

 **Tüpraş**



 **Koç**

Investor Presentation September 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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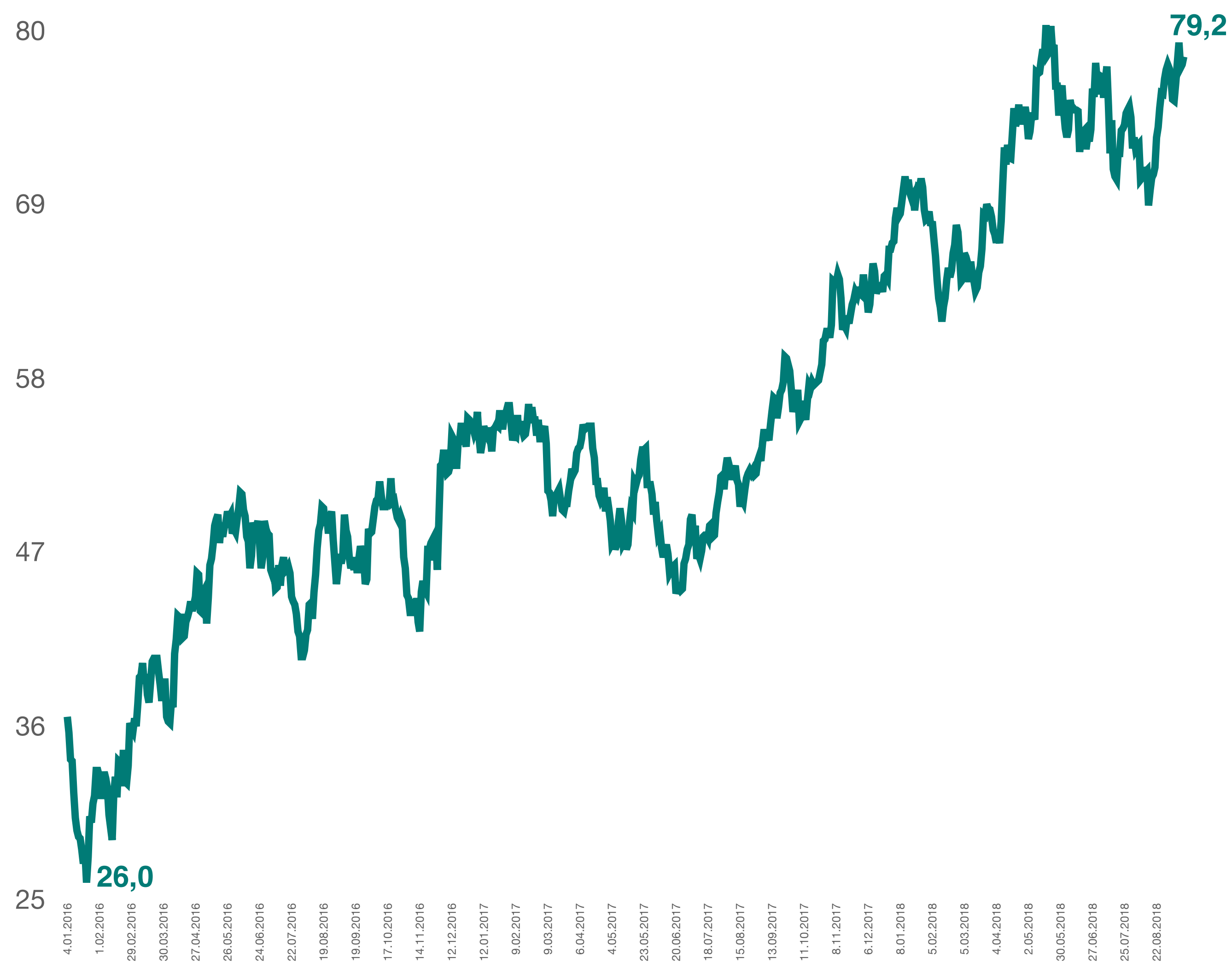


REFINING MARKET

120D-013
HOT ATM. RESID. SURGEDRUM

OC

Brent Crude Oil Prices (\$/bbl)



Source : Platts
As of Sep.17th

PROS

- OPEC & non OPEC supply cut through 2017–mid 2018
- Political instabilities in Middle East
- Future of nuclear agreement
- Healthy PMI data in developing countries
- Expectation of high global GDP
- Potential impact of sanctions

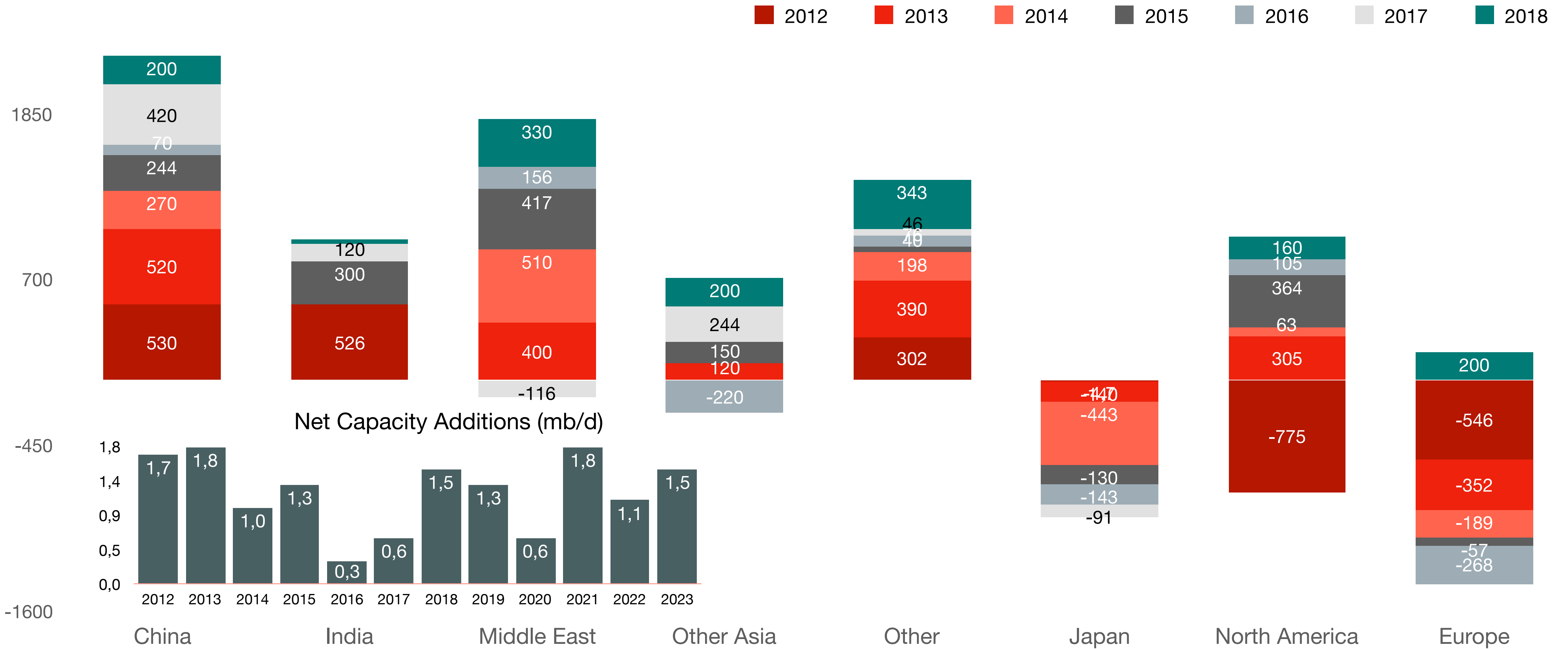
CONS

- Increase in number of rigs & production in US
- OPEC production increase announced in Summer 2018
- Inventory Levels
- Impact of trade tariff negotiations

Refinery Capacity Change

Thousand Barrels/Day

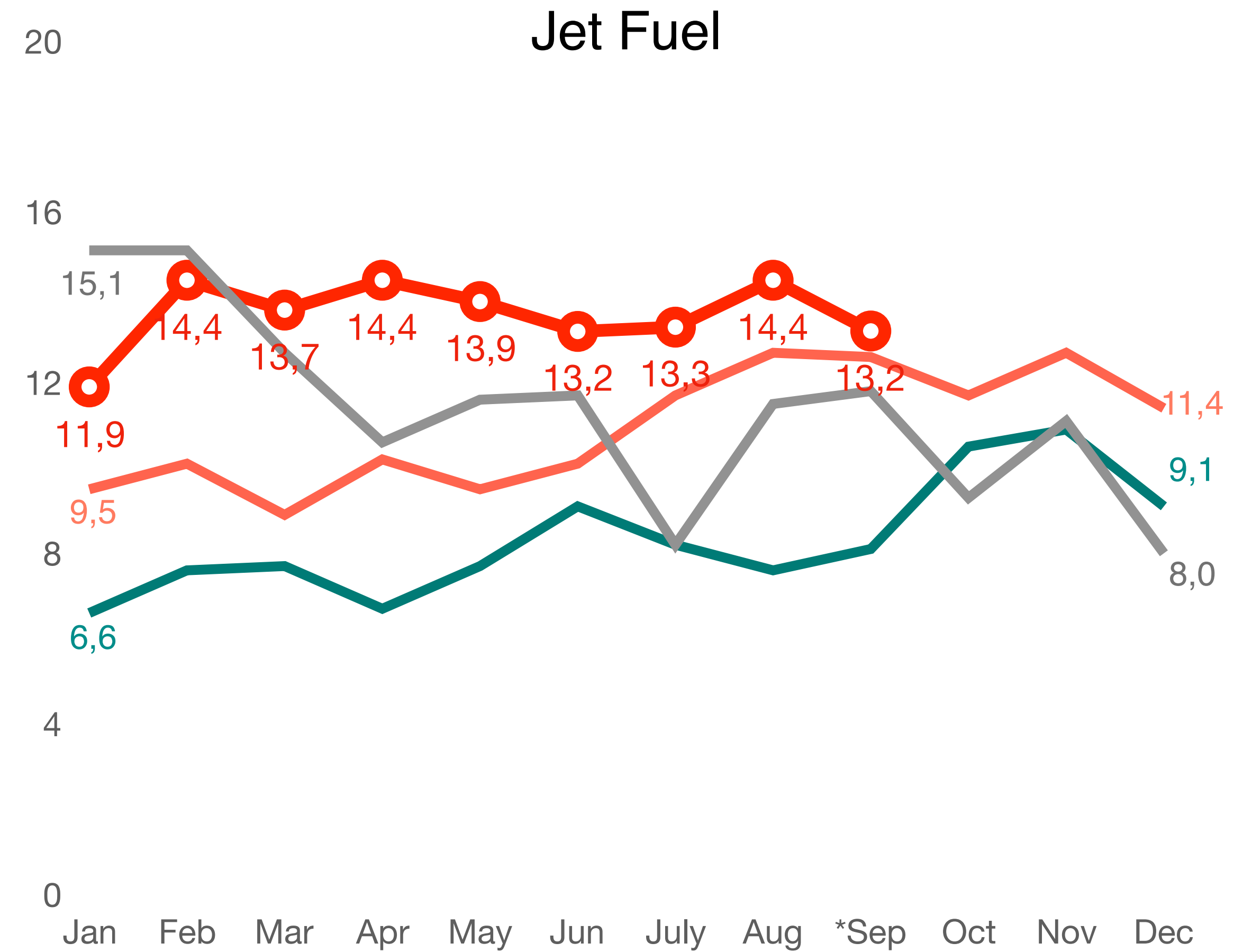
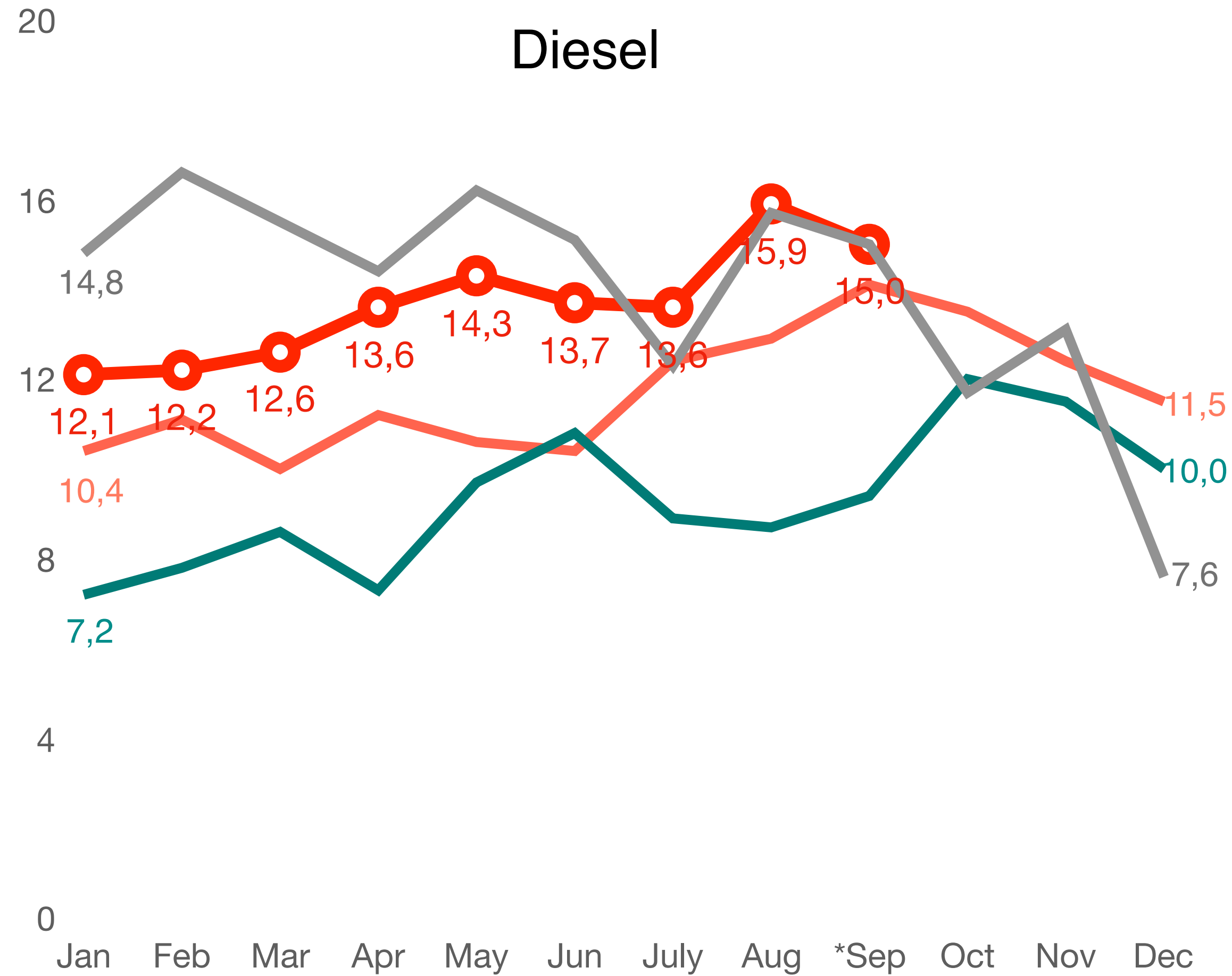
3000



Source: Reuters, International Energy Agency, Tüpraş, sector reports and news

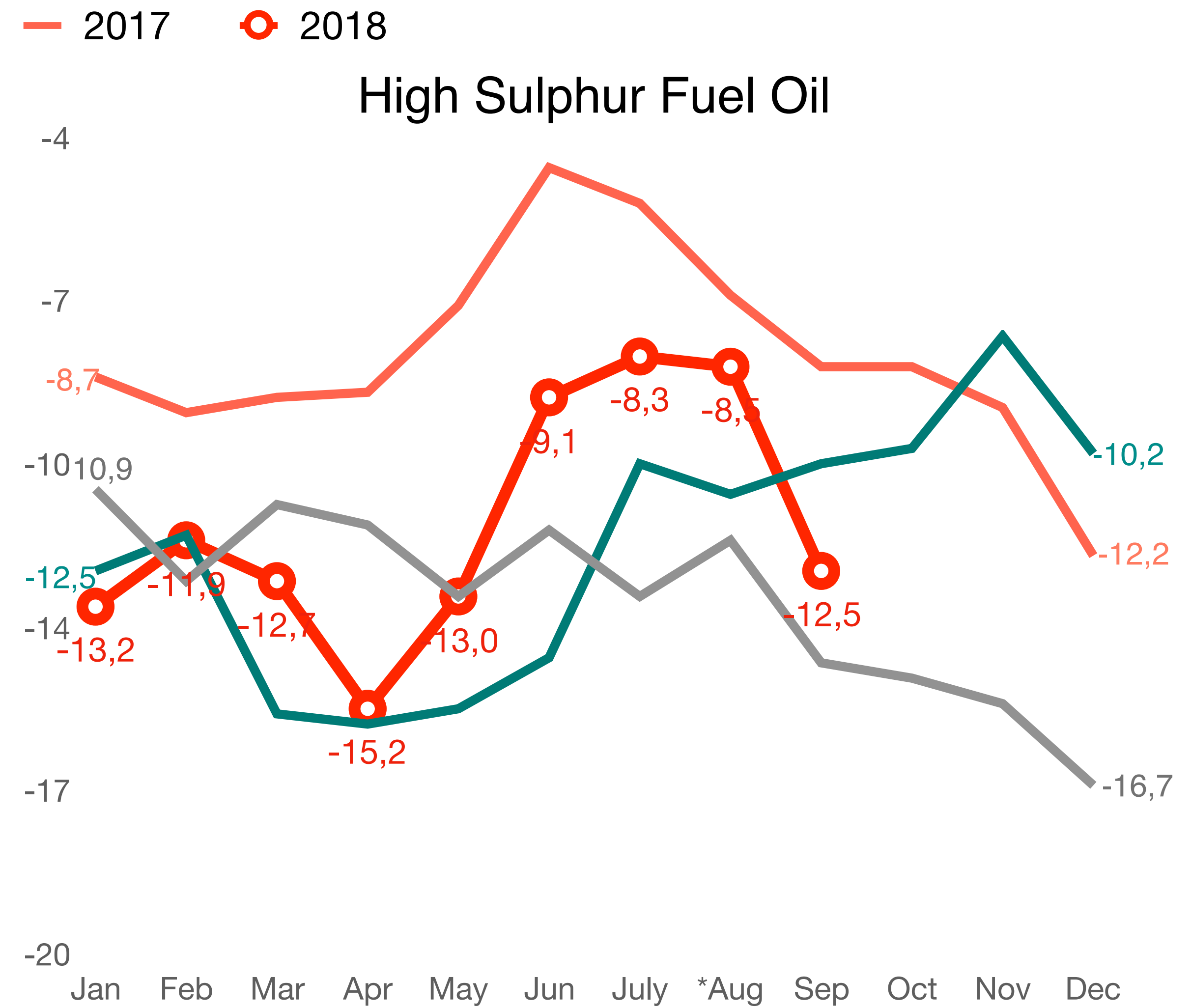
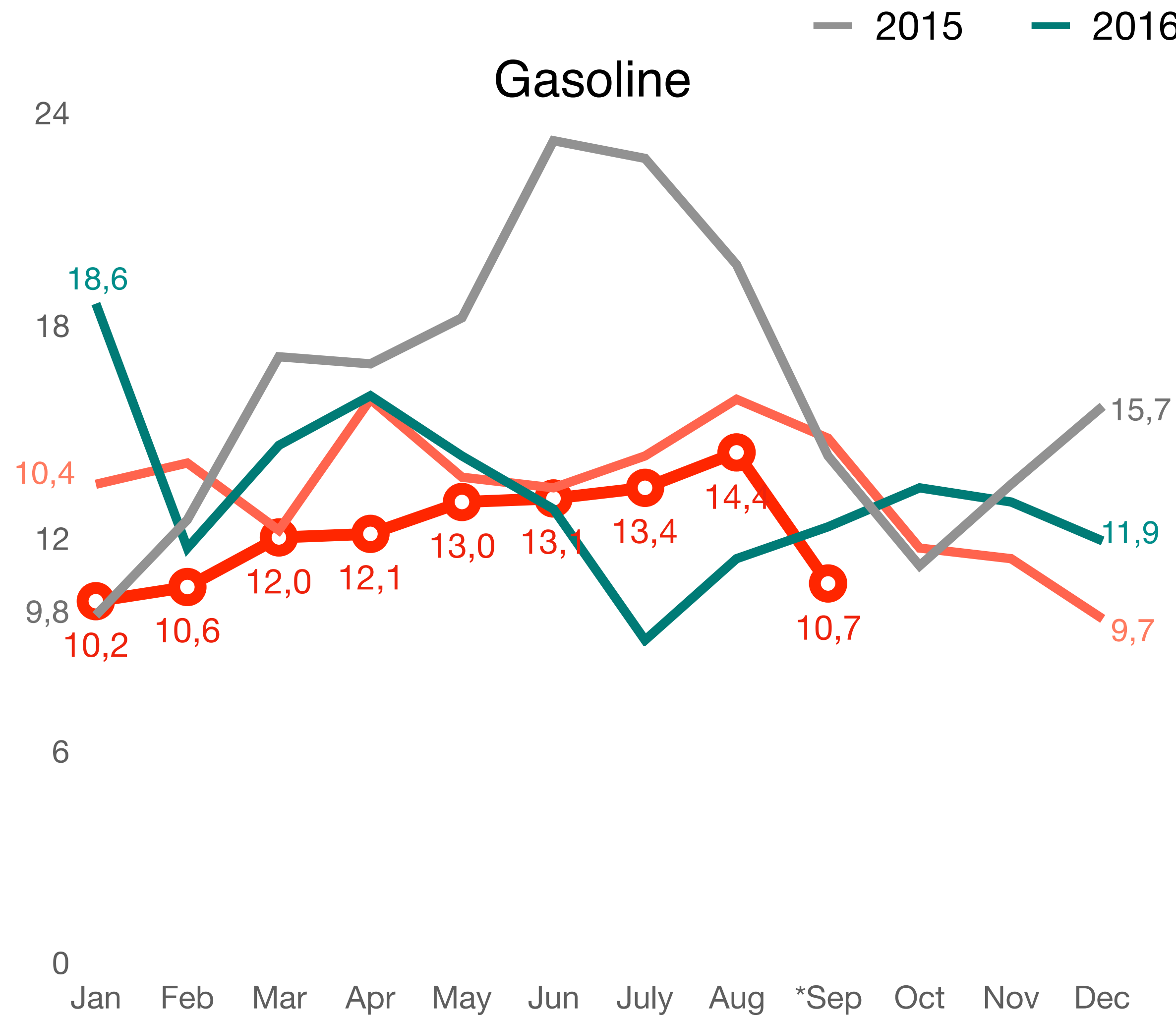
Middle Distillate Cracks (\$/bbl)

— 2015 — 2016 — 2017 ○ 2018



Source : Platts
As of Sep.17th

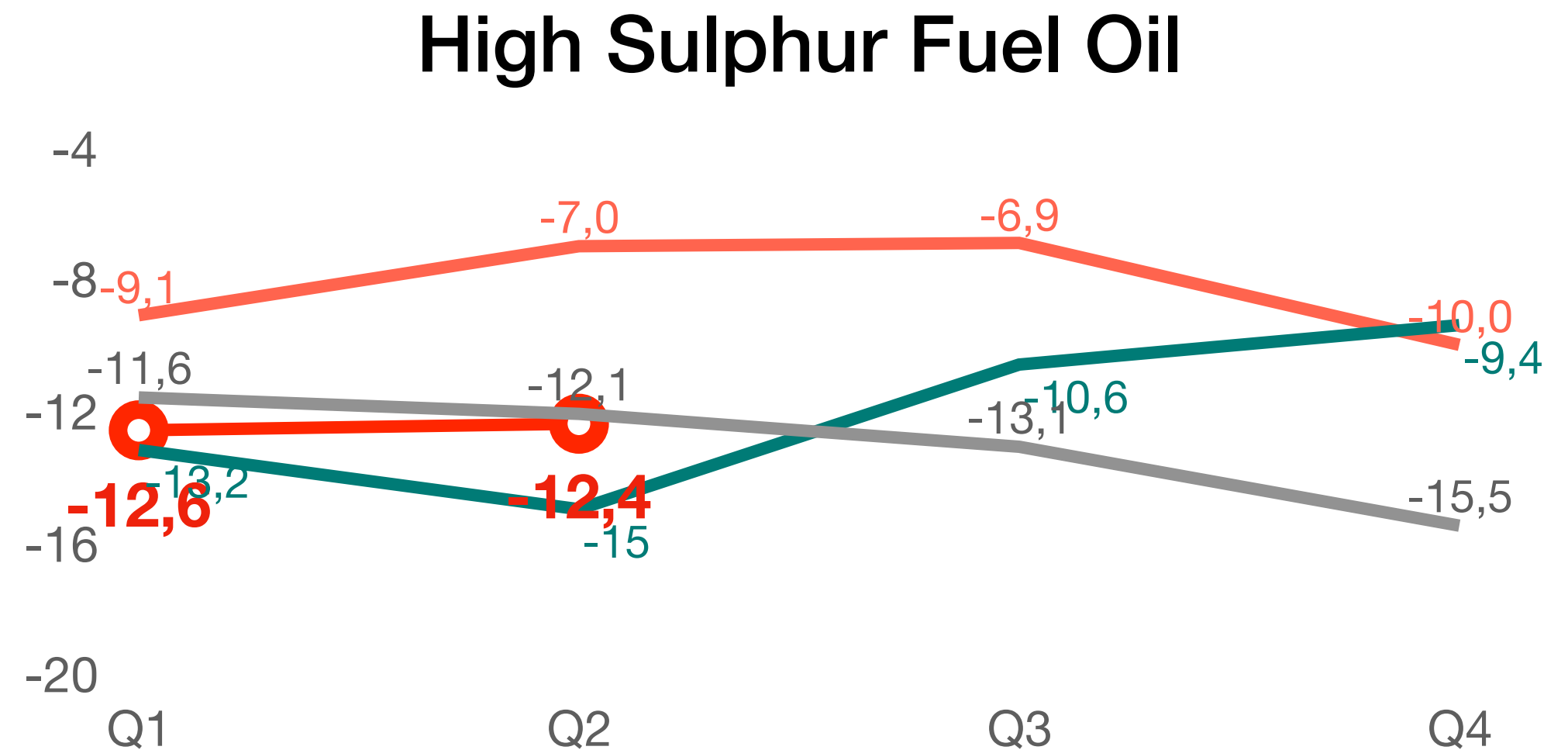
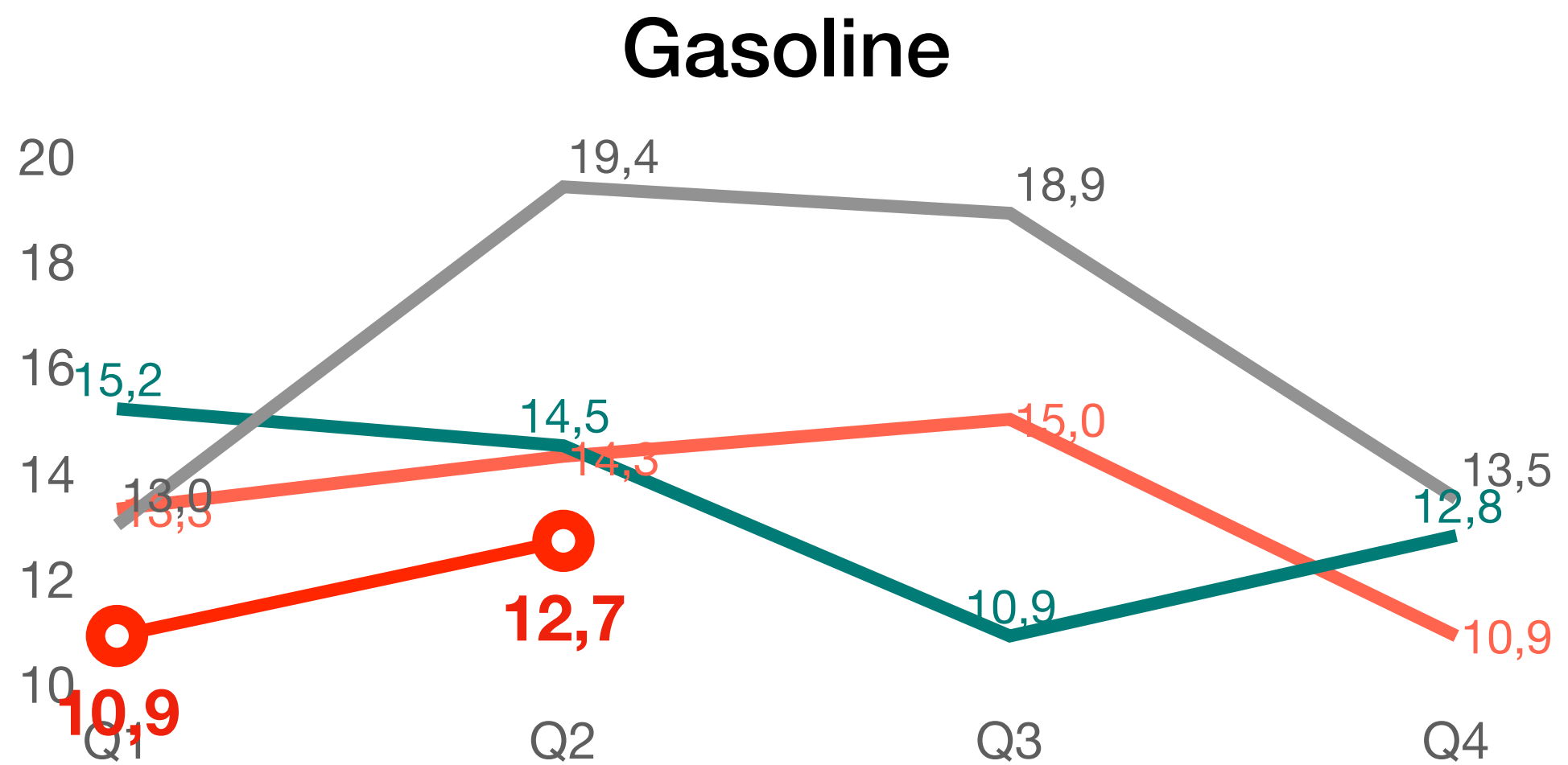
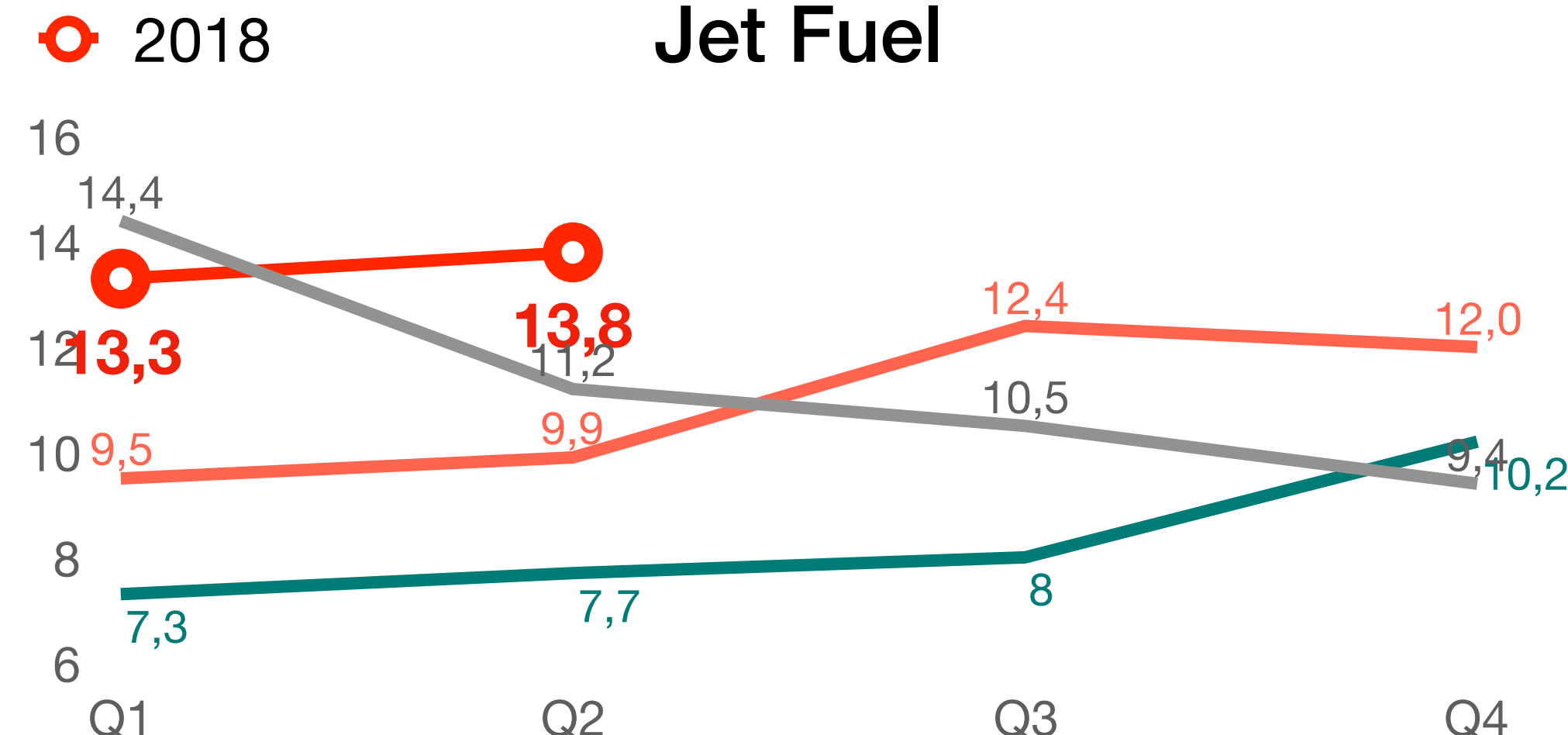
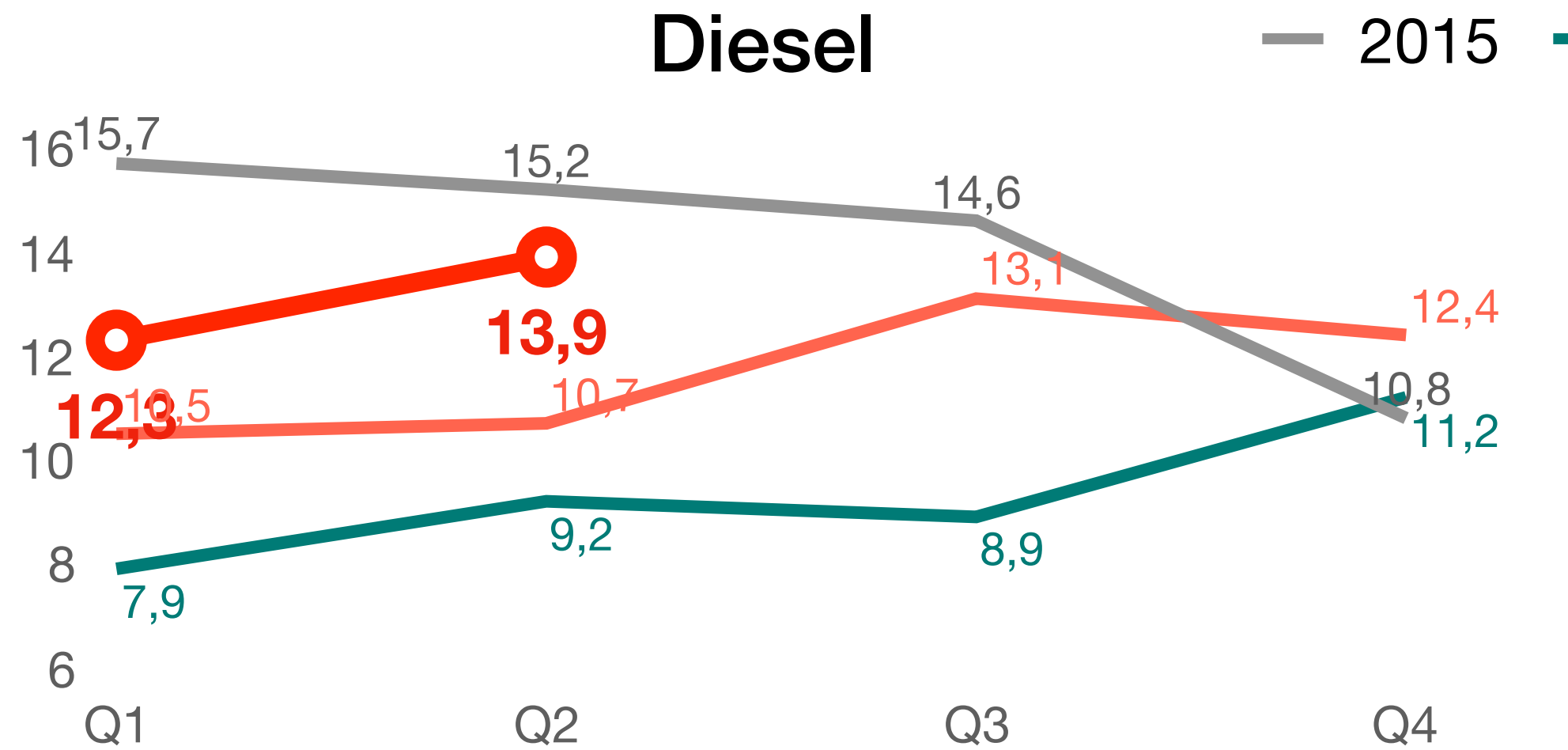
Gasoline and High Sulphur Fuel Oil Cracks (\$/bbl)



Source : Platts
As of Sep.17th

Quarterly Product Crack Margins (\$/bbl)

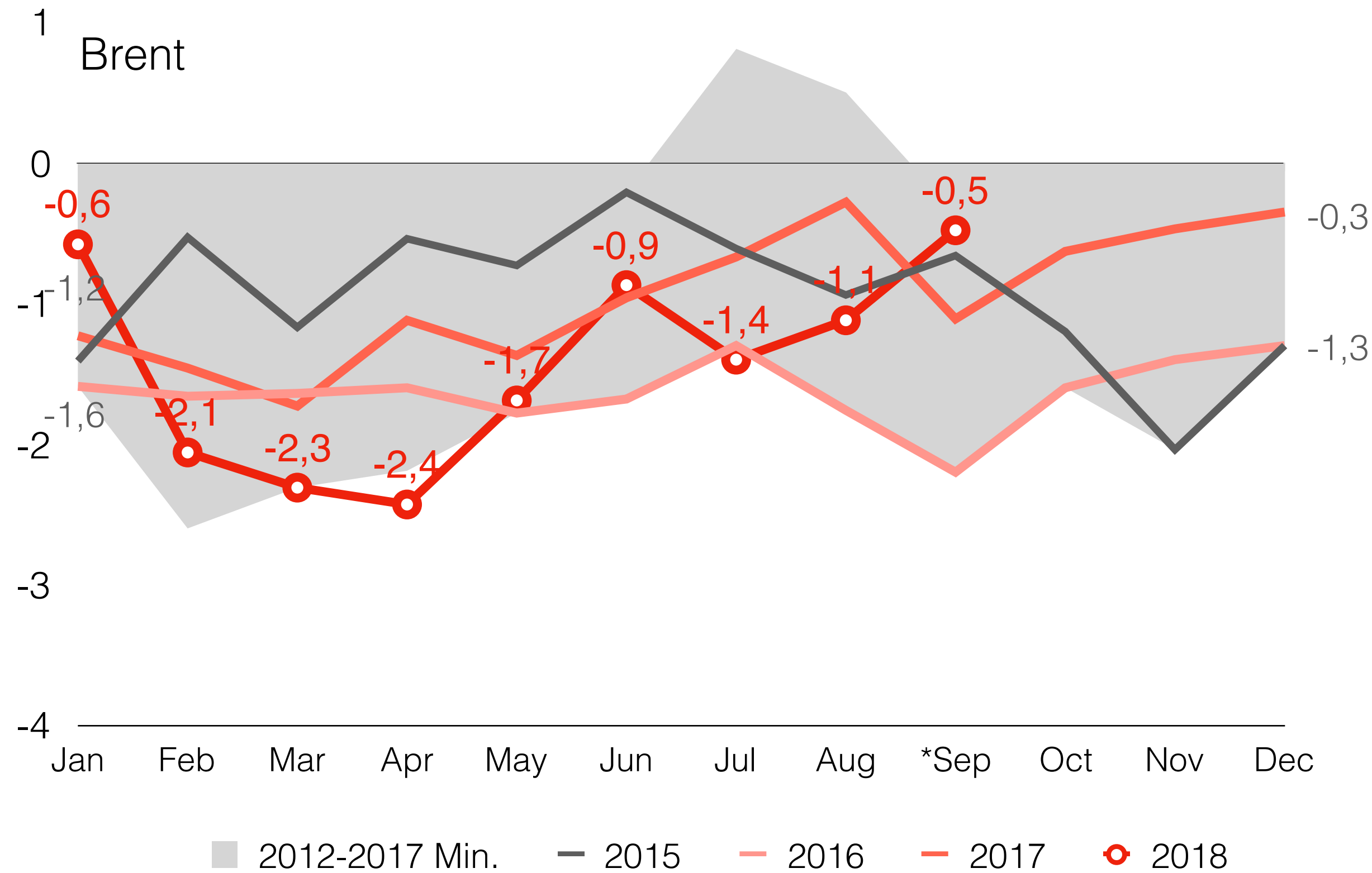
Diesel and jet fuel cracks increased by 29% and 39% respectively; while gasoline and fuel oil cracks declined compared to 2017 Q2.



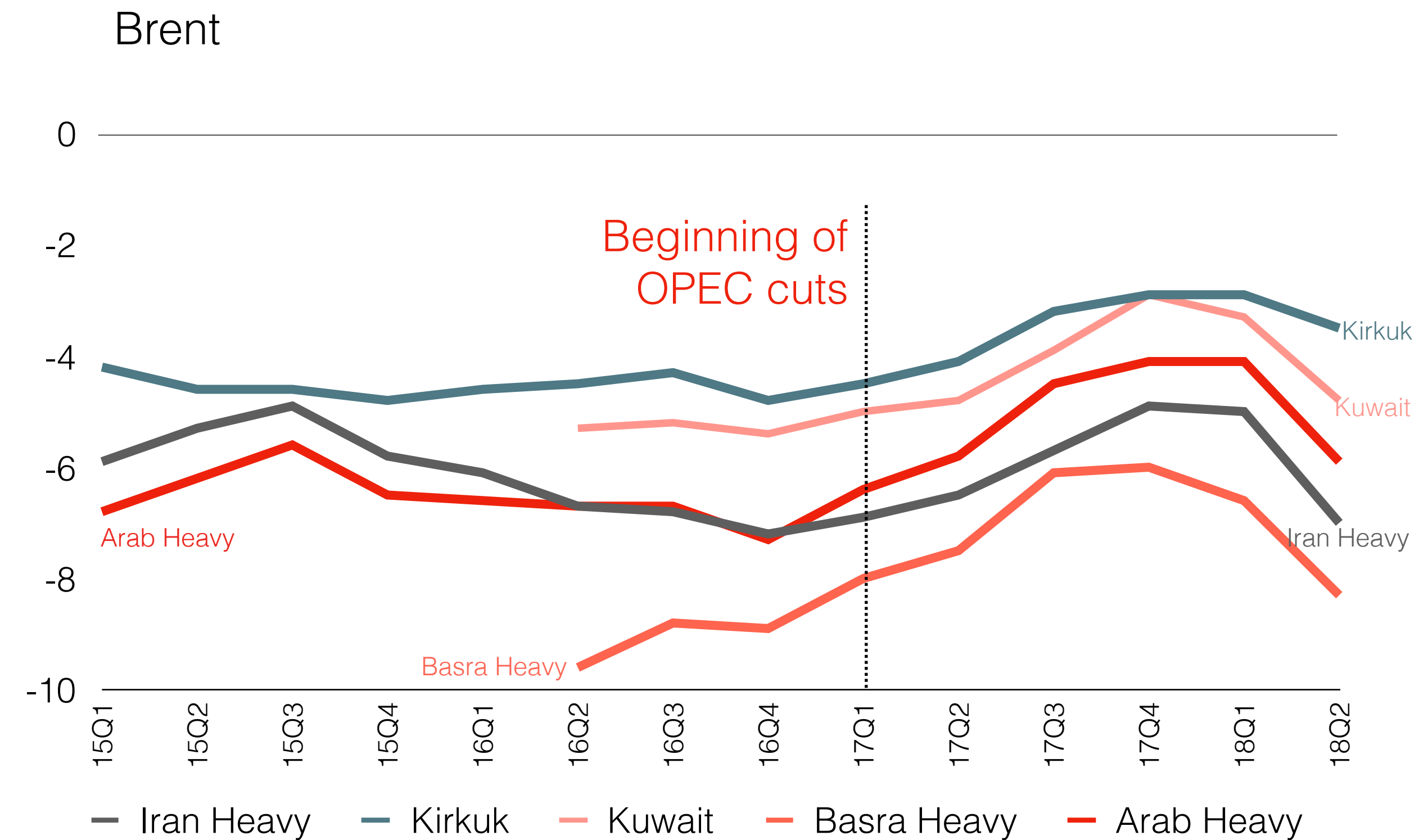
Crude Price Differentials (\$/bbl)

Price differential between Brent and select Middle Eastern heavy crudes widened by 0.4 \$/bbl on average in Q2 2018 vs Q2 2017, driven mainly by complex refinery maintenances.

Ural Differentials



Heavy Crude Price Differentials



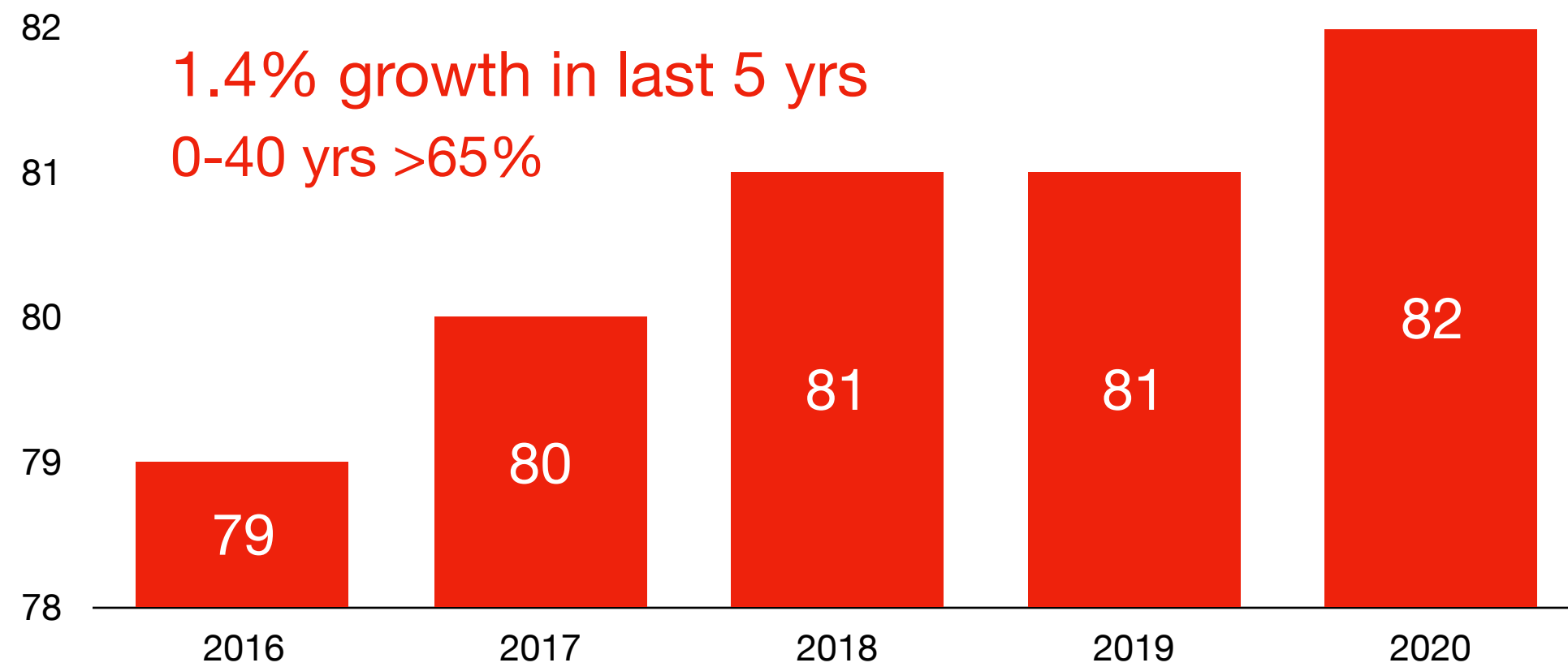
Source : Platts
As of Sep.17th



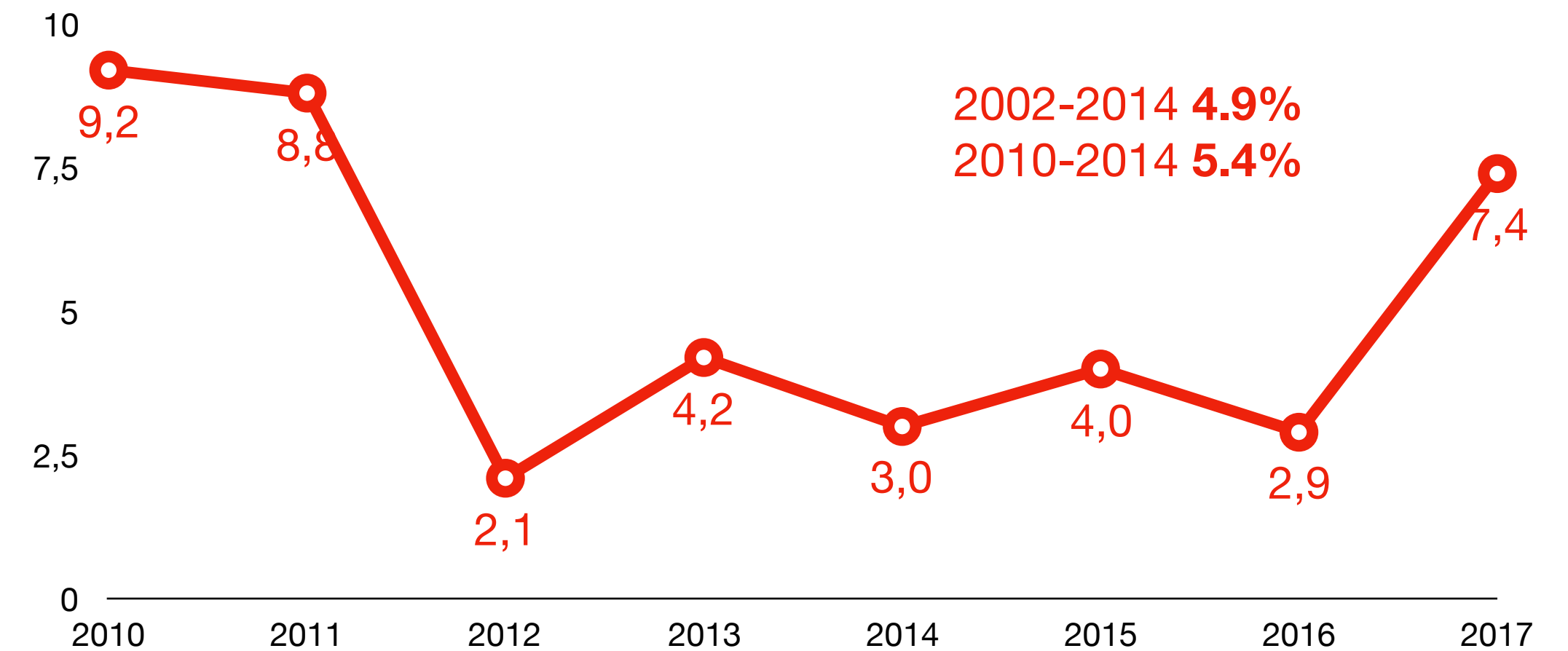
TURKISH MARKET

Turkish Economy Strengths

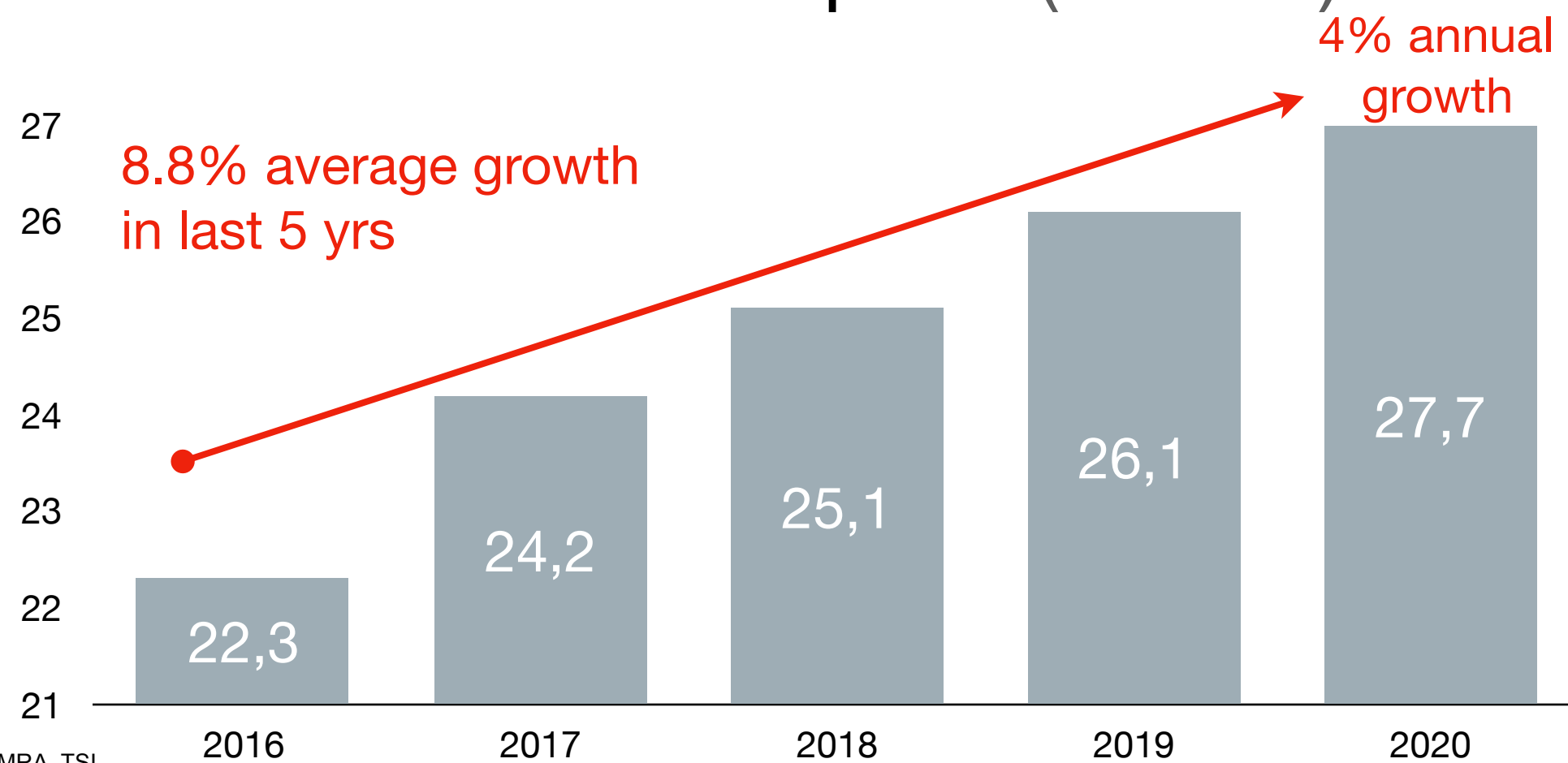
Population (mn)



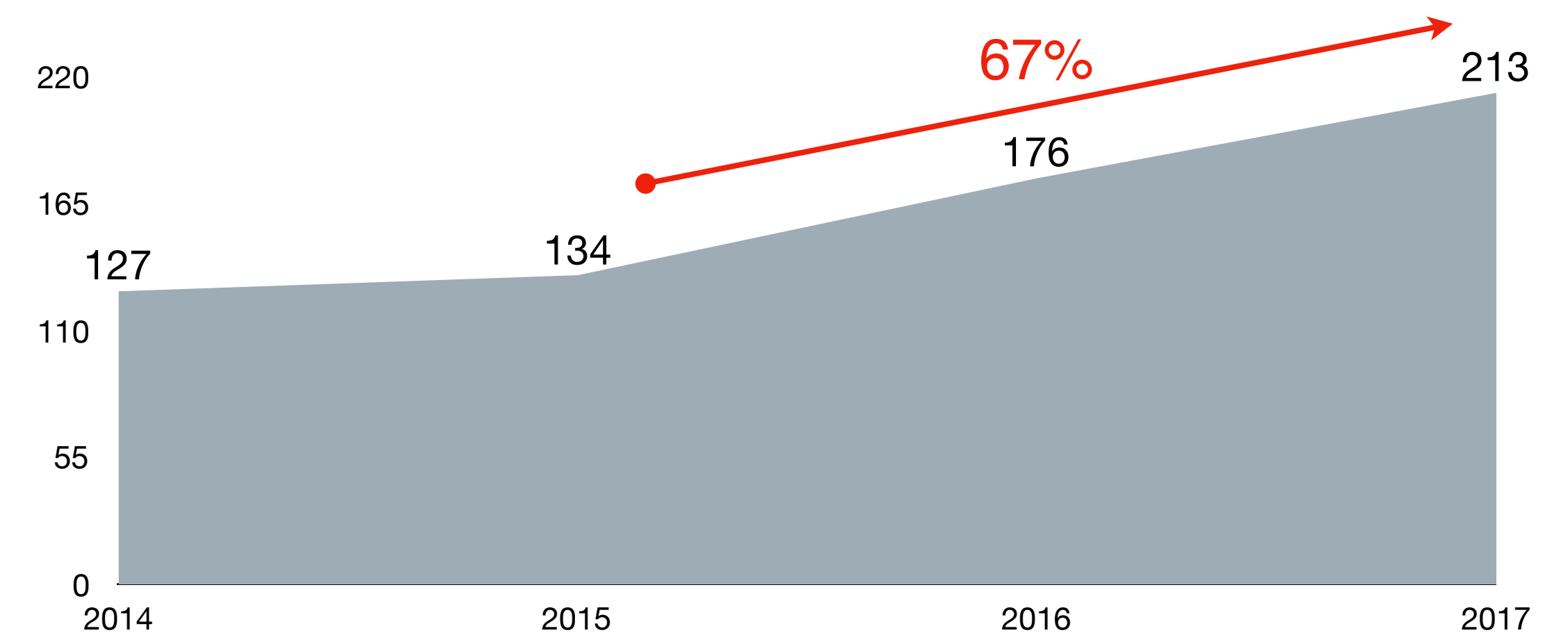
GDP (%)



Diesel Consumption (mn ton)



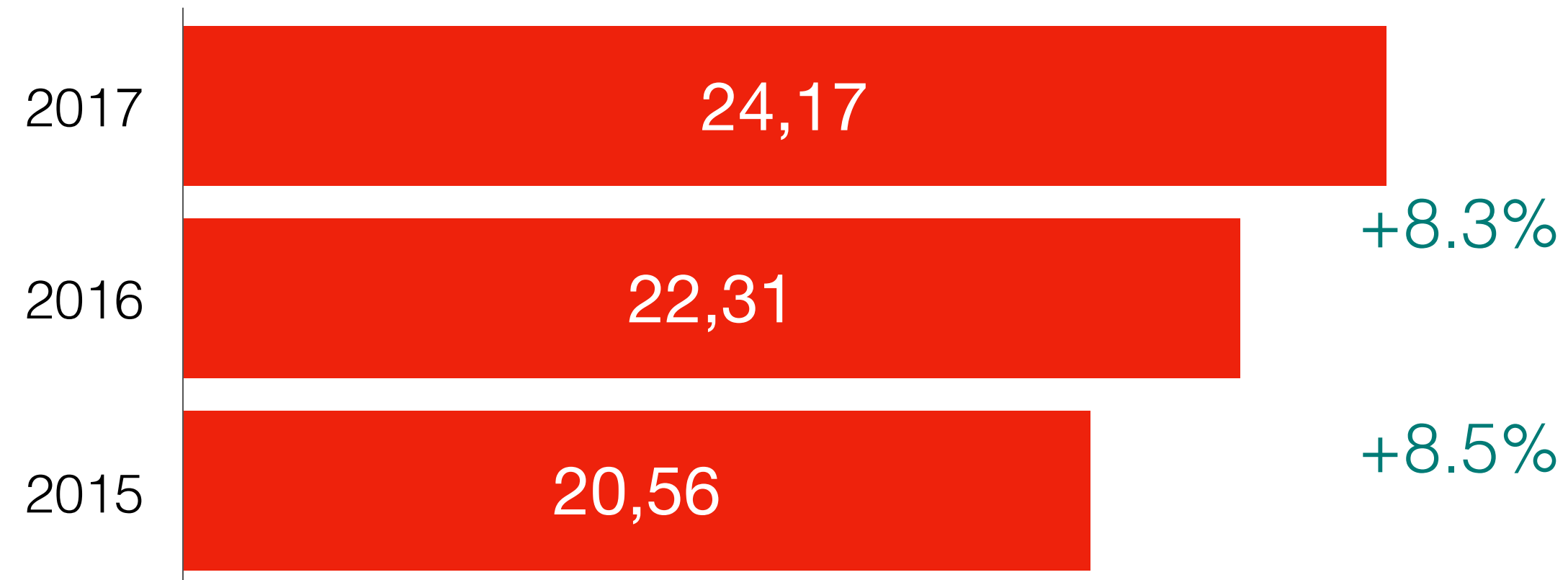
Car ownership per thousand people



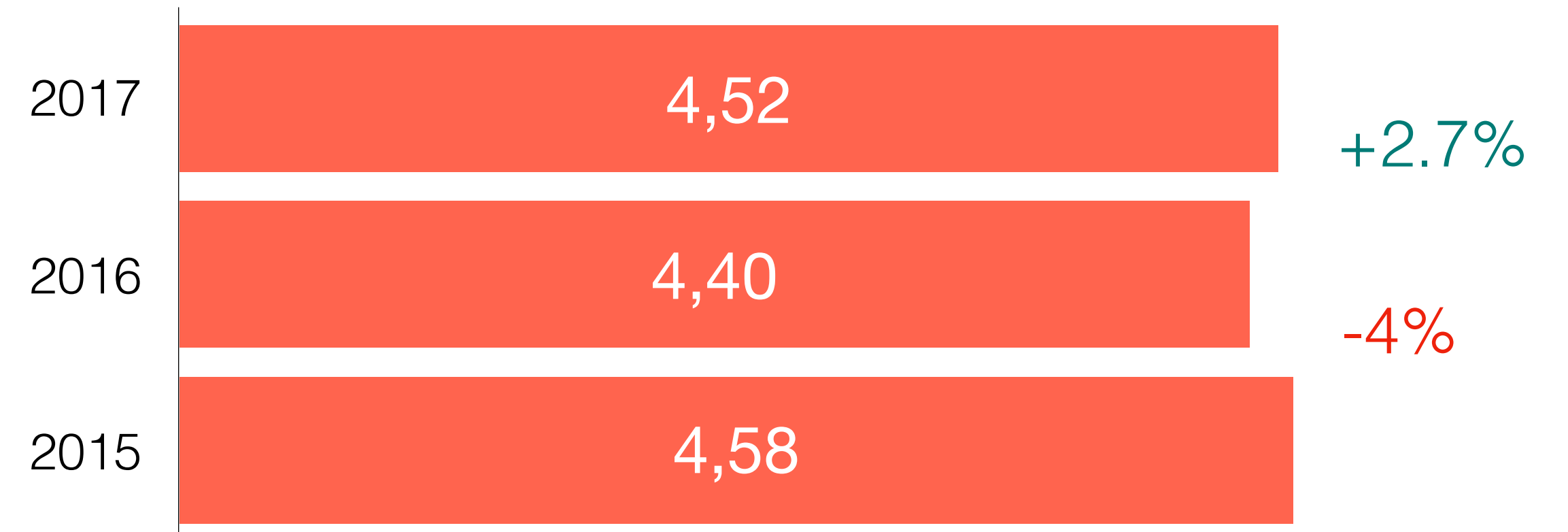
Source: EMRA, TSI

Turkish Consumption (Million tons) 2015-2017

Diesel



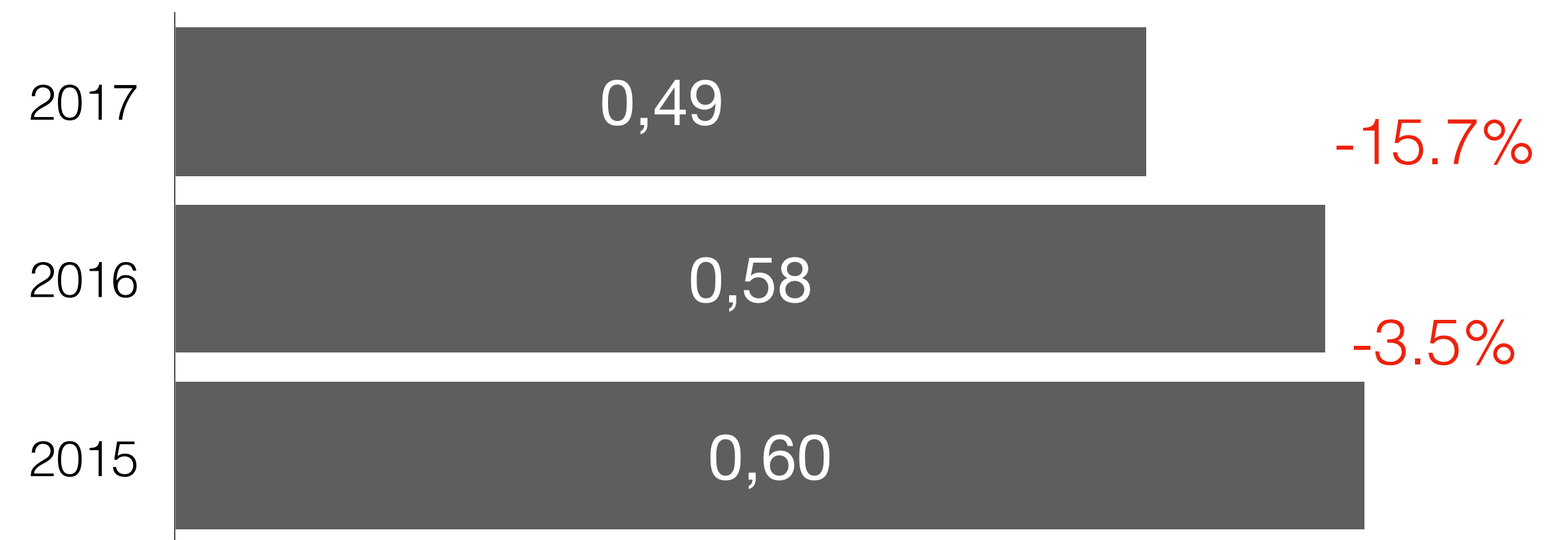
Jet Fuel



Gasoline



Fuel Oil*

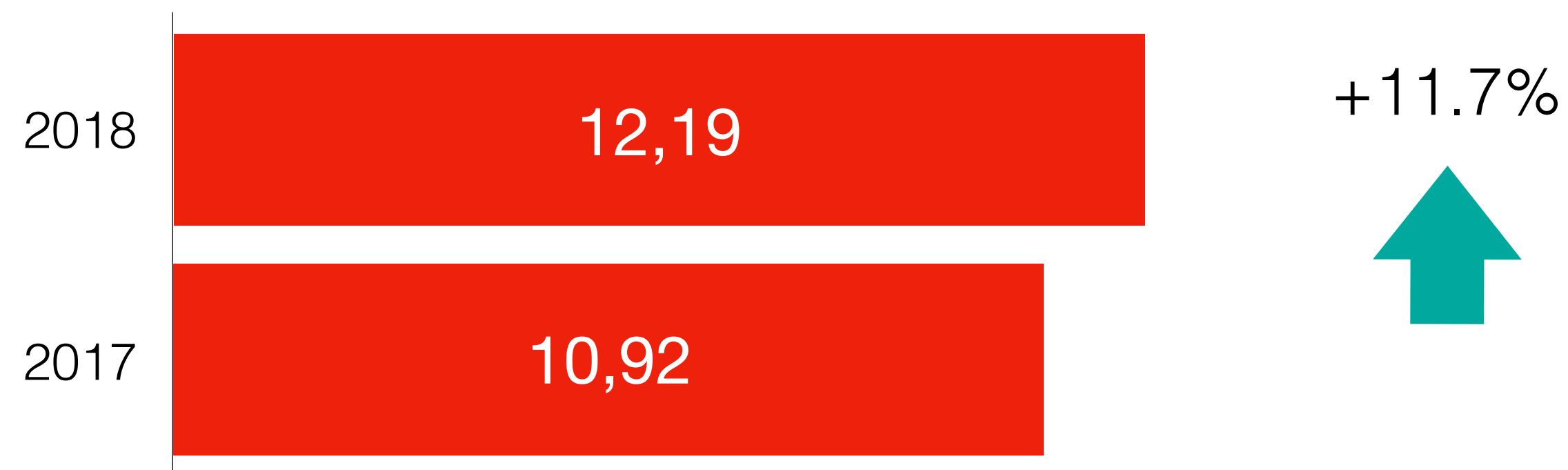


Kaynak: EMRA
*Bunker excluded.

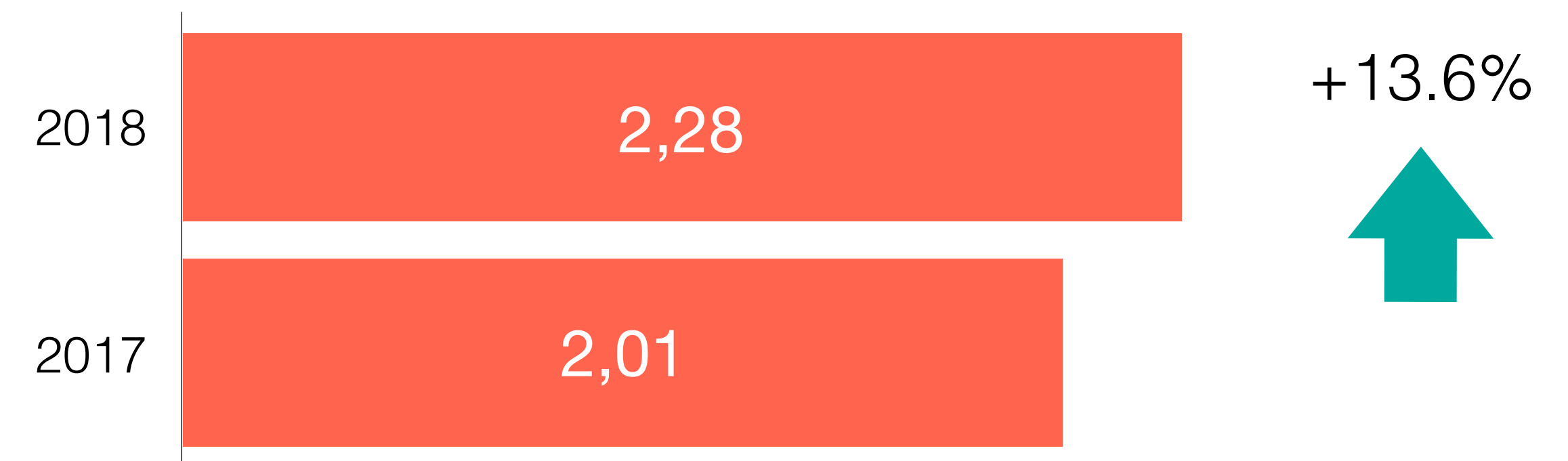
Strong Turkish Market, 6M 2018 (Million tons)

- Tüpraş is well positioned in a growing, short market.
- Diesel and jet fuel consumption in Turkey grew significantly the first 6 months of 2018 driven by infrastructure projects and aviation growth.

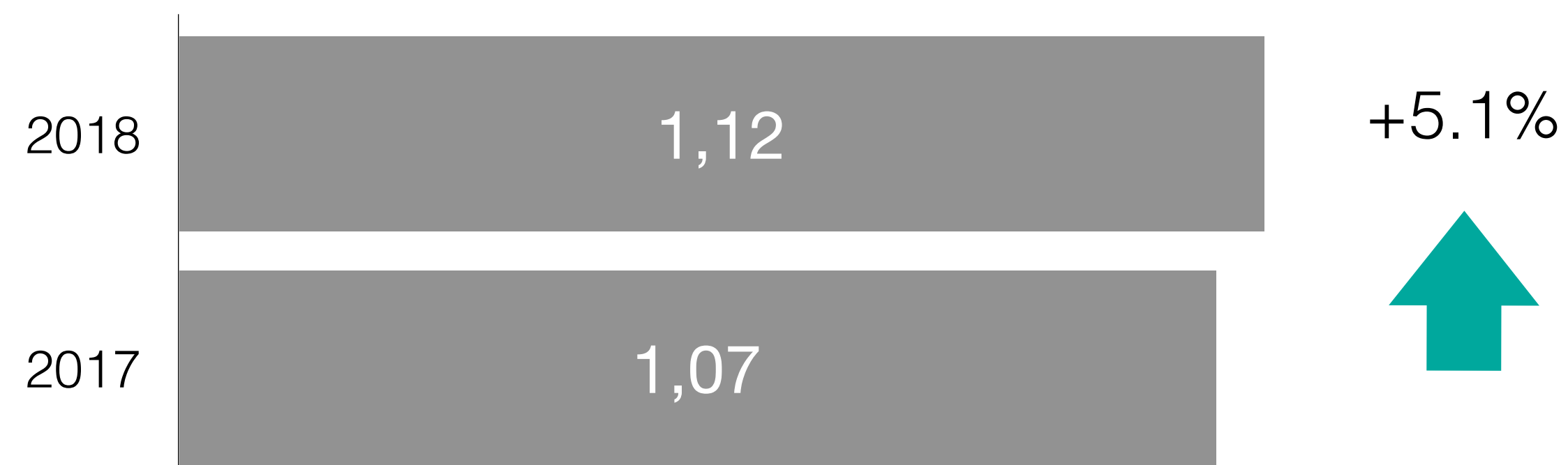
Diesel



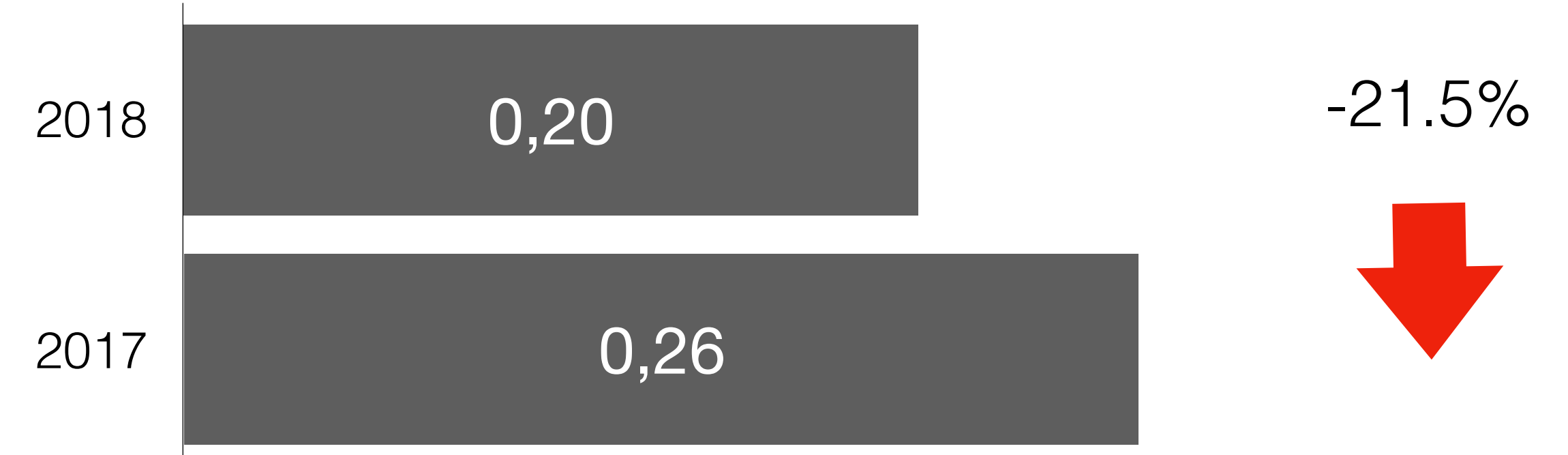
Jet Fuel



Gasoline

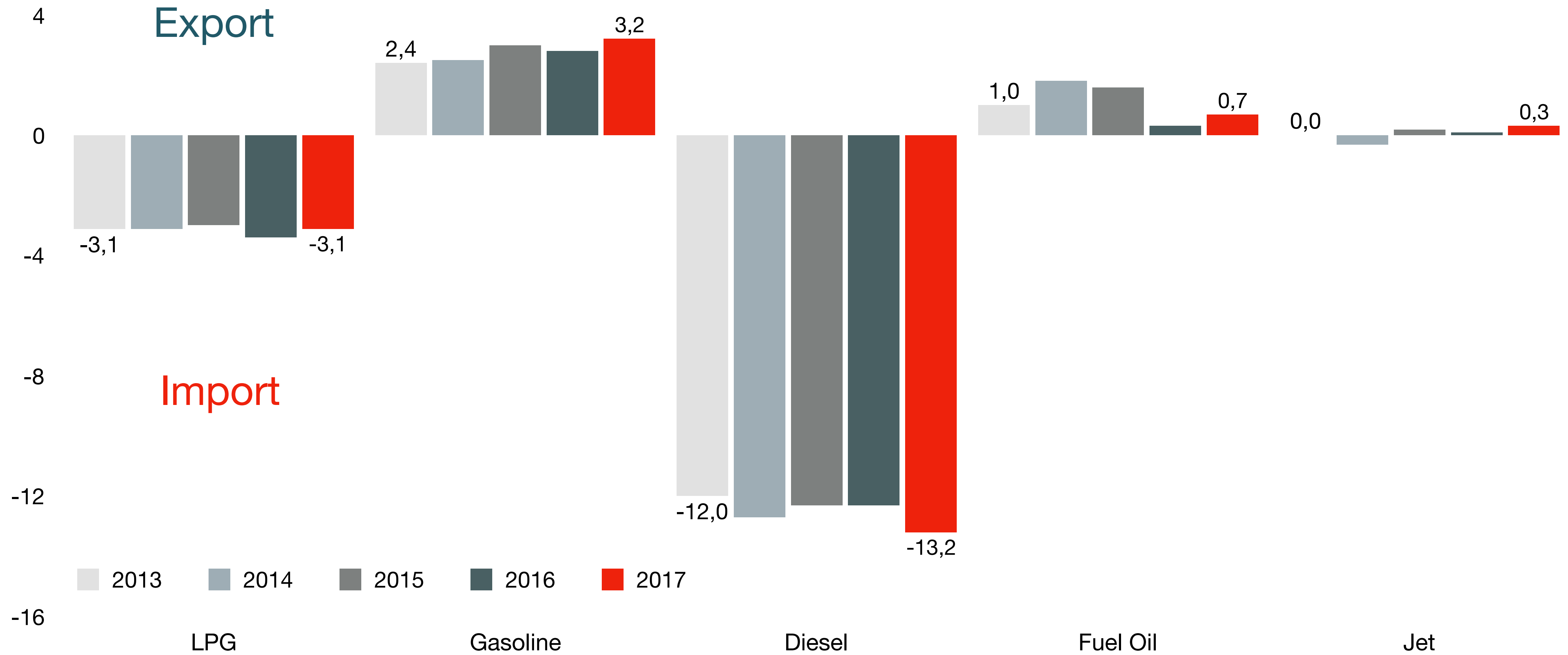


Fuel Oil*



*Bunker excluded
Source: EMRA

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

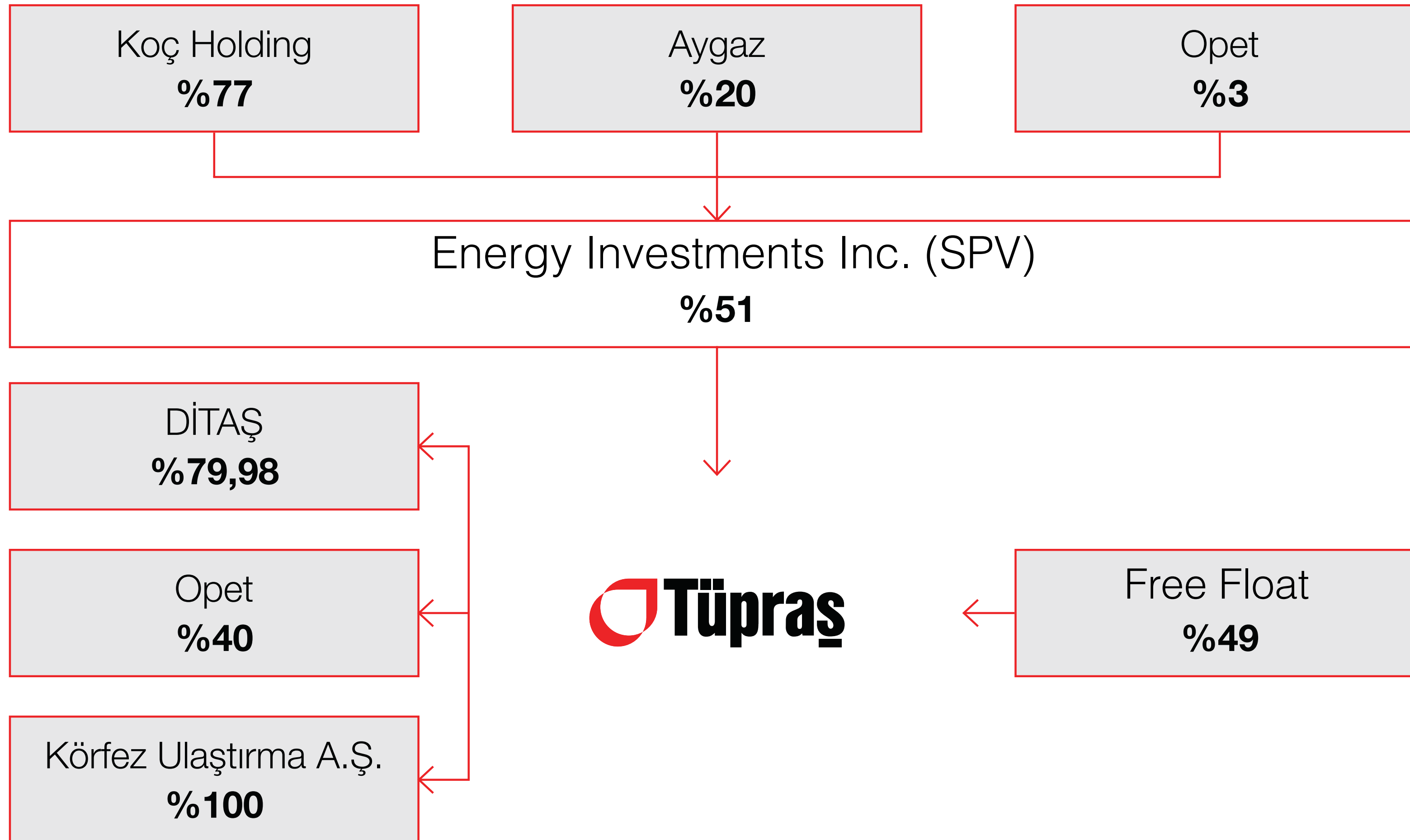


Source EMRA



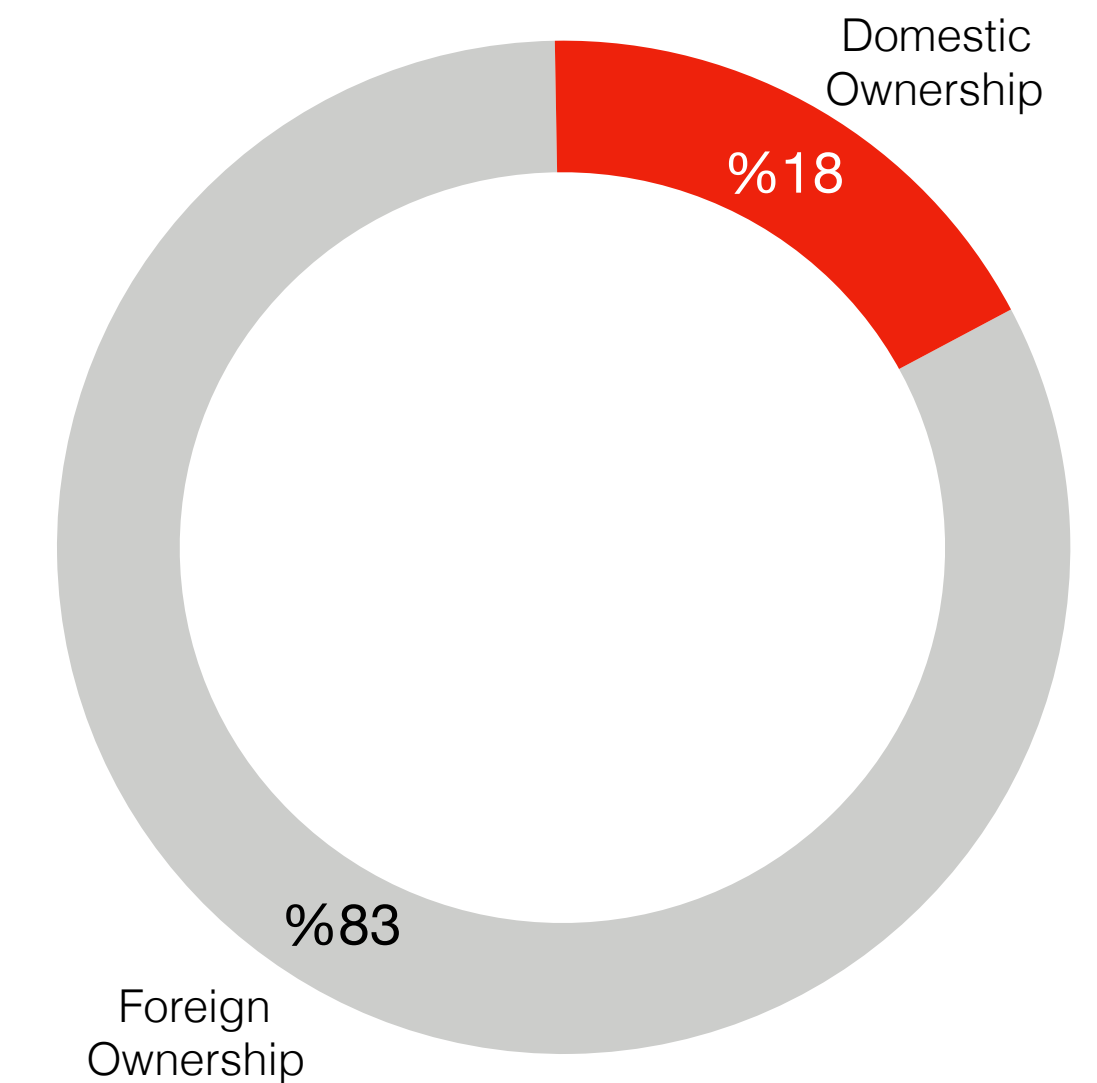
COMPANY OVERVIEW

Tüpraş Shareholder Structure

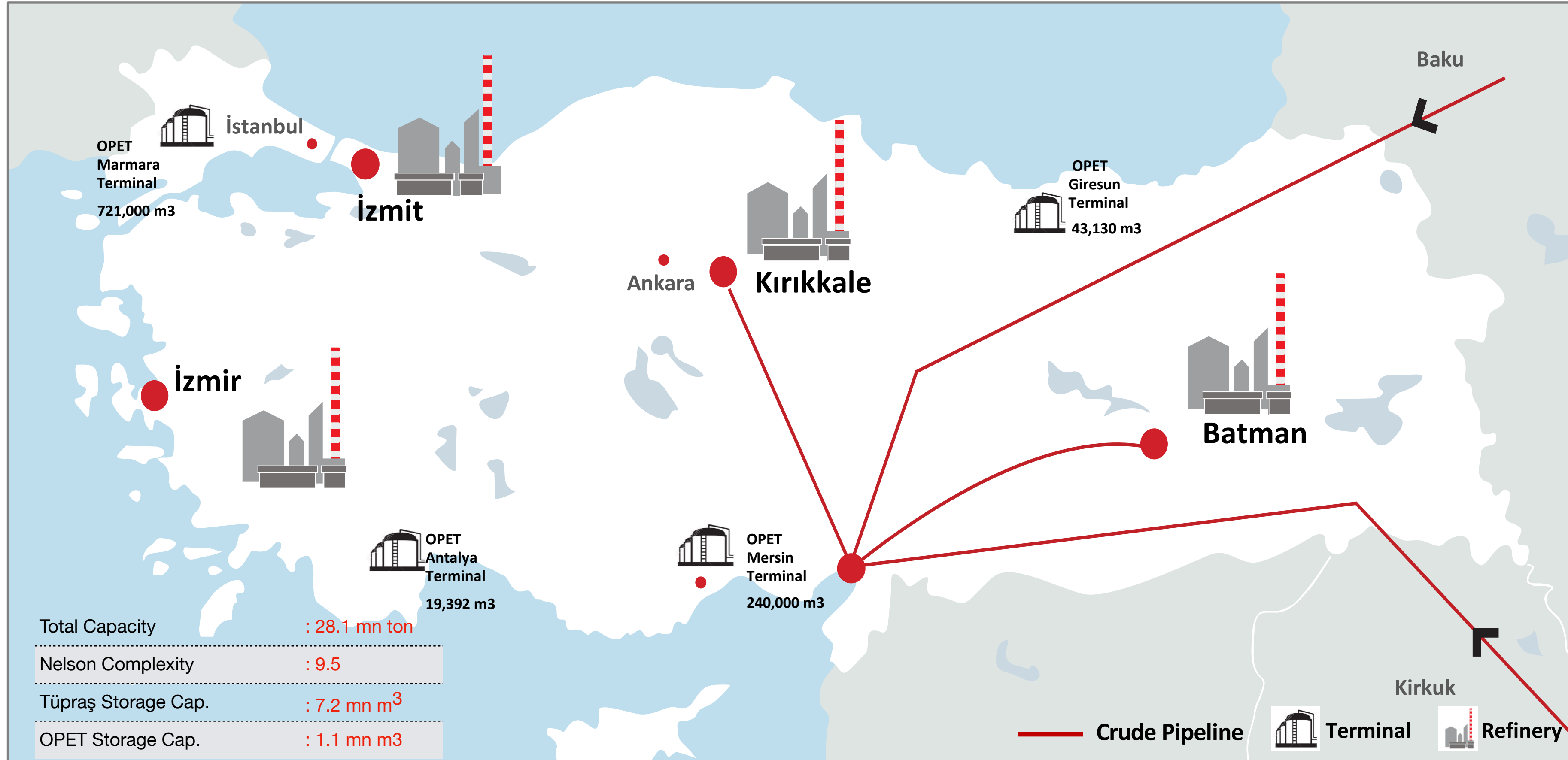


Publicly Traded

*Distribution of Domestic/ Foreign Ownership of Tüpraş Shares



Tüpraş Refining Assets & Distribution Network



Turkey Storage Capacity

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

İzmit

- 11.0 MT Capacity
- NC: 14.5
- Storage Capacity: 3.03 mn m³

İzmir

- 11.0 MT Capacity
- NC: 7.66
- Storage Capacity: 2.51 mn m³
- Base oil 400 k tons

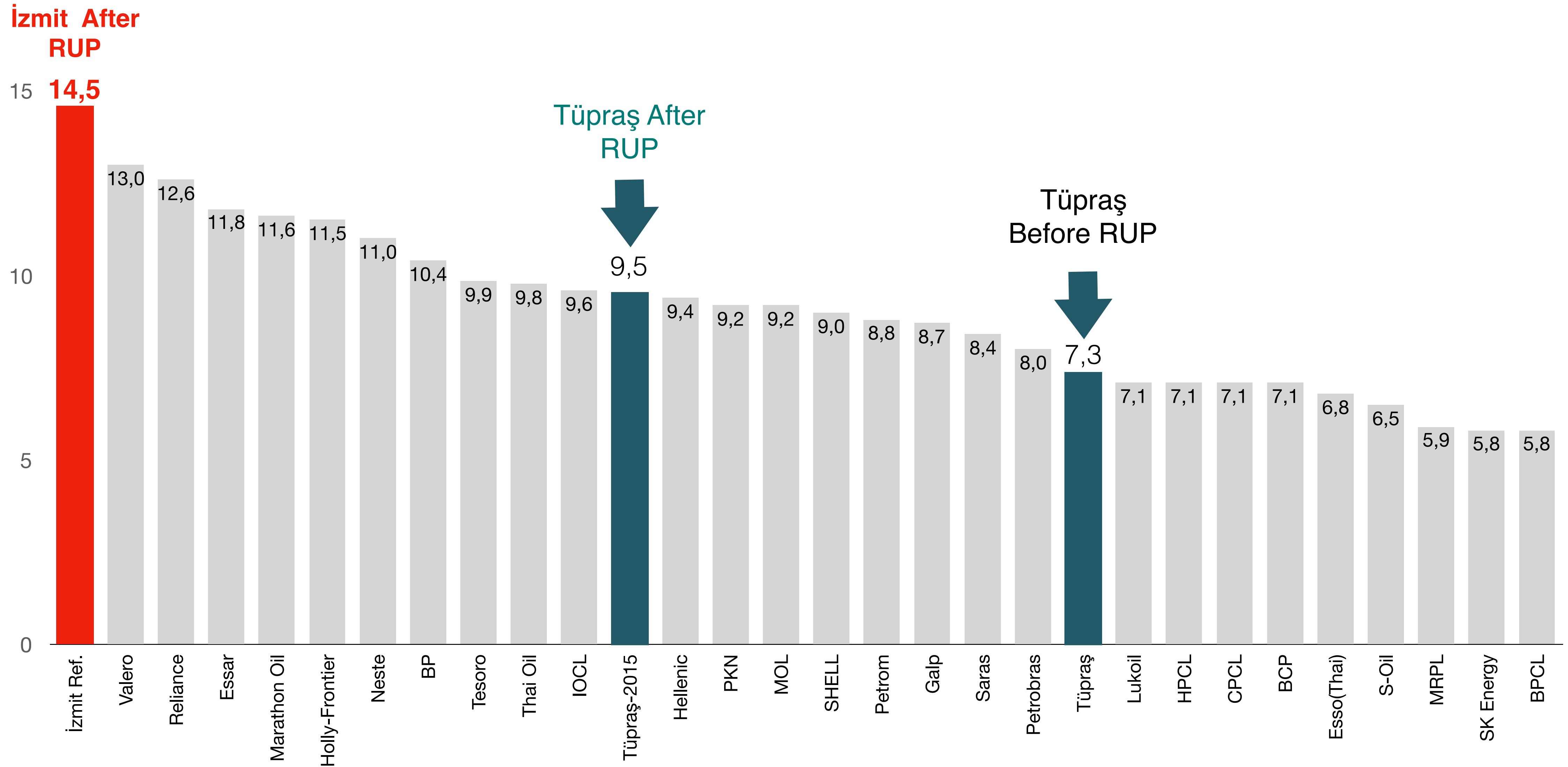
Kırıkkale

- 5.0 MT Capacity
- NC: 6.32
- Storage Capacity: 1.41 mn m³

Batman

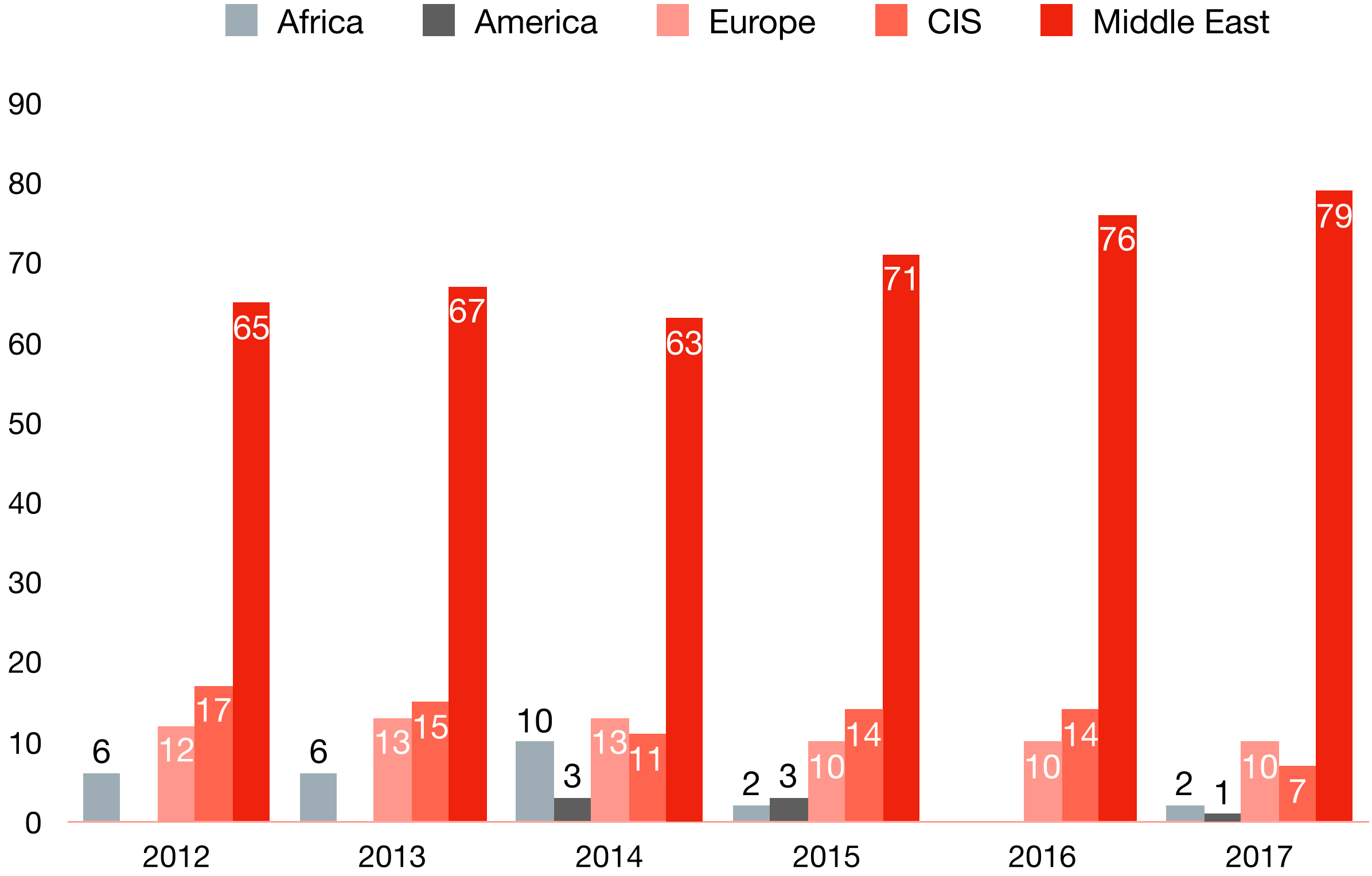
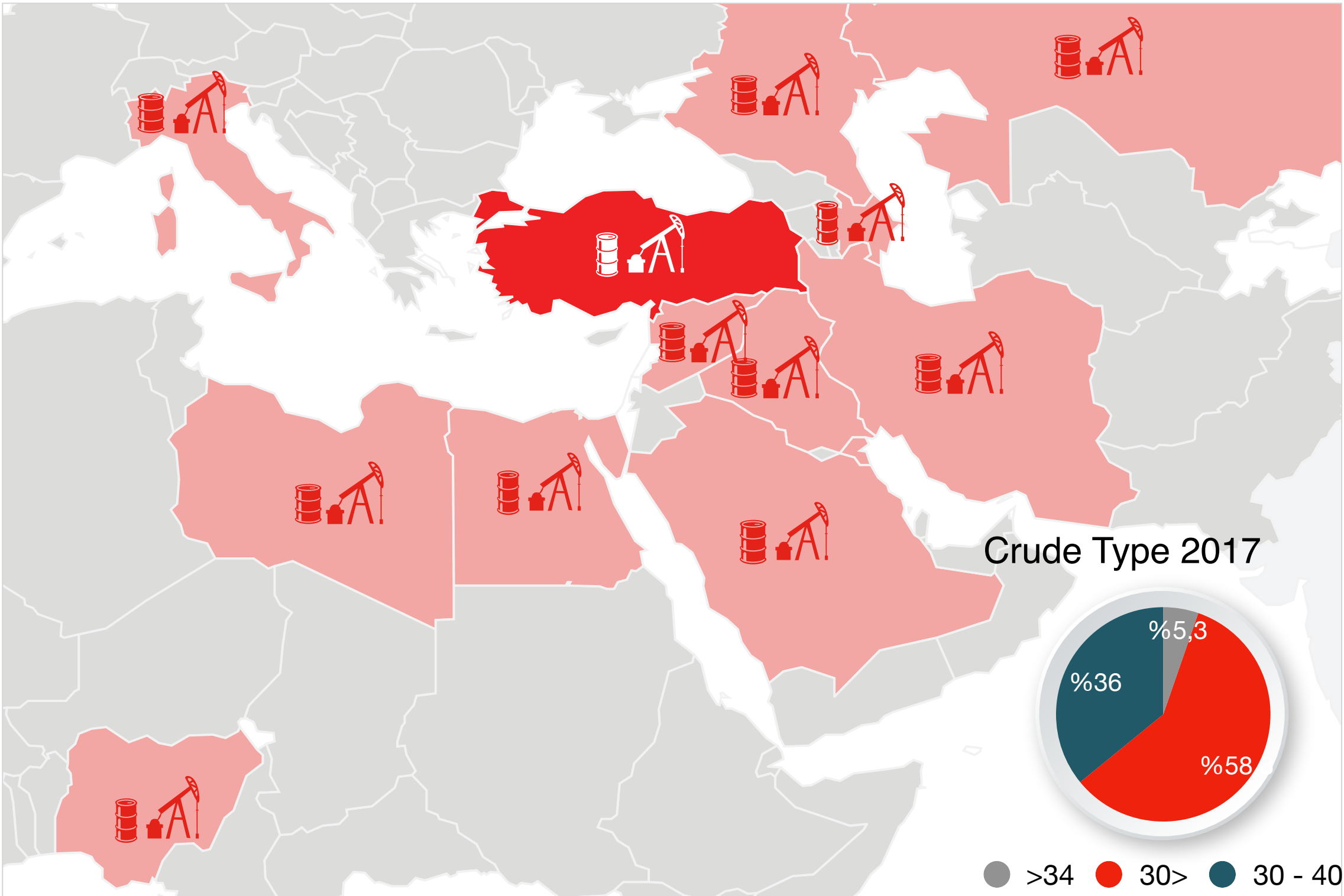
- 1.1 MT Capacity
- NC: 1.83
- Storage Capacity: 0.25 mn m³

High Complexity (Nelson Complexity of Refining Companies)



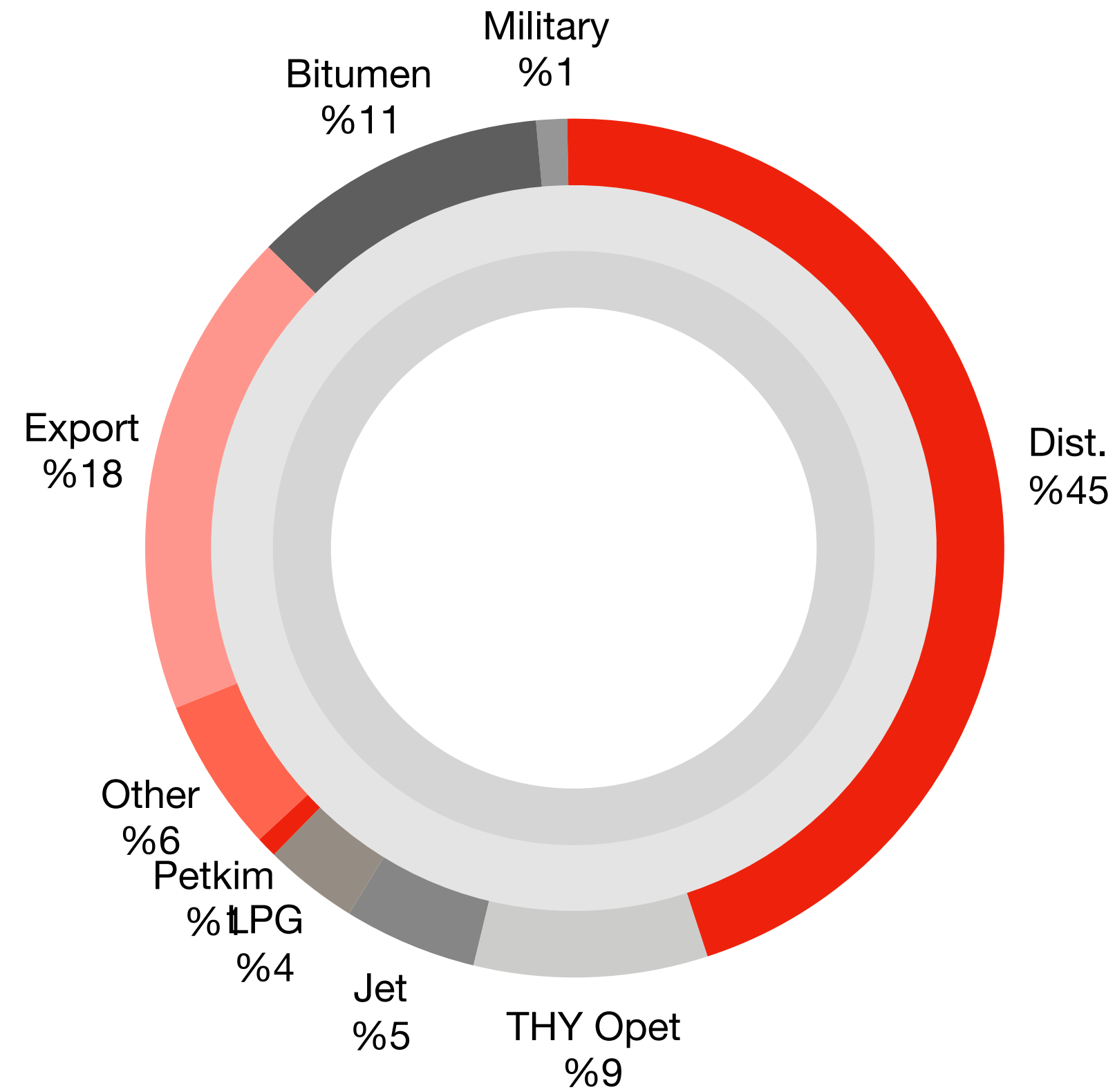
Crude Suppliers of TÜPRAŞ (Million Tons)

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



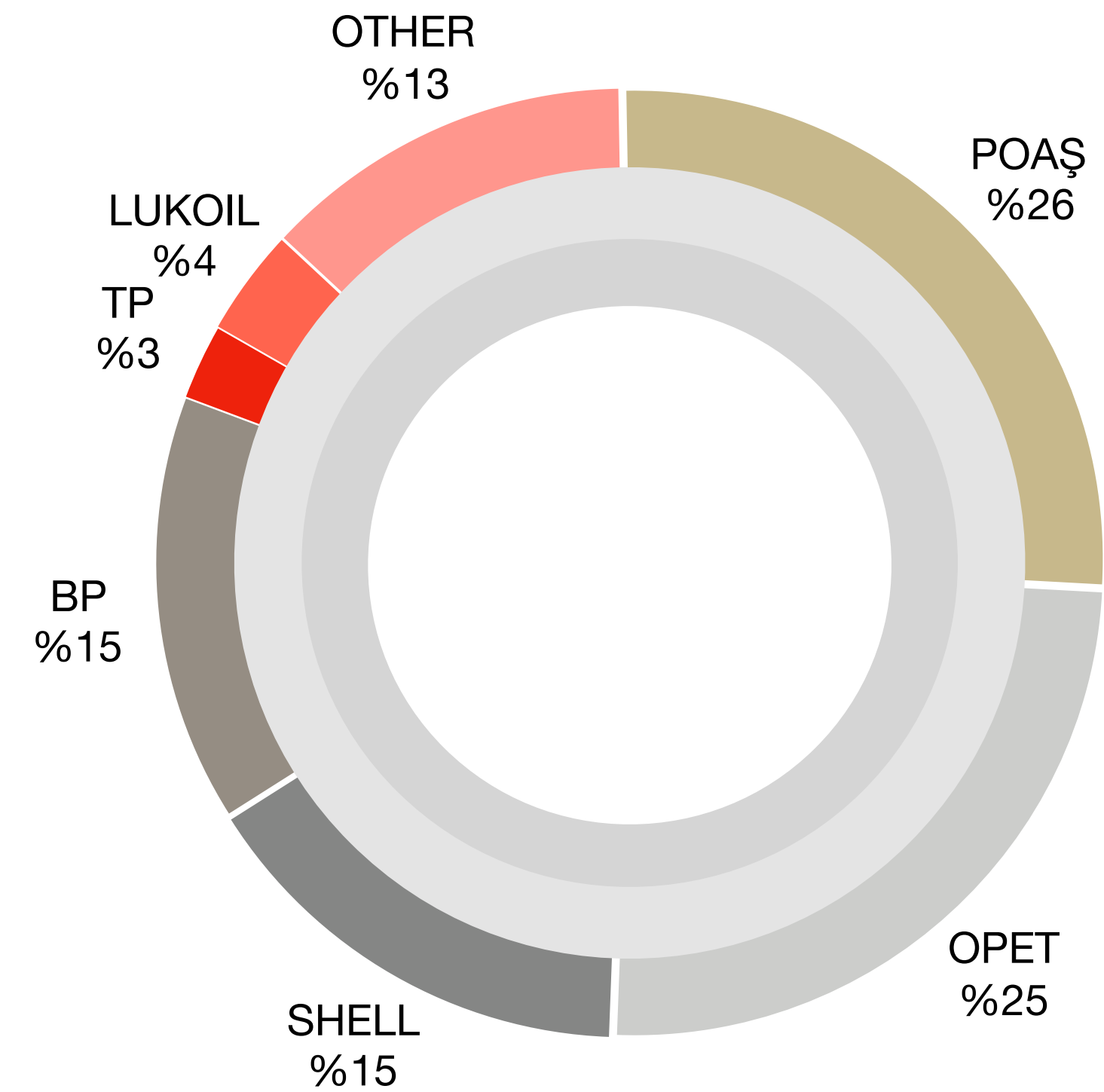
Sales By Customer (2017)

Customer Groups



Total : 31.5 mn ton

Sales to Distributors



Distributors : 14.3 mn ton

Competitive Advantages of Tüpraş

Added Value Created by Tüpraş

Best Fit for the Market with high diesel yield

High Complexity of Tüpraş

Presence in all over Turkey through refineries and terminals

Local Market Dynamics

High Economic Growth

Short on Diesel

Import Parity Pricing (Freight advantage of Tüpraş)

Cost Base of Tüpraş

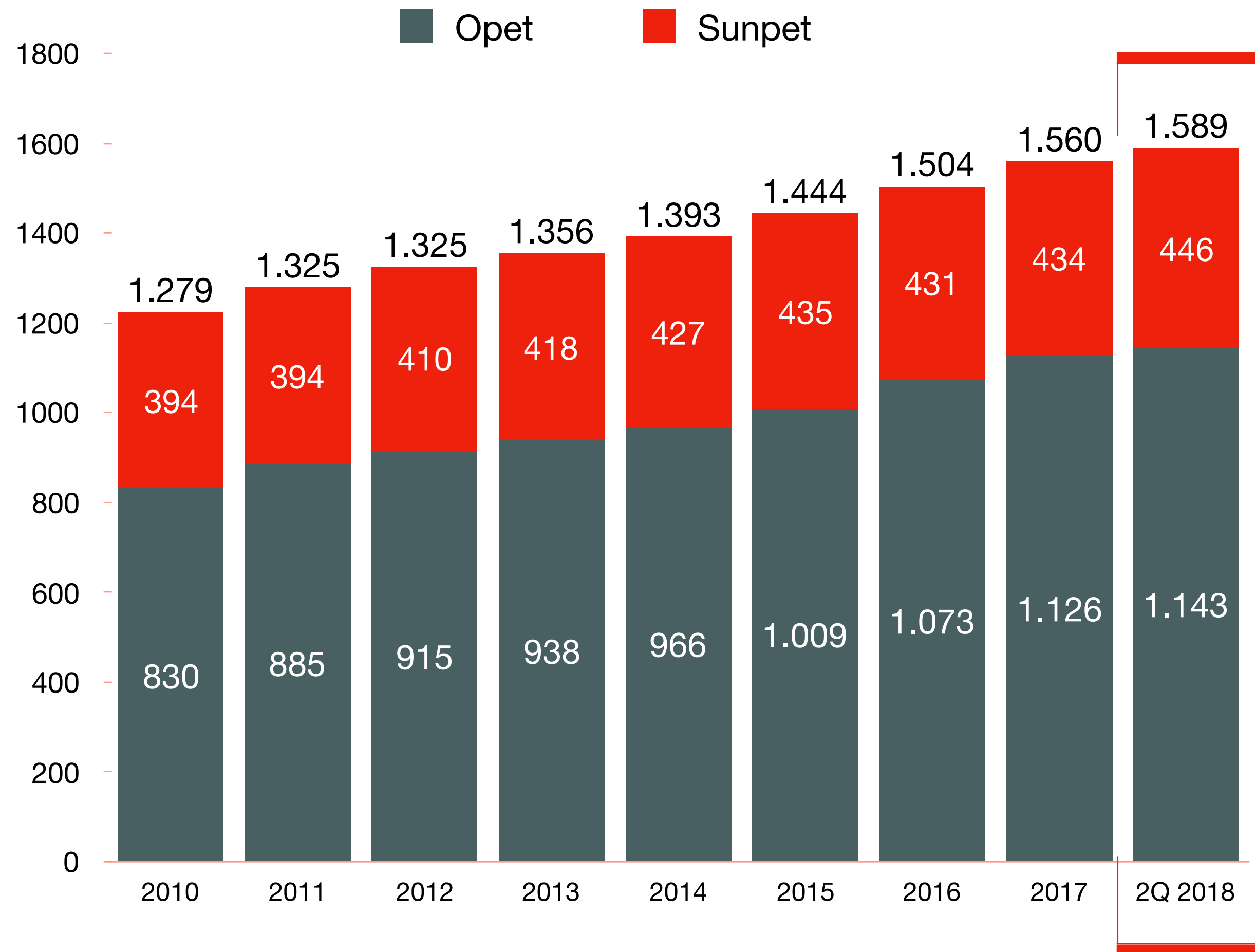
Energy Efficient

Crude Oil & Feedstock Cost Advantage

Economies of Scale

OPET -Tüpraş Share 40%

Opet expanded its retail footprint to 1589 stations in June 2018 from 1560 stations in December 2017.

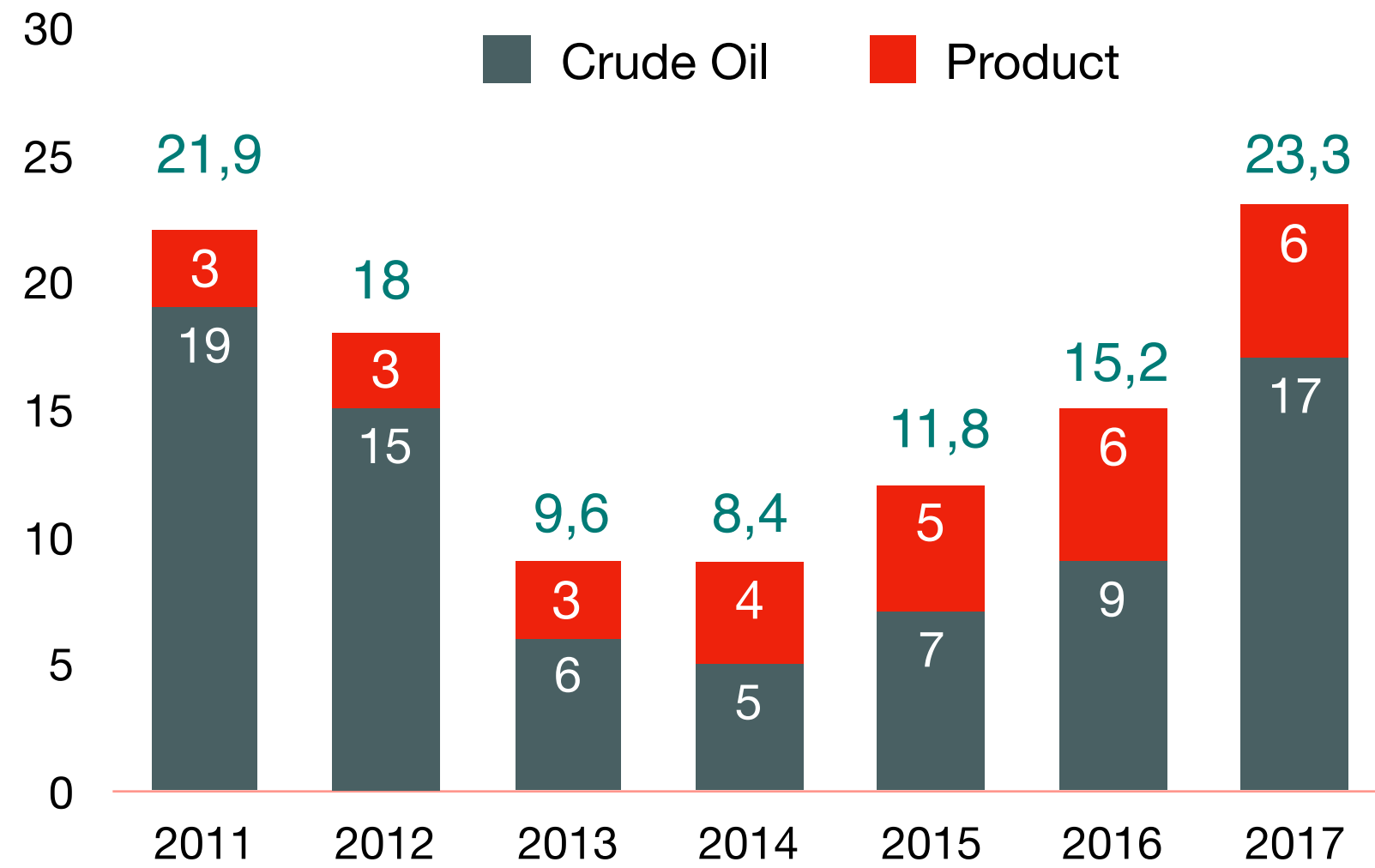


DİTAŞ, Marine Transport -Tüpraş Share 79.98%

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

11 tugboats
8 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



Enhancing our Trading Capabilities

- We are opening a trading office in London to



Closely monitor international market opportunities,



Support import and export operations,



Create additional value from supply chain and sales activities.

- London office is planned to be opened until the end of the year

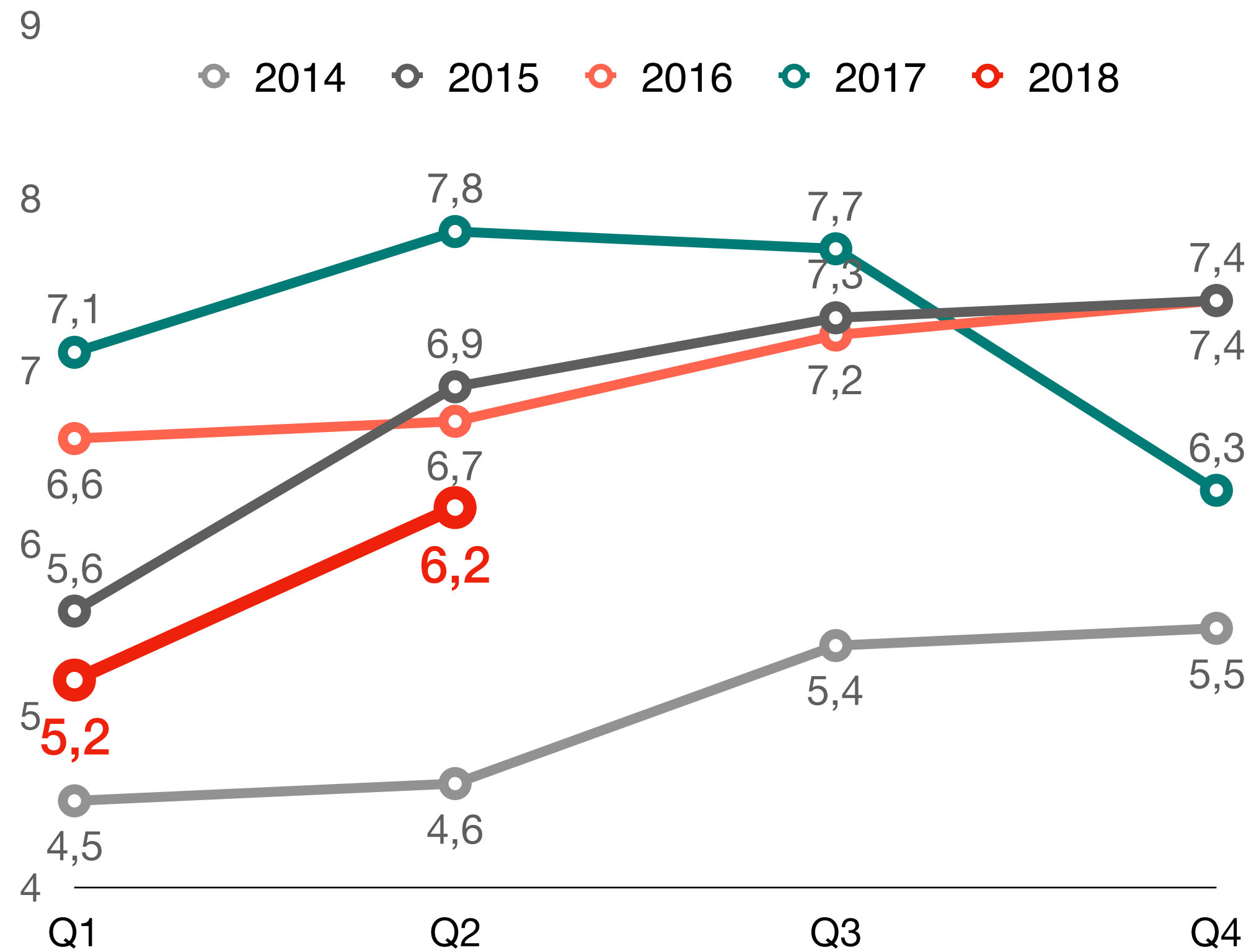


OPERATIONS

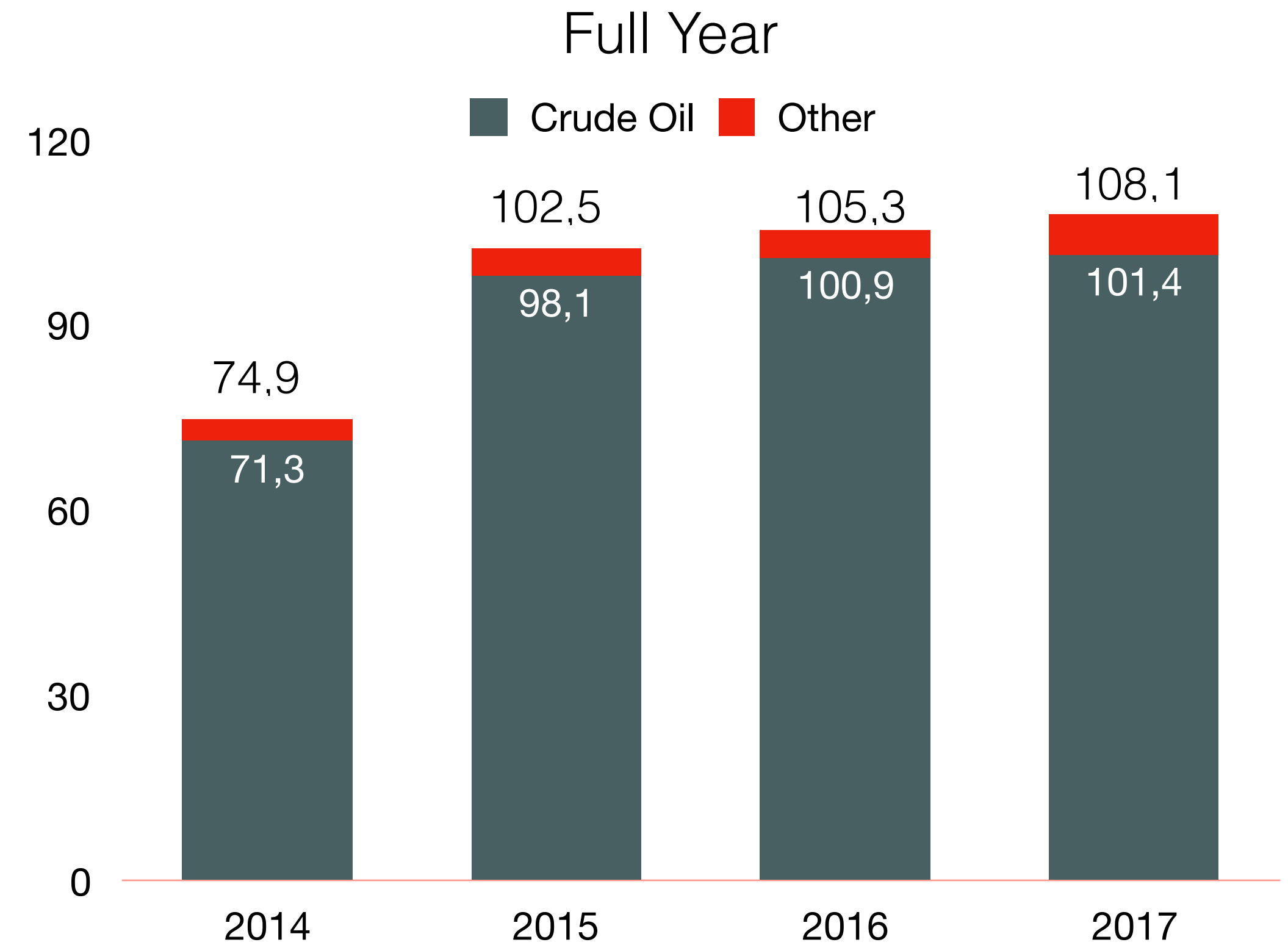
Capacity Utilization and Quarterly Production Volume

- Capacity utilization and production decline in Q2 2018 compared to Q2 2017 was due to maintenances in İzmit, İzmir and Kırıkkale refineries.
- Our year-end guidance for capacity utilization and production remains unchanged.

Quarterly Production (Million Tons)



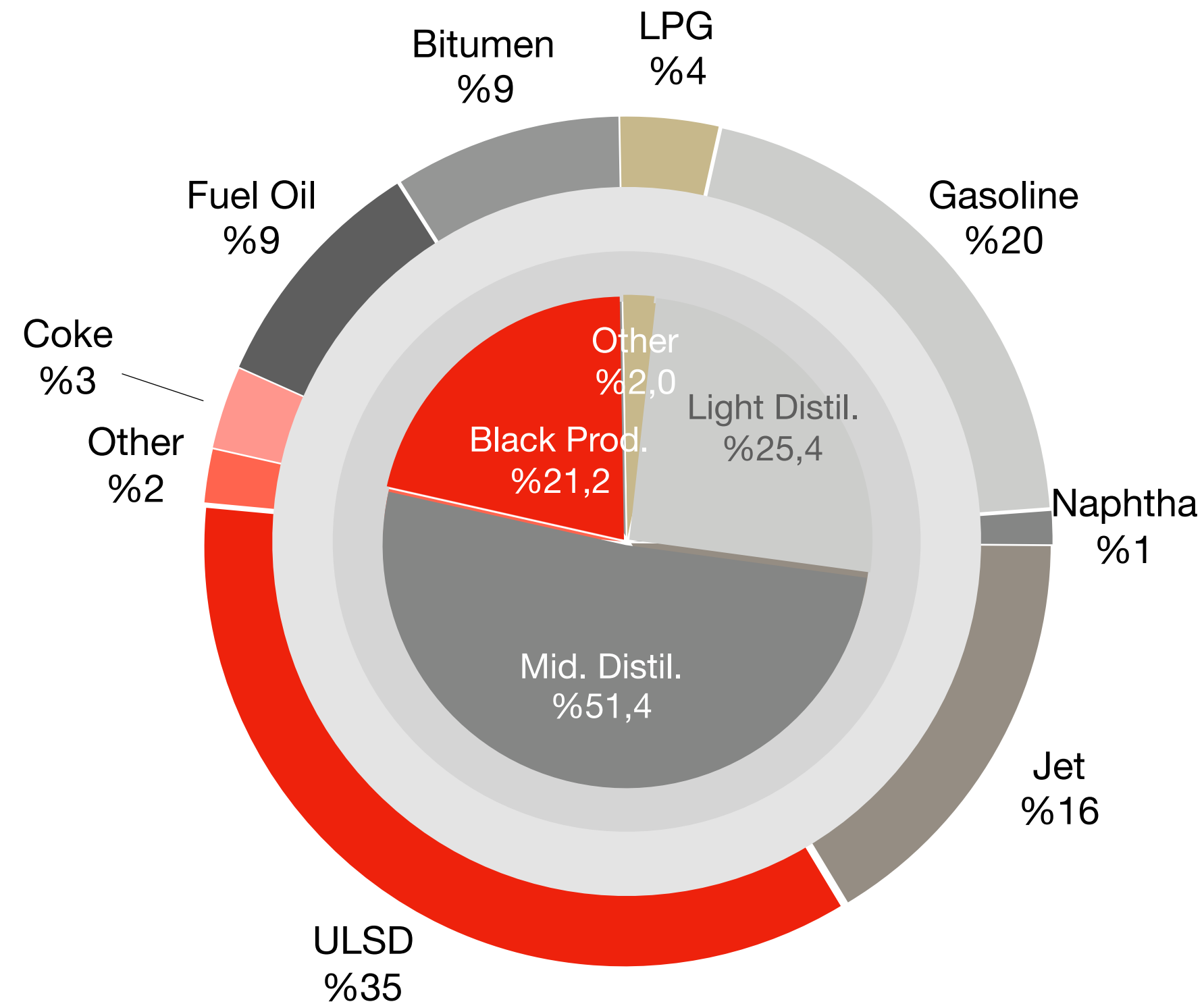
Capacity Utilization* (%)



*Nameplate capacity calculated by standard 330 days of operations.

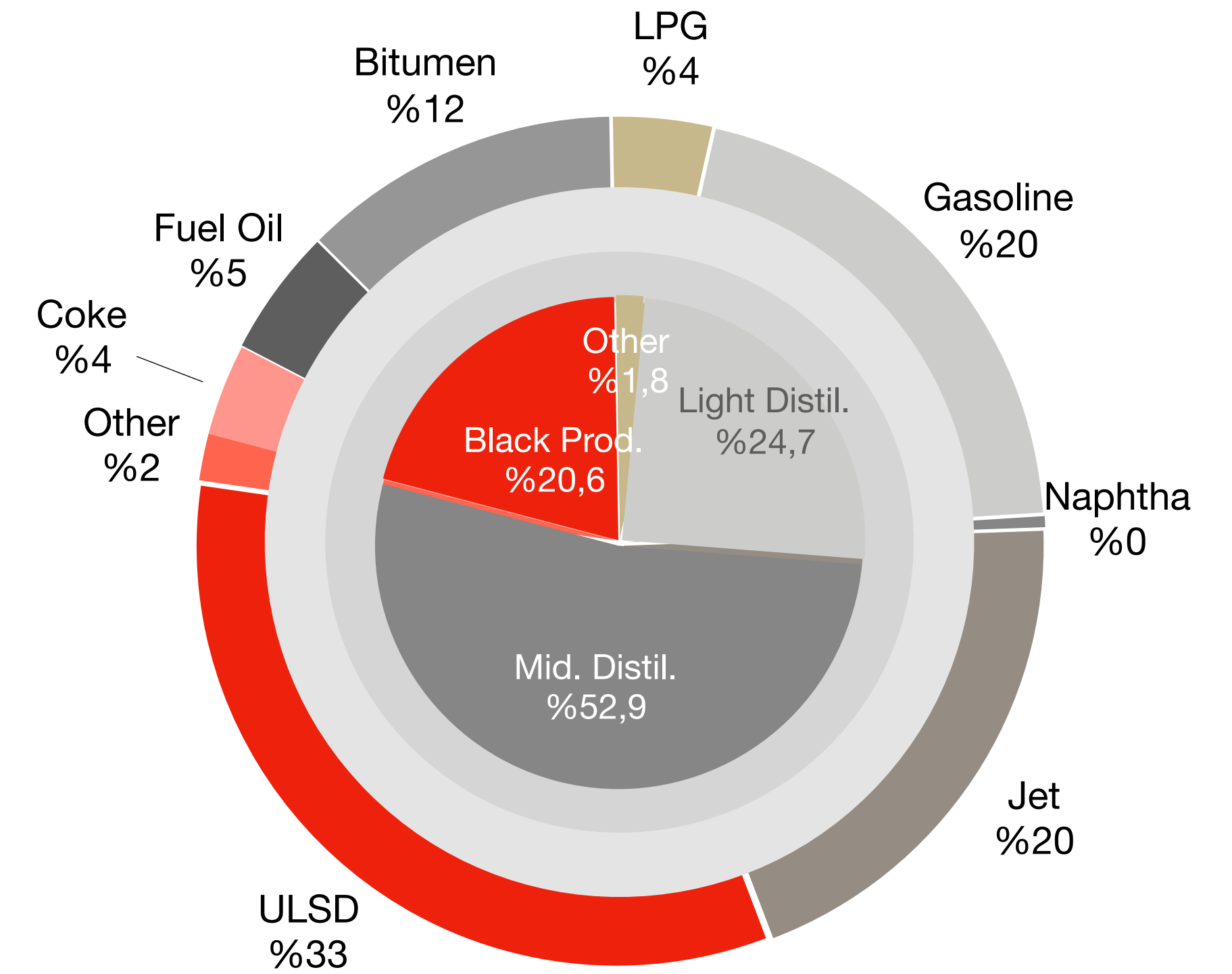
H1 Product Yields

2017



White Products	%77.64
Production	14.9 mn tons
API	30.71

2018

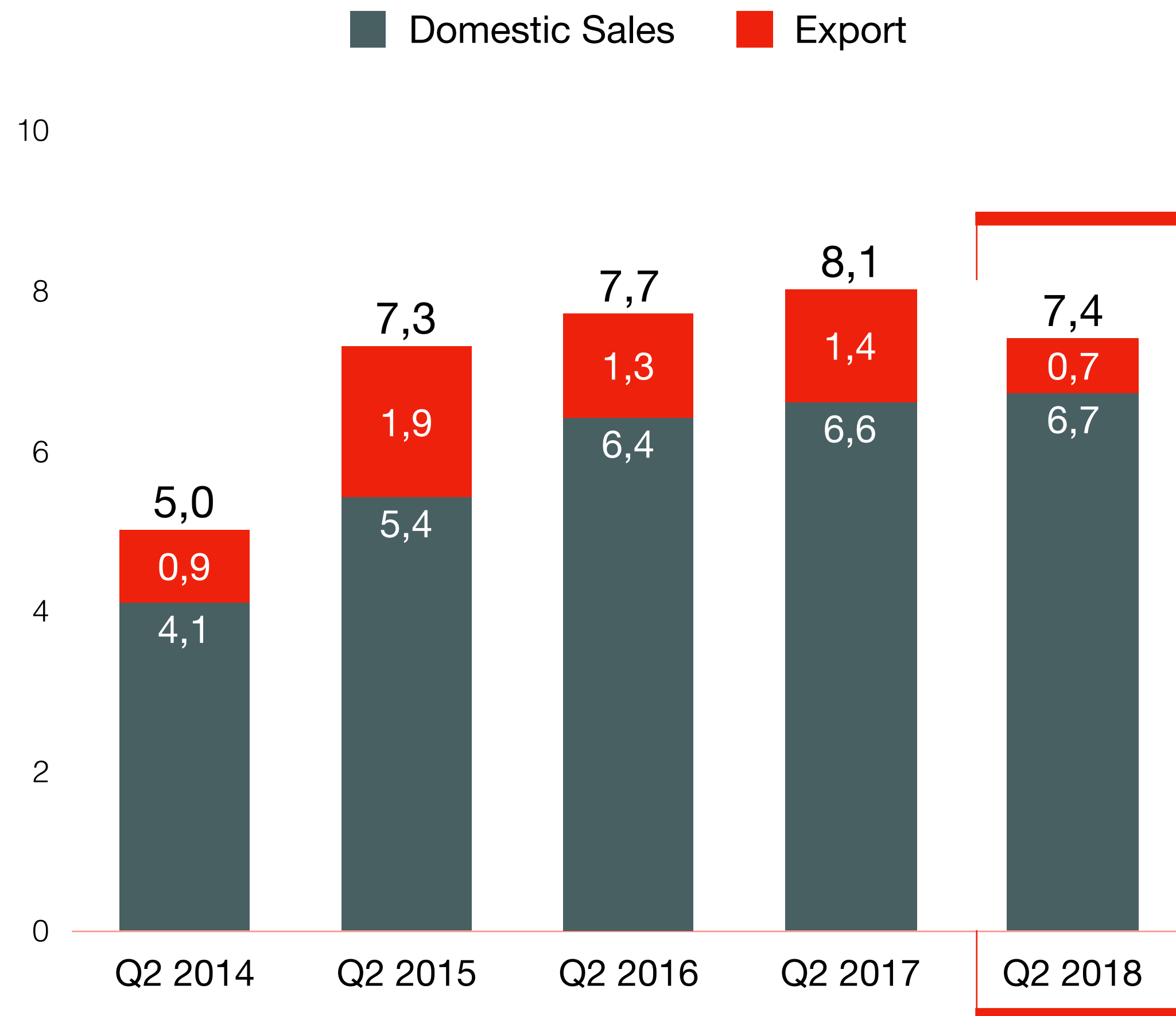


White Products	%78.24
Production	11.4 mn tons
API	31.14

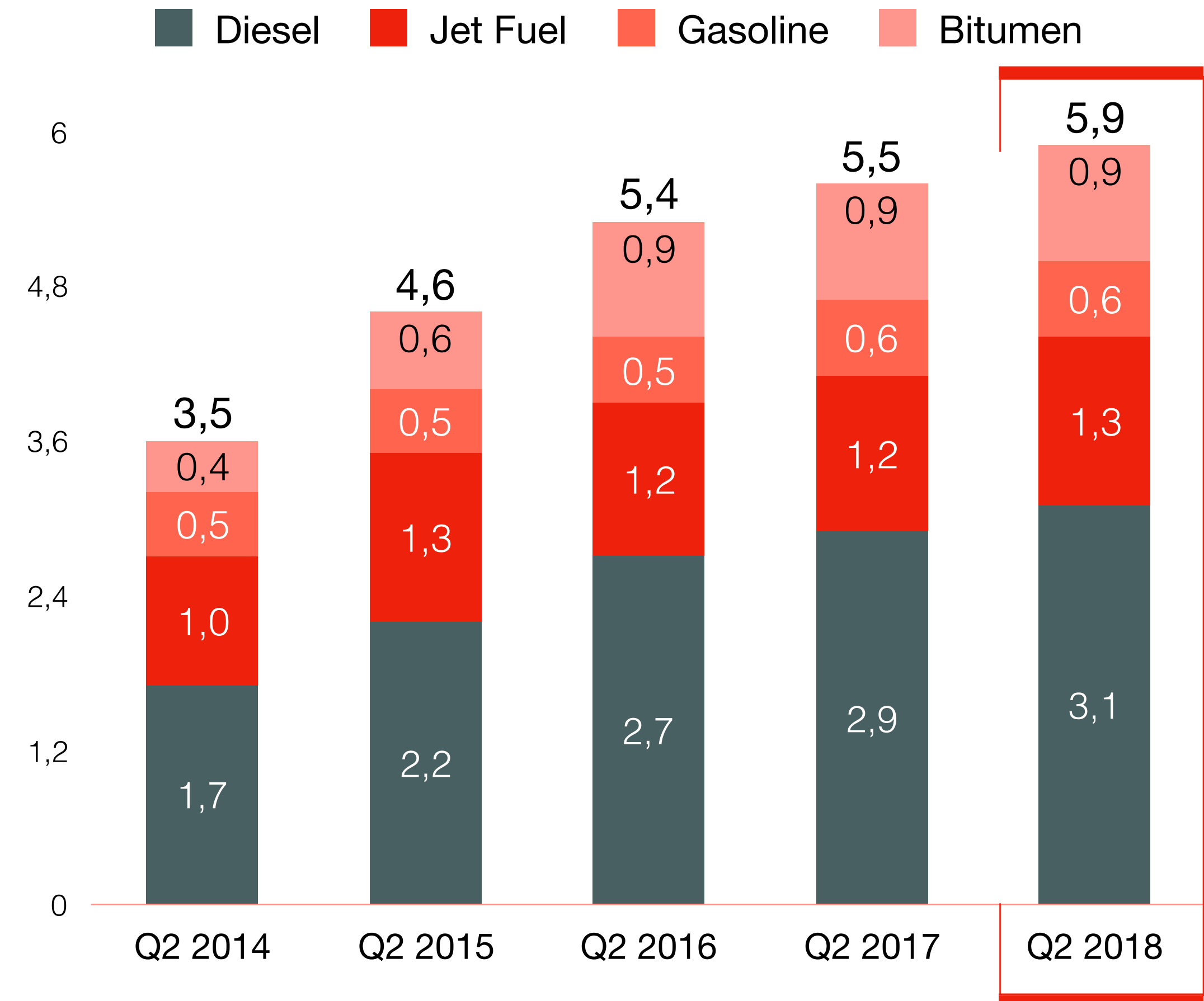
Increase in Domestic Sales (Million Tons)

- We generated 7.4 million tons of total sales in Q2 2018.
- Domestic middle distillate sales were 4.4 million tons, 8.5% higher than Q2 2017.

Total Sales in Q2



Domestic Sales of Key Products in Q2



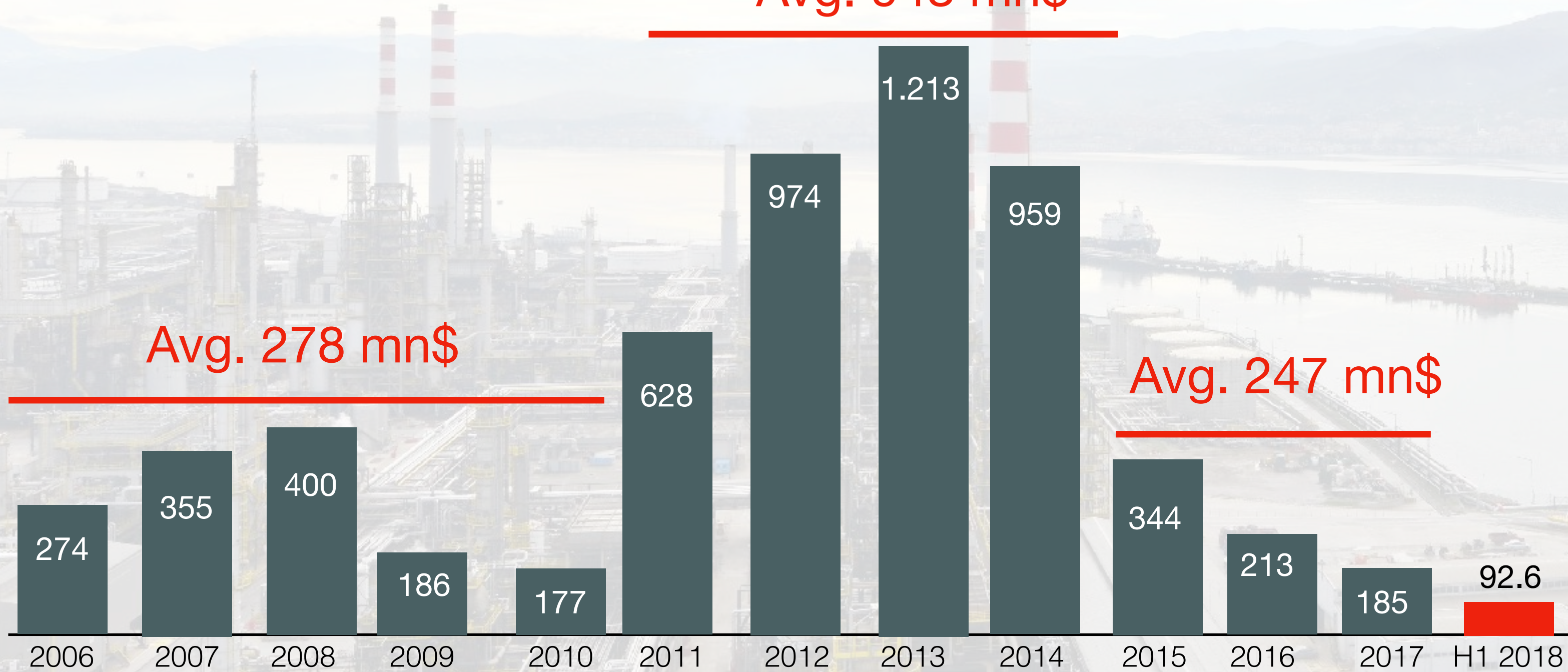
Investments (Million \$)

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

Avg. 943 mn\$

Avg. 278 mn\$

Avg. 247 mn\$

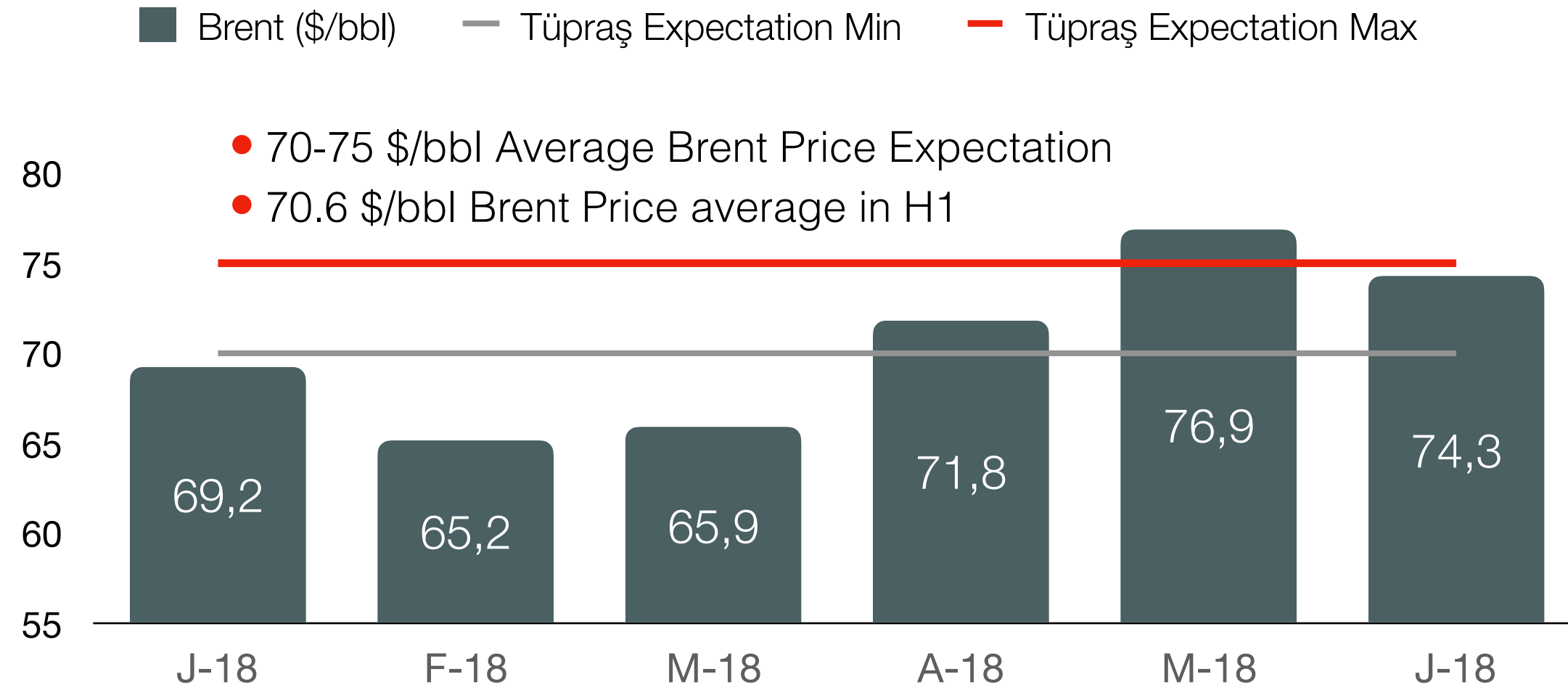


Ongoing Projects

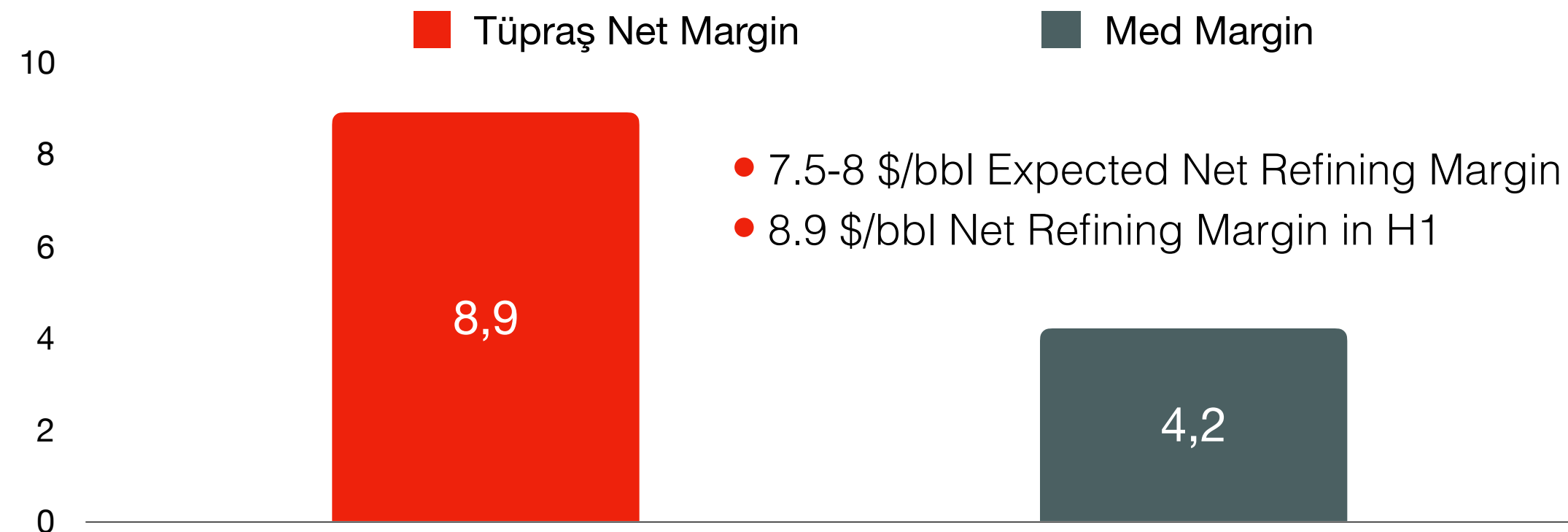
- Revamp of Crude Unit
- FCC Modernization
- New Sulphur Units
- Energy Saving Projects
- Optimization of conversion units

2018 Expectations vs H1 2018 Results

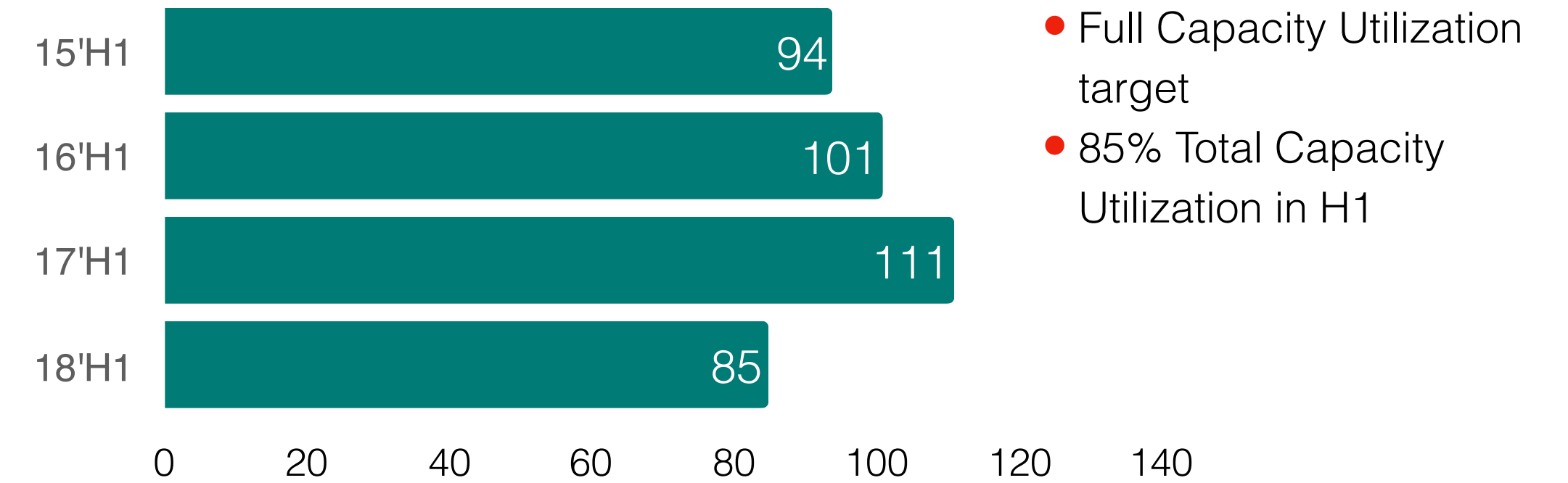
Brent Price (\$/bbl)



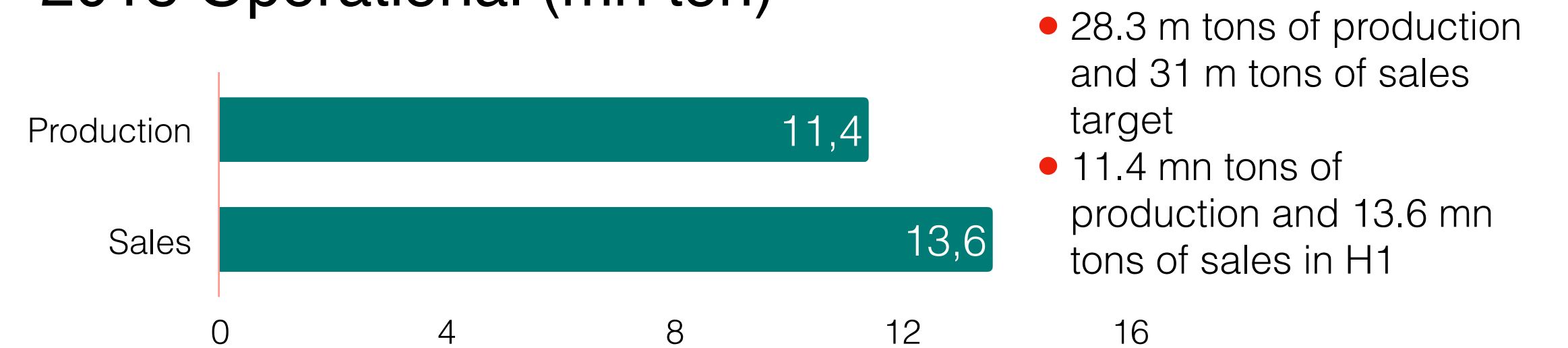
Refining Margins (\$/bbl)



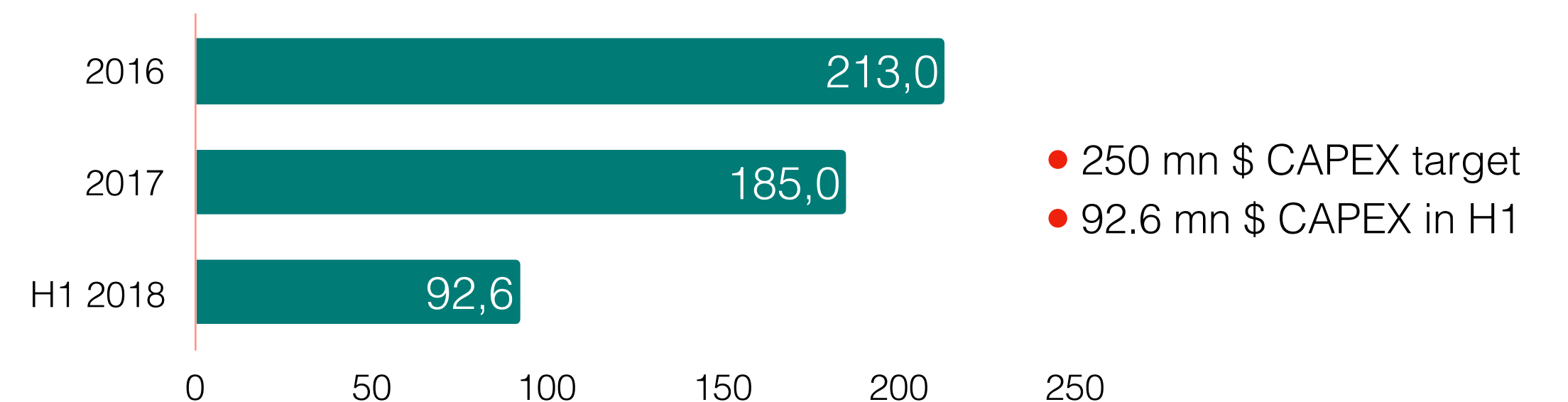
Capacity Utilisation (%)



2018 Operational (mn ton)



Capex (mn \$)





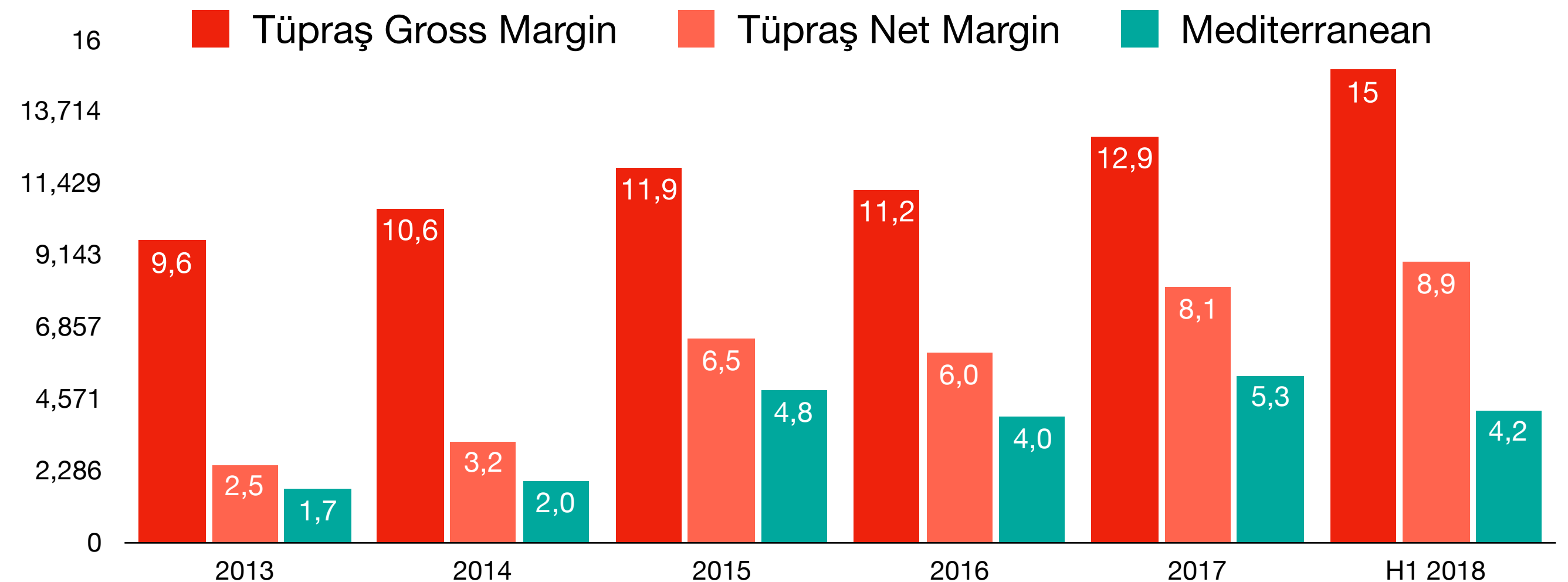
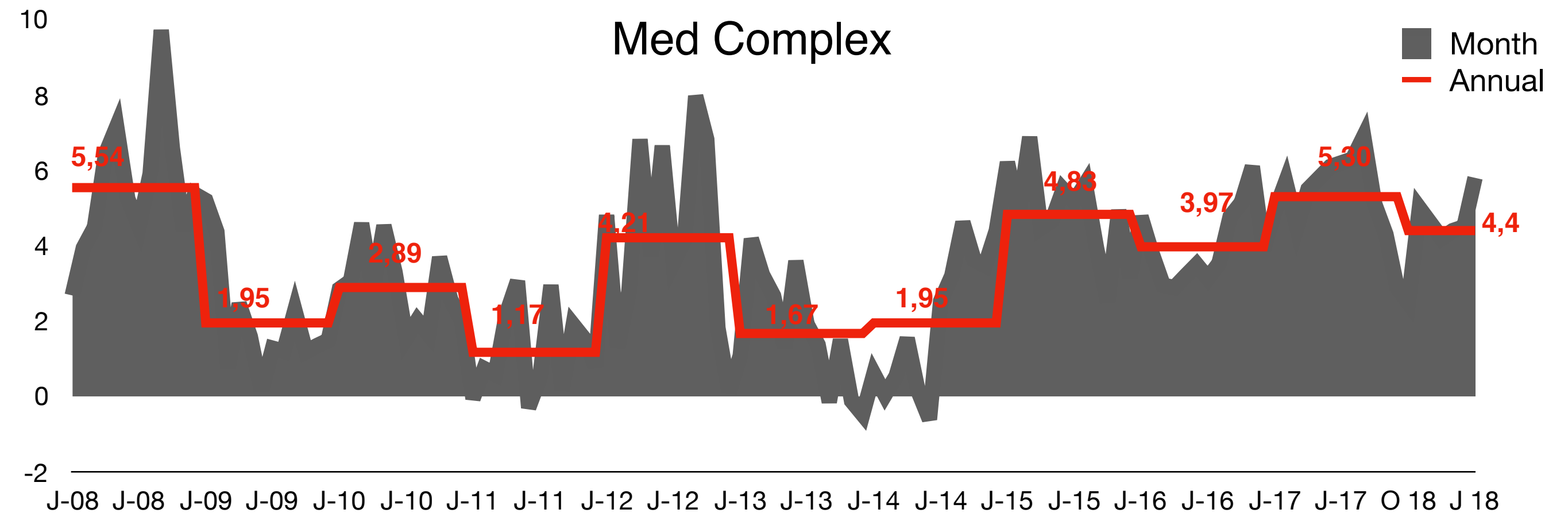
KEY FINANCIALS

Margin Environment (\$/bbl)

Tüpraş' 12.3 \$/bbl Net Refining Margin in Q2 2018 was higher than 7.9 \$/bbl Med Complex margin.

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

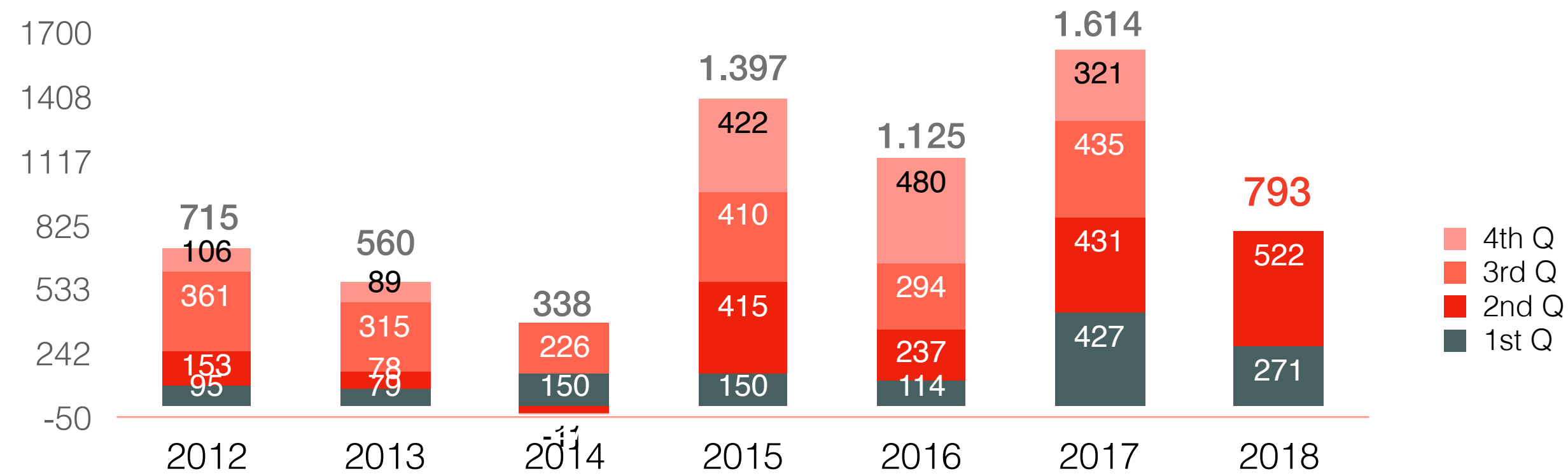
- Refined products deficit characteristic to the Turkish market
- Access to cheaper sources of crude oil
- Ability to use heavier and sour crudes
- Proximity to major suppliers
- Reduces transport costs
- Implemented cost reduction measures
- Energy efficiency programs
- Capacity to produce higher value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



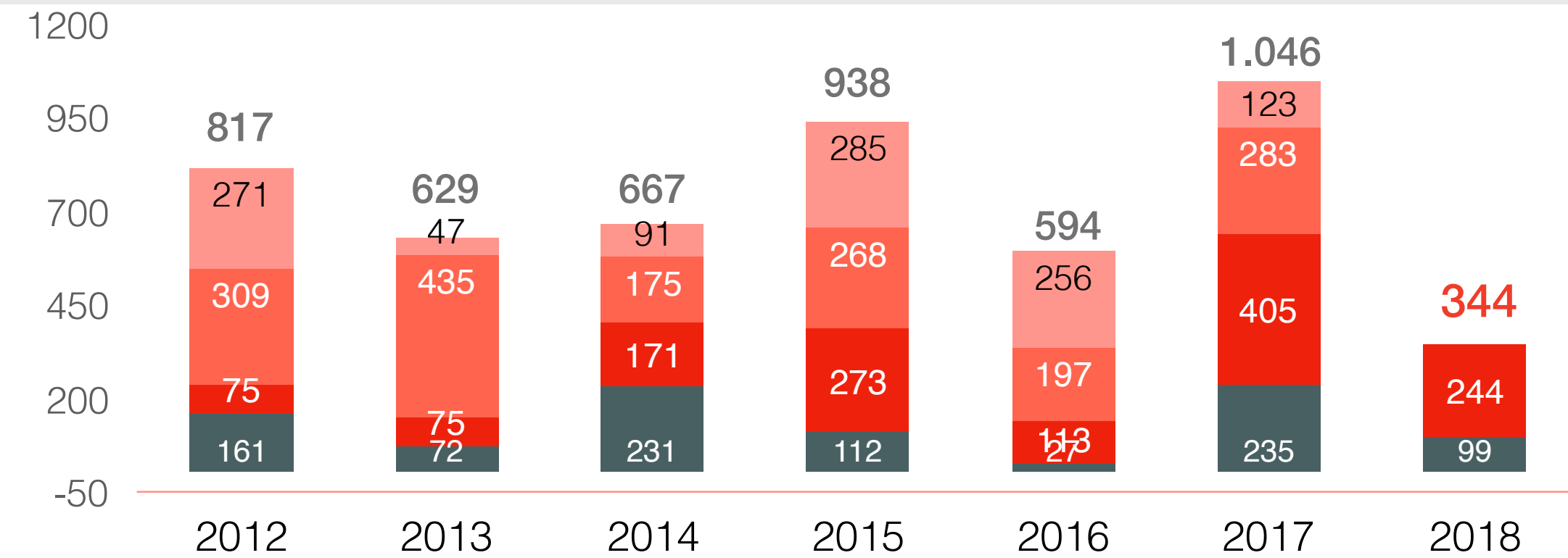
Financial Highlights (Million \$)

Tüpraş Net Debt/Rolling EBITDA was 1.5x as of June 30, 2018.

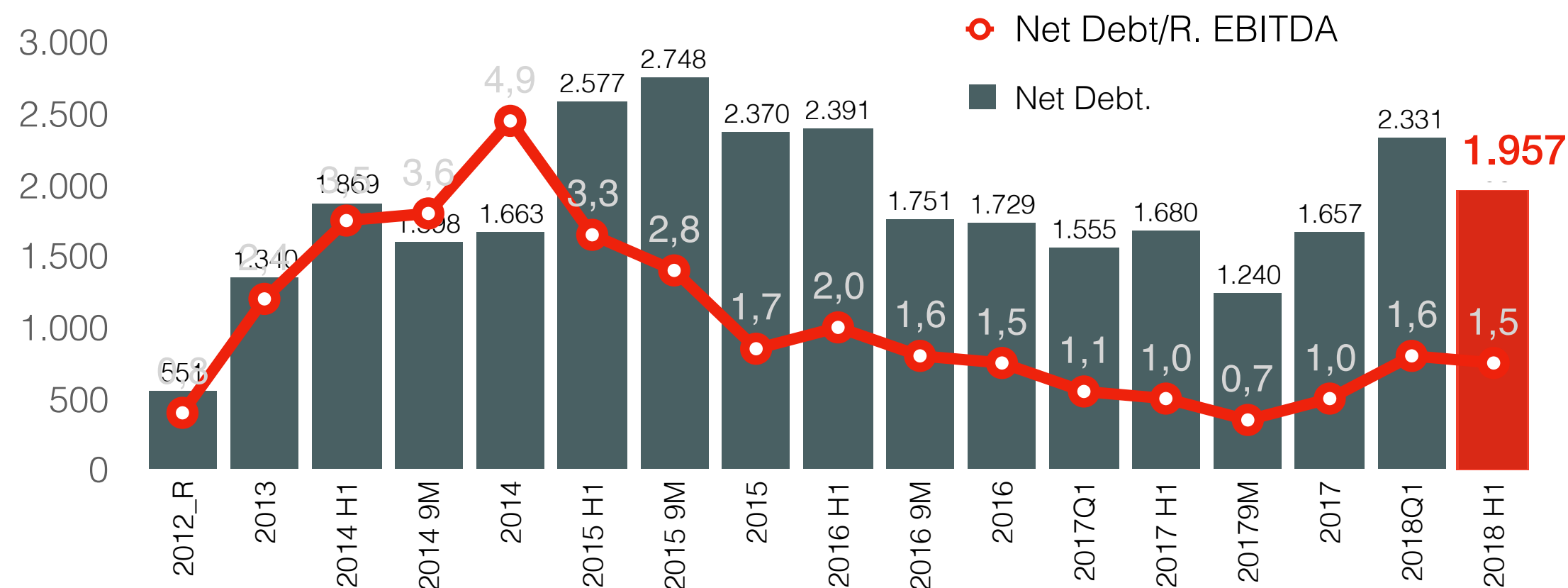
EBITDA



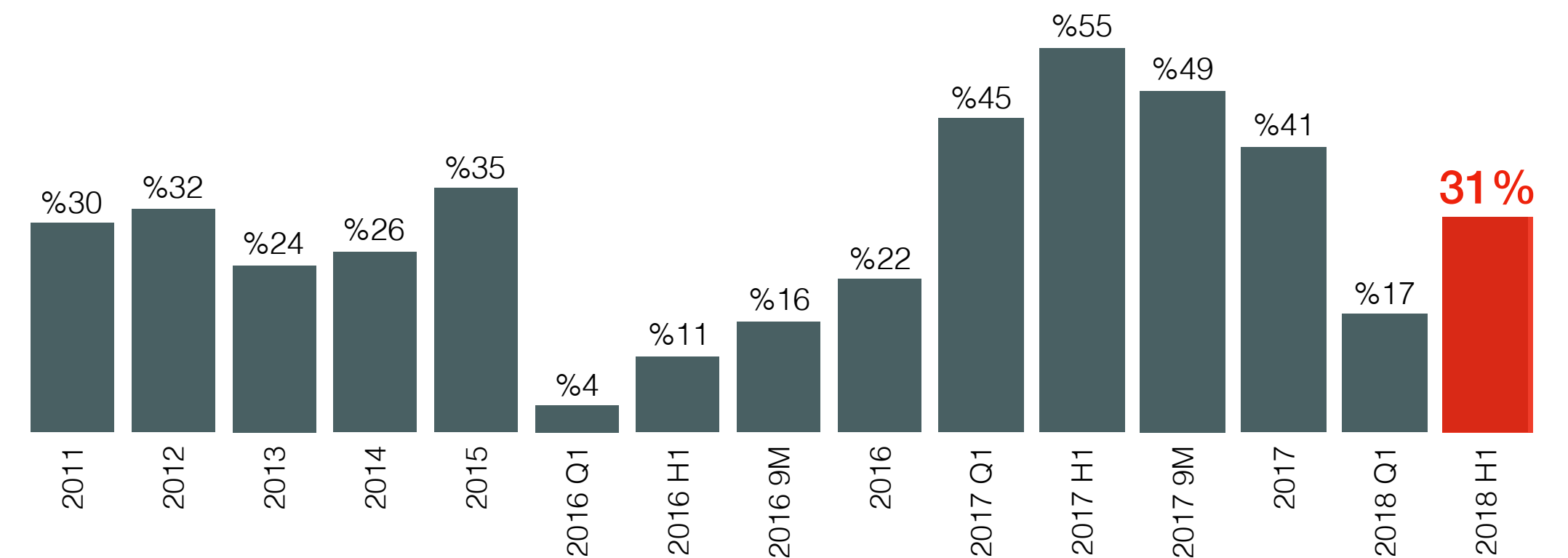
Net Income*



Net Debt- Net Debt/ Rolling EBITDA



Return of Average Equity

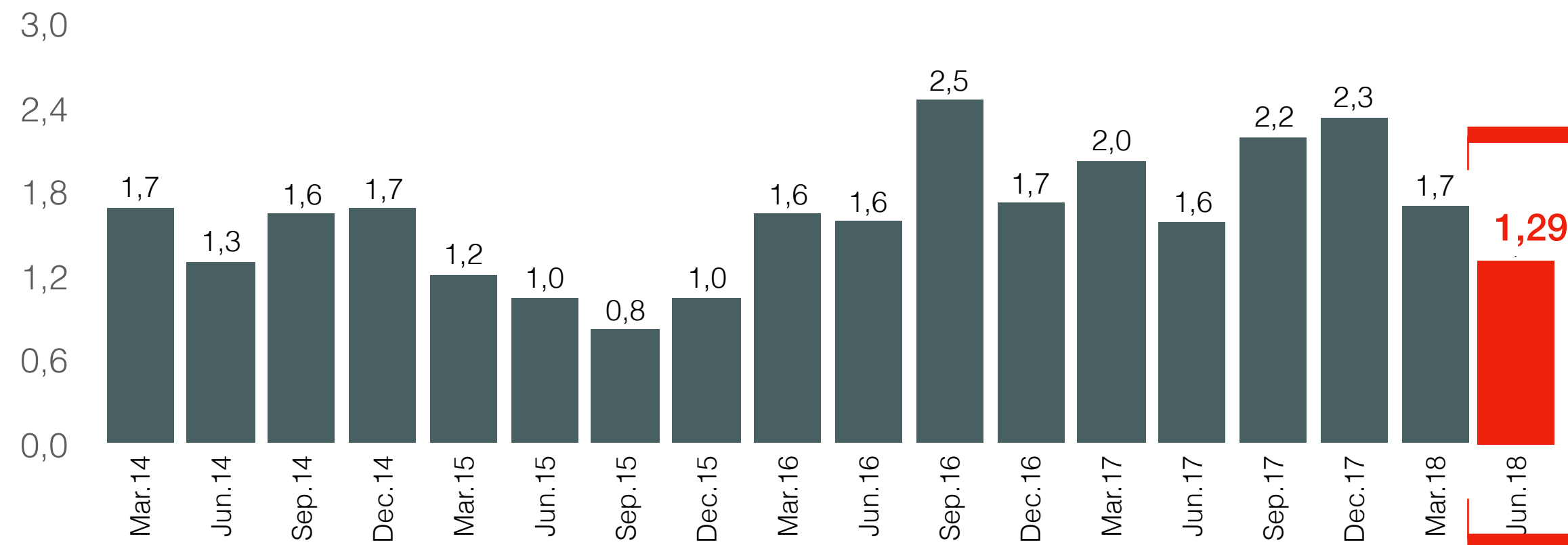


*Excluding minority interest

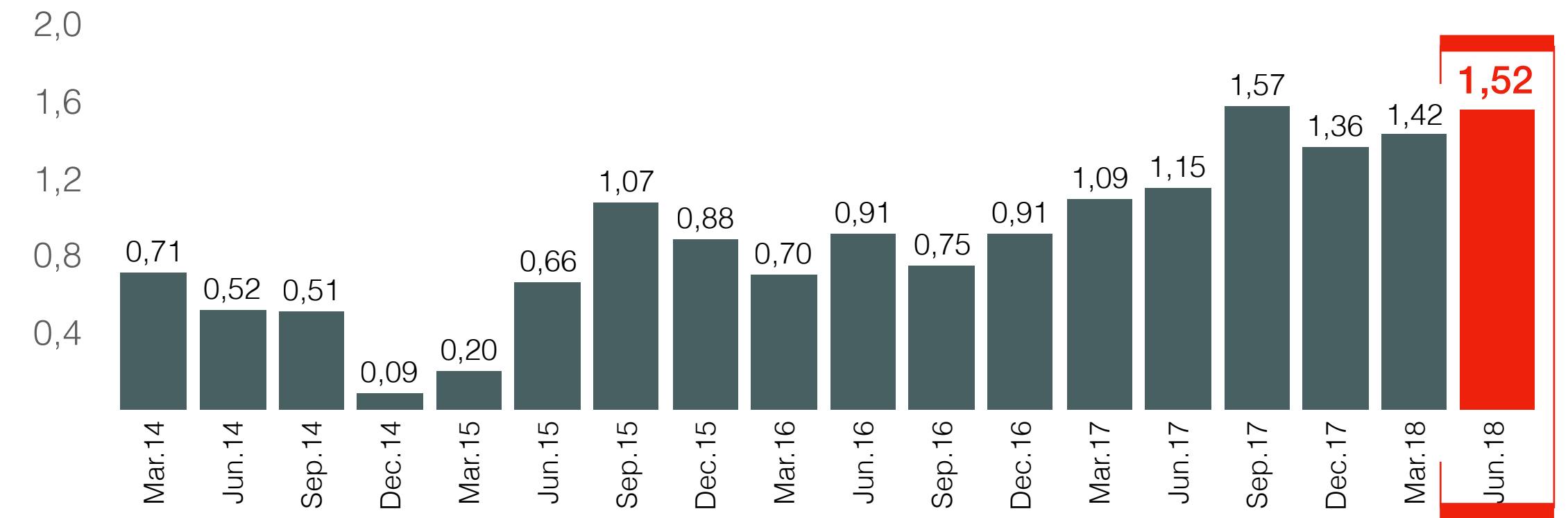
Balance Sheet Analysis (Billion \$)

Given our strong liquidity management and cash generation capabilities, our financial loans decreased to 3.2 Billion \$ ex-dividend.

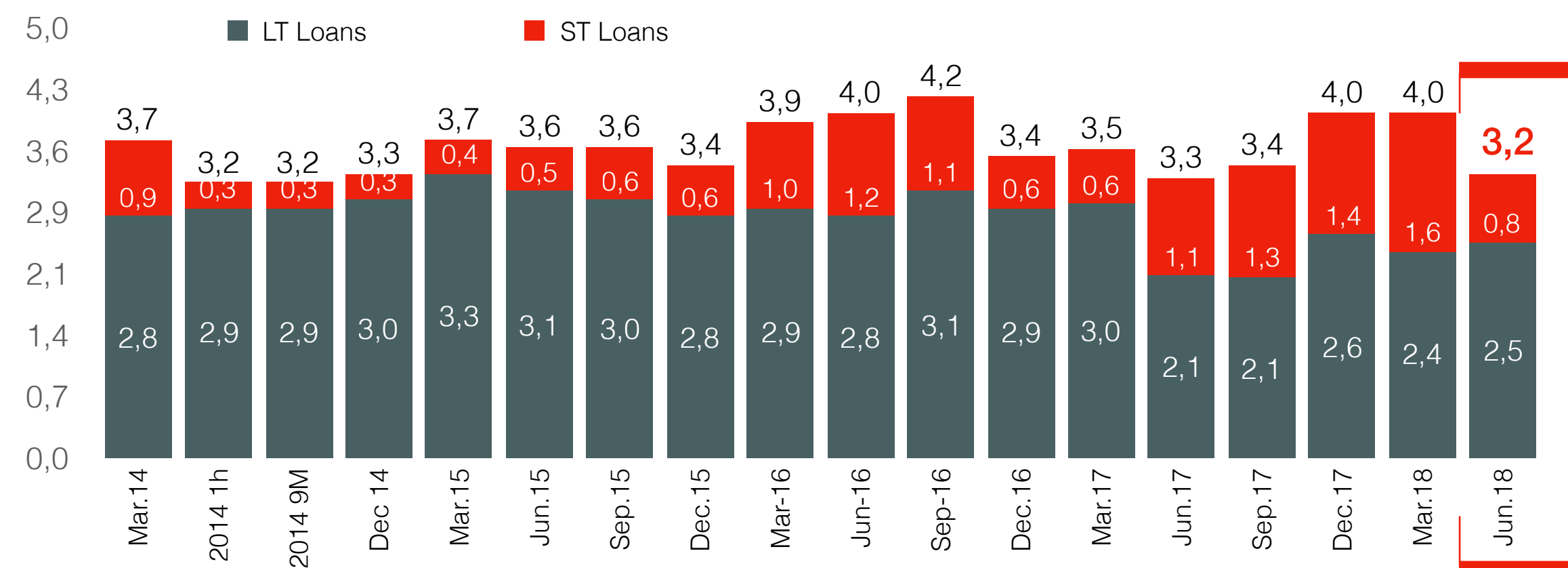
Cash & Cash Equivalents



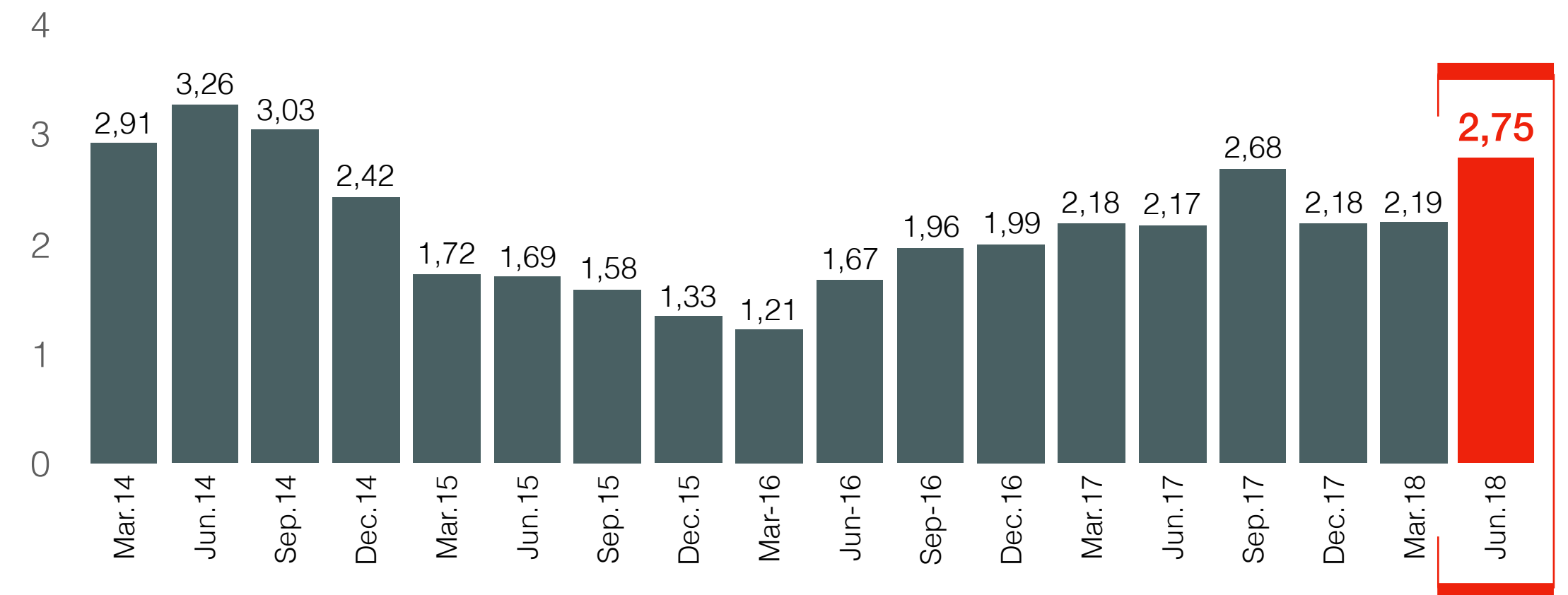
Trade Receivables



Financial Loans



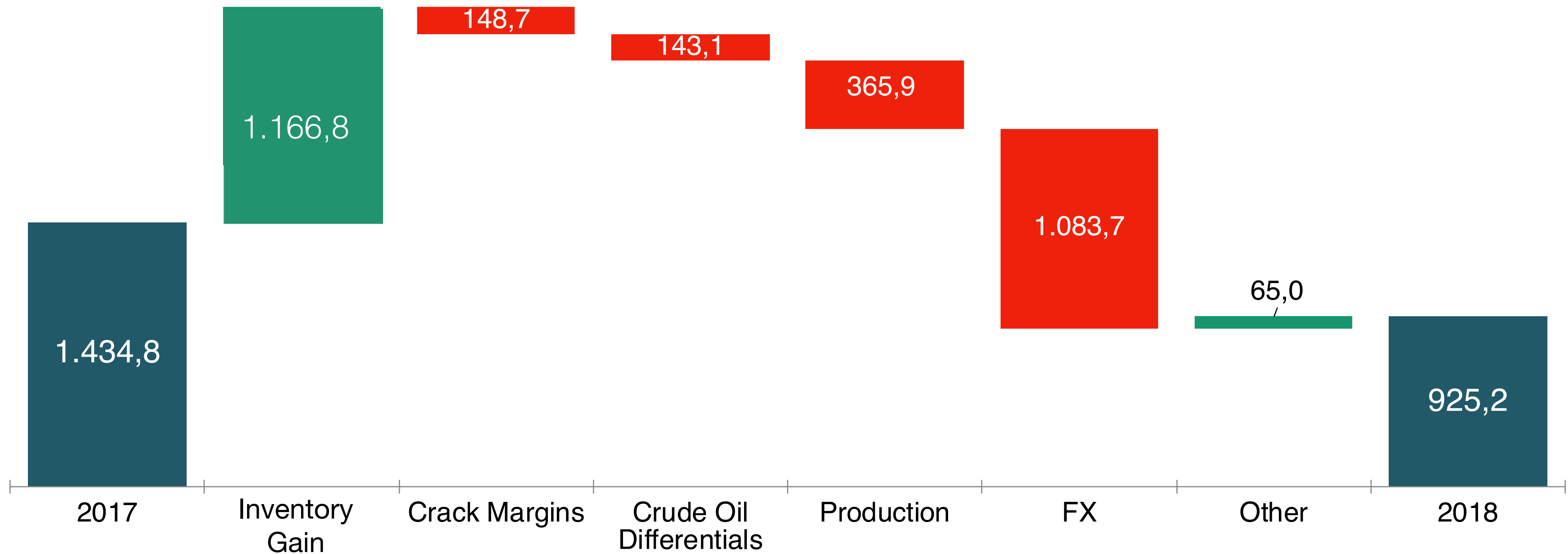
Trade Payables



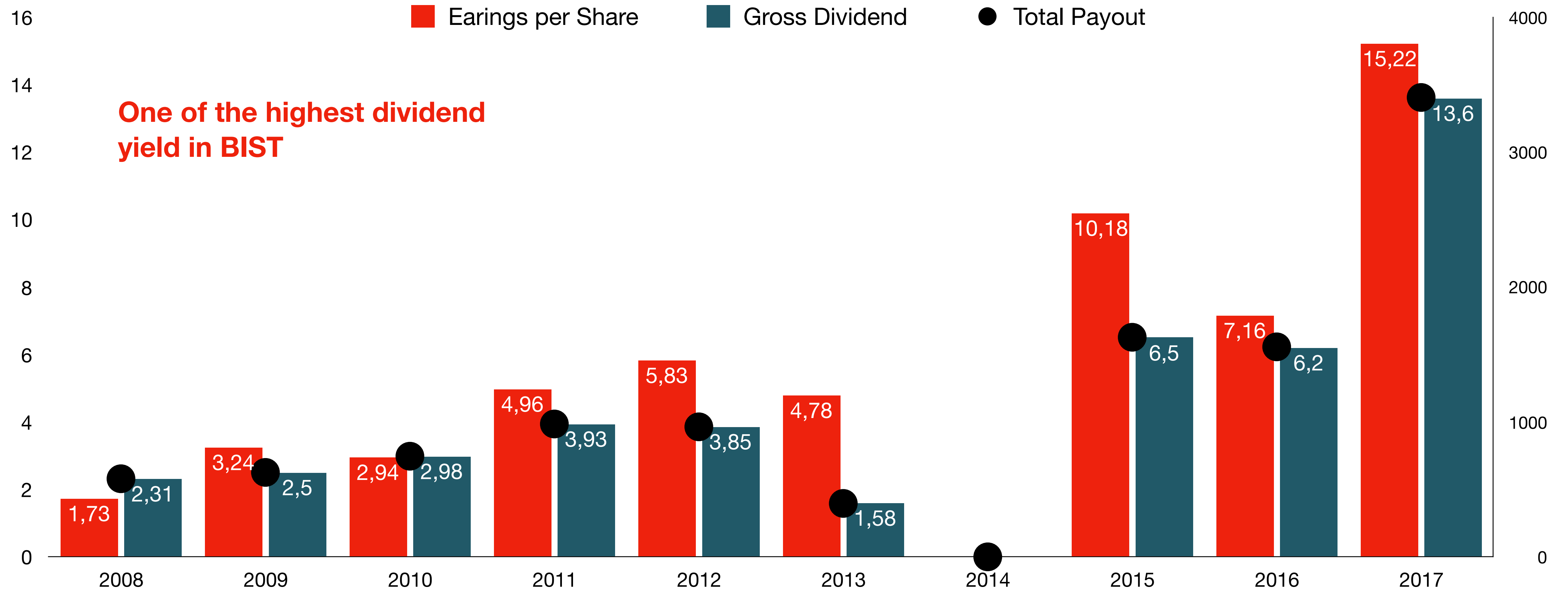
Q2 Profit Before Tax Bridge (2017-2018)

Decline in profit before tax was driven by FX loss and decrease in production, partially offset by inventory gain.

Million TL



Dividend (TL)



One of the highest dividend yield in BIST

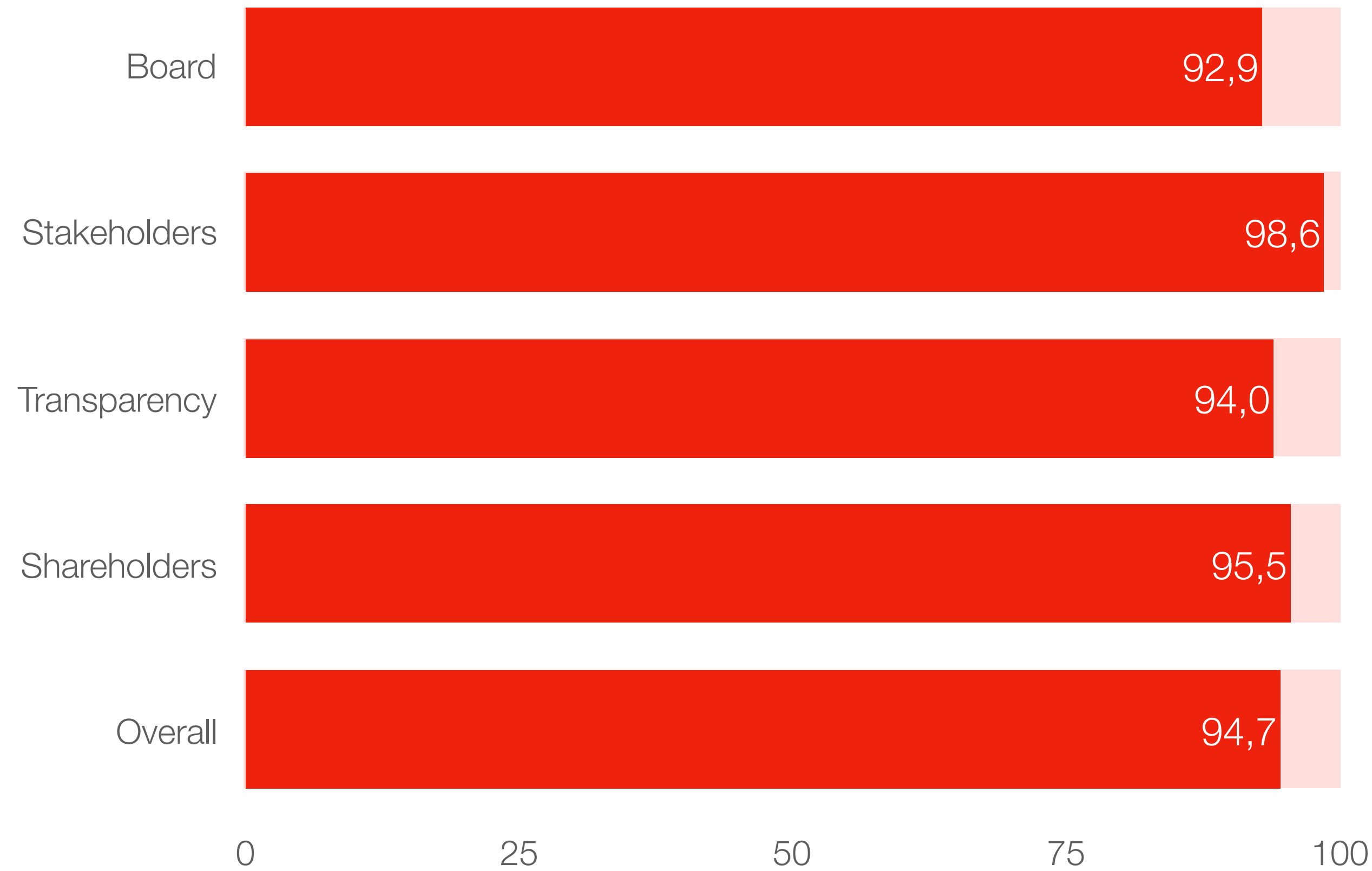
2012/2013 EPS includes the tax incentive

Tüpraş Balance Sheet

Million \$	31.12.2017	30.06.2018	Difference	%
Current Assets	5,399	4,813	-586	-11
Cash & C. Equivalents	2,334	1,291	-1,043	-45
Receivables	1,355	1,521	166	12
Derivatives	92	53	-39	-42
Inventories	1,403	1,689	286	20
Pre-paid expenses	17	32	15	93
Other Current Assets	199	227	28	14
Long Term Assets	4,718	4,002	-717	-15
Financial Assets & Subsidiaries	303	256	-47	-15
Fixed Assets	3,263	2,698	-566	-17
Derivatives	27	36	9	35
Pre-paid expenses	26	49	22	85
Deferred Tax	813	710	-103	-13
Other Long Term Assets	286	253	-33	-11
Total Assets	10,118	8,815	-1,303	-13
Short Term Liabilities	4,686	4,544	-142	-3
Financial Loans	1,398	795	-603	-43
Payables	2,219	2,766	547	25
Derivatives	47	56	9	20
Deferred Incomes	5	0	-5	-91
Provisions	24	25	1	5
Other ST Liabilities	993	900	-92	-9
Long Term Liabilities	2,654	2,505	-149	-6
Financial Loans	2,592	2,452	-140	-5
Payables & Provisions	59	50	-10	-17
Derivatives	1	3	2	201
Other LT Liabilities	1	1	0	-28
Equity	2,750	1,743	-1,007	-37
Minority Interests	28	23	-5	-18
Total Liabilities	10,118	8,815	-1,303	-13

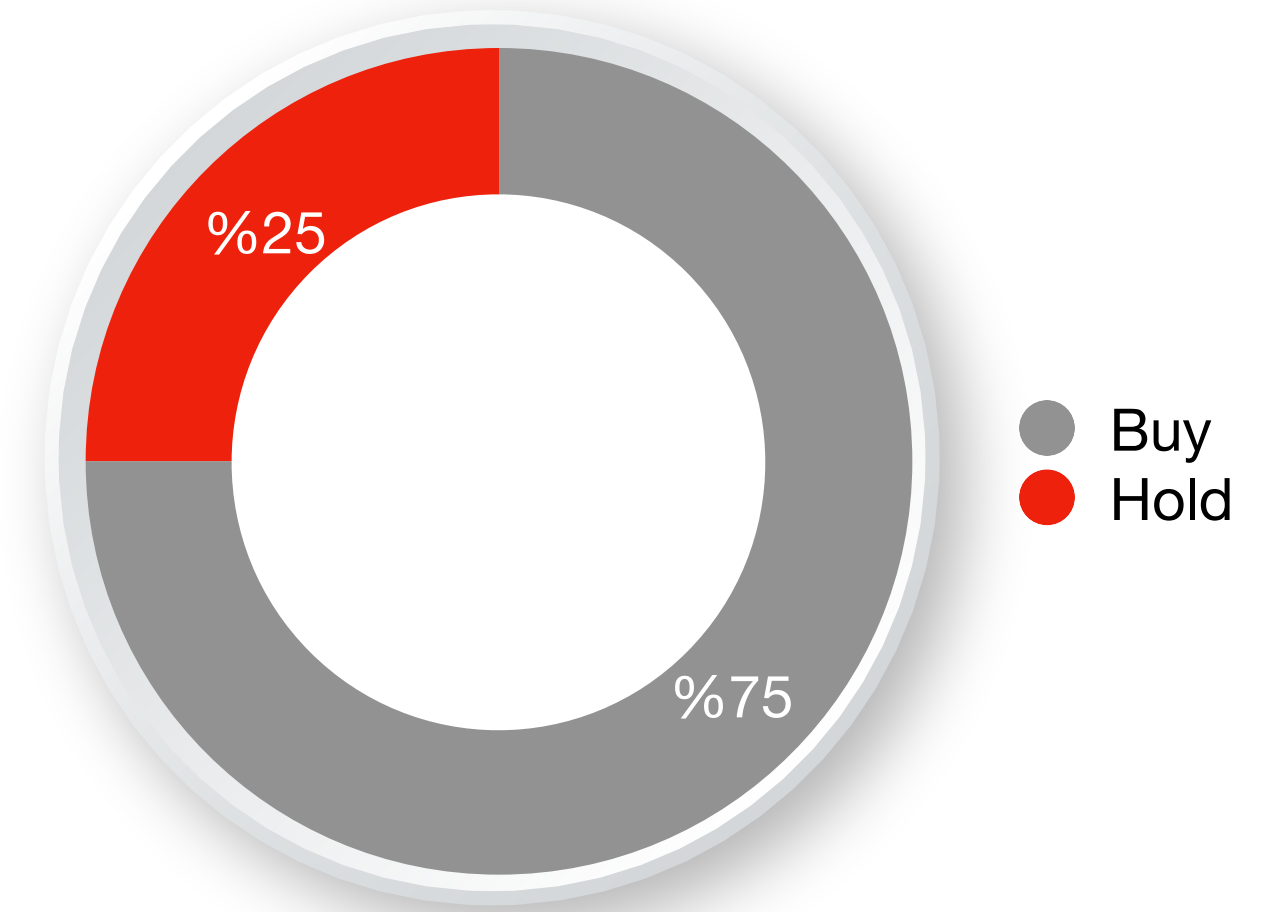
Creating Competitive & Sustainable Shareholder Value

Tüpraş has one of the highest Corporate Governance Ratings



Foreign Currency Long Term	FitchRatings	MOODY'S	S&P Global Ratings
Tüpraş	BB+(Neg.)	Ba2 (Negative)	
Türkiye	BB (Neg.)	Ba3 (Negative)	B+ (Stable)
Koç Holding		Ba2 (Negative)	BB+ (Stable)

Analyst Recommendations



Financial Policy

Financial Discipline: Risk management policies focusing on areas such as leverage, liquidity, counter party 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
- Counter party risk limits

Counter party 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

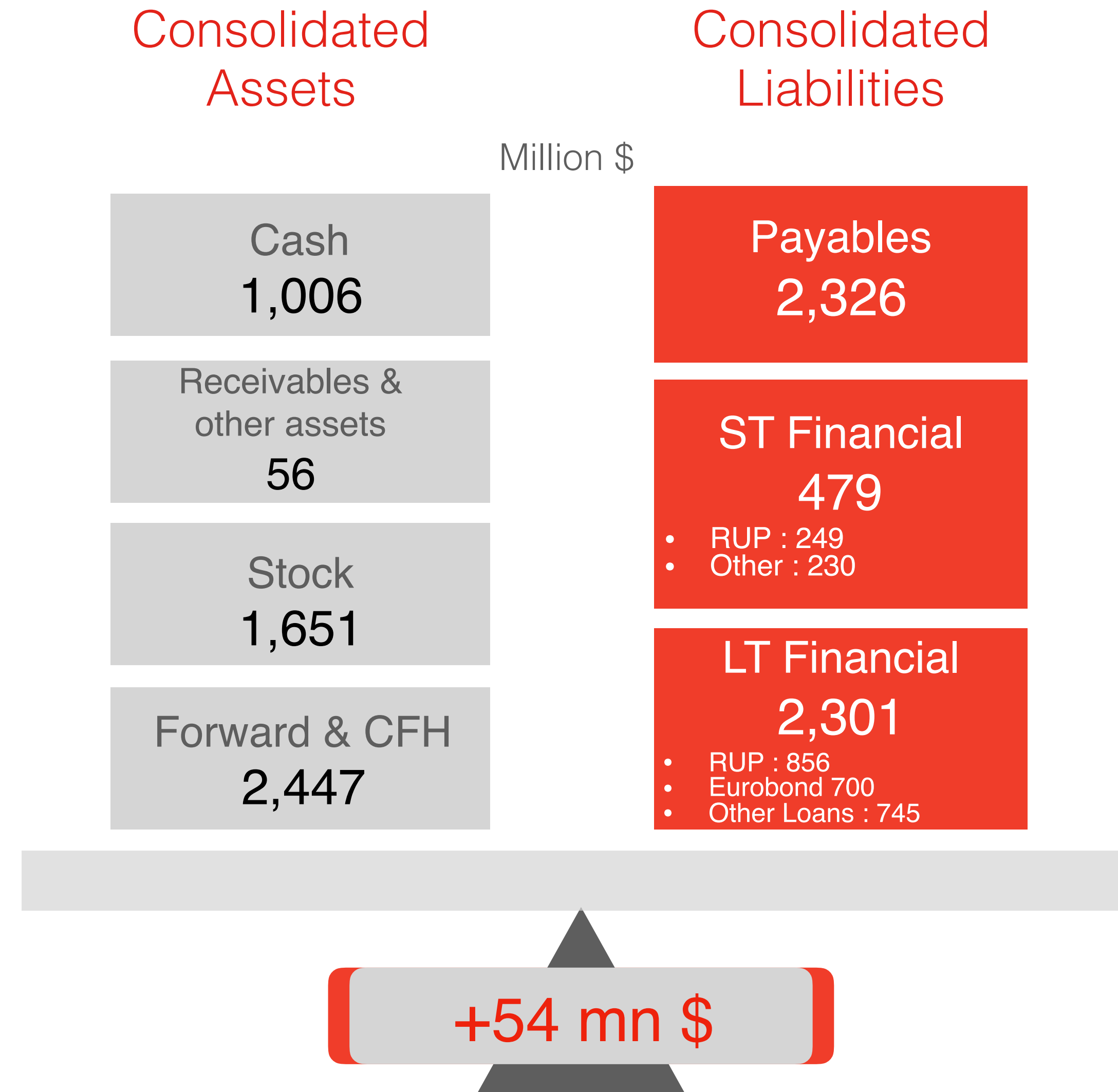
Margin Hedging Policy

- Crack margins: Gasoline, Diesel, Jet Fuel and Fuel Oil 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 Exposure Management (30 June 2018)

Active management of FX exposure kept the risk level within our limits.

- 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 : 1,119 mn \$

Tüpraş: Growing, Resilient, Profitable

Tüpraş is a compelling investment case with strong sales growth, resilient and profitable operational and financial structure.



Growing

- Operating in a diesel short market (supplies 45% of the market) , along with strong jet growth
- Well poised to capture future opportunities including IMO 2020 with its output complexity
- Continuous investment in logistics, infrastructure and trading capabilities



Resilient

- Strong balance sheet with no immediate rollover requirement for the rest of the year
- Secure receivables portfolio, tight working capital management
- Pricing mechanism in place to address commodity and FX fluctuations



Profitable

- Benefits from full system optimization given high complexity, procurement and logistics flexibility
- Prudent hedging practices to ensure stable earnings outlook
- High dividend pay-out ratio annually



OUTLOOK

2018 Refinery Maintenance Schedule & Capacity Utilization

Our year end total capacity utilization target has not changed. We expect full year-end total capacity utilization.

	Unit	Quarter	Duration (weeks)	Reason
İzmir	*Plt 7000 Crude Oil Unit	Q4 '17 - Q2' 18	17 in 2018	Revamp
	*Hydrocracker	Q1	3	Periodic Maintenance
	*Plt 4000 FCC	Q2	7	
İzmit	Plt 2 Crude Oil & Vacuum Unit	Q4	2 in 2018	Periodic Maintenance
	*Plt 5 Crude Oil & Vacuum Unit	Q2	8.5	
	Plt 25 Crude Oil & Vacuum Unit	Q4	5-6	
	*Plt 47 Hydrocracker Complex	Q2	11	
	Plt 63 CCR & DHP	Q4	5-6	
Kırıkkale	*All Units	Q1- Q2	10	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	Full

Future Expectations

We only updated our average Brent Price expectation. The rest of our expectations remain the same as before.

Brent Price Estimation

Average Brent price expectation in 2018 is revised to 70 - 75 \$/bbl per barrel

Med Complex Margin

Med Complex margin expectation is 4.75 - 5.00 \$/bbl in 2018

Tüpraş Net Margin

Net Tüpraş refinery margin is expected to be in the region of 7.50 - 8.00 \$/bbl

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 \$

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	4.500
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	1,1	0,3	1,4	4,1	-2,7
Petchem Feeds	0,2	2,6	2,8		
Gasoline	6,1		6,1	2,4	3,7
Jet Fuel	5,2	1,6	6,8	5,2	1,6
Diesel	10,7	4,5	15,2	26,5	-11,3
Coke	0,8	0,7	1,5	4,6	-3,1

Fuel Oil	1,8		1,8	1,3	0,5
Bitumen	3,1		3,1	3,1	

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

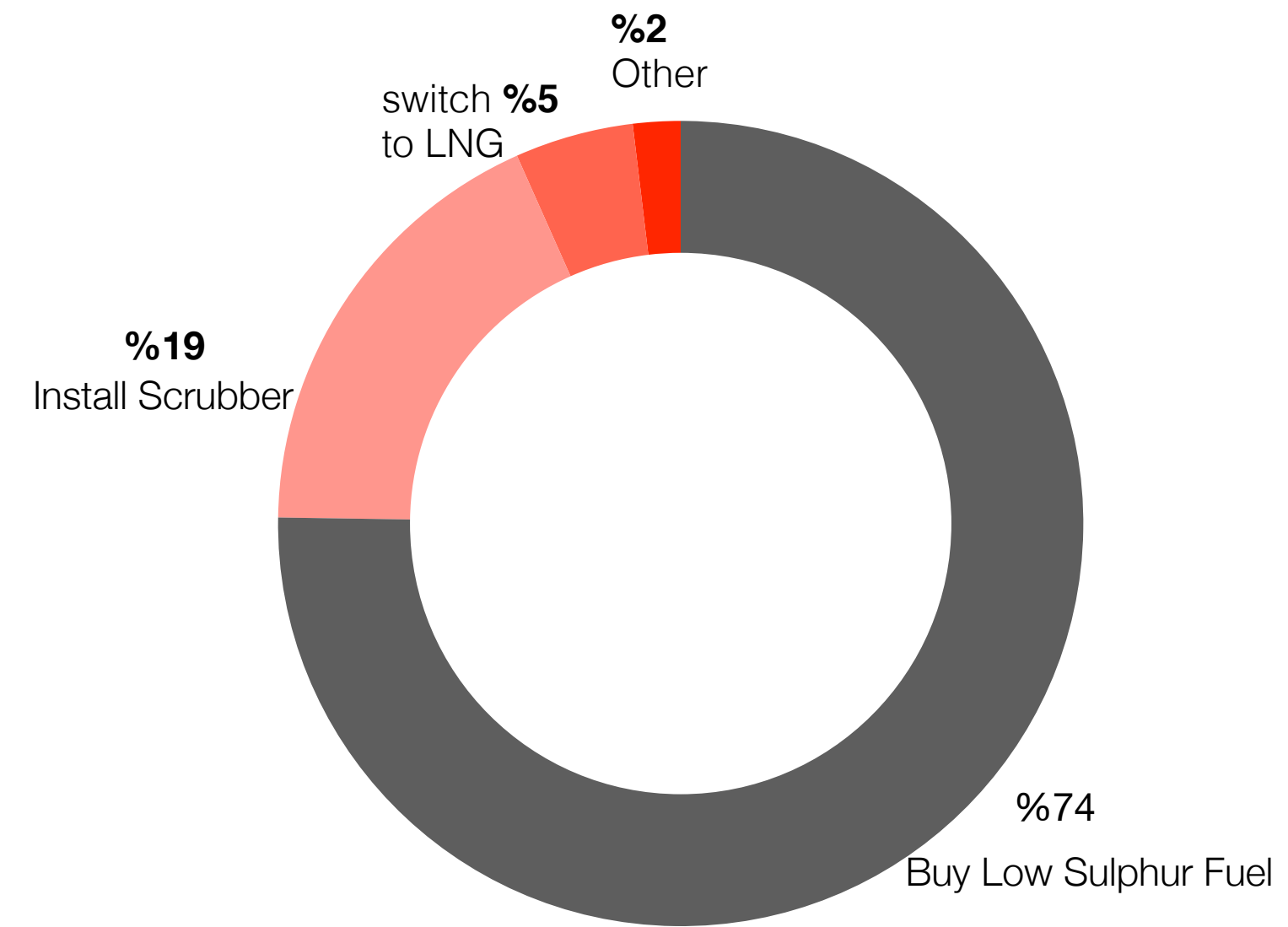
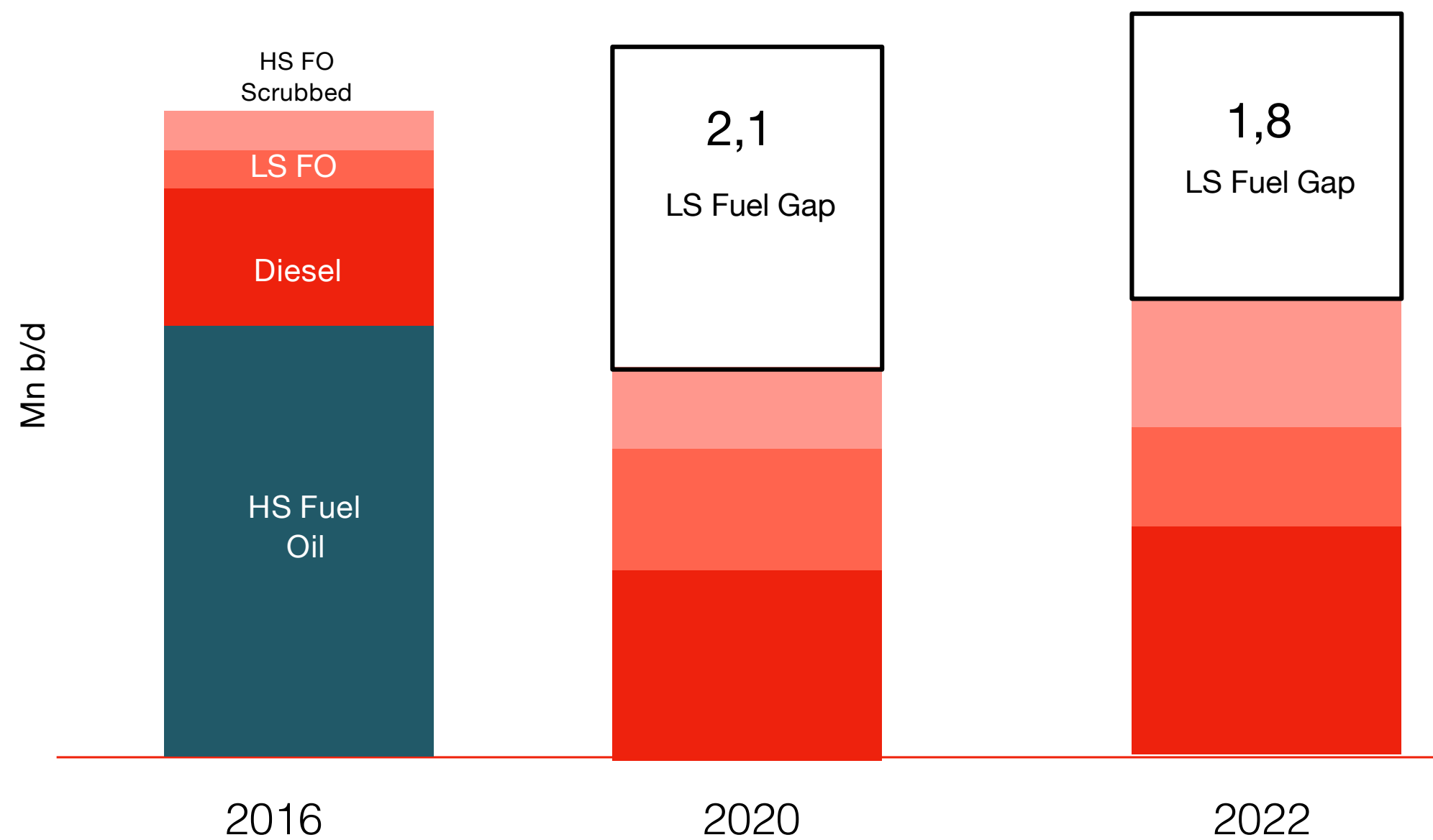
Black Sea



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;

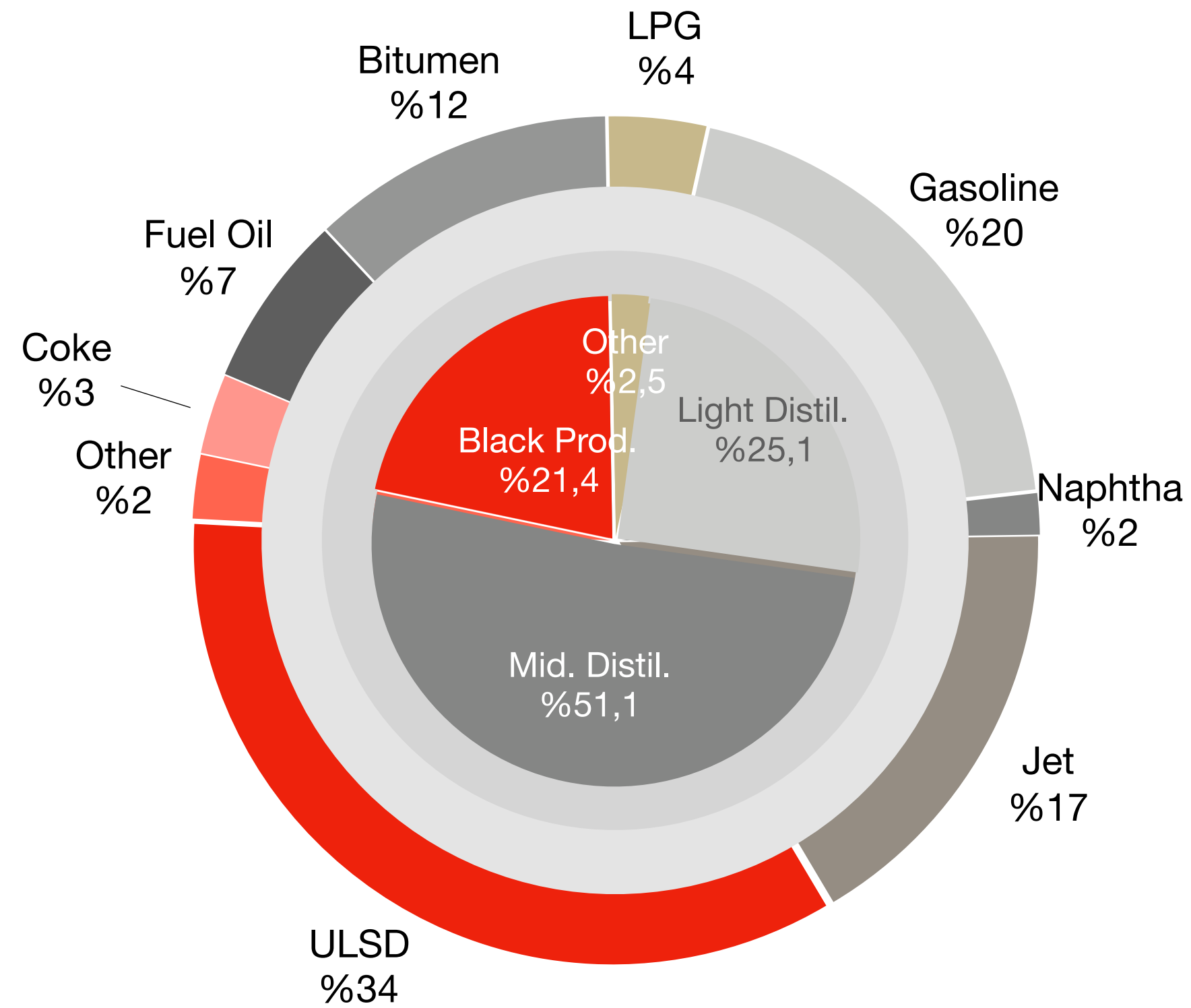
- ~5% of global oil demand
- 40% of oil related sulphur emissions.



Appendix

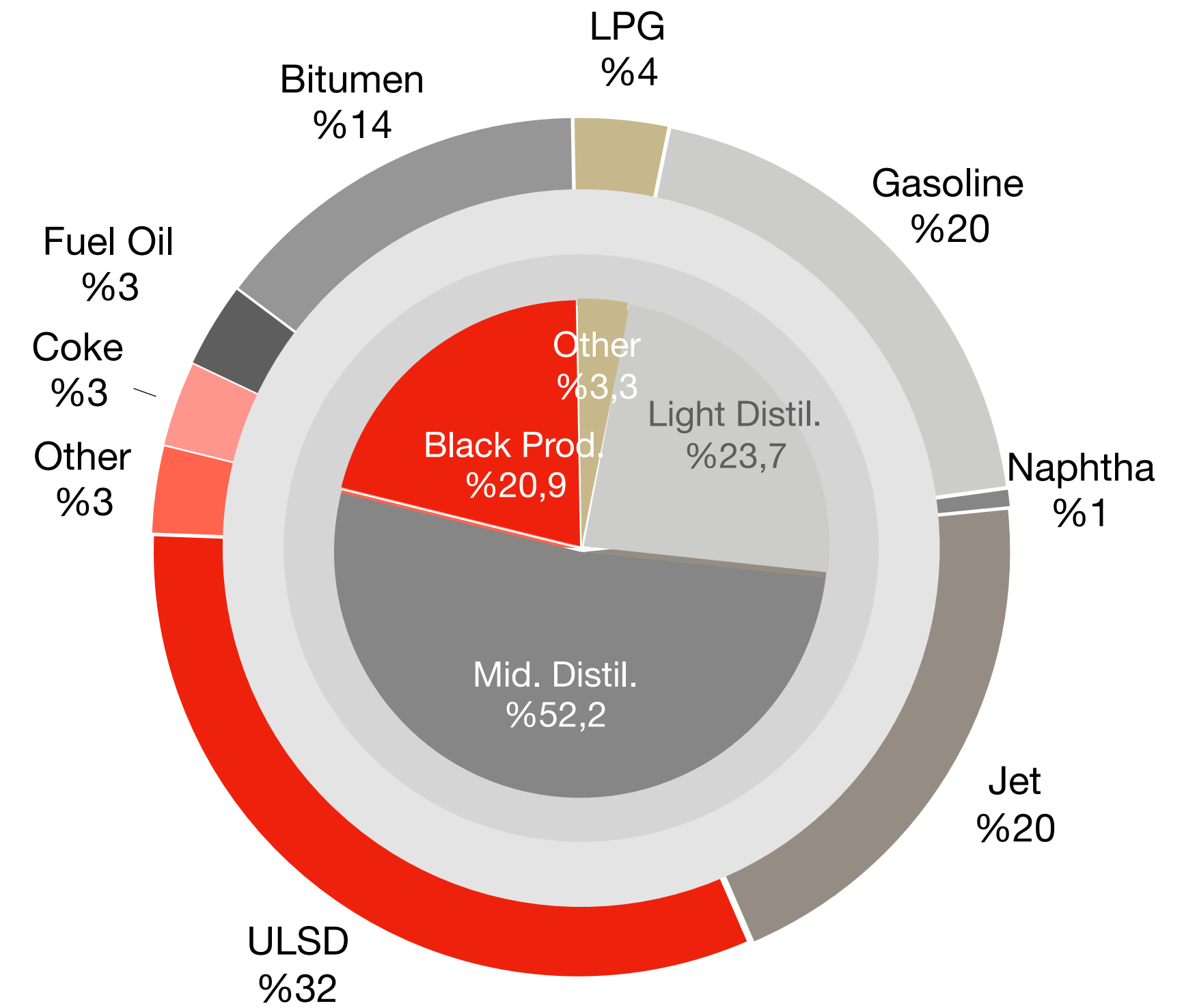
Q2 Product Yields

2017



White Products	%77.34
Production	7.8 mn tons
API	30.37

2018

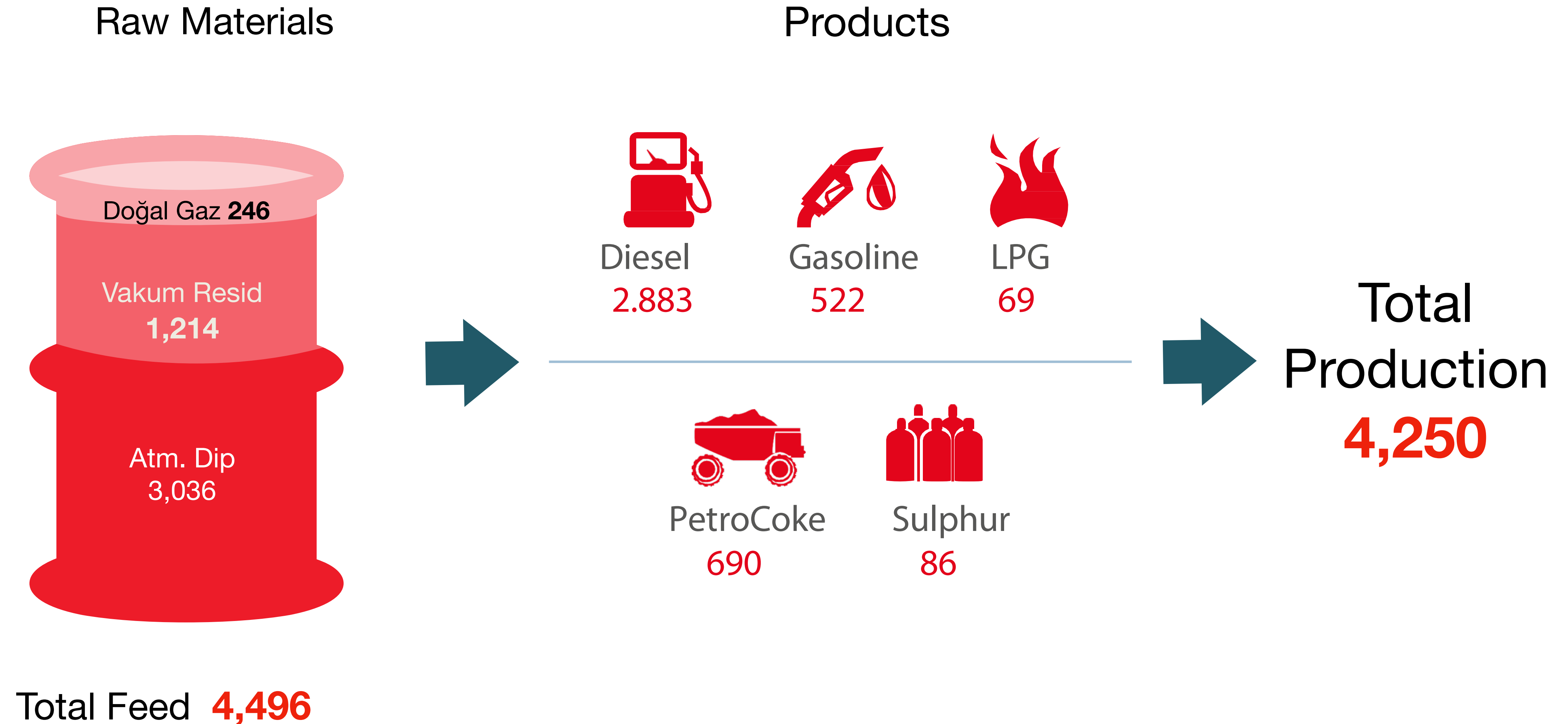


White Products	%78.02
Production	6.2 mn tons
API	30.98

Crack Margin Effect on Tüpraş in Q2 (FOB Italy Prices)

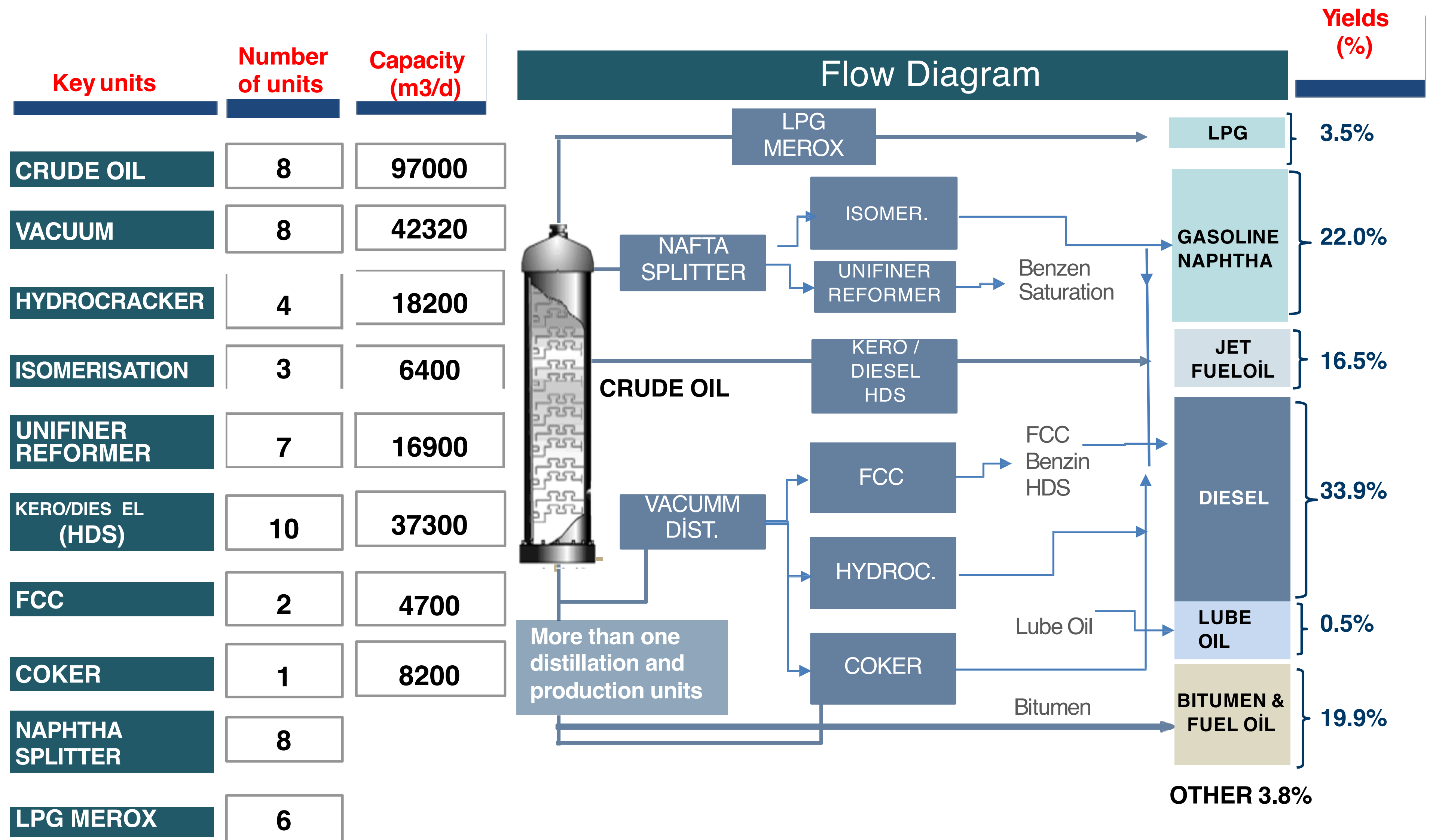
	Product Price, \$/ton		Tüpraş	Crack Margin, \$/bbl	
	2018	2017	2018 Production Yields	2018	2017
LPG	488	357	3.3	-30.9	-18.1
Gasoline	707	521	18.4	12.7	14.3
Naphtha	618	417	0.6	-4.6	-2.7
Jet Fuel	693	470	18.9	13.8	9.9
Diesel	657	451	29.3	13.9	10.7
Diesel 1000	643	438	0.9	12.1	9.0
Fuel Oil 1%	414	298	0.2	-10.6	-3.9
Fuel Oil 3.5%	401	278	3.5	-12.4	-7.0
Others	358	254	20.4	-14.6	-7.3
Dated Brent,\$/bbl	74,35	49,83			
Total Crack Margin,\$/bbl				4.6	5.4
Margin Difference, \$/bbl				-0.7	
Total Processed, mn bbl				46.29	
Total Effect, mn \$				-34.1	
Total Effect, mn TL				-148.7	

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



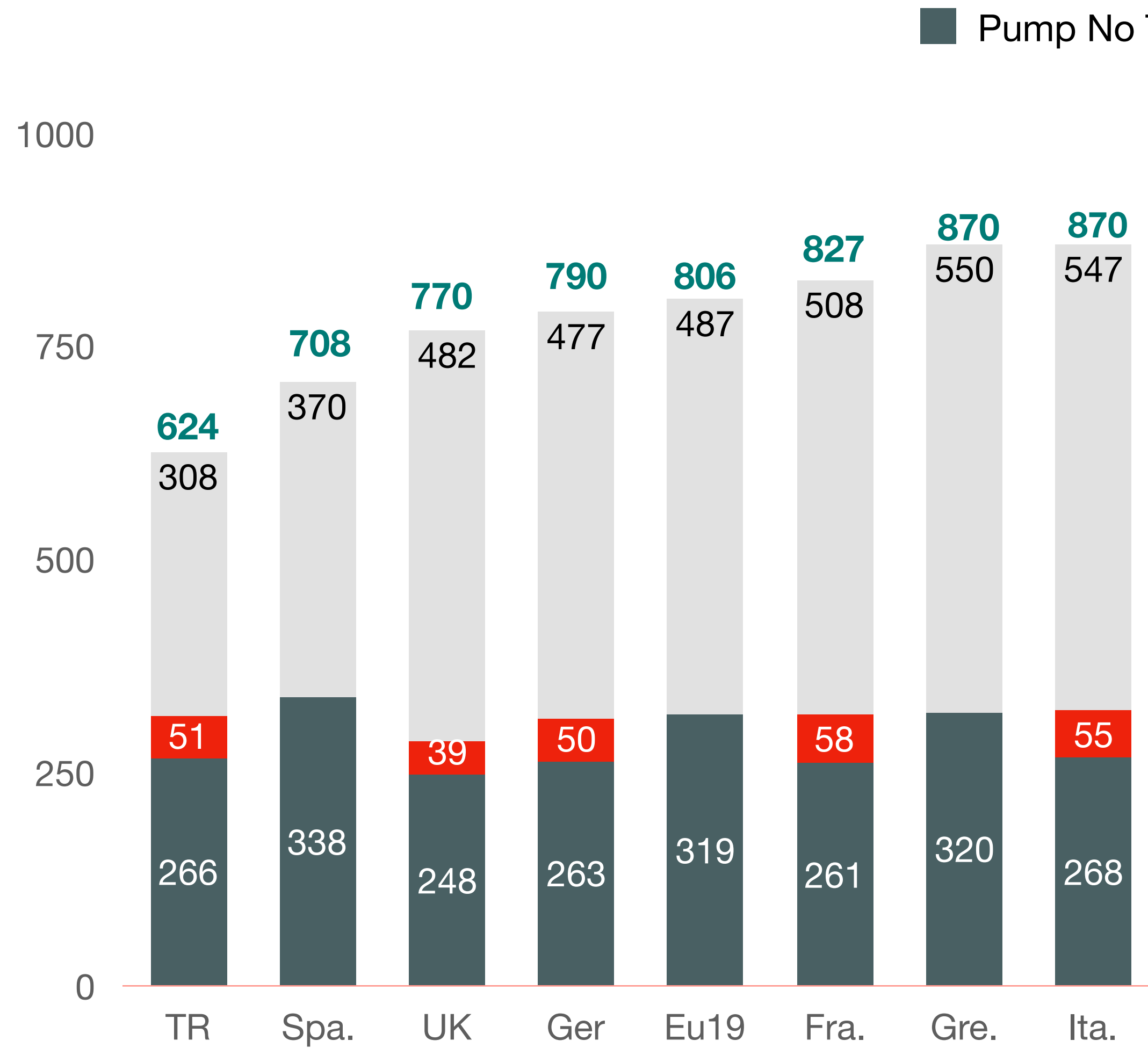
Flexibility & Reliability; Multiple routes to maksimum capacity

- Increased conversion capacity
- Strong integration among refineries

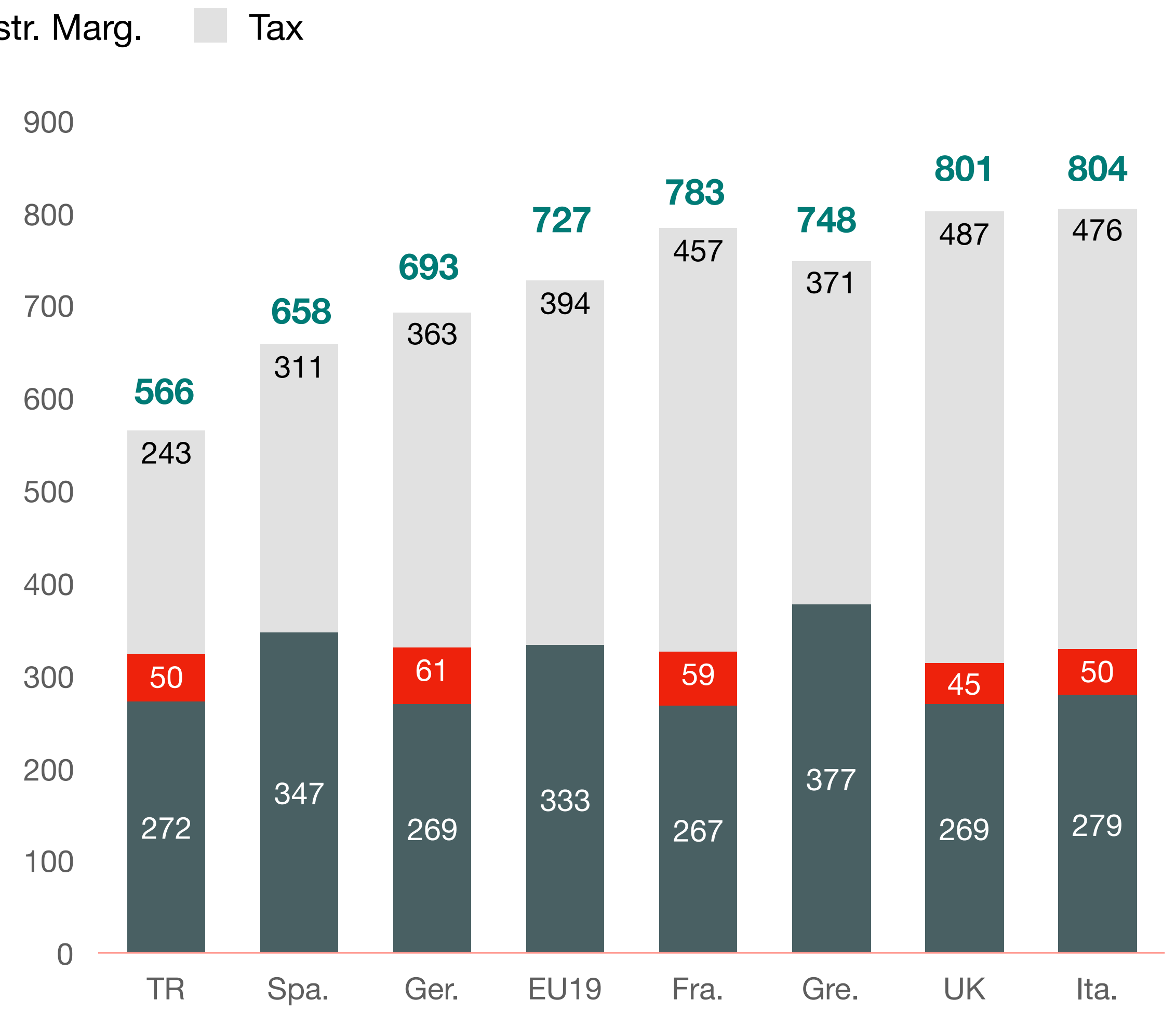


Competition (European Pump Price Comparison)

Gasoline (Krş / Lt)

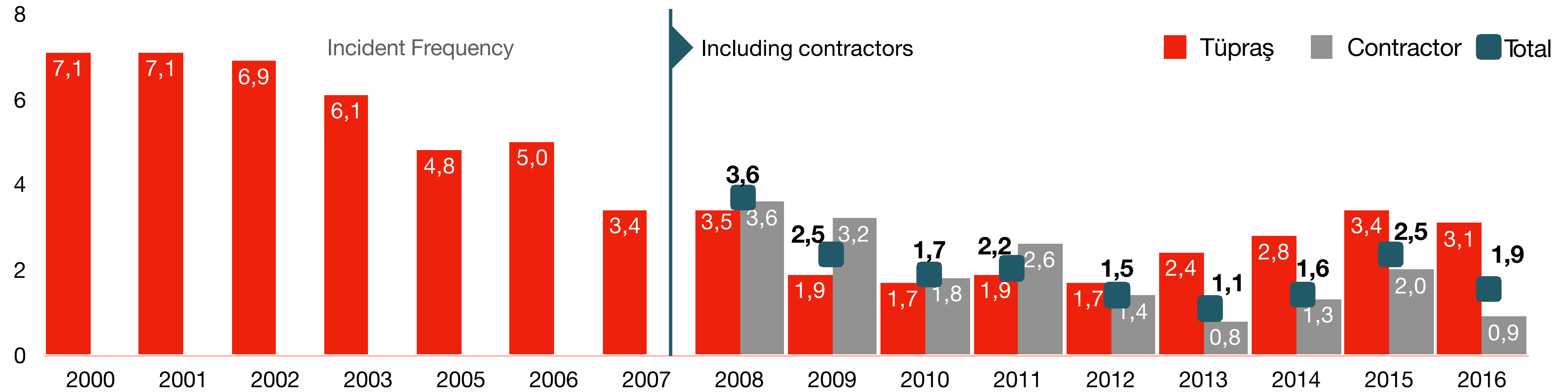


Diesel 10 (Krş / Lt)



Not: Prices valid on 21 May 2018-Turkey price as of May 22th 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 frequency rate = number of incident * 1000000 / man hours
 loss severity frequency rate = loss time * 1000000 / man hours

Koç Holding

Turkey's Leading Investment Holding Company

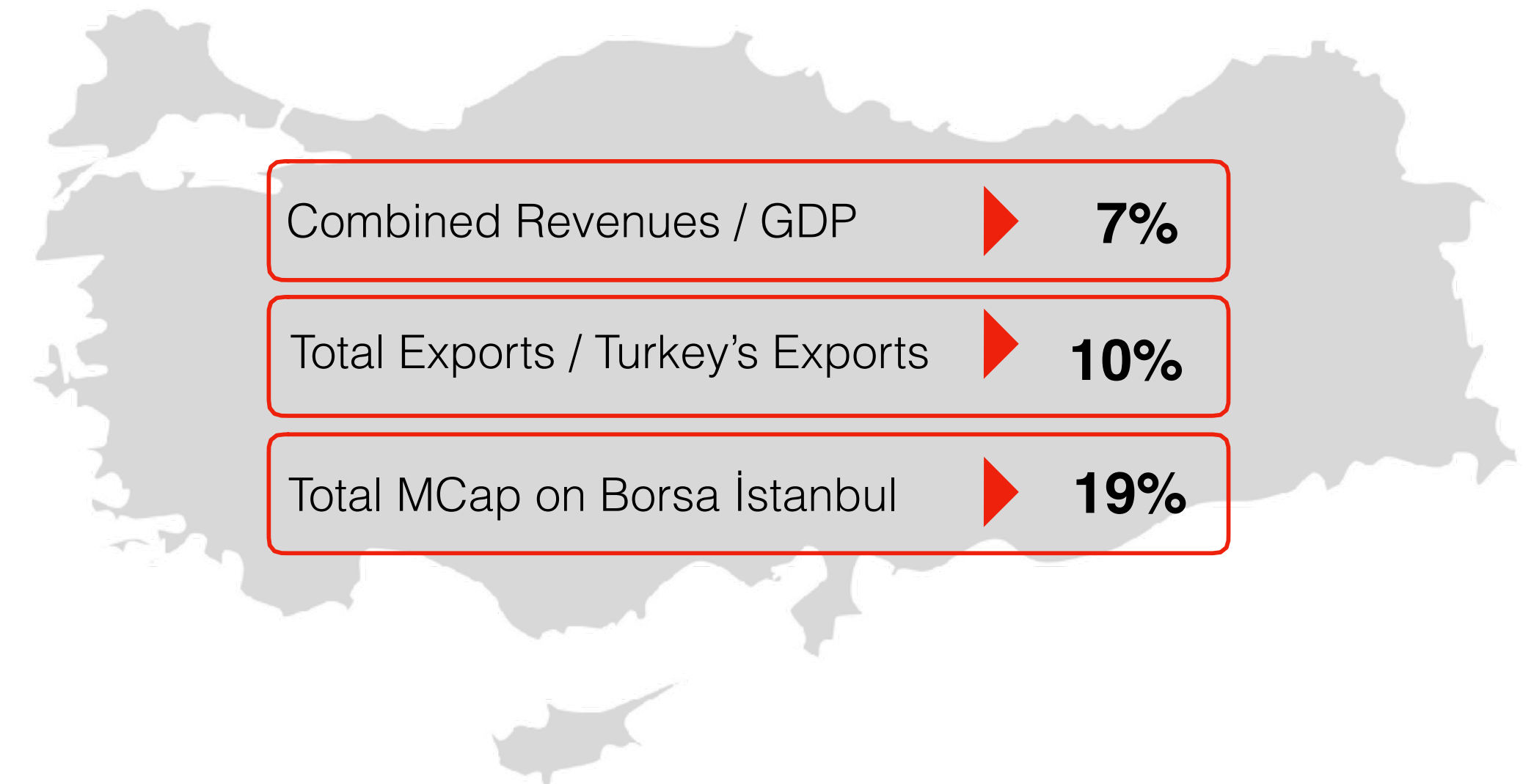
Turkey's largest industrial and services group in terms of revenues, exports, employees, taxes paid and market capitalization.

Turkey's Leading Investment Holding Company

- The only Turkish company in Fortuna 500¹
- 16% CARG in consolidated profit² 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

 **Tüpraş**

 **Koç**