Tüpraş

Koç

Investor Presentation March 2018

Disclaimer

This presentation contains forward-looking statements that reflect the Company management's current views with respect to certain future events. Although it is believed that the expectations reflected in these statements are reasonable, they may be affected by a variety of variables and changes in underlying assumptions that could cause actual results to differ materially.

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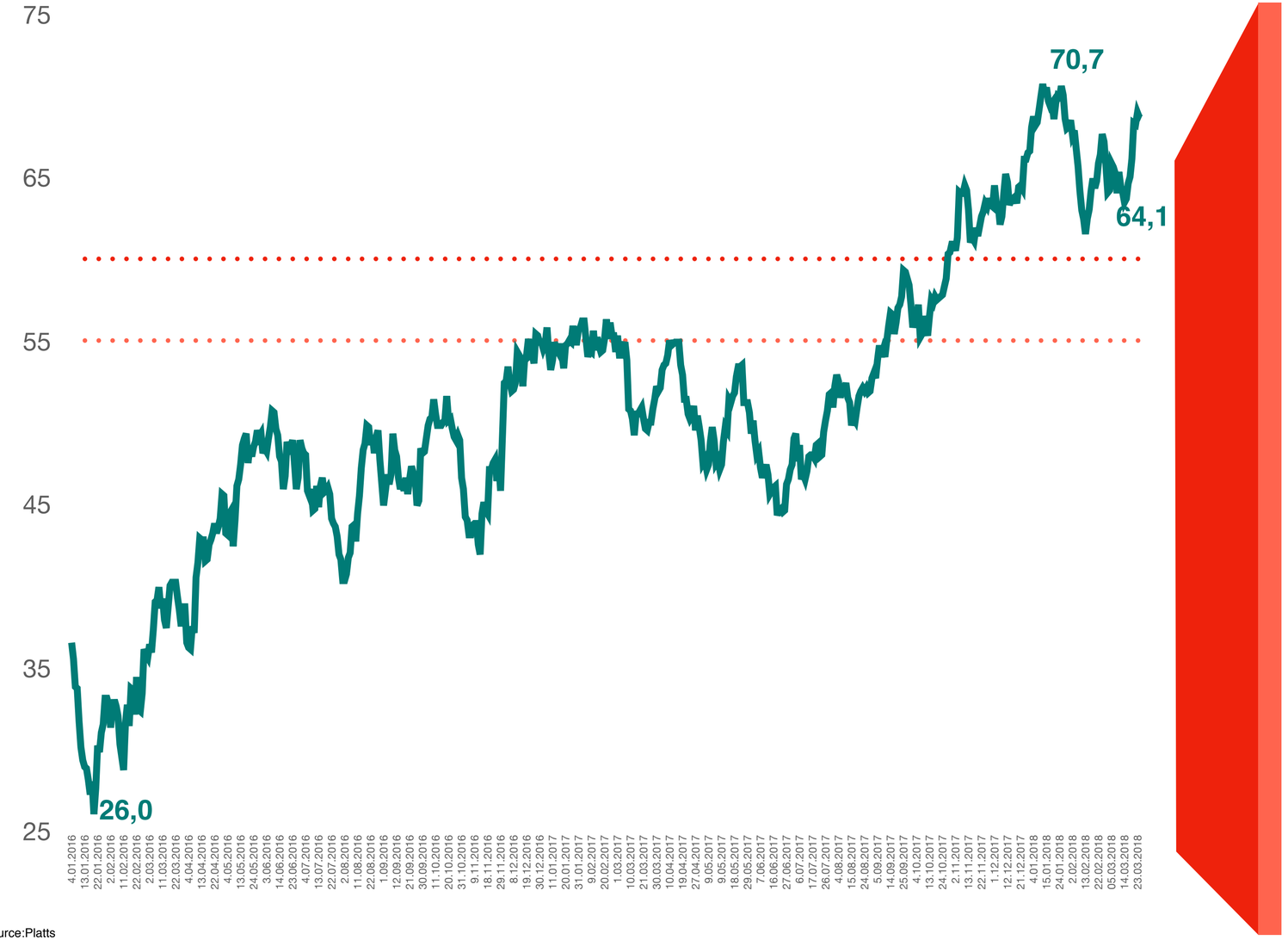
REFINING MARKET

Brent Crude Oil Prices ($/bbl)



PROS

- OPEC & Non OPEC Supply Cut
- Political Instabilities in Middle East
- Healthy PMI data in Developing Countries
- Expectation of high global GDP

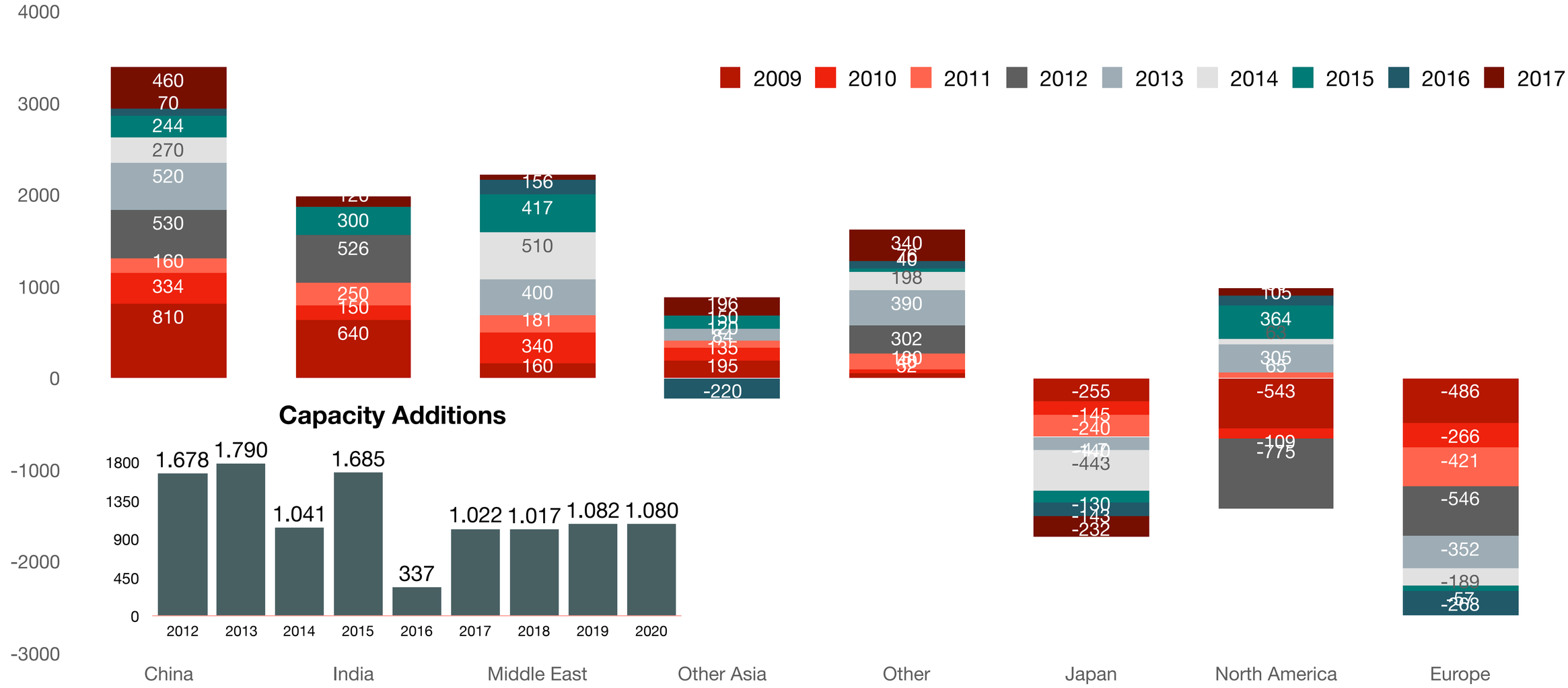
CONS

- Increase in number of rigs & production in US
- Concerns about the impact of OPEC & Non OPEC production cuts
- Inventory Levels
- High crude exports of OPEC

Source:Platts
As of March 27th

Refinery Capacity Change

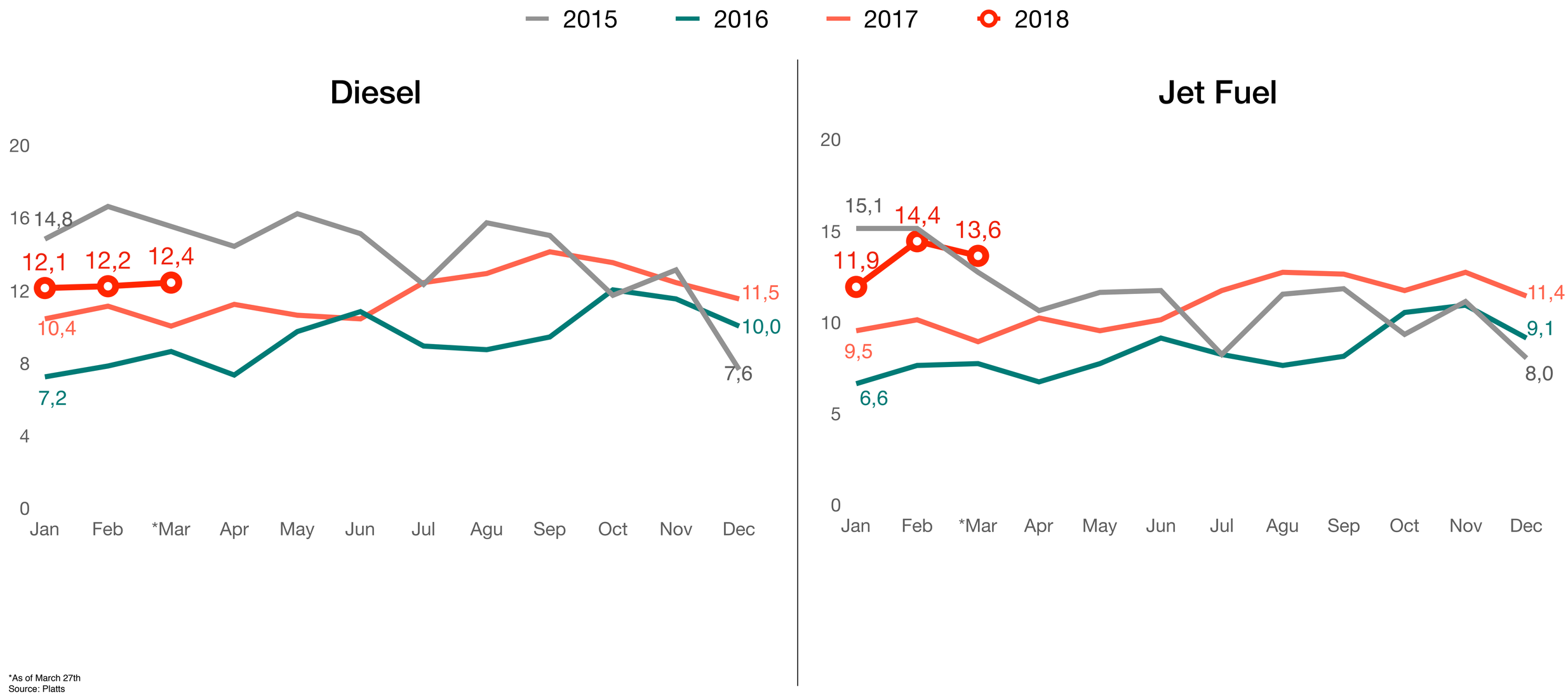
Thousand Barrels/Day



Capacity Additions

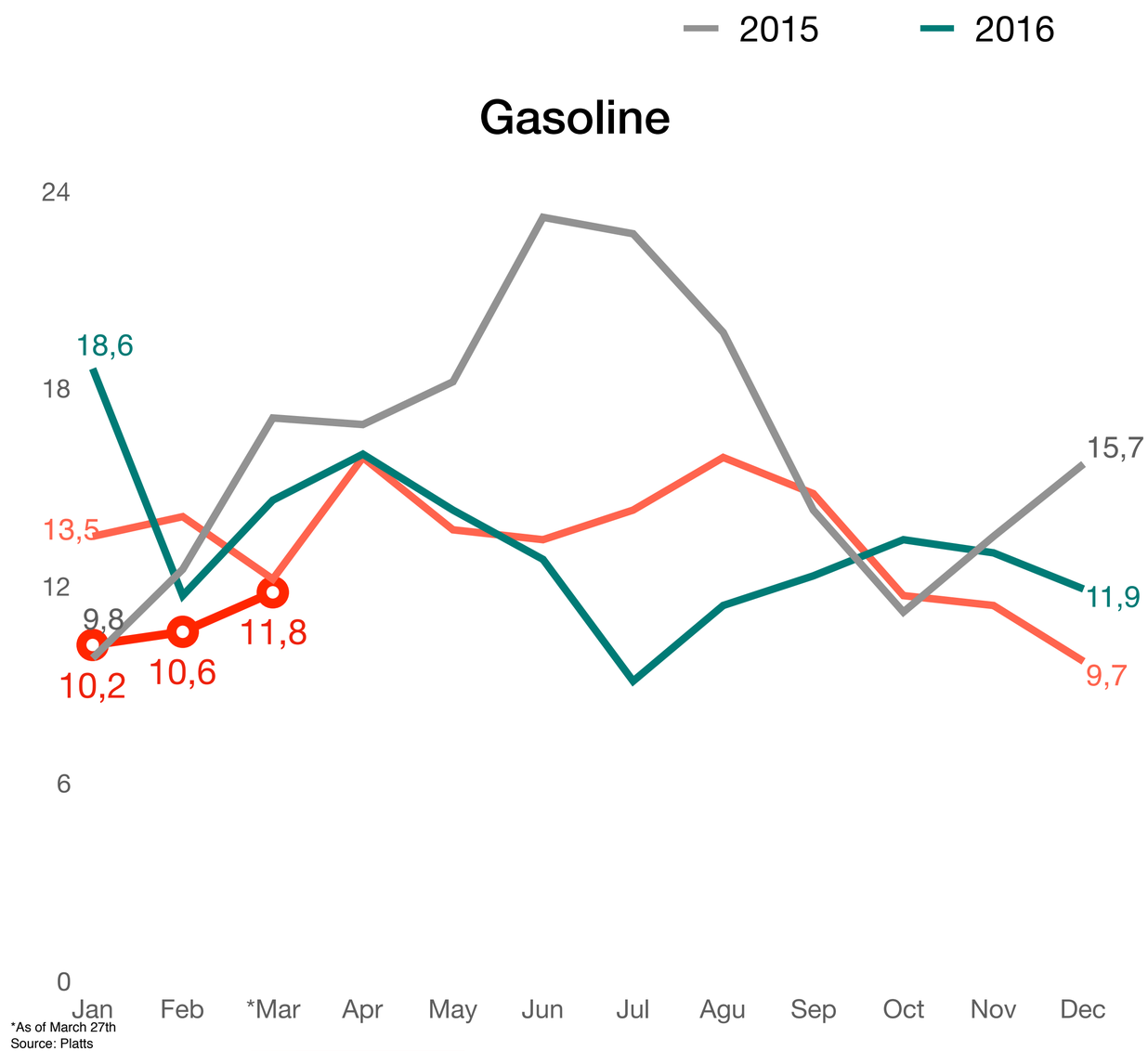
Source:, Reuters, UEA , Tüpraş, sector reports and news

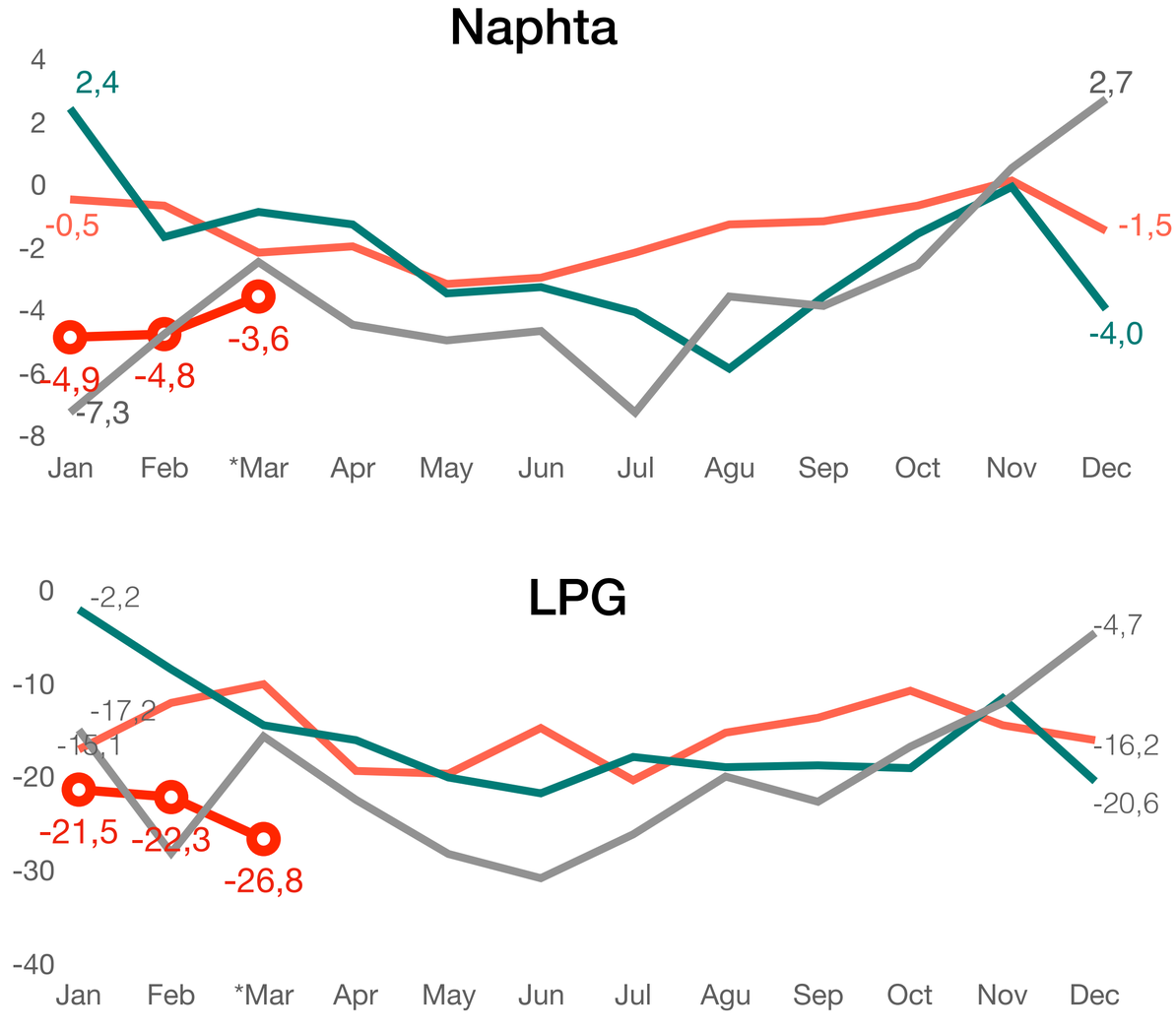
Middle Distillate Cracks ($/bbl)



*As of March 27th
Source: Platts

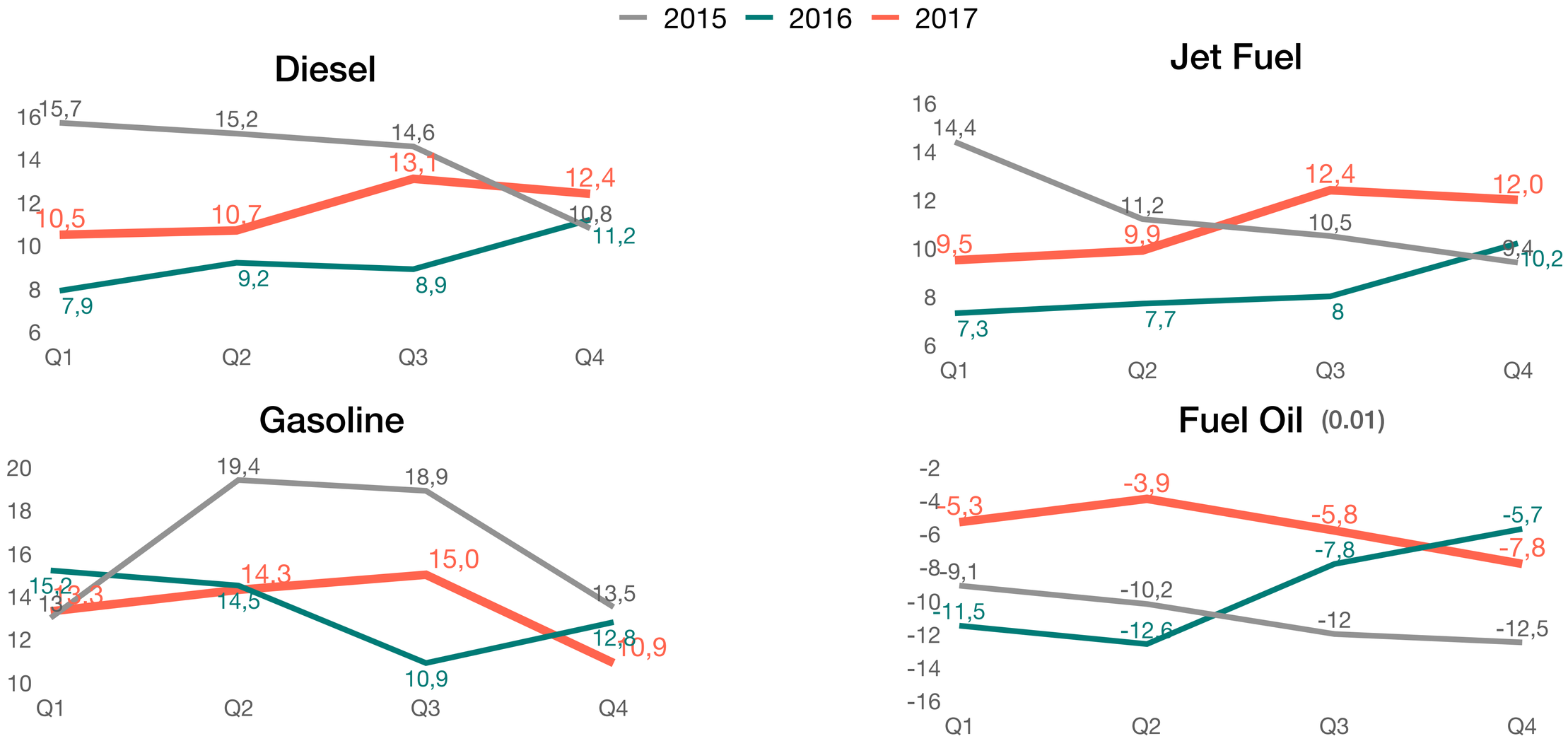
Light Distillate Cracks ($/bbl)





*As of March 27th
Source: Platts

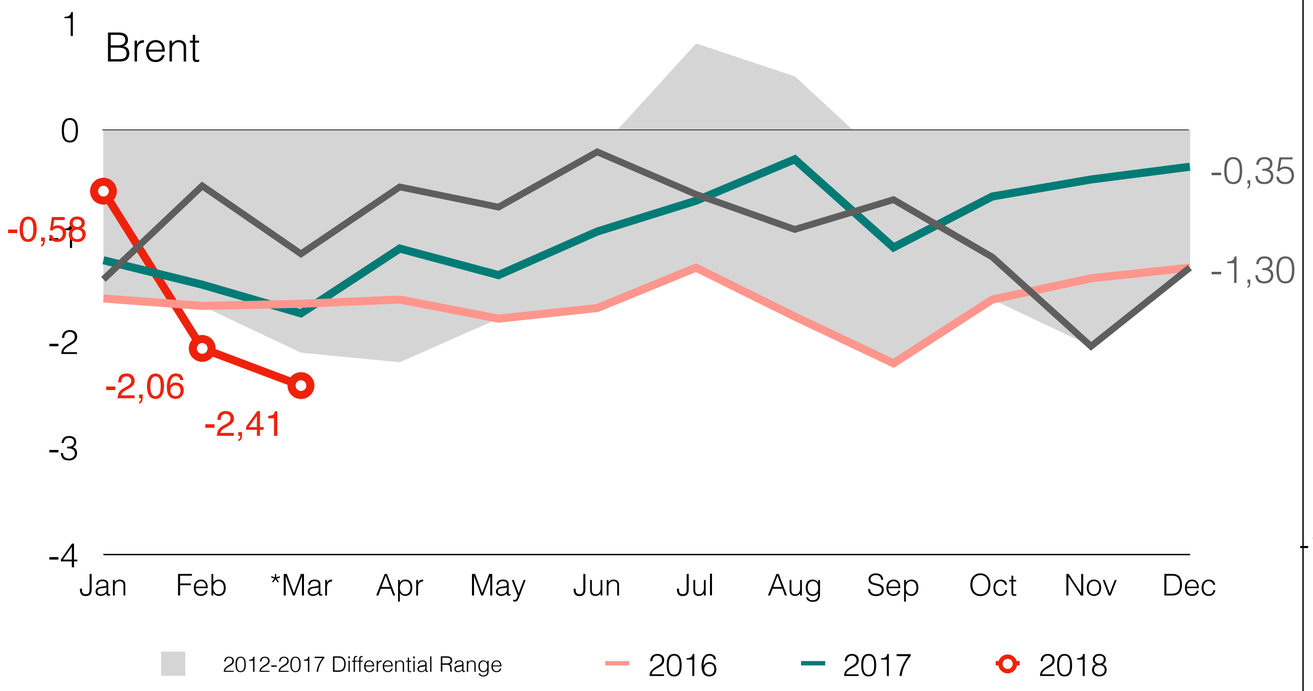
Quarterly Product Crack Margins in 2015 - 2017 ($/bbl)



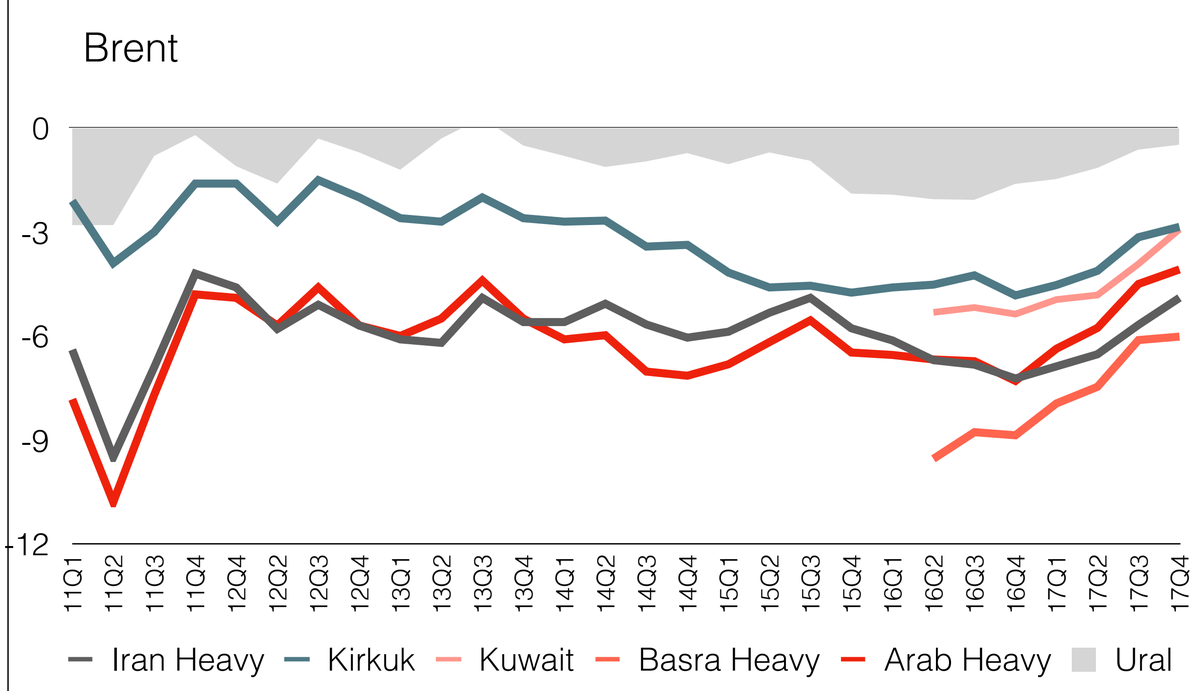
Source: Platts

Crude Price Differentials ($/bbl)

Ural Differentials



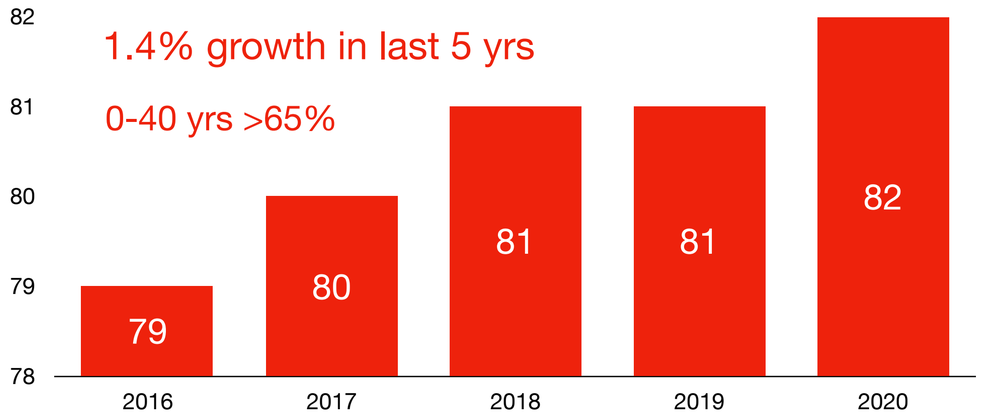
Price Differentials



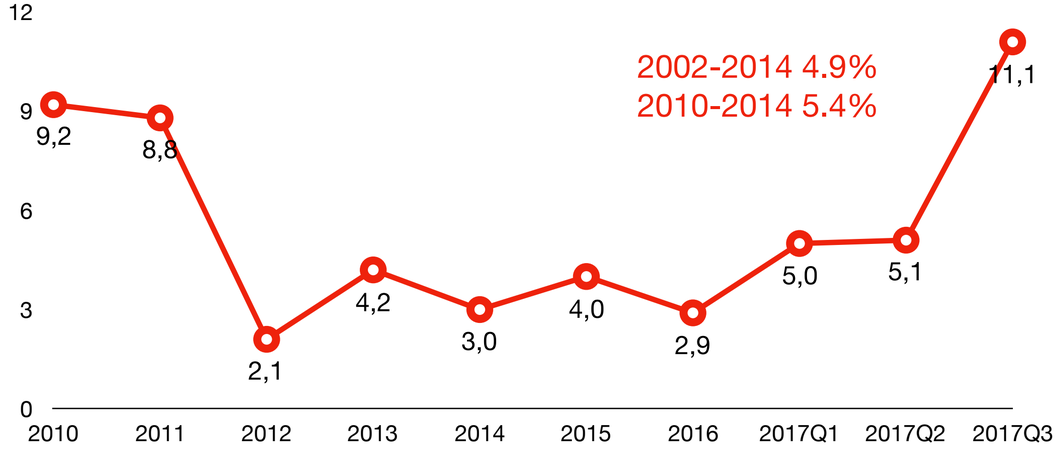
*As of March 26th

Turkish Economy Strengths

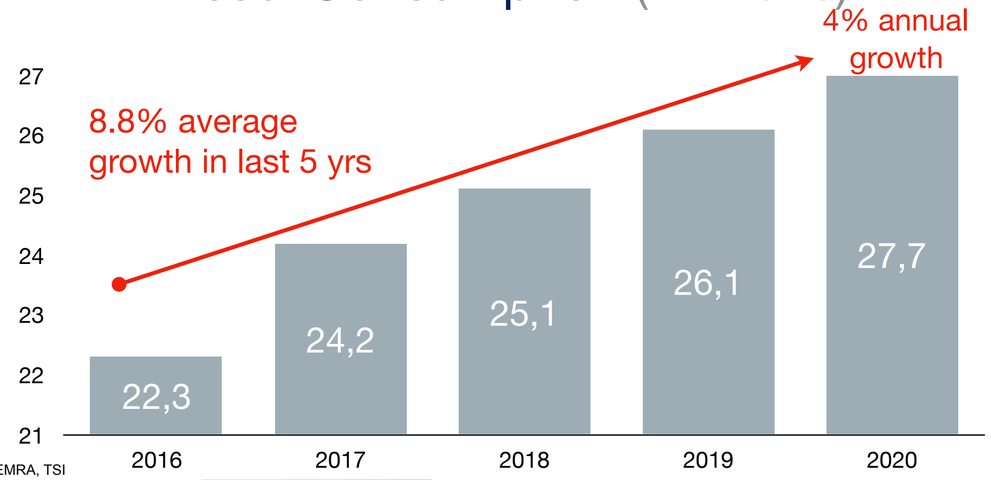
Population (mn)



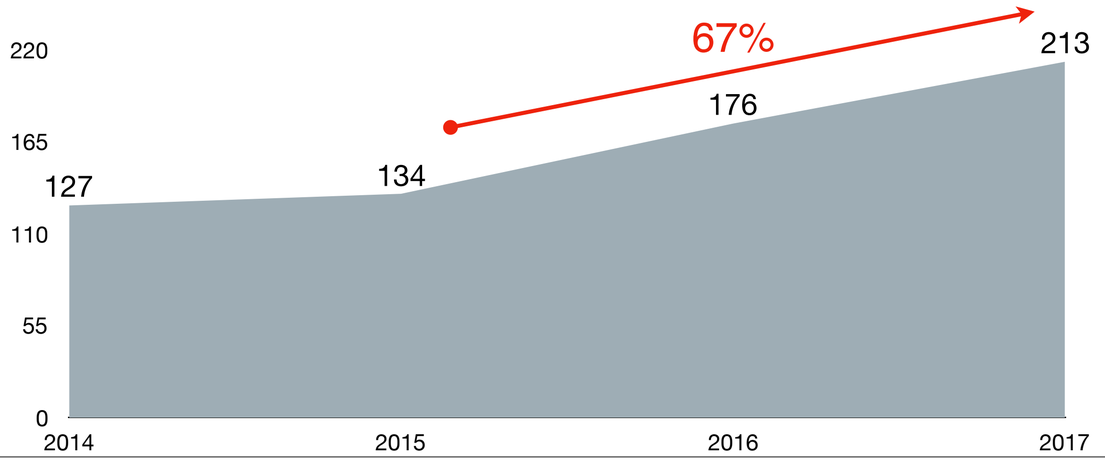
GDP (%)



Diesel Consumption (mn tons)

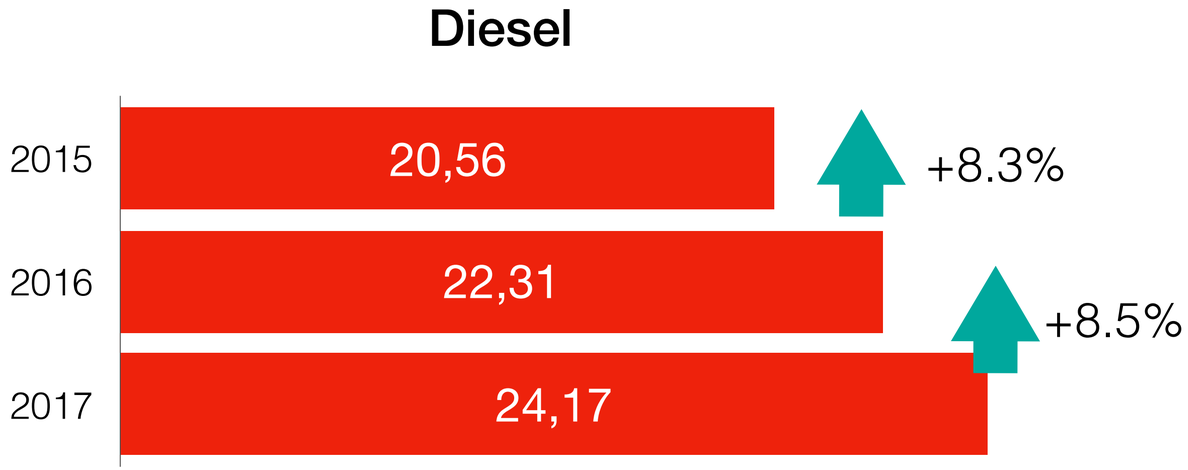


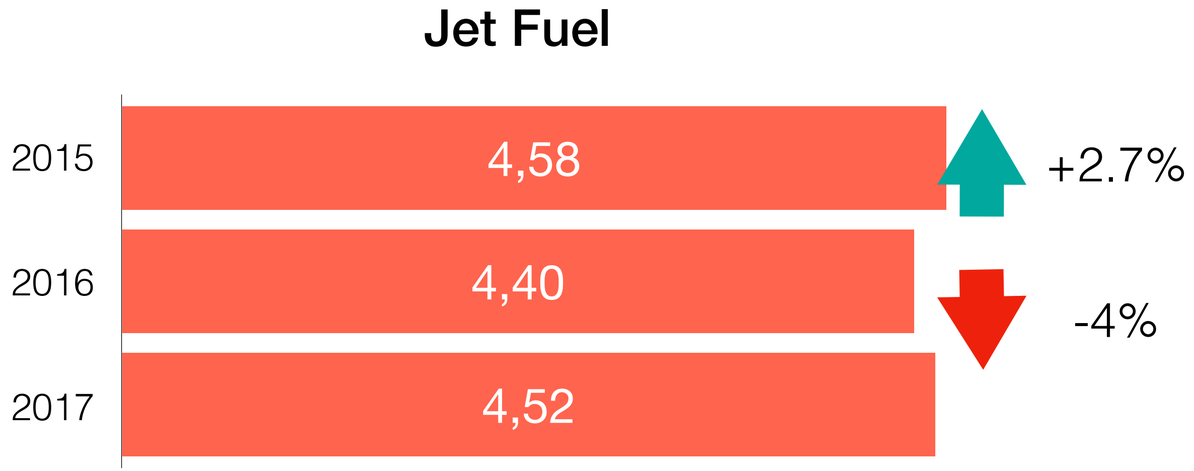
Car ownership per thousand people

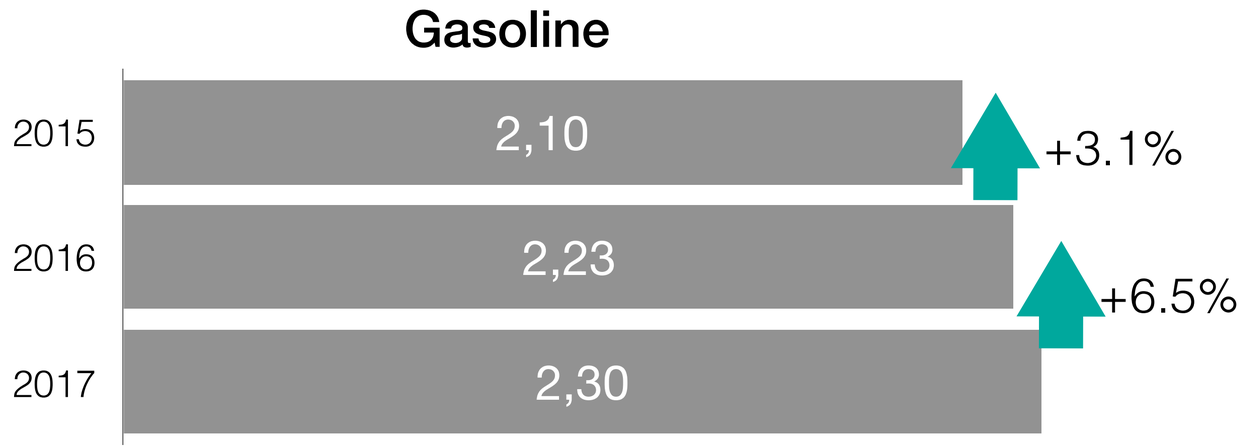


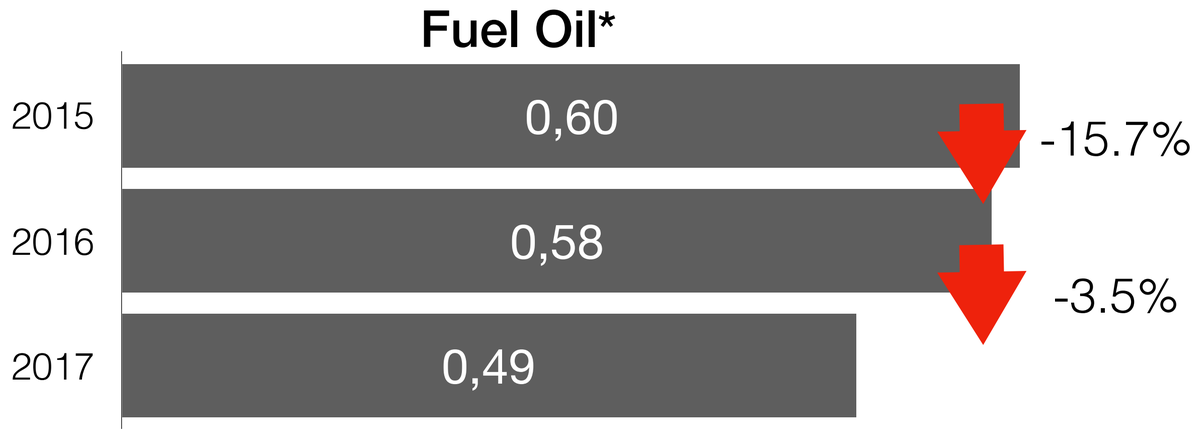
Source: EMRA, TSI

Turkish Consumption (Million tons) 2015-2017





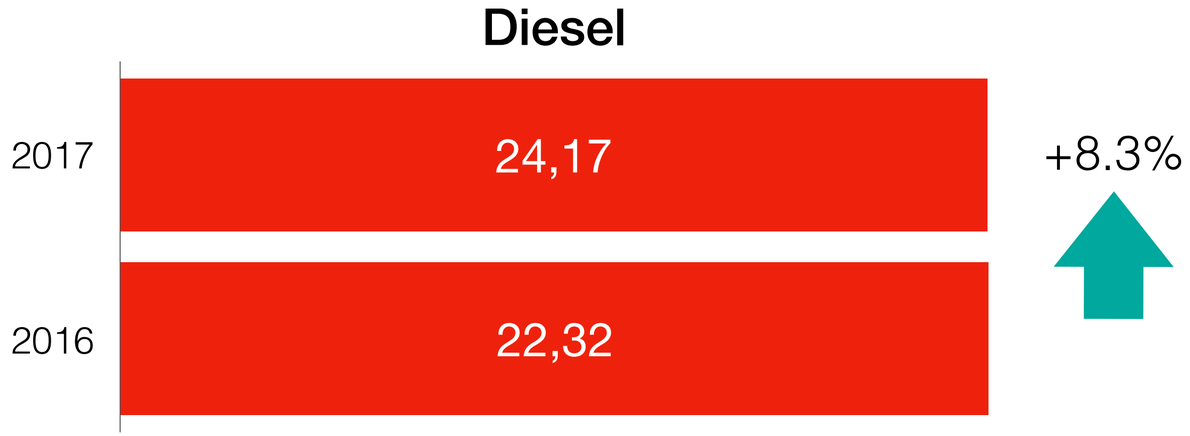


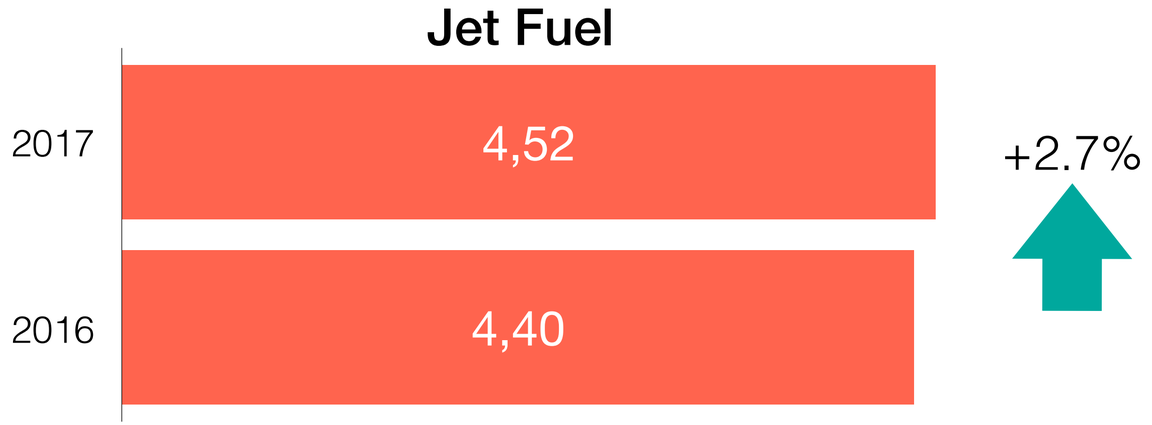


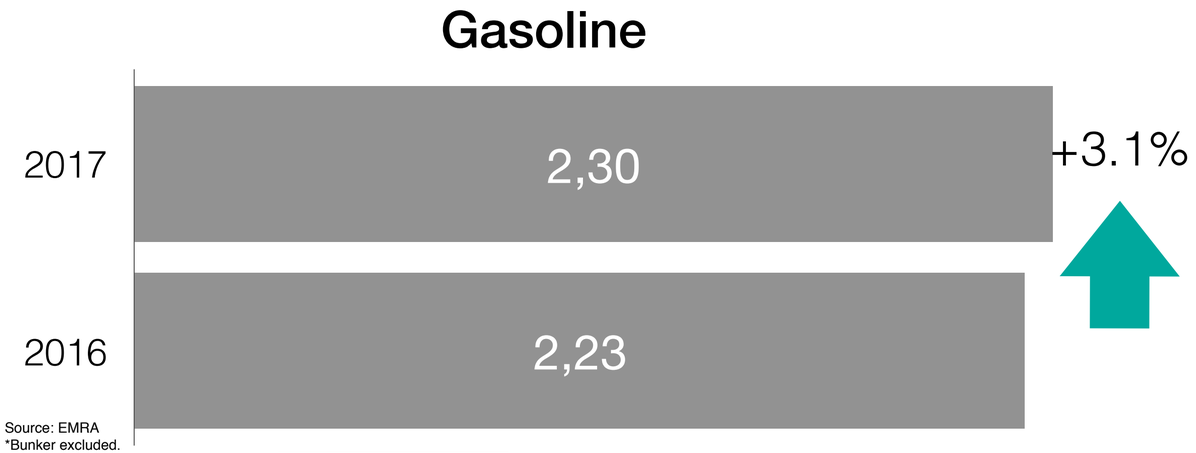
Source: EMRA
*Bunker excluded.

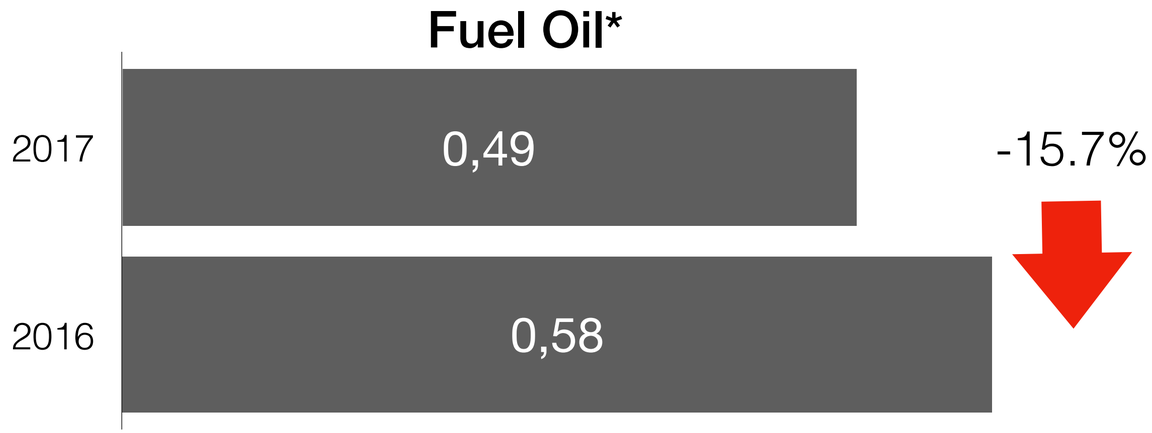
Turkish Petroleum Market - 12 Months 2017, (Million tons)

Diesel consumption in Turkey in 2017 grew significantly driven by infrastructure projects and demand from heavy duty vehicles.



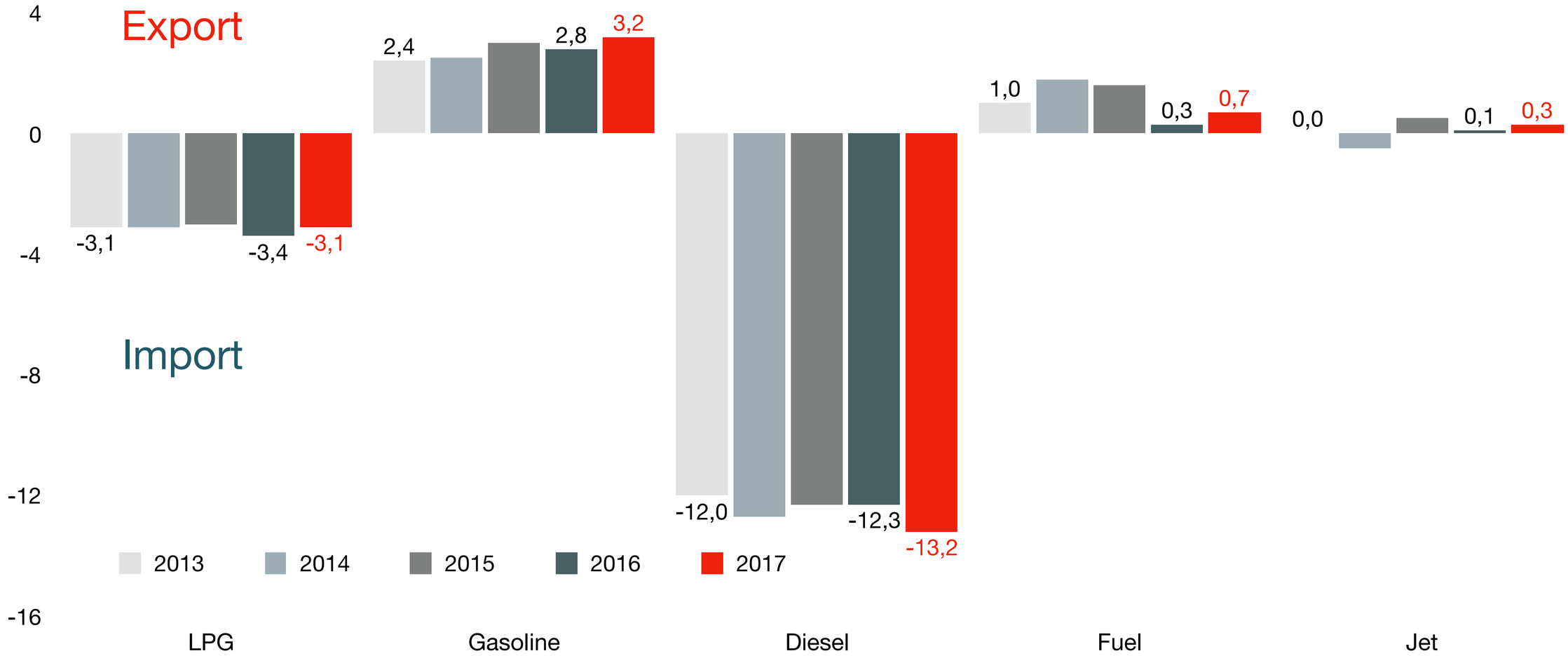






Source: EMRA
*Bunker excluded.

Turkey's Import / Export Balance (Net) (Million tons)



Source: EMRA

COMPANY OVERVIEW

Tüpraş Shareholder Structure

Koç Holding **%77**

Aygaz **%20**

Opet **%3**

Energy Investments Inc. (SPV) **%51**

DİTAŞ **%79,98**

Opet **%40**

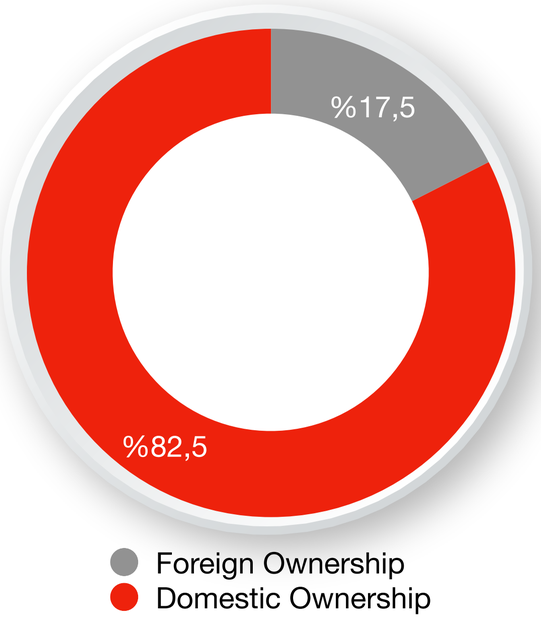
Körfez Ulaştırma A.Ş. **%100**

Tüpraş

Free Float **%49**

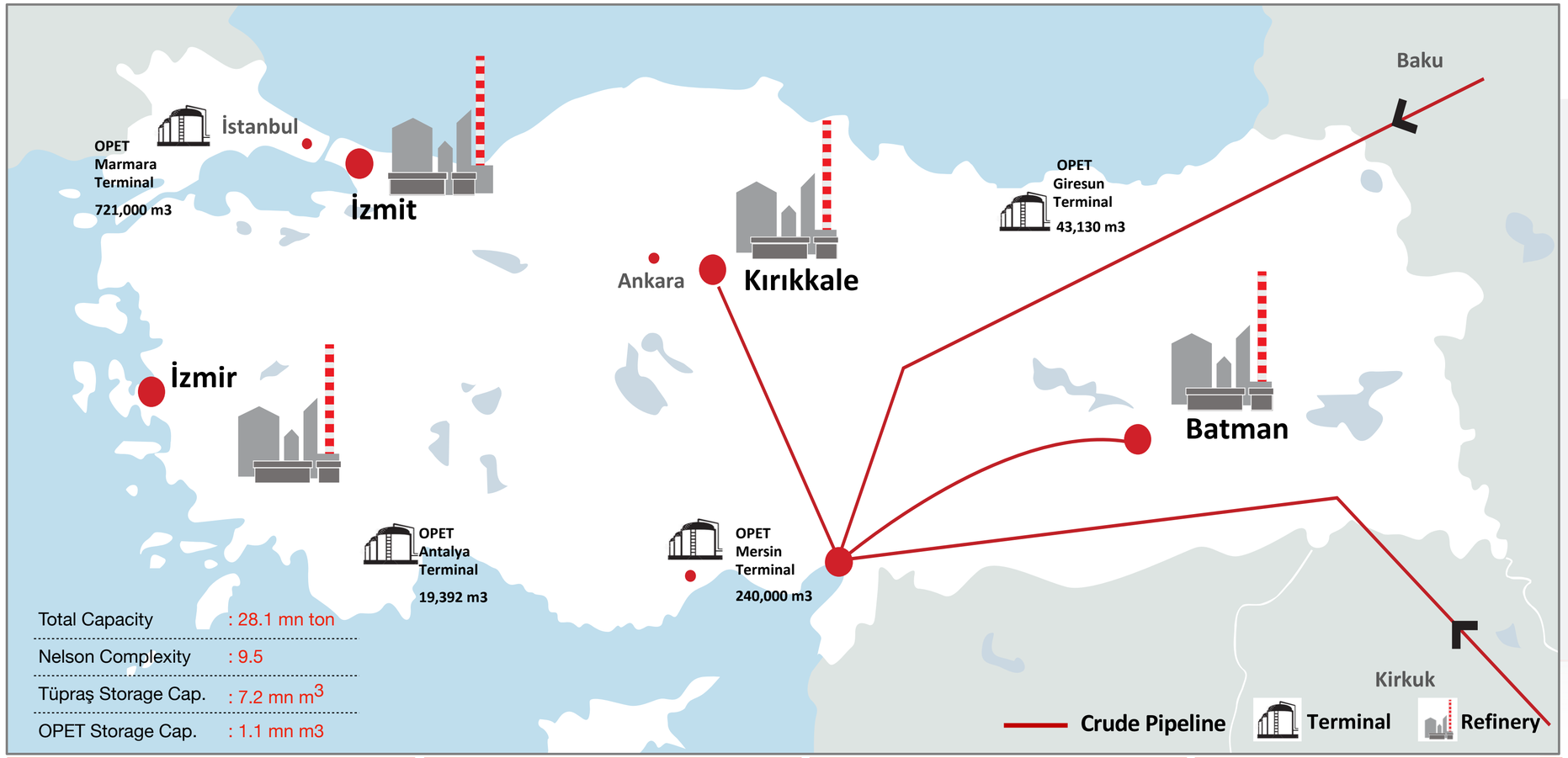
Publicly Traded

*Distribution of Domestic/ Foreign Ownership of Tüpraş Shares



*As of December 31th, 2017

Tüpraş Refining Assets & Distribution Network



Total Capacity	: 28.1 mn ton
Nelson Complexity	: 9.5
Tüpraş Storage Cap.	: 7.2 mn m^3
OPET Storage Cap.	: 1.1 mn m3

Turkey Storage Capacity

Tüpraş	**: 58%**
Opet	**: 9%**
Other Companies	**: 33%**

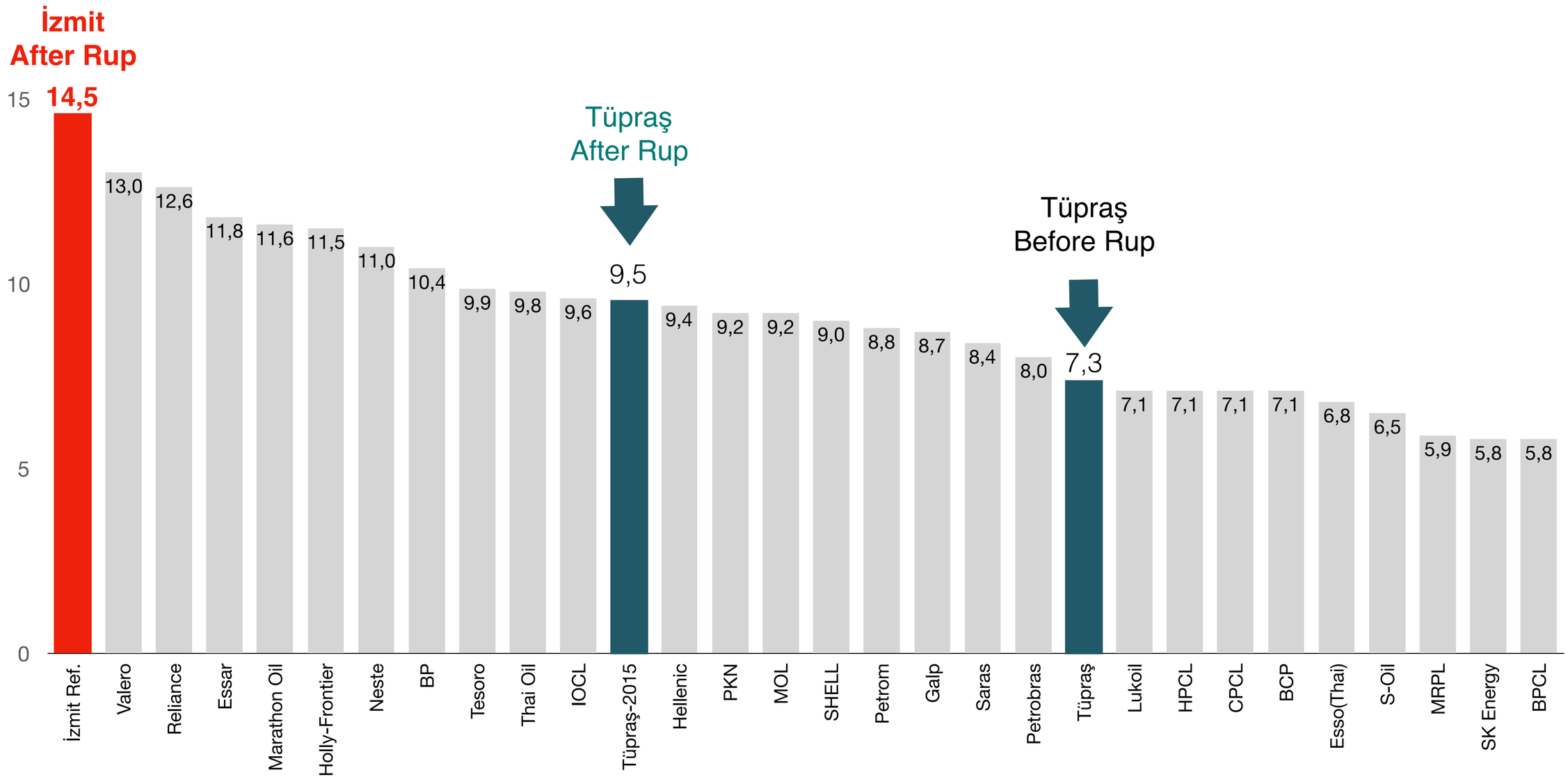
İzmit
- 11.0 MT Capacity
- NC: 14.5
- Storage Capacity: 3.03 mn m^3

İzmir
- 11.0 MT Capacity
- NC: 7.66
- Storage Capacity:2.51 mn m^3
- Base oil 400 k tons

Kırıkkale
- 5.0 MT Capacity
- NC: 6.32
- Storage Capacity: 1.41 mn m^3

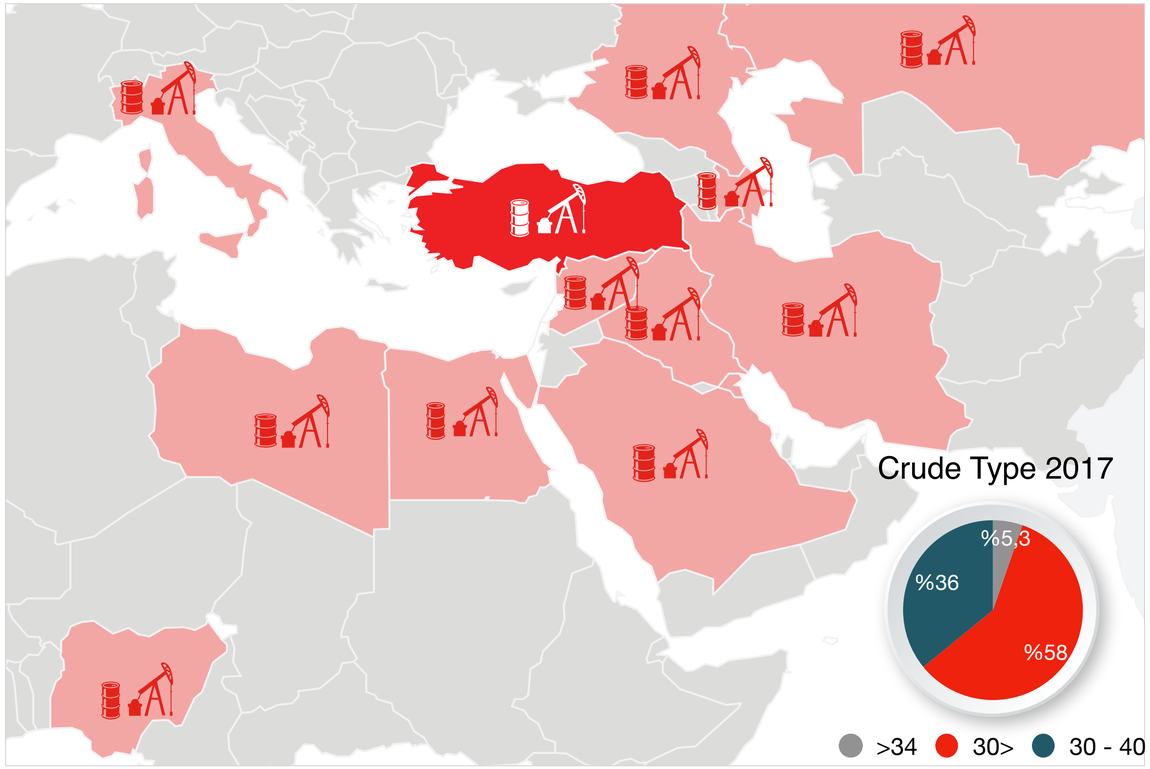
Batman
- 1.1 MT Capacity
- NC: 1.83
- Storage Capacity:0.25 mn m^3

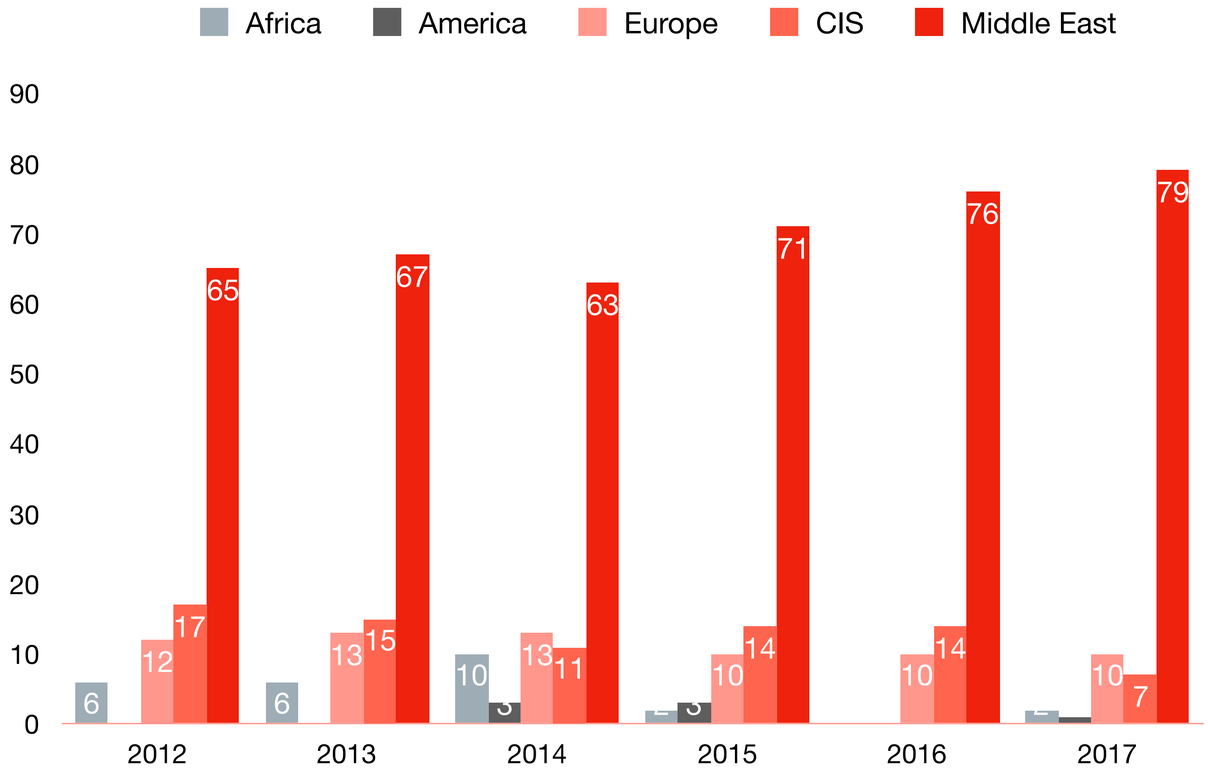
High Complexity (Nelson Complexity of Refinining Companies)



Crude Suppliers of TÜPRAŞ (Million Tons)

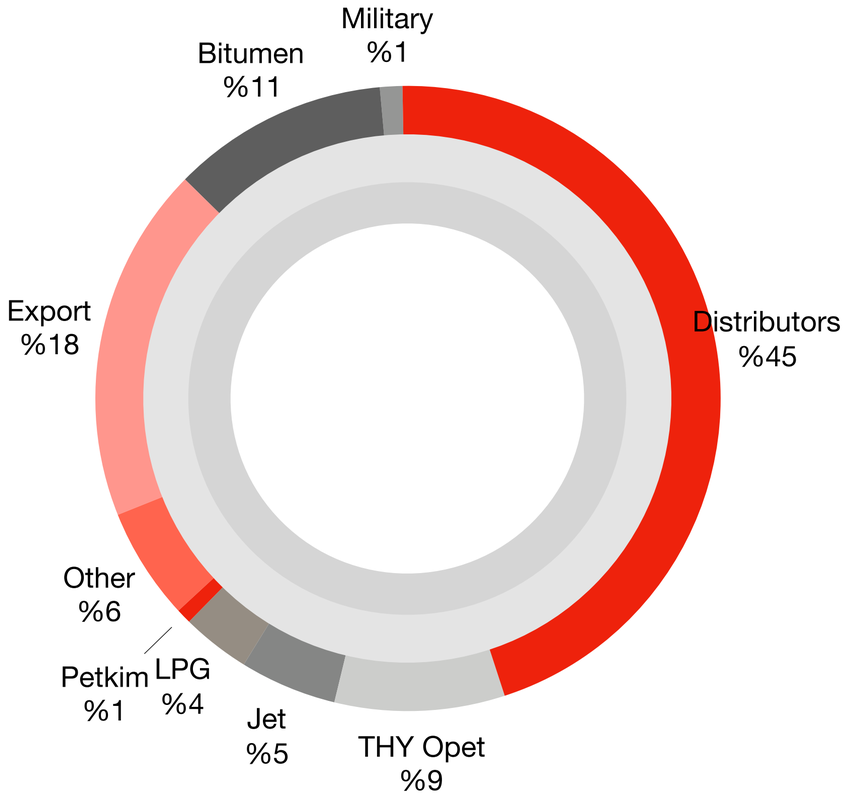
In 2017, Tüpraş purchased 25 different types of crude oil from 14 countries, with gravities ranging between 18-47 API.





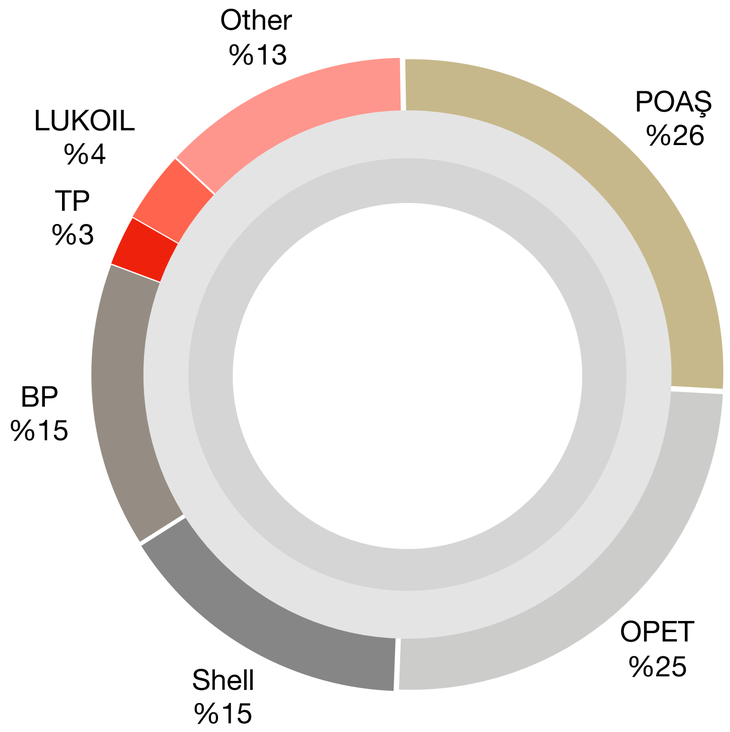
Sales By Customer (2017)

Customer Groups



Total : 31.5 mn tons

Sales to Distributors

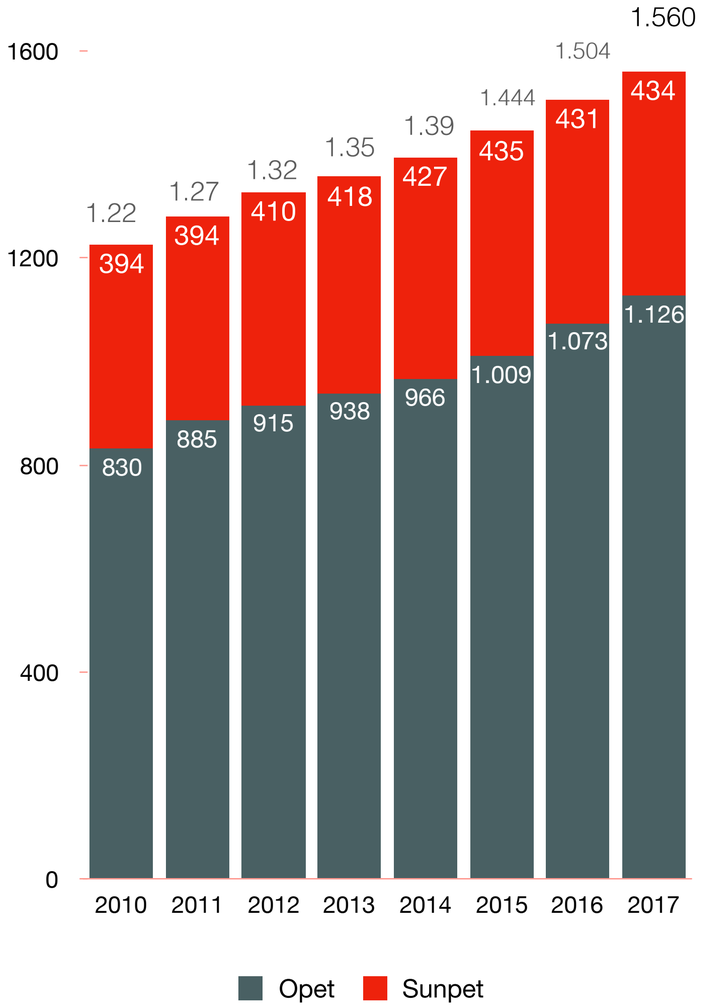


Distributors : 14.3 mn tons

Competitive Advantages of Tüpraş

Added Value Created by Tüpraş	Local Market Dynamics	Cost Base of Tüpraş
Best Fit for the Market with high diesel yield	High Economic Growth	Energy Efficient
High Complexity of Tüpraş	Short on Diesel	Crude Oil & Feedstock Cost Advantage
Presence in all over Turkey through refineries and terminals	Import Parity Pricing (Freight advantage of Tüpraş)	Economies of Scale

OPET- Tüpraş Share 40.0%



1.560 Stations

Market positions: 17.8% in White product; 23%

1.1 Million M3 Storage

Marmara, Aegean, Black Sea & Mediterranean

1 Brand Royalty Award

2nd Biggest Distribution Company by Volume

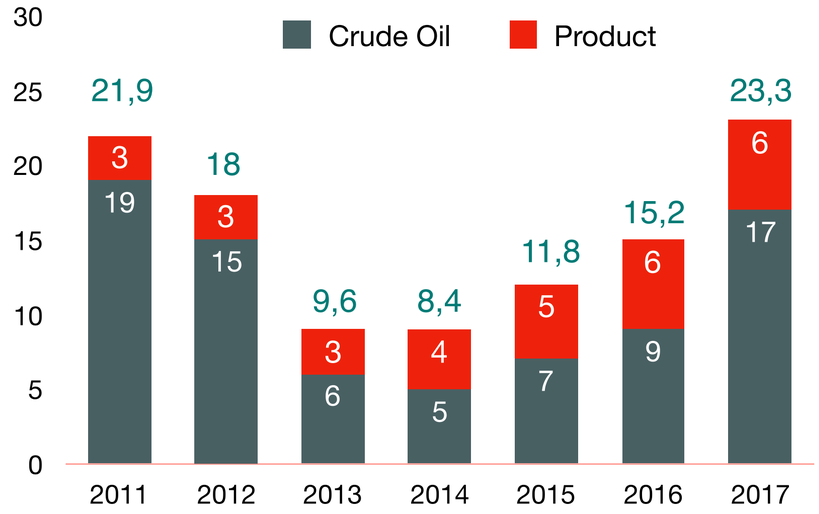
- Jet Fuel Sales
  THY Opet- 50/50 joint venture with Turkish Airlines for air transport fuel sales in Turkey
- International Trading London
- Lubricants
  Opet Fuchs- 50/50 lubricant joint venture with Fuchs

DİTAŞ, Marine Transport -Tüpraş Share 79.98%

3 Crude Oil Tanker :479.765 DWT
1 Crude Oil - Product Tanker : 51.532 DWT
7 Product Tanker : 90.534 DWT

13 tugboats
10 mooring boats
2 service boats
1 pilot boat

- One of the biggest Turkish marine transportation companies of crude oil and petroleum products
- Carries mainly Tüpraş' crude oil purchases and makes the transfer operations of product and semi-products



253,7 mn $
Net Sales

49,6 mn $
Op. Profit

Körfez Ulaştırma A.Ş.- Tüpraş Share 100%

Körfez Ulaştırma A.Ş.

Turkey's First Private Railway Operator

- On June 16th, Freight Train Operator Certificate,
- On September 20th, Safety Management Certificate received
- Operates with 491 cistern wagons and 5 diesel locomotives

2018 **Target**

2,5 mn tons/year transport

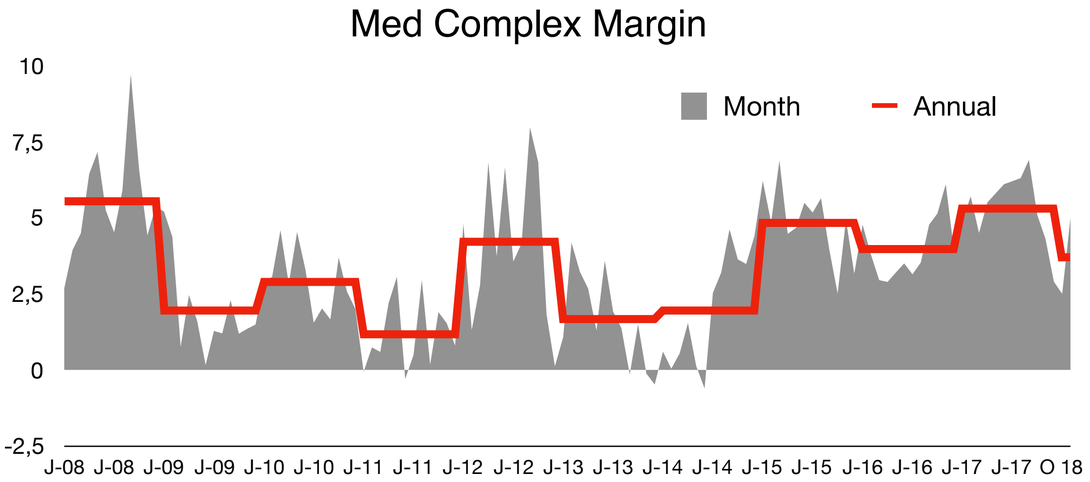
% 10 Market share

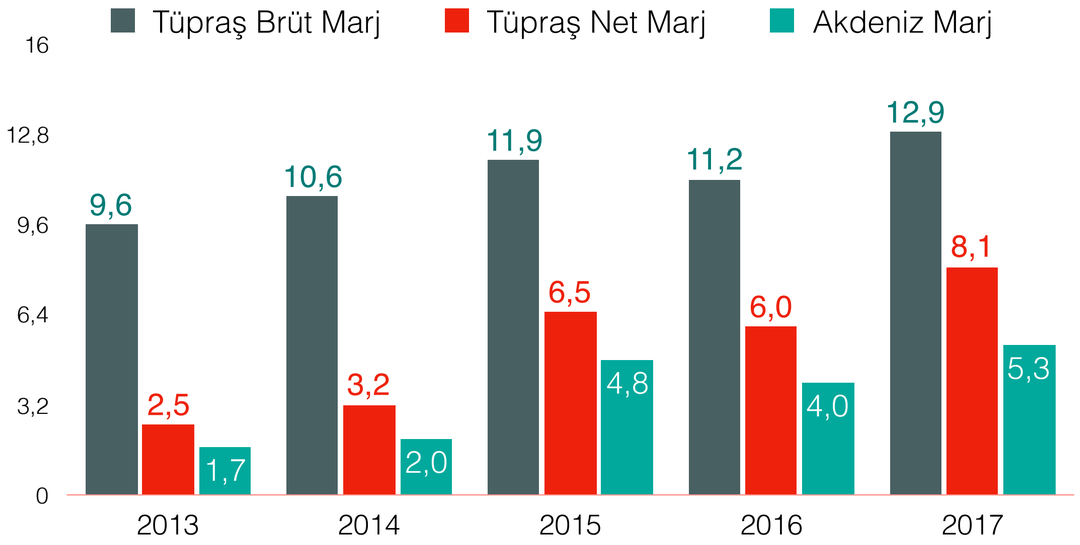
OPERATIONS

Margin Environment ($/bbl)

Premium to the benchmark Mediterranean peers' refining margin due to:

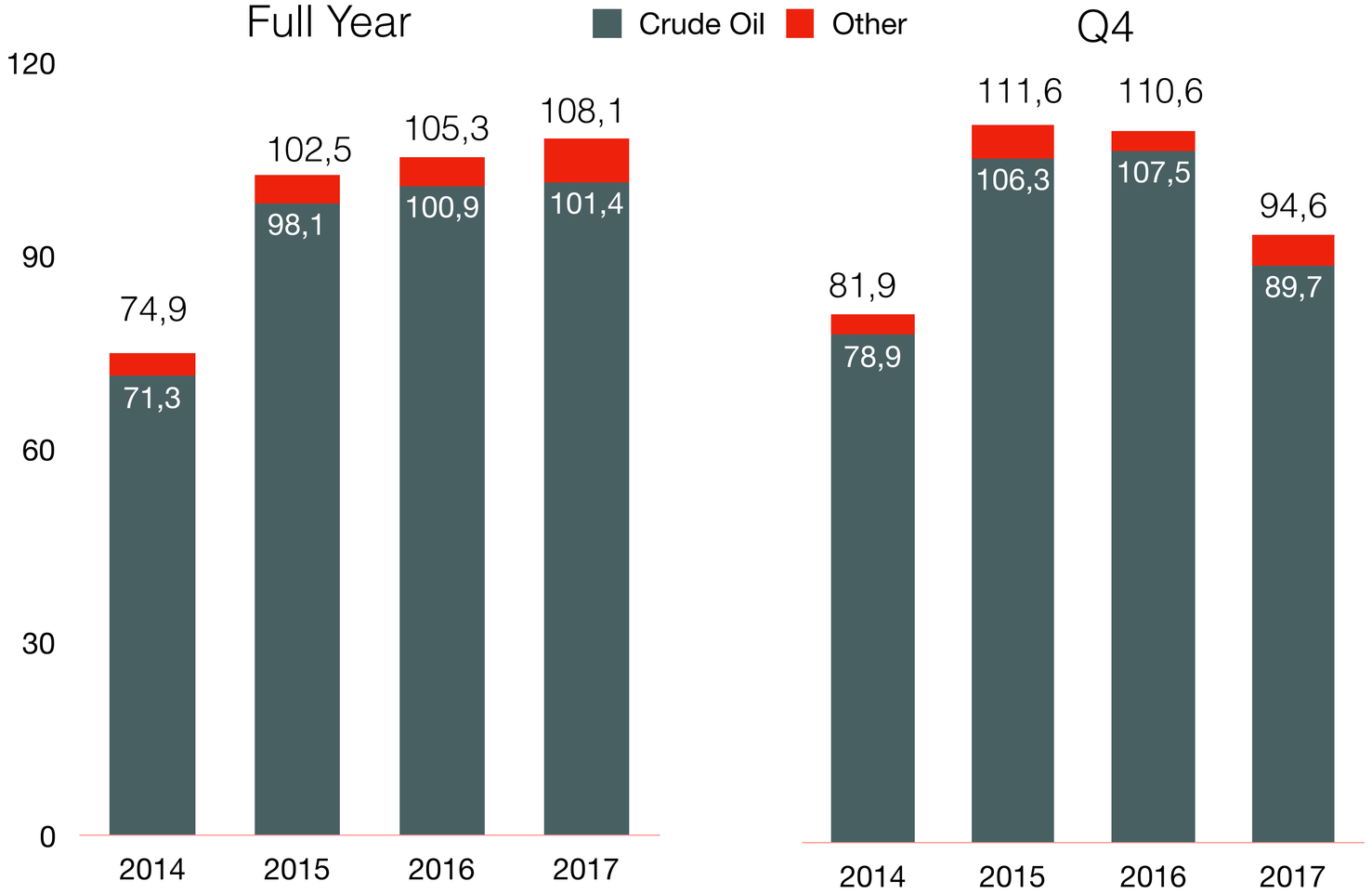
- Refined products deficit characteristic to the Turkish market
- Access to cheaper sources of crude oil
- Ability to use heavier and sour crudes
- Proximity to major suppliers
- Reduces transport costs
- Implemented cost reduction measures
- Energy efficiency programs
- Capacity to produce higher value added range of refined products
- Direct pipeline connections with domestic clients
- High export capability



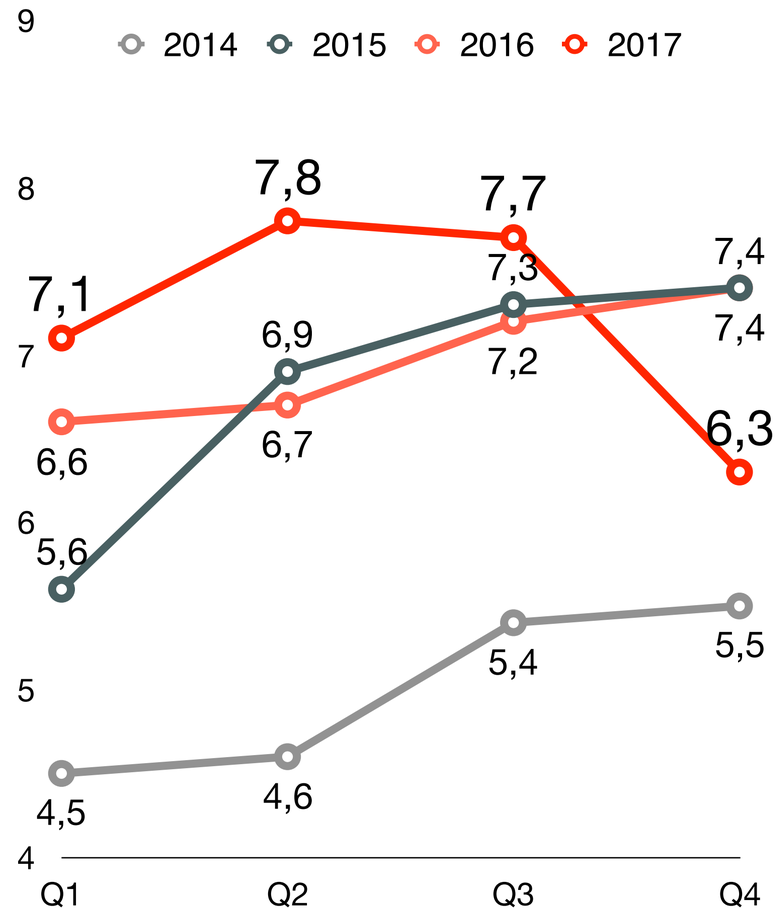


Capacity Utilization and Quarterly Production Volume

Capacity Utilization* (%)



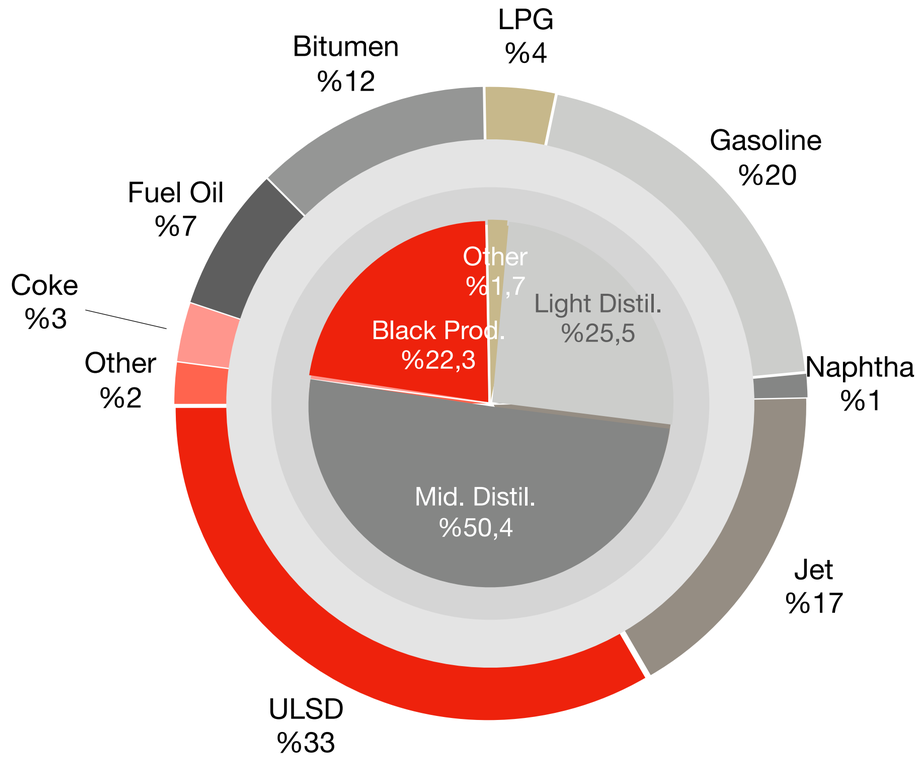
Quarterly Production (Mil. Tons)



*Nameplate capacity calculated by standard 330 days of operations.

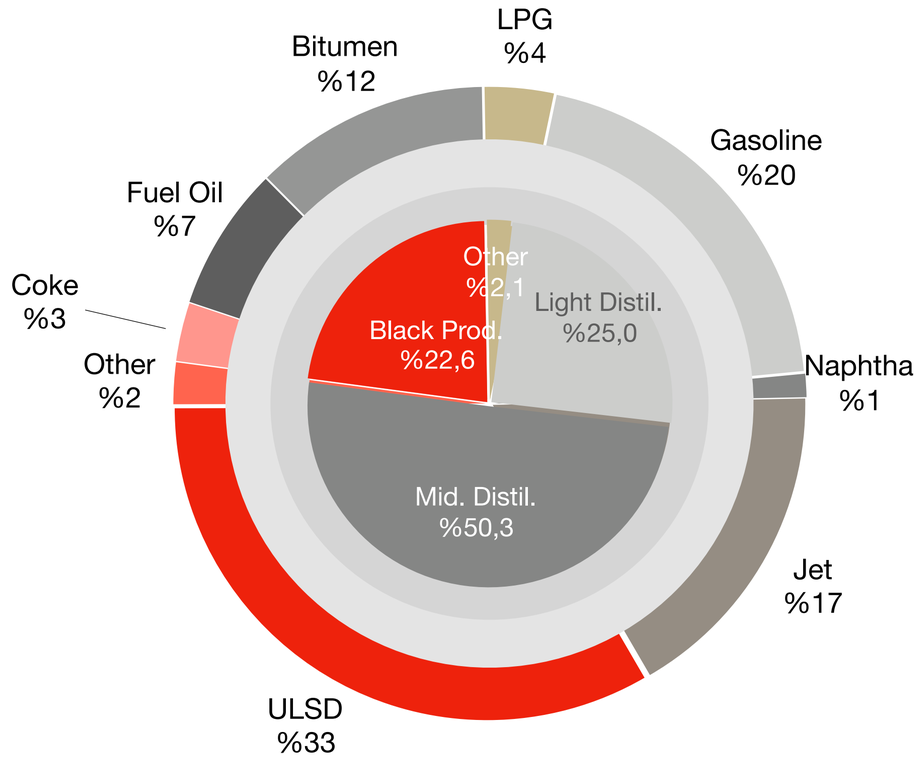
12M Product Yields

2016



White Product	%76.56
Production	27,93 mn tons
API	30,62

2017

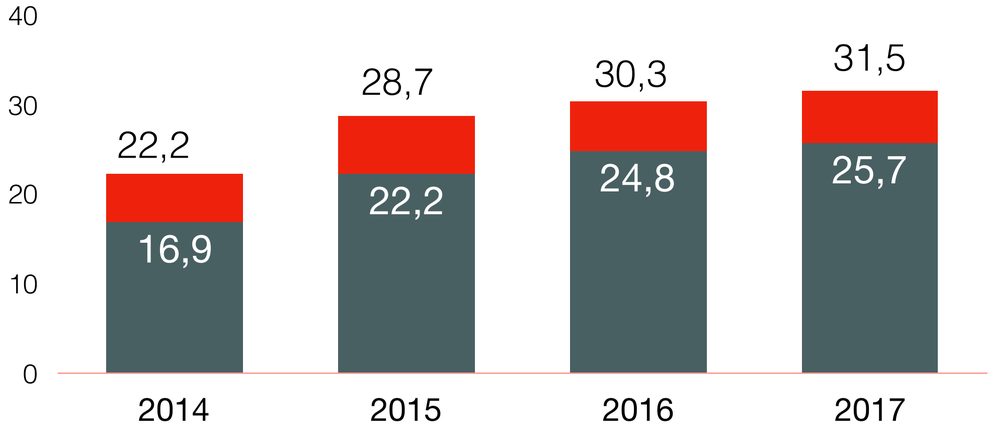


White Product	%76.27
Production	28,88 mn tons
API	30,26

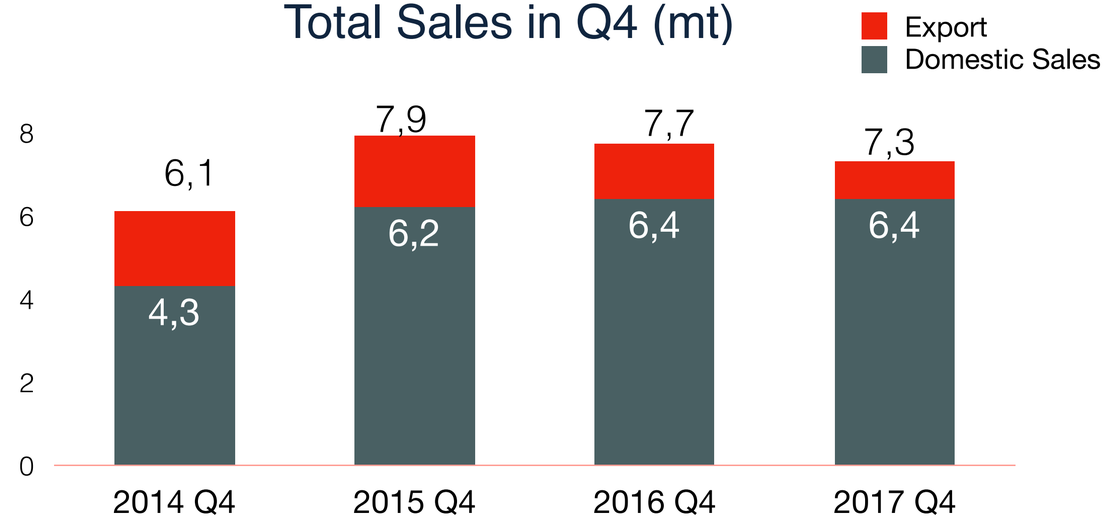
Tüpraş Sales (Million Tons)

Tüpraş achieved highest total sales of 31.5mt in 2017.

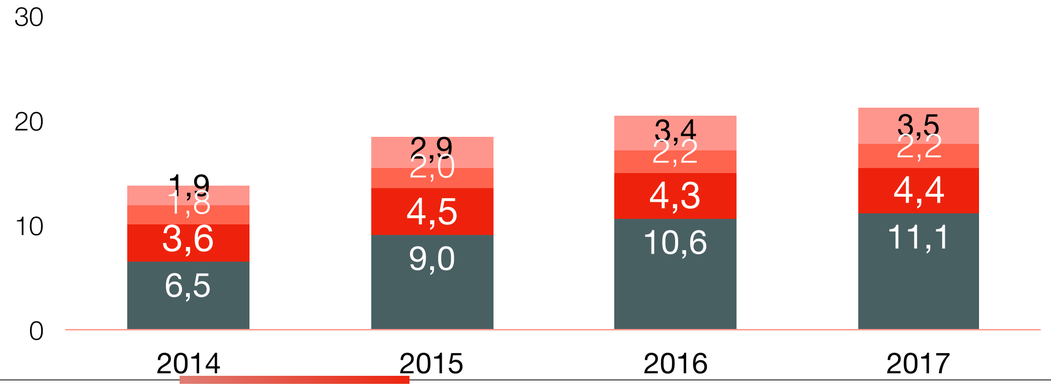
Full Year Total Sales (mt)



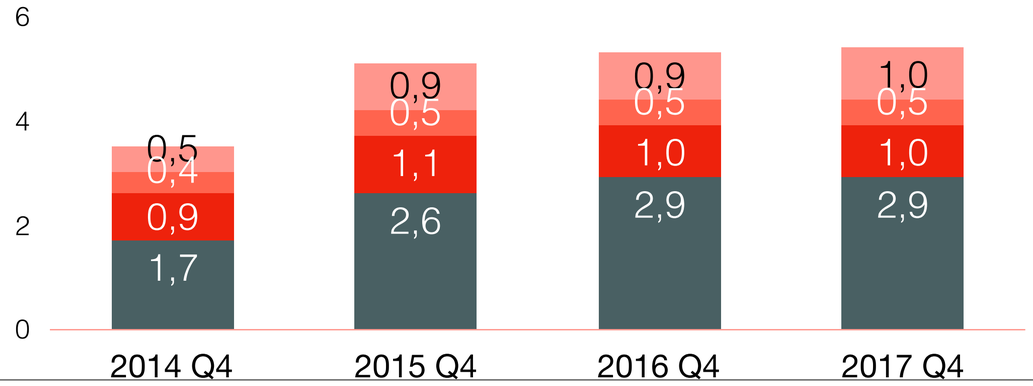
Total Sales in Q4 (mt)



Full Year Domestic Sales of Key Products (mt)

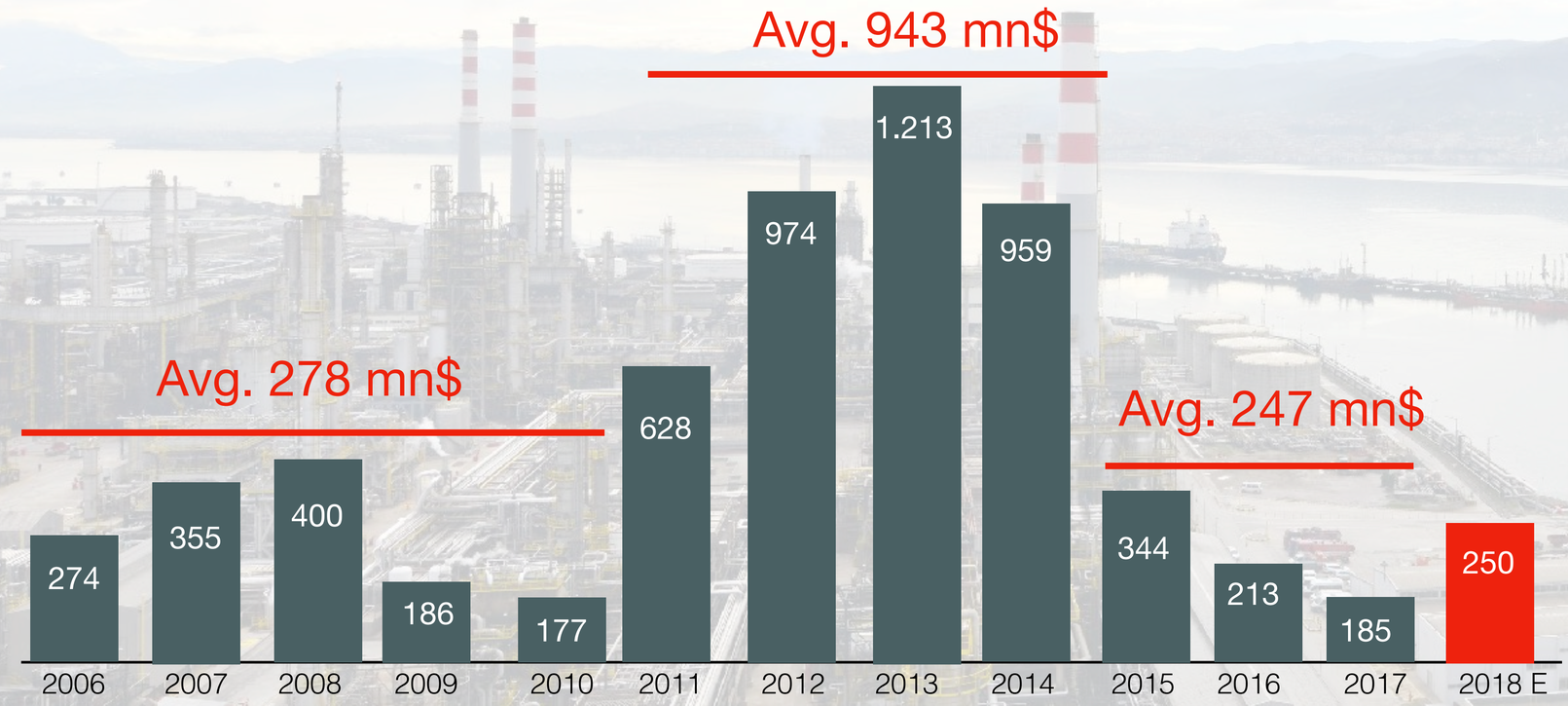


Domestic Sales of Key Products in Q4 (mt)



Investments (mn $)

- 9.5 Nelson complexity
- High white product yield
- Process more heavier and sour crudes
- Run all refineries with 100% capacity utilization

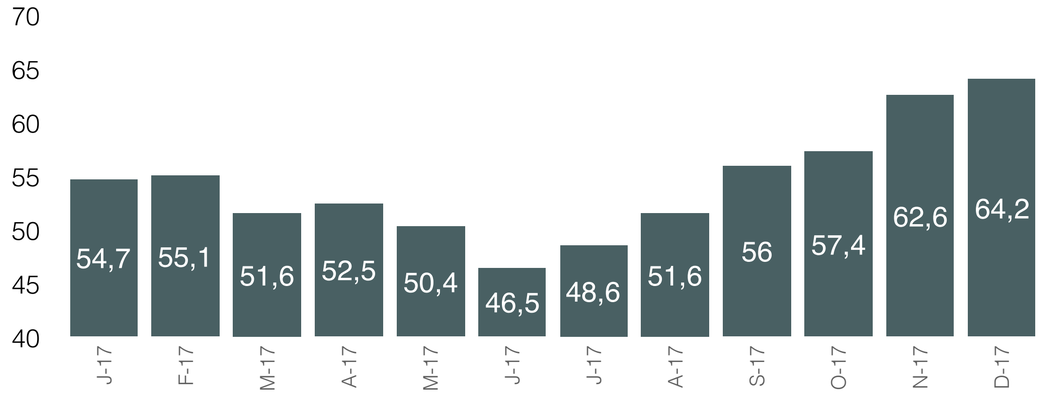


Ongoing Projects

- New Power Plant
- Revamp of Crude Unit
- FCC Modernization
- New Sulphur Units
- Energy Saving Projects
- Optimization of conversion units

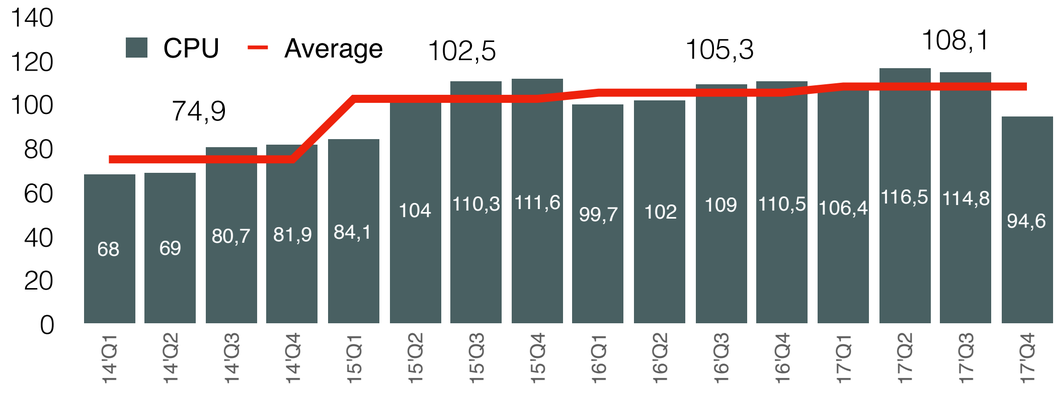
2017 Expectations vs 12 Months Results

Brent Price ($/bbl)



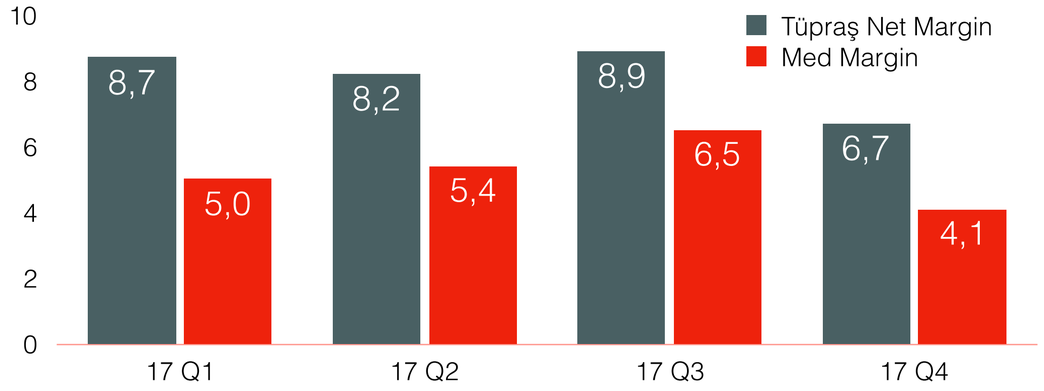
Our expectation was 50-55 $/bbl; 2017 average was 54.3 $/bbl.

Capacity Utiliation (%)



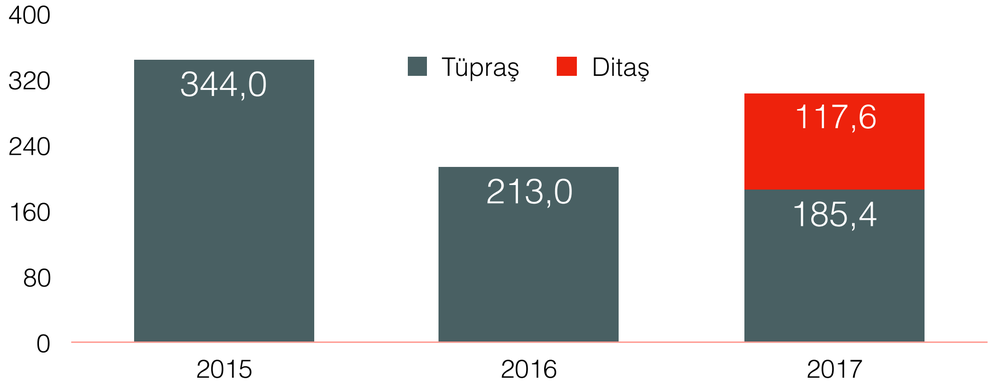
Expected Full Capacity Utilization in 2017; achieved 108.1% capacity utilization.

Margins ($/bbl)



Net Tüpraş refinery margin for 12M was 8,1 $/bbl above target of 7,50 - 8,00 $/bbl.

Capex (mn $)



Tüpraş core refining business capex guidance for 2017 was 200 Million dollars.

KEY FINANCIALS

2017 Key Highlights

In Full Year 2017, Tüpraş generated record sales of 31.5 mt and EBITDA of 5.9b TL.

31.5
Million tons of
Sales

101.4
%
Crude Capacity Utilization

30.4
Million tons
Processed
(Total)

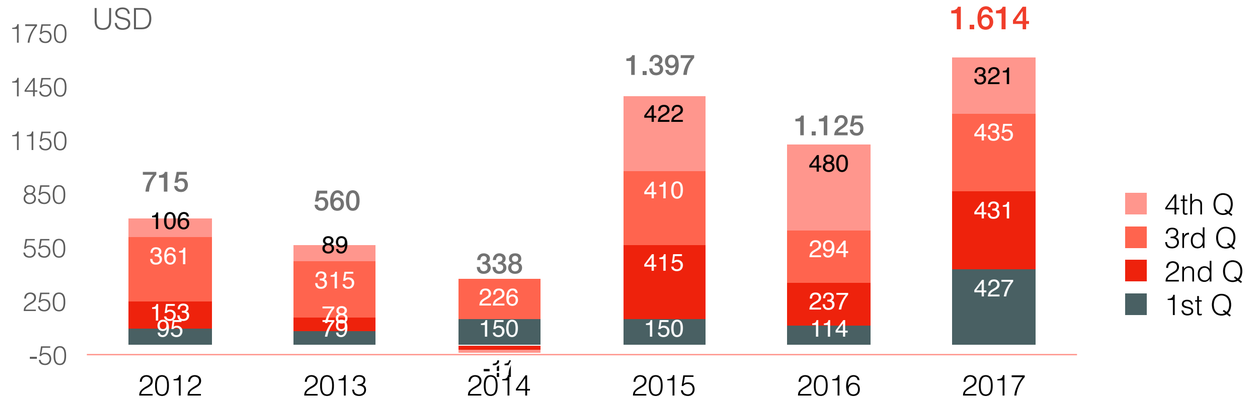
8.1
$/bbl
Net Refining Margin

5.9
Billion TL
EBITDA

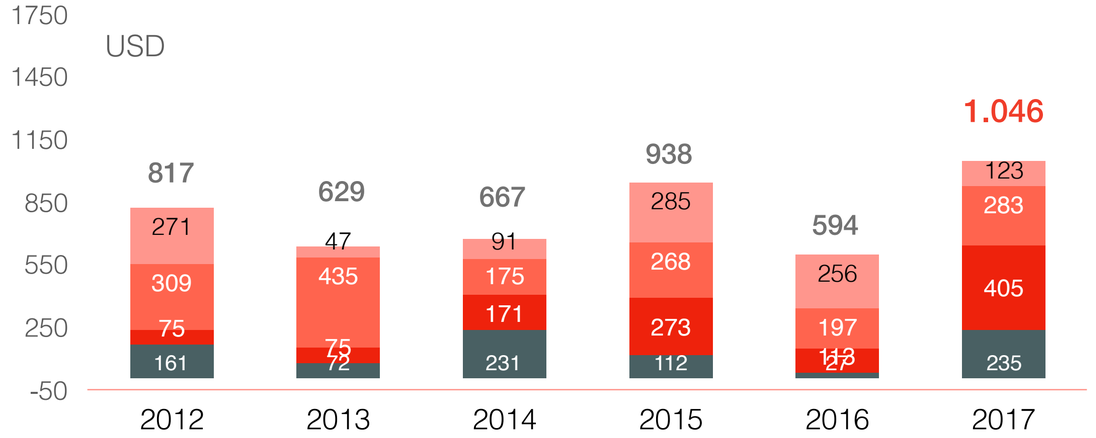
4.5
Billion TL
Profit Before Tax

Financial Highlights (mn $)

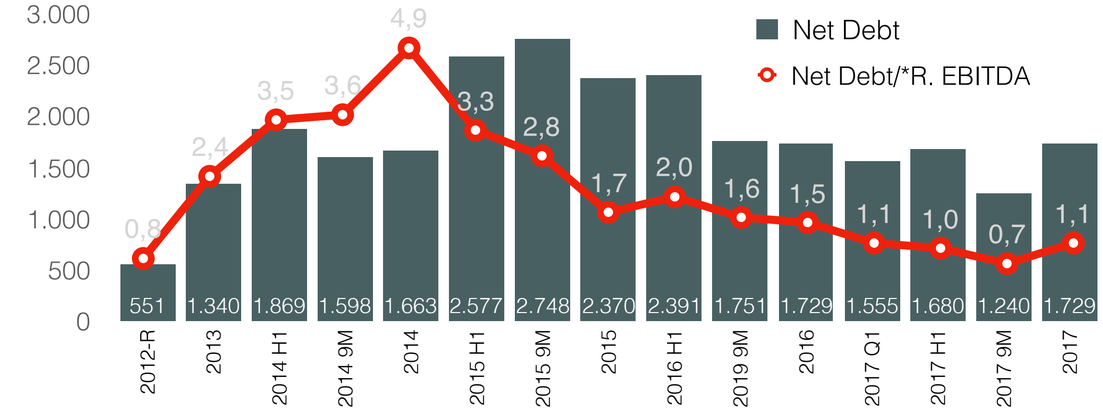
EBITDA



Net Income

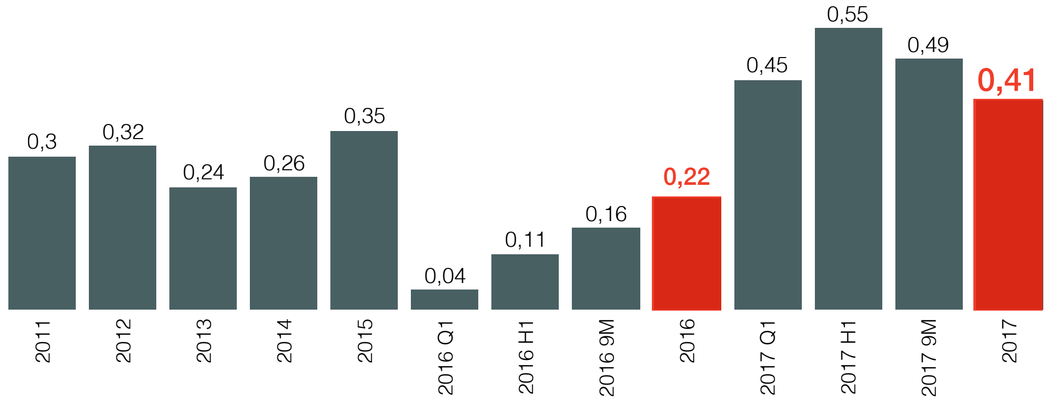


Net Debt- *Debt/Rolling EBITDA



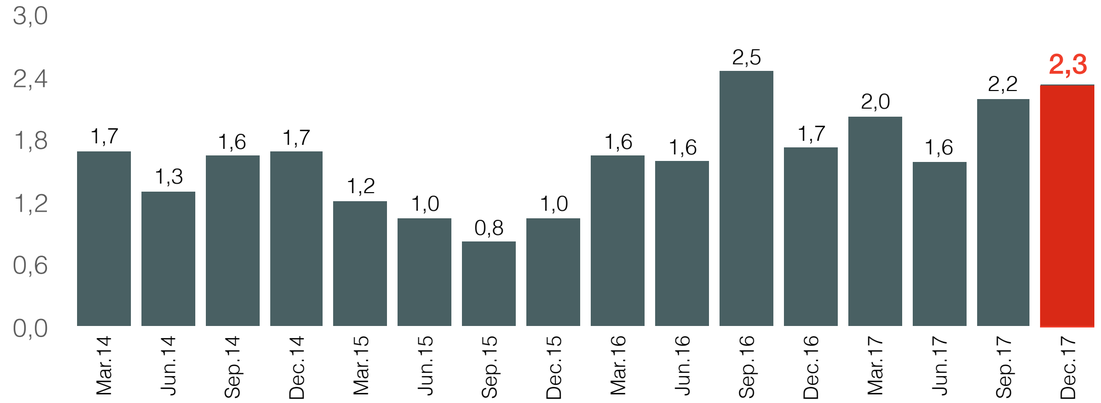
Net Debt/Rolling EBITDA was calculated with USD figures

Return of Average Equity

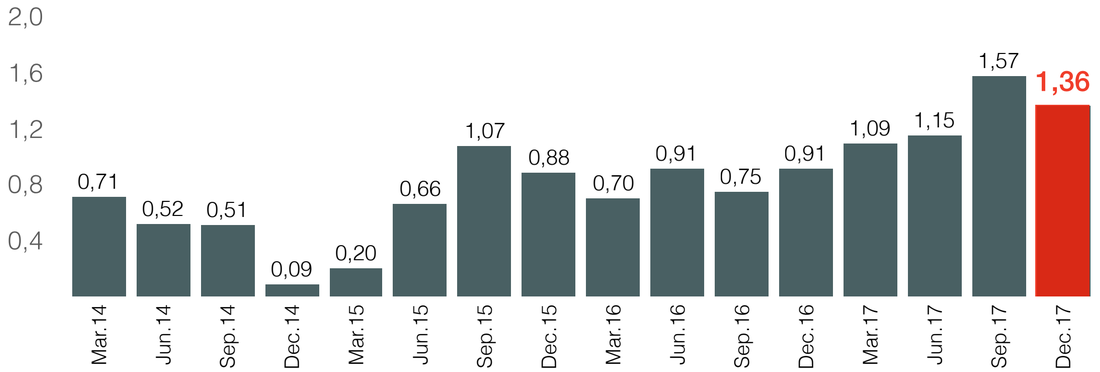


Balance Sheet Analysis

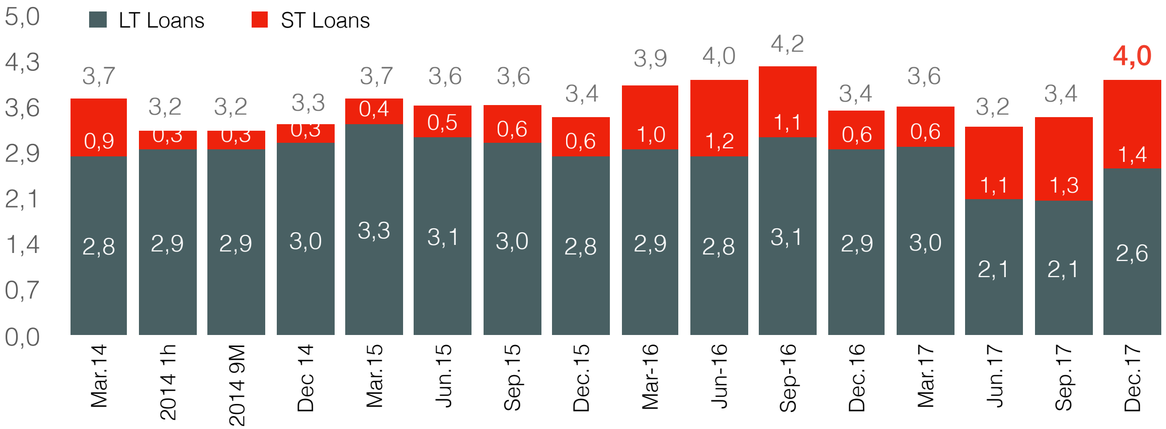
Cash & Cash Equivalents (Billion $)



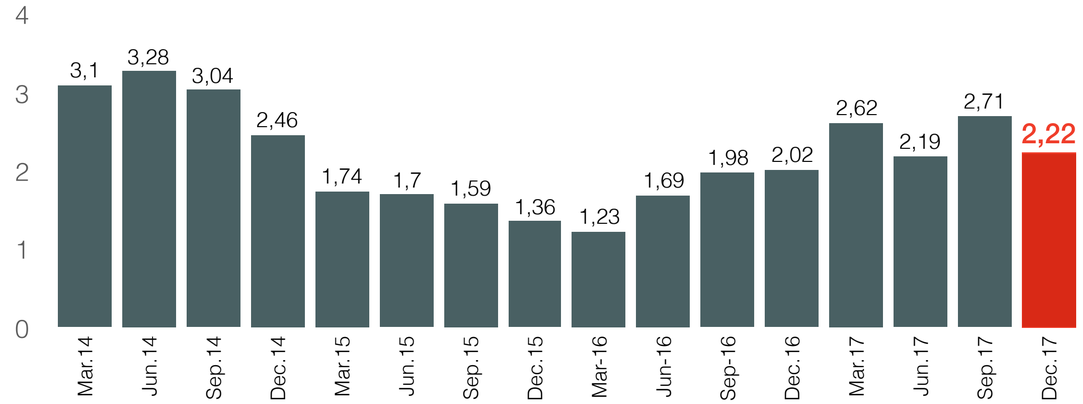
Receivables (Billion $)



Financial Loans (Billion $)



Payables (Billion $)

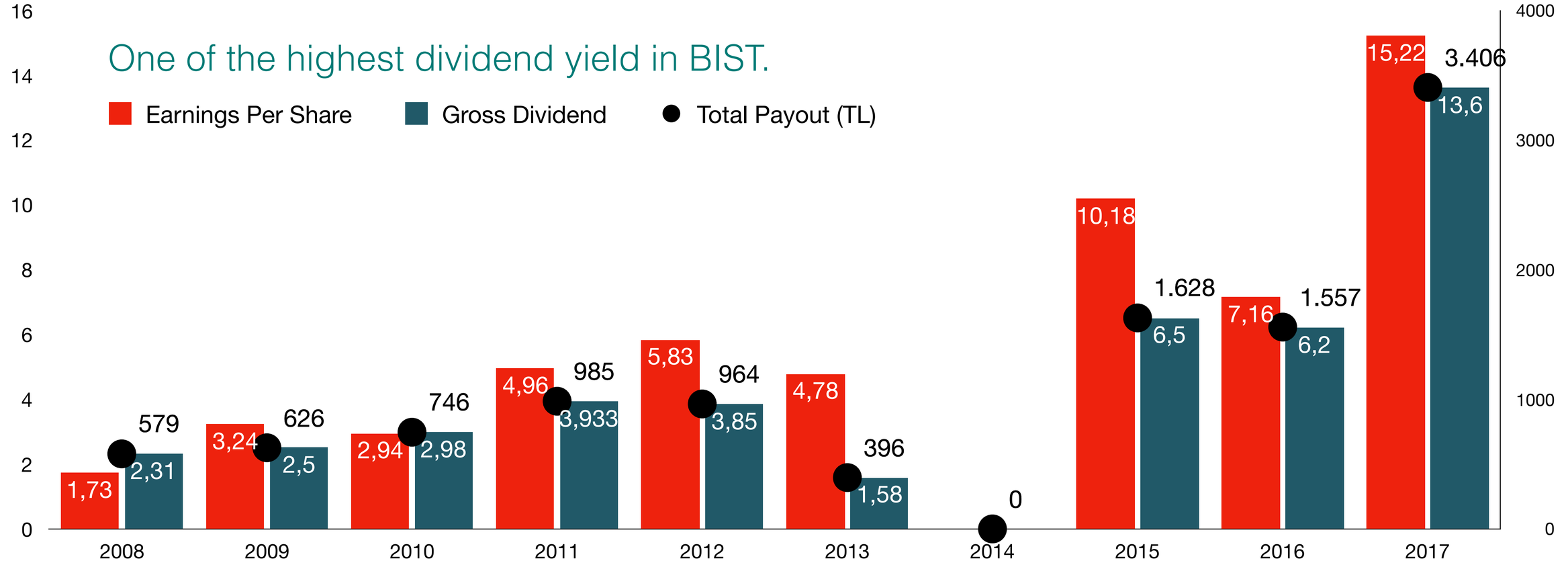


Tüpraş Balance Sheet

Million USD	31.12.2017	31.12.2016	Difference	% Difference
Current Assets	**5.399**	**3.884**	**1.516**	**39**
Cash & C. Equivalents	2.334	1.719	614	36
Receivables	1.355	911	444	49
Derivatives	92	10	82	832
Inventories	1.403	1.025	377	37
Pre-paid expenses	17	28	-11	-41
Other Current Assets	199	190	9	5
Long Term Assets	**4.718**	**4.987**	**-269**	**-5**
Financial Assets & Subsidiaries	303	264	39	15
Fixed Assets	3.263	3.338	-75	-2
Derivatives	27	105	-78	-75
Pre-paid expenses	26	68	-41	-61
Deferred Tax	813	917	-104	-11
Other Long Term Assets	286	296	-11	-4
Total Assets	**10.118**	**8.871**	**1.247**	**14**
Short Term Liabilities	**4.686**	**3.597**	**1.089**	**30**
Financial Loans	1.398	556	842	151
Payables	2.219	2.020	199	10
Derivatives	47	8	39	461
Deferred Incomes	5	4	1	24
Provisions	24	18	5	29
Other ST Liabilities	993	990	3	0
Long Term Liabilities	**2.654**	**2.953**	**-299**	**-10**
Financial Loans	2.592	2.892	-300	-10
Payables & Provisions	59	59	0	1
Derivatives	1	1	0	76
Other LT Liabilities	1	2	0	-8
Equity	2.750	2.298	452	20
Minority Interests	28	22	5	24
Total Liabilities	**10.118**	**8.871**	**1.247**	**14**

Dividend

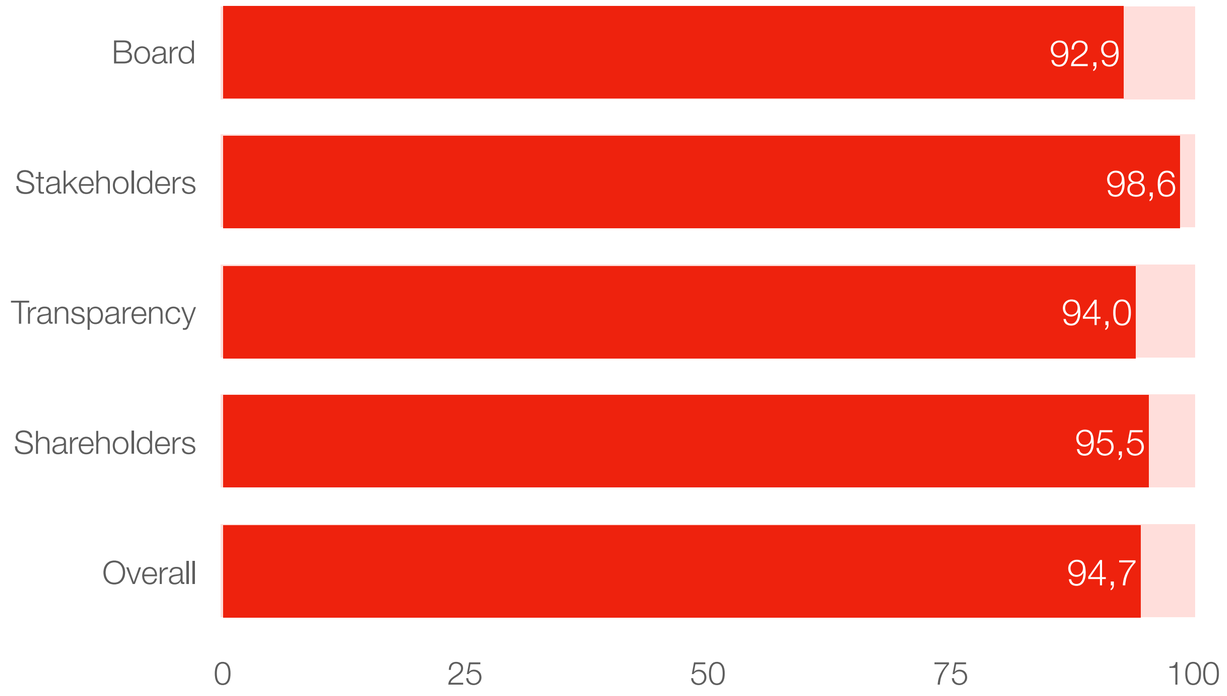
In principle; as far as the related regulations, investment needs and financial situation allow, the entire amount of the “net distributable profit for the period”, calculated within the frame of the Capital Markets Regulations, is distributed in cash – taking into consideration the market expectations, long term company strategies, investment and financing policies, profitability and cash position – as long as it is covered from the existing resources in our legal records.



2012/2013 EPS includes the tax incentive

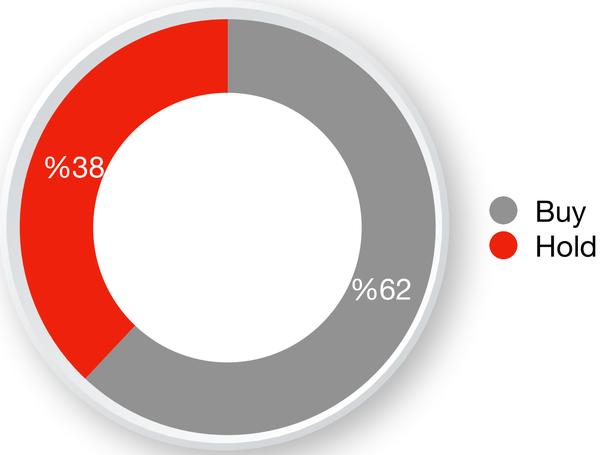
Creating Competitive & Sustainable Shareholder Value

Tüpraş has one of the highest Corporate Governance Ratings



Foreign Currency Long Term	FitchRatings	Moody's	S&P Global Ratings
Tüpraş	BBB-(IG)	Ba1 (Sta.)	
Turkey	BB+ (stable)	Ba2 (Sta.)	BB
Koç Holding		Ba1 (Sta.)	BBB-

Analyst Recommendations



Financial Policy

Financial Discipline: Risk management policies focusing on areas such as leverage, liquidity, counterparty risk, interest rate, commodity and currency exposure

Threshold and limits

- Net financial debt/EBITDA
- Net foreign currency position/shareholders' equity
- Inventory and crack margin exposure
- Current ratio
- The fixed/floating profile of financial debt
- Liquidity: share of long term debt
- Counterparty risk limits

Counterparty Risk Policy

Deposit is kept, within certain limits, by banks that comply with the criteria determined in our policy

- Credit rating and strong capital base
- Cap on the maximum deposit allocated to a single bank
- Threshold for deposits subject to banks shareholders’ equity

Inventory & Crack Margin Hedge

Inventory Hedging Policy

Operational Hedge:

- Maintaining minimum amount of stock required for the refining activities
- Forward Pricing: Purchasing crude oil through forward-priced contracts

Financial Hedge: Proxy Hedging (both crude oil and refined product inventories)

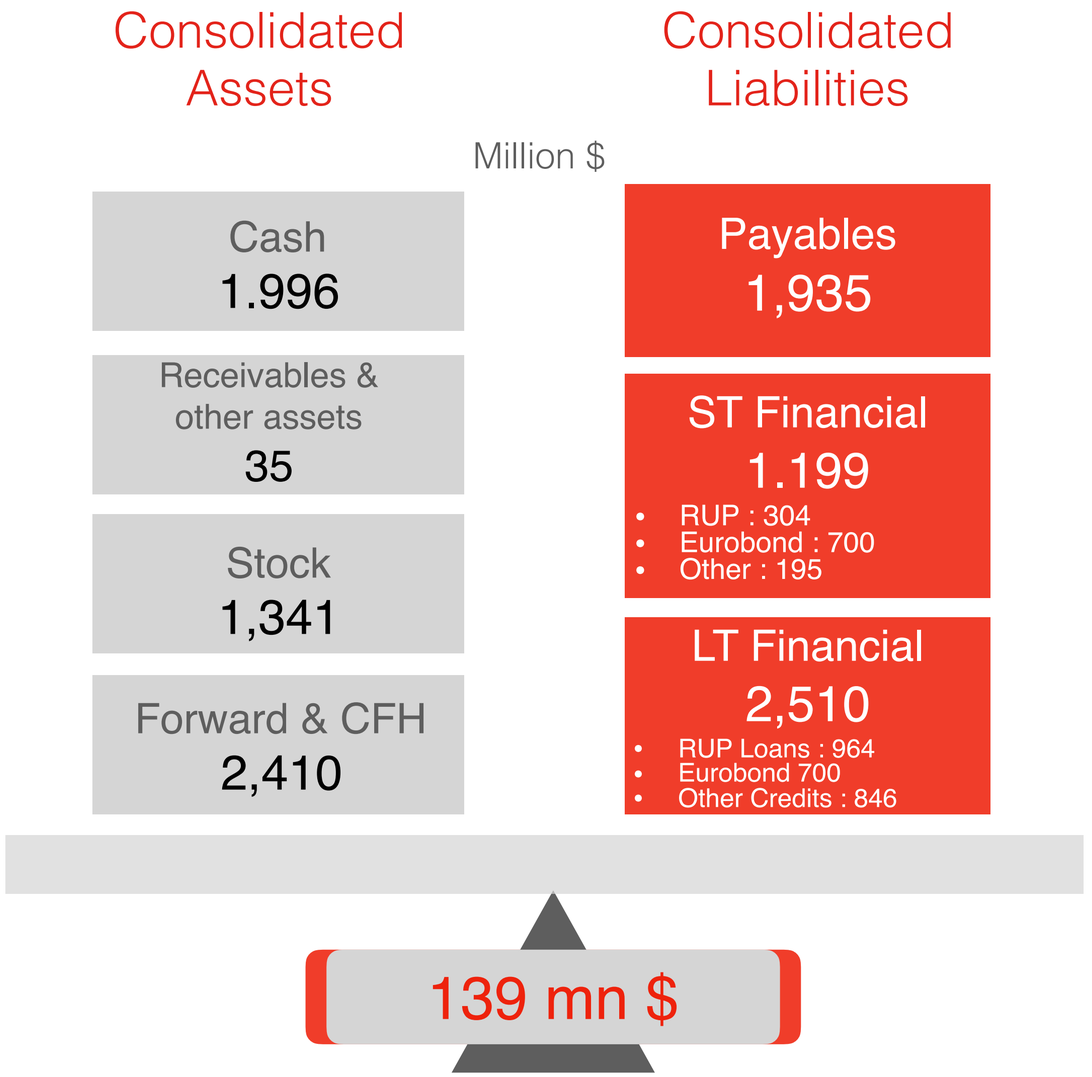
- Expected inventory exposure for the year end is hedged
- Derivative transactions: Asian swap, Zero Cost Collar
- Hedging ratio increasing throughout the year

Margin Hedging Policy

- Crack margins: Gasoline, Diesel and Jet Fuel Cracks
- Derivative transactions: Asian Swaps
- Hedging Parameters: Budget figures, historical average prices of the cracks + standard deviations, market expectations
- Maximum hedge ratio: 50%,
- Tenor: up to next 4 quarters

FX Risk Exposure (31 December 2017)

- A significant portion of the Group's crude oil and refined product purchases are denominated in US Dollars. In addition, the Group finances its capital expenditures mostly through borrowings denominated in US Dollars.
- Natural Hedge: The Group is able to mitigate some of the impact of volatility in exchange rates through natural hedges: crude oil and refined product inventories are US Dollar denominated assets.
- Cash flow Hedge: RUP Facility financing loans designated as hedging instruments of highly probable export revenues.
- As a general Koç Holding financial policy, Group companies are allowed to keep foreign exchange positions within certain limits.



Cash flow hedge accounting : 1,254 mn $

OUTLOOK

2018 Refinery Maintenance Schedule & Capacity Utilization

Even after the 2018 maintenance schedule, we aim to exceed our full total capacity utilization target and reach 104.6%.

	Unit	Quarter	Duration (weeks)	Reason
İzmir	Plt 7000 Crude Oil Unit	Q4 '17- Q1' 18	11-13 in 2018	Revamp
	Hydrocracker, DHP & Platformer	Q1	5-6	Periodic Maintenance
	Plt 4000 FCC	Q2	5-6	
İzmit	Plt 2 Crude Oil & Vacuum Unit	Q4	5-6	Periodic Maintenance
	Plt 5 Crude Oil & Vacuum Unit	Q2	5-6	
	Plt 25 Crude Oil & Vacuum Unit	Q4	5-6	
	Plt 47 Hydrocracker Complex	Q2	4-5	
	Plt 63 CCR & DHP	Q4	5-6	
Kırıkkale	All Units	Q1	6-7	Battery Shutdown
Batman	Plt. 100/Crude Oil & Vacuum	Q1	4-5	Periodic Maintenance

2018 Crude Capacity Utilization	26.8 mn tons (95.4%)
2018 Total Capacity Utilization	29.4 mn tons (104.6%)

2018 Expectations

Brent Price Estimation	The average Brent crude oil price in 2018 is expected to be 55-60 dollars per barrel.
Med Complex Margin	We expect Med Complex margins to be between 4.75 – 5.00 dollars per barrel band in 2018.
Tüpraş Net Margin	Net Tüpraş refinery margin is expected to be in the region of 7,50 - 8,00 dollars per barrel
Operations	• Full Total Capacity Utilization using imported semi-products such as ASRFO and HVGO • Production: approximately 28.3 million tons • Total sales: 31.0 million tons
Investment	Refining investments is expected to be around 250 Million dollars.

Competition # 1 (SOCAR-STAR Refinery)

- Goldman Sachs has acquired a 13 percent stake in SOCAR Turkey for $1.3 billion.
- Goldman Sachs has the right to resell 10 percent of its stakes to Socar, and the remaining 3 percent to 'Sermaye Investments Limited' owned by SOCAR within 6 year at the same price.

- Credit : 3.3 Billion $
- Equity : 2.4 Billion $
- Total Investment : 5.7 Billion $

- 3,3 billion dollar credit agreement. First 4 year grace period total 15-18 year term.
- Project finance is supplied to company (US$ 1.5 billion)
- It is planned to be commissioned in 2018.

Star Refinery Production Numbers (K Ton)

Fuels	Diesel	4.800
	Jet Fuel	1.600
	Sulphur	158
	Petrocoke	698
Petrochemical Feedstock	LPG	260
	Naptha	1.600
	Mixed xylene	460
	Reformate	524

STAR Refinery (Total Cap. 10 mn ton)

2019 mn ton	Production			Turkish Demand	Balance
	Tüpraş	Star	Total		
LPG	1,2	0,3	1,5	4,2	-2,8
Petchem Feeds	0,3	2,6	2,9		
Gasoline	5,8		5,8	2,4	3,4
Jet Fuel	5,4	1,6	7,0	5,0	2,0
Diesel	10,2	4,8	15	26,1	-11,1
Coke	0,8	0,7	1,5	4,6	-3,1
Fuel Oil	1,5		1,5	1,3	0,2
Bitumen	3,1		3,1	3,3	-0,2

Competition # 2 (Regional Competition)

- Tüpraş is competing with 71 refineries in the Mediterranean and Black Sea markets.
- Mediterranean regional product balance is also affected from Middle East, North West Europe and Asia.

Mediterranean

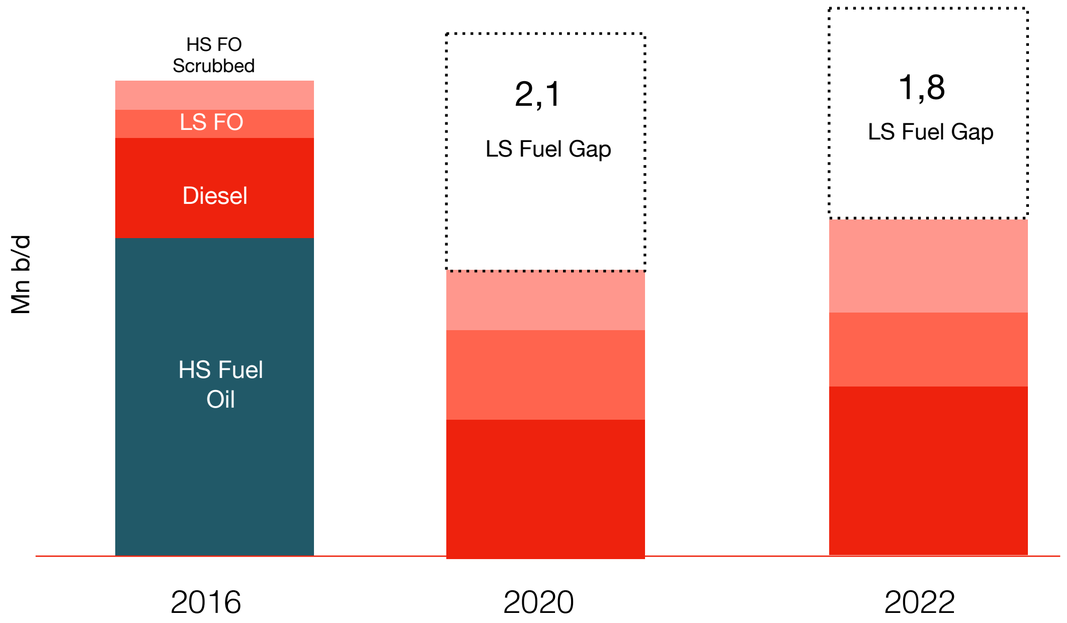
54 Refineries
7.8mn bpd

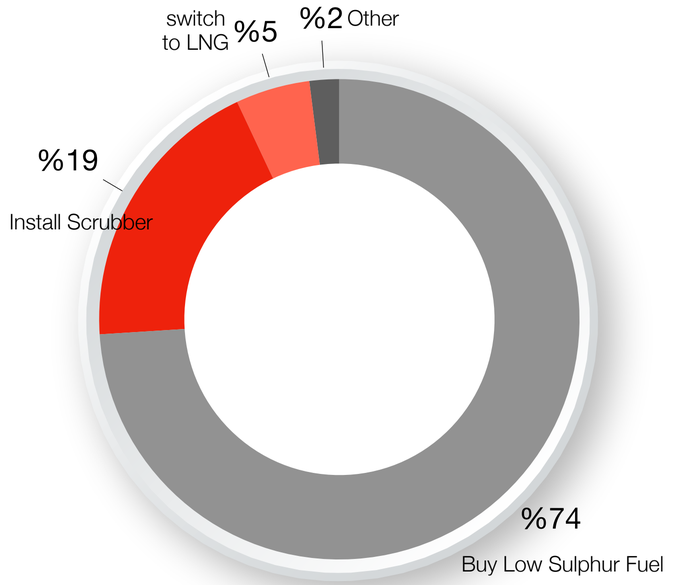
Black Sea

17 Refineries
1.8mn bpd

Marine Bunker Specification Changes and Its Effects

IMO, at the meeting held in October 2016, lowered the sulphur emission cap from marine bunkers from 3.5% to 0.5% (5000ppm): effective from 1 January 2020.





Ship Owners Intention Survey

Requirements of spec change can be achieved through;

- Use of lower sulphur blend stocks like ULSD (Diesel)
- Low Sulfur Fuel Oil production with light crudes
- Sulphur Fuel Reduction Systems (Scrubber)
- LNG

- 80% of global trade is done via marine transportation.
- 50.000 vessels are in operation.

Bunker fuels account for;

- ~5% of global oil demand
- 40% of oil related sulphur emissions.

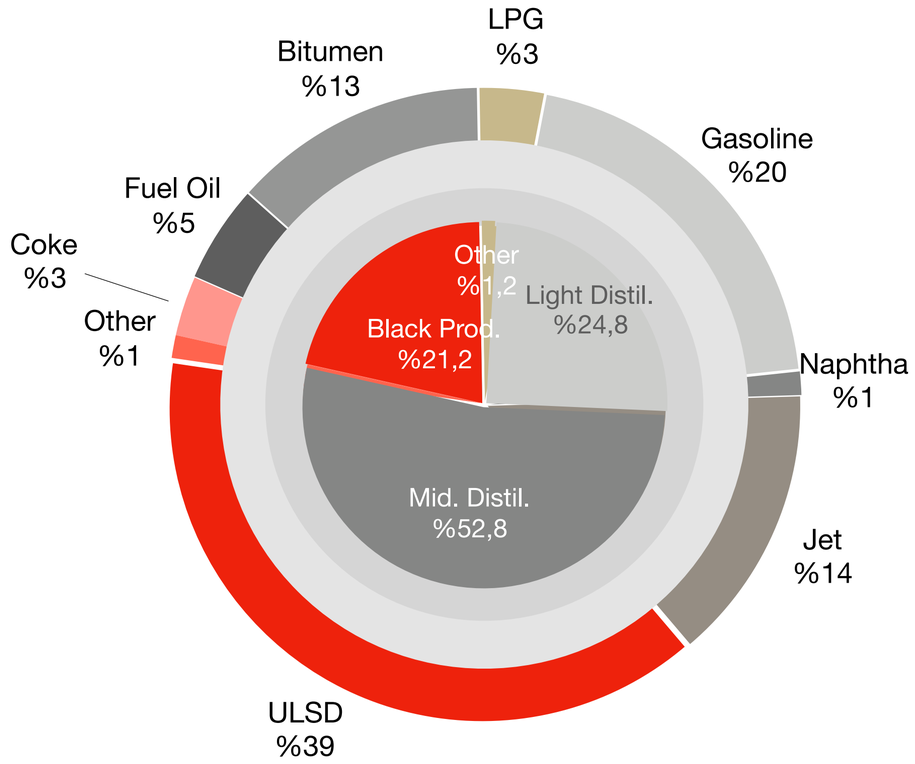
Source: IEA, Oil Sector Report, 2017

Source: UBS, 2017

Appendix

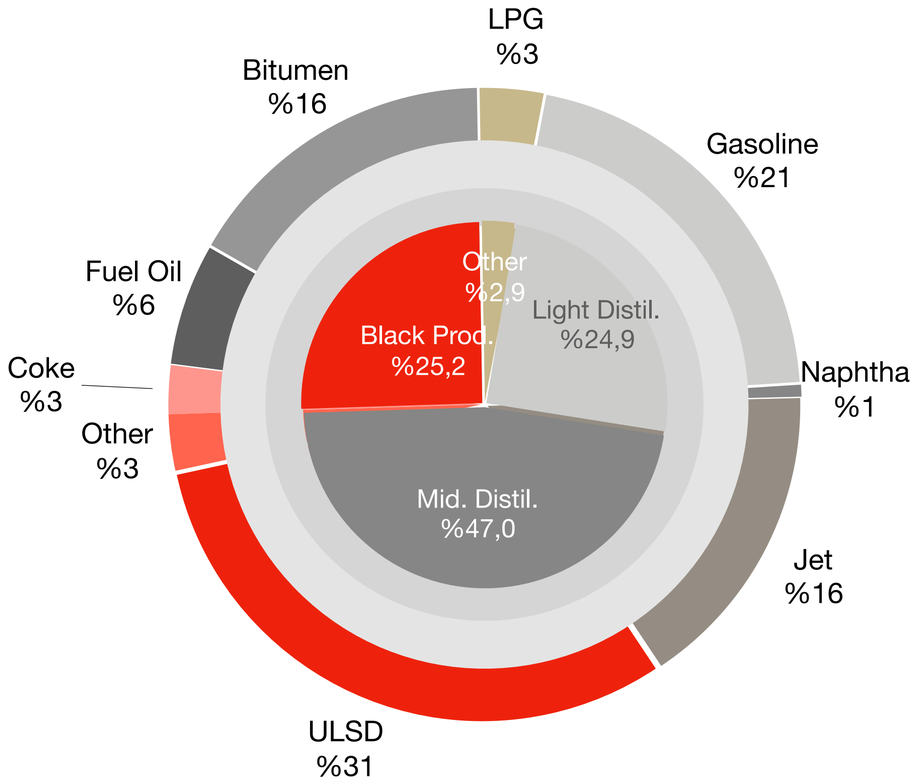
Q4 Product Yields

2016



White Products	%77.57
Production	7,3 mn tons
API	30,1

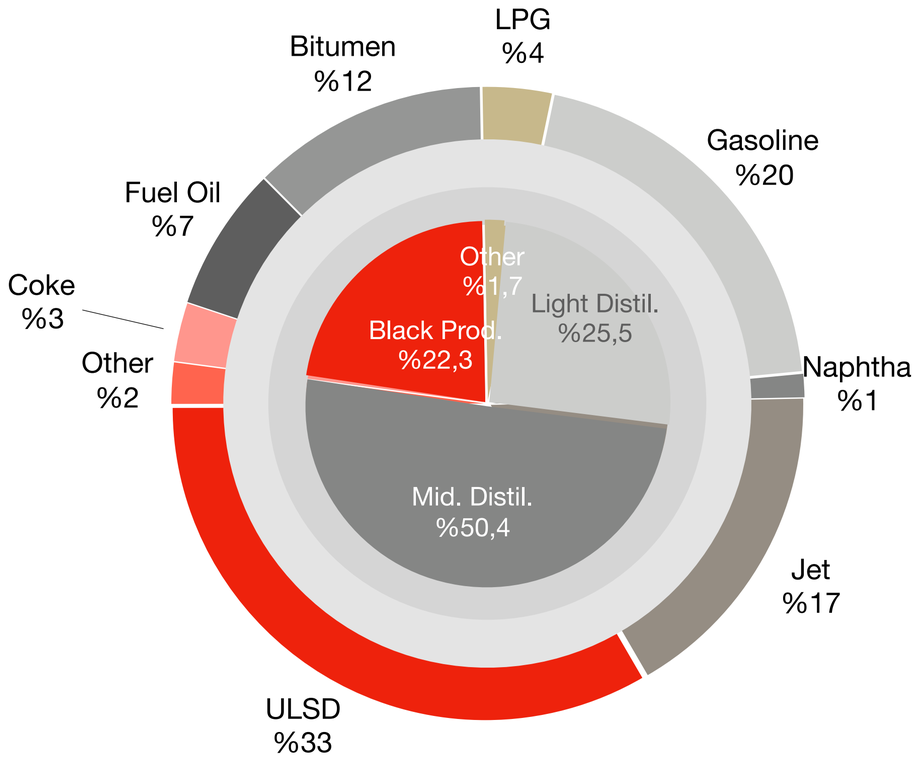
2017



White Products	%73.74
Production	6,3 mn tons
API	30,0

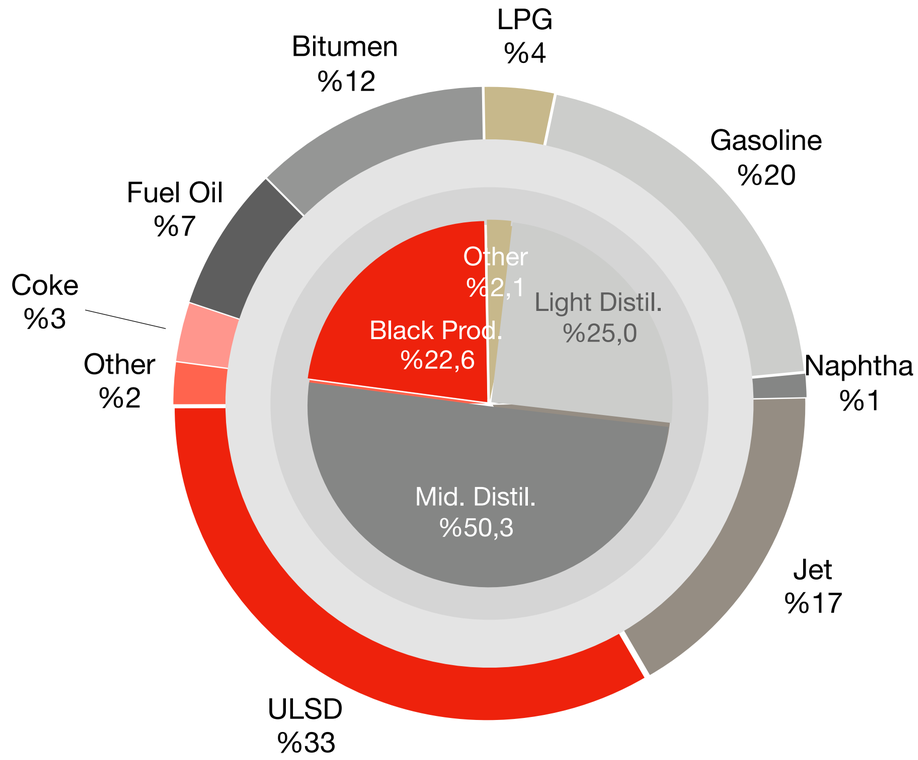
12M Product Yields

2016



White Product	%76.56
Production	27,93 mn tons
API	30,62

2017



White Product	%76.27
Production	28,88 mn tons
API	30,26

Income Statement (In USD)

Million USD	FY 2016	FY 2017	% Diff.	4Q 2016	4Q 2017	% Diff.
Net Sales	11.547	14.801	28	3.332	3.855	16
Gross Profit	1.209	1.705	41	510	366	-28
Operating Expenses	-330	-316	4	-91	-95	-5
Income/Loss from other operations	-98	-57	42	-106	-73	31
Operating Profit	781	1.333	71	314	198	-37
Income/Loss from equity investment	53	64	22	8	16	93
Operating Profit Before Fin. Income/Loss	834	1.397	68	322	214	-34
Net Financial Income /Expense	-190	-170	11	-35	-21	40
Profit Before Tax & Minorities	644	1.227	91	287	192	-33
Net Profit	594	1.046	76	256	123	-52

* EBITDA (mn.$)	1.125	1.614	43	480	321	-33
* EBITDA (mn.$) CCS	972	1.453	50	418	235	-44

For P&L, USD/TL rates: 2017 12M 3,6450, 2016 12M 3,0186
*According to international standards, in our EBITDA calculation, FX related items are not included.

Crack Margin Effect on Tüpraş in 12M (FOB Italy Prices)

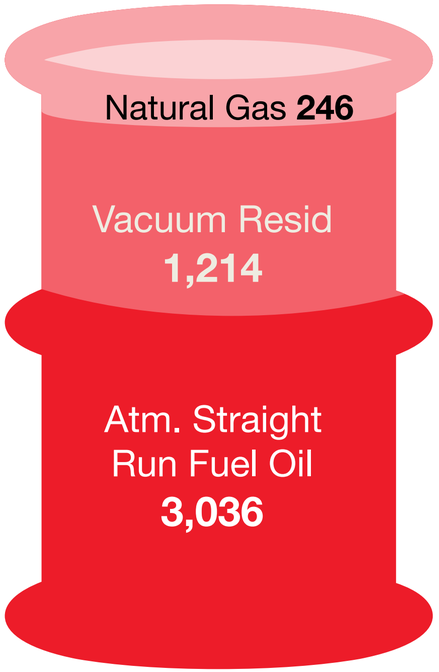
Higher product cracks in 2017 over 2016 indicates a +1.9 $/bbl margin difference, yielding a 1.4 billion TL contribution to Tüpraş Financials.

	Product Price, $/ton		Tüpraş	Crack Margin, $/bbl	
	2017	2016	2016 Yield	2017	2016
LPG	435,2	308,3	%3,3	-15,5	-16,2
Gasoline	549,0	462,3	%19,5	13,4	13,3
Naptha	467,2	366,6	%1,0	-1,5	-2,3
Jet Fuel	512,7	408,9	%15,4	10,9	8,3
Diesel	491,0	394,6	%30,4	11,7	9,3
Diesel 1000	478,0	384,9	%1,2	9,9	8,0
Fuel Oil 1%	315,0	222,3	%0,9	-5,7	-9,4
Fuel Oil 3,5%	298,5	205,2	%5,7	-8,2	-12,1
Diğer	276,3	200,3	%16,8	-8,5	-10,5
Total Crack Margin,$/bbl			94,4	5,5	3,7
Dated Brent Avg. $/Bbl	54,3	43,7			
Margin Differences, $/bbl				+1,86	
Total Processed, mn bbl					213.29
Total Effect, mn $				383.6	
Total Effect, mn TL				1.398,1	

High Complexity (Resid Upgrading Units Production-(Thousand Tons)

(kton)

Raw Materials



Total Feed **4,496**

Products

Diesel
2.883

Gasoline
522

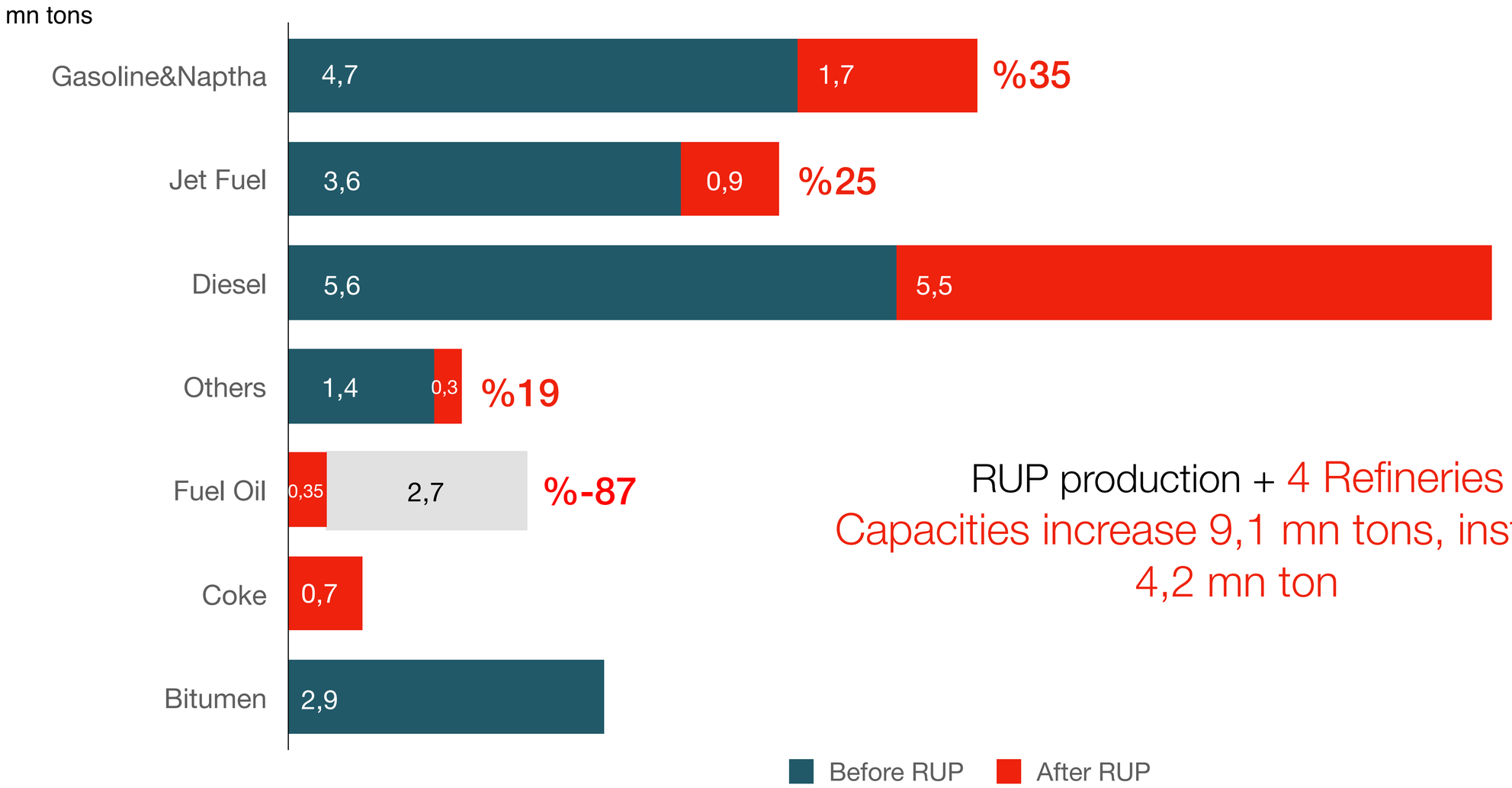
LPG
69

PetroCoke
690

Sulphur
86

Total
Production
4,250

High Complexity (Tüpraş Total Production Change After RUP)

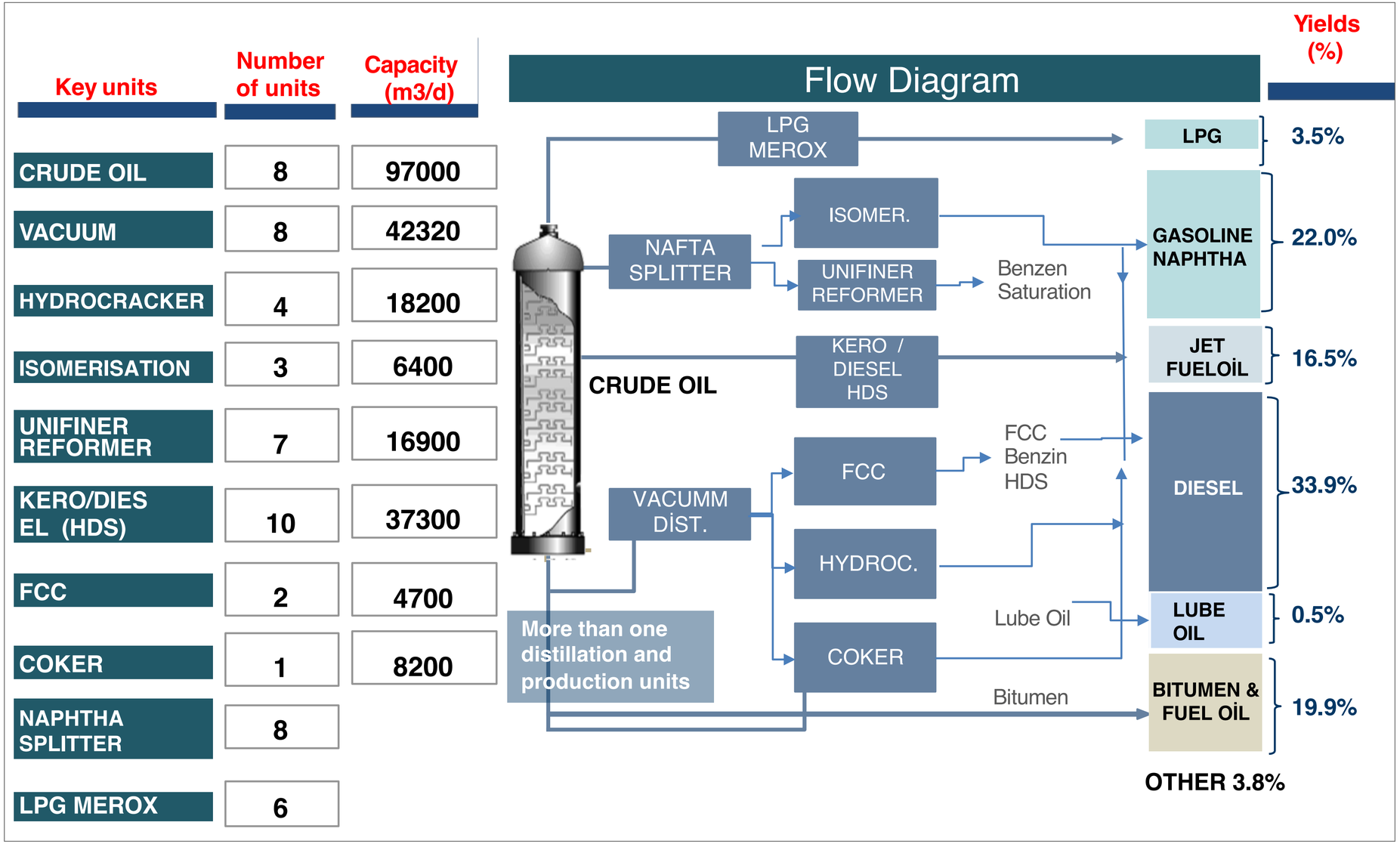


RUP production + 4 Refineries
Capacities increase 9,1 mn tons, instead of 4,2 mn ton

Flexibility & Reliability; Multiple routes to maksimum capacity

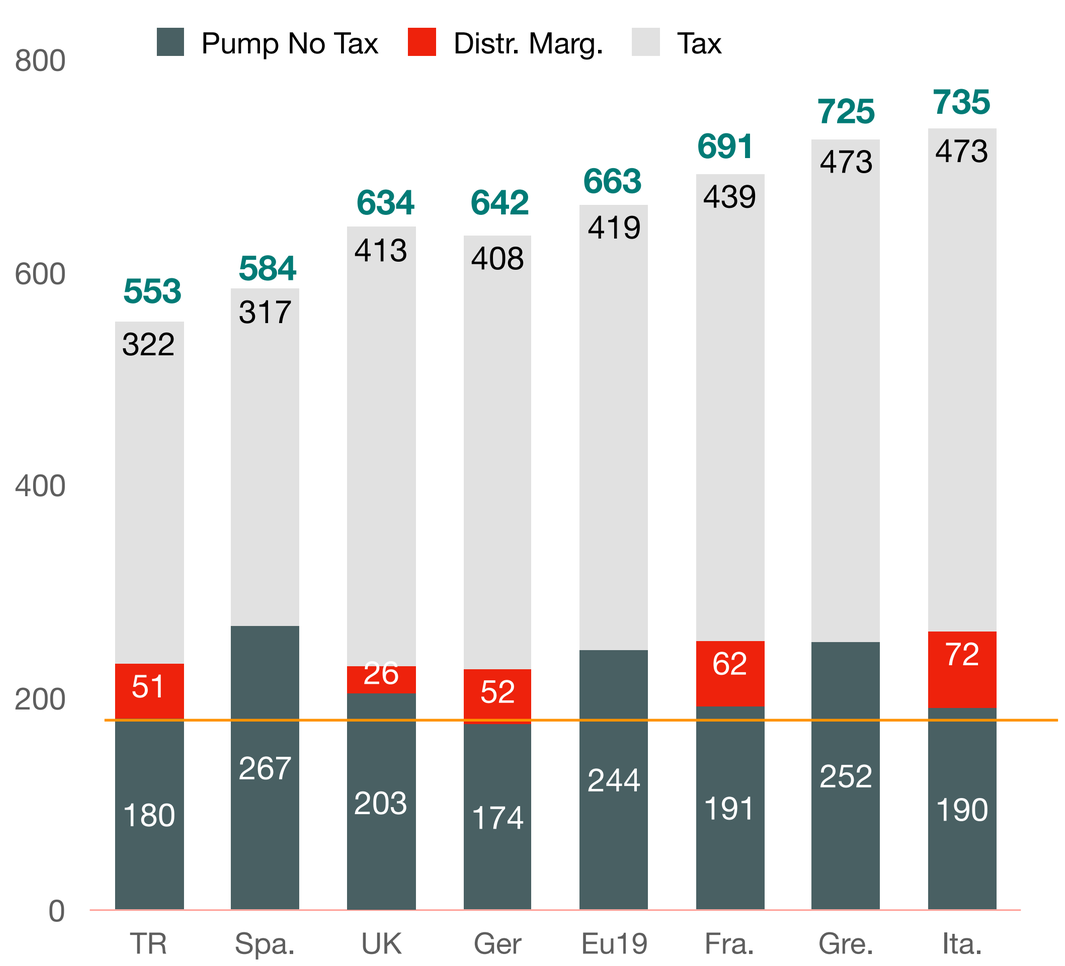
- Increased conversion capacity
- Strong integration among refineries

Key units	Number of units	Capacity (m3/d)
CRUDE OIL	8	97000
VACUUM	8	42320
HYDROCRACKER	4	18200
ISOMERISATION	3	6400
UNIFINER REFORMER	7	16900
KERO/DIESEL (HDS)	10	37300
FCC	2	4700
COKER	1	8200
NAPHTHA SPLITTER	8	
LPG MEROX	6	

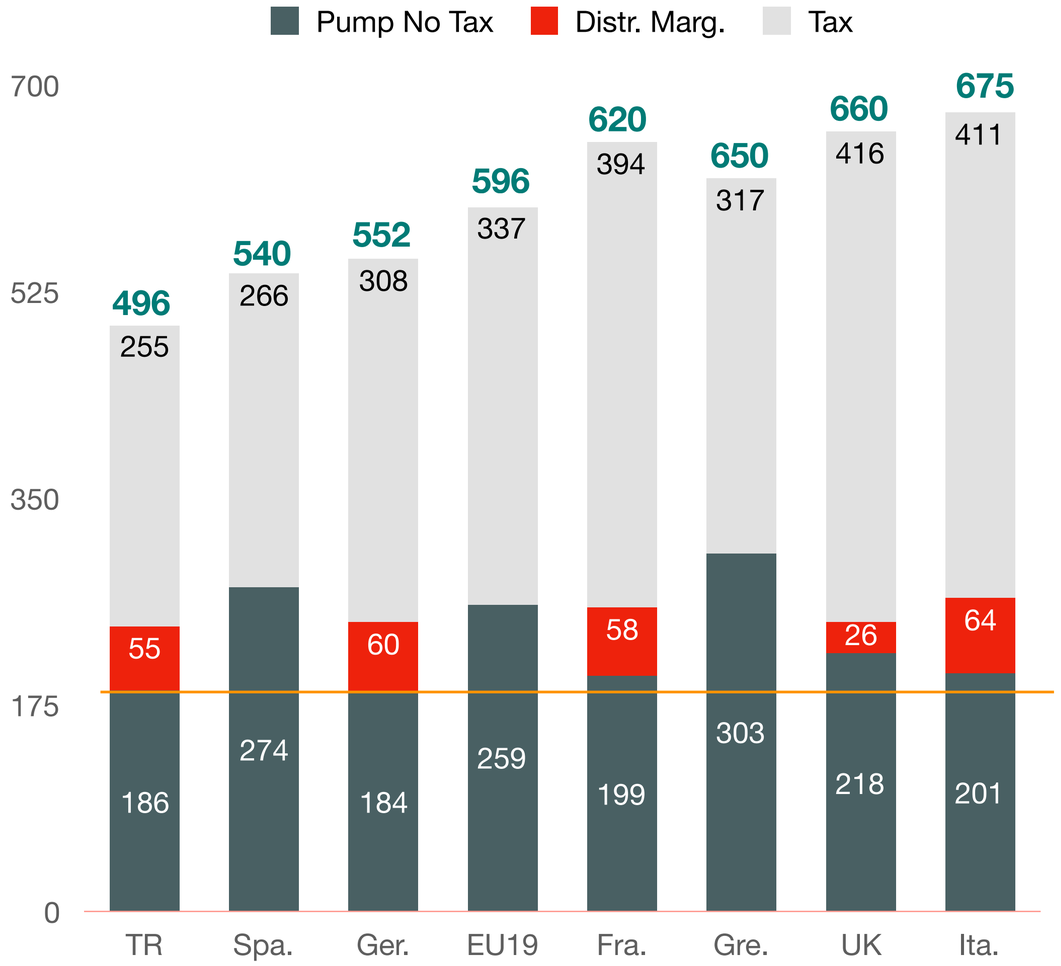


Competition (European Pump Price Comparison)

Gasoline (Krş / Lt)

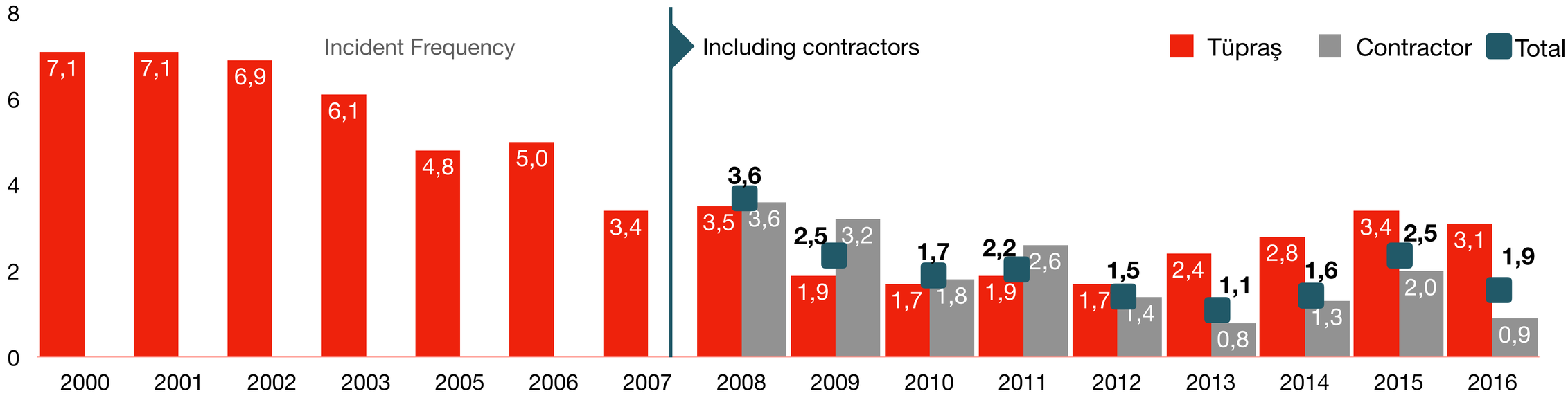


Diesel 10 (Krş / Lt)



Not: Prices valid on 12 Feb 2018-Turkey Gasoline pirice as of 14th of February 2018

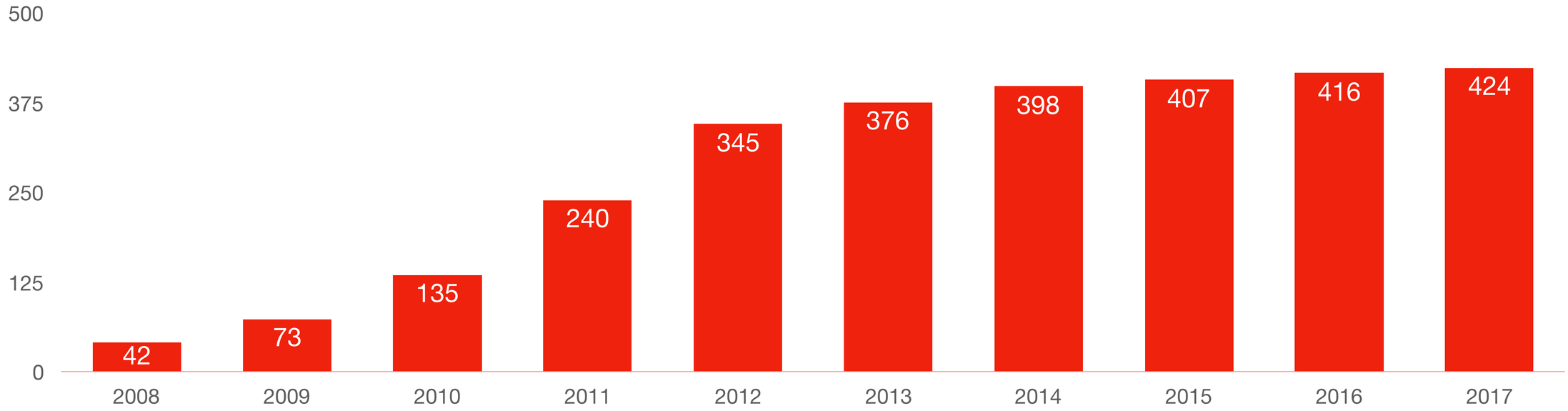
Tüpraş HSE KPI: Loss Time Incident Frequency and Severity Frequency Ratios



Loss Time Severity Frequency Rate	2008	2009	2010	2011	2012	2013	2014	2015	2016
Tüpraş	92	44	40	53	65	61	59	719	101
Contractor	116	101	81	118	424	17	378	51	551
Total	**105**	**73**	**57**	**83**	**290**	**26**	**308**	**315**	**354**

loss time incident freaquency rate =number of incident *1000000/man hours
loss severity frequency rate = loss time*1000000/man hours

Energy Saving Projects (mn$)



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Total
Tüpraş Energy consumption (TJ)	76.653	65.265	67.010	70.792	71.086	69.147	67.034	90.796	102.156	105.851	785.790
Energy-saving(TJ)	978	10.891	3.155	3.053	5.255	2.841	1.772	1.031	1.054	830	30860
Energy Efficiency Project	36	52	65	92	97	40	22	21	18	15	458
Savings (mn $)	42	32	62	105	106	31	22	10	9	5	424

Koç Holding

Turkey’s Leading Investment Holding Company

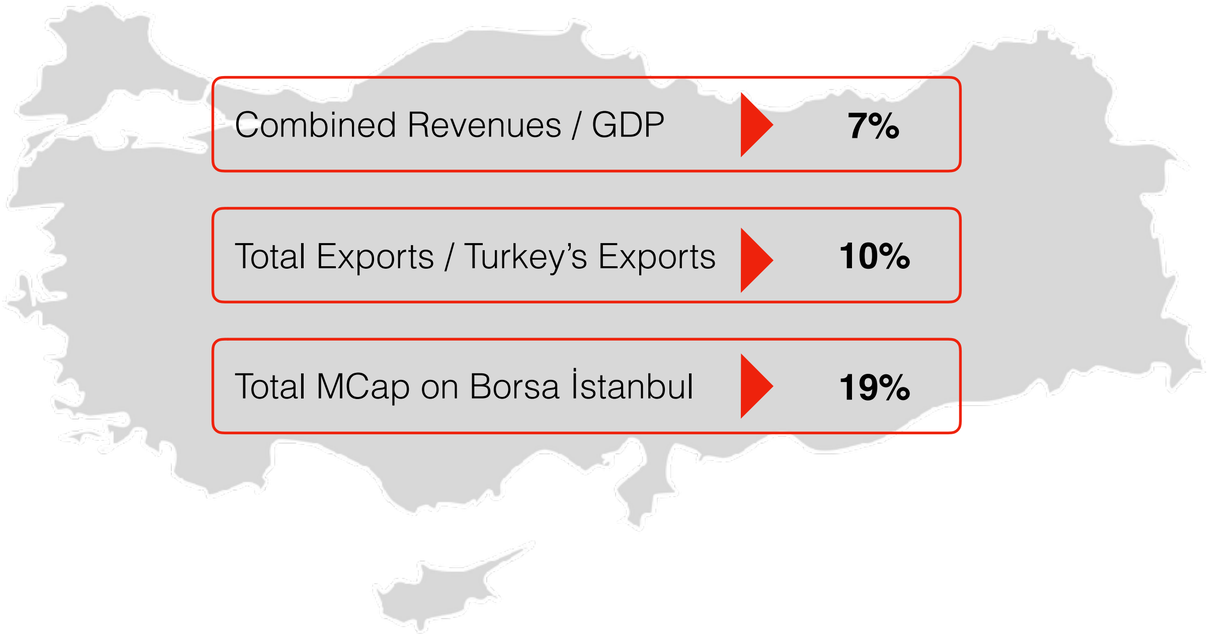
Turkey’s largest industrial and services group in terms of revenues, exports, employees, taxes paid and market caputalization

Turkey’s Leading Investment Holding Company

- The only Turkish company in Fortune 500[1]
- 16% CARG in consolidated profit[2] in the last five years

Pioneer in its Sectors

Leading positions with clear competitive advantages in sectors with long-term growth potential such as energy, automotive, consumer durables and finance



Notes : Data as of YE17, 2017 GDP reflects the projection of Turkish government’s Medium Term Program
(1) 2017 Report
(2) In TL terms between

Updated information can be found in the Investor Relations section of the company website
www.tupras.com.tr