

# *Nice work if you can get it!*

Developments in the  
Turkish petroleum market

February 2011



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# *Table of contents*

<i>Introduction</i>	<i>3</i>
<i>Executive summary</i>	<i>4</i>
<i>Part I: Activities regulated under Petroleum Law No. 6326</i>	<i>6</i>
<i>Part II: Transportation of crude oil</i>	<i>9</i>
<i>Part III: Activities regulated under Petroleum Market Law No. 5015</i>	<i>12</i>
<i>Part IV: LPG market</i>	<i>18</i>
<i>Part V: Pricing and taxation</i>	<i>20</i>
<i>Part VI: Looking ahead</i>	<i>22</i>
<i>List of figures and maps</i>	<i>24</i>
<i>Abbreviations</i>	<i>25</i>
<i>References</i>	<i>25</i>
<i>Contact us</i>	<i>26</i>

# Introduction

The pick-up in oil prices, the offshore disaster in the Gulf of Mexico, a shifting focus from downstream to upstream and elaborate discussions on shale reserves have been the global headlines in 2010... But the issues topping the agenda in the Turkish petroleum market were very different.

In Turkey, 2010 started with the celebration of the resumed offshore activities in the Black Sea, along with positive signals for the Mediterranean and Aegean.

Discussions on enhancing the security of the Turkish straits and negotiations for a second pipeline to carry Caspian crude to global markets through Anatolia gained momentum on an international scale.

Deteriorating cracking margins on the back of sustained low demand for petroleum products meant mothballing and conversion to storage facilities for many European refineries, whereas no such measures were even discussed

by the sole Turkish refiner, which instead kicked off new investments to meet sustained domestic demand. Approval for a second refinery contributed to this decoupling of Turkey from the European misery.

Progressing along the value chain, storage operations have risen as the new star, not only on the back of regulatory enforcements but also reaping the benefits of vertical integration.

While leaving most of the Mediterranean fuel retail markets, IOCs assigned a special status to the Turkish market as a unique growth hub. This is a strong commitment proved resilient first to the margin cap exercise by the regulator in 2009 (a move with ongoing *psychological* impact throughout 2010) and the significant decision by the Competition Authority to fight the anti-competitive impact of long-term usufruct and rental contracts between distributors and dealers.

Looking at 2011, we are expecting to see the outcome of the continued adjustment to the competitive downstream environment reflected in intensive consolidation activity to compensate for the erosion of margins. Although no clear sign exists, we are also optimistic over concrete improvements on the upstream regulatory front, such as the ratification of amendments to the archaic Petroleum Law and more rationalised steps in the secondary legislation regulating daily life in the distribution and retail segment.

We hope our comments and outlook will help illuminate your future plans targeting this unique market.

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# *Executive summary*

## *Untapped reserves versus outdated legislation*

The share of indigenous oil in the domestic supply basket is now around 10%, but 80% of onshore reserves and almost all offshore reserves remain untapped. Although investments by domestic and foreign private players are growing, the Turkish Petroleum Company (TPAO) retains absolute dominance over exploration and production (E&P) activities. Nevertheless, the market is optimistic about further growth, with greater regulatory efficiency expected following the long-awaited amendments to Petroleum Law No. 6326.

## *Straits to be handled with care*

An estimated 50,000 vessels pass through the Turkish straits annually, 20% of which are crude oil and petroleum product tankers. Even in the best of weather, the Bosphorus Strait is quite difficult to navigate, as evidenced by the more than 180 recorded collisions, resulting in 47 deaths, between 1982 and 2008. Pipelines have already become imperative to mitigate the risk to human and marine life, given the growing oil production in Russia and the Caspian region. In this regard, the Baku-Tbilisi-Ceyhan (BTC) pipeline constitutes an important example, one to be followed by the Samsun-Ceyhan pipeline, for the total transportation of more than 150 mn tonnes of crude oil and petroleum products per annum, bypassing the straits.

## *More action for Ceyhan please!*

With its name linked with all the pipelines and possessing the potential to channel more than 150 mn tonnes of crude oil to global markets every year, Ceyhan has gradually strengthened its strategic position in the Eastern Mediterranean Basin. This was underlined by the decision to declare the region an Energy Specialisation Industrial Zone in 2007, although no details are available regarding any related incentives.

## *Full-throttle dieselisation and embrace of non-sulphur future*

Although demand figures are often inconsistent with car park growth due to illegal fuel use, sweeping dieselisation is a confirmed fact, with the fuel holding an almost 66% share of automobile fuel consumption. The positive reaction of Turkish drivers to Euro IV standards seems likely to facilitate the shift to Euro V by 2011.

### ***Secure market for sole refiner***

Currently meeting around 60% of domestic petroleum product demand, Tüpraş is the sole refiner in Turkey. Although no limitation exists on imports by fuel distributors, the red tape, financial requirements and infrastructure gaps create a de facto barrier.

The impacts of the planned refinery of the SOCAR-Turcas JV, together with growing consolidation and vertical integration in the downstream segment remain to be seen in the mid-to long-term.

### ***Ususfructs unlikely to settle soon***

The Competition Authority (CA) marked a turning point in the history of fuel dealership business in Turkey with its decision to limit the duration of dealership contracts to five years as of 18 September 2010.

The retroactive character of this decision, and therefore its provisions affecting contracts enacted prior to this date, resulted in the reshuffling of the cards in the market. The preliminary impact has been the pressure on the distributors' share in the margins as a negotiation tool for the new contracts. Although the dust does not look set to settle soon, the mid and small-size distributors and also the dealers are to emerge as the winners of this process.

### ***Tax incentives leave Auto-LPG last segment standing***

Mainly thanks to favourable taxation, Turkey is the world's second largest auto-LPG market after South Korea and has the highest number of auto-LPG stations in the world, with more than 8,500 dealers. Sharing the same unfortunate fate as heating oil, on the other hand, demand for bulk and cylinder LPG has been severely hit by the rise of natural gas in residential heating.

### ***Proud to be price champion?***

Recent discussions about the high fuel prices reminded us of the fact that Turkey tops the 28 European countries in the downstream segment with the highest gross margin and with no less emphasis on the share of tax hitting 67% and 57% of gasoline and diesel pump prices respectively. Looking forward, however, the discussion seems to ignore the taxation and to evolve more on the over-European average downstream margins, with an already open call by the Turkish government for lower figures and the regulator's controversial decision to ban the promotion activities by the distributors to contribute to the expected erosion.

# Part I: Activities regulated under Petroleum Law No. 6326

The existing legislation in the Turkish petroleum market separates upstream activities, i.e., crude oil exploration and production (E&P), from mid and downstream activities. Petroleum Law No. 6326, which is now 77 years old and recently been the subject of serious amendment considerations, is the main body of legislation regulating the upstream segment.

## Share of domestic crude oil in supply has halved

The first upstream activities in Turkey started in the 1930s, but have not to date resulted in significant discoveries. Production peaked at 4.45 mn tonnes in 1991 and gradually waned to 2.37 mn tonnes in 2009 by a CAGR of 6% (see Figure 1). On the demand front too, a gradual slowdown has been the trend, not solely due to the loss of steam in demand for oil products, but also on the back of optimisation works in the domestic refinery facilities, among other reasons.

The share of indigenous oil in the domestic supply basket, which was 20% two decades ago, is now 9%. Nevertheless, the 13% YoY pick up in production in 2009 indicates an end to a long-term hiatus in E&P activities. Please note that, as long as E&P companies are willing to sell, refiners have to give priority to procurement of domestic oil.

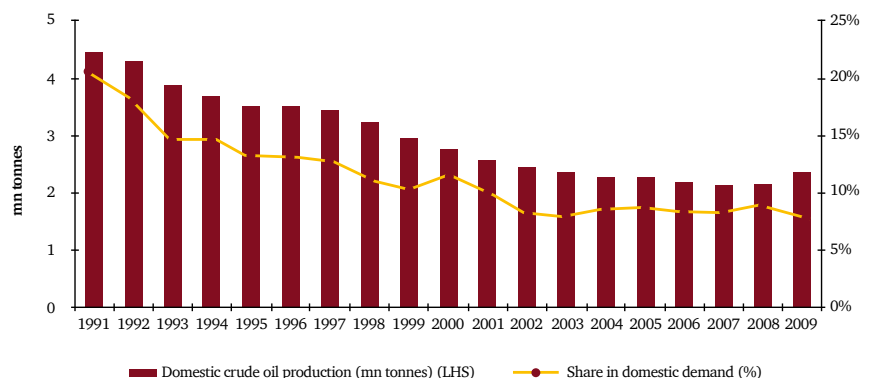
The remaining 91% the demand is mainly met by imports from Russia and Iran (see Part III for more detail).

## 80% of onshore reserves remain untapped

Turkey is divided into 18 onshore oil exploration zones (see Map 1). Over the 77-year period since the first drill, however, only three zones in south-eastern Anatolia (Zone 10, 11, 12) and one in Thrace (Zone 1) have received sustained investment interest.

Although the total investment in oil and gas exploration grew seven-fold between 2002 and 2009, reaching US\$716mn, only 20% of onshore reserves have been explored so far.

Figure 1: Domestic crude oil production (mn tonnes)



Source: PIGM

## TPAO retains absolute dominance

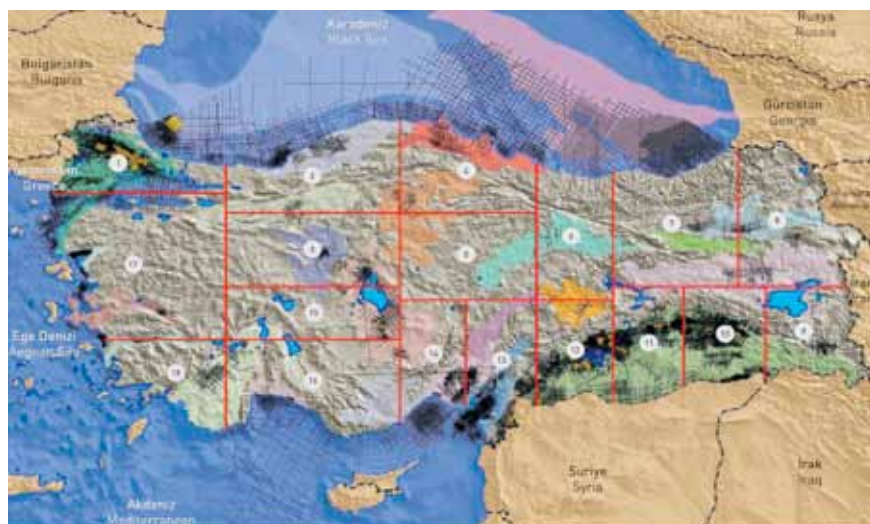
Being just one of the 48 companies operating in this segment, TPAO holds 151 licences in full and 14 via partnerships, out of 415 in total, based on 2009 statistics. In the same vein, 68% of the total exploration acreage of 382,000 km<sup>2</sup> is assigned to TPAO's licences. As a consequence, TPAO realised 69% of the total production of 2.4 mn tonnes in 2009.

## Private interest is also growing

Albeit not fully reflected to reserve or production growth, there has been a significant increase in the number of the E&P companies operating in Turkey over the last decade. There were only four domestic and 17 foreign licensees in 2002, but these figures reached 24 and 24 respectively in 2009. Meanwhile, the share of private capital expenditure in total E&P investment hit 49% in 2009, at US\$350mn (see Figure 2).

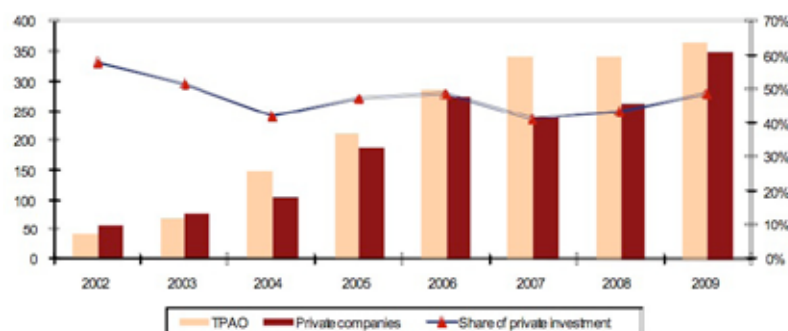
The transaction news flow is adding momentum to the market. In 2010, TransAtlantic Worldwide, Ltd. paid US\$96.5 mn for 100% of the issued shares of Amity Oil International Pty. Ltd. and Zorlu Petrogas Petrol Gaz ve Petrokimya Ürünleri İnşaat Sanayi ve Ticaret A.Ş., both of which hold oil and gas E&P licences in Turkey.<sup>1</sup> An analysis of the deals in this segment can be found in our “2010 Energy Deals” report.

Map 1: Crude oil exploration zones in Turkey



Source: TPAO

Figure 2: Oil and gas E&P investments (US \$ mn)



Source: PIGM

<sup>1</sup> [http://www.transatlanticpetroleum.com/s/NewsReleases.asp?ReportID=416141and\\_Type=News-Releasesand\\_Title=TransAtlantic-Petroleum-Ltd.-Closes-on-Acquisition-of-Amity-and-Petrogas](http://www.transatlanticpetroleum.com/s/NewsReleases.asp?ReportID=416141and_Type=News-Releasesand_Title=TransAtlantic-Petroleum-Ltd.-Closes-on-Acquisition-of-Amity-and-Petrogas)

## ***Focus is now on the Black Sea***

Both TPAO and some big foreign players have speeded up their efforts in recent years in the Turkish territorial waters on the Black, Aegean, and Mediterranean seas.

Investor interest in the more promising reserves under the Black Sea, estimated at 10 bn barrels, was reshuffled by the end of 2008.

A number of agreements signed by TPAO with Petrobras and ExxonMobil progressed further at the beginning of 2010, and ExxonMobil farmed into a Petrobras-TPAO deepwater exploration project.

Chevron became another name in the Black Sea play with a partnership agreement signed with TPAO to undertake E&P activities for an investment estimated at US\$750mn.<sup>2</sup>

## ***Mediterranean possibilities not forgotten***

A recent announcement by the Ministry of Energy about the upcoming kick-off of 3D seismic activities in the Gulf of Antalya in Turkish territorial waters and offshore Girne in North Cyprus proves that ambitions for this region remain alive. The consideration of a possible inclusion of Greek Cyprus, on the other hand, should be acknowledged as a constructive step towards greater security for further investment.

## ***Regulation is following but not guiding the market***

All these recent developments are taking place in a very uncertain regulatory environment, however, in that an amendment proposal to the existing Petroleum Law No. 6326 has been waiting its turn on Parliament's agenda since 2007. The main rationale behind the proposal can be summarised as follows<sup>3</sup>:

- To clarify overlapping jurisdiction with Petroleum Market Law No. 5015
- To increase investment in the upstream operations via:
  - Simplification of red-tape and minimisation of costs,
  - Provision of a more level playing field for private investors by limiting the privileges enjoyed by TPAO,
  - Provision of investment tax credits and exemptions,
  - Rearrangement of upstream operations rights and obligations to reflect current circumstances.

<sup>2</sup> [http://www.pigm.gov.tr/duyurular/Chevron\\_Tpao\\_Karadeniz\\_Ortak\\_isletme\\_Anlasmasi.pdf](http://www.pigm.gov.tr/duyurular/Chevron_Tpao_Karadeniz_Ortak_isletme_Anlasmasi.pdf)  
<sup>3</sup> <http://www.pigm.gov.tr/petrolkanunu.php>

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# ***Part II: Transportation of crude oil***

## ***Turkish straits***

Vessel traffic in the Bosphorus and the Dardanelles straits is regulated by the 1936 Montreux Convention Regarding the Regime of the Turkish straits, which entitles Turkey to full control over the straits and in turn makes the country legally obliged to keep these “international waterways” open to commercial traffic during peacetime.

## ***Volume is growing***

The Bosphorus and Dardanelles Straits are strategic assets for Turkey. Thus the country puts all its efforts into limiting the amount of heavy oil tanker traffic on the grounds of safety and environmental concerns.

Indeed, an estimated number of 50,000 vessels, including over 9,000 oil tankers, pass through the Bosphorus annually. Between 2005 and 2009, the annual average crude oil and petroleum products volume transported via this route reached 150 mn tonnes.

Even in the best of weather, the 27-km long Bosphorus strait - only c. 1 km wide at its narrowest point - is quite difficult to navigate, as evidenced by the more than 180 recorded collisions, resulting in 47 deaths, between 1982 and 2008.

## ***Freedom has also its boundaries***

However, the significant growth potential on the back of rising oil production in Russia and the Caspian region makes it imperative to devise some serious measures before this ‘freedom’ becomes a bigger threat to human and marine life. A promising step was taken in 2010 with a meeting that brought together the related ministries and international oil companies (IOCs) to discuss in detail the magnitude of the risk to lives on both sides of the straits and to 33 animal species that already face the threat of extinction in the Marmara. In this regard, the importance of the substitution of marine transport by pipelines was emphasised, and participants were asked to be a solution partner to minimise vessel traffic through the straits. Although no concrete to-do list was produced, this consultation attempt is still worthy of serious attention in terms of the involvement of non-governmental parties like IOCs.

The recent objection by Turkey to the transit of LNG tankers via the straits underlines the determination and enhances the hopes for a more sustainable security structure looking forward.

Another suggestion to increase the transit fees by introducing new charges for sanitary and safety precautions is expected to give more incentives to oil exporters to redirect traffic away from the Bosphorus.

## Cross-border pipelines

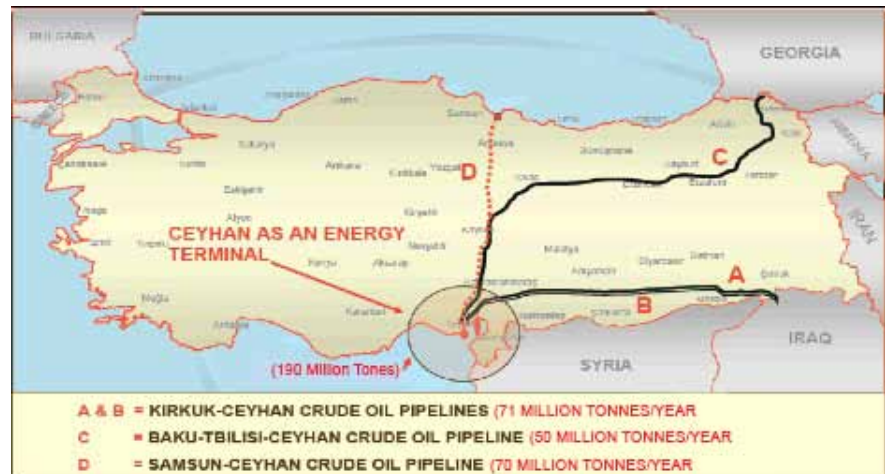
Cross-border oil pipelines traversing Turkey are regulated with the international treaties signed by the host governments and special laws ratified by Turkish parliament to ensure the seamless execution of operations in Turkish territory.

### Oil transit story began with Kirkuk-Yumurtalık Pipeline

The emergence of the ‘transit’ character of Turkey in the pipeline transportation of the hydrocarbon wealth of the eastern wells to the western markets goes back to the 1970s, when the 986 km Kirkuk-Yumurtalık<sup>4</sup> pipeline was jointly constructed by Turkey and Iraq. The pipeline is fed by the Northern Kirkuk field and consists of two parallel lines with a total annual nameplate transit capacity of 1.6 mn bbl/d, although damage to the facility, particularly during the invasion of Iraq, pulled capacity down to about 400,000-500,000 bbl/d, according to Iraqi Oil Ministry figures.

The Kirkuk-Yumurtalık Pipeline means a lot to both sides, in that Iraq relies on it to export crude from its northern Kirkuk hub to the Turkish Mediterranean coast and, in turn, Turkey is keen not to sour relations so as to capture the anticipated future crude production capacity growth in the region. The parties signed an accord in 2010, extending the operation of the pipeline for 15 years.

Map 2: Current and planned crude oil pipelines connecting with Ceyhan



Source: BOTAŞ

### BTC provides alternative to the straits

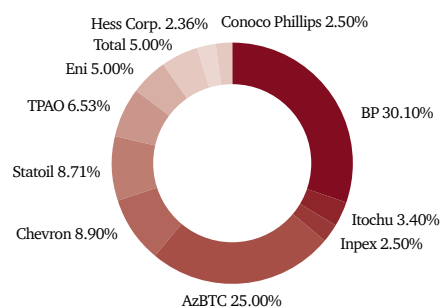
Perennial political considerations in Central Asia, together with the risk posed to the straits, resulted in the realisation of the 1,778-km Baku-Tbilisi-Ceyhan (BTC) Crude Oil Pipeline Project, the first bypass of the Straits via Azerbaijani and Georgian territories, terminating in Ceyhan on the south-eastern coast of Turkey.

The pipeline is currently operated by the BTC Pipeline Company, led by BP (see Figure 3). According to

the company reports, the pipeline currently carries mainly ACG oil and Shah Deniz condensate from Azerbaijan. BTC also has agreements to carry oil from Turkmenistan and the Tengiz field in Kazakhstan.

The first crude was delivered to Ceyhan via BTC in 2006 and until November 2010, a total of 1,354 tankers were loaded over 1,063 million barrels. The average daily volume during 9M10 reached 585k bbl/d, 49% of the total capacity.<sup>5</sup>

Figure 3: Shareholders in BTC Pipeline Company



Source: BP

<sup>4</sup> Kirkuk-Yumurtalık Pipeline is more commonly referred as Kirkuk-Ceyhan, although its actual end point is Yumurtalık.  
<sup>5</sup> <http://www.bp.com/genericarticle.do?categoryId=9029616&contentId=7066262#7244243>

## Now Black Sea will lend a hand

Turkey is to host another project, namely the Samsun-Ceyhan pipeline<sup>6</sup>, which will first cross the Black Sea and then Turkey, again terminating in Ceyhan. Its total planned length is 3,300 km, 550 km of which shall pass through Turkey.

The Transanatolian Pipeline Company (TAPCO), currently a 50:50 JV between Çalık Enerji of Turkey and Italy's Eni, is expected to involve more partners following the signing of an agreement by the Turkish, Russian and Italian governments in October 2009 guaranteeing the stable regulatory framework required for its construction.

In parallel, TAPCO partners Eni and Çalık Enerji have signed a memorandum of understanding with Rosneft and Transneft underlining the commitment to discuss the definition of the economic and contractual conditions for the participation of Russian companies. Within this framework, first a disclosure of expectation came from the Russian government that Rosneft and Transneft would each secure 25% share in the project JV. This has been immediately followed by a deal between Calik Holding and Rosneft allowing the Turkish company to sell Russian oil to be carried via the pipeline.

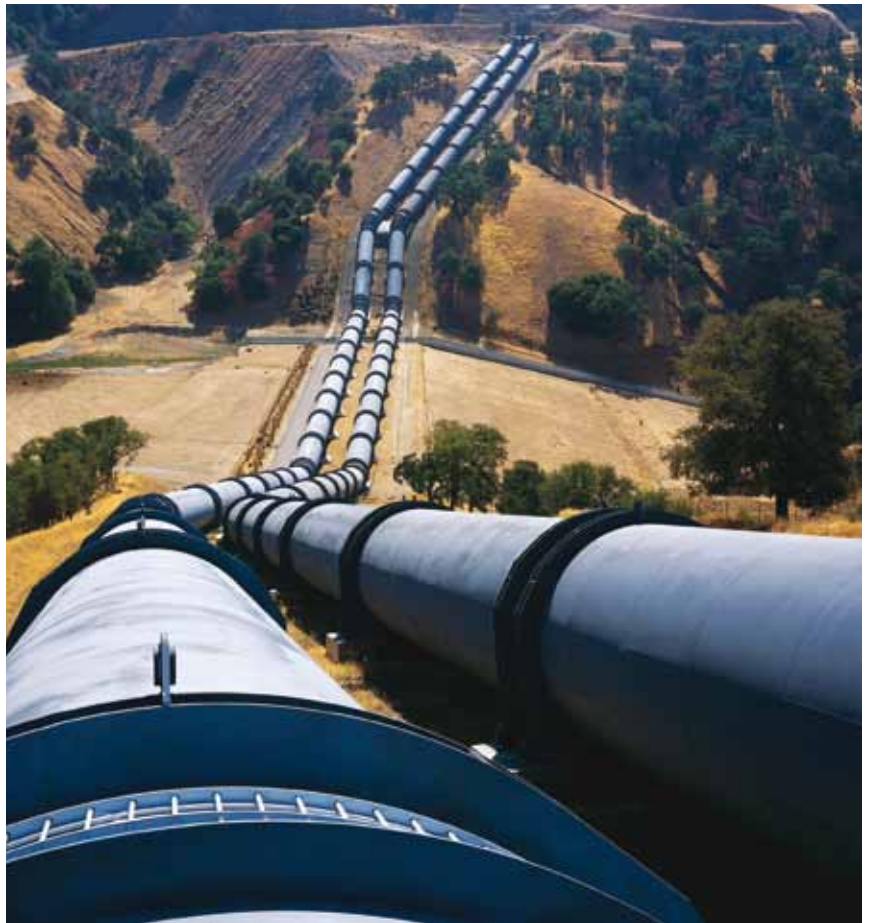
According to the JV's disclosures so far, the initial nameplate capacity of TAP is planned to be 1 mn bbld, aiming to reach 1.5 mn bbld with the guarantee of sufficient throughput.

## All roads lead to Ceyhan

With its name linked with all the pipeline and possessing the potential to channel more than 150 mn tonnes of crude oil to the global markets every year, Ceyhan has gradually strengthened its strategic position in the Eastern Mediterranean Basin over the last decade. This vitality was underlined by the Turkish Council of Ministers' decision to declare the region an Energy Specialisation Industrial Zone in 2007, although no details were provided regarding any related incentives.<sup>7</sup>

The subsequent radio silence ended with a Council of Ministers'

decision in 2010, amending the boundaries of the Zone and also requiring the urgent expropriation of private property located within it.<sup>8</sup> Although further official insight has yet to be provided, the clear emphasis on the development of this zone in the 2010-2014 strategy of the Ministry of Energy and Natural Resources (MENR) has kept hopes high regarding upcoming incentives. According to the unconfirmed resources, one terminal, one fuel storage facility and one LNG regasification facility are listed among possible investment plans related to the Zone.



<sup>6</sup> The Transanatolian Pipeline is more commonly referred to as Samsun-Ceyhan, although the beginning point in Turkish territories is Ünye.

<sup>7</sup> The full decision can be accessed at: <http://www.resmigazete.gov.tr/main.aspx?home=http://rega.basbakanlik.gov.tr/eskiler/2007/10/20071017.htm&main=http://rega.basbakanlik.gov.tr/eskiler/2007/10/20071017-2.htm>

<sup>8</sup> The full decision can be accessed at: <http://www.resmigazete.gov.tr/main.aspx?home=http://rega.basbakanlik.gov.tr/eskiler/2010/01/20100130.htm&main=http://rega.basbakanlik.gov.tr/eskiler/2010/01/20100130-10.htm>

# Part III: Activities regulated under Petroleum Market Law No. 5015

With the ratification of Petroleum Market Law No. 5015 in 2003, domestic midstream and downstream activities are regulated separately from the upstream sphere, and ten segments restructured as to-be licensed activities:

1. Transportation of crude oil via domestic pipelines
2. Refining
3. Processing
4. Lubricant production
5. Storage
6. Transportation of crude oil and petroleum products via sea and railway
7. Eligible customer status
8. Bunker delivery
9. Fuel distribution
10. Fuel dealership

Based on the extent of the data publicly available, this report sheds light exclusively on refining, storage, fuel distribution and dealership.

## Downstream refining market

The Petroleum Market Licensing Regulation defines the scope of the refining activity as follows:

- Building and operating refinery complexes
- Purchase and sale of crude oil
- Producing petroleum products

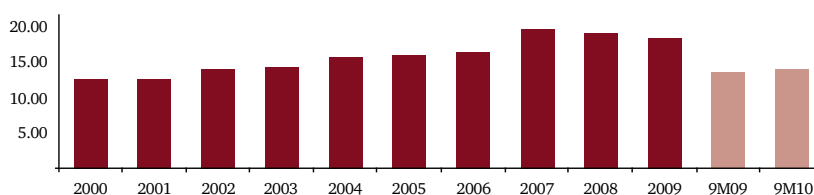
- Crude oil and petroleum products storage
- Crude oil and petroleum products transportation via pipelines
- Sale of bunker fuel

### It's not just about the crisis

Following a peak in 2007, the crisis-backed contraction in total fuel consumption (gasoline, diesel, heating oil and fuel oil) continued at the end of 9M10 at 5.9% YoY<sup>9</sup>, but this is now due to more than just the crisis (see Figure 4).

Although automobile fuel sales inched up immediately after the crisis and the retail automotive market grew by 37.7% YoY in 2010<sup>10</sup>, the contraction in demand, particularly for rural diesel, is more of a result of the illegal use of a reprocessed waste lubricant, aka *lubricant No. 10*, as a substitute. According to PETDER statistics, the annual consumption of *lubricant No. 10* has already exceeded 1 mn tonnes, constituting a serious threat to health and the environment, as well as causing significant erosion of tax revenues.

Figure 4: Demand for fuels (mn tonnes)



Source: Tüpraş, Petder

<sup>9</sup> [http://www.petder.org.tr/admin/my\\_documents/my\\_files/54C\\_PETDERSEktorRaporu2010Q3.pdf](http://www.petder.org.tr/admin/my_documents/my_files/54C_PETDERSEktorRaporu2010Q3.pdf)  
<sup>10</sup> <http://www.odd.org.tr/folders/2837/productialdbldocs/1014/Pazar%Degerlendirme20%Aralik%20201>

## ***Dieselisation will affect demand for foreseeable future***

Between 2000 and 2009, Turkey's vehicle fleet grew by a CAGR of 4.7% to reach 13.9 mn vehicles. The growth in the number of diesel-fired vehicle fleet was much more astonishing, at a CAGR of 24.6%, and its share within the entire fleet increased from 19% to 39% over the same period. Between January and November 2010, the share of diesel passenger cars in total sales increased to 53% from 43% during the same period in 2009.

With such a demand base, the consumption of diesel fuels, namely 'on-road' diesel and 'rural' diesel, grew to constitute 66% of total fuel consumption. In full compliance with EURO V standards, as of 1 January 2011, 10 ppm is the upper sulphur limit for both types of diesel.

## ***Natural gas set to power a clean future***

Demand for black products, i.e., fuel oil and heating oil, is already in freefall due to the increasing use of natural gas in residences and electricity production. The rate of decline reached 51% YoY by 9M10.

This substitution is not the pure result of consumer preferences, but, by and large, of a policy to promote the use of almost entirely imported natural gas via favourable taxation and regulatory action.



## One company meets 60% of total domestic demand

Tüpraş is the sole refining company in Turkey, with four facilities totalling a nameplate cracking capacity of 28.1 mn tonnes p.a. with a current average NCI of 7.25.

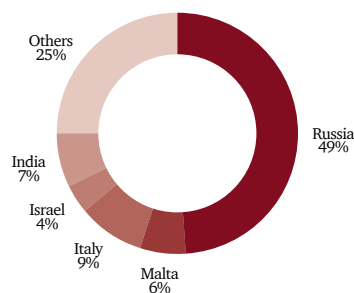
There is no barrier to the import of petroleum products by the fuel distribution companies, and in turn, no obligation exists for Tüpraş to sell in the domestic market. Since 2000, Tüpraş's share in the domestic market dropped from 80% to 60% on the back of the increases in demand and import of white products, and the refiner's strategy of targeting exports during more favourable periods.

Map 3: Tüpraş refineries



Source: Tüpraş

Figure 5: Import sources for petroleum products (9M10 total: 8 mn tonnes)



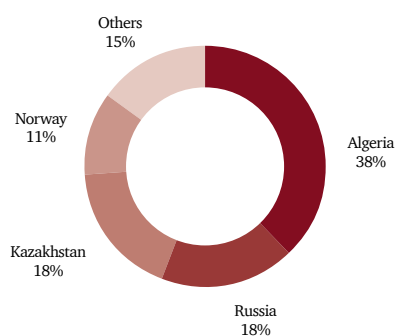
Source: EMRA

## Russia tops again petroleum products import list

Russian supply makes up almost half of imports of 8mn of petroleum products (except LPG) by distribution companies as of the end of 9M10 (see Figure 5).

For LPG, import dependence is higher, at 83% as of the end of 9M10. This time not Russia, but Algeria is the leading source with 38% share (see Figure 6).

Figure 6: Import sources for LPG (9M10 total: 2.2 mn tonnes)



Source: EMRA

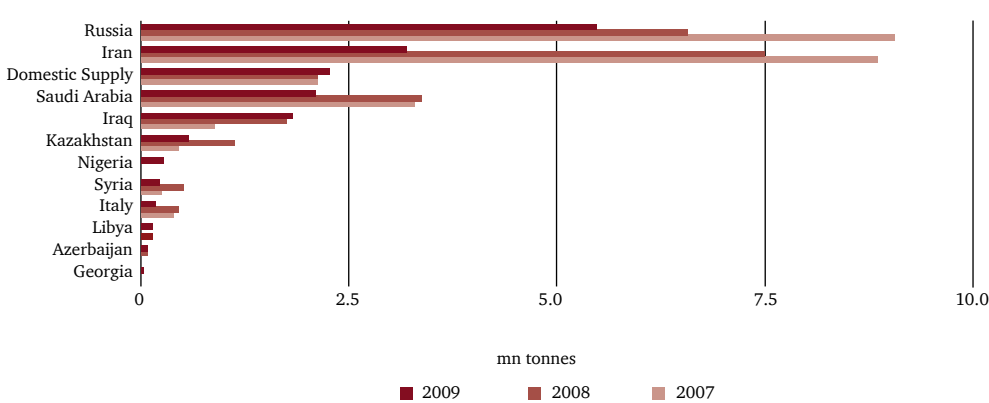
## Ongoing investments shape crude oil import basket

The privatisation of Tüpraş set a good example for post-transaction operational improvements in former state facilities. The completion of the first stream of upgrading investment immediately after privatisation helped the company to increase its gasoline cracking and diesel desulphurisation capacity. The

resulting product slate now allows the company to crack larger amount of heavier crudes, mainly Iranian Heavy (Gravity: 31API, Sulphur: 2%) and Ural Blend (REBCO) (Gravity: 31-32 API, Sulphur: 1.2%), together making up more than 50% of the feedstock (see Figure 7).

The upcoming investments by Tüpraş in its residium upgrading units expected to be completed by 2013 will further shape the feedstock breakdown in favour of the heavier blends, in line with the reconfiguration in the product slate, further favouring the middle distillates.

Figure 7: Crude oil supply breakdown



Source: Tüpraş, PwC



## Different motivations fuel new refinery applications

Skyrocketing demand for petroleum products right before the financial crisis constituted the investment case to apply for a licence to build and operate refineries in Ceyhan. Following quite a tough race, in 2007 Doğu Akdeniz Petrokimya ve Rafineri Sanayi ve Ticaret A.Ş. (owned by Çalık Holding) was the first past the finish line for a 10 mn-tonne refinery, designed to reap the rewards of the Samsun-Ceyhan Pipeline (see Part II). However, no disclosure has yet been made regarding the construction schedule.

The other approved licence application is that of SOCAR-Turcas JV for the 10-mn tonne Aliğa Refinery adjacent to Petkim, the petrochemical complex.<sup>11</sup>

## Storage

Petroleum Market Law No. 5015 defines this activity as the storage of crude oil and petroleum products under third-party ownership.

## Key investment target on the back of stricter enforcement

For the security of supply and risk mitigation purposes, and in line with international agreements, the Petroleum Market Law requires the instant availability of 90 times average daily amount of oil imported in the previous year. Accordingly, refiners, fuel distributors and LPG distributors are required to uninterruptedly store at

least 20 times their average daily sales in their own or rented licensed storage facilities.

The National Stock Requirement defined above does not differentiate between licensed storage capacity, capacity for own use, and considers the total capacity to meet the requirement. From this aggregate perspective, with its product storage capacity of 4.7 mn m<sup>3</sup>, Tüpraş holds 46% the total capacity figure of c. 10 mn m<sup>3</sup>.

The lack of storage capacity, coupled with stricter supervision and the magnitude of the penalties by the regulator constitute a strong rationale for investment and attract foreign investors. US storage company NuStar, for instance, disclosed its engagement to buy a 75% controlling stake in a Turkish JV between S-Oil and Aves in 2010.<sup>12</sup> An analysis of the deals can be found in our “2010 Energy Deals” report.

## Fuel distribution and dealership

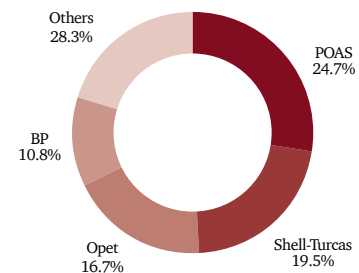
Petroleum Market Law No. 5015 defines the scope of the distribution licence to include:

- Sale of petroleum products supplied from domestic refineries or import markets to dealers, eligible customers and other distributors,
- Petroleum products storage,
- Petroleum products transportation,
- Bunker fuel sale,
- Lubricant production.

## Top four dominate 72% of market

The fuel distribution business can be characterised by its high upfront costs, coupled with requirement for technical and marketing know-how. These barriers to entry have so far ended in an oligopolistic structure in the distribution segment in Turkey. As of 9M10, 72% of the market, including sales of gasoline, diesel, fuel oil, heating oil, bunker and aviation fuels, belongs to the top four distributors; the rest is shared among 44 players (see Figure 8).

Figure 8: Aggregate market share in fuel distribution market (Total: 48 licences)



Source: EMRA

<sup>11</sup> Petkim, once the state petrochemical company, was privatised in 2009. The existing shareholder structure is as follows: SOCAR and Turcas: 51%, Privatisation Administration: 10.3%, free float: 38.7%.

<sup>12</sup> [http://www.soil.com.tr/tur/sss/\\_abdli-depolama-devi-aves-ve-s-oille-turkiyede\\_\\_soil?c=3096andm=7000](http://www.soil.com.tr/tur/sss/_abdli-depolama-devi-aves-ve-s-oille-turkiyede__soil?c=3096andm=7000)

## ***The cards are being reshuffled***

On 11 March 2009 the Competition Authority (CA) marked a turning point in the history of fuel dealership business in Turkey with its decision to limit the duration of dealership contracts to five years as of 18 September 2010, on the ground that long-term usufructs and rental contracts have been pressing dealers to extend their exclusive supply contracts and driving foreclosures in the market. The retroactive character of this decision, and therefore its provisions affecting contracts enacted prior to this date, has already engraved 2010 on the market's mind. We agree with the market view and do not expect a 'settled' picture until mid-2011. On the other hand, it is not hard to anticipate a more favourable picture for mid-to small size distributors and all the dealers.

## ***Foreign share in market grew to around 60%***

The Turkish fuel retail market deserves special attention considering the subsequent news of the decisions of IOCs to leave the downstream businesses in the Mediterranean Basin and Europe, mainly on the back of slowing demand and contracting margins, together with growing focus on the upstream segment.

However, Shell, for instance, has given particular attention to its downstream activities in Turkey, which are considered by the global management of the company as *best practice* for other regions.

The most recent confirmation of the significance of the Turkish market is the happy ending of the long awaited

deal in which OMV increased its shares in Petrol Ofisi to 95.75%. This new link to the deal chain following the acquisition of Akpet by Lukoil Eurasia in 2009 carried the share of the foreign capital in aggregate sales including the automobile, black, aviation and bunker fuels up to 60%<sup>13</sup>, according to the latest available market data.

**72%**  
***of the market are dominated by the top four***

***but the cards are being reshuffled***

<sup>13</sup> Share of Shell-Turcas is adjusted to 70% shares of Shell in the JV.

## *Part IV: LPG market*

The LPG market in Turkey is regulated by LPG Market Law No. 5307, which covers the following licensed activities:

- LPG distribution,
- LPG transportation via pipelines and tankers,
- LPG storage,
- Auto-LPG dealership,
- Bulk LPG production,
- Bulk LPG inspection, maintenance and repair.

Again based on the magnitude of the publicly available data, this report sheds light exclusively on distribution and dealership.

### *Auto-LPG remains strong*

Mainly thanks to favourable taxation, Turkey is the world's second largest auto-LPG market after South Korea and has the highest number of auto-LPG stations in the world, with more than 8,500 dealers.

Sharing the same fate as heating oil, demand for bulk and cylinder LPG has been severely hit by the rise of natural gas in residential heating. Between 2000 and 2009, the demand for cylinder and bulk LPG waned at a CAGR of 15% and of 7%, respectively.

In addition, the Turkish market is unique in that auto-LPG consumption is significantly higher than gasoline. The share of auto-LPG within total demand for automotive fuels improved from 12.8% in 9M09 to 13.6% in 9M10, whereas that of gasoline waned from 16.7% to 15.2% over the same period.



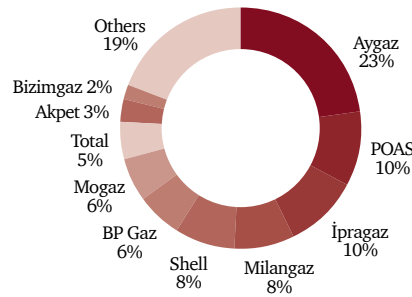
## A less concentrated picture

Unlike the highly concentrated picture in fuel distribution, as of 9M10 the top four players in the LPG market dominate 51% of the market, with the remainder left to the other 60 players (see Figure 9).

The move towards consolidation continued stirring up the market in 2010. Ipragaz, for instance, acquired Exengaz for US\$100 mn.

It is also important to remember that the decision by the CA, mentioned in Part III, regarding the renewal of dealership contracts refers to the auto-LPG market as well.

Figure 9: Market shares in auto-LPG distribution (Total number of auto-LPG distributors: 64)



Source: EMRA



# *Part V: Pricing and taxation*

## *Pricing of domestic crude oil*

Making up 95% of existing recoverable reserves, south-eastern Anatolian crude ranges between 13.3° and 28.5° API. Pricing is made according to following rules:

- output heavier than 26° API is benchmarked with Ras Gharib (21.5° API)
- lighter output is benchmarked with Ras Tanura (30.4° API)

## *Pricing in the downstream segment*

1 January 2005 marked a milestone in the liberalisation of the Turkish petroleum market, with the abolition of the margin caps on tariffs in the downstream segment. Instead, Article 10 of Petroleum Market Law No. 5015 defines the principle as the use of the closest global free market prices. The refiners are required to notify EMRA of updates in their tariffs, applied as caps, giving the refiner the flexibility to charge lower tariffs when deemed necessary.

There is a lack of clarity in Law No. 5015 with regards to pricing at the distribution and dealer level, both of which are instead subject to the notification provisions of Article 10 noted above.

The system experienced an interruption between 27 June and 27 August 2009, when EMRA imposed a price cap for gasoline and diesel, to be applied by the distributors and dealers. This interference was severely criticised by market players, mainly due to the absence of such critical variables as transportation costs in the cap formula. It also fuelled some concerns about similar interventions in the free market in the future.

The gasoline price hitting TRY 4/lt in December 2010 again underlined the fact that Turkey tops the 28 European countries in the downstream profitability league. Giving no credit to the TRY-US\$ parity and tax-related arguments of market players, the Turkish government made a strong reference to the above European average downstream margins, with an open call for lower figures. Following suit, EMRA controversially banned the promotion activities by the distributors effective 31 January 2011.

## Taxation

In Turkey, indirect taxes made up 67% of the total tax revenues of TRY 173 bn in 2009. Value Added Tax (VAT) and Special Consumption Tax (SCT) are the two largest indirect tax items, with 41% and 38% shares in indirect taxes (27% and 25% in total tax) over the same period.

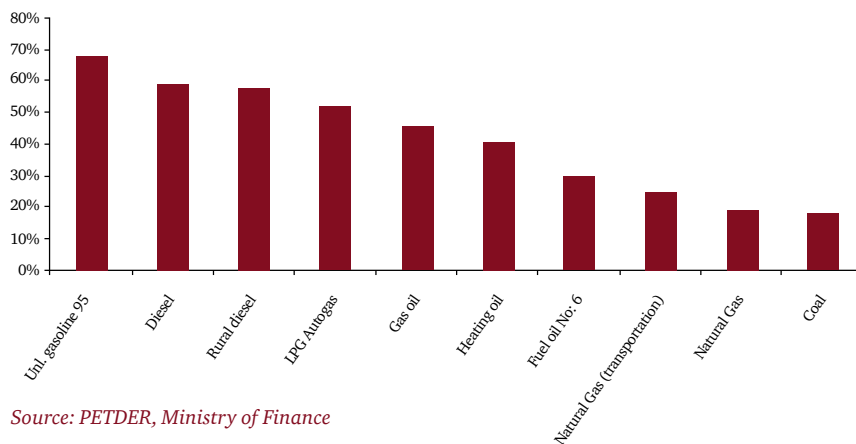
Petroleum products are the major source of SCT at 60%. Together with its share in VAT, tax from this resource reached 20% of total tax

revenues, double the EU average of 10%. This huge share in tax revenues of petroleum products puts Turkey top of the regional ranking in taxation.

The indirect tax components in gasoline and diesel have no rival within the energy basket at home either, explaining why natural gas trumps the black products and residential LPG use.

The all-time taxation champion is gasoline at 67% (see Figure 10). On the other hand, it is less than 20% in the natural gas price, explaining why it is replacing heating oil, which has a tax component of over 40%.

Figure 10: Share of indirect taxes in end-user prices as of November 2010 (TRY kuruş)



Source: PETDER, Ministry of Finance

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# ***Part VI: Looking ahead***

## ***The Turkish agenda will be decoupled from the global***

In 2011, the world will remain focused on the accumulating evidence that the economic recovery is strengthening taking oil prices to pre-crisis levels, and behavioural traits in the OPEC world. The IOCs' focus will be further favouring the upstream, whereas the NOCs will be strengthening their grip on resources. Hot topics in the Turkish market, on the other hand, will focus more on the regulatory front than on structural concerns about demand and supply.

## ***Domestic contribution not set to change***

The momentum gained in the E&P activities over the last of couple years will be sustained despite waning hopes about the ratification of Petroleum Law No. 6326. Onshore seems to be dominated by the private and mostly mid-size foreign players, whereas offshore will be TPAO's playground together with IOCs and NOCs. However, it would be still immature to expect an immediate increase in the share of domestic oil in the refiner's basket given the early stages of the onshore and offshore upstream efforts.

## ***Demand resilience and growing dieselisation will be the headlines***

Demand for petroleum products is expected to stay resilient. No big changes expected on the 'official' demand front as the hike in the car sales is not fully reflected to the demand for automobile fuels mainly due to illegal fuel use. Nevertheless, dieselisation is to strengthen its top trend position and the shift to the EURO V standards will open another chapter for the Mediterranean trade.

Erosion in gasoline demand seems to set continue with the growing demand for auto-LPG, as long as the favourable tax treatment supports the latter. The outlook for the black products (fuel oil and heating oil) and cylinder and bulk LPG looks bleak, being already replaced by natural gas in residential heating and power generation. Asphalt will be the mid-term champion of the bottom-of-the-barrel, thanks to the excitement of the general election and its infrastructure-related bonuses.

## ***Expectations for safer straits***

The growing concerns about the security in the straits are expected to wane in concrete steps as a result of a more fruitful consultation process with the major exporters and transportation entities having a significant stake in a more sustainable tanker traffic.

### ***Russian push to accelerate Samsun-Ceyhan project***

Year-end promises from the Russian front to facilitate the acceleration in the Samsun-Ceyhan Project indicates a more vibrant period following substantial inertia since its inception. This would hopefully add momentum to another dormant issue, i.e., the clarification of the incentives and calendar regarding the Energy Specialisation Industrial Zone in Ceyhan.

### ***More transaction news likely in storage***

The storage segment will keep its key status in terms of vertical integration in response to strict enforcement of the national storage requirements and land scarcity for greenfield investments.

### ***Reasons to consolidate***

Regulation will be felt strongest in the downstream segment. The dust of the usufructs decision of the CA is not expected to settle until the second half of 2011. But the repercussions have already started to appear in a tighter profitability environment for the distributors. The recent call by the Turkish government for lower downstream margins and the subsequent action by EMRA to controversially ban the promotion activities by the distributors are the harbingers of deeper discussions about operations in this *free* market.

Accordingly, it would not be wrong to conclude that, survival in the Turkish downstream oil market is becoming more of a volume play, especially for the mid and small size players. Considering the regulatory requirements pushing for a strong financial structure to meet rules such as minimum sales volume or national market responsibilities, coupled with financial liabilities in imports, it is realistic to expect more consolidation in this segment as well as vertical integration attempts in the horizon.



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# *List of figures and maps*

Figure 1	Domestic crude oil production
Figure 2	Oil and gas E&P investments
Figure 3	Shareholders in BTC Pipeline Company
Figure 4	Demand for fuels
Figure 5	Import sources for petroleum products
Figure 6	Import sources for LPG
Figure 7	Crude oil supply breakdown
Figure 8	Aggregate market share in fuel distribution market
Figure 9	Market shares in auto-LPG distribution
Figure 10	Share of indirect taxes in end-user prices
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Map 1	Crude oil exploration zones in Turkey
Map 2	Current and planned crude oil pipelines connecting with Ceyhan
Map 3	Tüpraş refineries

# Abbreviations

1Q10	1 <sup>st</sup> quarter of 2009	MENR	Ministry of Energy and Natural Resources
2Q10	2 <sup>nd</sup> quarter of 2010	mn	million
3Q10	3 <sup>rd</sup> quarter of 2010	MoU	memorandum of understanding
4Q10	4 <sup>th</sup> quarter of 2010	n.a.	not available/not applicable
1H10	1 <sup>st</sup> half of 2010	n.d.	not disclosed
2H10	2 <sup>nd</sup> half of 2010	NOC	National Oil Company
1Q09	1 <sup>st</sup> quarter of 2009	ODD	Otomotiv Distribütörleri Derneği
€	Euros	p.a.	per annum
€ cent	Euro cents	PETDER	Petrol Sanayi Derneği
Art	Article	P/L	Pipeline
bbbl	barrel	REBCO	Russian Export Blend Crude Oil
bbld	barrels a day	SPC	Special Consumption Tax
bn	billion	SPO	State Planning Organisation
BOTAŞ	Petroleum Pipeline Corporation	TAP	Transanatolian Pipeline
BTC	Baku-Tbilisi Ceyhan Crude Oil Pipeline	TAPCO	Transanatolian Pipeline Company
CACR	Compound Annual Contraction Rate	TRL	Turkish lira
CAGR	Compound Annual Growth Rate	TUDAV	Turkish Marine Research Foundation
E&P	Exploration and Production	US\$	US dollar
EMRA	Energy Market Regulatory Authority	VAT	Value Added Tax
EU	European Union	VTS	Vessel Traffic Service
GDP	Gross Domestic Product	YoY	Year on year
IOC	International Oil Companies		
LPG	Liquefied Petroleum Gas		

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