PETDER

PETROLEUM INDUSTRY ASSOCIATION

2011

Sector Report

I. SUMMARY OF 2011 SECTOR REPORT

a) General Overview of the Fuel Market:

- According to data from EMRA and PETDER, **total automotive fuels consumption**, including *Gasoline, Diesel and LPG Autogas*, in **2011 increased by 4.4%** compared to 2010 and reached **24.8 million m³** . In 2011, compared to the same period of the previous year;
  - **Total diesel** consumption (diesel and off-road diesel) **increased by 5.7%** reaching **17.4 million m³** .
  - **Total gasoline** consumption **decreased by 5.4%** and totaled nearly **2.6 million m³** .
  - **Autogas LPG** consumption **increased by 6.0%** reaching **4.7 million m³**. Hence it is estimated that autogas consumption has nearly doubled gasoline consumption in litres.

b) Taxation and Market Volumes in Automotive Fuel Markets:

- Calculations based on the consumption data reveal that indirect taxes collected from fuel and LPG industries **increased by 10.2%** compared to the previous year reaching **45.9 Billion TL** with the increase in VAT due to the increase in petroleum prices and the growth in the Automotive fuel market. In 2011 SCT revenue collected from oil sector reached 32.6 billion TL and according to data from the Ministry of Finance, 51% of the total SCT revenue in 2011, that is 64.2 billion TL, was collected from the oil sector. In 2011, compared to the same period of the previous year;
  - indirect taxes collected from **fuels** (VAT and SCT) **reached 39.4 Billion TL with an increase of 11.0%,**
  - total indirect taxes collected from **LPG** consumption **increased by 5.8% reaching 6.5 Billion TL,**
  - trading volume in **Petroleum and LPG** industries in total **increased by 22.7%** totaling **86.6 Billion TL**.

c) International Oil Markets and the Effects on Pump Prices

Research conducted by PETDER indicates that the pump prices without tax in Turkey are lower than the gasoline and diesel prices without tax in the Mediterranean countries that are accepted as reference countries by EMRA. In terms of 2011 average, besides the standard products such as gasoline and diesel, the taxless pump prices of special diesel types were also 9-10 kurus lower per liter in Turkey compared to the four referenced countries. In other words, Turkish consumers have been less affected by the increase in prices of gasoline, diesel and special diesel types in the international markets, compared to the consumers in the Mediterranean markets.

In 2011, while the gasoline prices **increased by 50.3%** in the Mediterranean Markets, which are taken as reference by EMRA, this was reflected on pump prices by **35.2%** without tax. Similarly, although there was an **increase of 55.6%** in diesel prices, the reflection of this increase remained at the level of **34.4%. Based on the comparison of pump prices without tax, fuel consumers in Turkey have been affected 8-13% less by the increase in the pump prices due to the price increase in the world oil markets, compared to the consumers in the Mediterranean market.** This also indicates that the players in the distribution sector have been compensating some of the increase in the world market prices from their own profit shares.

d) Other Developments in the Industry:

- ***In addition to the standard gasoline and diesel fuels, new diesel types were introduced into the market in 2011***

In 2011, special diesel types have been offered to Turkish consumers alongside with the standard products such as gasoline and diesel fuels. With the restriction of the sulphur content in diesel fuels to 10 ppm effective from January 1st, some companies in the sector began to offer their customers differentiated diesel products besides the standard diesel fuel that is used for all vehicles. These kind of products which also improve the competition in the sector are being offered to Turkish consumers as is the case in the developed countries. The taxless prices of these products are again 9-10 kurus lower when compared to their equivalents in the Mediterranean countries.

- ***The groundbreaking ceremony of Star refinery, Turkey's new oil refinery company, took place in Aliaga, İzmir***

The groundbreaking ceremony of Star Petroleum Refinery, which is declared to be the largest investment of Turkish private sector in a single location, took place in PETKIM premises in Aliaga, İzmir. In Star Refinery, which has a capacity of 10 million ton/year, 5 million 950 thousand tons of low sulphur diesel, 1 million 660 thousand tons of naphtha, 500 thousand tons of jet fuel, 500 thousand tons of reformat, 630 thousand tons of petroleum coke, 240 thousand tons of LPG, 415 thousand tons of mixed xylene, 75 thousand tons of olefinic LPG and 145 thousand tons of sulphur will be produced annually.

- ***Number 10 lube problem continues to grow despite the financial measures... Tax loss has reached 5 billion TL in the last three years.***

The Ministry of Finance issued a SCT regulation on lubricants with the decree of the council of ministers on September 14 in order to prevent the illegal, illicit fuel activities that have been widely carried out and that have been a serious threat to public and environmental health and to stop the tax loss that has exceeded 3.5 Billion TL over the last three years. Following this regulation, with the amendment regarding deferment / cancellation mechanism and made additional significant adjustments regarding the reports used in deferment / cancellation practice which comprises the biggest part of the problem. In addition to the measures taken by the Ministry of Finance, EMRA published the Mineral Oil Communiqué on December 23, 2011. Also "Communiqué on the Amendment of the Communiqué Pertaining to Packing and Marketing of Mineral Oils", which was expected to provide a solution to the problem, was published. Despite these significant improvements, this problem has not been resolved yet and observations in the market reveal that the lubricants that are purchased without paying SCT (with the latest increase) to be used in the production of industrial products are introduced to the market as number 10 lube under different names. Another major concern in 2011 was the accidents that take place as a result of number 10 lube production and consumption. The accidents that occurred in Giresun and Ankara and the large scale number 10 shipment that took place in public in Esenler Bus terminal are significant examples regarding the problem. These incidents reveal that the regulations that were carried out have not yet created the desired effect and that a direct control operation regarding the parties carrying out the mentioned activities is urgent and inevitable.

- ***EMRA decision regarding the obligation of blending domestic agricultural biofuels to gasoline and diesel has come into force. The amount that will be blended will be increased gradually every year.***

EMRA published its final decision on Biofuels in a Communiqué in September. According to the Communiqué published, by January 1, 2013, it will be compulsory to blend 2% domestic agricultural bioethanol in gasoline and by January 1, 2014 to blend 1% biodiesel in diesel. The amounts that will be blended will be 3% maximum and will be increased gradually until 2016.

Even though there is sufficient domestic agricultural product for bioethanol and the appropriate production technologies have been implemented, there is not enough domestic agricultural product for biodiesel. The most serious concerns regarding this issue are the lack of vegetable oil seed in Turkey and the fact that biodiesel has been an area of abuse over the recent years. In terms of biodiesel, it seems inevitable that the compulsory belnding will create adverse effects on the food prices because of the lack of oily seed in Turkey and the annual import of 1-1.5 tons of vegetable oil. It is also necessary to prevent illegal/illicit fuel activities reagarding biodiesel, in order not to experience the negative incidents that had taken place in the previous years again.

- ***Automation system has been implemented at fuel stations***

Following the Board Decision by EMRA, automation system began in the fuel stations all over Turkey as of July 1st. We, as Petroleum Industry Association, have been supporting the implementation of the system from the beginning and believe that it will be a new and additional step taken towards the reduction of illicit activities in the sector. At the time of the preparation of the report, studies on the principles and procedures regarding the automation system were still being carried out.

e) Other developments in the oil market

Calculations based on the latest sectoral data published by EMRA and the sectoral data analysis reports by PwC, an independent institution, demonstrate that LPG consumption, 71% of which is Autogas, has increased by nearly 2.3% with the influence of the growth in the autogas market despite the shrinkage in bulk and bottled LPG. The continuous shrinkage in the **black products** market including fuel oil and heating oil has continued this year too. Consumption of black products, totaled **793 thousand tons** with **a decline of 4.9%** compared to the previous year. It is estimated that in 2011, total lubricant consumption in Turkey reached **411 thousand tons** with **a decrease of** nearly **0.9%** compared to the previous year.

a) Brief Figures: -1

FUEL CONSUMPTION JANUARY - DECEMBER

A) Oil Products (m^3)	2010	2011	Difference
95 Octane (with additives included)*	2.535.656	2.403.294	-5,2%
97 and higher Octane*	235.700	219.072	-7,1%
Total Gasoline (m^3)	**2.771.356**	**2.622.367**	**-5,4%**
Off-Road Diesel*	11.516.166	718.741	-93,8%
Diesel Fuel(Low Sulphur)*	4.987.982	16.719.202	235,2%
Total Diesel (m^3)	**16.504.148**	**17.437.943**	**5,7%**
Autogas* (m^3)	**4.445.500**	**4.714.300**	**6,0%**
Total Automotive Fuels* (m^3)	**23.721.004**	**24.774.610**	**4,4%**

B) LPG Products (ton)	2010	2011	Difference
Bulk*	126.051	117.000	-7,2%
Bottled*	1.043.809	985.000	-5,6%
Autogas*	2.489.501	2.640.000	6,0%
Total LPG (ton)	**3.659.361**	**3.742.000**	**2,3%**

C) Lubricants (ton)	2010	2011	Difference
Vehicle Oils	231.337	217.361	-6,0%
Industrial Oils	140.735	151.683	7,8%
Marine Oils and Greases	42.032	41.503	-1,3%
Total Lubricants (ton)	**414.104**	**410.547**	**-0,9%**

*** Calculated based on EMRA Oil and LPG Sector Report figures and PETDER data**

Fuel data are consolidated from 13, lubricant oil data are collected from 6 distributor firms on a voluntary basis.

Brief Figures: -2

TAX / PRİCE DATA IN AUTOMOTIVE FUELS IN 2011

A) Turkey Pump Prices (TL/lt) *	2010	2011	Difference
Taxed Gasoline (95 Octane)	3,68	4,19	13,9%
Taxed Diesel (Standard 10ppm)	3,10	3,64	17,3%
Taxed Autogas (LPG)	2,02	2,32	14,6%
Gasoline without tax (95 Octane)	1,23	1,66	35,2%
Diesel without tax (Standard 10ppm)	1,32	1,78	34,4%
Autogas without tax (LPG)	1,00	1,25	25,1%

B) Prices of Oil and Products in International Markets**	2010	2011	Difference
Brent (USD/Barrel)	80,1	112,3	40,2%
Brent (TL/Barrel)	120,6	188,6	56,4%
Gasoline, CIF Med (TL/1000lt)	1.109,9	1.667,8	50,3%
Diesel, CIF Med (TL/1000lt)	1.046,6	1.628,8	55,6%
LPG, CIF Med (TL/1000lt)	1.106,8	1.460,0	31,9%

C) Total Indirect Taxes (Billion TL) ***	2010	2011	Difference
Fuel SCT	9,2	11,4	23,8%
Fuel VAT	26,2	27,9	6,5%
LPG SCT	4,6	4,7	2,4%
LPG VAT	1,5	1,8	16,1%
Total Indirect Taxes	**41,6**	**45,9**	**10,2%**

*** Calculations based on data from 8 fuel companies (İstanbul European Side) published on EMRA website.**

**** Source : Argus Monthly report**

***** Calculations based on total consumption data. (For fuels, white and black products are included, mineral oil is excluded.)**

II. OIL AND FUEL PRICE ESCALATIONS IN TURKEY AND IN THE WORLD:

a) Escalations of Crude Oil and Product Prices in International Markets:

The changes in the world oil prices continued in 2011 and as a result of these changes, fuel pump prices received much media coverage. Brent oil started 2011 with $95 per barrel, and by April 2011 reached $126 per barrel, its highest level in 2011. By the end of December, Brent crude oil was around $109. The changes in crude oil prices have directly affected main fuel products in the Mediterranean markets and this resulted in the steep acceleration of the prices in an upward direction. In April 2011, gasoline with 1.160 $/ton and diesel with 1.080 $/ton reached the highest level of the year. The table below (Figure 1) demonstrates these changes in the international markets from the beginning of 2010 through December 2011, on a weekly basis.

When the averages of 2010 and 2011 are compared, it is observed that Brent oil price which was 80.1 $/ton (120.6 TL/ton) increased to 112.3 $/ton (188.6 TL/ton) with an increase of **56.4%** in TL currency. As a result of this change, it is calculated that in 2011, the average increase in gasoline prices has been **50.3%,** in diesel prices **55.6%** and in LPG prices **33.4%** in Mediterranean markets. This significant increase has been reflected less on pump prices without tax. For instance, while gasoline prices increased by **50.3%** in the Mediterranean market last year, this increase (without tax) remained at the level of **35.2%** in the pump prices. The figure below clearly demonstrates that the increase in the world markets has had a limited effect on Turkish pump prices. Another inclination that attracts attention in this period is that the prices of gasoline and diesel in the world oil markets and the Mediterranean market are drawing closer to each other.

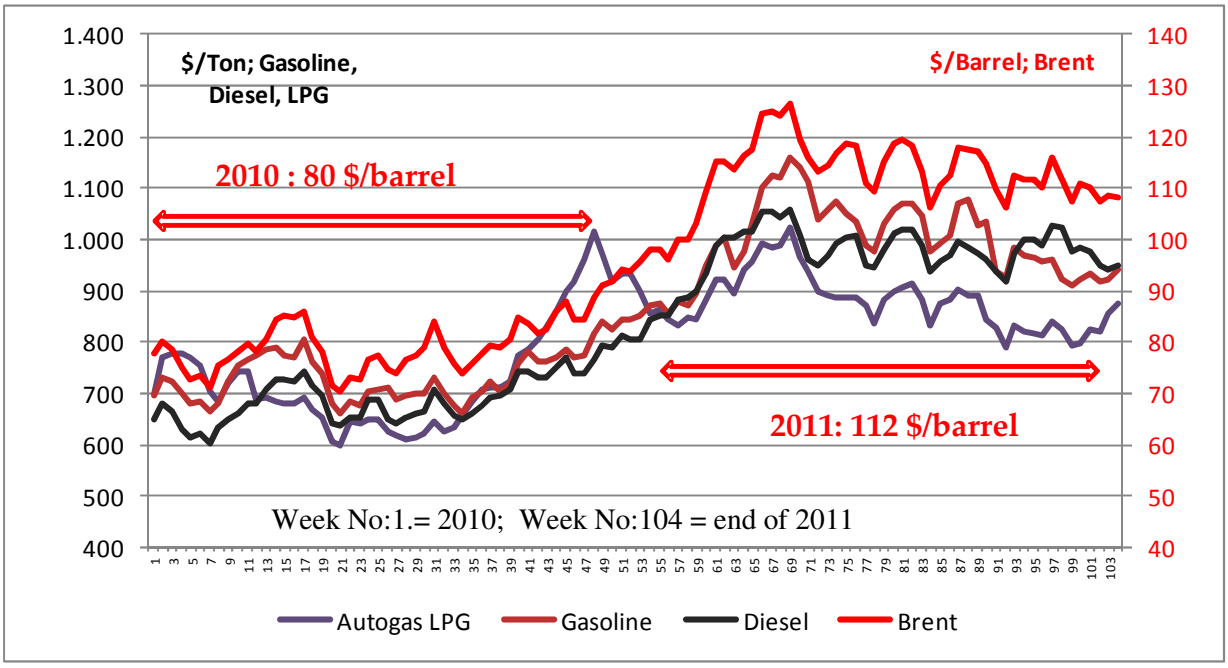

Figure 1: Brent crude oil ($/barrel), diesel and gasoline ($/ton) prices in the Mediterranean markets in 2010 and 2011 on a weekly basis.

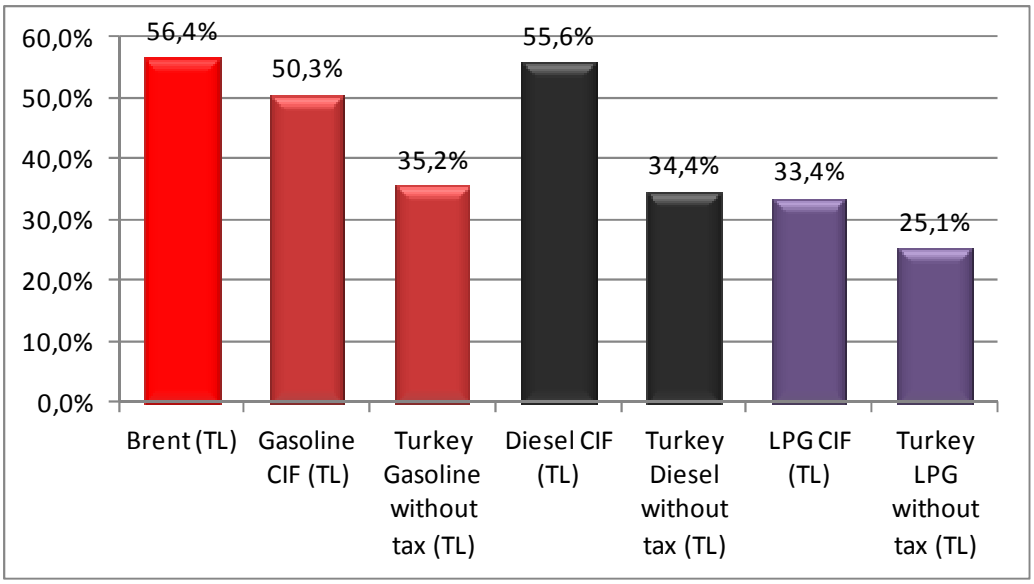

Figure 2*: Change rates the pump prices in Mediterranean markets and Turkey in 2011 (%, compared to the same period of the previous year)*

b) *Effects of world crude oil and product price changes over Turkish pump prices:*

The increase in the oil prices in the world oil markets, due especially to the political tension in the Middle East and North Africa, has been a matter of debate in Turkey in 2011. The four nearest free markets in the Mediterranean (Greece, Italy, France and Spain) are accepted as the nearest accessible free markets by EMRA Petroleum Market Law. Therefore the pump prices announced in Turkey as price cap are frequently compared to the pump prices in these four Mediterranean countries. Such benchmarks of pump prices must be free of tax effect and the comparisons should be made considering the exchange rate differences, other funds except the taxes and the distances to the supply points.

As PETDER, we have been carrying out studies for the development of a reliable comparison method for Turkey – Europe pump price comparisons. In such benchmarks, tax differences in different countries, local taxes and funds applied in different cities, product types, exchange rate effects, transportation elements in the price that is accepted as the refinery price and factors such as what periods the price includes and how it is calculated should be sorted out carefully. Moreover, national marker, which is a legal obligation in Turkey, national stock, financing of high SCT and the compulsory expenses due to road transportation should be taken into consideration. Otherwise, the benchmarks might naturally include errors and can cause to arrive at different conclusions. Hence in the recent years it has been observed that there have been many mistakes in such benchmarks and this kind of mistakes in the benchmarks have caused misinterpretations.

The ceiling pump prices in the capital cities of Italy, France, Greece and Spain, which are four important countries in the Mediterranean market taken as reference by Petroleum Market Law, have been compared with the ceiling pump prices in Istanbul European side published at EMRA website. The comparisons are based on data from the official websites of the abovementioned countries (http://geoportal.mityc.es/hidrocarburos/eess/; http://www.fuelprices.gr/PriceStats; http://www.prix-carburants.gouv.fr/; http://www.quotidianoenergia.it/check_up_prezzi_qe.php) and are purified of the tax and exchange rate effects. The figure below demonstrates the average gasoline and diesel ceiling pump prices (without tax) in Istanbul and in the capitals of Italy, France, Greece and Spain, four referenced Mediterranean countries, in 2011. As can be seen from the figure, 2011 average of the taxless pump prices of gasoline and diesel are approximately 10 kurus less than the prices in the four countries mentioned. Despite additional costs applied in Turkey due to specific legal and structural

requisites, Istanbul European Side pump prices without tax show that prices are consistent with and even below the average station pump prices without taxes in Rome, Athens, Paris and Madrid.

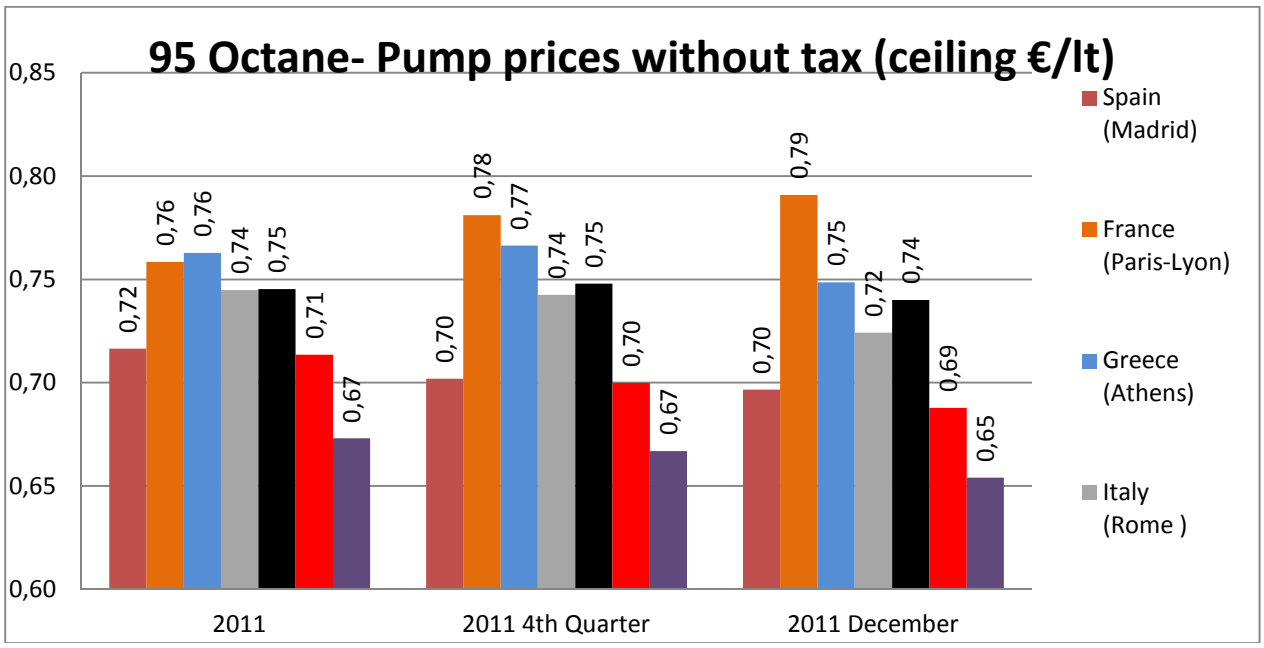

***Figure 3**: Comparison of gasoline ceiling pump prices without tax between the four Mediterranean countries (MED-4, Greece, Italy, France and Spain) and Turkey*

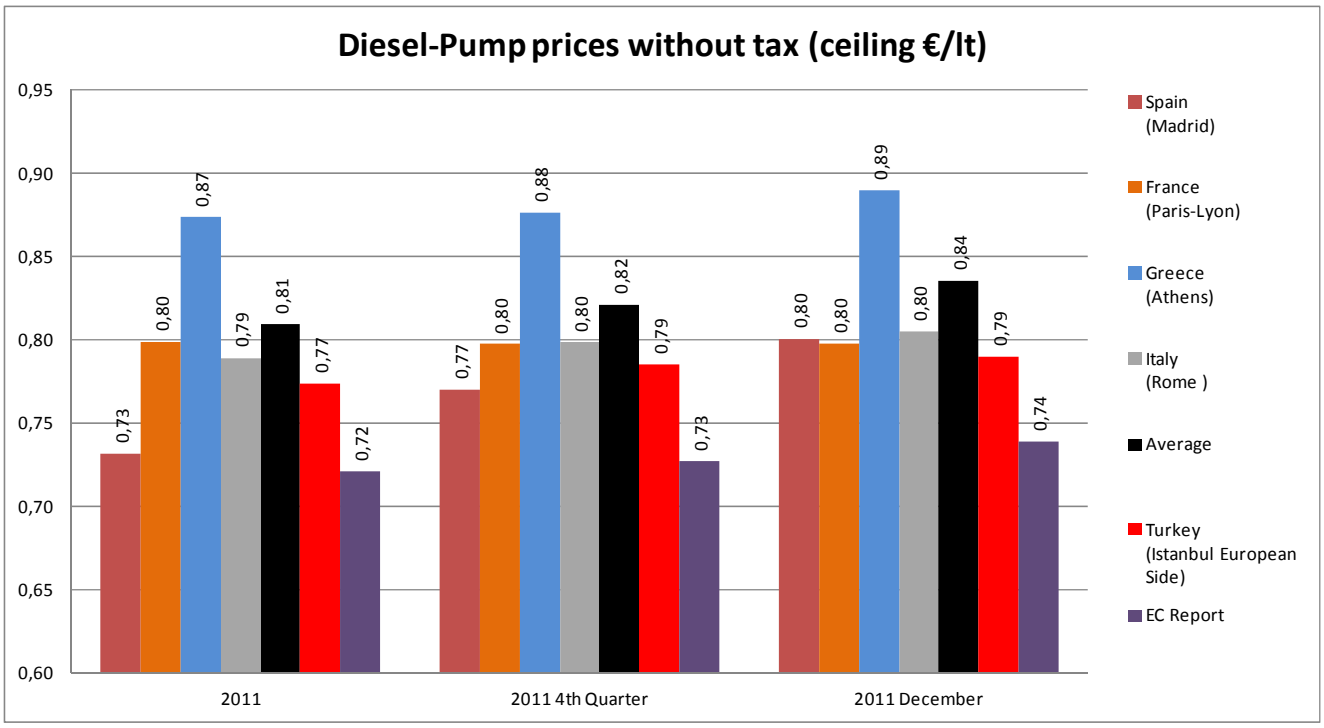

***Figure 4:** Comparison of dieselceiling pump prices without tax between the four Mediterranean countries (MED-4, Greece, Italy, France and Spain) and Turkey*

a) Special /differentiated products and Europe –Turkey comparisons;

According to technical regulations published by EMRA, the content of sulphur in all diesel types introduced to the domestic market in 2011 was restricted to 10 ppm effective from April 1st, 2011. Therefore, all the products (standard and special) offered at the stations are in full compliance with EU standards and the standard diesel sold from the pump can be used in all types of vehicles.

In addition to this important development, from the beginning of 2011, many companies in the sector began to offer their customers differentiated diesel products besides the standard 10 ppm diesel fuel. These products, in parallel with the European countries and other developed countries, have been among the most preferred products in Turkey. Therefore, EMRA has been closely following the pricing of these products, as well as the standard products. In addition, a letter regarding the pricing of these products has been sent to the companies by EMRA, which was considered as a direct market intervention. The chart below demonstrates the comparison of the pump prices of these special diesel types in the countries mentioned and in Turkey (Figure 5). The chart provides a comparison of the pump prices of special diesel types offered in three countries in the Mediterranean region and the pump prices of standard 10 ppm diesel fuel. Greece was not included in the chart due to the fact that these special diesel types are not offered to consumers in Greece.

The chart indicates that the taxless pump prices of the special diesel types are approximately 9 kurus lower in Turkey compared to the pump prices without tax in Italy, Greece, France and Spain.

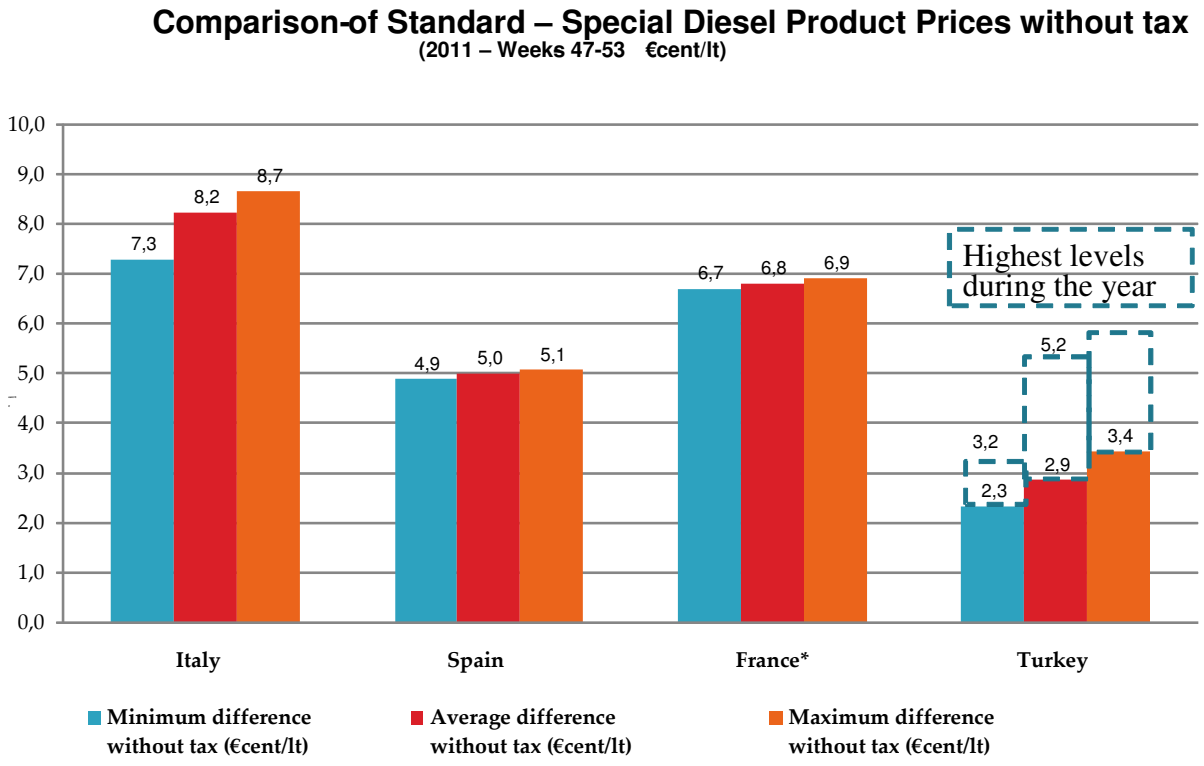

Figure 5: *Comparison of the ceiling pump prices without tax of special diesel products and standard diesel fuel in the Mediterranean countries (MED-4, Greece, Italy, France and Spain) and Turkey (€ cent/ lt)*

III. INDIRECT TAXES AND MARKET VOLUMES

a) SCT Applied to Automotive Fuels

As is known, indirect taxes construct a major portion of the prices reflected upon the consumer in the fuel market. The figure below demonstrates the total indirect tax amounts and shares (SCT + VAT) of automotive fuels as 2011 average. In 2011, indirect taxes applied to gasoline pump prices have been 2.53 TL/lt (60.4% of the pump price). This amount has been 1.86 TL/lt for diesel (51.1% of the pump price), 1.07 TL/lt for autogas LPG (46.1% of the pump price).

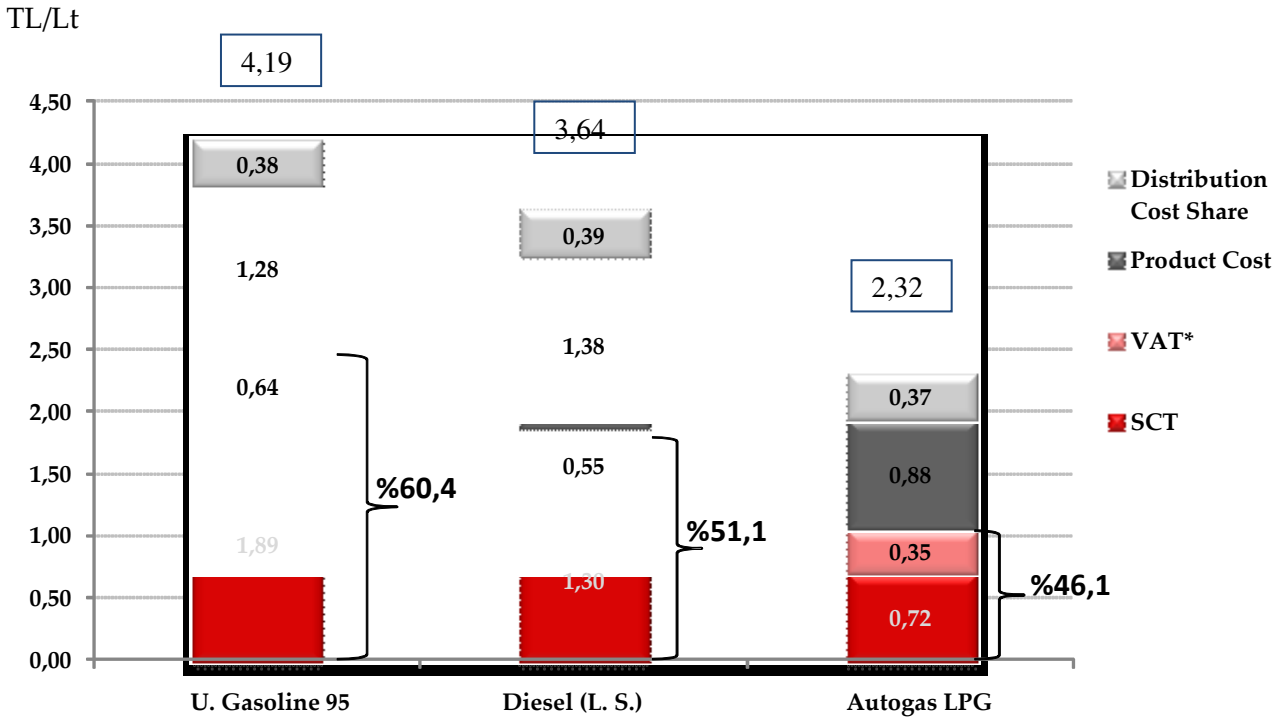

Figure 6: *Shares of indirect taxes, product costs, expenses and the profit margins of the distribution companies and dealers included in the pump price*
** 2011 average (source: PwC, EMRA reports and company websites)*

The total percentage of the indirect taxes in the pump prices has changed over the years due to oil prices, amount of SCT applied and exchange rates. The total share of the indirect taxes declined in 2011 compared to the previous year. Among all automotive fuels, the highest tax was applied to gasoline in terms of both amount and percentage and the lowest tax was applied to autogas (LPG). In 2011, average SCT amounts applied were as follows: for gasoline 1,8915 TL/lt, for diesel 1,3045 TL/lt, and for autoLPG 0,7157 TL/lt.

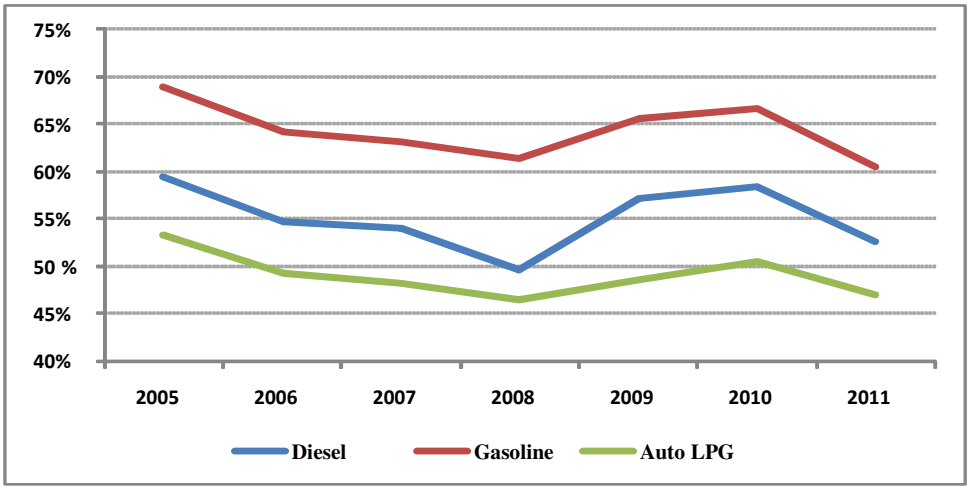

Figure 7: *The share of indirect taxes in the pump prices (SCT + VAT) (%)*

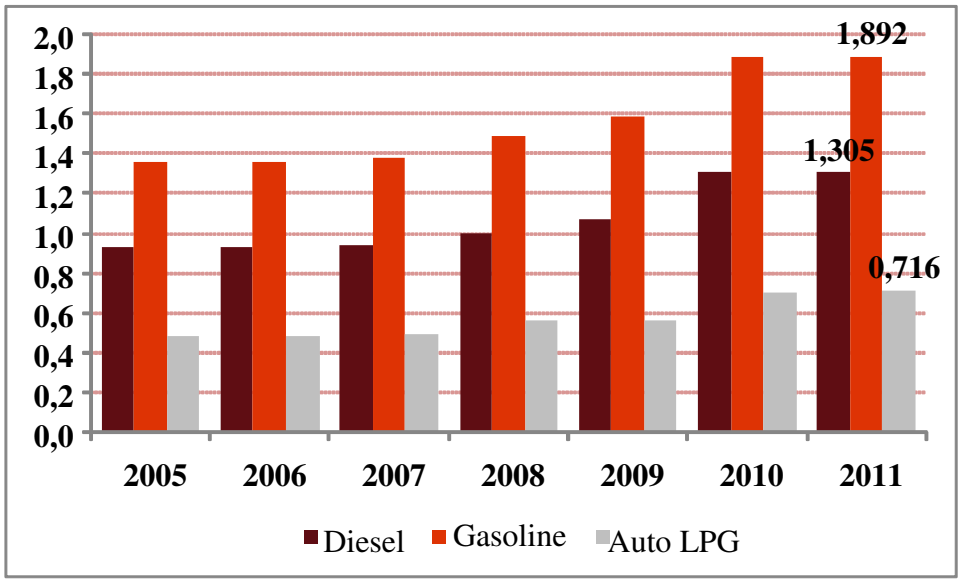

Figure 8 : *The changes in the amount of SCT applied to automotive fuels in the last five years (TL/lt)*

b) Indirect Taxes Collected from Automotive Fuels:

The total amount of the indirect taxes collected from fuel and LPG sectors has continuously increased every year although there has not been a significant increase in the total amount of consumption in the recent years. According to calculations based on consumption data, the indirect taxes collected from these sectors in 2011 have **increased by 10.2%** compared to the previous year and reached **45.9 Billion TL.** As can be seen in the following figure, it is calculated that the indirect taxes collected from the Oil Sector since 2005 have totaled **234 Billion TL**.

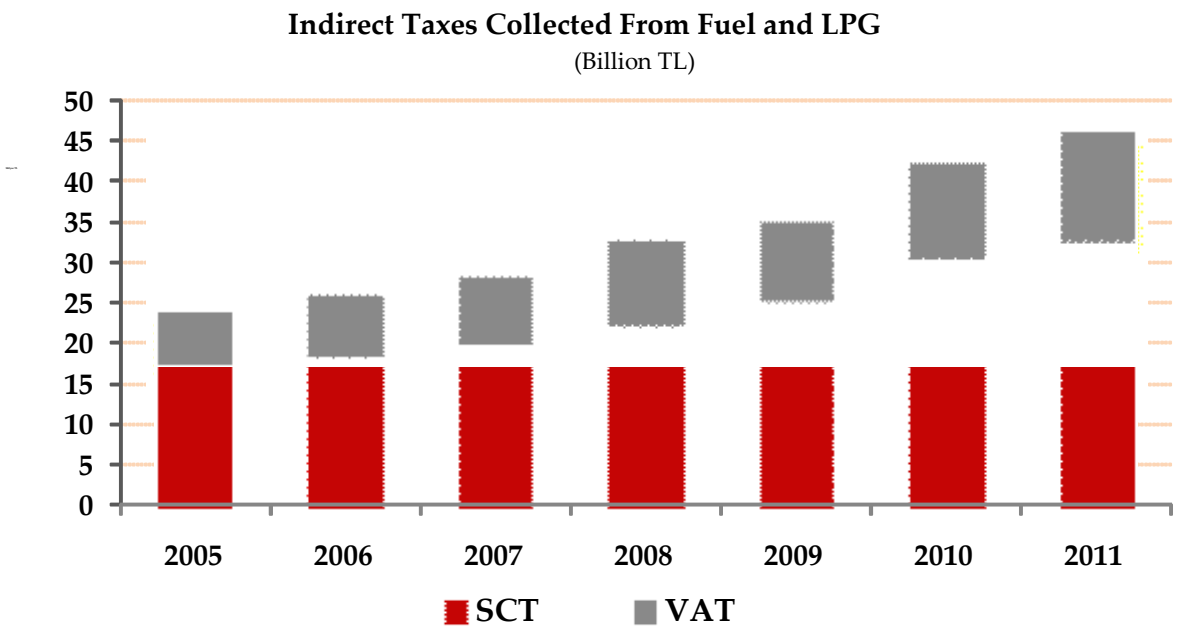

Figure 9: *The changes in the amount of indirect taxes collected from Fuel and LPG over the years*

Most of the indirect taxes in the fuel market are collected from diesel fuels as they have the highest consumption rate. In 2011, the indirect tax revenue collected from diesel increased by 14.8%. While the indirect taxes collected from gasoline decreased by 2.4% in 2011, the increase in LPG was 5.8%. These figures are displayed in the figure below.

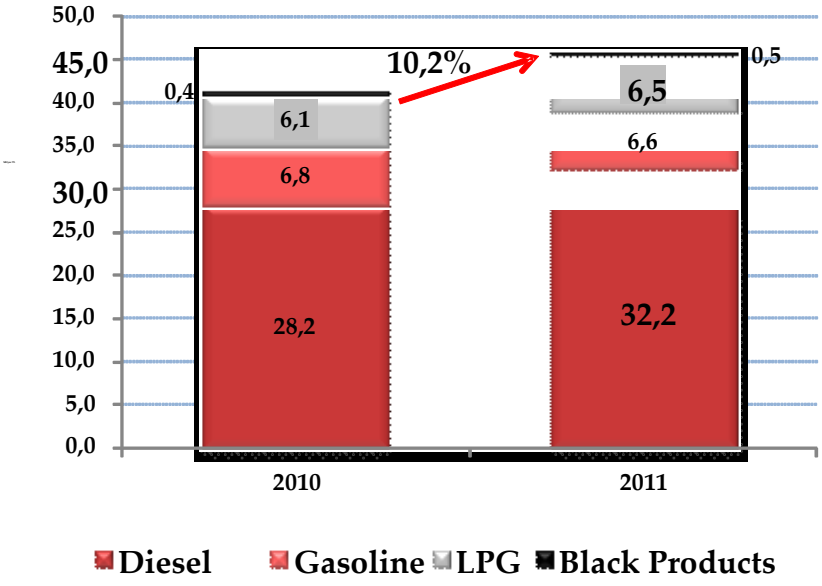

Figure 10 : *Shares of indirect tax revenue collected from automotive fuels in 2010 and 2011*

c) Taxes Applied to Automotive Fuels in Turkey and EU Countries:

When the taxes applied in Turkey, which constitute the major part of the pump prices, are compared to the taxes applied in EU countries, it is observed that Turkey's position as the country that taxes gasoline the most continues in this period. Turkey has the fourth place in diesel after the UK, Italy and Sweden. This comparison in gasoline is not limited to the EU countries; as highly voiced in the media and also stated in the reports published by several international institutions, Turkey is listed as the country that taxes gasoline the most in the world. Another issue observed in this period is that Greece and Italy have taken the second place in gasoline after Turkey following the tax increases and the financial crisis in these countries. The figure below demonstrates the average tax differences per liter between Turkey and EU countries in 2011.

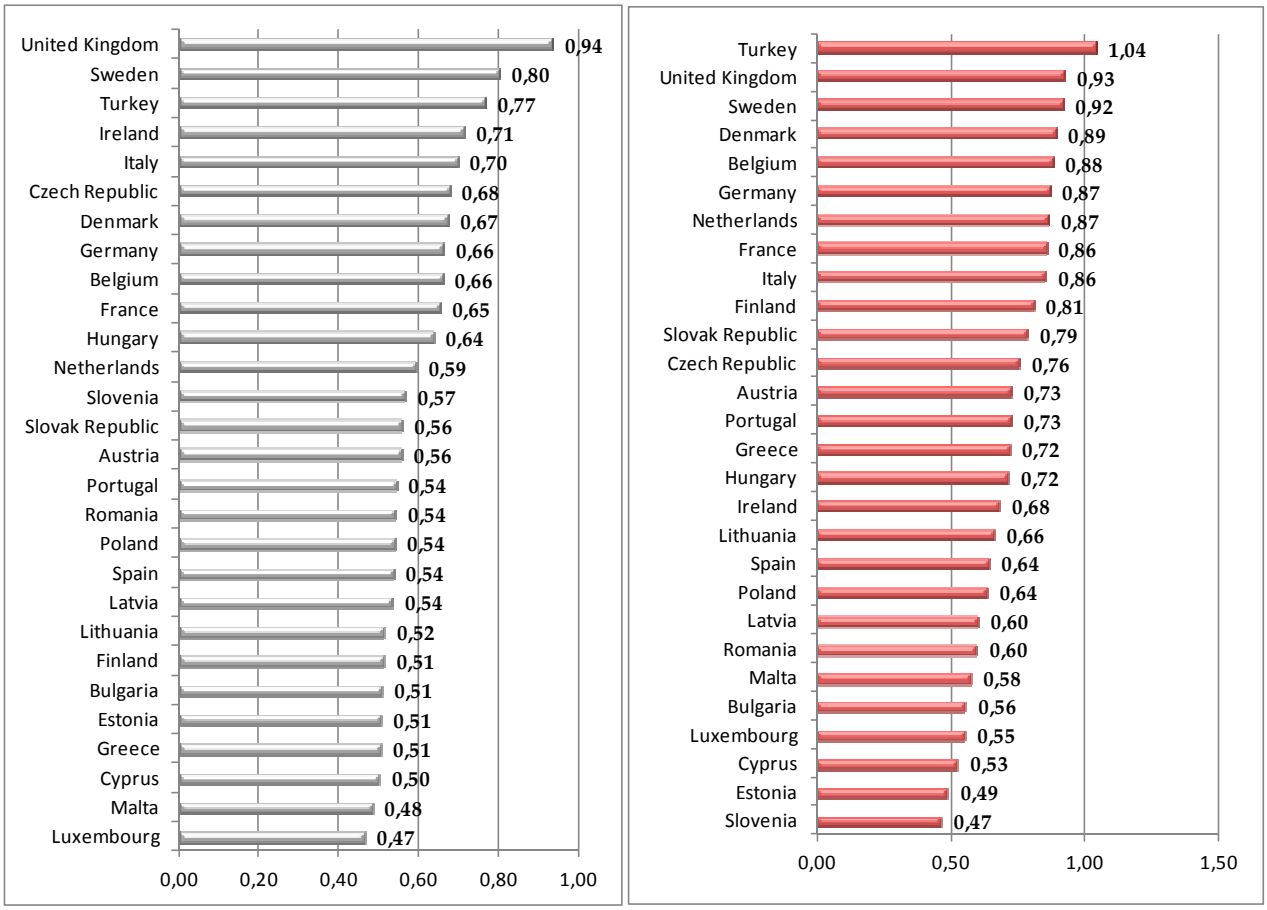

Figure 11: *Total indirect taxes applied to diesel (figure on the left) and gasoline (figure on the right) in Turkey and the EU countries (€/Lt), 2011Average (€/Lt),*

Besides creating adverse effects such as a decrease in consumption due to the high prices, another crucial point affecting the Turkish fuel market regarding the effects of high taxation is concerned

with the financing of this taxation. In Turkey the distributor companies pay high indirect taxes (SCT and VAT) at the time of purchase from refineries, receiving the payback of this transfer from the consumer in a prolonged period through financial tools such as credit cards, vehicle recognitions, crediting, sales through installments and so forth, thus, enduring the financial cost of the tax as well as the financial risk of it. High taxes and financing of taxes in the distributor sector is another burden affecting the cost structure, therefore these financial aspects and other structural differences need to be considered with care when making comparisons regarding pump prices between Turkey and Europe.

d) Market / Trading Volumes:

The total financial magnitude of the fuel sector in 2011 continued to increase as a natural result of the rising petrol prices and reached 86.6 billion TL.

The next two graphs below demonstrate sectoral magnitudes calculated for fuel and LPG comparatively and independently. Trade volume in the fuel + LPG sector **increased approximately by 22.7%** in 2011, producing a figure of **86.6 Billion TL.** In the same period, the LPG market volume reached **11.6 Billion TL** with an **increase of 16.1%.**

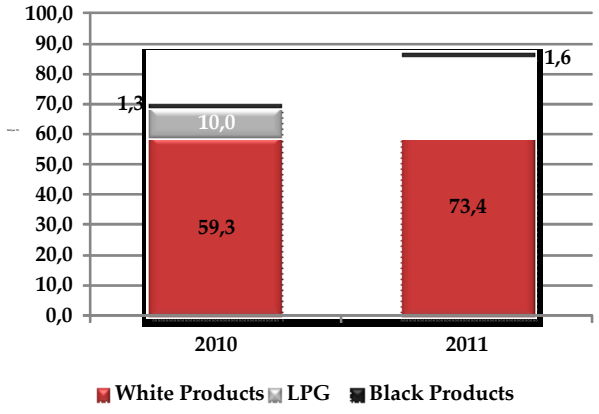

Figure 12: *Trade volumes in fuel (Billion TL)*

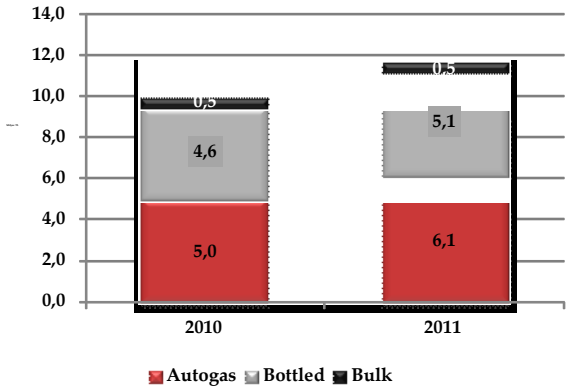

Figure 13: *Trade volumes in LPG (Billion TL)*

IV. IMPORTANT DEVELOPMENTS IN THE INDUSTRY:

b) *Distribution sector claims that their profitability has been in recession recently and that this situation affects the investments negatively*

The distrubutor companies' and the dealers' recent statements in the media and the balance sheets of the public companies initiated new debate regarding the profitability of the distribution sector. The letter regarding the pricing of the differentiated products mainly in the diesel market sent to the fuel distributor companies by EMRA in November 2011 accelerated these price based discussions. Following this letter, which has been regarded as an intervention to the Oil Market that leads the liberalization process in the Turkish energy markets, the distribution companies made alterations mainly on the pump prices of products with additives. They stated that these products are offered to consumers as additional options and drew attention to the problem of profitability in the sector.

In several reports and statements, it has been stated that the developments such as the price cap regulation in the market, the restriction of the contracts to five years including the existing contracts, the prohibition of promotional activities, intervention regarding the special or differentiated products affect the competition in a negative way and seriously impair the investment environment. In addition, illegal or illicit fuel activities, such as number 10 lube, cannot be obviated causing a continuous market loss for those who play fair and follow the rules.

Gross cost share/margin of the fuel distribution sector has not increased in TL currency in the last five years and has undergone significant inflation loss.

A general overview based on the refinery prices in the monthly sector reports published by EMRA and the pump prices in Istanbul European side demonstrates that the total gross cost share (margin) of the distribution system (dealer + distributor) has not increased in TL currency approximately for the last five years. Naturally, this affects the profitability of the distributors and the dealers negatively. As can be followed in the media recently, distribution sector is being diverted away from being a foreseeable and investible business.

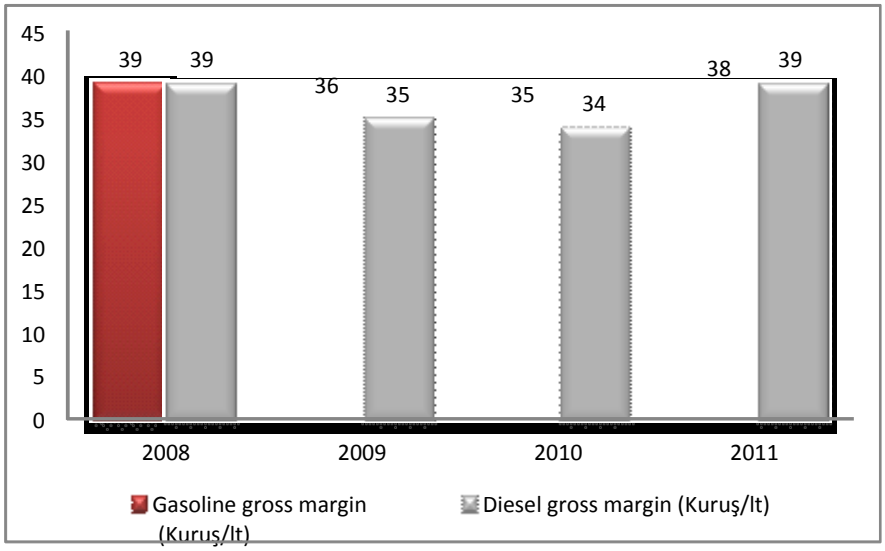

Figure 14: *The development of the total gross margins, including the cost and profit shares, of the fuel distribution sector (Distributor + Dealer) in the last five years. (TL/lt) (Calculations are based on the average ceiling pump prices of standard gasoline and diesel in Istanbul European side and taking the refinery prices published by EMRA into consideration)*
(Source: PwC Retail Fuel Distribution Sector and Return Analysis Report – 2011)

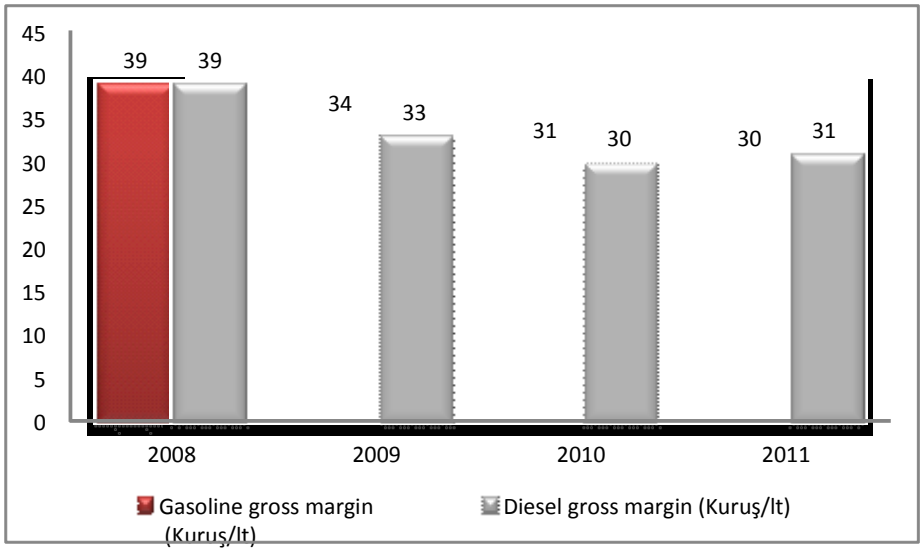

Figure 15: *The development of the total gross margins, including the cost and profit shares, of the fuel distribution sector (Distributor + Dealer) in the last five years disregarding inflation factor (TL/lt)*
(Calculations are based on the average ceiling pump prices of standard gasoline and diesel in Istanbul European side and taking the refinery prices published by EMRA into consideration)
(Source: PwC Retail Fuel Distribution Sector and Return Analysis Report – 2011)

In this part of the sector, called portion of expense / margin, the distributors and dealers cover all the expenses, investment shares and the profits and it serves as a guarantee for the distribution sector. This margin, which is calculated by deducting the taxes and the announced product costs from the ceiling pump prices and theoretically without including company data, has decreased by %25 in TL currency since 2007 due to inflation. It is stated that the contract renewal costs paid to the dealers by the distributors for the renewal of the existing contracts and restriction of contract terms to five years as a requirement of the Competition Authority Decision in 2010, the compulsory investments due to legislation and cost increases and the distributor margins decreasing continuously due to inflation affect the investors and the commercial sustainability in the sector negatively.

c) Number 10 Lube problem continues to grow despite the SCT regulation:

The Ministry of Finance issued a SCT regulation on lubricants with the decree of the council of ministers on September 14 in order to prevent the illegal, illicit fuel activities that have been widely carried out and that have been a serious threat to public and environmental health and to stop the tax loss that has exceeded 3.5 Billion TL over the last three years. Following this, the Ministry has issued an amendment on September 21 regarding deferment / cancellation mechanism and made additional significant adjustments regarding the CPA reports used in deferment / cancellation practice which comprises the biggest part of the problem. According to this, the SCT for lubricating preparations, which was 30 kurus per kilogram, was increased to TL 1,065 and equaled to the SCT for lubricating oils. Also, with the increase of the deferment rate of these products from 95% to 98.75%, in a sense, the industry wasn't affected by the SCT increase.

In addition, EMRA published the Mineral Oil Communiqué which was expected to provide a solution to the problem. **Despite these significant improvements, this problem has not been resolved yet and observations in the market reveal that the lubricants that are purchased without paying SCT (with the latest increase) to be used in the production of industrial products are introduced to the market as number 10 lube under different names.** Recently, with the news on the media, it has been understood that large scale shipments of number 10 lube take place everyday and that illicit fuels are used in buses under different names.

Prior to this, it was stated that the main aim of the Communique regarding the Packaging and Entry to the Market of Mineral Oils, which was published on February 12, 2011 by Energy Market Regulatory Authority, was to prevent the illegal/illicit fuel activities carried out under the name of number 10 lube. However, despite the administrative and legal measures taken, at this stage it is obvious that number 10 lube problem increasingly continues. The table and the figure below demonstrate the amount of lubricants that enter the domestic market as **Demand Surplus** and mainly through import. According to this table and the figure, by the end of December, the amount of lubricants introduced into the market as surplus is 1.047.987 tons. This data indicates that the size of the fraud activities carried out under the name of number 10 lube has scaled up compared to last year. This situation can be observed in the figure below:

Base Oil (TON/YEAR)	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**
Base Oil Imported	213.514	307.402	466.211	438.263	605.766	955.659	1.046.248
Mineral Oil Imported	27.492	29.562	42.596	70.091	61.942	75.368	106.188
Additives Imported	28.930	35.948	46.220	79.849	67.471	70.688	71.324
Base Oil Refinery Sales	339.000	306.000	308.000	252.000	244.000	316.426	380.104
						1.418.141	**1.603.864**
Base Oil Exported	-	-	242	30.504	13.571	1.366	1.048
Mineral Oil Exported	142.781	8.969	133.928	113.571	116.633	143.338	138.245
Additives Exported	5.564	7.039	9.733	15.257	20.251	10.958	5.583
Mineral Oil Domestic Sales	339.000	360.000	388.000	386.000	362.000	416.000	411.000
						571.662	**555.877**
						846.479	**1.047.987**

***Table 3**: Consumption of Lubricants*

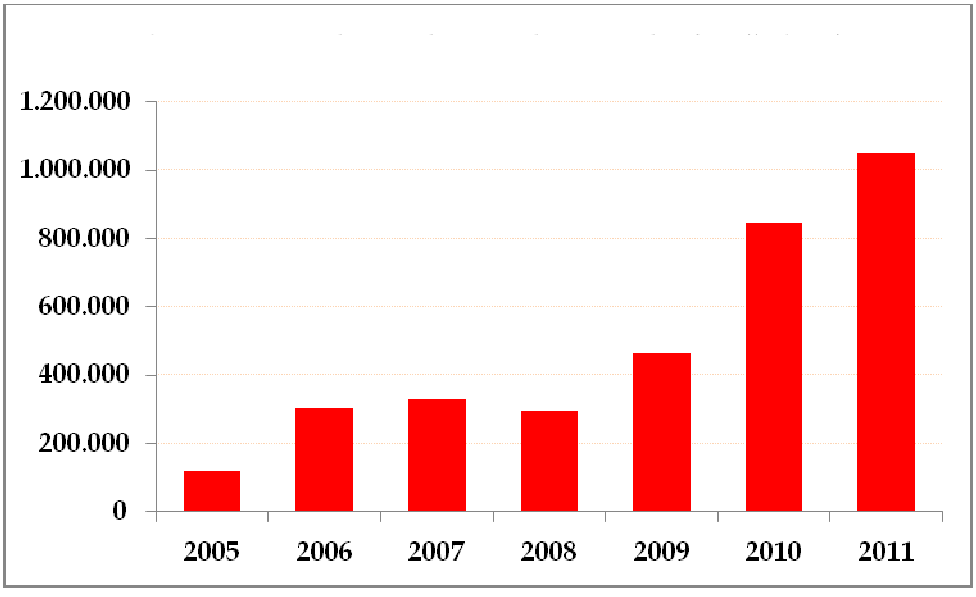

***Figure 16**: The amount of lubricants that enter the domestic market through import as demand surplus*

These tables clearly demonstrate the increase in surplus lubricants (domestic consumption + the amount after export) entering the domestic market. As a result of the difference between the SCT of lubricants and diesel and abusing the deferment / cancellation mechanism implemented as an incentive for industrial production, illegal/illicit fuel activities under the name of number 10 lube in Turkey continue.

Number 10 lube problem became a serious concern after the tax regulation in 2008 and t**he tax loss in Turkish economy caused by such illicit fuel activities has reached 5 Billion TL.**

d) EMRA decision regarding the obligation of blending domestic agricultural biofuels to gasoline and diesel has come into force. The amount that will be blended will be increased gradually every year.

EMRA published its final decision on Biofuels in a Communiqué in September. According to the Communiqué published, by January 1, 2013, it will be mandatory to blend 2% domestic agricultural bioethanol in gasoline and by January 1, 2014, to blend 1% biodiesel in diesel. The amounts that will be blended will be 3% maximum and will be increased gradually until 2016. The calendar and the goals projected in the decision are completely in accordance with the general attitude of the sector. However, it is not yet certain who will blend the fuel and how the blending process will be carried out. The meetings with EMRA officials indicate that this issue will be clarified at the sectoral meetings in the following months.

When the mentioned goals are evaluated in terms of our capacity of domestic agricultural production (Table 4);

- it is observed that the production of domestic agricultural products is sufficient for Bioethanol and that the already established facilities are able to supply this demand in terms of capacity, technology and quality. Therefore, no significant problems are anticipated regarding bioethanol. Informative regulations that will explain the technical aspects of the blending process in the following years are expected.

- in terms of biodiesel, however, the vegetable oil production as a domestic agricultural product is not able to supply the demand for blending that will exceed 500.000 tons per year after 2016 and the vegetable oil production gap is growing in Turkey. This situation indicates that efficient agriculture policies that will provide the necessary conditions for sufficient production for biodiesel

are required. It is also necessary to prevent illegal/illicit fuel activities reagarding biodiesel, in order not to experience the negative incidents that had taken place in the previous years again.

The table below displays the amount of domestic agricultural biofuels that will be required in the following years based on the current consumption amounts. According to this table, for example, in 2016 ~570.000 m^3 of domestic agricultural biodiesel will be blended with diesel. This amount means that, in addition to the annual vegetable oil import of 1.5 million tons, it will be necessary to double the current amount of vegetable oil production.

	2013	2014	2015	2016	2017
Bioethanol Blending %	**2%**	**3%**	**3%**	**3%**	**3%**
Bioethanol Demand m^3	**50.000**	**75.000**	**75.000**	**75.000**	**75.000**
Biodiesel Blending %	**0%**	**1%**	**2%**	**3%**	**3%**
Biodiesel Demand m^3	**0**	**180.000**	**370.000**	**570.000**	**590.000**

Table 4: *Estimated values of blending*

V. OIL INDUSTRY STATISTICS:

a) Diesel Fuels

According to data published by EMRA in December, total consumption of **diesel fuel** types (diesel fuel and off-road diesel fuel) in 2011 reached **17.4 million m3** with an **increase of 5.7**% compared to 2010.

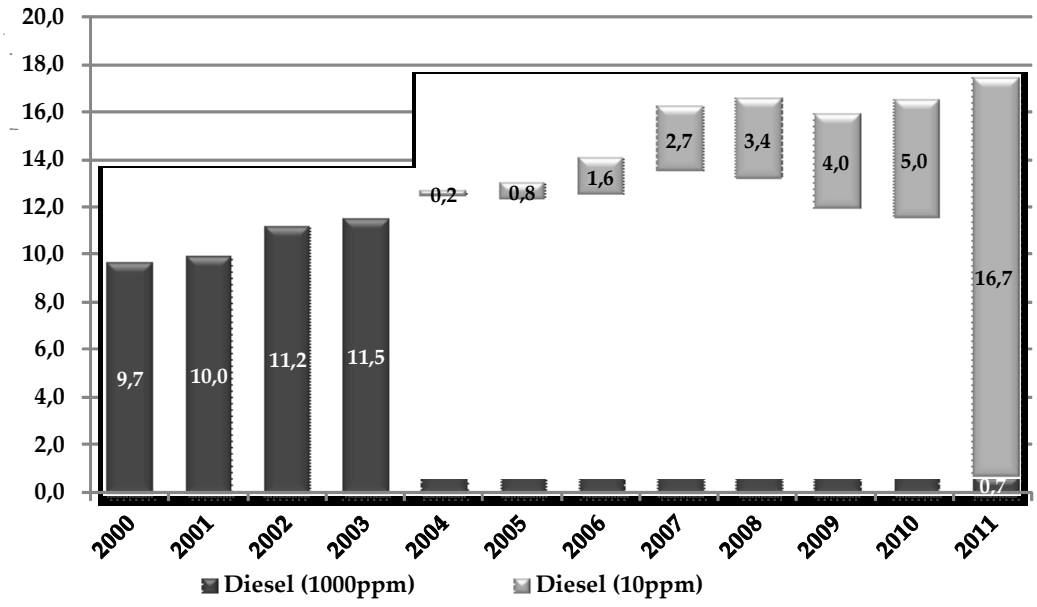

Figure 17: *Changes in the total diesel consumption (Million m³)*

As a result of the removal of high sulphur off-road diesel from the market following the Communiqué published by EMRA in April, the share of high sulphur diesel in total diesel fuel consumption, which had constituted 70% of the total diesel fuel consumption the previous year, declined to 4.1% after the final stocks at the pumps were sold out in January and April. As of April 1, 2011, all diesel fuels at the pumps are being offered to consumers in Turkey as low sulphur (10 ppm) diesel fuel. Similarly, gasoline and diesel fuels are in full compliance with EU standards. Therefore, the restriction of the sulphur content of the gasoline and diesel fuels to 10 ppm as a result of the harmonisation process to EU Legislation regarding fuel quality, the amount of pollutant emissions decreased significantly. According to the report published by PETDER in September 2010, the amount of emissions is expected to be reduced 9.900 tons every year.

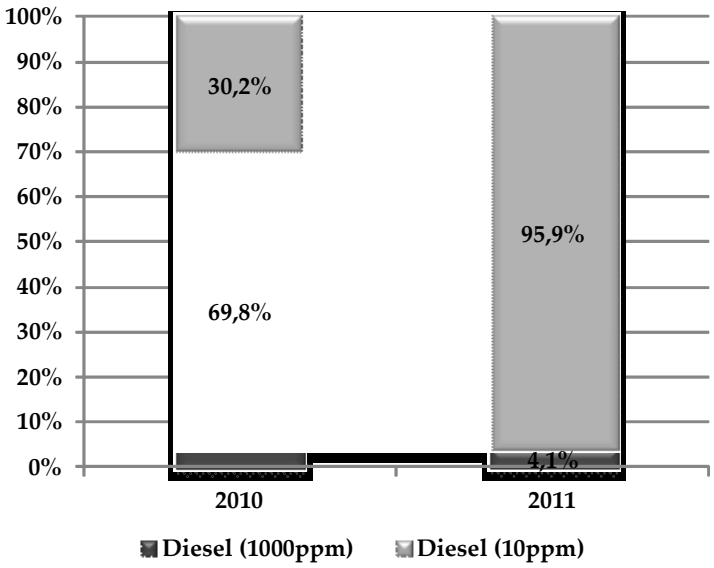

Figure 18: *Shares of off-road diesel and standard diesel fuel in total diesel consumption in 2010 ana 2011 (%)*

b) Gasolines

In 2011, total gasoline consumption **decreased** by **5.4%** compared to 2010 totaling **2.6 million m³**. The price advantage of LPG Autogas due to lower SCT and the increased use of diesel vehicles (the number of diesel powered vehicles increased by 663.244 in the first eleven months of 2011) have had a significant role in the decline in gasoline consumption.

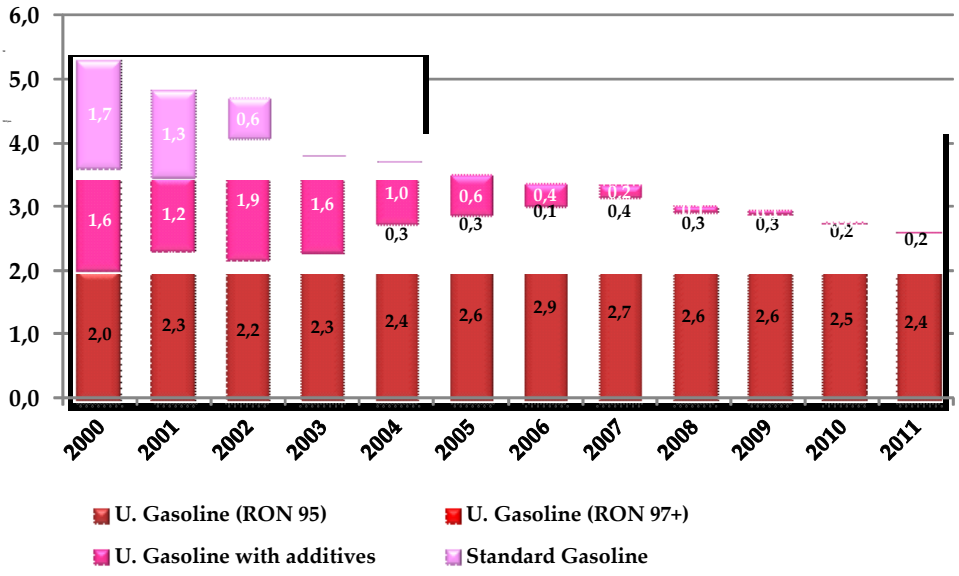

Figure 19: *Change in total gasoline consumption over the years*

Gasoline 95 Octane has the highest share (91.4%) in total gasoline consumption. The consumption of unleaded gasoline with additives that is used in older vehicles declined drastically almost reaching a near end.

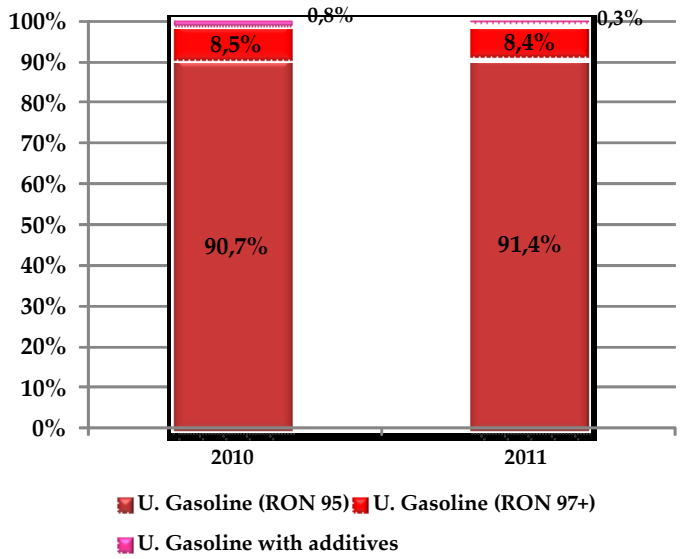

Figure 20: *Shares of 95, 97 Octane gasoline and gasoline with additives in total gasoline consumption*

c) Automotive Fuels

The total automotive fuel (*Gasoline, Diesel Fuels and LPG Auto-gas*) consumption **increased** by **4.4**% compared to the previous year and reached **24.8 million tons** in 2011. The following chart demonstrates the consumption progression for the last ten years for all automotive fuels. The upward trend in the consumption of automotive fuels that began in 2003 has been induced since 2007.

Besides the economic crisis in 2009, the fact that there has been a considerable increase in the number of vehicles in transit in Turkey and not a corresponding increase in the consumption of fuels can be explained by number 10 lube and other such products that are being used excessively in lieu of automative fuels.

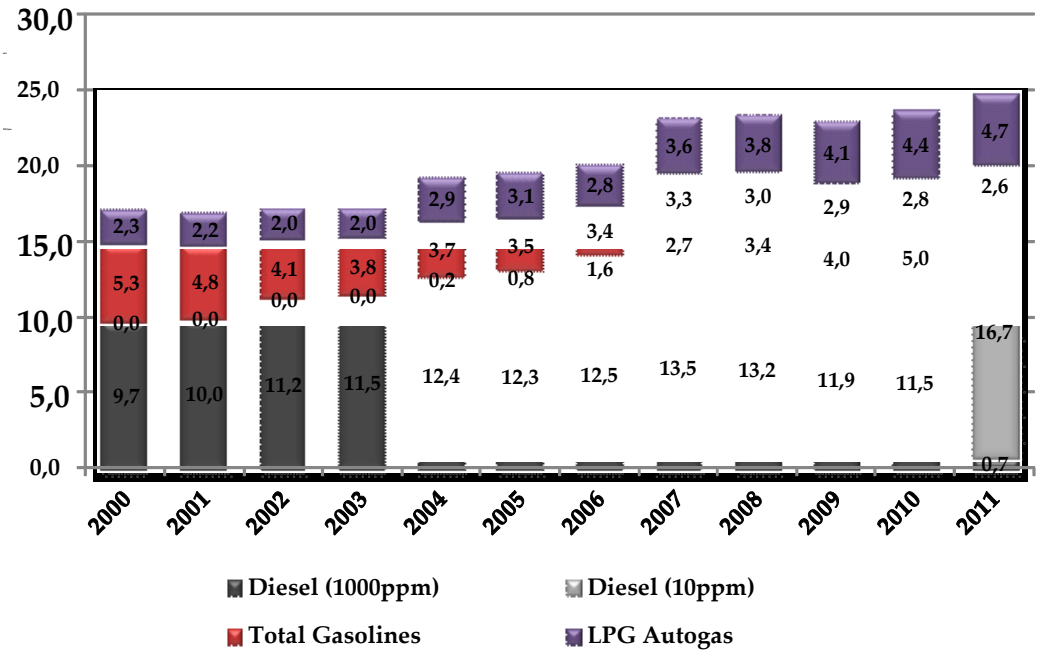

Figure 21: *Changes in the amount off automotive fuel consumption over the years*

Among the automotive fuels, the shares of diesel (low sulphur) and LPG Autogas have been increasing while shares of gasoline and off-road diesel in total consumption have been decreasing. This is shown in the figure below. The figures given in Figure 22.a and Figure 22.b indicate that the share of autogas (LPG) in automotive fuels constantly grows reaching twice the size of the gasoline share. Autogas constitutes 19% of the total automotive fuel market.

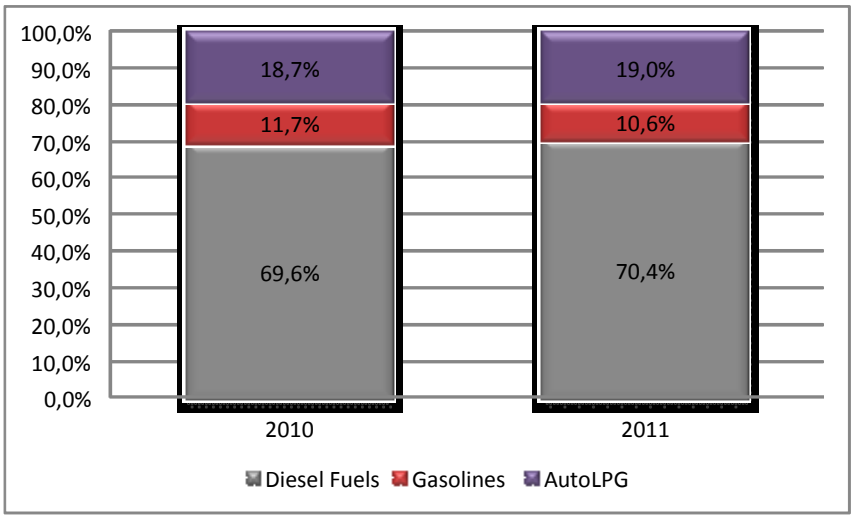

Figure 22.a: *Shares of automotive fuels consumption (volume based %)*

Gasoline to LPG transition can best be observed in the shares of total Gasoline-LPG consumption shares. While in 2010 autogas LPG constituted 61.6% of the LPG Autogas and Gasoline market, in 2011 the share of LPG increased to 64.3%.

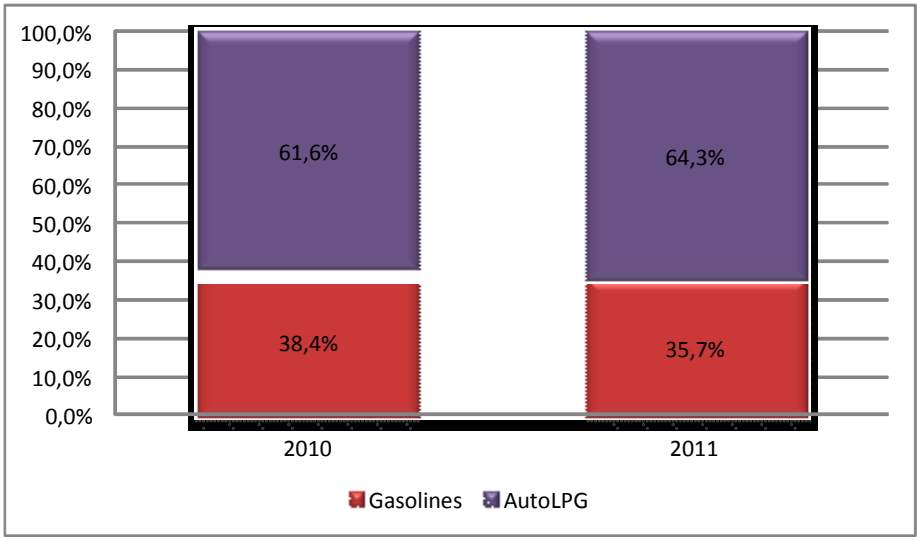

Figure 22.b: *Shares of gasoline and autogas LPG consumption in 2010 and 2011 (volume based %)*

d) Black Products (Fuel oil, heating oil)

In 2011, black product consumption totaled approximately **793 thousand ton**s with a **decrease of 4.9**% compared to the previous year. In this period, **heating oil** consumption totaled **195 thousand tons** with a total **decrease** of **4.2**% and **Fuel Oil No: 6** consumption totalled **598 thousand tons** with a total **decrease** of **5.1**%. Hence, the progressive decline in black products has continued in 2011 due to the wide penetration of natural gas into the market. The changes in black products consumption can be seen clearly in the following graph.

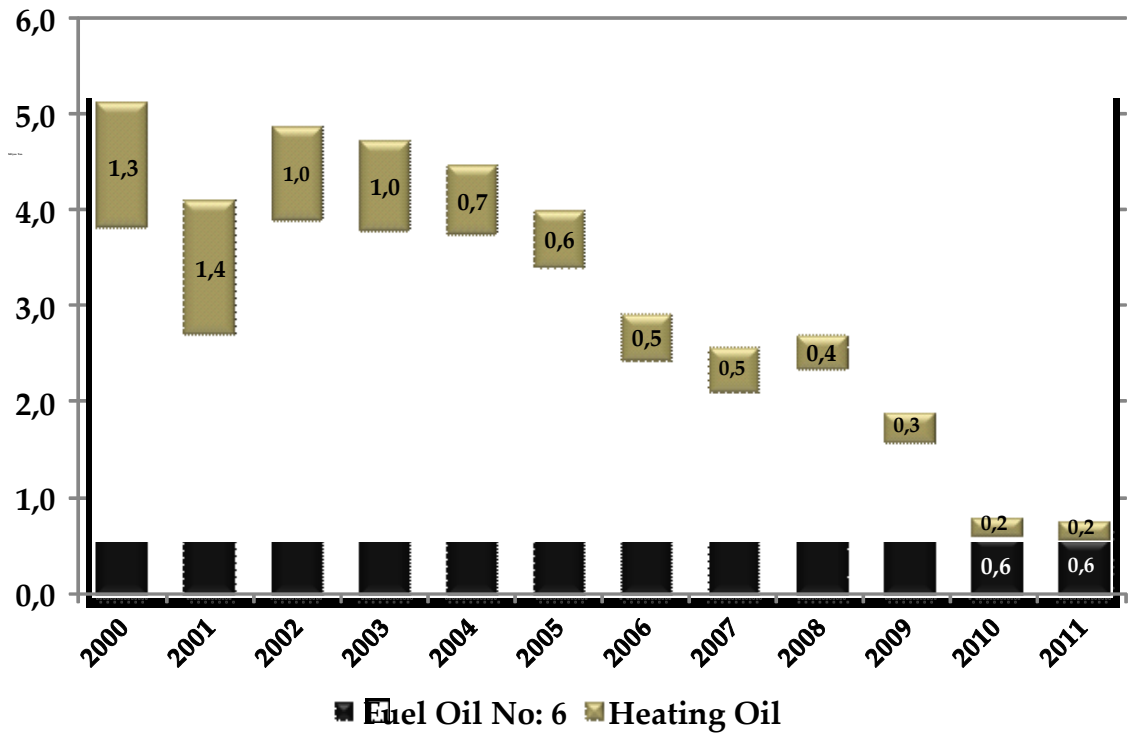

Figure 23: *Change in black products consumption over the years*

The decline in fuel oil and heating oil consumption is primarily caused by the deep penetration of natural gas into the sector.

e) Fuels

Total fuel (*Gasolines, Diesel Fuels, Kerosene, Heating Oil and Fuel Oil*) consumption totaled approximately **17.6 million tons** in 2011 with an **increase** of **3.9**%. As the chart below demonstrates, fuel consumption after having excelled in 2007 and 2008 has fallen back in 2009 and 2010. This change is in great part due to the contracted consumption of black products because of the transition to natural gas, the adverse effects of the economic crisis in 2009 and the negative effects of number 10 lube consumption over off-road diesel consumption.

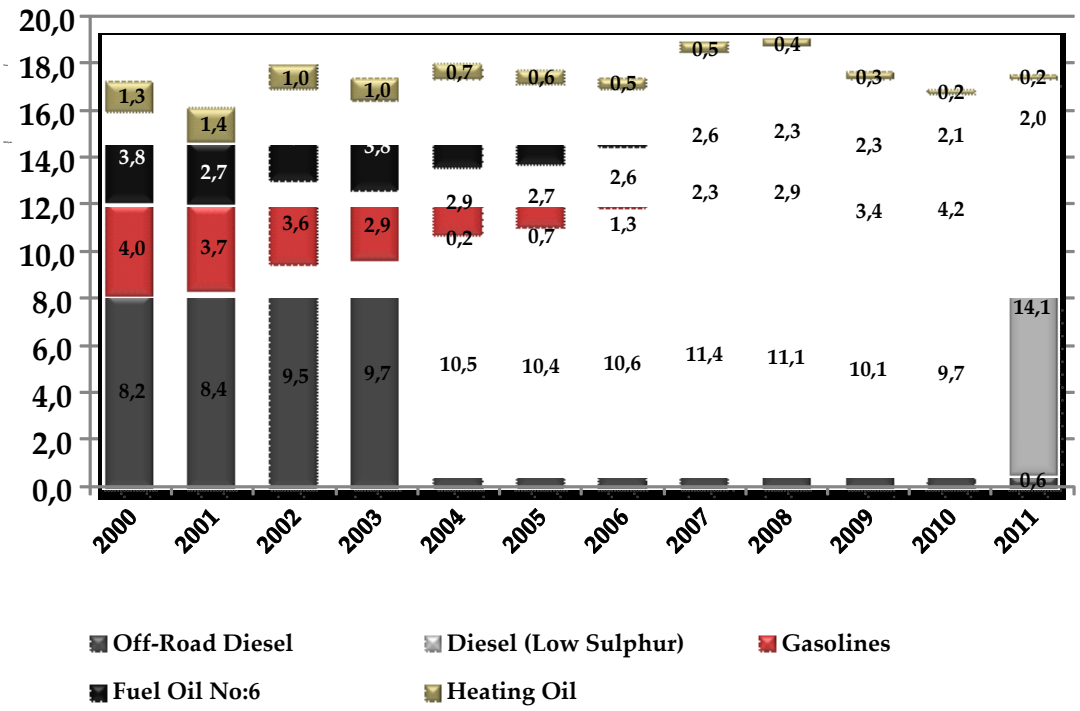

Figure 24: *Changes in total fuel consumption*

The shares of fuel types in total fuel consumption are given below and no significant change can be observed.

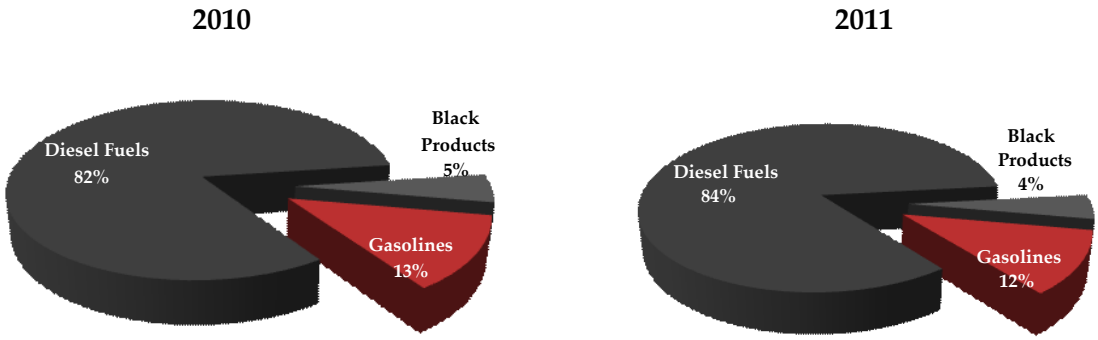

Figure 25: *Shares of fuel types in total fuel consumption (%)*

f) Lubricants

Lubricant consumption data in this report is consolidated through data obtained from ALPET, BP, CASTROL, LUKOIL, OPET, POAŞ, SHELL, TOTAL, and MOIL and through data obtained from EMRA, PIGM and Ministry of Environment and Forestry. According to these data the total amount of

lubricant consumption in 2011 **decreased** by **0.9**% compared to the same period of the previous year and totaled 410.600 tons.

According to Energy Market Regulatory Association data there are 310 facilities in Turkey active in mineral oil production. According to EMRA report, mineral oil production capacity in Turkey was 4.370.000 tons by the end of 2010.

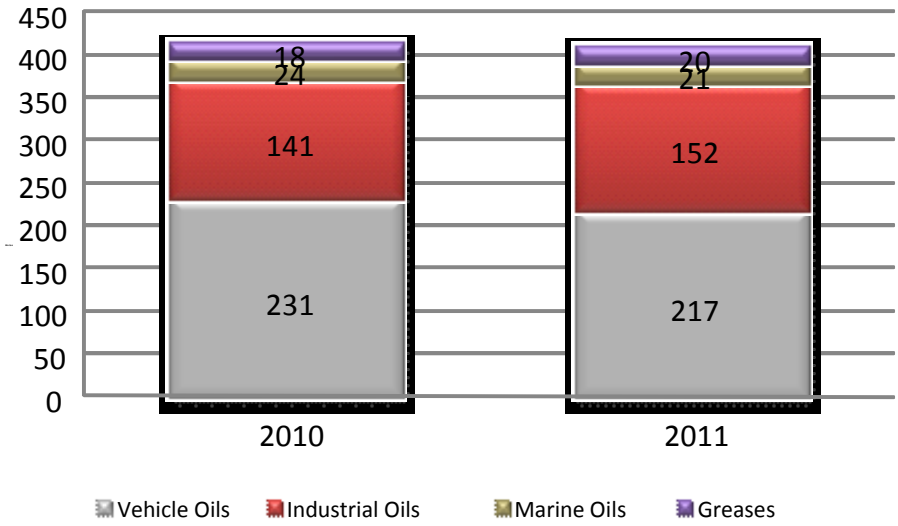

Figure 26: *Consumption values of lubricants in 2010-2011 (Thousand Tons)*

In 2011 total mineral oil consumption shares have been as follows; 53% Vehicle Oils, 37% Industrial Oils, 5% Marine Oils and 5% Greases.

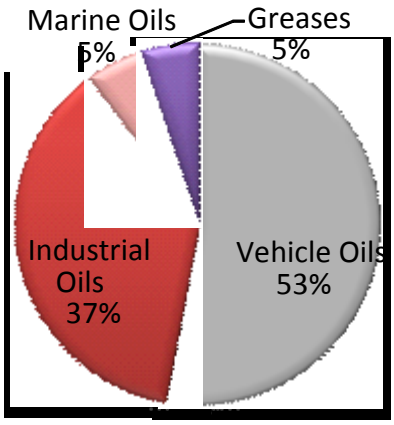

Figure 27: *Shares of product gorups in lubricanst in 2011 (%)*

a) Vehicle Oils

Turkey's total vehicle oil consumption has reached **217 thousand tons in 2011 with a decrease of 6.1%** compared to the previous year. While the amount of gear and transmission oils consumed was 34 thousand tons and engine oil consumption was 197 thousand tons in 2010, in the same period of 2011, gear and transmission oil consumption reached 34 thousand tons and engine oil consumption totaled 183 thousand tons.

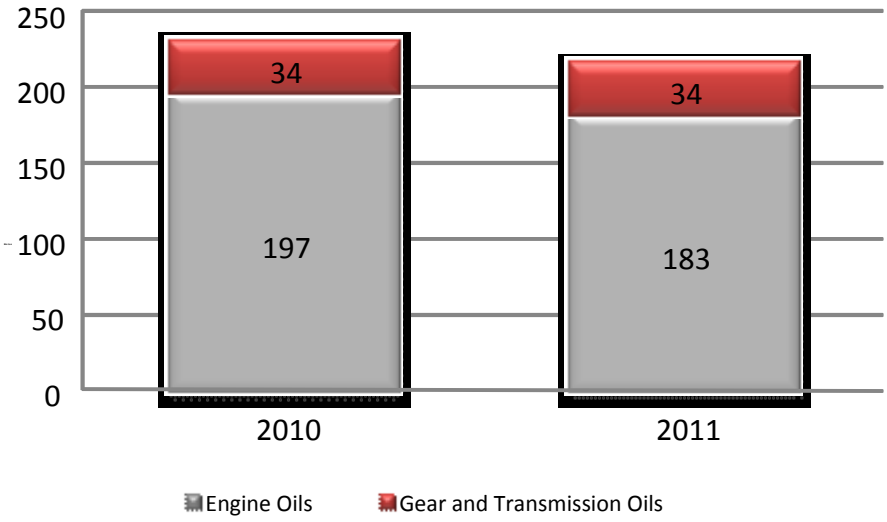

Figure 28: *Vehicle Oil consumption values for 2010 and 2011*

b) Engine Oils

In 2011, consumption of engine oils decreased by **7.1**% compared to the same period of 2010 and totaled **183 thousand tons.** In this period engine oils share in total lubricants consumption has been approximately 45%. The below figures provide comparisons of engine oil consumptions across 2010 and 2011.

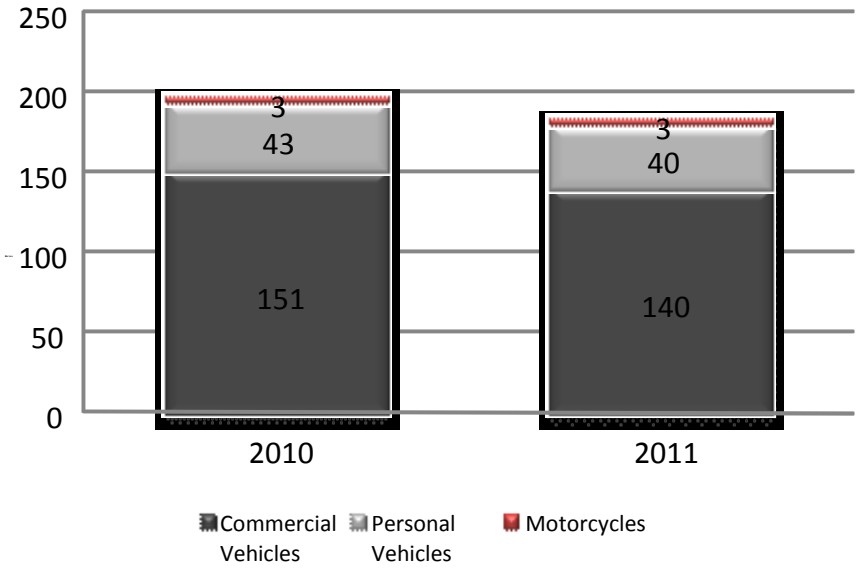

Figure 29: *Engine Oil consumption values for 2010 and 2011*

c) Industrial Oils

Total consumption of industrial oils (hydraulic, processed, other) reached approximately **152 thousand tons** in 2011 with an **increase** of **7.8**%. During this period, industrial oils had approximately a 37% share within the total lubricant products. The comparative charts of industrial oil consumption are given below;

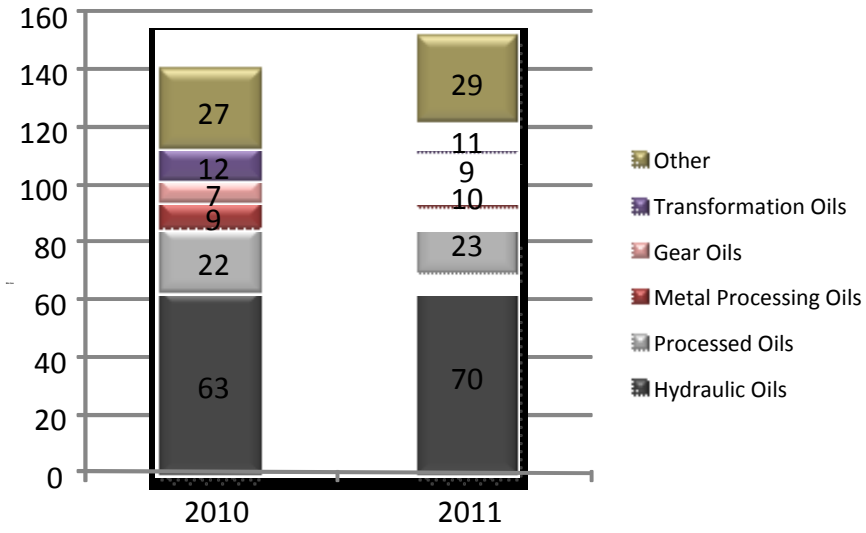

Figure 30: *Consumption values of industrial oils in 2010 and 2011*

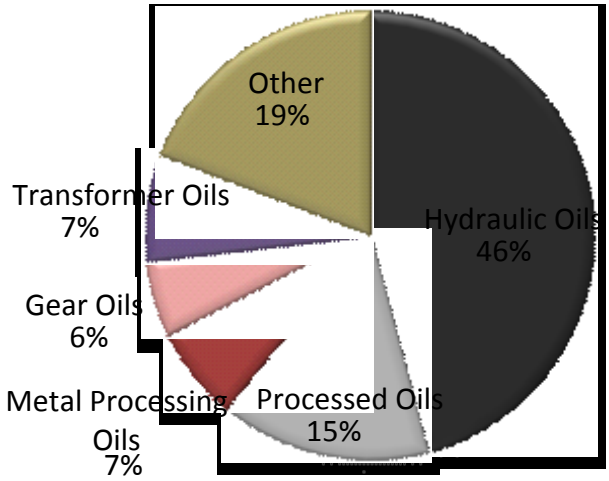

Figure 31: *Shares of product groups in lubricants in 2011 (%)*

d) Special Products (Antifreeze and Hydraulic Brake Fluids)

Antifreeze and hydraulic brake fluids produced in mineral oil facilities have **increased by 2.4%** compared to last year's figures and has reached **54 thousand tons** in total.

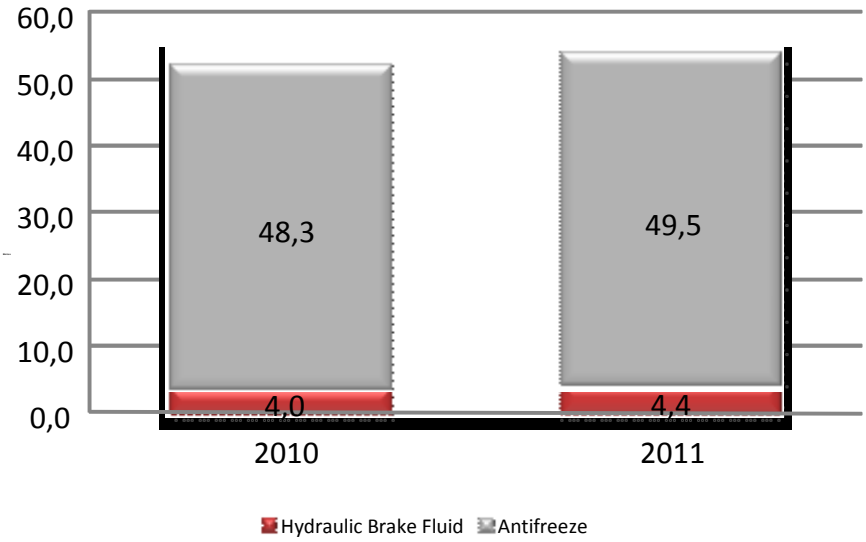

Figure 32: *Consumption values for antifreeze and hydraulic brake fluid in 2010 and 2011*

VI. OTHER DEVELOPMENTS IN THE SECTOR- RELATED SECTORS

a) Actors in the Oil and LPG markets

4 refineries, 50 distributor companies, 102 storage facilities, and 12,326 fuel stations are actively participating in the petroleum market with EMRA's licenses as of December 2011. In the Liquefied Petroleum Gas (LPG) market, 70 distributor companies, 79 storage facilities, and 9,377 autogas stations are actively participating with EMRA's licenses. The table below demonstrates the number of licenses in Oil and LPG markets in the last five years. Some of the significant issues regarding the table are:

- The number of autogas stations continues to increase.
- The number of fuel stations decreased for the first time in 2011.
- While the number of fuel distribution companies have not increased in the last three years, the number of LPG distribution companies continues to increase.

	2006	2007	2008	2009	2010	2011
Refinery Licenses	**4**	**5**	**5**	**5**	**6**	**6**
Fuel Stations	**11.543**	**11.645**	**12.317**	**12.702**	**12.894**	**12.326**
Distributor Licenses	**51**	**47**	**45**	**54**	**53**	**50**
LPG Stations	**5.686**	**6.586**	**7.702**	**8.163**	**8.721**	**9.377**
LPG Distributor Licenses	**56**	**58**	**61**	**64**	**65**	**70**

Table 5: *Number of licenses in Oil and LPG markets (Source; EMRA)*

The number of fuel stations of each company are given in the chart below. What remains relatively unobserved but becomes more obvious after a more detailed analysis is the partial decrease in the number of fuel stations of the top five distribution companies.

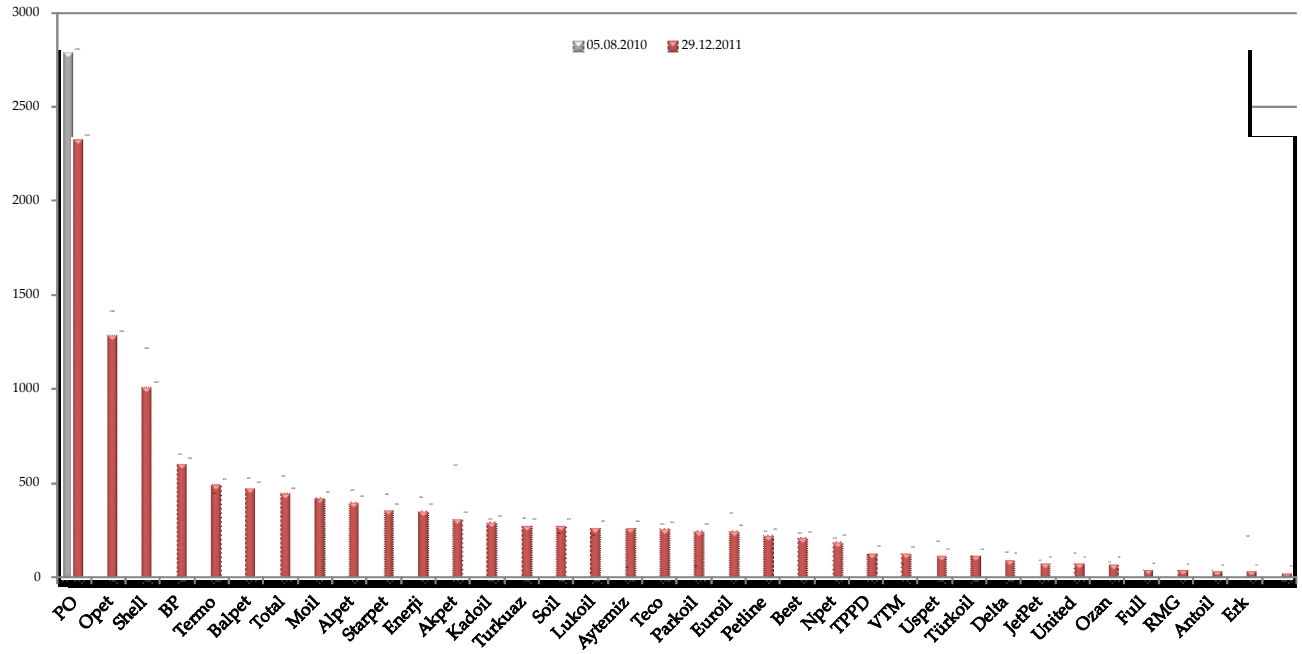

***Figure 33**: A comparison of the number of fuel stations of the distributor companies between 05.08.2010 – 29.12.2011*

b) Number of Vehicles:

According to Turkish Statistical Institute data by the end of November 2011, the total number of vehicles registered was 16.042.526 and the shares were divided as the follows; 50.4% automobiles, 16.2% vans, 15.7% motorcycles, 9.1% tractors, 4.6% trucks, 2.4% minibuses, 1.4% buses, and 0.2% special purpose vehicles.

At the end of the first eleven months of 2011, there has been an increase of approximately 34% in the number of vehicles that have entered traffic compared to the previous year. However, the 4.9% increase in the automotive fuels consumption does not seem to parallel the increase in the number of vehicles. This situation is believed to be a result of increased fuel efficiency and number 10 lube problem. Several news that appear in the media prove that number 10 lube is still a growing problem.

TUIK statistics providing the number of vehicles using different fuel types indicate that there is an increase in the number of diesel and auto LPG powered vehicles while the decline in the number of gasoline powered vehicles continues. By the end of 2010, while the number of LPG powered vehicles

increased by 335.000 and the number of diesel powered vehicles increased by 663.000, the number of gasoline powered vehicles decreased by 34.000.

The figure below demonstrates changes in the total number of vehicles and automotive fuel consumption in Turkey over the years. Although the number of vehicles in traffic progressively increased between the years 2004-2010, automotive fuel consumption, especially in years 2009 and 2010, remained stable. This difference, which does not reflect the actual amounts of consumption, is mostly caused by illegal activities such as the Number 10 Lube.

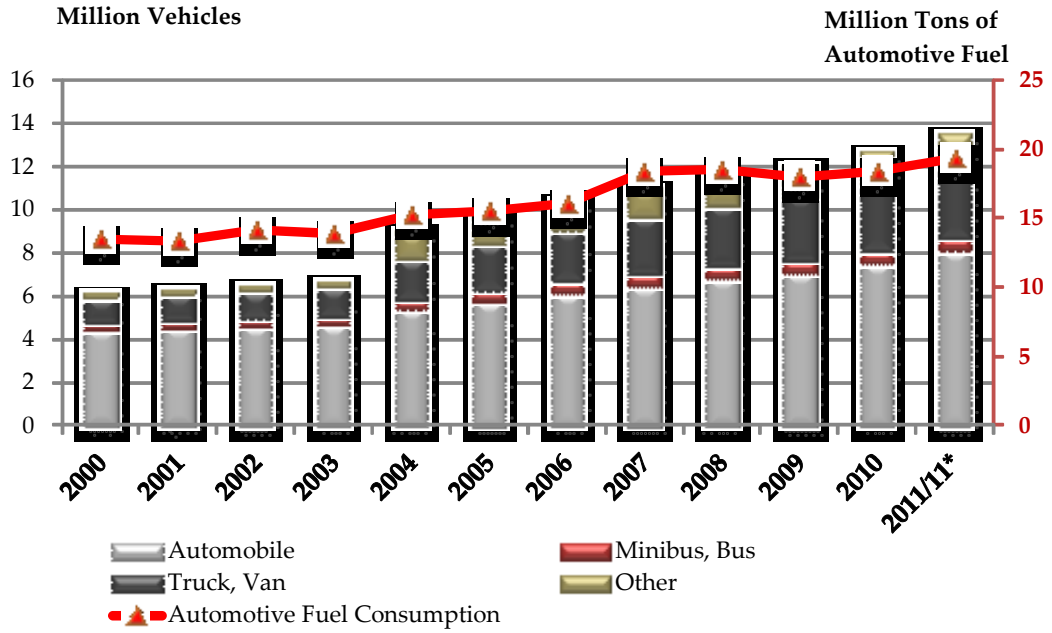

Figure 34 a: *Number of vehicles in traffic* and automotive fuel conaumption (Source: TÜİK, PETDER, EMRA) * Motorcycles are not included 2011 November data.*

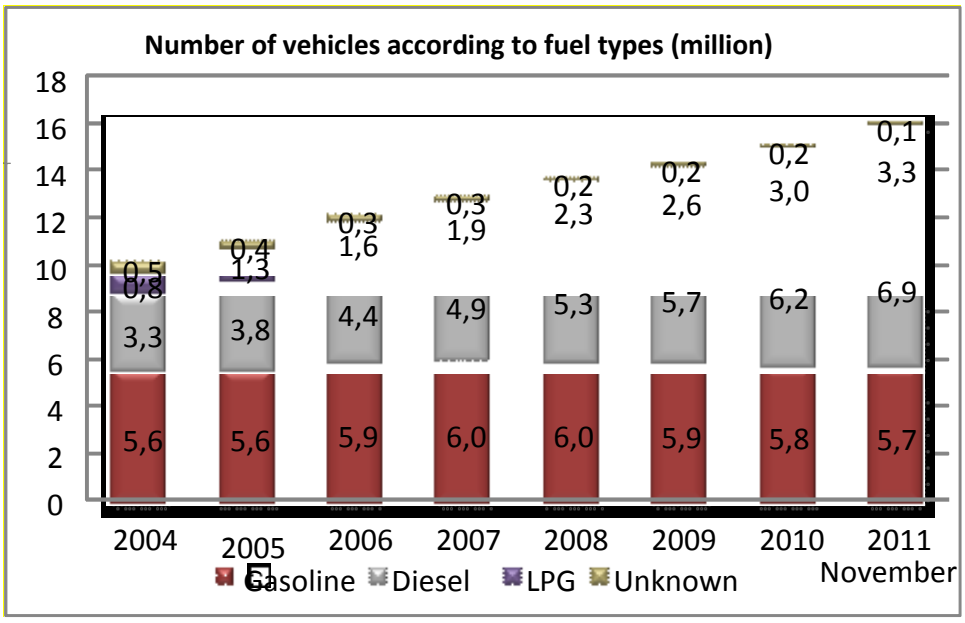

Figure 34 b: *Number of vehicles in traffic according to fuel types (Source: TÜİK)*

d) Other Industrial and Economic Data:

- Natural Gas

Natural gas import progressively increased from 2000 to 2008, while after the economic crisis in 2009 consumption decreased and import fell. In the first eleven months of 2011, natural gas sales reached 34.7 million m^3. Natural gas import over the years can be observed in the figure below.

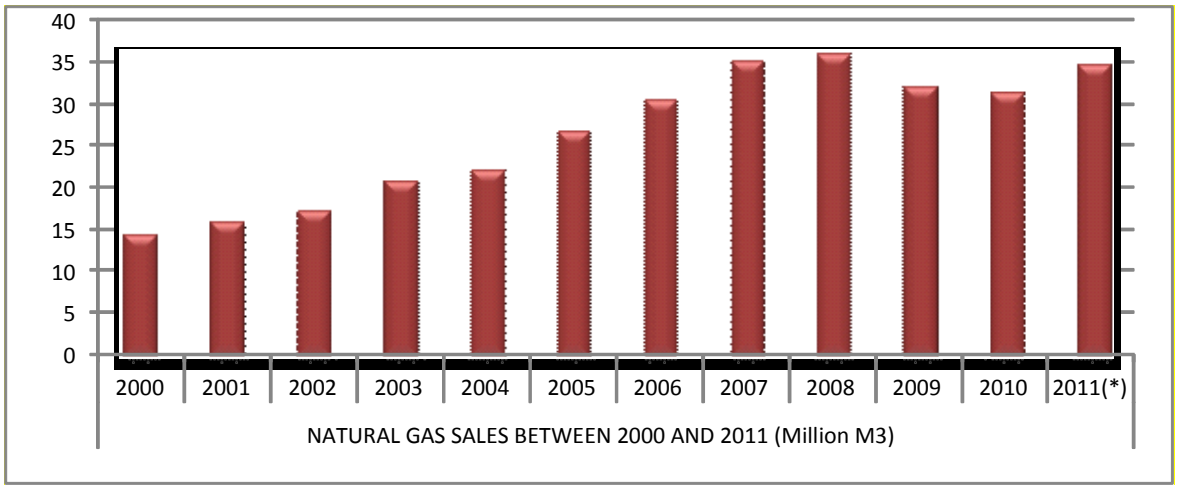

Figure 35*: Natural gas sales in Turkey between 2000-2011(*11 months) (Source: BOTAŞ)*

- Economic Indicators

Inflation rates which had decreased in 2009 due to the global crisis increased in 2010 as production inputs and exchange rates increased and reached 8.5%. Data for 2011 indicates that producer price index increased slightly while consumer price index has a downward tendency.

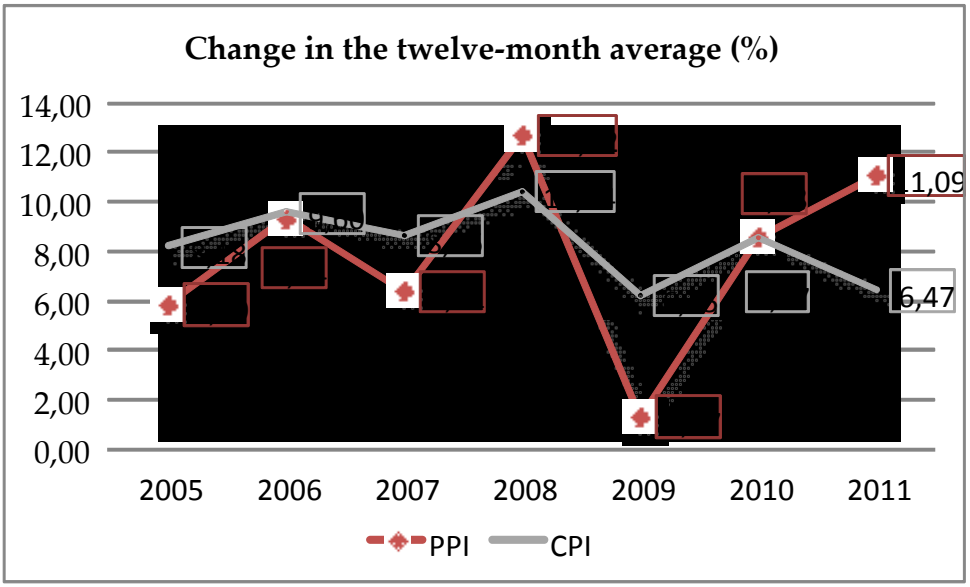

***Figure 36**: Inflation figures between 2004 -2011 (%) (Source: TÜİK)*

Growth rates that are regarded as one of the most significant macroeconomic indicators are also closely followed by the oil sector. As the economic growth rates are related to industrial growth and transportation sector, they serve as an important indicator of the growth figures in the diesel fuel market.

In the third quarter of 2011, Turkish economy has grown 8.2% compared to the same period of the previous year. In the first quarter of 2011, there had been an extraordinary growth of 11% and Turkey had ranked among the most rapidly growing countries. It is estimated the growth rate will be between 6-7% that by the end of the fourth quarter and between 7.5-8.5% by the end of the year. However, despite the extreme increase in the number of vehicles, these developments are not fully reflected in fuel consumption due to the reasons stated in the report.

The chart below displays the changes in economic growth rates and total automotive fuel consumption. A general overview indicates that a there is a parallel between economic growth and automotive fuel consumption. However, especially in the period after 2010, this balance was disturbed. Although the growth rate of Turkish economy is estimated to reach 7.5-8.5% by the end of 2011, the fact that the increase in automotive fuel consumption remained at 4.4% should be considered. This situation which is mostly related to number 10 lube problemis explained in detail in the related parts of this report.

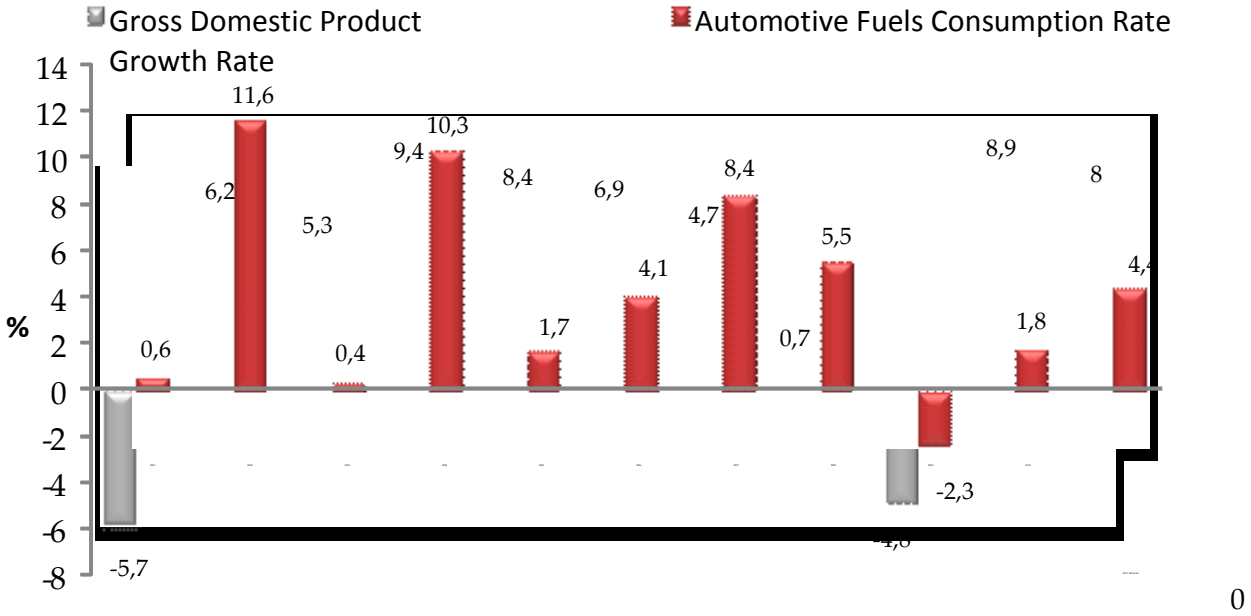

Figure 37: *Yearly automotive fuel consumption rate and GDP growth rate (%)*
(Source: TÜİK, EMRA and PETDER data)

VII. PETDER ACTIVITIES:

PETDER Waste Engine Oil Collection Activities:

Within the framework of "waste engine oil collection" activites that have been carried out by Petroleum Industry Association (PETDER) since 2004 in accordance with the Waste Oil Control Regulation, the amount of waste engine oil collected reached **20.576 tons** in 2011 with **an increase of 11.6%** compared to the previous year. The waste engine oil collected were transported to licensed facilities and were either recycled as raw material and energy or disposed at these facilities. The amount of waste engine oil collected in 2010 was 17.775 tons.

Figure 38: *2007- 2011 January – December cumulative waste engine oil collection values*

PETDER, as a non-profit organization, through this project has aimed to provide a cost free service to waste engine oil producers to collect their wastes engine oil for the benefit of the public sector. In 2011, PETDER has raised a fund of **4.3 million TL** for this project.

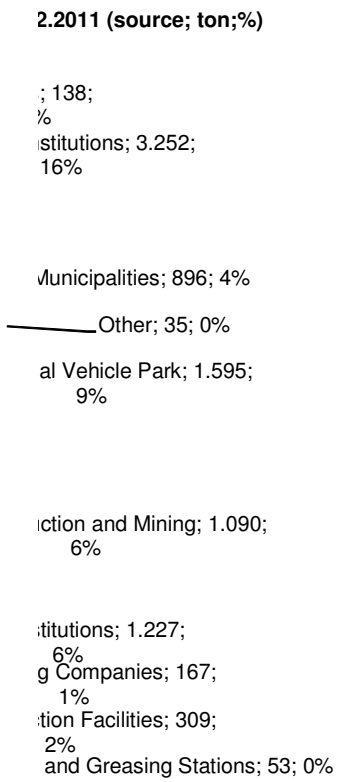

Figure 39: *The shares of sources of Waste Engine Oil collected between January 2011 and December 2011.*

PETDER has raised a fund of 19.6 million TL for the Waste Engine Oil Management Project in the last seven years.

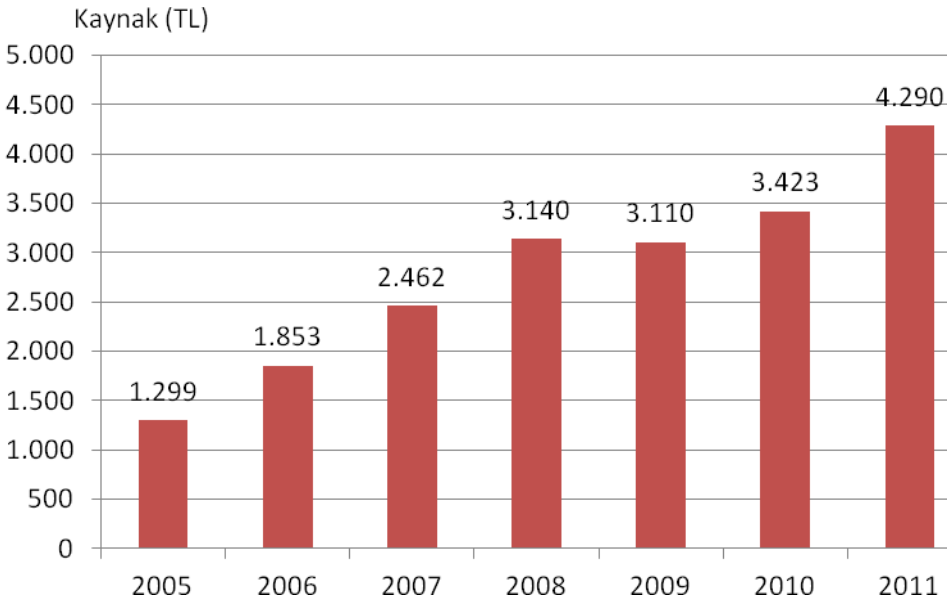

Figure 40: *PETDER Waste Engine Oil Management Project – Sources used over the years*

Benefits of PETDER Waste Engine Oil Management Project:

General Overview Criteria:

- One litre of waste engine oil contaminates one million ton of fresh water.
- 3,56 kwh of electricity can be produced with one litre of waste engine oil.
- One litre of waste engine oil is equal to 9500 – 10000 kilocalories
- 0,625 litres of base oil can be produced with one litre of waste engine oil

Environmental benefits of PETDER Waste Engine Oil Management Project:

- 20.576 tons of waste engine oil collected by PETDER in 2011 would contaminate 20.576 cubicmeters of fresh water.

- 20.576 tons of waste engine oil collected by PETDER in 2011 would contaminate the annual fresh water supply necessary for 96 million people.

- 20.576 tons of waste engine oil collected by PETDER in 2011 would contaminate 18% of the total underground and surface water supplies.

- With 20.576 tons of waste engine oil collected by PETDER in 2011, it is possible to produce electricity sufficient for the annual electricity requirement of 35 thousand people.

WASTE OIL TURNS INTO TREES!

Petroleum Industry Association has planted a tree for each barrel of waste engine oil collected within the framework of "ONE BARREL ONE TREE" project signed with the Ministry of Environment and Forestry.

Within the scope of T.R. Ministry of Environment and Forestry's forestation campaign, PETDER has planted 15 thousand trees in 2011 in return for the waste engine oil collected from institutions in 2010. The certificates prepared by the Ministry and PETDER have been sent to the institutions.

PETDER's "One Barrel One Tree" project aims to provide a better future and environment for our children and country by planting one tree for each barrel of waste engine oil collected.

Heavy metals, heavy hydrocarbons, and composites with chloride having a carcinogen effect found in waste oils threaten the environment and human health.

Waste engine oils burned in uncontrolled conditions, inserted in fuels such as number 10 lube, or disposed to the environment cause serious harm to the environment and human health. Not surprisingly, figures show that 1 litre of waste oil when blended with water contaminates 800,000 litres of water, also when included in fuels it has serious potential to harm human health.

VIII. SOURCES:

- Data regarding Oil and LPG sectors is based on EMRA Oil and LPG Sector Report.
- Fuel data used in this report have been compiled from statements provided by 13 fuel distributors whose aggregate market share is calculated to be above 95% of the market and reported to the independent research organization on voluntary participation basis. For data on fuel distributors who did not participate in this voluntary data formation system, calculation were made using data from previous periods obtained from the EMRA.

- Mineral oil data used in this report is reported to an independent audit organisation on a voluntary participation basis. EMRA, PIGM and Ministry of Environment and Forestry data suggest that participating firms together compose 65% of the total share in the market. When the total market shares of these mineral oil companies in 2011 were calculated, the calculations were based on the product breakdowns of these companies. Therefore, their total market shares vary between 45% and 72%. Although there seems to be a 12% increase compared to the previous year in the mineral oil industry based on the sales figures of these companies, as total market shares in 2011 vary in calculations based on product breakdowns, the actual increase in country total remains at the level of 8%.

- Inflation, GDP, CPI, exchange rates, vehicle numbers and total vehicle station data is obtained from Turkish Statistics Institute (TurkStat) and the Central Bank public reports. Crude oil prices and pump tax values are obtained from Argus and European Commission sources.

- Turkish pump prices used in this report is obtained from EMRA and firm websites. Data related to European pump prices is obtained from:
  - France: Ministry of Industrial Economy and Employment : www.prix-carburants.gouv.fr
  - Spain: Ministry of Industry, Tourism and Trade http://www.mityc.es/energia/petroleo/Precios/Informes/InformesMensuales/Paginas/Ind
  - Italy : http://www.quotidianoenergia.it/check_up_prezzi_qe.php
  - Greece : Treasury http://www.fuelprices.gr
  - EU Data: European Commission, http://ec.europa.eu/energy/observatory/oil/bulletin_en.htm

- PwC report has been used for data regarding the margins in the sector.

2000-2011 January-December Fuel and LPG Consumptions

		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
U. Gasoline 95	m3	2.014.354	2.305.525	2.160.712	2.260.772	2.436.466	2.607.834	2.884.939	3.047.316	2.602.498	2.483.788	2.513.068	2.396.416
U. Gasoline 97 +	m3	0	0	0	16.959	285.489	262.218	123.878	20.180	310.926	282.430	235.700	219.072
U. Gasoline with additives	m3	1.599.493	1.176.463	1.906.795	1.552.788	1.005.699	625.519	366.890	209.624	110.902	55.341	22.588	6.878
Total Gasolines	**m3**	**3.613.846**	**3.481.988**	**4.067.507**	**3.830.519**	**3.727.653**	**3.495.570**	**3.375.707**	**3.277.120**	**3.024.326**	**2.821.559**	**2.771.356**	**2.622.367**
Kerosene	m3	51.353	41.216	37.430	47.977	41.118	34.792	26.077	18.176	13.624	18.006	32.714	66.699
Off-Road Diesel Motorin	m3	9.691.472	9.963.639	11.234.997	11.504.277	12.445.391	12.291.514	12.588.855	12.624.816	13.161.773	12.209.560	11.516.166	718.741
Diesel (Low Sulphur)	m3	0	0	0	0	248.634	783.791	1.589.643	2.704.326	3.415.699	4.021.120	4.987.982	16.719.202
Total Diesel Fuels	**m3**	**9.691.472**	**9.963.639**	**11.234.997**	**11.504.277**	**12.694.025**	**13.075.305**	**14.178.498**	**15.329.142**	**16.577.472**	**16.230.679**	**16.504.148**	**17.437.943**
Total White Products	**m3**	**13.356.671**	**13.486.844**	**15.339.934**	**15.382.773**	**16.462.796**	**16.605.667**	**17.580.282**	**18.624.438**	**19.615.422**	**19.070.244**	**19.308.218**	**20.127.009**
U. Gasoline 95	ton	1.561.124	1.786.782	1.674.552	1.752.098	1.888.261	2.021.071	2.235.828	2.361.670	2.016.936	1.924.935	1.884.801	1.797.312
U. Gasoline 97 +	ton	0	0	0	13.144	221.254	203.219	96.005	15.640	240.968	218.883	176.775	164.304
U. Gasoline with additives	ton	1.239.607	911.759	1.477.766	1.203.411	779.416	484.777	284.340	162.459	85.949	42.889	16.941	5.159
Total Gasolines	**ton**	**2.800.731**	**2.698.541**	**3.152.318**	**2.968.652**	**2.888.931**	**2.709.067**	**2.616.173**	**2.539.768**	**2.343.853**	**2.186.708**	**2.078.517**	**1.966.775**
Kerosene	ton	41.082	32.973	29.944	38.382	32.894	27.834	20.862	14.541	10.899	14.405	26.171	53.359
Diesel	ton	8.189.294	8.419.275	9.493.572	9.721.114	10.516.355	10.386.329	10.637.582	10.667.970	11.121.698	10.317.078	9.731.160	607.336
Diesel (Low Sulphur)	ton	0	0	0	0	210.096	662.304	1.343.248	2.285.155	2.886.266	3.397.846	4.214.845	14.127.726
Total Diesel Fuels	**ton**	**8.189.294**	**8.419.275**	**9.493.572**	**9.721.114**	**10.726.451**	**11.048.633**	**11.980.831**	**12.953.125**	**14.007.964**	**13.714.924**	**13.946.005**	**14.735.062**
Total White Products	**ton**	**11.031.107**	**11.150.789**	**12.675.834**	**12.728.148**	**13.648.277**	**13.785.533**	**14.617.865**	**15.507.434**	**16.362.716**	**15.747.853**	**16.050.693**	**16.755.196**
Heating Oil	ton	1.309.576	1.397.577	987.773	951.716	720.482	612.175	482.942	390.777	384.736	347.722	203.709	195.065
Fuel Oil No: 6	ton	3.813.166	2.714.688	3.888.676	3.784.642	3.746.051	3.399.622	2.461.617	2.163.418	2.373.363	1.290.470	630.061	598.149
Total Black Products	**ton**	**5.122.742**	**4.112.265**	**4.876.449**	**4.736.359**	**4.466.533**	**4.011.797**	**2.944.559**	**2.554.195**	**2.758.099**	**1.638.192**	**833.770**	**793.214**
Total Fuel	**ton**	**16.153.849**	**15.263.054**	**17.552.283**	**17.464.507**	**18.114.810**	**17.797.330**	**17.562.424**	**18.061.629**	**19.120.815**	**17.665.062**	**16.884.463**	**17.548.410**
LPG Bottled	ton	2.133.831	1.810.341	1.724.805	1.801.825	1.665.167	1.557.212	1.491.580	1.302.434	1.177.269	1.109.609	1.043.809	985.000
LPG Bulk	ton	1.067.348	794.052	713.354	646.552	454.066	383.148	475.454	216.470	171.528	190.393	126.051	117.000
LPG Autogas	ton	1.280.331	1.230.330	1.136.025	1.147.374	1.640.766	1.751.838	1.550.605	2.006.263	2.111.557	2.299.280	2.489.501	2.640.000
LPG (bottled, bulk, autogas)*	**ton**	**4.481.510**	**3.834.723**	**3.574.184**	**3.595.751**	**3.759.999**	**3.692.198**	**3.517.639**	**3.525.167**	**3.460.354**	**3.599.282**	**3.659.361**	**3.742.000**
Total Automotive Fuels (White Products+Autogas)	**ton**	**12.270.356**	**12.348.146**	**13.781.915**	**13.837.140**	**15.256.148**	**15.509.538**	**16.147.609**	**17.499.156**	**18.463.373**	**18.044.157**	**18.514.023**	**19.341.837**

*** Fuel, Bottled, bulk and autogas LPG consumptions based on EMRA reports. 2011 figures are estimated..**

Figure 41: *2000- 2011 Fuel and LPG consumptions*

IX. CONTACT AND MEMBER INFORMATION:

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Altınbaş Petrol ve Ticaret A.Ş.	ALPET	Petline Petrol Ürünleri A.Ş.	PETLINE
Belgin Madeni Yağlar San. ve Tic. A.Ş.	BELGİN	Petrol Ofisi A.Ş.	PO OMV
BP Petrolleri A.Ş.	bp	Shell & Turcas Petrol A.Ş.	
BP Gaz A.Ş.	bp	Shell Gaz Ticaret ve Sanayi A.Ş.	Shell Gas (LPG)
DELTA Akaryakıt Tic. A.Ş.	Gulf	Total Oil Türkiye A.Ş.	TOTAL
Mobil Oil Türk A.Ş.	ExxonMobil	Turcas Petrol A.Ş.	turcas
		Turkuaz Petrol Ürünleri A.Ş.	TURKUAZ

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Management and Office Assistant	Ebru AYDIN

Up to now, we have recycled over a hundred and six thousand tons of waste engine oil as energy.

PETDER

PETROLEUM INDUSTRY ASSOCIATION

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