

RECENT DEVELOPMENTS IN OIL PRICES AND REFLECTION TO PUMP PRICES IN TURKEY

Erol Metin, Ph.D., SEM Sustainability, Energy & Logistics
Phone +90 212 320 3045, E-mail: erolsmetin@gmail.com

Overview

International oil prices have shown significant changes over the last year and has fallen down to 50\$ /barrel level from around 110\$ levels. The oil prices and the dynamics behind it have strongly effected many markets and even including the economies of countries such as Turkey. The paper briefly discusses oil price movements throughout 2014 including the first quarter of 2015, presents major impacting factors that effect the pricing dynamics, such as US shale oil, OPEC decisions, supply and demand dynamics.

The reflection of oil prices in to Turkish pump prices have been evaluated and the make up of pump prices have been analyzed over a period encompassing the last 10 years. The important factors that has effected the pump prices and oil companies in Turkey, apart from the international market trends, were the exchange rate and the price interventions by the Energy Market Regulatory Authority. The paper provides an in depth discussion and comparative assessment on the development of pump prices in Turkey and some comparisons with some major European Markets in the Mediterreanean region such as Italy, France & Spain.

Methods

The movement of international oil and product prices, have been monitored using the market prices published by the referenced Market Institutions such as Platt's & Argus ^(1,2). The reflection of international crude and product prices to pump prices in EU have been assessed using the data published by European Commission's Oil Bulletin and the relevant governmental publications in the form of weekly market prices. The market prices including refinery and pump prices for Turkey have been collected for a period of 10 years to reflect the statistical relationship with the international oil price dynamics and currency effects. The pricing statistics for Turkey have been received from the publications of the Energy Market Regulatory Authority, web pages of oil companies as well as the relevant data published by the industry associations.

The relationship between the pump prices in Turkey and the Mediterranean region of EU have been compared and analyzed in terms of the constituents such as tax elements, gross industry margins and other competitive natures of these markets. The objective of this comparative assessment was to identify the particular constituents effecting the Turkish pump prices such as the currency effects and industry margins and to comment on the competitive nature of the Turkish oil markets with the relevant EU oil markets.

Results and Discussions

1- Global Oil Prices and reflections to Turkish Economy:

The impact of oil prices into economies of oil importing countries is significant and therefore represents a great deal of attention from both governments and the consumers. The international oil prices during the last 10 years have shown significant fluctuations due to dependencies on the supply demand balances as influenced by the political instabilities in oil producing countries and the effect of new technologies, especially in recent months and the significant production increase in northern America mainly due to deployment of unconventional methods. During this period the most significant price movements have been observed in 2008 and 2014 as shown in Figure 1.

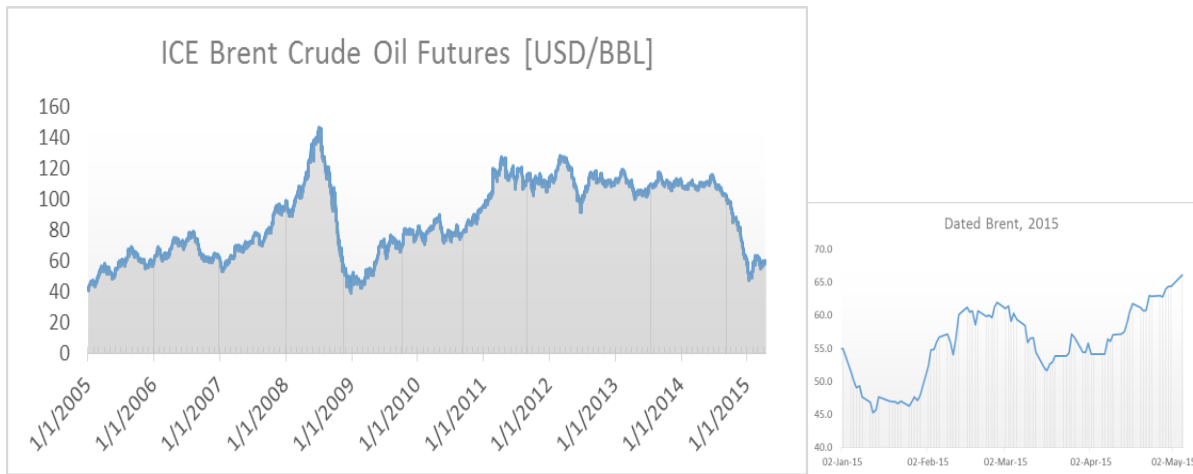


Figure 1. Oil prices; Brent Futures. The left figure shows the last 10 years price movements whereas the right one shows the steady increase during the first four months of 2015 ^(3,4)

2008 was the year when the oil prices peaked around 150\$/barrel and 2014 were historically the lowest prices ever within the last decade. During the period starting from 2007 oil prices continuously increased and reached to a point of around 150US\$/bbl where the price hike claimed to be due to pressure on supply side due to increase in demand and peak growth in economies of China and India. The prices then, seen a short drop due to global financial crises ⁽¹⁾. Following the global financial crises the prices steadily increased to a level of 100-110 \$/bbl and remained practically constant around this level throughout 2012- 2013. In the beginning of 2014 some fundamental changes in oil supply and demand balance started to show its effect, namely unconventional oil production in US increased continuously ⁽⁵⁾, reducing the oil demand in North America. The combined effect of the sluggish economic growth in Far East, mainly in China and the continuous increase in shale oil production in North America, were the main drivers of the low oil price period observed in the second half of 2014.

The crude prices are the main driver of oil product prices, globally. Although supply demand balances of oil products may show some seasonality effect and production vs demand dynamics might vary on regional basis, yet the main driver is the crude markets and the following figure demonstrate the trend in oil prices versus product prices in med region. Although the seasonality effect especially on product prices shows some deviation, the general outlook remains parallel with the trend of crude prices.

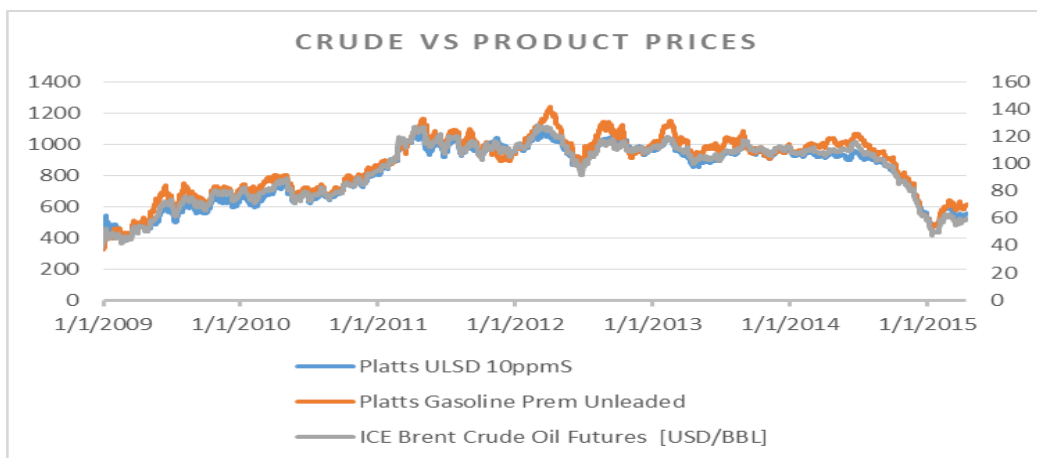


Figure 2. Effect of oil prices on product prices in Med Markets.

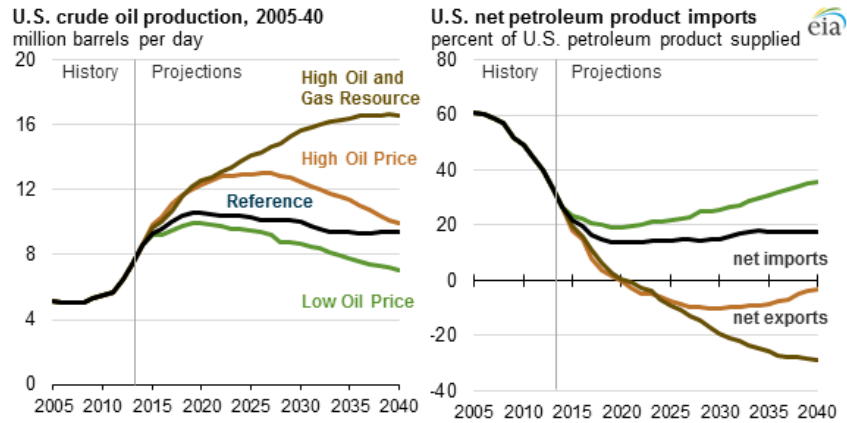


Figure 3. . Steady increase in crude oil production leading to decrease in net petroleum product imports in U.S. ⁽⁵⁾

The low oil prices in 2014 has been an important historical mark in global economies and has significantly affected the economies of both oil exporting and importing countries. OPEC has approached this new pricing era with a conservative approach and practically remained silent. In the beginning of 2015 the oil prices has seen the rock bottom around 40\$. The recent market trends have shown that the prices have remained around 50-60\$/ barrel in the first quarter of 2015 and likely to remain throughout the majority of 2015. The objective of this paper is to study the effects of lower oil prices in Turkish economy, mainly on pump prices.

Turkish economy, has obviously had some positive implications due to low oil prices, on the cost of energy import on national economy ⁽⁶⁾, however this positive effect has been lowered due to significant increase in the exchange rates of US \$, especially observed in 2015. Therefore, the combined effect of increased currency and low oil prices was the main reason why lower oil prices has not reflected to the consumer oil prices at the same rate. This effect is further escalated due to continuing increase in US\$ currency towards the end of the first quarter of 2015. As seen in Figure 4, although the crude price variation within the 1stQ of 2015, was around 25%, in terms of price increase, the reflection to Turkish Currency, and therefore eventually to pump prices was estimated to be around 47%, almost doubled by the currency effect. In any case, Turkish economy being an oil importing country, has significantly benefited from low oil prices. The recent report published by World Bank indicates that energy imports constitute 58% of the current account deficit and 6% of the GNDP ⁽⁷⁾. Therefore, a price level of 70\$/bbl in 2015, will have a positive effect to reduce the current deficit by 1.1%, inflation by 0.9% and increase growth by 0.6%. The Ministry of Finance claims if low oil prices continue the trade deficit may fall even below 4%, indicating that if the effect of energy and gold removed, the current account deficit of 46.7 billion US\$ would be down to 4.1 billion US\$. ⁽⁷⁻⁸⁾

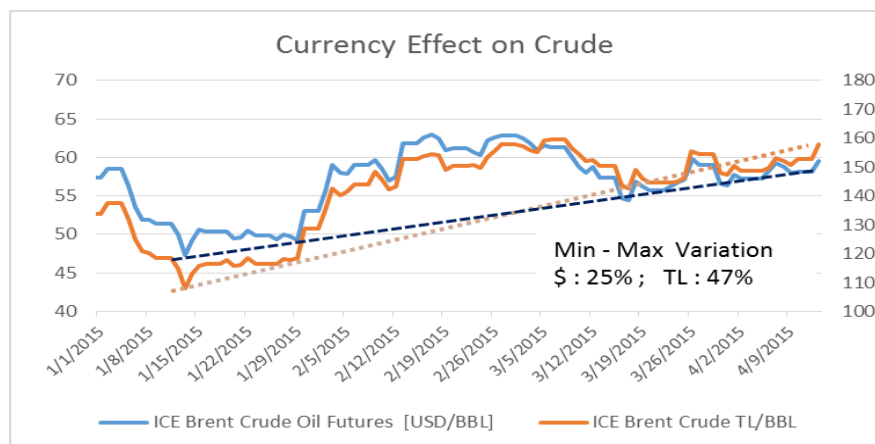


Figure 4. Effect of Currency on reflection of crude prices in Turkey.

2- Reflection of Oil Price Movements to market prices in Turkey:

2-1. Ex-Refinery prices:

The effect of lower oil prices on national economy and pump prices have had dual implications. Firstly, due to joint effect of price movements in global oil markets multiplied by the currency effect, second due to political nature of the price movements, where the Energy Market Regulatory Authority has shown a consistent behavior in intervening the market prices. It may not be a coincidence that both during 2008-2009 and 2014-2015 where oil prices have fluctuated significantly, there has been interventions by the Regulatory Authority, which is a clear indication of the political nature of the pump prices.

When analyzing the effect of international oil price movements to a local market, it is necessary to evaluate the trends and pricing behavior of individual segments of the market players, starting from refinery and importers down to retail stations. The following figures show the relationships between product prices, namely gasoline and diesel, in med region vs local refineries, i.e. Tüpraş. Both graphs show that the ex-refinery prices in Turkey essentially follows the pricing behavior in the Mediterranean Markets. Therefore the product prices in Turkey is a direct reflection of med prices, in another word, the oil prices are in parallel of the closest free international markets. The refinery's pricing behavior might vary based on the product demand and supply balances and the import potential of distribution companies, therefore historically remained in a deviation envelope of 1-3% of the prices observed in Med Markets.

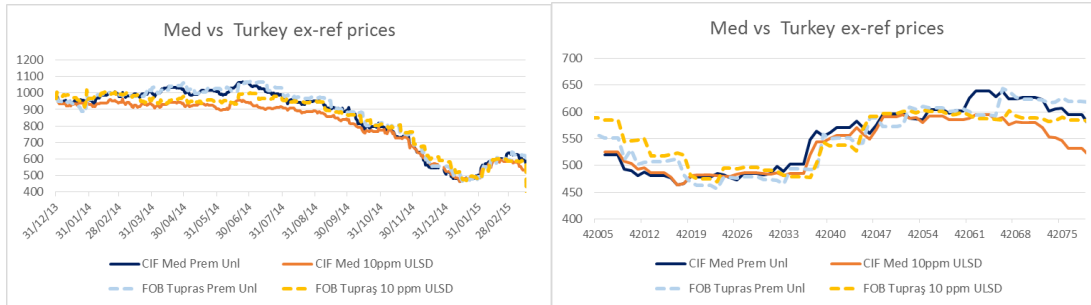


Figure 5: The ex-refinery prices vs med Platt's product prices

2.2. The Effect of Taxation:

Turkey is among the highest oil taxing countries. The taxation on oil products is twofold, similar to many European Countries. The Special Consumption Tax is a fixed amount added to ex-refinery or ex –depot prices, whereas VAT is added by 18% to final consumer prices. The combined effect of taxation vary depending on the product type, gasoline being the highest and auto LPG being the lowest. In general the tax contribution represents between 50-65% of final pump prices as shown in Figure 6.

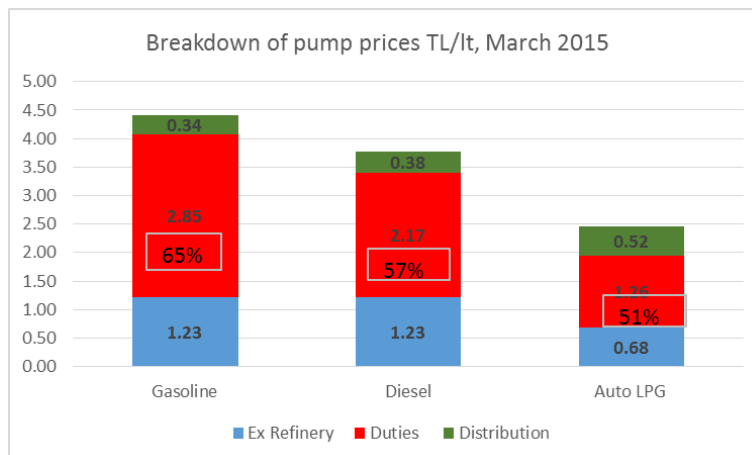


Figure 6. Pump price break down as an average of March 2015.

The average price break down of Turkish gasoline, diesel and auto gas pump prices show that the major constituent is the taxation element (SCT & VAT) representing 50-65% of the pump price followed by the product prices and the combined effect of the exchange rate. The combined effect of these three constituents represents around 90% of the pump price and therefore, the direct interventions to the distribution margins, which only represents around 10% of the final pump prices, could only make a very small effect on the final prices paid by the consumers.

2.3 Pump prices:

The progress of pump prices over 10 years period in Turkey shows that the reflection of oil prices to the pump prices, similar to ex-refinery prices, are in parallel with the Mediterranean markets. This is demonstrated in following graphs, shown as tax free product prices comparing Turkey with the Mediterranean markets. Turkey, being in direct relation with the EU Mediterranean markets, (due to definition of reference nature of med prices in the Oil Market Law) the pump prices, gasoline and diesel products are comparable and in line with the Mediterranean markets.

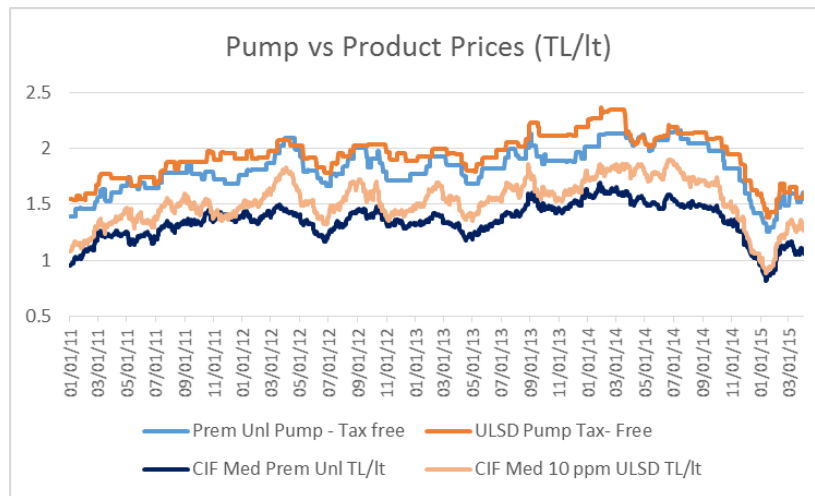


Figure 7. Tax free pump prices in Turkey vs EU Med markets.

The comparative analysis of Turkish pump prices with these countries show that the Turkish prices are very much comparable and parallel with the pump prices in the Mediterranean markets. In addition, the data also shows that the competitive nature of the prices in Turkey have progressed over the years, and it is shown that, when the taxation effects are removed the prices are even more competitive in some products compared to Med Markets. The price interventions made by the Regulatory Authorities, although may reflect price reductions on temporary basis, the effect in longer terms is to reduce the investments, the quality of services and even may negatively affect the competitive nature of the markets.

2.4. The Distribution Margins and price interventions:

Since 2005, the Turkish Oil Market has gone through a fundamental restructuring with the introduction of Petroleum Market Law and LPG Market Law. The Energy Market regulatory Authority has been identified to be the independent regulatory authority. EMRA has instituted numerous Regulations in order to regulate the oil markets and control illegal fuels issues. The markets have improved both in quality and services within the first five years of new regulatory framework, the market players have benefited from the liberalization initiatives, the competition has increased and the companies have invested to the markets. However, the last 3 years of implementations of the regulatory authority have been marked as continuous interventions to free market practices targeting to reduce the margins of companies. The following two charts show the variation of price breakdown within the last ten years of oil markets.

GASOLINE PUMP PRICE BREAK DOWN (TL/lt)							DIESEL PUMP PRICE BREAK DOWN (TL/lt)						
DATE	EX REFINERY	SCT	VAT	TOTAL OF DUTIES	DISTRIBUTION MARGIN	AVG PUMP PRICE	DATE	EX REFINERY	SCT	VAT	TOTAL OF DUTIES	DISTRIBUTION MARGIN	AVG PUMP PRICE
2005	0.552	1.364	0.388	1.752	0.242	2.546	2005	0.602	0.835	0.296	1.131	0.208	1.943
2006	0.695	1.364	0.425	1.789	0.303	2.786	2006	0.747	0.836	0.335	1.171	0.281	2.199
2007	0.705	1.382	0.441	1.823	0.361	2.888	2007	0.743	0.850	0.347	1.197	0.347	2.274
2008	0.853	1.484	0.491	1.975	0.391	3.219	2008	1.069	0.930	0.428	1.357	0.377	2.803
2009	0.724	1.585	0.481	2.066	0.363	3.155	2009	0.726	1.004	0.374	1.379	0.350	2.455
2010	0.877	1.892	0.562	2.453	0.350	3.682	2010	0.911	1.307	0.446	1.753	0.364	2.921
2011	1.277	1.892	0.614	2.506	0.390	4.190	2011	1.381	1.307	0.555	1.862	0.390	3.640
2012	1.438	1.955	0.683	2.638	0.410	4.480	2012	1.523	1.372	0.598	1.970	0.430	3.920
2013	1.459	2.177	0.729	2.906	0.415	4.780	2013	1.554	1.597	0.648	2.245	0.460	4.250
2014	1.574	2.177	0.749	2.925	0.411	4.910	2014	1.649	1.597	0.664	2.261	0.440	4.350
2015 1Q	1.070	2.177	0.654	2.831	0.388	4.289	2015 1Q	1.131	1.597	0.566	2.163	0.422	3.715

Table 1: Average breakdown of pump prices, gasoline & diesel, in Turkish Markets.

Both charts demonstrate that the gross distribution margins, where both distribution companies and petrol stations finance their operations including their operational profits, initially increased with the start of liberalization (2005-2008) followed by continuous decrease in margins, essentially due to price interventions. EMRA has intervened three times within the last five years by setting a cap to margins of both distribution companies and petrol stations and the last two interventions also included a cap to refinery margins. The result of these interventions was a direct reduction of gross industry margins even below to inflation levels. The following graph shows the variation of gross distribution markets, in Turkish currency, in US Dollars and in Turkish currency with inflation adjustment.

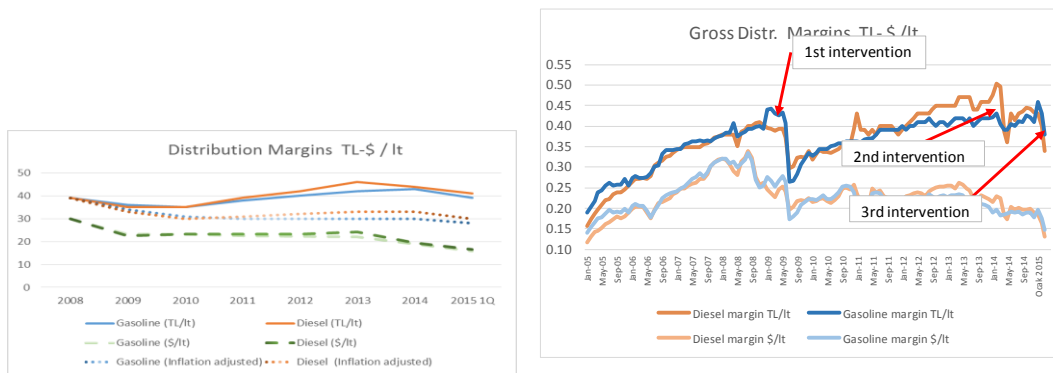


Figure 8: Average, gross distribution margins in Turkish retail industry,

The price interventions in 2009, 2014 and 2015 have reduced the industry margins to a level below 2009 figures. EMRA claims that the margins are too high compared to similar European Markets. Initially, in accordance with the Petroleum Market Law, the relevant markets have been identified as Med Markets as an average of Greece, Italy, France and Spain. However, the latest two interventions from EMRA claimed to move reference markets by inclusion of UK and Germany where the average margins are lower than both Greece and Spain that has been excluded from the reference market comparisons.

2.5 Comparative assessment of pump prices in EU – Med Markets vs Turkey:

In comparing pump prices, EMRA and State Organizations use the weekly data published by European Commission's weekly Oil Bulletin⁽⁹⁻¹¹⁾. The countries report the pump prices as a weekly average, as defined in their respective calculation methodologies. Therefore the prices published in Oil Bulletin is an average representation of market figures, however, direct comparison of prices must be done in caution due to various methodological differences, the difference in market structures and taxation effects. In this regard the methodology employed when comparing such data has been a long going debate between the industry and the regulators in Turkey and therefore deserves a special attention.

The following two figures reflects the tax free pump prices in EU med countries vs Turkey. The charts clearly show that the pump prices in Turkey follows a similar pattern with EU Med Countries, especially when the tax effect is removed, although the methodologies and market natures are substantially different. These arguments have been tabled by the oil industry in order to avoid price interventions, yet the result have not been successful.

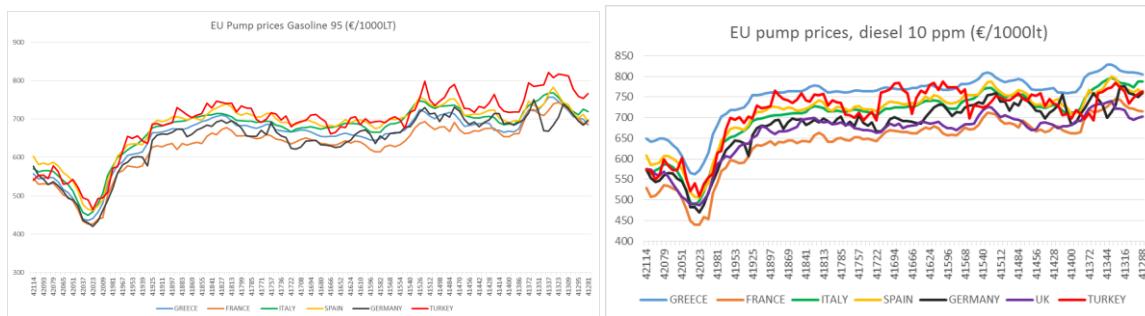


Figure 9: Comparison of tax free pump prices, EU Med Countries vs Turkey.

An important point of debate lies around the market structures of EU countries and Turkey, in the effect that Turkish Market is dominantly a dealer market. Furthermore the reporting differences cause severe misinterpretation of the data representing pump prices representing Turkey vs EU – Med Countries. Another important element of debate is the fact that, based on the Petroleum Market Law, the companies publish max- ceiling prices were due to competitive nature of the markets various discounts employed. In order to eliminate the methodological differences in comparing pump prices,

Conclusions

- 1- International Oil Prices have shown significant fluctuations over the last 10 years. 2008 and 2014 are the two most particular ones and have definitely effected the international energy markets, prices, investments and even international politics. The recent fall in oil prices will have profound effect on the markets and supply demand balances in the next years to come.
- 2- The Turkish pump prices have been closely monitored by the Market Regulatory Authority throughout this period. The Authority has intervended the pump prices by reducing the gross margins of the distribution sector both in the referenced two years. However, the effect of intervention was limited either due to tax adjustments following the intervention or due to currency effects.
- 3- Turkish Oil Pump prices have clearly shown great dependency to international, primarily to Med Markets. Detailed and long standing data shows that the pump prices in Turkey, especially when the taxation effect is removed, is competitive with the Mediterrenean Markets if the comparisons were made on the same grounds. The pump prices in major cities of Turkey vs EU Med countries, after deducting the tax element, is found to be practically the same.
- 4- The constituent analysis of the pump prices in Turkey, showed that the gross industry margins have remained practically the same over the last six years, in Turkish currency. The industry margins have declined significantly in foreign currencies or in Turkish currency after the inflationary adjustments.

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