

Evaluations of Price Developments in the Fuel Distribution Industry

Sector Studies

Year: 2018/1st Quarter

No: 2



Introduction

The Petroleum Industry Association (PETDER), the leading fuel distribution industry NGO in Turkey, and PwC Turkey, will carry out research and review activities within the framework of PETDER's mission*, which will be published every three months.

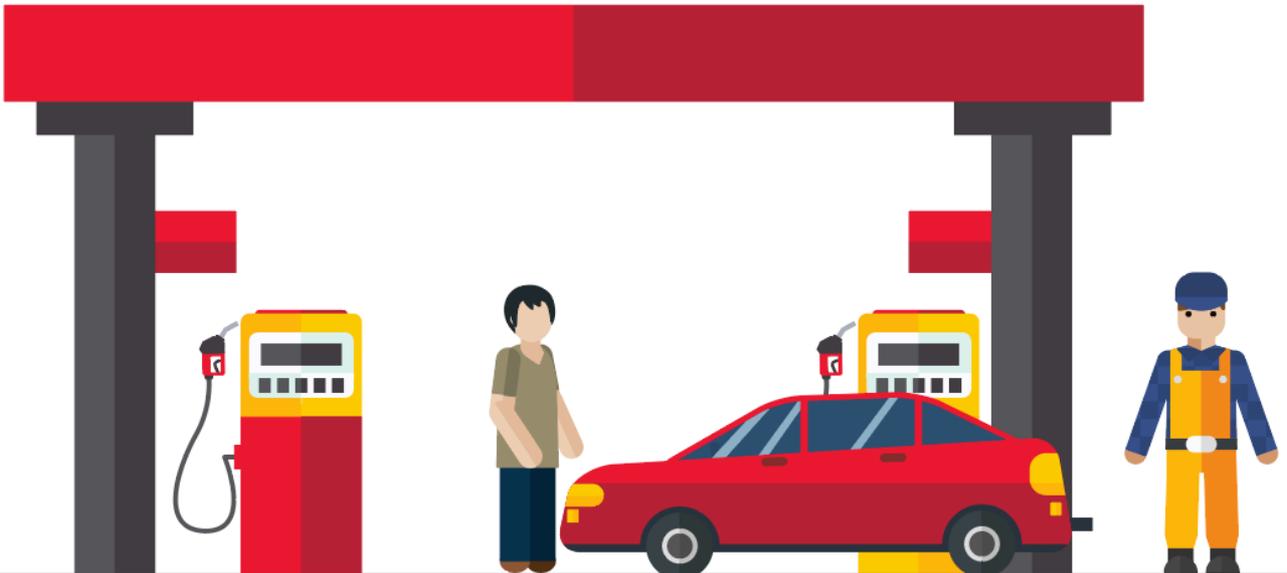
The industry contributes greatly to the Turkish economy with its more than 100 distributors, more than 100 storage facilities and approximately 13,000 dealers which provide service 24/7 across the country. Moreover, when we consider the span of an end user's portfolio and the public income the industry provides, we can see the industry has a large set of stakeholders.

In this context, as a second study, the developments of the prices of fuel products were evaluated, the formation of fuel prices, as well as the unique dynamics of the industry and crude oil and product prices in relation to pump prices have been presented.

Along with the publicly available data sets (EMRA, TURKSTAT, etc.) information from players in the sector and other NGOs were used for analysis and examinations in the report. Figures obtained in quantitative and qualitative analyses are shared here, along with certain assumptions, with the aim of informing the reader.

We hope that this document will be useful to all stakeholders, especially to the industry players who invest in the infrastructure and plants necessary to meet increasing demand and the ever-changing needs of customers.

**PETDER advocates pro-actively for improvement in all aspects of the petroleum industry and carries out research and development activities to produce relevant, reliable and objective information which can be shared for the formation of industry policies and strengthening its advocacy role.*

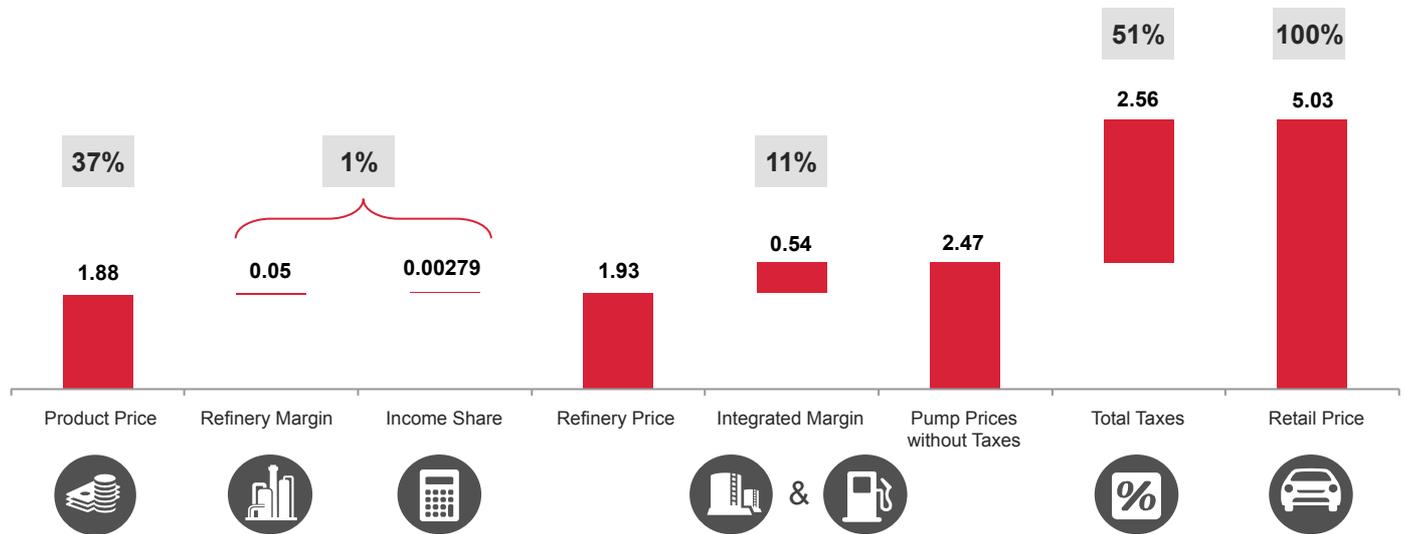


Fuel Price Formation

Fuel prices in Turkey are formed by three components: product price, taxes (Special Consumption Tax and VAT) and market margin, which covers refinery, distributor and retailer margins. The changes in product prices are reflected to domestic fuel prices after certain formulations, and also taking the FX rate into account. The products from local refineries and imported through terminals are delivered to the market after taxation including special consumption and value added taxes.

According to the December 2017 EMRA Pricing report, 51% of the pump price of regular diesel is comprised of taxes, 37% is product price, 11% is integrated distributor and retailer integrated margin, whereas the remainder 1% consists of refinery margin and the EMRA share. The integrated margin of 0.54 TL is the sole profit item for distribution companies, compensating their investments, operational and financing expenses and profits. Accordingly, this margin is crucial to the sustainability of the investors in the market.

Regular Gasoil Price Formation (TL/LT*)



Source: EMRA Petroleum and LPG Market Pricing Report, December 2017
*Istanbul European Side Regular Gas Oil Data

1. Product Price:

Calculated using Platts European Market Scan CIF MED (Genova/Lavera) prices (\$/tonne), taking exchange rate and densities into account.

2. Refinery Margin: The margin added to the product price by national refineries and wholesalers

3. Income Share: EMRA share added to the consumer prices in order to be able to hold the supplementary portion of the national stock.

4. Integrated Margin (The Sum of Distributor and Dealer Share):

The margin including costs and profits between the supply of products and delivery to end consumer.

5. Total Taxes: The sum of Special Consumption Tax and Value Added Tax (VAT) determined by Ministry of Finance.

Variable Costs Regarding Fuel Prices (1/2)

The most common commercial indices used in global markets for the classification of fuel and comparative analysis of its prices are Brent and NYMEX. NYMEX crude oil is drilled in landlocked North America and its transportation is comparatively harder than of Brent, which is brought up from North Sea. Therefore, Brent is extensively used in Asia, Africa and Europe and taken as a reference for oil pricing in these regions.

International energy demand, production capacities of oil suppliers, political and social developments in oil drilling fields, the operation of distribution networks and developments in the global economy are key indicators for oil pricing. There is a strong correlation (but not a direct link) between CIF MED prices, which are taken into consideration in Turkey (and in other countries, especially in Mediterranean basin countries), and Brent prices.

Changes in Brent prices are reflected to CIF MED prices depending upon available stock and demand in the region and they are reflected to list prices in Turkey issued in Turkish Liras considering changes in FX rates.

Regular Diesel Product Prices

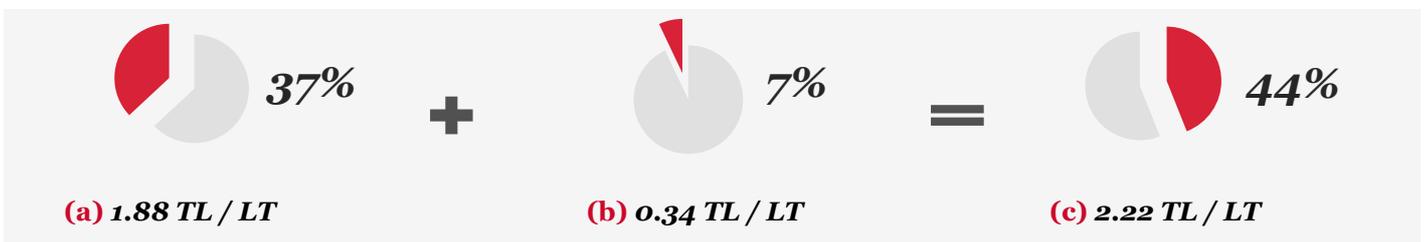


Average \$/TL rate increased to 3.85 in December 2017, whereas it was 3.63 for the first eleven months of the year. Regular diesel product price was affected by CIF MED product price (\$) and \$/TL exchange rate and increased to **1.88 TL/LT** in December as shown in the highlighted area. In this scope, product price comprises **37% (a)** of pump prices in the related month.

Variable Costs Regarding Fuel Prices (2/2)

VAT and Special Consumption Tax on Regular Diesel

Taxes that form 51% of regular diesel pump prices with **2.56 TL/LT** as of December 2017 can be analysed under 3 main groups: 1.79 TL is constant special consumption tax determined by Ministry of Finance, 0.32 TL is the VAT resulting from special consumption tax and 0.34 TL (7% of pump prices) (b) is the VAT item on product price. (Wholesalers margin, EMRA share and integrated margin's average effect of 0.10 TL is neglected.)

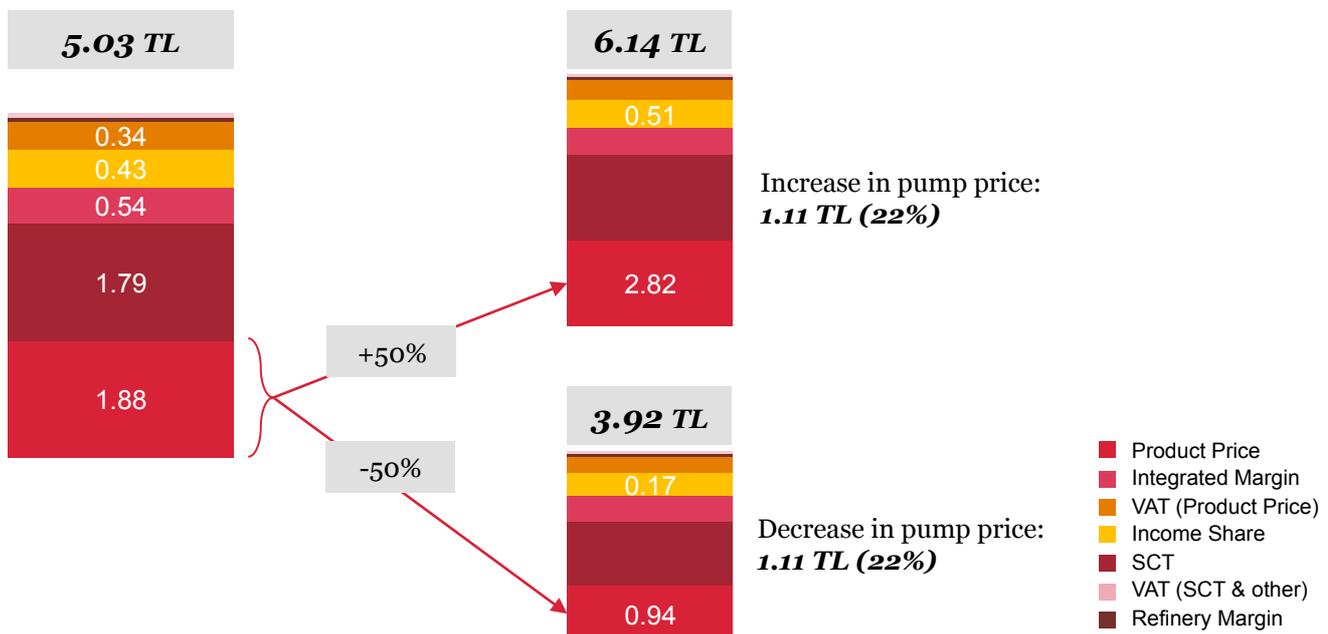


Source: EMRA

Accordingly, it is seen that only 44% (2.2 TL/LT) (c) of regular motorin pump prices are comprised of product prices and related VAT, as of December 2017.

In this context, every 50% increase or decrease of the product price related to Brent index or currency changes have an impact of 22% on pump prices of regular diesel. For the same period, the impact is 19% for gasoline.

VAT and Special Consumption Tax on Regular Diesel



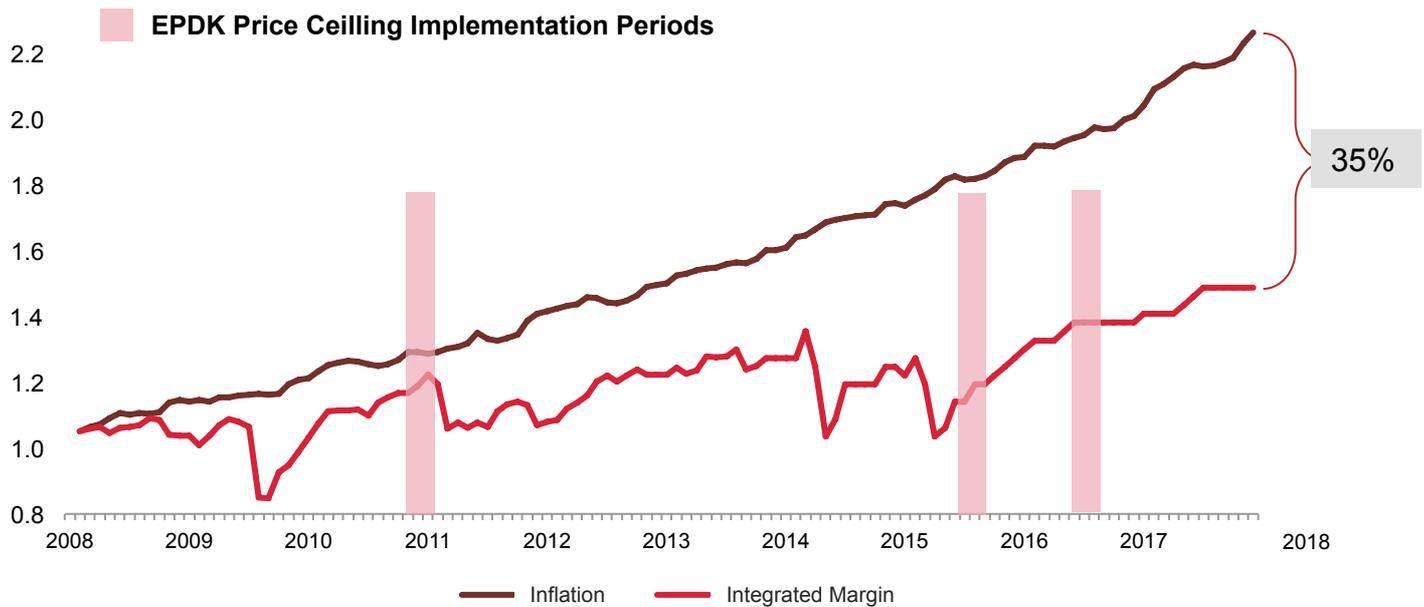
Development of the Integrated Margin in Turkey

The integrated margin, as the sum of distributor and retailer margins, makes up 11% of the total pump price with taxes according to December 2017 EMRA Pricing report. In the chart below, the development of inflation and the integrated margin are compared, indexed to January 2008. Accordingly, the integrated margin which is the sole commercial profit item for distribution companies has eroded by 35% against inflation in the last 10 years. In this scope, the profitability of the distribution companies who have long term storage, dealer network and HSSE investments, are declined significantly.

Three price ceiling implementations in the last decade (highlighted as in the below chart in 2009, 2014, 2015) have led to limitation of the integrated margin for two months each, while at the same time harming the free and competitive market environment.

The integrated margin, closely monitored by EMRA, is periodically compared with the margins in the reference countries (Germany, France, the United Kingdom, Italy) and in a sense, is synchronized with the average of margins in these countries.

Inflation and Integrated Margin Comparison (Indexed Based on January 2008 Prices)



Sources: www.tuik.gov.tr, www.epdk.org.tr, PwC analysis
Istanbul European Side Regular Gas Oil Data



Market Dynamics in the Fuel Distribution Industry of Turkey

In Turkey, the local market has additional measures conducted to fight against illegitimate products. As a result of these measures and the investments of industry players, the automation system has been integrated from the supply point to the end customer, and each and every point from supply to end customer is enabled to report/monitor the supply/consumption to the appropriate administrations. This system requires the players to make additional investments and bear additional operational expenses, which is distinctive for the local market in Turkey.



National marker used to detect illegitimate fuel,



Infrastructure investments for e-invoices and e-records for the improvements in the public digitalisation and record keeping process



Gauges used for instant reporting to the administration,



The obligation to obtain guarantee letters covering the entire product price



Station and storage automation systems to track products,



Annual EMRA payments,



Payment of Special Consumption Tax in advance,



Employment of HSSE expert,



The obligation to implement a cash register for the pumps,



The regulatory difference requiring stations in Turkey to be built on larger areas,



National stock holding obligation for 20 days (physically hold and funded),



Additional financing burdens due to tax collection methods



Developments in Market Dynamics

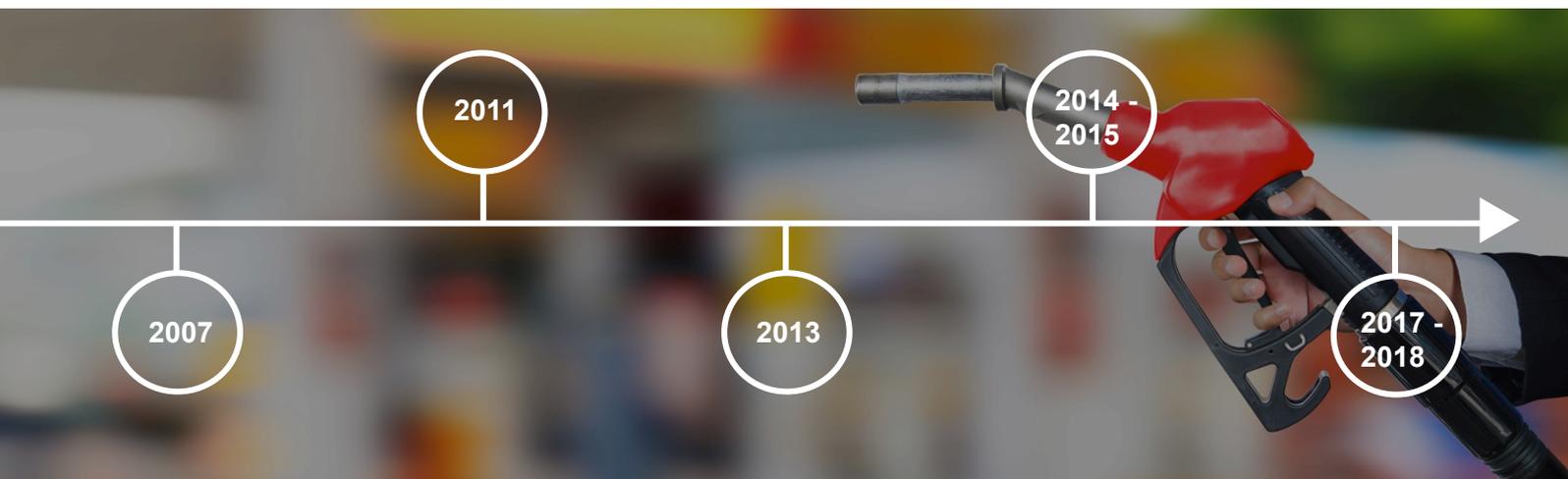
Smuggled and illegitimate fuel activities have many negative effects on public income and competitive environment of the local fuel distribution sector. It is estimated that illegitimate fuel activities have drastically declined thanks to the measures taken by the administration and the efforts of distributor companies in the last decade.

Dealer Automation Systems

Distribution companies are obliged to implement automation systems in stations which enable companies and the administration to monitor trade activities and inventory level simultaneously. Implementation took place in June for stations and in September for rural pumps and agricultural tankers. This system has facilitated the identification of illegitimate fuel trade. The liability for installation and implementation is assigned to distribution companies.

Law Amendment

The law amendment in 2014 which paved the way for stricter control over illegitimate fuel and punishments, has resulted in the effective use of marker system. Moreover, distribution companies are obliged to conduct additional reporting procedures as a result of this amendment in the tax procedure law (record keeping requirements). In this context, the administration aimed to perform tax audits more effectively and within a pilot scheme, top 10 distribution companies are taken over responsibility.



National Marker

National marker application is aimed to detect the illegitimate fuel supply/sale across Turkey. In this regard, the marker developed by TUBITAK (Scientific Research Council) is transported via special vehicles and independent audit firms are engaged for the measurement / inspection (?).

Guarantee Letters

Imports are responsible for a 50% of total fuel consumption in Turkey. With the regulation put in place in 2014, each and every import transaction must have a guarantee letter covering up to 110% of the product price (whole price).

Gauges & Automations

Starting from 2017, fuel imported by sea is required to be transferred to depot/terminals through gauges integrated by the companies. Furthermore, distribution companies are required to implement automation systems to depot/terminals (in addition to the ones in retail network). In this way, the administration plans to trace/monitor the stock instantly. Therefore, the daily data will be accessible to the Ministry of Finance and Revenue Administration, along with EMRA.

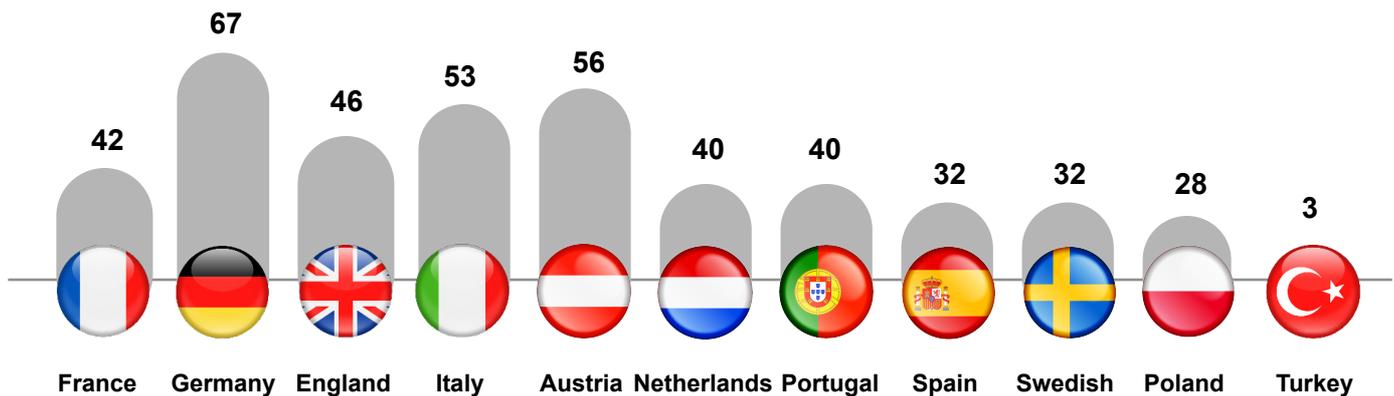
*With the investments made distribution companies make in order to comply with legal requirements, products in the fuel industry are traceable/trackable from supply to the last consumer. As a result, it is estimated that on average 1-2 million tonnes of smuggled fuel has been legalized and documented. The consequent public income created is approximately **4.5 billion TL**, considering current tax levels and prices.*

Comparisons Regarding Differentiated/ Premium Products

Regular and differentiated gas oil sold in stations have been standardized following the technical regulations issued by EMRA in 2011, and are therefore attuned to EU norms. This process ensured that all kinds of gasoil is compatible with all types of vehicles. Moreover, as in Europe and other developed countries elsewhere, differentiated gas oil products which address the different preferences of customers have been released and are demanded by customers. The reference countries have liberalized the pricing of premium products, while EMRA closely monitors the pricing of these products, as well as regular products.

The chart below shows the comparison of the gap between premium and regular products in reference countries and in Turkey in last year. This reveals that margins for premium products in Turkey are considerably lower than in reference countries. This difference constrains international companies from offering some premium products since supply and storage of these products are already more costly, and as a result, the customer preference and benefits and fulfilment of customer preferences are limited to the current product range.

Price Gap Between Regular and Premium Products (kurus/TL)



Sources: International Distribution Companies, www.it.fuelo.net

It is thought that after the high-sulphur (+10 ppm) included products in 2011, supply of products with additives created a wrong perception among consumers. Distribution companies may collaborate with EMRA on the suggested steps below, especially with regard to training and informing, in order to form a basis for the free pricing of premium products. By doing this, it is believed that the Turkish fuel distribution industry will become comparable to the markets in reference countries.

Suggested Steps

1. Raising awareness through flyers, posters, billboards, public advertisements etc.
2. Collaboration with automotive industry, complaint line for premium products etc.
3. Implementation of standards for premium product's sales (analysis of price/volume in reference countries, price elasticity analysis, on-the-job trainings etc.)

PwC's aim is to build trust in society and provide solutions to important problems. We are a community consisting of more than 223,000 employees in 157 countries with a focus on providing high quality service in assurance, tax, and advisory services.

PwC has provided service to the Turkish business community since 1981, and, with our professional staff of almost 1,650 people in five offices located in Istanbul, Ankara, Bursa and Izmir, we work to create the value desired by our clients.



PETDER
PETROL SANAYİ DERNEĞİ

Turkish Oil Industry Association, PETDER, was established on September 1996 through a consortium of leading fuel distribution companies actively participating in the Turkish Oil Market with the aim of forming a non-governmental organization supporting a spectrum of business activities in the downstream oil industry.

PETDER took being a professional, strong, reliable and objective NGO as a primary target and has always worked to that end.

Present PETDER members include Alpet, Aytemiz, Belgin, BP, Gulf, ExxonMobil, Opet, Petline, Petroyağ, OMV Petrol Ofisi, Shell, Shell & Turcas, Total and Turkuaz.