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Impacts of Regulatory Transformation Processes to the Downstream Oil Market in Turkey

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ABSTRACT

This paper is a review of the regulatory transformation process of the Turkish downstream oil industry with an emphasis of effect regulatory forces to the pace of financial interactions. The regulatory transformation process has been analysed in terms of its effects on large scale financial transactions, in the form of merges and acquisations. The paper reviews a period of 15 years, during which the Turkish Oil Market has gone through a fundamental regulatory restructuring process from a state governed industry to a regulated market. During this period, oil market law, LPG market law and secondary regulations implemented, an Independent Regulatory Authority established, fuel prices were left to the dynamics of market forces, structural reforms have been implemented and the Competition Authority provided guidance to increase the level of competition. This comprehensive restructuring and liberalisation process was essentially a multidimensional transformation process of the Turkish downstream oil industry. During the initial years of this transformation process, there were strong signs of motion towards a fully liberalised downstream market and the players have responded by several, medium to large scale financial transactions in the form of merges and acquisations. As the winds shift toward a regulated market rather than the full libearisation, the level and the period of these financial transactions have slowed down. However, the overall result of this transformation is strong and sustained growth, improved quality and safety implementations, increased investments and financial transactions. The market practically doubled in financial volume, an average of 6.25% growth in automotive fuels for a period of 15 years has been achieved. The last 56 years of this transformation process however, is marked with interventions from both the Regulatory Authority and the Competition Board, which was responded by the market in the form of substantially reduced investments, lower levels of profits and therefore lower investments in addition to exit decisions of some major international of oil companies.

Keywords: Downstream Oil Industry, Turkish Oil Market, Investments and Transactions, Growth, Regulatory Effect, Fuels Market
JEL Classifications: JE31, E61, K2, L11

1. INTRODUCTION

The effect of privatizations and liberalization in different markets have been subject to intensive research. Economic theory indicates that liberal markets establish the basis of the real functioning markets and therefore attracts investments by levereging opportunities for profit and market growth. It is accepted that more open economies enjoy higher rates of private investment which is good for Foreign Direct Investment (FDI) as well as economic growth. Over the last 30 years, where opennes and liberalism became the vision of several developing countries, where they have more than doubled their growth compared to more closed economies (Bloomstoern et al., 1994; Sachs and Warner, 1995; Stiglitz, 2000; OECD, 1998; Mann, 2007). On the other hand the emprical relationship between the FDI and economic growth as well as opennes has been well studied and proven that FDI not only improves the economic growth but also affects the productivity spillovers. In general it is accepted that there is a unidirectional casual relationship between FDI inflows and growth. Kandilov et al. (2016); Shaghil and Zlate (2014) have, in their recent review, claimed the differential between the growth and interest rate is statistically and economically important determinant of net private capital. Liberalisation have proved to contribute capital markets in develoing countries, and also to the investments and capital accumulation. Based on clear evidences and strong scientific proofs of direct contribution to growth and FDI, liberalization has even become a negotiation point in several bilateral investment treaty negotiations and regional free trade agreements Mann (2007); Kandilov et al. (2016).

With the support and encouragement of international organizations like the World Bank, Turkey has also initiated a comprehensive program to liberalize and privatize the energy markets starting with electricity market in 2001. The liberalization of the energy markets in Turkey has begun with oil markets and electricity markets. Electricity Market Law which was enacted in 2001, marked the beginning of energy market liberalization in Turkey. In the same year the Energy Market Regulatory Authority was established which would later serve to enact critical regulations both for the organization of the energy market and for its liberalization. Bahçe and Taymaz (2008) have studied the impact of electricity market liberalization to the investments in Turkey. In oil industry of Turkey, however, there are limited references on the role of liberalization and the regulatory environment on the growth and investments, except some important industry reports Bahçe and Taymaz (2008), World Petroleum Council (2016), Petder (2015); Turkish Oil Market Annual Report (2016), that deals more with the overall shape of the industry. The aim of this publication is, therefore, to provide an overall review of the implications of the regulatory transformation process from a state-owned and state-operated market to a regulated market with initial intentions of full liberalization specific to downstream oil industry in developing countries, that seems to be missing in nature, especially for Turkey. In order to asses the impact of the regulatory moves, some key market indicator data gathered such as market volume, pricing on daily basis, profit margins, number of operators, level of competition, major merge and acquisition processes, i.e., to fill this gap. The mapping of these indicators with the regulatory transformation process yields unidirectional and clear indicators of how markets respond to liberation and how these responses change as the regulatory pressure increases. In this context, the level of consumptions of oil and oil products, profit margins, elements of taxation and level of competition have been the main indicators used to assess the impact of the regulatory transformation processes.

2. THE LIBERALIZATION PROCESS OF TURKISH DOWNSTREAM OIL INDUSTRY

Turkish Downstream Oil Industry has gone through a fundamental restructuring process starting from a state governed market towards a liberal market, with the introduction of the Oil Market Law in December 2003. The law was aimed to liberalize the downstream oil and LPG industries of Turkey, through free pricing and by removing trade limitations between market players. In addition, Energy Market Regulatory Authority (EMRA), an Independent Regulatory Authority was established to implement a new registry and licensing system, monitor the oil market and introduce necessary technical standards. The following section provides and overall view of the oil market law and the LPG market law as published in Official Gazette (Oil Market Law, The Official Gazette No 5015 December 13, 2003).

2.1. Oil and LPG Market Laws, the Liberalisation Process

Turkish Oil Market Law has been published in the Official Gazette No 5015 in December 2013. The objective of the law, as stated in the law, is "to regulate the guidance, surveillance and supervision activities in order to ensure the transparent, non-discriminatory and stable performance of market activities." The law therefore aimed to liberalise the downstream oil market and to implement a new market registry system. The new law required all players to hold a license, (effective after publication of the License Regulation), gave authority to the Energy Market Regulatory Authority (EMRA) to issue regulations and defined operational principles of the players along with restrictions and penalties. One important section of the law was related with the pricing of oil products that "*the pricing for the purchase and sales of petroleum shall be constituted according to the nearest accessible global free market conditions,*" which have caused unending debates around the definition of nearest accessable free markets, and the power of the regulatory authority to rightfully intervene as stated in the following clause of the Law; *"in case that the risks arising from agreements and activities aimed at or may result in hindering, disrupting or restricting the competitive environment and delivery in the petroleum market, the Authority shall be authorized to determine base and/or ceiling price(s) and take necessary measures to apply on regional or national basis in all phases of activities not exceeding 2 months in each time."* These statements have been the focus of long standing debates between the players and regulators. This debate has peaked especially when the authroities decided to implement hard measures on the market such as price caps and change the validity period of exclusive contracts between the dealers.

The new elements of this new law could be grouped around free entry, registry systems, governance of the market by an Independent authority, operational rights, restrictions and limitations of players and principles around fuels pricing. In this perspective, altough the main intention in legislating the law had been claimed to liberate the market, because of the certain restrictions imposed after the implementation period and the way it has been governed, the downstream oil market in Turkey can now be defined as a regulated market, even sometimes referred as a heavily regulated market Petder (2015). Altough the initial aims vs the final results of this regulatory transformation process are somewhat different, the process displayed a good example of how market players respond to regulatory changes in the market. Another important aim of the law was to reduce the illegal fuels activities, smuggling, illicit fuels and tax evation in oil market. The size of illegal activities was estimated to be as high as 3.0 million tons, leading to approximately USD 3.0 billion in tax losses annualy Petder (2015). In order to cope with this big problem several technological instruments such as National Marker implementation, compulsory tank and pump automation systems, compulsory cash registry systems and exclusive contracts between dealers and distribution companies have been implemented. As would be indicated later in this publication, these regulatory measures have proved high level of success in reducing and controlling the illicit fuels issue in Turkey.

Apart form gasoline and diesel, auto LPG is also widely used as automotive fuel in Turkey and therefore any assessment of the fuels market in Turkey has to involve LPG products as well. LPG market law has been published in April 2014 (Oil Market Law, The Official Gazette No 5015 December 13, 2003), some months after the oil market law, with some practical differences. The LPG market law has similar elements such as free market entry, registry systems, governance of the market by an Independent Authority (EMRA), operational rights, restrictions and limitations of players. Main differences with the Oil Market Law however, were due to pricing mechanisms, the national marker implementation and the rights of authorities to intervene with the market. The objectives and the general structure of the two laws are quite similar to each other, apart from some certain differences regarding the technical specifications of the oil and LPG products.

2.2. Secondary Regulations of the Oil and LPG Markets

In order to assess the role of regulatory shift towards a liberal market to the behavior of market players, the period between 2000 and 2016 has been chosen, during which there are periods of state owned, liberal and regulated market forces. As described above, by law, EMRA is given the role to monitor and regulate the oil and LPG markets. In essence this role is not specific to oil and LPG markets but applicable to natural gas, electricity and renewables, i.e., energy markets as a whole. EMRA, as an independent authority is the key regulating actor in energy markets of Turkey. Upon enactment of Oil and LPG market laws, EMRA has issued several regulations to restructure the oil industry, by virtue of the authority vested themselves by the law. Among several regulatory initiatives that EMRA has published so far, the most important secondary regulations that has shaped the downstream oil industry are briefly summarized in the following.

1. Licensing Regulation *(Official Gazette 17.06.2004 No 25495)*: The regulation requires all market players in the Oil Industry, i.e., refineries, distribution companies and dealers as the main market players, are required to receive their operational licenses from the Authority, EMRA. The type of license not only defines the player's rights and restrictions but also specific to the activity type, i.e., depots, refining, distribution, resale, dealer site are all different activity types that needs to be specified in the relevant licenses.
2. Technical Criteria Regulation for Oil Markets *(Official Gazette 10.09.2004 No 25579)*: This regulation mainly defines the technical specifications, quality assessment and reporting procedures of the fuel products to be marketed.
3. Energy Markets Reporting Regulation (*Official Gazette 09.12.2005 No: 26018*): Players of the Oil Market have to report periodically to EMRA on their activities, i.e., sales, changes in dealers structures, oil stocks and other relevant information as a part of their license requirements.
4. National Marker Implementation Regulation in Oil Markets *(Official Gazette 12.04.2004 No 26137)*: National Marker is an important tool that has been successfully implemented in order to avoid smuggled and illicit fuels to enter into the market. Turkey has proved a good and successful implementation in marking fuel products. This regulation defines how, when, where and which type of fuel products will be blended with the national marker.
5. Oil Markets Pricing System Regulation *(Official Gazette 17.07.2004 No 25525)*: The pricing regulation, defines how the players of the market, should structure, report and implement their pricing systems. Although in principle having a regulation defining the pricing structure is considered to be against the free market principles, and therefore may not in full compliance with the spirit of the oil market law, the regulation intends to provide transparent pricing information systems for the public.
6. Inspection and Auditing Regulation in Oil Markets *(Official Gazette 06.01.2005 No 25692)*: This Regulation defines the rules and principles around the inspection and auditing assessments in the oil market. The regulation includes the financial penalties in case the defined structure is not obeyed.
7. IT Security Regulation on Industrial Control Systems in Energy Markets (automation) *(Official Gazette 09.12.2005 No 26018)*: The Regulation is devised to establish electronic control systems of the players in the market, such as pump automation systems. Combined with the National Marker Implementation, this regulation provides an important tool in eliminating fuel smuggling problems in Turkey.

The regulatory structure that the operators must obey, is not limited to the above list. There are several other decisions, comminique's and other regulatory requirements that the players must obey. As apparent from the content of the main driving secondary regulations listed above the Turkish Oil Market has become a regulated market (although the original intention behing the law was to fully liberalize the market). While these laws and regulations, starting from 2003, become effective one after another, the market started its own journey from a state operated market to a liberal market and then, to a regulated market structure. Therefore the period taken as the focus of this paper defines simultaneous regulatory transformation processes which provide a unique example of responses of market players to the regulatory changes.

The size of the Oil Products Market in Turkey (2015) is around 35 million tons. The fuels consumption in 2015 is shown in Table 1, where diesel fuel is the main driver of the market, gasoline production by the refineries is in excess of local demand and the market is short in diesel fuels and relies on imports, as shown in Figure 1 Petder (2015); Turkish Oil Market Annual Report (2016). The total oil consumption has remained fairly constant over the last 15 years, because of the strong shift from black products (fuel oils) to natural gas. If this effect is separated and the market have been evaluated only in terms of automotive fuels or white products, then the growth in the market is substantial. Figure 2 represents the overall Turkish downstream oil market, for the last 15 years. EMRA, the Energy Market Regulatory autohority, publishes fairly detailed and high quality reports on monthly and annual basis, for both oil and LPG products. The reports are detailed such that they include, overal volume growth on products basis, trade movements, market sales from refineries, distributors, consumption data on regional basis in addition to pricing information in regional basis. The wide scope, detailed content and continuity achieved with these reports are indicative

Table 1: An overall view of the Turkish Oil Market, 2015 data Turkish Oil Market Annual Report (2016) data in table is given in 1000 tons

Fuel type	Production	Total imports	Exports	Total supply (imports+refinery+output)	Total demand
Gasolines	5.113.058	0	3.115.474	5.113.058	5.212.722
Diesel Fuels	8.509.777	11.884.892	27.526	20.394.669	20.601.315
Fuel Oil Types	547.712	919.709	982.337	1.467.421	1.586.391
Marine Fuels	2.344.697	75.954	2.434.117	2.420.651	2.616.816
Aviation Fuels	5.024.287	180.571	3.757.478	5.204.858	5.076.719
Total	21.539.531	13.061.126	10.316.932	34.600.657	35.093.963

Figure 1: Supply Balance of Oil Products. (Note that exports in aviation and marine fuels are demand from intrenational flights and vessels

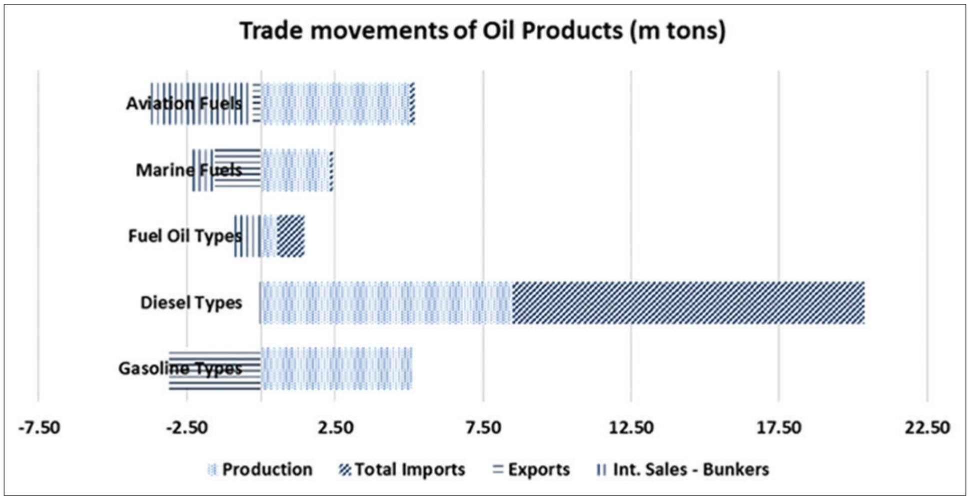
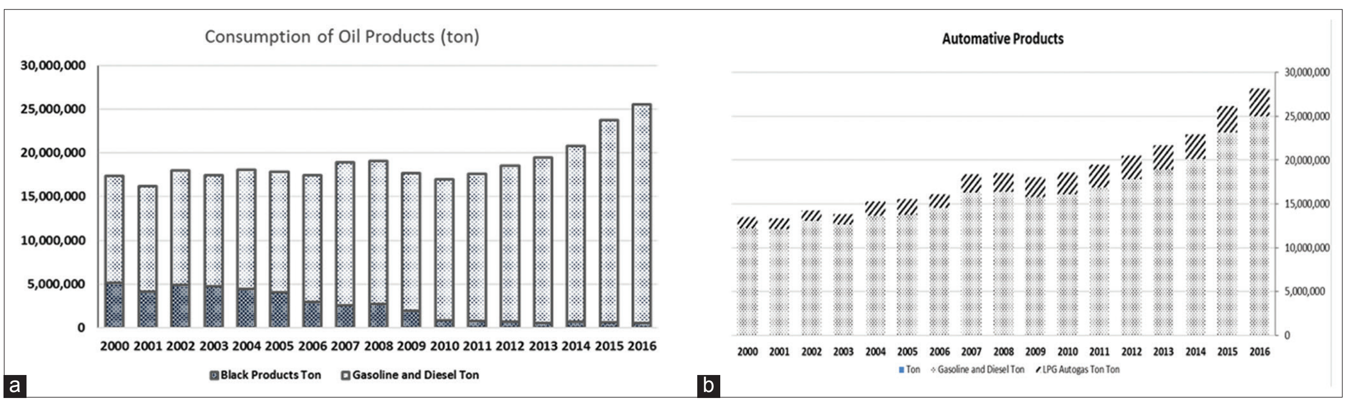


Figure 2: The growth of consumption of oil products (a) and automotive fuels (b) in turkey (tons) Petder (2015)



of the degree of progress that markets have achieved over 15 years of regulatory transformation.

The growth of the market for gasoline and diesel products is mainly achieved by increased fuel demand due to growth of vehicles sales in addition to increase in demand of aviation fuels. The consumption trends of oil products, mainly automotive fuels, mark significant growth over last decade as shown in Figure 2. The consistent growth in automotive products can be observed predominantly in the last 5 years (Figure 2b). Overall growth achieved in automotive fuels consumption, gasoline, diesels and auto LPG (excluding the aviation) in 15 years period (2000-2015) is averaged to 6.25% per annum, which is strong growth figure exceeding gross domestic product (GDP) growth. When the market growth, sustained over 15 years, combined with the positive winds of privitization and liberalization efforts, the Turkish Oil Market has enjoyed large size investments, market entrys from new players and increased competition and quality in the market, which is discussed in the following section.

2.3. The Impact of Liberalization and Regulatory Transformation Process on the Investments

In the previous section we have provided input with regards to the trends in the market volume and the regulatory structural cahange that took place over the last 15 years. Important dates and events of the liberalization process are shown in the following table and Figure 3 (time chart) to demonstrate the impacts of changes in regulatory processes on the level of financial activities in the market. If the period starting from the point of first important privitization in the industry, (*i.e., year 2000, the privitization of Petrol Ofisi, the state owned operated distribution company, the leader of the market with 35% market share*) to mid 2017 is reviewed, with a focus on cjanges in the regulatory envieonment and the financial transactions as an indicator of market interest, one can clearly see that the market has enjoyed multiple and large sized financial transactions in terms of merges and aquisations, buy outs and privatizations, especially in the early years of liberation and privatization. The magnitude of these financial transactions in the market are listed in the Table 2. In addition, these important events are shown on a time chart, to demonstrate the linkage between the degree of liberalization or government interventions to the level of financial transactions in the market, or even the decisions to exit the market.

The above chart demonstrates the close interaction between the regulatory drive and the response of the market players. The upper layer shows important regulatory initiatives of the authorities, such as liberalization and or interventions and the below layer shows the type of important market activity, or in other words the response from the market players. Immediately after the process of privatization, in years 2000–2005, with strong indications of market liberalization which then followed with the implementation of the law that aims market liberalization, the immediate response of the players was in the form of large scale acquisations and buy outs.

Figure 3: Comparison of regulatory changes in the oil market and market responses in the form of important investments and financial transactions

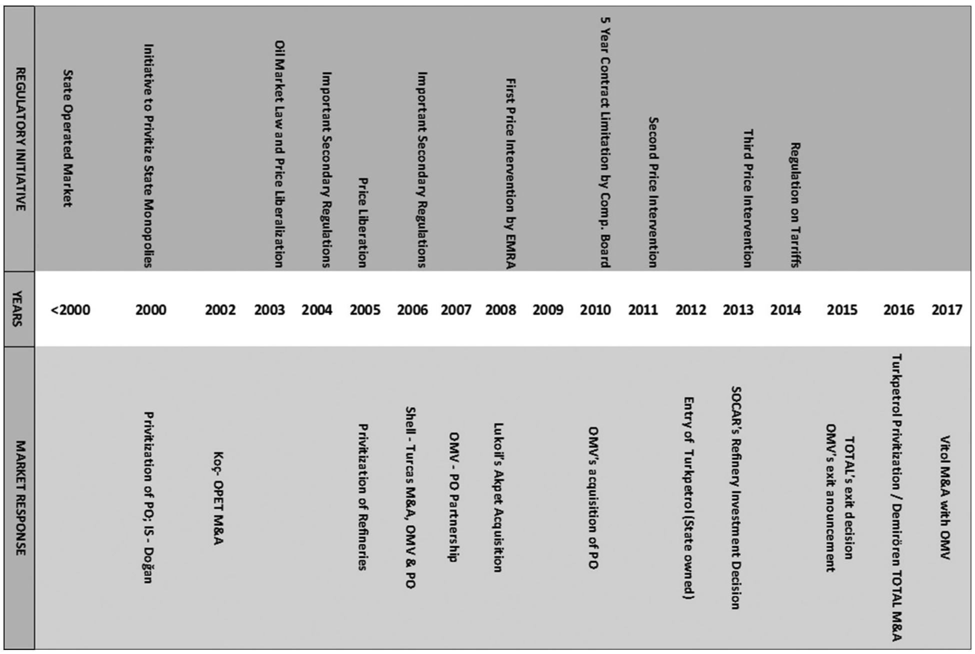


Table 2: Important financial transaction of the Turkish oil market following the privitizations and new Market Law

Year	Event	Transaction value	Notes
2000	Privitazation of Petrol Ofisi	USD 1.160 billion for 51% of shares	PO is the market leading Distribution Co. with 35% market share
2002	Koç and Opet M&A	USD 0,125 billion for 50% of the shares	Koç group has acquired OPET, a fast growing local Co
2005	Tüpraş Privitization	USD 4.140 billion	Tüpraş is the only refinery company in Turkey with 4 main refineries
2006	Shell and Turcas Petrol MA	USD 0,370 billion with 70-30 shares	Shell and Turcas established a new Co 70-30% partnership
2006	OMV bought PO Shares	USD 1.054 billion	OMV bought 34% of PO shares from Dogan
2008	Lukoil and Akpet M&A	USD 0,5 billion	Lukoil has purchased Akpet, that had market share of 4.5%
2010	OMV bought remaining shares of PO	€1.0 billion	OMV has bought remaining shares of Dogan Group (54.17) shares in PO to reach 95.75% share ownership
2013	Star Refinery Investment anouncement	USD 5.6 Billion	Socar Group has anounced the investment desicion for refinery in İzmir
2015	Total's exit anouncement	€ 0.325 billion	Demiroren, a local LPG company purchased Total's fuel operations in Turkey
2016	OMV's exit anouncement		
2016	Turkuaz has bought TP	USD 125 mililon	Turkish Fuels Company Turkuaz has bought state owned Turk Petrol
2017	Vitol has purchased shares of PO	€ 1.368 billion for the shares of OMV	Vitol has purchased OMV's fuel facility in Turkey

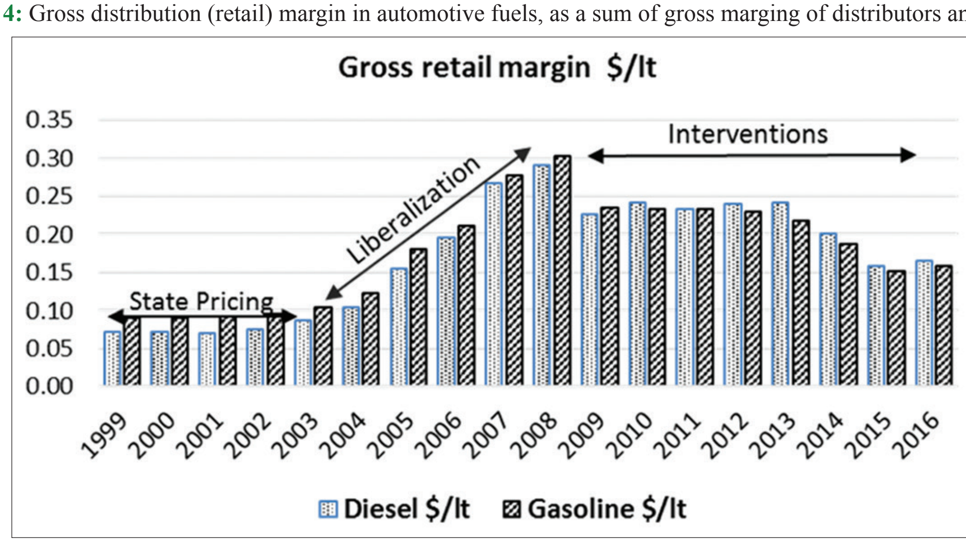
During the period between 2000 and 2009, strong winds of liberalisation and free market commitments from the government has triggered significant investment and financial transactions in the downstream oil and LPG market. As can be seen in Table 1, the market has enjoyed multiple large sized financial transactions, such as, merge and acquisitions, investments and buy outs. Although not listed in the Table, the market has enjoyed additional investments in the form of advanced level of marketing tools, investments into new fuels products and refining technologies, improvements in quality and customer service programs, investments made for the retails sites, storage facilities, refining process improvements and even transport systems. A simple market estimation of such additional site, process and quality investments is likely to be more than USD 5 billion. For example, Tüpraş refineries, just by itlsef, is accountable of USD 3.0 billion of these additional investmenst due to process modification investment, in the form of hydrocrackers and conversion from fuel oil to products, which made Tüpraş highest Nelson Complexity in the refining market.

Starting from 2009 to 2010, the regulatory transformation process and therefore the investment apetitie in the market has slowed down mainly due to interventions of the regulatory Authority in the form of price cap implementations that effected profit margins, in addition the Competition Authority's decision to limit the contract periods.

During the period between 2005 and 2009, with the start of liberalization winds, as the markets became more fluid and free, the profit margins had increased consistently, which then caused the Authorities to intervene by imposing temporary and short term price caps, that has directly affected the gross retail margin. The first of these price cap interventions has taken place in 2009, when the gross retail/distribution margin had raised up to 30 cents/l from the 7 cents/l level before the price liberation. Before January 2005, the price liberation, the gross industry margin was being set by the government and typically in the range of 5 to 7 cents/l, regardless of the price of the product or the exchange rate. The following graph (Figure 4) shows the remarkable changes in the gross industry margins, as a function of the change of regulatory environment.

The 2009-2015 period was consisted of several interventions in the form of price caps in addition to the Competition Board's decision to limit the contract periods. During that period, the fuels market has been marked with three price interventions by EMRA. The first intervention (2009) was made on the claims that players are constantly increasing their margins with no practical market reasons and this exceeds the objectives of the law. The price cap was applicable for 2 months period and has caused the gross retail margin drop from about 30 cents/l to 22 cents/l. The intense discusions around this price intervention, whether it is in parallel with the Law's jurisdiction, triggered further debate on the level of competition in the market being too low as claimed by the Competition Authority Competition Board of Turkey, Fules Sector Report (2008) in their Fuels Sector Report. Immediately after the price intervention of EMRA, the Competition Authority's claim that the exclusive contracts signed between the dealers and distribution companies are too long, generally 15-20 years sometimes extending beyond 30 years creating market entry difficulty, reducing the level of competition in the market was another important source of debate. Almost immediately after the price cap intervention by EMRA, the Competition Board decided Competition Board, Comminique. (2002), in April 2010, to limit the contract period between the distribution companies and the dealers to 5 years. The Competition Board's decision to limit the validity period of the exclusive dealership contracts between the distribution companies and the dealers, to 5 years, was applicable to already signed contracts, required retroactive implementation and therefore created serious of discussions, court cases between the industry and the authorities, mainly around the concept of liberalization and continuous interventions and retroactive legislations. In assence, the main impact of the Competition Board's decision was on the market value of the distribution companies, since the market value of the retail companies are directly related with the number of contracts and the validity periods of these contracts. This period (the period between 2009 and 2015) is marked with debates around interventions leading to loss of investments and diversion of international funds from Turkish oil market. As an outcome of these negative signals, important decisions came from Total and OMV where both companies have publicly anounced that they will be divesting

Figure 4: Gross distribution (retail) margin in automotive fuels, as a sum of gross marging of distributors and dealers



their assets (http://www.sabah.com.tr, http://www.hurriyet.com.tr) and these anouncements have turned into action by the recent transactions that took place between total and demiroren (a local company operating mainly in LPG business) and OMV and vitol (PO transaction). The widespread news in the market as well as in the media was that continuous interventions leading to serious financial losses in distribution companies were the main reason behind this exit decisions. On the other hand, again during the very same period, Turkish oil market has witnessed another refinery investment decision by SOCAR and a successful privatization of the Turkish Petroleum Distribution Company, which can be considered as decisions supporting the counter arguments.

The size of impact of market interventions, in the form of price caps, can be better explained when the industry margins and sales volumes are considered together on an annual basis. Although the price caps were implemented for a period of 2 months, the recovery period of gross retail margins extends to several months and even to several years. Figure 4 shows the variation of gross industry margins over a period of more than 15 years, which clearly demonstrate the significance of the impact in three different market stages. Before the oil market law, which was published at the end of 2003, the pricing was determined by the government and the gross margin for distribution side was fixed to USD 5-7 cents/lt. After the introduction of the free pricing system with the new law, in the beginning of 2005, the margins have started to grow and therefore the investments as well as financial transactions in the industry has begun to ramp up. The price cap interventions between the period of 2009 and 2013, as an average, created a loss of 0,07 $/l gross industry margin which translates to aproximately USD 1.1 billion loss of potential income on annual basis for the whole industry. Although the interventions and caps are only applicable for 2 months the overall affect was very significant when this impact is spread over for the whole year.

2.4. Competition and Market Entry

Both the oil market law and the LPG market law operate on the principle of free market entry. The rules for market entry for the distributors are relatively simple and do not require high level of investments. However, to operate in the market an extensive level of reporting needs to be made in addition to several complicated relgulatory requirements. Therefore, we may state that the distributors do not have to make a large investemnt to enter to the market, however, they have to carry a significant level of regulatory requirements to stay in the market. This was the spirit of the law, to increase the level of competition in the market by relaxing the entry barriers. The number of players, their market share and the yeraly variation of these are accepted as simple indication of the level of competition in the market. The following graphs (Figure 5a and b) show the number of oil and LPG distribution companies, before and after the enactment of the law. In addition, the number of retail sites, is also shown in order to provide an additional data in assessing the role of new laws and easement of market entry. The fuels and LPG retail sites display relatively different characteristics, altough the total number of fuel retail sites are relatively stable, there is a continuous increase in LPG sites. This is normal since the number of available sites suitable for fuel distribution is limited by nature of the operation and certain restrictions on the land site. The continuous increase in LPG sites is because of the addition of LPG units in already existing fuel retail sites.

The level of competition in the downstream oil market in Turkey has been the subject of extensive debates during 2010 and 2015. These debates range from academic researchs through price assymetry studies, (Bor and İsaruhan, 2013; Ünal, 2011) overall market price reviews, (Metin, 2015) to an extensive official report on the competitive nature of the fuels market as published by the competition authority Competition Board of Turkey, Fules Sector Report (2008). One of the objective of the new market law was to increase the competetive nature of the fuels retail market. Before the entry of the new law, the market share of first five major distribution companies in Turkey was approximately 83%. After several state interventions and the decision of the competition board to limit the contract period to 5 years, the market share of majors showed a slight drop down to 78%, i.e., the major companies were able to keep their market shares even tough the number of players in the market have practically doubled as shown in Figure 6 Another striking fact with the market shares of the major oil distribution companies operating in Turkey, is that the relative market shares of the competitors are in constant change, again indicative of the competitive nature of the market. More technical assessments of the competitive nature of the oil and LPG markets in Turkey show that HHI index and CRn indexes show relatively high values (1197 for fuels market Turkish Oil Market Annual Report (2016) and 1277 for LPG market (LPG Market Report, 2016).

The Competition Authority marked a turning point in the history of fuel dealership business in Turkey by the decision to limit the duration of dealership contracts to 5 years as of 18 September 2010. The retroactive character of this decision, and therefore its provisions affecting contracts signed prior to this date, resulted in the reshuffling of the cards in the market. The impact on the market was significant loss of book value of the distribution companies and a pressure on the distributors' share in the margins as a negotiation tool for the new contracts.

2.5. The Impact of Measures against Smuggling and the Volume Growth in Automotive Fuels

Before the enactment of the oil market law, the high level of smuggled and illicit fuels in the market was one of the main problems of the Turkish oil market. In fact, the oil market law was designed to include several instruments to fight agains illegal products, such as compulsory use of national marker, pump and tank automation systems, exclusivity of contracts between distribution companies and dealers, detailed reporting and heavy penalties. On the other hand Turkey is one of the leading countries with high taxation on fuel products, which creates a potential for illegal income. The country is surrounded by oil producing countries and due to significant tax level difference across borders, there has been continuous flow of oil products through the borders, in addition to various forms tax evasion due to illicit or fraudulent products. The new law aiming liberalization and strong measures against the illegal products (such as national marker, pump automation systems, cash registry systems, intense reporting etc.)

Figure 5: Changes in number of Petrol Fuel and LPG distribution companies (a) and Retail stations (b)

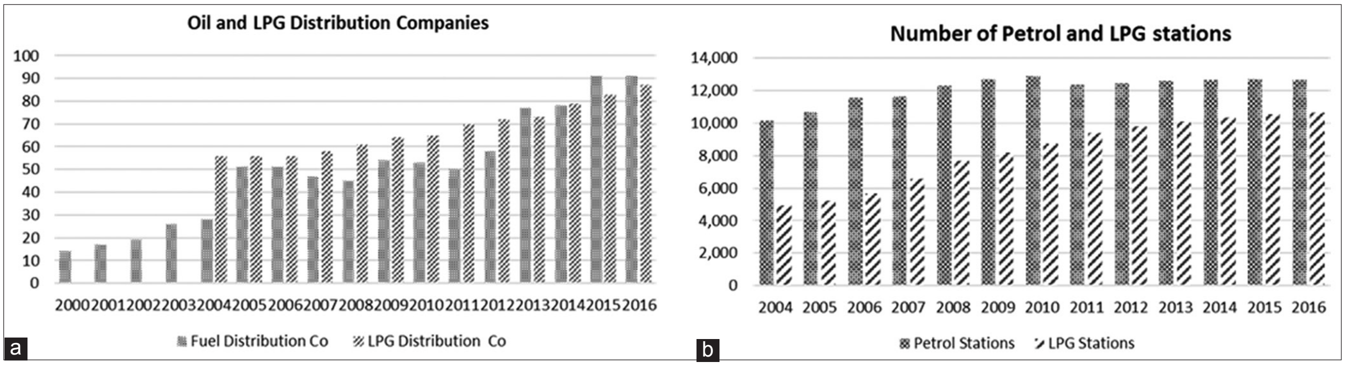
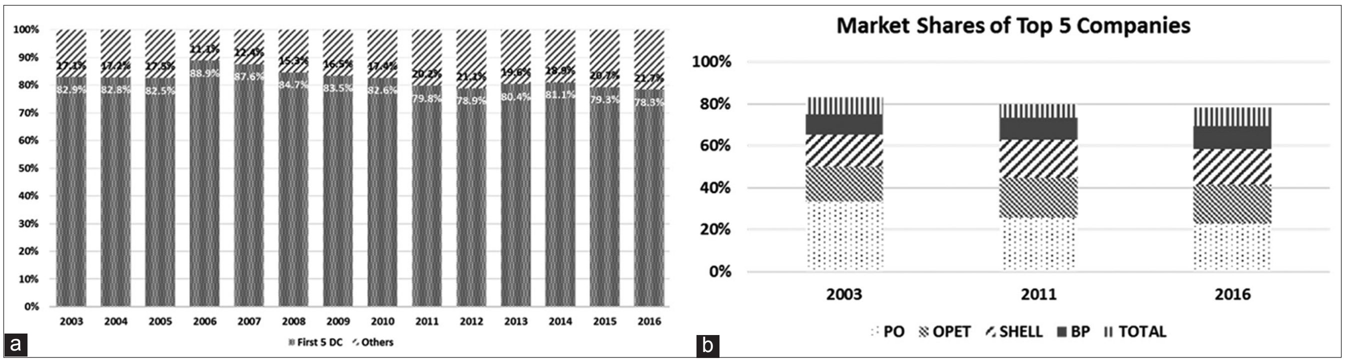


Figure 6: Market shares of the top five distribution companies in Turkish fuels' retail market



in the market has proved significant level of succes against illicit products and fuels smuggling. Before the entry of Oil Market law in 2003, the volume of illegal products in the fuels market had reached to around 3.0 million tons per annum. In addition to fuel smuggling through borders, time to time different ways of illicit activities have evolved, such as use of heavy base oil to replace diesel fuels. Tight regulations, enforcing compulsory use of natural marker in automotive fuels, pump automation systems, cash registry systems and heavy penalties have proved success and the level of ilegal fuels in the market has dropped to a level less than 1.0 million ton.

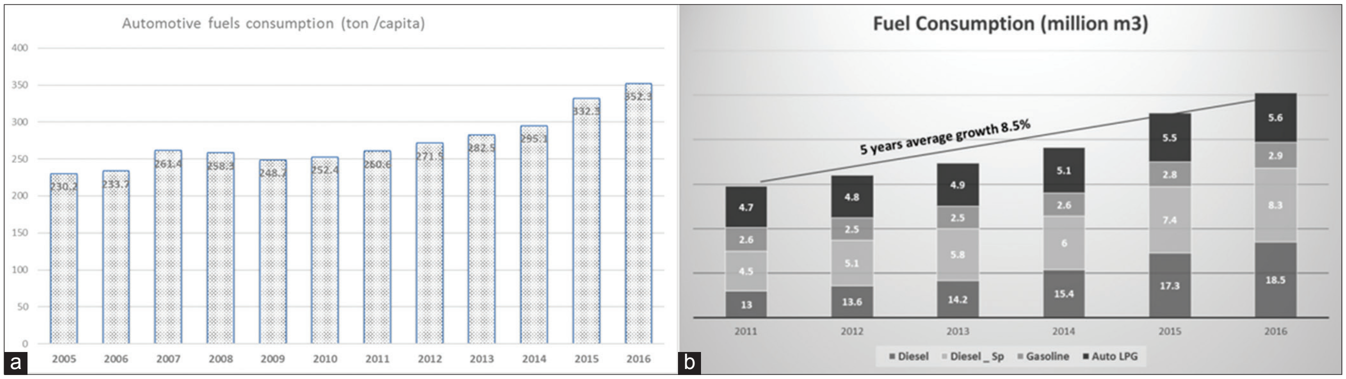
The result of the success of fight against illicit products is depicted by a continuous and positive volume growth in fuels market. The following graphs (Figure 7a and b) demonstrate the strong growth in the consumption of automotive fuels over the period of last 15 years. The growth is consistent per capita basis and even stronger for the last 5 years, averaging CAGR of 8.5%. This strong growth in excess of the GDP, is accepted as a strong evidence of success of fight against smuggling and fraudulent products which was achieved by national marker implementation, tank and pump automation systems together with high quality data collected and published by EMRA.

In summary, Turkish Oil market displayed typical characteristics of a market liberalization process. Introduction of a new market law, strong drive towards market liberalization, privatization of refineries and distribution companies have created an environment where the country received more than USD10 billion level investments the form of FDI and financial transactions within the period between 2000 and 2009. Although these investments and liquid market characteristics have slowed down between 2010 and 2015, some important level of investments and mergers and acquisitions continued in the market even after these events, exceeding USD 5 billion. In addition, the positive legal environment, i.e., winds of liberalisation has helped the markets to grow consistently, by an average of 6.25% per annum between 2000 and 2015, which is greater than the GDP growth of the country.

3. CONCLUSIONS

1. The market transformation process of Turkish downstream oil industry from state governed to a regulated market, presents a good example of the sensitivity of investments and financial transactions to the regulatory environment. The market enjoyed fairly large sized investments, merge and acquisations, buy outs with the start of liberalization efforts supported by the enactment of a law aiming liberal markets. The markets have changed its dynamics and displayed lover level of financial transactions when government interventions took place reinforced by increasing regulatory pressure.
2. The Turkish downstream oil market displayed strong growth especially in the area of automotive fuels such that the average growth of last 15 years is 6.25%. The growth of the market has reached an average 8.5%, for the last 5 years, which is well in access of GDP growth of the country. The strong growth is partly due to successful fight against illegal products, along with the healthy growth of automotive industry in Turkey. The implementation of national marker, exclusivity of the nature of the dealer and distribution company, pump automation systems are all considered to be jointly contributors of this positive result.

Figure 7: Growth in consumption of automotive fuels; in per capita base (a) and in total by fuel type (b)



3. The Turkish downstream oil market had florished with significant level of investments and financial transactions in the form of merge and acquisitions, especially when the regulatory environment was moving towards a fully liberal market, between 2000 and 2009. During this period, the industry enjoyed financial transactions, in the form of merges and acquisations, in access of USD 10 billion. However, due to political shifts towards more regulated market structure instead of full market liberalization, combined with interventions, the level of investments dropped significantly during 2009-2015. This was the period where some of the major oil companies have decided to exit the market since the level of returns were not sufficient to sustain their investments and the risks associated were too high to justify staying in the market.
4. Overall, successful privatization and regulatory change from a state owned and state operated market have triggered more than USD15 billion level of investments and financial transactions in the market. When combined with the direct investments made to retail sites, depots, fuels quality programs, logistics and transport activities this figure likely to exceed USD25 billion, a good example of positive impact of market liberization.

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