and likely to continue. Sparhead of this export increase was passenger cars. While annual passenger car exports were as low as 12,707 units in 1994 within 10 years it icreased 17,7 times and reached 225,534 units in 2003. Although such a result can be regarded as a spectacular achievement, it is far from solving low capacity utilization problem in the industry. Import share of domestic market has increased even more than exports. Import share of domestic market for motor vehicles reached to 55.0 percent in 2003. As a result, despite the recent buoyant domestic demand and increasing exports, realization of capacity utilization in the industry was only 52 percent in the same year.

In order to enhance its competitiveness, the industry needs to deploy advanced technologies, give more importance to R&D activities, to improve its research facilities, skilled workers, information networks, and manufacturing capabilities to take advantage of technology being developed internationally. For this purpose, the Turkish system of R&D şhould be modified to increase the share of R&D expenditures in the GDP and to stimulate private sector R&D. Higher investment in human resources results in higher productivity and improved quality. Comparison of the industry's employee skill performance with that in competitor countries reveals that the Turkish educational system needs to raise its standards and the firms needs to invest in the continual development of their workers' skills.

Tax levels for the motor vehicles are high and that makes very difficult for the motor vehicle producers to increse their sales in the domestic market and make use of their established capacity. This leads to higher production costs and negatively effect their international competitiveness. Investment in energy infrastructure is essential if Turkey is to increase its exports. Production costs should not be allowed to reach the levels to damage Turkey's international competitiveness, as is currently the case.

Despite its improving competitiveness, the Turkish automobile industry is highly fragmented and suffers from over-capacity, a relatively low level of human development and skills as well as insufficient investments in R&D, management, and marketing capabilities. A limited consolidation that took place recently is far from what is required to achieve cost competitiveness and technological self-reliance. In order to survive and seek international opportunities independently, the industry needs substantial consolidation.

The Turkish automotive industry's integration with the EU through customs union has profound effects on the industry. The major positive effects were to improve the quality of the Turkish automotive products and them to comply with the international norms, which made possible the industry to increase

its export levels significantly. It can be argued that positive effects of the customs union on the Turkish automotive industry, in turn, may improve the EU's competitive power. This is not only through more competitive price and quality but also benefiting from the accumulated innovation capacity (potentials) of the Turkish automotive industry, particularly in the light commercial vehicle producing sector.

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