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TÜPRAŞ IN BRIEF

TÜPRAŞ IS THE LARGEST INDUSTRIAL COMPANY IN TURKEY IN TERMS OF TURNOVER AND THE ADDED VALUE IT CREATES.

THE ROOTS OF TÜPRAŞ, WHICH HAS BECOME AN INTEGRATED OIL COMPANY IN TERMS OF ITS MARKETS, CORPORATE RELIABILITY, PRODUCTION COMPLEXES AND PARTNERSHIPS, GO RIGHT BACK TO THE BATMAN REFINERY, WHICH WAS ESTABLISHED IN 1955 WITH THE AIM OF PROCESSING DOMESTIC CRUDE OIL. THE ACTIVITIES OF THE FOUR REFINERIES ESTABLISHED IN KOCAELI, İZMİR, KIRIKKALE AND BATMAN HAVE CONTINUED UNDER THE ROOF OF TÜPRAŞ SINCE 1983. AS A RESULT OF THE SIGNIFICANT CAPACITY INCREASES AND INVESTMENTS IN CONVERSION UNITS REALIZED BY TÜPRAŞ AT ITS FOUR REFINERIES OVER THE YEARS, TÜPRAŞ REGISTERED A COMBINED DESIGN CAPACITY OF 30 MILLION TONS FOR ITS REFINERIES IN 2019.

AS TURKEY'S LARGEST REFINERY AND EUROPE'S 7TH LARGEST REFINERY IN TERMS OF ITS TURNOVER AND THE ADDED VALUE IT CREATES, TÜPRAŞ IS ONE OF THE FEW REFINERIES WITH A HIGH COMPLEXITY INDEX IN THE MEDITERRANEAN, WITH AN AVERAGE NELSON COMPLEXITY INDEX OF 9.5.

TÜPRAŞ IS ALSO FOLLOWING POSSIBLE OPPORTUNITIES FOR BUSINESS AND INVESTMENT IN DOMESTIC AND FOREIGN AREAS. IN LINE WITH ITS STRATEGY OF DIVERSIFYING ITS BUSINESSES, THE COMPANY AIMS TO INVEST IN SECTORAL INTEGRATION, ALTERNATIVE ENERGY RESOURCES AND START-UPS. IN THE RENEWABLE ENERGY FIELD, TÜPRAŞ AIMS TO REDUCE ITS ENERGY COSTS AND CARBON FOOTPRINT BY GIVING PRIORITY TO MEETING THE ENERGY NEEDS OF ITS OWN REFINERIES.

EXPERIENCED

**TÜPRAŞ COMBINES
THE RIGHT BUSINESS
STRATEGIES IT
DEVELOPS WITH ITS
VAST EXPERIENCE
IN THE SECTOR AND
REFLECTS THIS TO
ITS PRACTICES. WITH
ITS ABILITY TO ADAPT
TO RISING GLOBAL
COMPETITION, IT
CARRIES ITS STRONG
POSITION FORWARD.**







DIGITAL



TÜPRAŞ, WHICH COMMISSIONED THE INNOVATION PROGRAM TO BRING THE LATEST TECHNOLOGIES DEVELOPED AROUND THE WORLD TO ITS OPERATIONS, HAS ACHIEVED SIGNIFICANT PROGRESS IN THE DIGITAL TRANSFORMATION AND INDUSTRY 4.0 PROJECTS.

DYNAMIC



**TÜPRAŞ' HUMAN RESOURCES,
WHOSE SCIENTIFIC AND
OPERATIONAL COMPETENCIES
ARE DEVELOPED THROUGH
CONTINUOUS TRAINING AND
CAREER PLANS, WORKS WITH
STRONG MOTIVATION AND
DYNAMISM.**



SUSTAIN

TÜPRAŞ PRIORITIZES LONG-TERM SUSTAINABLE INVESTMENTS WITH LOW CARBON EMISSIONS, WHILE TAKING STEPS TO MORE EFFICIENT PRODUCTION TECHNOLOGIES AND RENEWABLE ENERGY INVESTMENTS.

NABLE



TÜPRAŞ AT A GLANCE

75%

Tüpraş accounts for 75% of Turkey's current refining capacity.

❶ İZMİT REFINERY

Capacity: 11.3 million tons/year

Nelson Complexity: 14.5

Storage Capacity: 3.0 million m³

❷ KÖRFEZ OPET TERMINAL

Storage Capacity: 45,450 m³

❸ DİTAŞ

3 Crude Oil Tankers: 479,765 DWT

1 Crude Oil/Product Tanker: 51,532 DWT

10 Product Tankers: 171,453 DWT

3 Product Tankers under Bareboat Lease Contract: 46,031 DWT

12 Tugboats,

7 Mooring Boats

2 Service Boats

1 Pilot Boat

❹ KÖRFEZ ULAŞTIRMA A.Ş.

439 Wagons (Owned)

26 Wagons (Opet)

5 Locomotives (TCDD rental)

5 Locomotives (Owned)

❺ MARMARA OPET TERMINAL

Storage Capacity: 721 thousand m³

İZMİR REFINERY

Capacity: 11.9 million tons/year

Nelson Complexity: 7.66

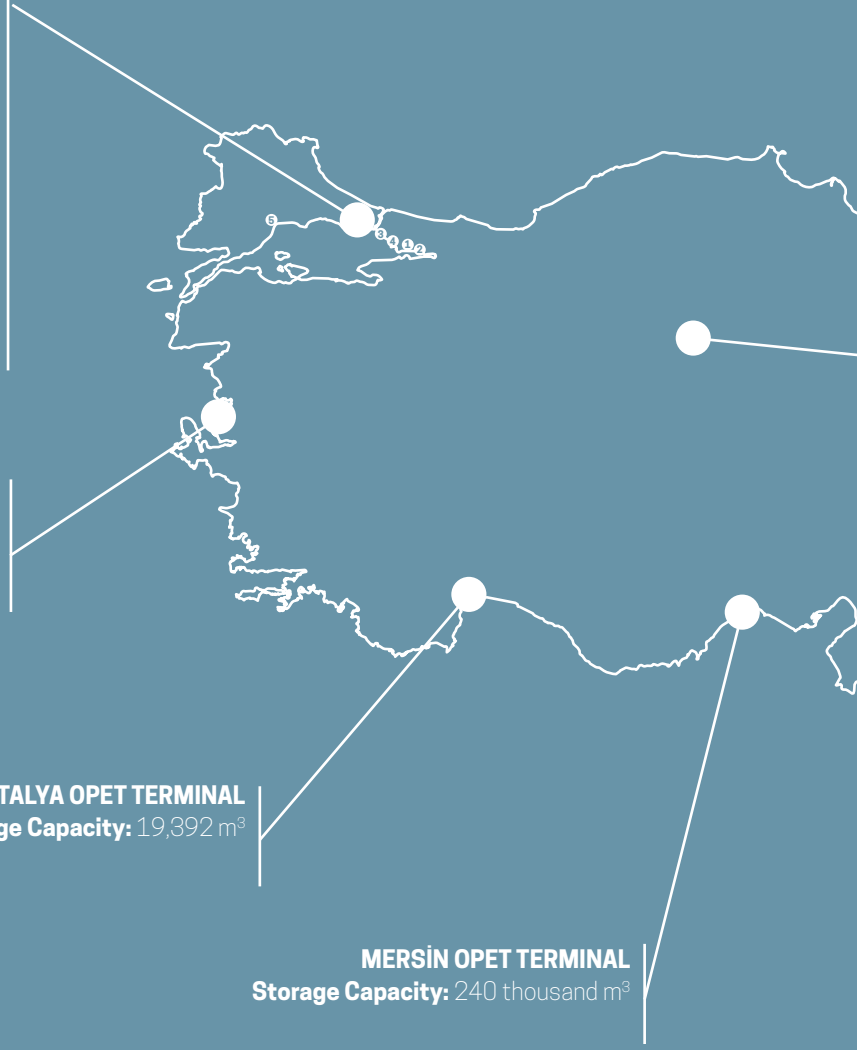
Storage Capacity: 2.5 million m³

ANTALYA OPET TERMINAL

Storage Capacity: 19,392 m³

MERSİN OPET TERMINAL

Storage Capacity: 240 thousand m³



55%

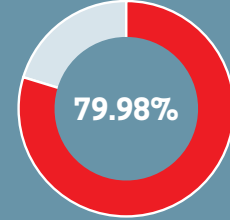
Tüpraş has 55% share in Turkey's total petroleum products market consisting of gasoline, diesel, fuel oil and jet fuel.

GİRESUN OPET TERMINAL
Storage Capacity: 43,130 m³

KIRIKKALE REFINERY
Capacity: 5.4 million tons/year
Nelson Complexity: 6.32
Storage Capacity: 1.3 million m³

BATMAN REFINERY
Capacity: 1.4 million tons/year
Nelson Complexity: 1.83
Storage Capacity: 299 thousand m³

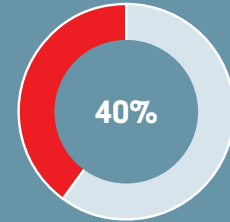
Ditaş



Tüpraş holds **79.98%** of Ditaş's shares

With a total of 14 tankers and about 703 thousand DWT carriage capacity Ditaş has Turkey's largest fleet of fuel products and provides significant operational and cost advantages to Tüpraş.

Opet



Tüpraş holds **40%** of Opet's shares

With its 1,670 stations and storage capacity of 1.1 million m³, Opet operates a wide service area in Turkey with five terminals, and provides superior products and services to customers.

Körfez Ulaştırma



Körfez Ulaştırma A.Ş., whose all shares belong to Tüpraş, is the first private railway operator in Turkey.

KEY INDICATORS

TÜPRAŞ ACHIEVED AN OPERATING PROFIT OF TL 2,230 MILLION DESPITE THE VOLATILITY IN CRUDE OIL PRICES THROUGHOUT THE YEAR AND THE PLANNED MAINTENANCE.

4,039

AT YEAR-END 2019, TÜPRAŞ'S EBITDA WAS TL 4,309 MILLION.

Financial Indicators (TL million)

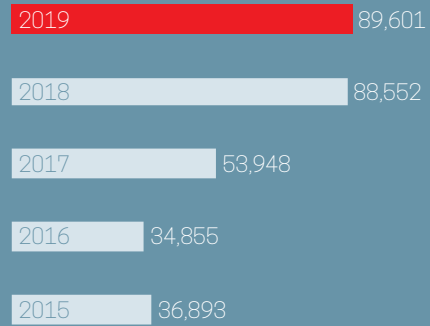
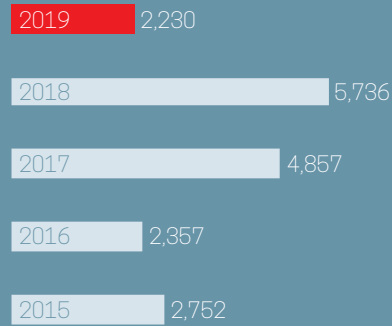
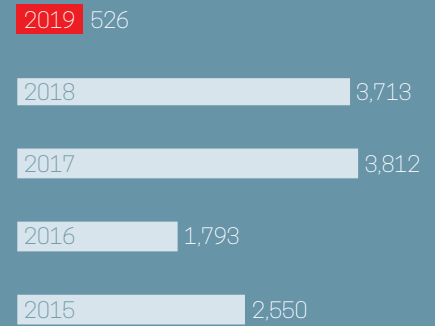
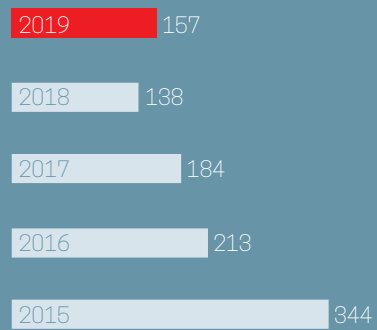
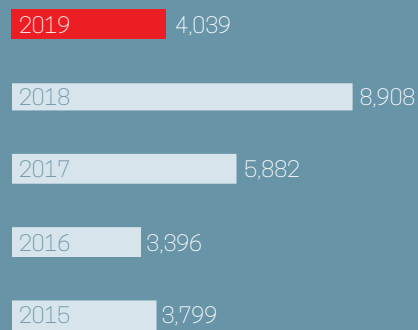
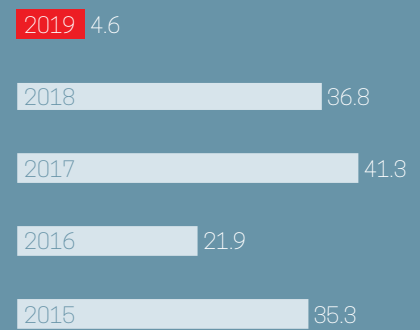
	2015	2016	2017	2018	2019
Net Sales	36,893	34,855	53,948	88,552	89,601
Operating Profit	2,752	2,357	4,857	5,736	2,230
Profit Before Tax	2,225	1,944	4,474	3,724	-311
Profit After Tax*	2,550	1,793	3,812	3,713	526
EBITDA	3,799	3,396	5,882	8,908	4,039
Net Debt	6,892	6,084	6,249	11,967	8,424
Return on Equity (ROE) %	35.3	21.9	41.3	36.8	4.6
Debt Leverage Ratio %	1.8	1.8	1.1	1.3	2.1
Net Working Capital	1,560	1,427	2,966	6,117	-1,501
Investment Expenditures (USD million)**	344	213	184	138	157

Operational Indicators - Refining (thousand tons)

	2015	2016	2017	2018	2019
Processed Crude Oil (thousand tons)	27,559	28,348	28,502	24,540	27,238
Production (thousand tons)	27,268	27,928	28,883	25,695	28,112
Sales (thousand tons)	28,739	30,255	31,493	29,830	29,197
Product Exports (thousand tons)	6,494	5,491	5,804	4,191	6,807
Product Imports (thousand tons)	2,999	3,749	4,388	6,252	2,827
Share of White Products in Production (%)	75.4	76.6	76.3	77.4	79.0
Crude Oil Capacity Utilization Rate (%)	98.1	100.9	101.4	87.3	90.8
Capacity Utilization Rate Including Semi-Finished Products (%)	102.5	105.3	108.1	95.9	97.8

* Net profit attributable to the equity holders of the parent

**Tüpraş unconsolidated

Net Sales (TL million)**Operating Profit** (TL million)**Profit After Tax** (TL million)***Investment Expenditures** (USD million)****EBITDA** (TL million)**Return on Equity** (ROE %)

* Net profit attributable to the equity holders of the parent

** Tüpraş unconsolidated

GENERAL ASSEMBLY AGENDA

AGENDA FOR ORDINARY GENERAL ASSEMBLY MEETING OF TURKISH PETROL REFINERIES CORPORATION TO BE HELD ON 1 APRIL 2020

1. Opening and election of the Chairman for the meeting,
2. Review, discussion and approval of the Annual Report of the Company for the fiscal year 2019 as prepared by the Board of Directors,
3. Presentation of the summary of Independent Audit Report for the year 2019,
4. Review, discussion and approval of the 2019 Financial Statements,
5. Release of each member of the Board of Directors from liability for the affairs of the Company for the year 2019,
6. Within the framework of the Company's dividend policy, approval, approval with amendment or disapproval of the Board of Directors' proposal on profit distribution of the year 2019 and the date of dividend distribution,
7. Determination of the number of Board Members, their terms of office, election of the Members in accordance with the number determined and election of Independent Board Members,
8. In accordance with the Corporate Governance Principles, presentation of the "Remuneration Policy" to the shareholders and General Assembly for the members of the Board of Directors and the Senior Executives, and also approval of the payments made on that basis,
9. Resolution of annual gross salaries for the members of the Board of Directors,
10. Approval of the Independent Audit Firm selected by the Board of Directors in accordance with the provisions of the Turkish Commercial Code and the Capital Markets Board regulations,
11. Presentation of the donations made by the Company in 2019 to the shareholders and determination of an upper limit for donations to be made in 2020.
12. In accordance with the Capital Markets Board regulations, shareholders' acknowledgment on the securities, pledges and mortgages granted in favor of the third parties in the year 2019 and of any benefits or income thereof,
13. Authorization of the shareholders with management control, members of the Board of Directors, senior executives and their spouses and relatives related by blood or affinity up to the second degree as per the provisions of Articles 395 and 396 of the Turkish Commercial Code and presentation of the transactions carried out thereof in the year 2019 pursuant to the Corporate Governance Communiqué of the Capital Markets Board,
14. Wishes and opinions.

INDEPENDENT AUDITOR'S REPORT ON THE ANNUAL REPORT

To the General Assembly of Türkiye Petrol Rafinerileri A.Ş.

1. Opinion

We have audited the annual report of Türkiye Petrol Rafinerileri A.Ş. (the "Company") and its subsidiaries (collectively referred to as the "Group") for the 1 January - 31 December 2019 period.

In our opinion, the financial information and the analysis made by the Board of Directors by using the information included in the audited financial statements regarding the Group's position in the Board of Directors' Annual Report are consistent and presented fairly, in all material respects, with the audited full set consolidated financial statements and with the information obtained in the course of independent audit.

2. Basis for Opinion

Our independent audit was conducted in accordance with the Independent Standards on Auditing that are part of the Turkish Standards on Auditing (the "TSA") issued by the Public Oversight Accounting and Auditing Standards Authority ("POA"). Our responsibilities under those standards are further described in the Auditor's Responsibilities in the Audit of the Board of Directors' Annual Report section of our report. We hereby declare that we are independent of the Group in accordance with the Ethical Rules for Independent Auditors (the "Ethical Rules") and the ethical requirements regarding independent audit in regulations issued by POA that are relevant to our audit of the financial statements. We have also fulfilled our other ethical responsibilities in accordance with the Ethical Rules and regulations. We believe that the audit evidence we have obtained during the independent audit provides a sufficient and appropriate basis for our opinion.

3. Our Audit Opinion on the Full Set Consolidated Financial Statements

We expressed an unqualified opinion in the auditor's report dated 12 February 2020 on the full set consolidated financial statements for the 1 January - 31 December 2019 period.

4. Board of Director's Responsibility for the Annual Report

Group management's responsibilities related to the annual report according to Articles 514 and 516 of Turkish Commercial Code ("TCC") No. 6102 and Capital Markets Board's ("CMB") Communiqué Serial II, No:14.1, "Principles of Financial Reporting in Capital Markets" (the "Communiqué") are as follows:

- to prepare the annual report within the first three months following the balance sheet date and present it to the general assembly;
- to prepare the annual report to reflect the Group's operations in that year and the financial position in a true, complete, straightforward, fair and proper manner in all respects. In this report financial position is assessed in accordance with the financial statements. Also in the report, developments and possible risks which the Group may encounter are clearly indicated. The assessments of the Board of Directors in regards to these matters are also included in the report.
- to include the matters below in the annual report:
 - events of particular importance that occurred in the Company after the operating year,
 - the Group's research and development activities,
 - financial benefits such as salaries, bonuses, premiums and allowances, travel, accommodation and representation expenses, benefits in cash and in kind, insurance and similar guarantees paid to members of the Board of Directors and senior management.

When preparing the annual report, the Board of Directors considers secondary legislation arrangements enacted by the Ministry of Trade and other relevant institutions.

5. Independent Auditor's Responsibility in the Audit of the Annual Report

Our aim is to express an opinion and issue a report comprising our opinion within the framework of TCC and Communiqué provisions regarding whether or not the financial information and the analysis made by the Board of Directors by using the information included in the audited financial statements in the annual report are consistent and presented fairly with the audited consolidated financial statements of the Group and with the information we obtained in the course of independent audit.

PwC Bağımsız Denetim ve
Serbest Muhasebeci Mali Müşavirlik A.Ş.

Ediz Günsel, SMMM
Partner

İstanbul, 4 March 2020

MESSAGE FROM THE CHAIRMAN



Ömer M. Koç
Chairman

Our dearest stakeholders,

I would like to begin my words by expressing my hope that we will have a successful and productive Annual General Meeting.

We have left behind a difficult year in social and economic terms marked by various problems which have occurred around the world. The ongoing trade wars between the USA and China - although the grounds for a deal have been reached - and the protectionist trends triggered by these developments, Britain's Brexit uncertainty, the geopolitical developments in the Middle East and the tensions regarding Iran and Libya continued to pose a risk to global economic stability throughout 2019.

IN 2019, WHILE PROVIDING ECONOMIC ADDED VALUE WITH ITS PRODUCTION, TÜPRAŞ ALSO CONTINUED TO SENSITIVELY CARRY OUT SOCIAL WORK IN THE FIELDS OF CULTURE, THE ARTS, EDUCATION AND SPORTS, ALL VITAL FOR OUR COUNTRY.

97.8%

Tüpraş produced 28.1 million tons in 2019, reaching a 97.8% capacity utilization rate.

The ongoing high rates of indebtedness in developed and developing countries, as well as all the developments throughout the year, have led to a slowdown in global economic activity. Although the USA has seen some positive decoupling with its expansionary monetary policy, there has been a decline in foreign trade and production in developed countries, particularly in the Eurozone. Emerging markets suffered a contraction due to weakness in their real sectors. Although the world's large central banks sustained their expansionary monetary policies in support of their economies, providing some degree of relief to global liquidity conditions, the impact of these actions on the business environment and growth in our country was limited.

On the other hand, we observed that our country has come a long way in bringing down the current account deficit by maintaining its competitiveness in foreign trade with the supportive effect of the cumulative depreciation in the Turkish Lira and the flexibility companies have shown in diversifying their export markets. The loss of momentum in growth followed by the contraction, which became apparent in the second half of 2018, continued throughout the first half of 2019. Our economy, which emerged from recession with a growth rate of 1% in the 3rd quarter of 2019, achieved 0.9% growth rate in 2019 and it is expected to post 3% growth in 2020.

On the other hand, the price of crude oil, which started the year at USD 53.9/barrel, rose to USD 74.7/barrel during the year as OPEC countries tightly complied with the agreed production cuts, as well as due to the expectation that trade talks would result in a deal and the announcement from the US administration that it would not be extending the exemption granted to eight countries from the sanctions in place against Iran. With the new tariffs imposed as part of the trade wars, the price of crude oil, which had declined to USD 55.3/barrel amid mounting concerns over global economic growth, increased again and closed the year at USD 66.8/barrel due to the drone attack against Saudi Arabia and OPEC and Russia agreeing to deepen their production cut by an additional 500,000 barrels/day. Crude oil prices remained 10% below their 2018 level, averaging USD 64.2/barrel.

Looking at the demand for petroleum products, in line with the slowdown in global economic activity which was especially due to the effects of trade wars, the demand grew by about 960,000 bpd in 2019, almost 40% below the 5-year average growth. On the other hand, the growth which had been expected to be seen in the demand for medium distillates due to the IMO effect in the sector, especially in the last quarter, was instead seen in alternative fuels and fell far short of expectations. This was another important setback on the demand side.

In this climate of weak demand, an additional net refining capacity of 2 million barrels/day, the majority of which being high complexity and mainly in Asia and the Middle East, entered operation. During 2019, the supply shortages experienced in heavy crude oils, the preferred choice of the increasing number of complex refineries, due to OPEC cuts and the sanctions imposed against Venezuela and Iran, significantly eroded the price advantage of heavier crudes which had been enjoyed by complex refineries in the past.

As a result of all these developments, the Mediterranean refining margin, which is a significant indicator of profitability in our region, declined from USD 4.6/barrel in 2018 to USD 1.7/barrel in 2019.

**CRUDE OIL PRICES REMAINED
10% BELOW THEIR 2018 LEVEL,
AVERAGING USD 64.2/BARREL.**

MESSAGE FROM THE CHAIRMAN

The sliding scale in special consumption tax (SCT), which regulates fuel duties on products in order to ensure that pump prices remain constant amid the fall in value and volatility of the Turkish Lira, in addition to the fluctuating course of crude oil prices, and which came into force in May 2018, remained in force in 2019. Nevertheless, due to the loss of momentum in economic growth, the decline in consumption of oil products, which began in August 2018, continued throughout the first half of 2019. According to EMRA figures, demand for oil products on an annual basis grew by a mere 2.2%, despite rising with the support of base effect from July.

Despite all the global and local developments which complicated the supply of crude oil, Tüpraş purchased 15 types of crude oil from eight countries in a way to create the most suitable charging composition, thanks to its ability to process different varieties of heavy and high sulphur crudes, and with the support of its crude oil supply pool, which it has continuously expanded. Tüpraş, completing its first comprehensive planned maintenance process at the İzmit Refinery RUP facility without any complications, and in a shorter period than expected, produced 28.1 million tons in 2019, reaching a 97.8% capacity utilization rate. During a period in which a new refinery began to operate at full capacity, Tüpraş has also managed to maintain its domestic market share with the exception of asphalt sales on the back of deteriorating infrastructure activities and in line with its sales policies. In 2019, our domestic sales amounted to 22.4 million tons, our total sales amounted to 29.2 million tons and our turnover stood at TL 89.6 billion. Despite all the negativity experienced in the sector and pressure on profitability, our company, which maintains its effective operating capital and robust balance sheet structure by managing financial risks with a disciplined and dynamic approach, managed to remain resistant in the face of negative shocks by generating TL 10.8 billion of free cash flow.

On the other hand, we attach great importance to sustainability in combating climate change, one of the global problems of our age. We are improving our performance in this field with each passing day. For this purpose, the total investment undertaken by Tüpraş, which continued its investments in the name of sustainability in 2019, exceeded USD 6.7 billion within last 14 years.

We were also delighted that the Tüpraş Kırıkkale Refinery New Power Plant, built at a cost of USD 115 million in 2019, has received the project of the year award at the ICCI Energy Awards. I would like to express how proud we are that our Kırıkkale Refinery has become one of the world's most energy efficient refineries with this project which will decrease energy consumption while raising productivity at the same time.

In 2019, while providing economic added value with its production, Tüpraş also continued to sensitively carry out social work in the fields of culture, the arts, education and sports, all vital for our country. A supporter of the HeforShe movement for women's empowerment under the leadership of our group, Tüpraş also continues to provide a multi-faceted contribution to the development of society through its sponsorships in the fields of education, sport and culture and the arts, especially through the Arter organization.

WE ARE PROUD THAT OUR KIRIKKALE REFINERY HAS BECOME ONE OF THE WORLD'S MOST ENERGY EFFICIENT REFINERIES.

Our top priority, which is at the heart of all our achievements and one which we never compromise on, is and will continue to be occupational and technical safety, following in the words of the late Vehbi Koç, who was the founder of Koç Group; “Our most important capital is our human resources”. The main responsibility of all of us is to constantly review our processes with this awareness and to make our working principles safer every day.

Our dear stakeholders,

We rounded off the year 2019, when we fell short of our financial targets due to the challenges experienced on a global and local basis, with successful results in terms of our production and sales targets. With the uncertainties remaining in the global economy and commodity market, and with the global competition heating up with new capacity additions, the year 2020 will not be an easy one for our sector. At Tüpraş, I have full confidence that thanks to our experience and operational efficiency, as well as our strong financial structure, we will achieve much more successful business results in the challenging year ahead of us.

I would like to thank all of our stakeholders, especially our employees, suppliers and business partners, for their valuable contributions and the trust and commitment they have shown in Tüpraş.



Ömer M. Koç
Chairman

AT TÜPRAŞ, I HAVE FULL CONFIDENCE THAT THANKS TO OUR EXPERIENCE AND OPERATIONAL EFFICIENCY, AS WELL AS OUR STRONG FINANCIAL STRUCTURE, WE WILL ACHIEVE MUCH MORE SUCCESSFUL BUSINESS RESULTS IN THE CHALLENGING YEAR AHEAD OF US.

\$6.7 billion

The total investment undertaken by Tüpraş, which continued its investments in the name of sustainability in 2019, exceeded USD 6.7 billion within last 14 years.

INDEPENDENT AUDITOR’S REPORT (OPINION)

Opinion*

We have audited the accompanying consolidated financial statements of Türkiye Petrol Rafinerileri A.Ş. (the “Company”) and its subsidiaries (collectively referred to as the “Group”) which comprise the consolidated statement of financial position as at 31 December 2019, the consolidated statement of profit or loss, the consolidated statement of other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended and notes to the consolidated financial statements comprising a summary of significant accounting policies.

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2019, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Turkish Financial Reporting Standards (“TFRS”).

* The full report is available on page 153.

CONSOLIDATED BALANCE SHEET/CONSOLIDATED INCOME STATEMENT

Consolidated Balance Sheet

(TL thousand)	2019	2018
Total Current Assets	27,918,955	20,962,205
Total Non-Current Assets	27,592,603	19,073,522
Total Assets	55,511,558	40,035,727
Total Short Term Liabilities	28,120,266	15,949,538
Total Long Term Liabilities	14,254,752	14,140,360
Total Liabilities	42,375,018	30,089,898
Total Equity	13,136,540	9,945,829

Consolidated Income Statement

(TL thousand)	2019	2018
Revenues	89,600,776	88,552,170
Costs of Goods Sold	-84,716,489	-79,327,847
Gross Profit	4,884,287	9,224,323
Operating Profit	2,230,137	5,736,300
Profit Before Tax	-311,348	3,724,380
Taxes	896,678	37,065
Net Profit for the Period	585,330	3,761,445
Equity Holders of the Parent	525,837	3,712,789
Earnings per Share (TL)	2.10	14.83

BOARD OF DIRECTORS



Ömer M. Koç
Chairman



Ali Y. Koç
Vice Chairman



Rahmi M. Koç
Member



Semahat S. Arsel
Member



Levent Çakıroğlu
Member



Erol Memioğlu
Member



Yağız Eyüboğlu
Member



Zafer Sönmez
Independent Member and Privatization
Administration Representative



Muharrem Hilmi Kayhan
Independent Member



Ayşe Canan Ediboğlu
Independent Member



Kamil Ömer Bozer
Independent Member

BOARD OF DIRECTORS' RESUMES

Ömer M. Koç Chairman

He received his B.A. degree from Columbia University in 1985. He worked at Kofisa Trading for one year and completed his MBA at Columbia University in 1989. After working at Ramerica International Inc., he joined the Koç Group in 1990. He held various senior positions at Koç Holding including Finance Coordinator, Vice President and President of the Energy Group. He became Member of the Board of Directors in 2004 and Vice Chairman in May 2008. In February 2016, he was appointed as the Chairman of the Board of Directors of Koç Holding. He serves as the Vice President of TÜSİAD High Advisory Council, Chairman of Tofaş, Tüpraş and Yapı Kredi Kültür Sanat Yayıncılık Board of Directors and Member of the Board of Directors at other Koç Group companies. He is also the Chairman of Turkish Educational Foundation Board of Trustees and Chairman of the Board of Directors of Geyre Foundation.

Ömer M. Koç has been serving as the Chairman of Tüpraş Board of Directors since 2008.

Ali Y. Koç Vice Chairman

He received his bachelor's degree from the Management Faculty of Rice University and MBA from Harvard Business School. He started his career at American Express Bank as a Management Trainee and continued as an Investment Analyst at Morgan Stanley Investment Bank. Ali Y. Koç joined Koç Holding in 1997 and held senior-level positions until 2010 including new business development and information Technologies as well as President of Corporate Communications and IT Group. After serving as Member of the Board of Directors at Koç Holding for over 8 years, he was elected as Vice Chairman in February 2016. Since April 2016, Ali Y. Koç also serves as Chairman of the Board of Directors of Koç Financial Services, Yapı Kredi Bank, Ford Otosan, Otokar as well as several other Koç Group companies. In addition to being Chairman and Vice Chairman at Turkey's largest companies and financial institutions, Ali Y. Koç also contributes to the country's social and economic development and currently is the President of Fenerbahçe Sports Club and Member at the National Competition Research Association (URAK), Member at the Foreign Economic Relations Board (DEİK), Member of the Global Advisory Council of Bank of America, Harvard University and Council on Foreign Relations. He is also a Member of the Panel of Senior Advisers at Chatham House and recently joined the Trade and Investment Council at the Confederation of British Industry.

Appointed in 2008 as a member of Tüpraş Board of Directors, Ali Y. Koç has been serving as the Vice Chairman of the Company since April 2016.

Rahmi M. Koç Member

A graduate of Johns Hopkins University in Business Administration, he joined the Koç Group in 1958 at Otokoç Ankara. He became Chairman of the Management Committee in 1980 and was named Chairman of the Board of Directors of Koç Holding in 1984, a post he held until 2003 when he became the Honorary Chairman. Apart from Koç Holding, he also serves as a Member/Chairman of the Board of Directors of other Koç Group companies. In addition, Rahmi M. Koç is or has been affiliated with social and professional organizations including:

- The Metropolitan Museum of Art, New York City, Honorary Trustee
- Co-Chairman of the Business Advisory Council for South East Europe (BAC SEE)
- Vice Chairman of the Board of Trustees of Vehbi Koç Foundation
- Honorary Chairman of the Board of Trustees of Koç University
- Founder and Chairman of the Board of Directors of the Rahmi M. Koç Museum and Cultural Foundation
- Chairman of the Board of Directors of the Vehbi Koç Foundation American Hospital
- Honorary Chairman and Founding Member of TURMEPA, The Turkish Marine and Environment Protection Association
- Honorary Chairman of the Advisory Board of the Turkish Industrial and Business Association (TÜSİAD)
- Member of the Advisory Board of the Turkish Employers Association
- Founding Chairman of the Global Relations Forum
- Former President of the International Chamber of Commerce (1.1.1995-31.12.1996)
- Former President of the Turkish Greek Business Council (1992-1999)
- Former Member of the Allianz Aktiengesellschaft International Advisory Board
- Former Member of the JP Morgan International Council
- Former Member of the International Advisory Board of the US Council on Foreign Relations

Rahmi M. Koç has been awarded with the following merits and degrees:

- “Honorary Doctorate” degrees by Johns Hopkins University (Baltimore-Maryland), Eskişehir Anadolu University, İzmir Ege University, Ankara Bilkent University, Ovidius University of Constanza and Aydın Adnan Menderes University
- “Outstanding Service Award” by the President of the Turkish Republic
- German Government’s “Grosses Verdienst Kreutz”
- “Order of High Merit of the Italian Republic”
- “Order of Merit of the Austrian Government”
- “(Honorary) Commander of the Most Excellent Order of the British Empire (CBE)”
- “Officier dans l’Ordre National de la Légion d’Honneur”, the highest medal awarded by the French government
- “Responsible Capitalism Lifetime Achievement Award” from FIRST, a leading multidisciplinary international affairs organization
- The medal of Foreign Policy Association (FPA), globally recognized think-tank with its 100-year history
- “Hadrian Award” by the World Monuments Fund to the Koç Family
- “Carnegie Medal of Philanthropy” (New York) to the Koç Family
- “BNP Paribas Philanthropy Award” (Paris) to the Koç Family
- “Iris Foundation Award” from BARD Graduate Center to the Koç Family (April 2012)

Rahmi M. Koç has been serving as a Member of the Board of Directors of Tüpraş since 2008.

Semahat S. Arsel **Member**

She began her career in 1964 as a Member of the Board of Directors of Koç Holding, a position she continues to hold. In addition, she is Chairman of the Board of Directors of Vehbi Koç Foundation and the Divan Group, President of the Semahat S. Arsel Nursing Education and Research Center and Founder of the Koç University School of Nursing. She also serves as Member of the Board of Directors of other Koç Group companies as well as Member of the Board of Trustees of the Educational Volunteers Foundation of Turkey (TEGV). Semahat Arsel has received an “Honorary Doctorate” degree from Istanbul University.

Semahat S. Arsel has been a member of Tüpraş Board of Directors since 2009.

Levent Çakıroğlu **Member**

Levent Çakıroğlu graduated from Ankara University Faculty of Political Sciences, Business Administration Department and received his master’s degree from University of Illinois. He started his career as an Assistant Auditor at the Ministry of Finance in 1988, where he worked as a Senior Auditor between 1991 and 1997. He was appointed as Assistant Manager of Financial Crimes Investigation Board between 1997 and 1998, meanwhile he taught as a Part Time Instructor at Bilkent University. Çakıroğlu, joined Koç Group in 1998 as Koç Holding Financial Group Coordinator. He was the General Manager of Koçtaş between 2002 and 2007 and the CEO of Migros between 2007 and 2008. He was assigned as the CEO of Arçelik in 2008 and also became President of the Durable Goods Group of Koç Holding in April 2010. Çakıroğlu has been appointed as the CEO of Koç Holding in April 2015. He currently serves as the CEO and has also been Member of the Board of Directors of Koç Holding since April 2016. Levent Çakıroğlu is also Chairman of the Board of Directors of Arçelik- LG and TürkTraktör as well as the Vice Chairman of Otokar and Member of the Board of Directors at various Koç Holding companies.

Levent Çakıroğlu has been a member of Tüpraş Board of Directors since 30 March 2015.

Erol Memioğlu **Member**

Erol Memioğlu is a graduate of the Middle East Technical University’s Petroleum Engineering Department. He started his business career in 1979 as Senior Engineer at the Turkish Petroleum Corporation (TPAO) and later became Production Manager and President of the Overseas Projects Group. He was appointed Vice President at the Koç Holding A.Ş. Energy Group in 1999, later served as an Executive Board Member at Koç Holding Energy Group from 2003 to 2004; he has served as President of the same Group between May 2004 and April 2016.

Erol Memioğlu has been a member of Tüpraş Board of Directors since 2006.

BOARD OF DIRECTORS' RESUMES

Yağız Eyüboğlu **Member**

Yağız Eyüboğlu graduated from Boğaziçi University with a BA degree in Economics in 1991. He went on to earn an MBA from Koç University in 1996. Mr. Eyüboğlu began his professional career as a Management Trainee at Arçelik in 1991. Starting in 1993, he worked at Koç Holding for more than 10 years, as Auditor, Senior Internal Auditor, Assistant Financial Coordinator and Financial Coordinator, respectively. Between 2004 and 2009, he served as CFO of Arçelik; CEO and Board Member of Beko Elektronik; Assistant to the President of the Foreign Trade and Tourism Group at Koç Holding; and Human Resources Director at Koç Holding. From 2009 to October 2015, he was the General Manager of Aygaz. In October 2015, he was appointed Deputy President of the Energy Group at Koç Holding and since April 2016 he has been serving as the President of Energy Group. Mr. Eyüboğlu currently serves as a Board Member both in several Koç Holding companies and sectoral non-governmental organizations.

Yağız Eyüboğlu has been a member of Tüpraş Board of Directors since 4 April 2016.

Zafer Sönmez **Independent Member and Privatization Administration Representative**

Zafer Sönmez graduated from Istanbul University, Department of Business Administration. In 1997, Sönmez began his professional career at Interbank in the Audit Department. Between 2000 and 2003, he worked at Dışbank and he served at MNG Bank in 2004. Between 2010 and 2011, Sönmez served as Corporate Banking Director at the Istanbul Branch of Royal Bank of Scotland. Between 2005 and 2010, he held management roles in the Portfolio Management and Corporate Banking Departments. In October 2013, he took part in the establishment of Khazanah Turkey Regional Office and between 2012 and 2013, he served as the Senior Manager of the Middle East and Central Asia of Khazanah Nasional Berhad in Turkey. Between 2017 and 2018 he was responsible for Khazanah Turkey Regional Office's investments in the Middle East, Central Asia, Eastern Europe and North Africa and led the Khazanah Africa team. He also served as a member of the Board of Directors of Acıbadem Sigorta between 2013 and 2018, Acıbadem Health Group between 2017 and 2018 and Sabiha Gökçen International Airport between 2016 and 2018. Zafer Sönmez, who was assigned as Board member and CEO of Türkiye Varlık Fonu A.Ş. in September 2018, is also Deputy Chairman of Board of Directors in PTT and worked as Vice Chairman of the Board of Directors in Borsa İstanbul between September 2018 and April 2019.

Ayşe Canan Ediboğlu **(Independent Membership Candidate)**

After completing her high school education at Ancaster House School, she got her bachelor's degree in economics and her master's degree in financial management and control from the University of Southampton, U.K. After working as a research assistant at the same University, she continued her career as a Planning Manager at Shell in 1980. She held various positions at Shell Turkey, before being appointed as its General Manager in 2002 and Shell Turkey National Manager in 2006. She sat as a member on the Board of Directors of Shell-Turcas Petrol A.Ş. Ayşe Canan Ediboğlu served as an Independent Member of Aygaz Board of Directors between 2012-2018. Additionally, she is an Independent Member of ING Bank Turkey Board of Directors since 2010.

Ayşe Canan Edipoğlu has been an Independent Member of Tüpraş Board of Directors since March 2018.

Muharrem Hilmi Kayhan **(Independent Membership Candidate)**

Muharrem Kayhan received education at St. Joseph French School and Robert College of İstanbul. He got his Engineering Degree in Textiles in 1976 from the University of Manchester in England. He received his MBA from Cornell University in 1978. Muharrem Kayhan is presently Chairman of the boards of Söktaş and its subsidiaries. He has represented the interests of the Turkish textile industry in various European Union platforms while serving on the boards of the Aegean Chamber of Industry, the Exporters' Union, and the Turkish Textile Employers' Union. He served as the Chairman of TÜSİAD between 1997 and 1999, and is now an Honorary Chairman. Muharrem Kayhan serves on the Board of Trustees of Robert College the İzmir Culture, Art and Education Foundation, and Bizim Okul Foundation. He has represented Spain as Honorary Consul in İzmir since 2003. He is the recipient of the Turkish National Assembly Distinguished Service Award (2009).

Muharrem Hilmi Kayhan has been an Independent Member of Tüpraş Board of Directors since March 2018.

Kamil Ömer Bozer (Independent Membership Candidate)

After receiving his degree in business administration from the Middle East Technical University, Kamil Ömer Bozer completed a master's degree at Georgia State University in U.S.A. He began his career as a management trainee at Koç Holding A.Ş. in 1985. After serving as Deputy Chief Executive of Maret A.Ş. from 1990 and as General Manager of Düzey A.Ş. from 1995, he became General Manager of Migros Türk T.A.Ş. in 2002. He was appointed President of Food, Retailing and Tourism Group in 2005. He served as President of Food and Retailing Group between 2006 and 2008, and once again as President of Tourism, Food and Retailing Group from 2009 to April 2011. Kamil Ömer Bozer currently serves as a Board Member at Coca Cola İçecek, Adel Kalemcilik Ticaret ve Sanayi A.Ş., Mc Donalds Türkiye Hamburger İşletmeleri A.Ş. and Kamil Yazıcı Yönetim ve Danışma A.Ş., and as an Independent Board Member at Boyner Perakende A.Ş., Söktaş Tekstil A.Ş. and Arçelik A.Ş.

Kamil Ömer Bozer, has been an Independent Member of Tüpraş Board of Directors since March 2018.

PROFIT DISTRIBUTION POLICY

Our Company distributes dividends in compliance with the Provisions of Turkish Commercial Code, the Capital Markets Regulations, the Tax Regulations and other related regulations and the related provisions of our Company's Articles of Association regarding dividend distribution.

In the dividend distribution, in compliance with the Corporate Governance Principles, a balanced and consistent policy is pursued between the shareholders and the Company benefits. 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.

The General Assembly or the Board of Directors, if authorized, may decide to distribute dividends with installments in compliance with the regulations of the Capital Markets. There is no privilege in the Articles of Association regarding the participation to dividend distribution.

The aim is to make the dividend distribution within one month at the latest after the General Assembly meeting. Dividend distribution date is decided by the General Assembly. As per the Company's Articles of Association; in compliance with the Regulations of the Capital Markets, the Board of Directors may distribute advance dividend provided that the authorization is granted by the General Assembly. Profit distribution policy and profit distribution proposal are included in the annual report and presented to the approval of shareholders at the General Assembly.

PROFIT DISTRIBUTION PROPOSAL

Financial statements for the accounting period 1 January - 31 December 2019, in compliance with the TFRS, prepared by the management of Turkish Petroleum Refineries Corporation, and audited by PwC Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik A.Ş. have been reviewed and approved to be presented to the General Assembly.

Upon review of the aforementioned financial statements and the records of Turkish Petroleum Refineries Corporation in accordance with Tax Procedural Law, net profit of TL 525,837,000.00 per the financial statements prepared in accordance with TFRS and net losses of TL 1,139,412,897.98 as per the records in accordance with the Tax Procedural Law have been noted and profit distribution proposal is prepared accordingly as explained below:

In accordance with the Capital Market Board Regulations, Article 18 of the Company's Articles of Association and within the framework of the Dividend Distribution Policy approved by the shareholders at the General Assembly, dated 31 March 2014;

In the Financial Statements prepared in accordance with the Tax Procedural Law records; due to a loss of TL 1,139,412,897.98 in the current year result, Dividends will not be distributed for the year 2019, and the current year loss of TL 1,139,412,897.98 in the financial statements prepared in accordance with the Tax Procedural Law is to be transferred to the retained earnings.

Transferring the net period profit of TL 525,837,000.00 attributable to equity holders of the parent which is formed according to the financial statements prepared in line with TFRS, to the retained earnings in the related financial statements,

These matters above are to be subject to approval of our shareholders at the Ordinary General Meeting of the Company which will planned to be done in April 2020.

DIVIDEND DISTRIBUTION TABLE

TÜRKİYE PETROL RAFİNERİLERİ A.Ş. 2019 Dividend Distribution Table (TL)		
1. Paid in Capital/Issued Capital		250,419,200.00
2. Total Legal Reserves (According to Statutory Income Statements)		503,342,592.00
Information on privileges in profit distribution if any in the Articles of Association		
	According to CMB	According to Statutory Records
3. Current Period Profit	-370,841,000.00	-1,139,412,897.98
4. Taxes Payable (-)	-896,678,000.00	0.00
5. Net Profit (=)	525,837,000.00	-1,139,412,897.98
6. Previous Years Losses (-)		0.00
7. General Legal reserves (-)		
8. DISTRIBUTABLE NET PROFIT FOR THE PERIOD (=)	525,837,000.00	0.00
9. Donations made during the year (+)	3,482,982.51	
10. Net Distributable Profit Added Donations	529,319,982.51	
11. First Dividend to Shareholders		
- Cash	0.00	0.00
- Bonus		
- Total	0.00	0.00
12. Dividend to privileged shareholders		
13. Distributed Other Dividend	0.00	0.00
- Dividend to the Board Members		
- Dividend to the Employees		
- Other		
14. Dividend to redeemed shareholders		
15. Secondary dividends to shareholders		0.00
16. General legal reserves	0.00	0.00
17. Statutory reserves		
18. Special reserves		
19. EXTRAORDINARY RESERVES	525,837,000.00	0.00
20. Other Resources to be Distributed	0.00	0.00
- Previous year's profit		
- Extraordinary reserves		
- Other distributable reserves as per the law and the Articles of Association	0.00	0.00
21. Allocated Legal Reserves to be distributed from other sources	0.00	0.00

DIVIDEND RATIO TABLE					
GROUP	TOTAL AMOUNT OF DIVIDEND DISTRIBUTED		TOTAL DISTRIBUTED DIVIDEND/NET DISTRIBUTED PROFIT	DIVIDEND PER SHARE WITH NOMINAL VALUE OF TL 1	
	AMOUNT (TL)	BONUS (TL)	RATIO (%)	AMOUNT (TL)	RATIO (%)
A	0.00		0.00	0.0000	0.00
C	0.00		0.00	0.0000	0.00
TOTAL	0.00	0.00	0.00		

2020 BOARD OF DIRECTORS CANDIDATES

Ömer M. Koç

Ali Y. Koç

Rahmi M. Koç

Semahat Sevim Arsel

Levent Çakıroğlu

Yağız Eyüboğlu

Erol Memioğlu

Muharrem Hilmi Kayhan (Independent Membership Candidate)

Ayşe Canan Ediboğlu (Independent Membership Candidate)

Kamil Ömer Bozer (Independent Membership Candidate)

Privatization Administration C Group Share Representative* (Independent Membership Candidate)

* As of the date this report is published, no assignment has been made for the C group share representative by the Privatization Administration.

REMUNERATION POLICY FOR BOARD MEMBERS AND SENIOR EXECUTIVES

This policy determines the remuneration system for the Board of Directors and senior executives within the scope of the definition of persons discharging managerial responsibilities under Capital Markets Board regulations.

A fixed remuneration is determined for all members of the Board at the Annual General Assembly Meeting of the Company.

Additional payment is made to the executive members of the Board in accordance with the policy established for senior executives.

To the Chairman and members of the Executive Committee of the Board which supports the Board in the proper management of the Company in all respects, additional compensation determined by the Board of Directors in consultation with the Nomination and Remuneration Committee by taking into account such Committee Members' contributions, attendance at the meetings, functions, etc. can be granted. Payments made thereof to Executive Committee members within the year are to be deducted from the amount determined at the end of the year.

In respect of remuneration of the independent members of the Board of Directors, a payment plan based on the performance of the Company cannot be used.

Pro rata payment is made to the members of the Board of Directors by taking into account the time they carried out their duty between the date of appointment and the date of resignation. Expenses incurred by the members of the Board of Directors on account of making contributions to the company (such as transportation, telephone, insurance, etc.) may be paid by the Company.

The remuneration of senior executives consists of two components, which are fixed and performance based.

Fixed salaries of senior executives are determined in accordance with international standards and legal obligations by taking into account the prevailing macroeconomic data in the market, the salary policies prevailing in the market, the size and long-term targets of the Company and the positions of the persons.

Bonuses for senior executives are calculated according to the bonus base, the performance of the Company and the individual performance. A summary of the criteria is as follows:

- **Bonus Base:** Bonus bases are updated at the beginning of each year. They vary depending on the work volume of the executives' positions. When updating the bonus bases, senior executive bonus policies in the market are taken into account.
- **Company Performance:** The performance of the Company is determined at the end of the year by measuring the financial and operational targets (market share, exports, overseas operations, productivity, etc.) assigned to the Company at the beginning of each year. In determination of the Company's targets, the sustainability of success and the degree to which it incorporates improvements over previous years are the principles taken into account.
- **Individual Performance:** In the determination of individual performance, along with the targets of the Company, those related to the employee, customer, process, technology and long-term strategy are taken into account. In the measurement of individual performance, in line with the performance of the company, the principle of achieving long term sustainable improvement in areas apart from the financial dimension is observed.

Severance payments may be granted to the senior executives by taking into account total term of service, term of service as an executive, as well as contributions made to the Company, the recent bonus base, and the salaries and bonuses paid in the last year of service.

Total amounts determined by the above principles and paid to the members of the Board of Directors during the year are submitted for shareholders' approval in the next general assembly meeting.

MESSAGE FROM THE GENERAL MANAGER



İbrahim Yelmenoğlu
General Manager

Our dearest stakeholders,

We left behind a year of disappointing growth in global economic activity amid the effects of trade wars, while new refining capacity - amounting to double the growth in demand - came on stream. In addition to the decision by OPEC plus Russia to cut production, the sanctions imposed on countries with a significant share in the world's crude oil supply, such as Iran and Venezuela, exacted a heavy toll on the profitability of complex refineries.

It was a year marked by continuing global uncertainties, increasing signs of an economic slowdown in both developed and developing countries and downward revisions to forecasts for global growth and demand for oil products, with a global increase of half of its 5-year average in demand for oil. In addition, we underwent a period when the currencies of developing countries were buffeted by further volatility, even though there were no sharp depreciations as in 2018, and when the negative repercussions of cumulative falls in the value of currencies were observed on purchasing power and demand.

BY MANAGING FINANCIAL RISKS UNDER A DISCIPLINED AND DYNAMIC APPROACH, WE AIMED TO KEEP OUR COMPANY'S OPERATIONS RESISTANT TO NEGATIVE SHOCKS BY MAINTAINING A ROBUST BALANCE SHEET STRUCTURE DESPITE THESE CHALLENGING CONDITIONS.

TL 10.8 billion

Through our effective management of working capital, we generated free cash flow of TL 10.8 billion for the 2019 full year, despite the challenging conditions in the refining industry.

The change in crude oil supply slates in 2019 significantly affected profitability in our sector. The decisions by the OPEC+ grouping to cut production and the sanctions imposed against Iran and Venezuela led to a squeeze in supply of medium and heavy crudes. Substantial refinery capacities entered operation during the year, particularly in the Asia region, with these refineries preferring Ural and the Middle East crudes, increasing the costs of medium and heavy crudes, thus eroding the advantage of those refineries able to process heavy crudes.

While global demand for oil products grew by a mere 0.9 million bpd, a total of 2 million bpd of new refining capacity came online, mostly in the Middle East and Asia regions. Due to the loss of momentum in the global economy, the increase in demand, particularly in the medium distillates, fell short of expectations throughout the year. Use of diesel for maritime use remained subdued, even though middle distillate margins, especially for diesel, had been expected to surge, especially in the last quarter, as diesel became the main fuel for shipping instead of High Sulphur fuel oil, the use of which was banned following the IMO's regulatory change in the last quarter. The reason for this is that major ports such as Singapore planned ahead and procured Very Low Sulphur Fuel Oil (VLSFO). The margins on fuel oil, whose use as a maritime fuel is banned on ships without a scrubber, fell to historical lows, while diesel margins fell well below expectations. In addition, demand for heating diesel and kerosene remaining below sectoral averages due to the mild winter experienced in the northern hemisphere was another factor suppressing medium distillate margins. On the other hand, supplies of light distillate increased as the share of LNG continues to increase in the global charging blend in addition to light crudes and condensate with high gasoline efficiency. The decline in gasoline and light distillate margins that started at the end of 2018, as demand growth fell short of expectations, continued in the first quarter of 2019. Although margins started to improve with the decrease in the charge in FCC units in European and US refineries, annual averages remained below both their averages for last year and the last 5 years. As a result of these factors, the Mediterranean refining margin, which was USD 4.6/barrel in 2018, decreased to USD 1.7/barrel in 2019.

Introduced in May 2018, the sliding scale special consumption tax (SCT) application, which regulates fuel duties on products in order to ensure that pump prices remain constant due to the loss of value and volatility in the Turkish Lira, in addition to the fluctuating course in the crude oil price, remained in place in 2019. Nevertheless, due to the loss of momentum in economic growth, the decline in the consumption of oil products, which began in August 2018, continued throughout the first half of 2019. According to EMRA figures, demand for diesel on an annual basis declined by 0.4% to stand at 24.9 million tons, despite starting to rise with the support of base effect from July. Gasoline consumption stood at 2.4 million tons, increasing by 3.2% while jet fuel consumption grew by 6.5% to reach 5.3 million tons on the back of the improvement in the tourism sector. With all of these developments, total demand for petroleum products in this period increased by 2.2%.

Tüpraş procured 26.8 million tons of crude oil from 8 countries, including Turkey.

Our company procured a total of 26.8 million tons in 15 different crude oil types, including domestic crude oil, from eight countries in a manner to form the most cost-effective charging composition in 2019, when the exemption to the sanctions against procuring crude oil from Iran, which was granted in November 2018, was entirely removed in May 2019. Despite planned maintenance at our Fuel Oil Conversion Facility and other refineries, a total of 29.3 million tons of raw materials were processed in 2019 with optimal capacity utilization. With 28.1 million tons of production, a 79.0% white product yield was achieved. With the support of commercial sales, a total of 29.2 million tons of products were sold in 2019, of which 22.4 million were sold domestically.

THE DECLINE IN THE CONSUMPTION OF OIL PRODUCTS, WHICH BEGAN IN AUGUST 2018, CONTINUED THROUGHOUT THE FIRST HALF OF 2019.

MESSAGE FROM THE GENERAL MANAGER

We set ourselves apart with our financing management.

While the impacts of the market volatility which occurred in August 2018 extended into the first half of 2019, the mounting uncertainty made it difficult to manage the risks. The volatility in product margins in the last quarter of the year dashed the hopes pinned on the expected recovery in the refinery sector. However, by managing financial risks under a disciplined and dynamic approach, we aimed to keep our company's operations resistant to negative shocks by maintaining a robust balance sheet structure despite these challenging conditions, and through our effective management of working capital, we generated free cash flow of TL 10.8 billion for the 2019 full year, despite the challenging conditions in the refining industry.

Our investments are the key to sustainable high growth.

At Tüpraş, we see our investments as the key to a sustainable high performance. With this approach, despite the headwinds posed by the challenging investment environment and the crises experienced in 2019, a total of USD 157 million was invested in our refining activities, with our total investments amounting to USD 236 million.

Thanks to our investments to save energy and reduce emissions, we achieved an annual energy saving of 113,106 Gcal and a reduction of 26.3 thousand tons in CO₂ emissions at Tüpraş.

Our subsidiary, Ditaş, continues its operations with a total of 14 tankers and a carrying capacity of approximately 703,000 DWT. In 2019, Ditaş installed a flue gas cleaner (scrubber) to comply with the rules of the 2020 International Maritime Organization in its 4 tankers with a total carrying capacity of 346,000 DWT.

Also, Körfez Ulaştırma A.Ş., fully owned by Tüpraş and Turkey's first private rail operator which entered operation in 2018, carried a total of 1.83 million tons of products by further improving its operations with five new locomotives which it purchased in 2019, as well as its wagon investments. In addition, within the scope of the ongoing investments undertaken Körfez Ulaştırma A.Ş., a

contract was signed for the purchase of 7 twin fuel locomotives with state-of-the-art technological features, to be delivered in 2021. The locomotives, to be used for freight transportation services by bringing together both electrical and diesel operating modes on high-incline lines where a strong traction force is needed, will also be Turkey's first hybrid locomotives.

Aware of the advantages offered by the digital world, as well as being aware that the biggest disadvantage is cyber threats, our company implements global and sector-wide standards in the field of cyber security, as in all areas. By investing in the technologies being developed in this field, our company created a road map and strategy that also aims to achieve the highest level of protection in cyber security as well as in technical safety.

Our London Office successfully continues its activities

While we at Tüpraş continue to focus on our refinery activities, we took concrete strategic steps in 2018 by closely following the possible investment opportunities in domestic and international areas within the scope of our business diversification strategies in the sector. Our office, which was opened at the end of 2018, successfully carried out highly important operations in its first year and demonstrated that it would contribute significantly to Tüpraş's international commercial operations.

TUPRAŞ ALSO CONTRIBUTES TO CLOSING OUR COUNTRY'S CURRENT ACCOUNT DEFICIT, MEETING 60% OF THE ANNUAL FUEL NEEDS OF ISTANBUL AIRPORT, WHICH IS ONE OF THE WORLD'S LARGEST AIRPORTS.

We have become the largest supplier of jet fuel for Istanbul Airport.

As a result of the tender organized by İGA İstanbul Havalimanı Akaryakıt Hizmetleri A.Ş. to cover the Istanbul Airport's jet fuel needs, Tüpraş won the tender to supply 1.8 million tons of jet fuel annually to the new Istanbul Airport for a duration of 5 years. Tüpraş also contributes to closing our country's current account deficit, meeting 60% of the annual fuel needs of Istanbul Airport, which is one of the world's largest airports.


We act with the priority of "My Safety is My Future" in all of our business processes.

By defining risks in all of our operations, we continue our activities in line with the goal of eliminating risks or reducing them to an acceptable level within the framework of national and international standards. In this context, we expect our solution partners, together with all employees, to unwaveringly comply with our "Health, Safety, Environment (HSE) and Process Safety Standards". In our safe working indicators, where we achieved significant improvements in the past period, our goal is to attain even better results and to reach a position where we will be taken as an example in our sector.

As we always have, going forward we will continue to produce the highest added value for our country, our employees, our business partners, our shareholders and all of our stakeholders.

I would like to thank my colleagues who have contributed to our company with their safe and self-sacrificing efforts despite all the negativities experienced in 2019, and all our stakeholders who gave us strength with their support.

Yours sincerely,



İbrahim Yelmenoğlu
General Manager

AT TÜPRAŞ, WE SEE OUR INVESTMENTS AS THE KEY TO A SUSTAINABLE HIGH PERFORMANCE.

26,300 tons

Thanks to our investments to save energy and reduce emissions, we achieved an annual energy saving of 113,106 Gcal and a reduction of 26.3 thousand tons in CO₂ emissions at Tüpraş.

SENIOR MANAGEMENT



İbrahim Yelmenoğlu
General Manager

İbrahim Yelmenoğlu graduated from the Faculty of Political Sciences at Ankara University in 1991 and received his MA from the University of Illinois in 2003.

Starting his career in 1987 at the Ministry of Finance, he worked on the Board of Public Auditors in 1992. In 2004, he started work at the Koç Holding Auditors Group and served as Koç Holding A.Ş. Auditors Group Coordinator until 2006. Following the transfer of 51% of Tüpraş's shares to Koç Holding on 27 January 2006, İbrahim Yelmenoğlu was assigned as Assistant General Manager for Financial Affairs. He was appointed as General Manager as of 1 January 2016.



Doğan Korkmaz
Assistant General Manager
(Financial)

He started his professional life with Koç Holding MT program in 1996 and started working in Arçelik A.Ş. Investment Finance department at the same time. He held Corporate Finance and Financial Markets Strategist positions in Arçelik until 2007. In 2007, he became Treasury and Capital Markets Manager of Arçelik. In 2009, he became Finance Director at Beko plc, Arçelik's UK subsidiary. In 2012, he became the Finance Director of Arçelik. Doğan Korkmaz graduated from Department of Business Administration at DEU in 1996. He has also completed his MBA program in Koç University in 2007 and Diploma in Global Business at Oxford University in 2013. As of 1 January 2016, Doğan Korkmaz was appointed as Chief Financial Officer of Tüpraş.



Levent Zağra
Assistant General Manager
(Investments & Planning)

Levent Zağra graduated from Worcester Polytechnic Institute, Department of Mechanical Engineering, and earned his MBA and MS in Manufacturing Systems Engineering from Cornell University.

He began his professional career at Koç Holding in the Strategic Planning Department in 1996. In 2002, he was appointed as General Manager of Promena Electronic Commerce. Between 2009 and 2016, he served as the Energy Group Coordinator at Koç Holding. Levent Zağra was appointed as Assistant General Manager for Investments and Planning at Tüpraş in April 2016.



Özgür Kahramanzade
Assistant General Manager
(Sales & Marketing)

Özgür Kahramanzade holds a Bachelor's degree in Mechanical Engineering from Boğaziçi University. He received his Master's degree in Management from Purdue University, Krannert Business School.

Özgür Kahramanzade began his professional career as a Management Trainee at Beko Elektronik in 1994; in 1997, he began working as a Project Engineer at Koç Holding. He joined Zinerji A.Ş. as Project Officer in 2000; in 2001, he started work as a Project Manager at Koç Holding. In 2005, he was appointed as Director of Marketing, Investments and Group Companies at Opet Petrolcülük, and later as Supply and Technical Assistant General Manager at the same company in 2006. Between December 2010 and April 2016, he served as General Manager of Entek Elektrik Üretim A.Ş. In April 2016, Özgür Kahramanzade was appointed as Assistant General Manager responsible for Sales and Marketing at Tüpraş.



İhsan Serdar Kemaloğlu
Assistant General Manager
(Technical)

Serdar Kemaloğlu graduated from Middle East Technical University, Department of Chemical Engineering in 1991.

He began his professional career in 1993 as Plant Engineer at Tüpraş İzmit Refinery, where he assumed various roles including Supervisor and Chief Engineer at the Refinery's FCC, Crude Oil, Vacuum, Desulphurization and Hydrocracker Units. Serdar Kemaloğlu participated in efforts to commission the Isomerization Unit in 2002. As the Chief Process Control Engineer at İzmit Refinery, he was actively involved in the implementation of Advanced Process Controls (APC), launched in 2008. After serving as Production Manager at İzmir Refinery, he was appointed as Batman Refinery Manager in June 2013; and between October 2015 and February 2017, he served as Kırıkkale Refinery Manager. Serdar Kemaloğlu was appointed as Technical Assistant General Manager on 1 February 2017.



Atilla Ulusu
Assistant General Manager
(Crude Oil Supply & Foreign Trade)

Atilla Ulusu graduated from Lycée Saint Joseph İstanbul in 1994 and then Bilkent University Political Science and Public Administration in 1999.

He started his professional life in 2000 as Ram Algeria Regional Sales Representative and he became Regional Director in the same country as of 2002. In 2003, he was appointed as LPG Trading & Planning Responsible in Aygaz A.Ş. Following this position, he became Overseas LPG Sales Responsible mainly for LPG exports to Iraq and other East Mediterranean Countries. He became Crude Oil Supply Coordinator in Tüpraş in 2017; Crude Oil Supply Manager in 2013 and Crude Oil Supply and Production Planning Director in 2015. As of 5 May 2017, Atilla Ulusu was appointed as Assistant General Manager responsible for Crude Oil Supply and Foreign Trade.

STRATEGY



Sector evaluation

Significant changes have taken place in the global energy sector in recent years and this transformation is expected to continue at an increasing pace in the coming period. Significant increase in carbon dioxide emissions caused by energy consumption, especially in the last 5 years, has directed all participants in the energy sector towards pursuing more efficient production technologies and alternative energy resources. Tüpraş, following closely the changes among both global and local sectors and other players, updates its short and long term strategy and investment plans accordingly. The Company, prioritizing long term sustainable investments with low carbon emissions in its plans, takes steps to fulfill its responsibilities, especially in achieving the goals set within the scope of environmental policies such as the Paris Agreement. One important effect of the environmental policies is also seen in the fuel properties currently used. After the decision to apply an upper sulfur limit of 0.5% m/m in maritime fuel globally from 2020, taken in the Marine Environment Protection Committee (MEPC) meeting held in London by the International Maritime Organization (IMO), the regulatory authority covering international shipping, the main fuel for the maritime industry became low sulfur fuel oil. While Tüpraş adapts to short term changes with its current conversion capacities and flexible production capability, it continues to take steps towards improving its production infrastructure to take account of the new balances in the fuel sector in the short and medium term.

With its demographic advantage, Turkey retains its strong economic foundations despite the volatility experienced in the global markets. Safely meeting the increasing energy needs of Turkey, a country which is developing and growing, creating infrastructure to ensuring sustainable growth are among the prioritized goals of Tüpraş management.

SAFELY MEETING THE INCREASING ENERGY NEEDS OF TURKEY, A DEVELOPING AND GROWING COUNTRY, IS AMONG THE PRIORITIZED GOALS OF TÜPRAŞ MANAGEMENT.

In the refining industry, the year 2019 was marked by a further increase in competition with new capacity additions with geopolitical developments continuing to significantly impact the dynamics of the industry. Crude oil prices followed a volatile course throughout the year, affected by the imposition of US sanctions against Iranian and Venezuelan crude oil, the complete removal of exemptions to the sanctions, confoundment of the earlier expectations, the change in the supply composition following the decision of the OPEC plus Russia group of oil producing nations to cut production, concerns over the global economy and record increases in US production. While global refining capacity increased by 2 million barrels/day in 2019, the increase in global demand remained below 1 million barrels/day. In this competitive environment, Tüpraş continued to take decisive steps in order to increase energy efficiency, to improve the availability of the facilities and to ensure continuous operational optimization.

Following the emergence of new investment opportunities both domestically and abroad, Tüpraş has been targeting business lines and renewable energy resources which can be integrated with its refineries in line with its strategy of diversifying its areas of growth and operation. The renewable energy investments are primarily geared towards meeting the energy needs of the refineries, and thereby reducing energy costs through these means while lowering carbon emissions.

The evaluation of emerging new technologies and business models in the world and providing value by creating an application field for these innovations in its own operations represents an important part of the innovation program that Tüpraş has recently brought into operation.

In 2018, when the results of the steps that had been previously taken in the Digital Transformation and Industry 4.0 projects are started to be seen, Tüpraş opened Data Analytics Centers in the İstanbul Technical University and Middle East Technical University Techno-Cities. The company implemented projects in the field of efficiency and profitability by starting to use artificial intelligence projects developed by machine learning in the maintenance, production and planning processes. In 2019, more than TL 50 million in efficiencies was achieved. Shift Optimization, Laboratory Result Forecasting, Hydrogen Optimization, Ship Planning and Inventory Management were among the projects carried out in different areas of the value chain, which were realized using agile methodologies. The agile methodologies used ensured that the efficiencies obtained from the projects were realized as swiftly as possible, while an important step was taken towards the agile company culture.

The RPA (Robotic Process Automation) project, work on which began in 2018, allowed more than 50 processes to be carried out by software robots. Thus, significant savings were achieved in terms of manpower and time, while errors were also prevented.

With the wireless technologies that started to be used in the Tüpraş refinery field, processes were stepped up in 2018 and they thereby became measurable and monitorable in real time. Tüpraş will continue to progress in the digital road map in the forthcoming years with projects such as robotics automation in work processes, 3D mapping and digital twinning with LIDAR technology, and real-time data visualization.

The London Trade Office closely followed up international market opportunities through its activities, thus supporting Tüpraş's existing foreign trade operations. It also started creating additional added value from the supply and sales chain.

Opet, Turkey's 2nd largest fuel oil distribution company, in which Tüpraş is a partner with a 40% stake, recorded an increase in its number of petrol stations to 1,670 with the Sunpet brand. The company maintained its number two position with a market share of 19.0% in white products and a market share of 35.3% in black products.

Ditaş Denizcilik, a subsidiary of Tüpraş, continues to take steps to strengthen its fleet through renewals. Established with 100% Tüpraş capital at the end of 2017, Turkey's first private railway operator Körfez Ulaştırma increased Tüpraş's share of railway transport significantly. During the year, the company broke a new ground in the private sector with the purchase of locomotives.

Technology Roadmap, R&D processes

Tüpraş undertakes investments aiming to achieve a high return on equity.

In the fourteen-year period between 2006 and 2019, a total of USD 6.2 billion capital expenditure has been realized in refining. In 2018, Tüpraş prepared the Technology Roadmap, in which it will plan and develop its technological capabilities in order to achieve the strategic and operational goals it has defined by managing risk at the highest level. The roadmap sets out aims of following new technologies, analyzing threats and opportunities and establishing a product-market relationship.

Tüpraş works on innovative technologies in line with the Technology Roadmap, while developing projects for the operation of its refineries with the R&D centers. In 2019, the Tüpraş R&D Centre, which received the highest financial support from the Horizon2020 program, became the most successful industrial organization in Turkey by qualifying for funding worth EUR 6.02 million with a total of 12 Horizon2020 projects.

The most successful examples of the collaboration between industry and academia are exhibited in Turkey through the work carried out with KÜTEM (the Koç University- Tüpraş Energy Center), which was the first private sector supported energy center established in the field of energy in Turkey. The catalyst procurement processes are supported by our country's first and only catalyst pilot plant of such a scale, which was commissioned at the Tüpraş R&D center in 2018. Furthermore, performance optimization tests of the catalyst used are carried out using internal resources with the competencies gained.

Tüpraş is working to the vision of becoming a pioneering company that respects the environment and life values, with a performance that is looked up to in the oil sector.

Tüpraş acts with the awareness that adaptation to rising global competition is achieved by being able to rapidly adapt to changing market conditions. Managed in line with the principles of being financially sound and sustainable, Tüpraş proved the effectiveness of this strategy with its sustainable performance, despite the fluctuations experienced in international and national markets.

In line with its prioritized business strategy, Tüpraş believes in the need to increase its competitive clout by managing all business processes with the priority of safety, by minimizing the environmental impacts, improving product efficiency and ensuring a continuous improvement in the cost structure. The company aims to go much further to build on its ability to adapt to market conditions.

2019 DEVELOPMENTS



Tüpraş becomes the largest supplier of jet fuel for Istanbul Airport

In the tender held by İGA İstanbul Havalimanı Akaryakıt Hizmetleri A.Ş., Tüpraş won the contract of selling 1.8 million tons of jet fuel annually to the Istanbul Airport for 5 years, to meet the airport's jet fuel needs.

Tüpraş also contributed to balancing our country's current account deficit, meeting 60% of the annual fuel demand of Istanbul Airport, one of the largest airports in the world.

In 2019, Tüpraş fulfilled its responsibility in meeting the needs of the aviation sector, with the sale of 4.1 million tons of civil jet fuel.

Ditaş expands its fleet

Ditaş, which carries out crude oil transportation in line with Tüpraş's needs and petroleum product transportation to meet the needs of Tüpraş and other suppliers, continued to expand its fleet in 2019.

The T. Adalyn tanker, a 14,954 DWT tanker whose construction was completed at RMK Shipyard, was commissioned in May 2019, and the T. Elinor tanker, of 15,975 DWT, was commissioned in December 2019.

In order to carry out the transportation of petroleum products to İGA (İstanbul Grand Airport, the Consortium), the T. Fatma tanker, of 49,990 DWT, was purchased in June 2019 and included in the fleet.

Two tugs, each with twin 70 HP engines and ordered in 2018, are planned to be delivered in January and February of 2020.

TÜPRAŞ ALSO CONTRIBUTED TO BALANCING OUR COUNTRY'S CURRENT ACCOUNT DEFICIT, MEETING 60% OF THE ANNUAL FUEL DEMAND OF ISTANBUL AIRPORT.

TÜLOMSAŞ delivers five new locomotives to Körfez Ulaştırma

Körfez Ulaştırma A.Ş., a 100% owned subsidiary of Tüpraş, is Turkey's first private train operator. Körfez Ulaştırma was established with the purpose of transporting Tüpraş products by railway and with a vision of playing an important role in Turkey by expanding in the railway freight transportation segment. Five diesel locomotives with the General Electric license, ordered by Körfez Ulaştırma in 2018, and manufactured by TÜLOMSAŞ, a subsidiary of TCDD (Turkish State Railways) at its Eskişehir factory, were delivered in May and July of 2019. With the delivery realized, the size of Körfez Ulaştırma's fleet, which had consisted of five leased locomotives, was doubled. Since July, the frequency of the trains between İzmit and Kırıkkale has increased to two trains per day. The new locomotives, which provide superior efficiency, reliability and traction, are aimed at transporting the products more quickly and efficiently between the Tüpraş refineries and the connected fuel terminals.

The company's investments continue in other areas as well as locomotives purchase. As of the end of 2019, the last batch of carriages were taken over from Tüpraş, and all 439 carriages were brought under the ownership of Körfez Ulaştırma. With the completion of the related investments in 2020-21, a comprehensive maintenance base will be created at the Kırıkkale Refinery which will service the locomotives as well as carrying out carriage maintenance.

Körfez Ulaştırma reaches an agreement for Turkey's first hybrid locomotives

Körfez Ulaştırma A.Ş., which started railway transportation on the main lines of the TCDD (Turkish State Railway) with the freight transportation license it acquired two years ago, signed a contract for the purchase of seven EURO DUAL type Co'Co' hybrid locomotives and the spare parts and full service maintenance for a period of 8 years. The locomotives, which are to be used in freight transportation services by combining both 25 kV AC electrical and diesel working modes on high slope lines that require a strong traction force, will also be Turkey's first hybrid locomotives. New EURO DUAL type locomotives, which will be used to haul fuel product trains of up to 2,000 tons, will also increase the operational efficiency of Körfez Ulaşım. The locomotives are planned to be delivered in 2021. With this cooperation, Körfez Ulaşım will have realized its largest purchase of locomotives to date.

Tüpraş becomes “The Most Successful Turkish Industrial Organization” in Horizon2020

Tüpraş became the “The Most Successful Turkish Industrial Organization” within the scope of Horizon2020, which is Europe’s most important research and innovation program. Tüpraş was awarded EUR 6.02 million in support with 12 R&D projects included in Horizon2020, which has the largest budget of any grant program in the world. Tüpraş rose to first ranking in the list of Turkish industrial organizations published by TÜBİTAK. The program, which was launched in order to support practices geared towards Europe’s science and technology policies, plays an important role in promoting cooperation between industry and academia on an international scale, while strengthening Europe’s research and technology development capacity.

“BiZeolCat” R&D project awarded support under Horizon2020’s call for “Industrial Sustainability”

The BiZeolCat (Bifunctional Zeolite Based Catalysts and Innovative Process for Sustainable Hydrocarbon Transformation) project, of which Tüpraş is one of the partners, and which will be realized with the participation of 13 organizations from 9 different countries, was found eligible for support within the scope of Horizon2020’s call for “Industrial Sustainability”.

The project is aimed at developing innovative processes and technologies that will enable the production of valuable petrochemical raw materials such as propylene, butadiene and benzene more efficiently, which will pave the way for lower greenhouse gas emissions, reduced energy usage and lower investment costs in petrochemical production processes when compared to existing technologies.

Tüpraş aims to support the oil industry’s efforts to become more sustainable by contributing to the project. Tüpraş will play an important role in the development of catalysts within the scope of the project. Tüpraş will also perform pilot scale performance tests of the methods to be developed within the scope of the project with the reactor systems in its R&D laboratory. The budget allocated to Tüpraş within the scope of the project, 100% of which is supported by the European Union, is EUR 440,000, and the project has a total budget of EUR 6.57 million.

The project, which is implemented in partnership with organizations from Turkey, Spain, Norway, the Netherlands, France, Slovenia, Sweden, Belgium and Italy, and which started on 1 January 2019, is planned to continue for 4 years and to be completed on 1 January 2023.

The New Power Plant at Kırıkkale Refinery wins Energy Project of the Year Award

“Tüpraş Kırıkkale Refinery New Power Plant”, which was realized at a cost of USD 115 million, received the project of the year award at the 8th ICCI Energy Awards. With the project, which reduces annual carbon emissions by 111,828 tons, the need for cooling water was eliminated by deactivating condensing equipment, removing the need for 481,800 tons of raw water.

“COZMOS” R&D project awarded highest score among project applications for Carbon Capture within the scope of Horizon2020

The “COZMOS” (Efficient CO₂ conversion over multisite Zeolite-Metal nanocatalysts to fuels and OlefinS) project, of which Tüpraş is one of the partners, received the highest score among the project applications for “Converting Captured Carbon Dioxide” within the scope of Horizon2020, being awarded 14.5 points out of a possible 15. Within the scope of the COZMOS project, which has a total budget of EUR 4 million, which will be realized with the partnership of 11 organizations from 9 countries, Tüpraş received support from the European Union for its project with a total budget of EUR 776,000.

The COZMOS project, which stands out with its environmental aspects, aims to develop innovative technologies to efficiently convert carbon dioxide emitted by industrial processes into fuel. Tüpraş will play an active role in the development of leading technologies by participating in this multinational project. The performance tests for the project will be carried out by Tüpraş researchers at the pilot facility, which is to be established in Tüpraş’s R&D Center. Tüpraş will have the opportunity to test the technology at first hand.

Tüpraş receives two awards in Energy Efficiency in Industry Project Competition

Working to a goal of maximizing the use of energy in fuel production, Tüpraş received two awards in the “Energy Efficiency in Industry Project Competition” held within the scope of the 10th Energy Efficiency Forum and Fair organized by the Ministry of Energy and Natural Resources. In addition to the first prize, Tüpraş received the Jury Special Prize at the competition for the work it carried out in line with its energy efficiency strategy.

Tüpraş achieved annual savings of TL 70.1 million with the İzmir Refinery’s “Saving Energy with the U-7000 Refurbishment” project, which was awarded the first prize at the competition. It saved 298,892 Gcal annually in energy consumption while reducing annual CO₂ greenhouse gas emissions by 96,841 tons. The İzmit Refinery’s “Process Units Energy Road Map” project, which was awarded the Special Jury Prize, achieved annual savings of TL 24.5 million, cutting the annual energy consumption by 192,520 Gcal – enough to heat 56,484 homes – and the annual CO₂ greenhouse gas emissions by 44,429 tons – equivalent in impact to planting 21,733 trees.

MILESTONES IN TÜPRAŞ HISTORY

OPERATING SINCE 1955, TÜPRAŞ IS THE LARGEST INDUSTRIAL COMPANY IN TURKEY BASED ON THE ADDED VALUE IT CREATES AND ITS TURNOVER.

1950s

1955

- Turkey's first oil refinery, Batman Refinery, was commissioned.

1960s

1961

- İzmit Refinery (İpraş), with a 1 million tons/year capacity, was commissioned.

1970s

1971

- İzmit Refinery's First Expansion Project was completed and its crude oil processing capacity rose to 5.5 million tons/year.

1972

- İzmir Refinery, with a 3 million tons/year refining capacity, was commissioned.

1974

- Turkey's only base oil production facility was commissioned as part of İzmir Refinery.
- Deniz İşletmeciliği ve Tankerciliği A.Ş. (DİTAŞ) was established in March 1974.

1980s

1982

- İzmit Refinery's Second Expansion Project was completed, with the crude oil processing capacity rising to 11.5 million tons/year.

1983

- İpraş and the three other refineries were united under Tüpraş.
- İpraş's 29% share in Ditaş was acquired by Tüpraş.

1986

- The 5 million tons/year capacity Kırıkkale Refinery was commissioned.

1987

- İzmir Refinery Expansion Project was completed, increasing the refining capacity to 10 million tons/year.

1989-2003

- The Long Term Investment Plan was launched.

1990s

1990

- Tüpraş was handed over to the Privatization Administration.
- Management planning embraced the simulation approach.
- Production planning started to follow the optimization model.

1991

- Some 2.5% of Tüpraş shares were offered to the public and began trading on the ISE.

1993

- The Hydrocracker Complex was commissioned at the Kırıkkale Refinery.
- The Hydrocracker Complex was commissioned at the İzmir Refinery.

1997

- The Hydrocracker and CCR complexes were commissioned at the İzmit Refinery.

1998

- Automatic Pricing Mechanism commenced.

1999

- Free float rose to 3.58%.

2000s

2000

- Following the second international public offering, 34% of Tüpraş shares began trading on the İstanbul and London Stock Exchanges.

2001

- The Petkim Yarımca Complex was acquired by Tüpraş.
- The İzmir Refinery's CCR Reformer and Isomerization units were commissioned.

2002

- The İzmit Refinery's Isomerization Unit was commissioned.
- In October 2002, 79.98% of Ditaş shares were purchased for USD 16.5 million.

2003

- Supply Option Study was launched.

2004

- All refineries obtained quality and environment certifications.

2005

- The Petroleum Market Law became effective.
- Free float rose to 49%.
- The Koç-Shell Joint Venture Group won the tender for the block sale of 51% of the state-owned Tüpraş shares.
- The İzmir Refinery's Diesel Desulphurization Unit was commissioned.
- 100% import liberalization began.
- Laboratory accreditation was obtained.
- Refinery licenses were renewed.

2006

- On January 26th, shares were transferred to Koç Holding A.Ş.
- 40% of Opet's shares were acquired from Aygaz A.Ş.
- The Operational Excellence Program was launched.
- New logo has been designed and corporate identity study was concluded.

2007

- The İzmit Refinery's CCR Reformer and Diesel Desulphurization Unit were commissioned.
- Intranet Portal was launched.
- National Marker Application was launched.
- RUP investment decision was made.
- SAP System was initiated. The Company released its corporate responsibility report (GRI) in compliance with international standards.

- Installation of flue gas measurement devices (CEMS) was completed.
- Energy management units were established.
- Tüpraş's Corporate Governance Rating was set at 7.91.
- A transportation agreement was signed with Turkish Railways (TCDD).
- The Health Safety and Environment Policy were released and the management declared its commitment.
- The Tüpraş Recognition, Appreciation and Award scheme was launched.

2008

- The Kırıkkale Refinery's Diesel Desulphurization and CCR Reformer units were commissioned.
- The İzmir Refinery's Gasoline Specifications Improvement Investment was commissioned.
- All refineries became ready to sell diesel at Euro V standards.
- The tanker T. Sevgi joined the Ditaş fleet.
- Railway Transportation has been carried out.
- Production at the Petrochemical Plant was terminated and Residuum Upgrading Project was initiated.
- Advanced Process Control applications were started.
- OSAR-Risk Assessment Table was launched.

2009

- The İzmit Refinery's Gasoline Specifications Improvement Investment was commissioned.
- The tanker T. Gönül joined the Ditaş fleet.
- All gasoline products marketed in Turkey were improved in line with Euro V specifications.
- Contractor management system was activated.
- Customer Relationship Management System was launched.
- Winter diesel production was initiated

2010

- R&D Center was opened.
- Ethical values were revised.
- Master's degree programs were launched jointly with universities.
- Tüpraş was registered to the REACH statute.
- CE Certification was obtained for bitumen products.
- The world's first Cracking Catalyst in the Desulphurization Unit's reactor was implemented.
- Batman Refinery earned a first prize while the İzmir refinery received third prize in the Industrial Energy Efficiency competitions.
- Refineries launched the Waste Management Program via SAP.

MILESTONES IN TÜPRAŞ HISTORY

TÜPRAŞ WAS AWARDED THE CONTRACT TO SELL 1.8 MILLION TONS OF JET FUEL ANNUALLY TO THE ISTANBUL AIRPORT (İGA) FOR 5 YEARS.

2011

- The loan agreement was signed for the Fuel Oil Residuum Upgrading Project.
- İzmir and İzmit kerosene sweetening units were commissioned.
- İzmir and Batman Refineries were granted first prizes in the Industrial Energy Efficiency competitions.
- The Corporate Governance Rating was updated as 8.62.

2012

- Tüpraş issued a 5.5-year bond worth USD 700 million on the international market.
- İzmit Refinery commissioned its C3/C4 Splitter and Selective Hydro generation units.
- The tanker T. Suna joined the fleet on 23 November 2012.
- The tanker T. Leyla began transporting in December 2012.
- Batman Refinery placed first at the competition for Industrial Energy Efficiency.
- The Corporate Governance Rating was upgraded to 9.10.
- İzmir Refinery commissioned its Caustic Neutralization Unit.
- İzmir Refinery inaugurated the U-920 Gas Turbine and Waste Heat Boiler.
- Kırıkkale Refinery and Batman Refinery commissioned new bitumen tanks.

2013

- Batman Refinery won first prize in the Industrial Energy Efficiency competition.
- Tüpraş's Corporate Governance Rating was upgraded to 9.34.
- ISO 50001:2011 Energy Management System Certification was obtained.
- ISO/IEC 27001:2005 Information Security Management Systems Certification was obtained.
- New bitumen tanks were commissioned at the İzmit and Batman refineries.

- The Aegean Region Chamber of Industry presented the "Environmental Best Practice Award" to İzmir Refinery for the Base Oil Complex Burner Modernization Project.
- The heat integration project was commissioned at the CCR and Benfree Units of Kırıkkale Refinery.

2014

- İzmit Refinery's RUP Facility was completed.
- T. Esra, one of the world's two largest tankers of its kind, designed to carry heavy petroleum products such as bitumen, was inaugurated on 24 January 2014 and joined the fleet. Construction of the T. Aylin tanker, inaugurated on 24 June 2014, reached its final phase.
- The Batman Refinery won first prize in the category of Energy Efficient Industrial Facility at the Industrial Energy Efficiency Competition.
- The simulation program, developed after the R&D project titled "Monitoring, Modelling, Simulation and Optimum Maintenance Planning of Exchanger Pollution to Minimize Energy Waste at the Refinery", was registered as a European Union Trademark (CTM) under the name "HexMon".
- As a result of the assessment carried out in accordance with the new methodology issued by the Capital Markets Board in January 2014, Tüpraş's Corporate Governance Score was graded as 9.31.
- Tüpraş ranked among the top 15 companies on the BIST Sustainability Index, which was launched on 4 November 2014.
- The R&D Center Campus, covering 12,950 m² and comprising a Design Building, a Laboratory Building and a Pilot Facility Testing Building, commenced operations.

2015

- Tüpraş won the first prize under the European Business Awards for the Environment (EBAE)'s Turkish National Scheme for its project "Using Membrane Deaerated Cold Boiler Feed Water for Energy Recovery".
- Inaugurated on 24 June 2014, the T. Aylin tanker was put into service in February 2015 and completed its first voyage in March.
- Tüpraş's Corporate Governance Score rose to 9.44.
- Tüpraş ranked among the top 30 companies included in Borsa İstanbul's Sustainability Index, when BIST-50 component companies were assessed in 2015 and when BIST-30 component companies were assessed in 2014.
- Tüpraş had the first 3 ranks in the "SENER-2" category at the Industrial Energy Efficiency Competition, with Kırıkkale Refinery winning the first prize, İzmit Refinery winning the second and İzmir Refinery winning the third prize. Batman Refinery won the Special Jury Prize in the "SENER-3" category at the same competition.

- In response to the patent application for “Diesel Production Method and System”, the Turkish Patent Institute issued a patent with examination to Tüpraş, providing protection for a 20-year period.
- The groundbreaking ceremony for the gas turbine construction, the first phase of the New Power Plant of the Kırıkkale Refinery, was held on 3 July 2015
- The HexMon brand received design mark registration from the Turkish Patent Institute.

2016

- İzmit Refinery’s PLT-62 Greywater Treatment Unit, which treats discharge water from İSU Körfez Wastewater Treatment Plant for industrial reuse, started up operations.
- Construction of Kırıkkale Refinery’s Wagon Maintenance and Repair Workshop, the most comprehensive workshop of its kind in Turkey, was completed and commenced operations after receiving Entity in Charge of Maintenance - ECM certification on 29 September 2016.
- The Eastern Marmara Regional Directorate of Customs and Trade granted the first Authorized Economic Operator certificate to Tüpraş in Kocaeli.
- At the Industrial Energy Efficiency Project Competition (SEVAP), Batman Refinery won first prize in the SEVAP-2 category; meanwhile, Kırıkkale and İzmit Refineries won second and third place prizes, respectively, in the SEVAP-3 category.
- Tüpraş website renewed and the Tüpraş Supplier Portal was launched.
- Tüpraş’s third project was accepted into Horizon 2020 with a record high score.
- The Project for Method Development for Compatibility and Stability Measurements of Crude Oil was approved by TÜBİTAK-TEYDEB as a qualified R&D project.
- The European Bank for Reconstruction and Development (EBRD) extended a USD 150 million loan to Tüpraş to support the Company’s energy and water efficiency efforts.
- Two new product tankers, T. Caroline and T. Nevbahar, were added to Ditaş’s fleet.

2017

- With the establishment of Körfez Ulaştırma A.Ş., Tüpraş becomes Turkey’s first private railway operator.
- Developed by R&D Directorate, field performance tests of high quality modified bitumen got underway.
- New F-1101 furnaces are commissioned at the Batman Refinery.
- Tüpraş R&D Center’s First Catalyzer Pilot Plant was established.
- Two new product tankers, T. Semahat and T. Sadberk, were added to Ditaş’s fleet.
- A USD 700 million, 7 year maturity Eurobond issue was carried out for foreign investors in October 2017. The Eurobond, which carried a fixed coupon of 4.5%, was listed on the London Stock Exchange.

2018

- İzmir Refinery 7000 Unit modernization project was completed.
- Kırıkkale Refinery New Power Plant was commissioned.
- London Trading Office was opened.
- The Hydro processing Pilot Plant was opened.
- Kırıkkale Refinery ranked first in the Energy Efficiency in the Industry Project Competition-3 category for Energy Efficiency in the Industry Project Competition, and the İzmit Refinery was ranked second. The Batman Refinery won third prize in the Energy Efficiency in the Industry Project Competition-2 category.
- R&D Center developed the HPNA Analysis Method.
- Corporate Governance Rating has increased to 9.48.

2019

- **Tüpraş was awarded the contract to sell 1.8 million tons of jet fuel annually to the Istanbul Airport (İGA) for 5 years.**
- **Körfez Transportation received five new locomotives from TÜLOMSAŞ**
- **Tüpraş became the “Most Successful Turkish Industrial Organization” in Horizon2020, EU’s R&D and Innovation Program**
- **Three new product tankers, T. Adalyn, T. Elinor and T. Fatma joined the Ditaş fleet**
- **İzmir Refinery awarded the first prize in the Energy Efficiency in the Industry Project Competition-3 category at the Energy Efficiency in Industry Project Competition, while the İzmit Refinery was awarded the jury special prize.**
- **Tüpraş’s Corporate Governance Rating raised to 9.50.**

INVESTOR RELATIONS

IN 2019, TÜPRAŞ'S MARKET VALUE INCREASED BY 22% IN TL TERMS WHEN COMPARED TO THE END OF 2018, FROM TL 26.1 BILLION TO TL 31.8 BILLION.

In line with the CMB's Principles on Corporate Governance, Tüpraş aims to provide timely, accurate, complete clear and easily reachable information, provided that it does not include trade secrets. The Company ensures that the principles of equality, transparency, accountability and responsibility are respected when distributing such information.

Corporate information, reports, historical and related period financial statements and activities and material event disclosures required by investors can be accessed through the Investor Relations section of the Company's corporate website (www.tupras.com.tr).

Annual General Assembly Meeting

The Annual General Assembly Meeting of Tüpraş for the year 2019 will be held on Wednesday, 1 April 2020 at 10:00 am at the address of Güney Mahallesi, Petrol Caddesi No: 25 Körfez/Kocaeli.

The Annual General Assembly Meeting sets out the agenda; the presentation of financial statements for the 2019 year of operation, the Independent Audit Report, the proposal for dividend distribution, the Annual Report and its annex, the Report on Compliance with the Principles of Corporate Governance and the Information Note containing necessary explanations regarding compliance with Capital Markets Board regulations. All documents will be made available three weeks prior to the meeting in line with statutory requirements, at the Company's headquarters, on the company's corporate website, www.tupras.com.tr, on the Public Disclosure Platform (PDP), on the e-governance platform, the e-company platform and the Electronic General Assembly System of the Central Registry Agency.

Providing Information

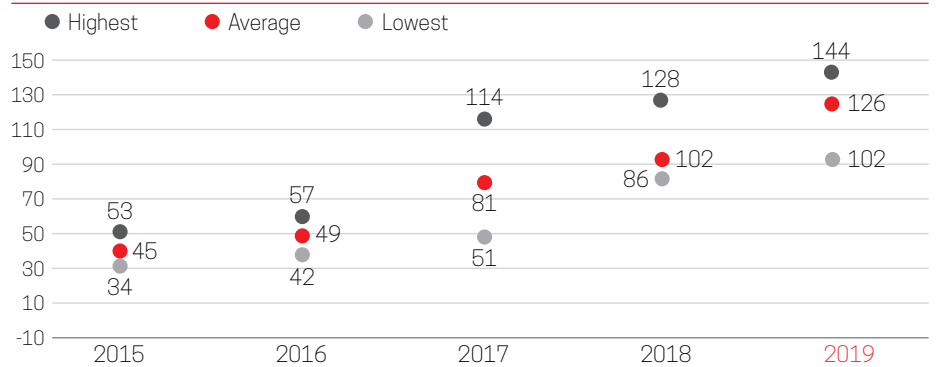
14 conferences and road shows have been attended in 2019, while more than 500 one-to-one interviews were held with fund managers and analysts. In addition to the meetings, the questions, received from the shareholders and analysts either in writing or verbally, were responded. Through the quarterly teleconferences organized with the participation of the CFO, the company ensured that investors were informed about Tüpraş and the sectoral developments. In 2019, all requests received from shareholders were responded to and necessary informative activities continued.

77.78%

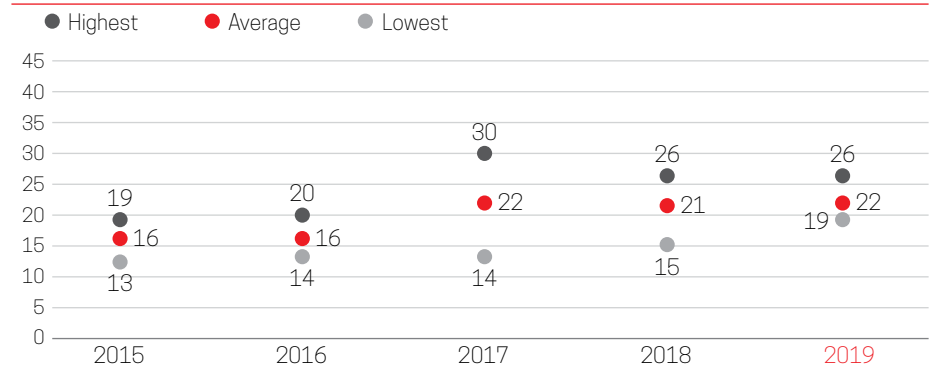
The proportion of publicly traded shares held by international institutional investment banks, funds and foreign institutions stood at 77.78% as of the end of 2019.

**THE SHARE PRICE
ROSE FROM TL 104.3
TO TL 126.8 DURING
THE COURSE OF 2019,
ENDING THE YEAR
22% HIGHER THAN AT
THE END OF 2018.**

Tüpraş Stock Price Trend (TL/Share)*



Tüpraş Stock Price Trend (USD/Share)*



*Excluding dividends

INVESTOR RELATIONS

Distribution of Domestic/Foreign Ownership of Tüpraş Shares



The Composition of the Investors in Tüpraş Shares

49% of Tüpraş's shares are traded on Borsa İstanbul (BIST). The diversity and richness of the investor portfolio is considered an important indicator of trust and stability from investors' perspective. As an indication of this, the proportion of publicly traded shares held by international institutional investment banks, funds and foreign institutions stood at 77.78% as of the end of 2019.

Share Price Performance

The share price rose from TL 104.3 to TL 126.8 during the course of 2019, ending the year 22% higher than at the end of 2018 and the stock outperformed the BIST 30 index by 1%.

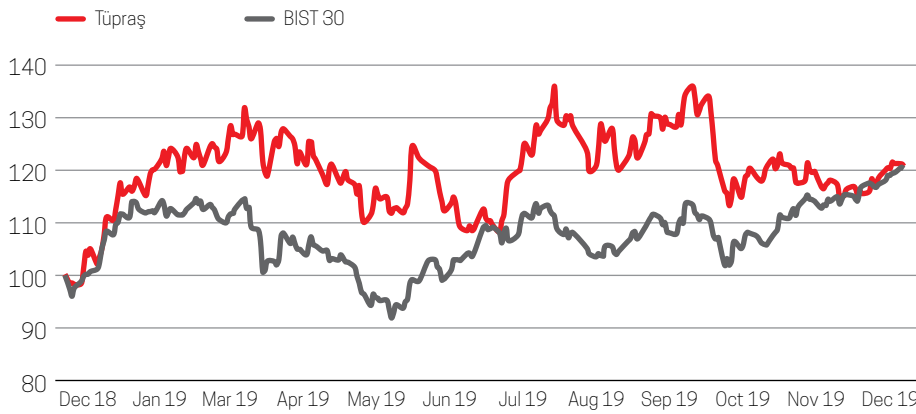
Market Value Development

Despite the volatility experienced in the stock markets in 2019, Tüpraş's market value increased by 22% in TL terms when compared to the end of 2018, from TL 26.1 billion to TL 31.8 billion.

Corporate Governance at Tüpraş

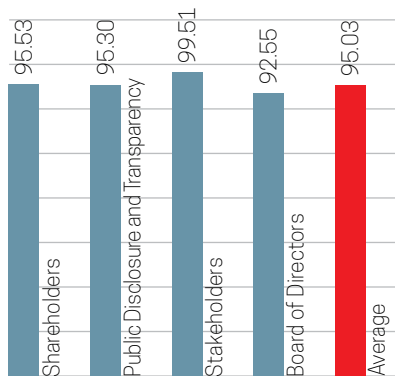
The Corporate Governance Rating of Tüpraş on the Corporate Governance Rating Index, in which Tüpraş was included in 2007 with a determined rating of 7.91 as of October 2007, was raised to 9.50 in 2019 in parallel with the improvements achieved.

Tüpraş and BIST-30 Relative Share Performance in 2019



According to the World Corporate Governance Index (WCGI), published by SAHA Kurumsal Yönetim ve Kredi Derecelendirme Hizmetleri A.Ş. (Corporate Governance and Credit Rating Services) on 3 September 2018, Tüpraş was placed in the first group.

Corporate Governance Rating Composition (%)

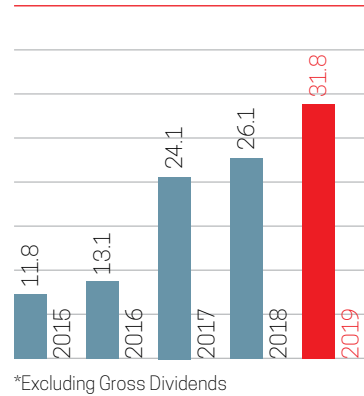


The BIST Sustainability Index

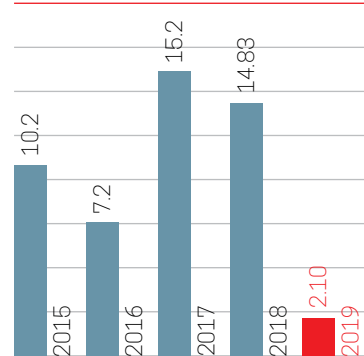
The BIST Sustainability Index (XUSR), which was created by Borsa İstanbul in November 2014 and which includes companies with a high level of corporate sustainability, provides companies with the opportunity to improve their corporate transparency and accountability as well as their risk management skills with regard to sustainability issues, in addition to assessing the companies' economic, environmental and social performances.

Tüpraş was incorporated into the BIST Sustainability Index in 2014 when the index, which assesses BIST-listed companies on the basis of their compliance with international sustainability criteria, was created.

Changes in Market Capitalization (TL billion)*



Earnings per Share (TL)



HUMAN RESOURCES



As in other companies of the Koç Group, the philosophy of “Our Most Valuable Asset is Our Human Resources” constitutes the essence of Human Resources Policy also at Tüpraş. In this respect, as a company with creative, dynamic, knowledgeable, effective, efficient and highly motivated human resources, Tüpraş aims to strengthen its personnel by continuing to incorporate the sector’s successful professionals into its organization and thus maintain its characteristic of being a preferred organization in the sector as Turkey’s largest industrial company and a world-standard refinery company. The outlines of its basic applications within the framework of the Tüpraş Human Resources Policy are summarized below:

- Recruitment criteria are determined and announced in writing, and these criteria are complied within recruitment. Tüpraş aims to attract qualified candidates with high potential, who will take Tüpraş forward.
- Task definitions and distributions and performance criteria were determined by the company management and announced to the employees.

THE PHILOSOPHY OF “OUR MOST VALUABLE ASSET IS OUR HUMAN RESOURCES” CONSTITUTES THE ESSENCE OF HUMAN RESOURCES POLICY AT TÜPRAŞ.

- In the training and in appointment and promotion decisions, attention is paid to the use of objective data.
- Great importance is attached on performing training for the development of the professional knowledge and skills of the employees and their personal skills.
- A safe working environment is provided for employees with safe conditions, and efforts are undertaken to ensure continuous improvement of the conditions.

- Decisions taken regarding employees or developments concerning them are announced to the employees.
- The employees are informed of the Company's financial situation, wages, careers, education, health care and other matters that concern them.
- There are recognition and reward systems that support both the short and long-term success of all employees, and which provide awareness of performance and value created.
- There is no discrimination among employees; a fair, objective and transparent Human Resources Policy is ensured.
- Decisions that may affect employees are communicated to them and their representatives.
- The Company supports the freedom to establish an association and the effective recognition of the right to collective bargaining agreements.
- There is no application of assigning an indirect representative outside the Human Resources Department to carry out relationships with the employees.

Tüpraş set out its long-term human resources plans in line with the objectives of inclusion of employees who will best accomplish the Company's goals, increasing their leadership capabilities, developing their scientific and operational competencies through continuous training, and making the right career plans. The human resources processes created within this scope are managed with great care in line with Tüpraş's corporate goals and are structured in a way to be supported by technological infrastructure to strengthen the employee experience. Within the framework of the Human Resources Policy, the Human Resources Department ensures that candidates are selected in accordance with the qualifications of the position, consideration of employee competencies, that evaluations are performed with the appropriate evaluation tools without discrimination and that employees benefit from opportunities equally during their working lives after being recruited.

**TÜPRAŞ IS A COMPANY
WITH CREATIVE, DYNAMIC,
KNOWLEDGEABLE, EFFECTIVE,
EFFICIENT AND HIGHLY
MOTIVATED HUMAN RESOURCES.**

The criteria for the Tüpraş Recruitment Policy are determined in writing. Tüpraş aims to use contemporary, inter integrated systems that enable the production of business results in all human resources processes, from the recruitment process to the performance management system and the development, remuneration and termination processes.

Any rights and side benefits attached to the title or position are predefined and are uniform for everyone. Within the scope of market wage comparisons, wage structures and their position in the market are monitored by working with the internationally accepted surveyors. Wage management policies are monitored and kept up-to-date through the sectoral wage research carried out regularly. A transparent wage system is applied, in which the contribution to achieving the corporate goals is kept as a key component according to the levels of responsibility. This serves as a model of wages and side benefits based on the principle of equality and fairness, which is objective, transparent and which reflects the realities of the national and international business world, and which is based on the work carried out.

Continuous improvement and development is carried out in order to ensure a safe working environment and conditions for the employees. The Company aims to fully ensure occupational health and safety in the workplace and on the job in the refineries. To this end, employees are informed of the rules and instructions and act accordingly and take the necessary measures. The human resources management and the company management participate on a monthly basis in the platform, which is geared towards occupational health and safety, and topics such as occupational health and safety are discussed, and suggestions are taken into consideration and necessary actions are taken. Necessary training is given to employees regularly in the workplaces, and the content of the training is reviewed according to practices and developments. In addition, at the refineries, risk assessments are completed in a timely manner in accordance with legal regulations. Work accidents are consolidated and monitored and reported every year.

HUMAN RESOURCES

An “open office” is implemented in order to support and improve the communication process between the management and the employees throughout the company. All kinds of complaints, opinions and suggestions are shared through the open office communication. At the same time, it was decided that employees should contact the Human Resources Department when they experience any problems with the management, and that this should be conveyed to the employees.

Ethical Rules

The “Ethics Committee” mechanism, which is attended by the Risk Management and Audit, Law, Corporate Communication and Human Resources Departments, was established and operates actively.

The Ethical Code of Conduct adopted by the Board of Directors was approved by the General Assembly in April 2011 and the commitment of all employees was obtained.

The Tpraş Ethical Code of Conduct is disclosed to the public through the website. In the use of duties, authorities and responsibilities defined in the company, Tpraş aims to act in accordance with the Company’s Articles of Association, the Personnel Regulation, the Law of Obligations, the Tpraş Values and Working Culture Principles and the Labor Law governing work life and the law order that is valid and in force on the national platform.

Ethical rules which employees must follow within the company and matters that they should take into consideration when communicating with each other were also set. These issues are set out in the “Tpraş Ethical Code of Conduct and Principles of Application”, “Job Descriptions”, and “the Personnel Regulation”, which all employees are informed of.

Religion, language and race are not asked in job advertisements, job application forms and job interviews. In accordance with the principle of “The Right Person for the Right Job”, there is no discrimination in the recruitment of employees. Measures are taken to ensure that there is no racial, religious, language or gender based discrimination among employees, and to protect employees from any in-house physical, mental and emotional abuse. No complaints concerning discrimination have been conveyed to the Company. Employees are informed of these issues through the personal development and communication training sessions.

The Company does not constitute any obstacle to effective recognition of the freedom to establish an association and the right to collective bargaining agreements. The Company currently has a collective bargaining agreement.

There are trade union workplace representatives at Tpraş which are subjected to the Collective Bargaining Agreement and where the trade union is organized, with the number of representatives determined within the framework of legal regulations.

TPRAŞ HAS ATTACHED TREMENDOUS IMPORTANCE TO TRAINING AND DEVELOPMENT ACTIVITIES AIMED AT THE DEVELOPMENT OF BOTH THE PROFESSIONAL KNOWLEDGE AND SKILLS AND THE BEHAVIORAL CAPABILITIES OF ITS EMPLOYEES.

Social Responsibility

Tüpraş, which is oriented towards social interests rather than individual interests with its knowledge in the refinery sector, creates projects which will contribute to the cultural and social development of our country in the cities where its refineries are active, backed by its institutionalized structure and employees with such high social awareness, while also extending significant support to the projects created.

Tüpraş carried forward its corporate and ethical management approach and standards and published its first Corporate Social Responsibility (CSR) Report in 2008, and the 9th report was published in 2018. Tüpraş adopted the G3 Reporting Principles of Global Reporting Initiative (GRI) in its CSR Report.

Within the framework of the Nextremers Program that aims at attracting qualified workforce to Tüpraş as well as contributing to the professional development of university students, 13 project students from Turkey's leading universities continue to attend the program successfully.

Development at Tüpraş

Within its focus on the improvement and structural change activities in human resources, Tüpraş has attached tremendous importance to training and development activities aimed at the development of both the professional knowledge and skills and the behavioral capabilities of its employees, while attracting a qualified workforce and deploying them in the most efficient and productive manner. In this context, work continues the establishment of the training center, which will be operational at the Kırıkkale Refinery and which will include workshops, training classes, a conference hall and library.

In line with this understanding, a "Development Dialogue" process, which works in an approach that focuses on development to meet the expectations of Tüpraş employees and where the manager gathers with employees to establish a dialogue, has been designed. In this context, solutions are created to improve the technical, professional and behavioral competencies of the employees receiving a monthly salary. In the project, called the Qualification Matrix for Technical and Professional development, the qualifications expected from positions and the training that must be undertaken in order to gain these qualifications are

TÜPRAŞ CREATES PROJECTS WHICH WILL CONTRIBUTE TO THE CULTURAL AND SOCIAL DEVELOPMENT OF OUR COUNTRY IN THE CITIES WHERE ITS REFINERIES ARE ACTIVE, WHILE ALSO EXTENDING SIGNIFICANT SUPPORT TO THE PROJECTS CREATED.

determined. For the development of behavioral competencies, the Training and Development Catalogue is presented, which is matched with the competencies that the company prioritizes for development. The training and development process is carried out through Tüpraş's online education platform, Energetic.

The orientation program is carried out to ensure that all new employees who begin working at Tüpraş get to know the company culture and the business processes of the departments, and to speed up the adaptation process.

Incentive programs carried out at Tüpraş aimed at helping employees participate in graduate programs to develop their knowledge and skills, to increase their competency and to enrich their sectoral studies with academic knowledge.

Within the scope of the professional development of employees paid on an hourly basis, an application was made to the Vocational Qualification Authority with the National Professional Standard and National Qualification Preparation form, and the National Vocational Standard was drafted.

HUMAN RESOURCES

In this context, the following standards are prepared and submitted for approval by the Vocational Qualifications Authority.

- Oil Refining Operator Level 3
- Oil Refinery Control Operator Level 4
- Oil and its Products Handling Operator Level 3
- Oil Refinery Power Plant Operator Level 3.

Within the scope of talent management, it is aimed that the talented individuals who will carry Tüpraş into the future are brought into the organization, with the development of leadership and technical competencies through the training and development programs designed specifically for Tüpraş, along with support in making the right career planning.

In this direction, the leadership development of the employees is supported through the training and development activities, project work and on-the-job learning/rotation processes, which are designed by the leading business schools and university collaborations for the development of professional knowledge and skills and personal talents of the employees. Within the scope of the development programs aimed at improving the leadership competencies of the employees, development

programs which include effective communication, coaching and development, cooperation development and future-oriented development are designed. The talent management process, which enables effective guidance of human resources and identifying development needs, serves as a guide in promotions and appointments.

In the Strategic Human Resources Planning Meetings held annually, performance and potential evaluations of all monthly paid employees are carried out with the data obtained during the talent management process. In the same meetings, backup plans for the middle-level and senior executive positions are also created. Within the backup planning, leadership competencies were measured with the middle -level evaluation center and executive level evaluation center applications and managers were directed to development programs by using the Tüpraş Leadership Competency Sets within the backing planning. With the internal backup system, critical positions and backup plans were created and the potential talent pool was determined. With the talent pools designed for different levels, Tüpraş plans to identify its talented employees and design programs to support their leadership competencies and individual development.

Employee Distribution (person)



● Izmit Refinery	2,100
● Izmir Refinery	1,437
● Kırıkkale Refinery	969
● Batman Refinery	510
● Head Office	442

Distribution of Employees by Hourly/Monthly Wages (person)



● Hourly Waged	4,199
● Monthly Waged	1,259

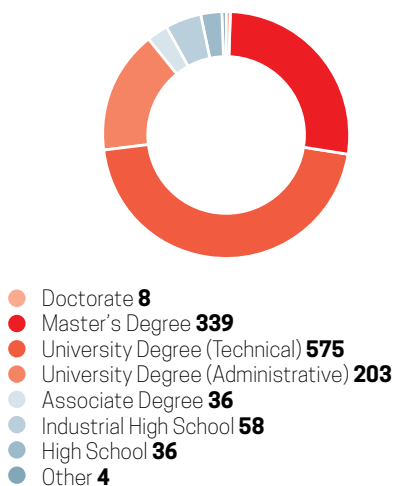
Employee Commitment

According to the results of the Employee Commitment Survey, which has been repeated over a long period of time by an independent body, the General Commitment Score of Tüpraş decreased by 21.4 percentage points compared to the previous year to stand at 35.8% in 2019. The commitment score of the employees paid on a monthly basis increased by 3.2 percentage points compared to the previous year to 52.9%, while the commitment score of employees paid on an hourly basis decreased by 30.7 percentage points to 29.1%.

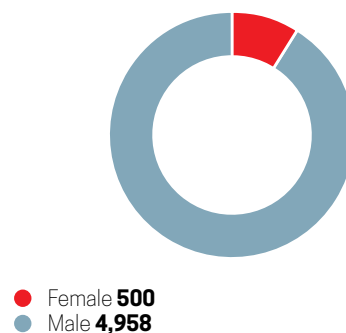
Employee Support Practices

- **Employee Support Program:** This is a professional support program that serves the lifestyles and individual needs of the Tüpraş employees and their families. The program includes financial, legal and psychological counseling provided by specialists in their fields and quick solutions are offered for daily special needs. With a support line that can be reached on a 24/7 basis, the performance of the offered program is monitored continuously through various measurements.
- **Support Program at Work:** The program, which was initiated in 2016 and includes screening, training and individual psychological support work carried out by industrial psychologists at all refineries, is ongoing.
- **Extended Health Insurance Program:** All employees are covered by complementary health insurance, and may benefit from private health coverage at preferential rates for themselves and their families.
- **Flexible Working Hours:** At Tüpraş, employees receiving a salary have the opportunity to organize the times they start and end their shifts on a daily and weekly basis in accordance with their personal needs and preferences, provided the management is aware and within certain limits.
- **Nursery Fringe Benefit Package:** The Nursery Fringe Benefit Package was launched with supporting the work-leisure balance in particular, and the career development of female employees.
- **Adaptation Process Guidance Program:** To help newly recruited Tüpraş employees adapt to the corporate culture and ensure that they start work quickly, a "Guidance Support Program" practice is offered in the first 3 month orientation period.
- **Flextra Package:** With this system, which is a flexible system of additional side benefits, each year employees may choose from a wide pool of side benefit such as life insurance, gifts and discount checks and individual pension programs, in addition to their existing side benefits, and have the option to change side right packages in accordance with their lifestyles and different individual needs. This is offered to employees every year with the company's contribution.
- **Recognition, Appreciation and Reward Systems:** Different recognition and appreciation systems are applied in order to support and encourage individual and original ideas on issues such as process improvement, energy saving, resource saving, efficiency in production, environmental protection and occupational safety with the "Tüpraş Recognition, Appreciation and Reward" system in order to reward behavior and efforts, which support the company's values and targets, from employees. For example, with the Instant Reward and HSE (Health, Safety and Environment) Award applications, employees' achievements could be quickly rewarded and appreciated.

Education Level of White Collar Employees (person)

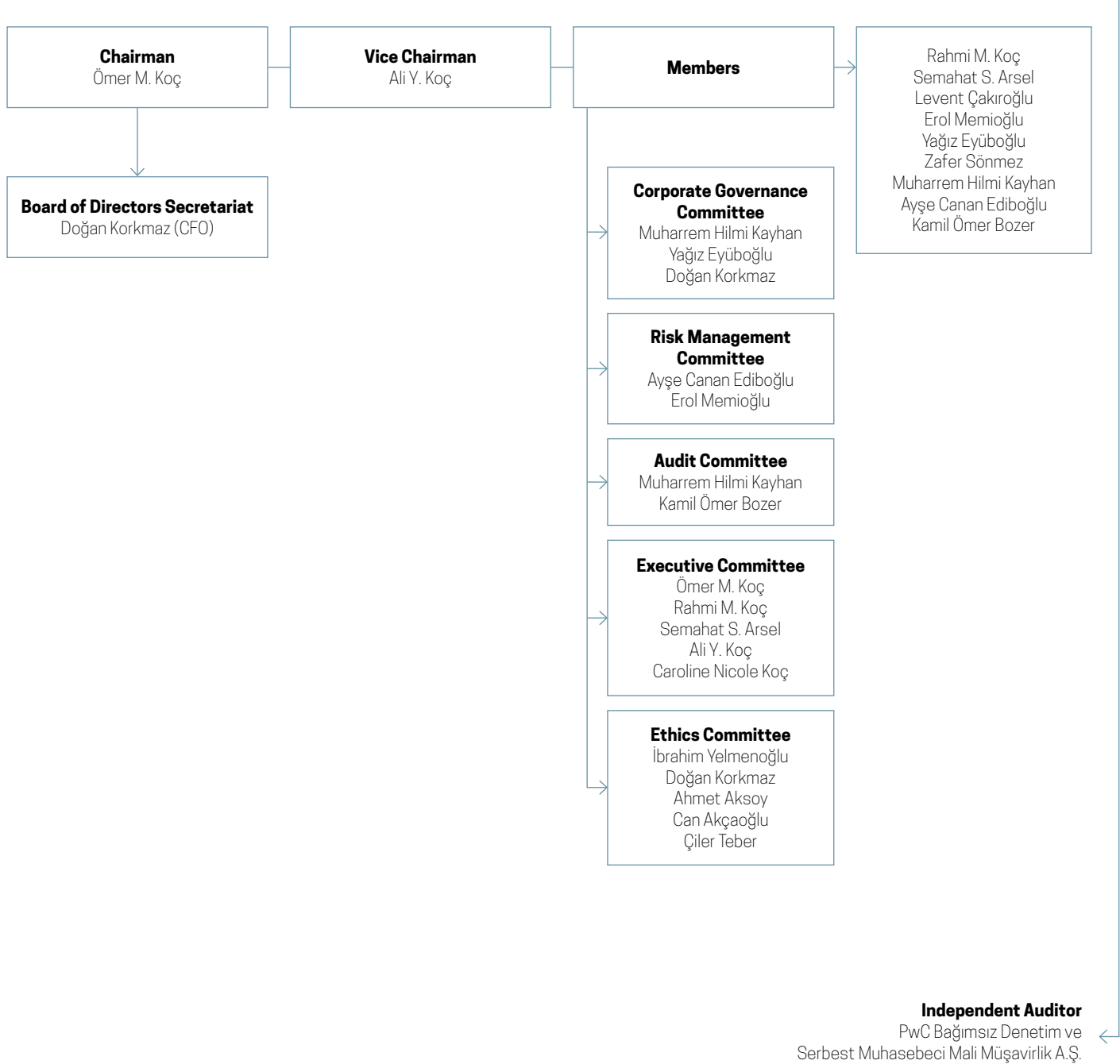


Gender Breakdown of Employees (person)



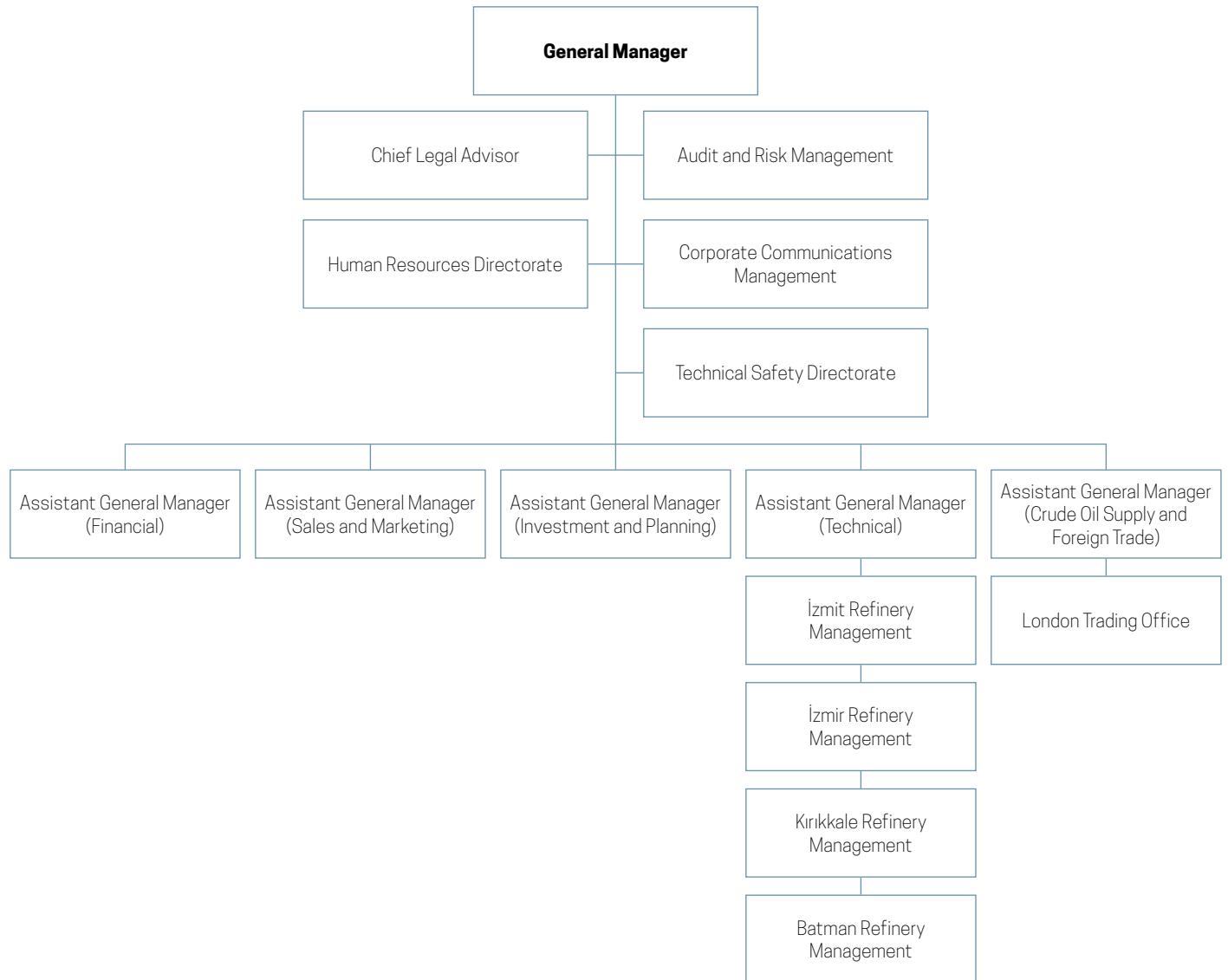
HUMAN RESOURCES

Structure of Board of Directors



In 2019 the Board of Directors convened three times (30 April, 29 July and 19 December).

Tüpraş Organizational Structure



ACHIEVEMENTS AND AWARDS



Leader of the Fortune 500 Turkey

With the net sales revenues of TL 88.5 billion in the Fortune 500 Turkey Survey, Tüpraş became Turkey's biggest company. Tüpraş ranked first on the list for the 11th time since 2007.

Turkey's Biggest Private Company in the Capital 500

In the Turkey's Top 500 Private Companies survey held for the 22nd time, Tüpraş was ranked first with net sales revenues of TL 88.5 billion.

Turkey's Largest Industrial Enterprise in the ISO 500

Tüpraş became Turkey's biggest industrial organization with sales from production amounting to TL 79 billion according to the results of the "Turkey's Top 500 Industry Organizations 2018 survey" conducted by the Istanbul Chamber of Industry.

**TÜPRAŞ BECAME TURKEY'S
BIGGEST INDUSTRIAL
ORGANIZATION ACCORDING
TO THE "TURKEY'S TOP 500
INDUSTRY ORGANIZATIONS
2018 SURVEY" CONDUCTED BY
THE ISTANBUL CHAMBER OF
INDUSTRY.**

1st

With the net sales revenues of TL 88.5 billion in the Fortune 500 Turkey Survey, Tüpraş became Turkey's biggest company.

Ranked 1st in the Sector in the Turkey Exporters Assembly (TEA) Top 1000

Tüpraş ranked 6th in the assessment conducted by the Turkey Exporters Assembly based on 2018 data in the ranking of Turkey's leading exporters. The company ranked 1st in the "Chemical Substances and their Products" category based on export activity on a sector basis.

Turkey's Innovation Leader

In the Innovation Week, held within the scope of İnovaLİG, which is Turkey's first innovation development program, Tüpraş was awarded 1st prize in the "Innovation Strategy" category.

Tüpraş wins Two Awards in the Energy Efficiency Competition in Industry

Tüpraş received the Jury Special Prize, in addition to the first prize, at the "Energy Efficiency in Industry Project Competition" held within the scope of the 10th Energy Efficiency Forum and Fair organized by the Ministry of Energy and Natural Resources with its work carried out in line with its energy efficiency strategy.



Ranked 1st in the Energy Management Category at the Sustainable Business Awards

The "Tüpraş Kırıkkale Refinery New Power Plant" was awarded first prize in the "Energy Management" category at the Sustainable Business Awards, which was held for the 6th time by the Sustainability Academy.

Kırıkkale Refinery New Power Plant handed Energy Project of the Year Award in ICCI Energy Awards

The "Tüpraş Kırıkkale Refinery New Power Plant" received the "project of the year" award in the 8th ICCI International Energy and Environment Fair and Conference. The USD 115 million project succeeded in bringing carbon emissions down by 111,828 tons annually, while saving 481,800 tons of raw water annually.

Kocaeli Chamber of Industry (KCI) Sectoral Performance Awards

Tüpraş received the Large Scale Organizations Sector Award in the 12th Sectoral Performance Awards organized by the Kocaeli Chamber of Industry.

ACHIEVEMENTS AND AWARDS



“Rising Star” Award in TÜYİD Investor Relations Summit

Tüpraş received the “Rising Star Award” at the 8th TÜYİD Investor Relations Summit, organized by the Turkish Investor Relations Society (TÜYİD) under the main theme of “Creating Value from Change”.

“Active Company” Award in International Standardization Summit

Tüpraş received the “Active Participant Company of the Year” award at the International Standardization Summit with its standardization efforts that set an example to the business world.

The “Our Energy is for Students” Project and the Most Successful Koç Employees Competition

In the Most Successful Koç Employees competition organized by the Koç Group every year with the aim of revealing the best practices in the Group, Tüpraş ranked third in the category of “Adding Value to the Environment and Society” with its “Our Energy is for Students” Project.



Tüpraş became finalist in two categories at the S&P Platts Global Energy Awards

Tüpraş reached the finals in the “Engineering Project of the Year” category in the S&P Platts Global Energy Awards, with its success in the “Downstream-Excellence” and in planning and managing the RUP (Residuum Upgrading Project) maintenance process.

Tüpraş becomes a Finalist in IR Magazine Awards

Tüpraş was placed as one of the world’s leading companies in the “Best Crisis Management” category in the IR Awards 2019, held in London by the IR Magazine, which is Europe’s largest Investor Relations publication.

Tüpraş becomes a Finalist in the Three Categories in the “Edie Sustainability Leaders Awards”

Tüpraş became a finalist in three categories - Water Management, Energy Management, Sustainability Reporting and Communication - in the “Edie Sustainability Leaders Awards”, which is one of the most successful platforms in the field of sustainability in the UK.

TÜPRAŞ WAS PLACED AS ONE OF THE WORLD’S LEADING COMPANIES IN THE “BEST CRISIS MANAGEMENT” CATEGORY IN THE IR AWARDS 2019.



SECTOR



In 2019, in parallel with the slowdown in global economic activity, particularly with the impact of trade wars, demand for oil products increased by just 960,000 barrels/day globally, less than half of the 10-year average increase (approximately 500,000 barrels/day). In 2019, the benchmark crude oil price, which started the year 2019 at the USD 53.90/barrel, fluctuated in a range of USD 54-75/barrel during a year marked by trade wars, OPEC cutback decisions, US sanctions on Iran and Venezuela, global economic concerns and weak demand, averaging USD 64.20/barrel - 10% below the 2018 level. The fact that OPEC - particularly Saudi Arabia - cut its production by more than the amount agreed at the summit, and the USA ended all of the exemptions on crude oil imports from Iran, which it had allowed to 8 countries, including Turkey, from May led to an increase in crude oil prices during the year. On the other hand, the continued increase in production of non-OPEC countries such as the United States, Canada and Brazil, combined with lower than expected global demand growth, tempered the rise in oil prices.

In addition to the fluctuating course in the price of crude oil, the new measure which had been launched by the Government in May 2018 to regulate duties on petroleum products in order to ensure that pump prices remained constant amid the depreciation and volatility in Turkish lira exchange rates, also remained in place in 2019. Nevertheless, due to the loss of momentum in economic growth, the decline in oil products consumption, which had begun in August 2018, continued throughout the first half of 2019. Demand for diesel on an annual basis stood at 24.9 million tons, declining by

**ACCORDING TO EMRA FIGURES
TOTAL DEMAND FOR PETROLEUM
PRODUCTS INCREASED BY A 2.2%
IN 2019.**

960,000

In 2019, demand for oil products increased by just 960,000 barrels/day globally, less than half of the 10-year average increase (approximately 500,000 barrels/day) |

0.4% end of year, although it started to increase in YoY terms on the back of the base effect from July according to EMRA figures. Gasoline consumption increased by 3.2% to 2.4 million tons, and jet fuel consumption grew by 6.5% to 5.3 million tons on the back of the improvement in the tourism sector. Thus, total demand for petroleum products during this period increased by a 2.2%. Despite the decline experienced in domestic flights in air transportation, demand for jet fuel continued to grow throughout the year with the support of activity in the foreign tourism sector. Air traffic

increased by 0.6% in 2019 when compared to the previous year despite the contraction in the first four months of the year, while passenger numbers decreased by 0.8% to stand at 209 million. Accordingly, Tüpraş's total domestic civilian jet fuel sales stood at 4.1 million tons, while 4.7 million tons of jet fuel were sold, including exports.

In 2019, which was marked by a continued declining trend due to the economic slowdown experienced, especially after August 2018, and reduced infrastructure investments, total bitumen sales stood at 2.3 million tons including exports, in accordance with Tüpraş's sales policies.

Due to the continued depreciation of the Turkish Lira despite a more stable outlook than in 2018 due to the impact of Fed decisions, final product prices, having surged in TL terms in 2018, remained high throughout 2019. Therefore, the pressure from high product prices on demand continued in 2019. As in 2018, although the limitation of increases in the pump prices with the SCT (Special Consumption Tax) regulation limited the decline in demand, but demand for gasoline in particular, with its high price sensitivity, remained under pressure. The ongoing downsizing process in the automotive sector also pared demand growth in Turkey to remain below expectations.

A number of factors, including the increase in shale oil production in the USA, the rise in light crude oil and condensate supply in recent years, the decrease in medium-heavy crude oil production with the imposition of sanctions and the decisions taken by OPEC +, especially in 2019, combined with a record glut of new refining capacity being commissioned, seriously suppressed the profitability of complex refineries and 2019 turned out to be a very weak year for the refining sector. As refineries around the world increase the share of light crude oil and condensate in their charge, consequently increasing the white product yield, the lower-than-expected growth in demand in the Asian region have allowed these countries to increase their exports significantly, leading to fiercer competition in the sector.

China's permit to import crude oil and high export quotas to independent "teapot" refineries led to significant increases in the country's exports. Refineries in the USA continued to operate at high capacity with the low USA crude oil (WTI) price and the impact of the cost advantage of natural gas, and despite the fact that the Philadelphia Energy Solutions refinery (PES) of the United States, which the world's largest diesel exporter, is completely out of operation as a result of an accident, the USA also maintained its position as a net exporter in gasoline.

On the basis of products, the supply of light distillate increased as the share of LNG continued to increase in the global charge, in addition to light crude oil with high-yield gasoline and condensate. With demand growth falling short of expectations, the collapse in gasoline and light distillate margins, which began at the end of 2018, continued into the first quarter of 2019. Despite the recovery in margins with the charge drop in the FCC units of the USA and European refineries, annual averages remained below both last year's and the last five-year averages. On the other hand, diesel crack margins were realized above their five year averages at USD 1.4 per barrel, even with margins remaining slightly lower than last year. While there were product deficits in South America, diesel cracks were suppressed by a number of factors including the limited entry of US cargoes into our region, and while refinery maintenance downtimes before the imposition of IMO (The International Maritime Organization) regulations in the refining sector supported diesel profit margins, the use of diesel for bunker use was far below expectations, especially in the last quarter, also serving to constrain crack margins. Another notable development in 2019 was the collapse in high sulfur fuel oil margins, particularly due to the decline in bunker-purpose use in the last quarter. The positive support of demand from the world's aviation sector, which is continuing to grow, also continued for jet fuel margins in 2019.

With a fall in the Mediterranean refinery margin from USD 4.6/barrel in 2018 to USD 1.7/barrel in 2019, the year 2019 was a challenging year in the refining industry where margins remained well below expectations as a result of the significant global capacity increases being far in excess of the demand increase in Asia and the Middle East, as well as supply cuts in medium and heavy crude oil supplies. Middle distillate cracks remained well below projections despite the sharp decline experienced in high sulfur fuel oil cracks, due to the majority of bunker demand being met with low sulfur fuel oil, especially with the approach of IMO 2020 standards in marine fuels in the last quarter. While diesel margins were realized at the same level as last year on an average basis, margins of all other products remained below their 2018 levels.

Other important developments of this year 10 million tons/year capacity to start production of a new refinery in Turkey market, the regulations made for domestic crude oil prices and, in particular, the rapid increase in natural gas costs.

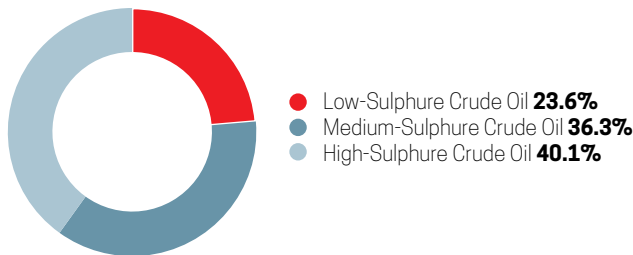
In accordance with the communiqué issued by EMRA in September 2011, at least 2% of bioethanol derived from domestic agricultural products has been added to gasoline products since 1 January 2013; the bioethanol addition rate was increased to 3% at the beginning of 2014. Since January 2018, an obligation to blend at least 0.5% biodiesel produced from domestic agricultural products and/or vegetable waste oils into all diesel supplied from the refineries was introduced.

PRODUCTION AND SALES



WITH THE USE OF 97.8% ITS CAPACITY, THE REFINERY INCREASED ITS PRODUCTION VOLUME BY 9.4% COMPARED TO THE PREVIOUS YEAR TO REALIZE 28.1 MILLION TONS OF PRODUCTION.

Breakdown of Crude Oil Procured



Tüpraş's main activity is the procurement and refining of crude oil that is necessary to meet the country's demand for petroleum products, and carrying out domestic and foreign sales and distribution of the petroleum products that it produces. Through its refining activities, the company produces a wide range of petroleum products including LPG, gasoline and naphtha, jet fuel, kerosene, diesel, fuel oil, bitumen and lubricating oils.

Tüpraş is optimizing and diversifying its resources in its crude oil purchasing operations in order to spread the risks in the supply chain and to secure price and freight advantages. A significant proportion of crude oil purchases are carried out through annual agreements entered into with the countries' national oil companies. In addition to this, purchases are also undertaken to provide supply flexibility and introduce additional options for crude oil types with the properties required by product orders.

15 varieties of crude oil purchased from 8 countries

In 2019, Tüpraş purchased 15 different types of crude oil from 8 countries, including domestic, in gravities ranging from 19.83 APIs to 46.87 APIs.

Total imports stood at USD 12.5 billion, with USD 11.2 billion of that amount consisting of 23.9 million tons of crude oil supplied during the year.

In 2019, Tüpraş imported a total of 2.8 million tons of semi-finished products and final products, including 741 thousand tons of final products, in order to meet the country's demand. This was in addition to the 2.1 million tons of semi-finished products imported to be charged.

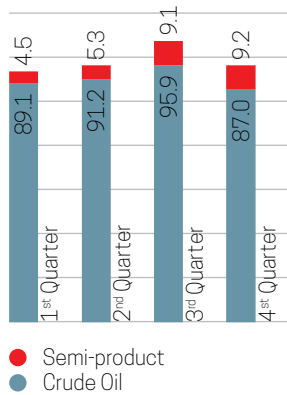
Capacity unitization reaches 97.8%, despite planned maintenance and improvement efforts

Despite the planned maintenance and improvement work carried out in the İzmit Refinery Fuel Oil Conversion Facility in the first half of 2019, Tüpraş fed a total of 29.3 million tons of charge, including 27.2 million tons of crude oil and 2.1 million tons of semi-finished products to its units. With the use of 97.8% its capacity, the refinery increased its production volume by 9.4% compared to the previous year to realize 28.1 million tons of production. The high value added white product efficiency rate stood at 79%, higher than the efficiency rate in the previous year.

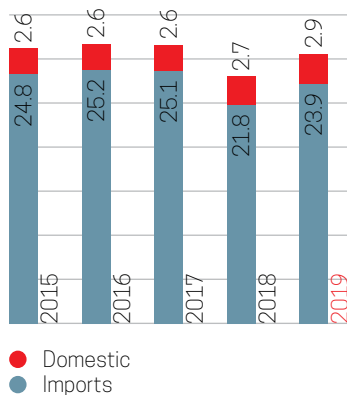
In the domestic market, where there is no restriction on imports, prices of petroleum products are determined under the conditions of full competition. In this context, the operational profitability of the refineries depends on the gross refining margin, defined as the difference between the crude oil price and product prices determined in international markets. Tüpraş's petroleum products prices in the domestic market are directly based on the CIF Genoa Mediterranean Platts price, which represents the nearest market to be taken as a reference as mentioned in the Petroleum Market Law.

In 2019, Tüpraş's net refining margin, after operating expenses, stood at USD 3.7/bbl.

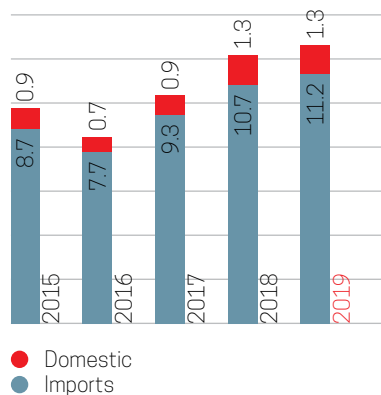
2019 Capacity Utilization (%)



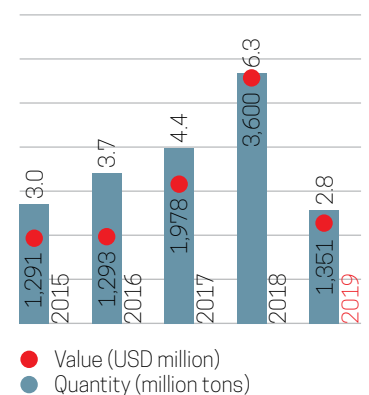
Crude Oil Supply (million tons)



Crude Oil Supply (USD billion)



Product Import

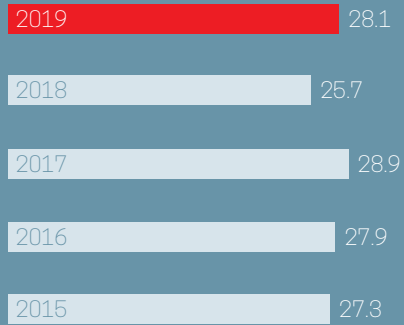


Tüpraş Refining Production (thousand tons)

Products	2018	2019	Change %
LPG	916	975	6.5
Gasoline/Naphtha	5,341	5,944	11.3
Jet Fuel/Kerosene	4,792	4,817	0.5
Diesel	8,510	10,108	18.8
Fuel Oils	1,693	2,552	50.8
Bitumen	2,975	2,248	-24.4
Base Oils	150	135	-9.8
Coke	802	762	-5.0
Others	516	570	10.4
Total	25,695	28,112	9.4

PRODUCTION AND SALES

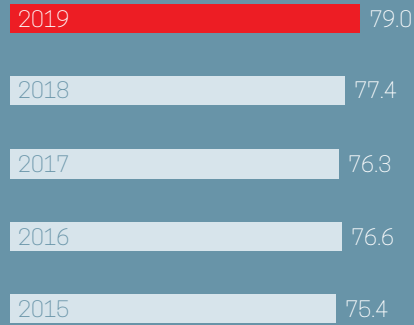
Total Production (million tons)



9.4%

Total production of Tüpraş refineries reached 28.1 million tons in 2019 with an increase of 9.4%.

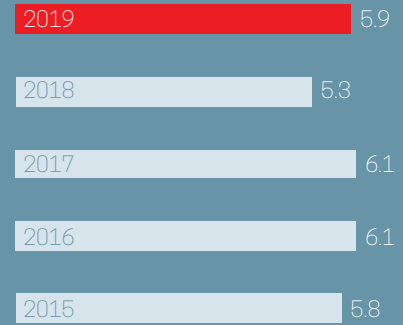
White Product Yields (%)



1.6%

The white product yield, which reached 79.0%, increased by 1.6 points.

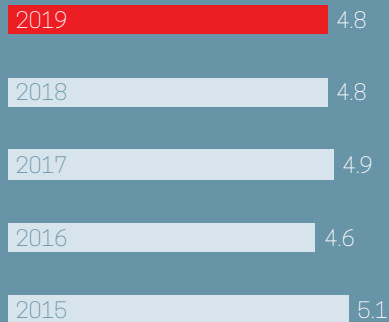
Gasoline and Naphtha (million tons)



11.3%

While the production of gasoline and naphtha increased to 5.9 million tons, the growth rate is 11.3%.

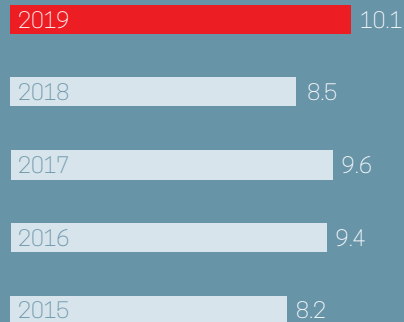
Jet Fuel (million tons)



0.5%

Jet fuel production remained flat in 2019 (0.5% increase).

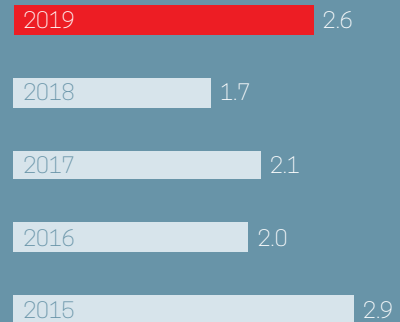
Diesel (million tons)



18.8%

Diesel production reached 10.1 million tons in 2019 with a strong growth of 18.8%.

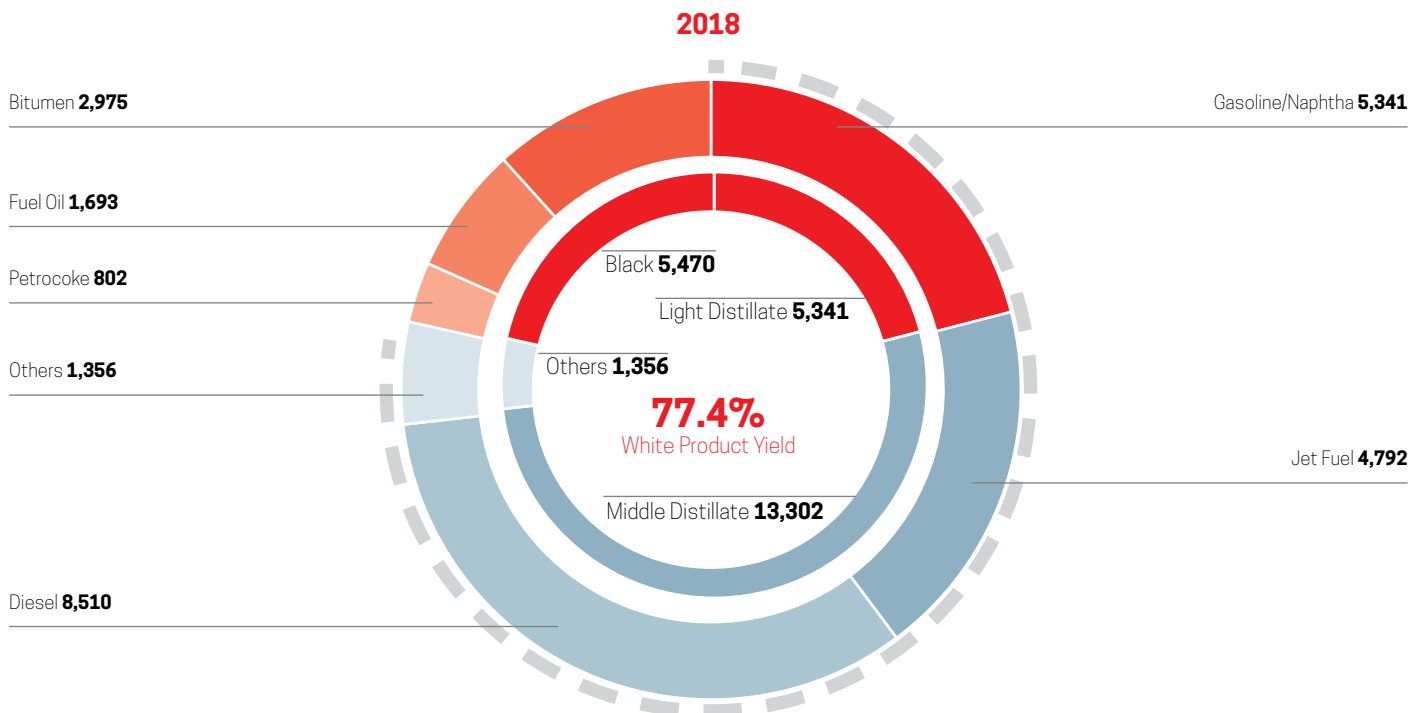
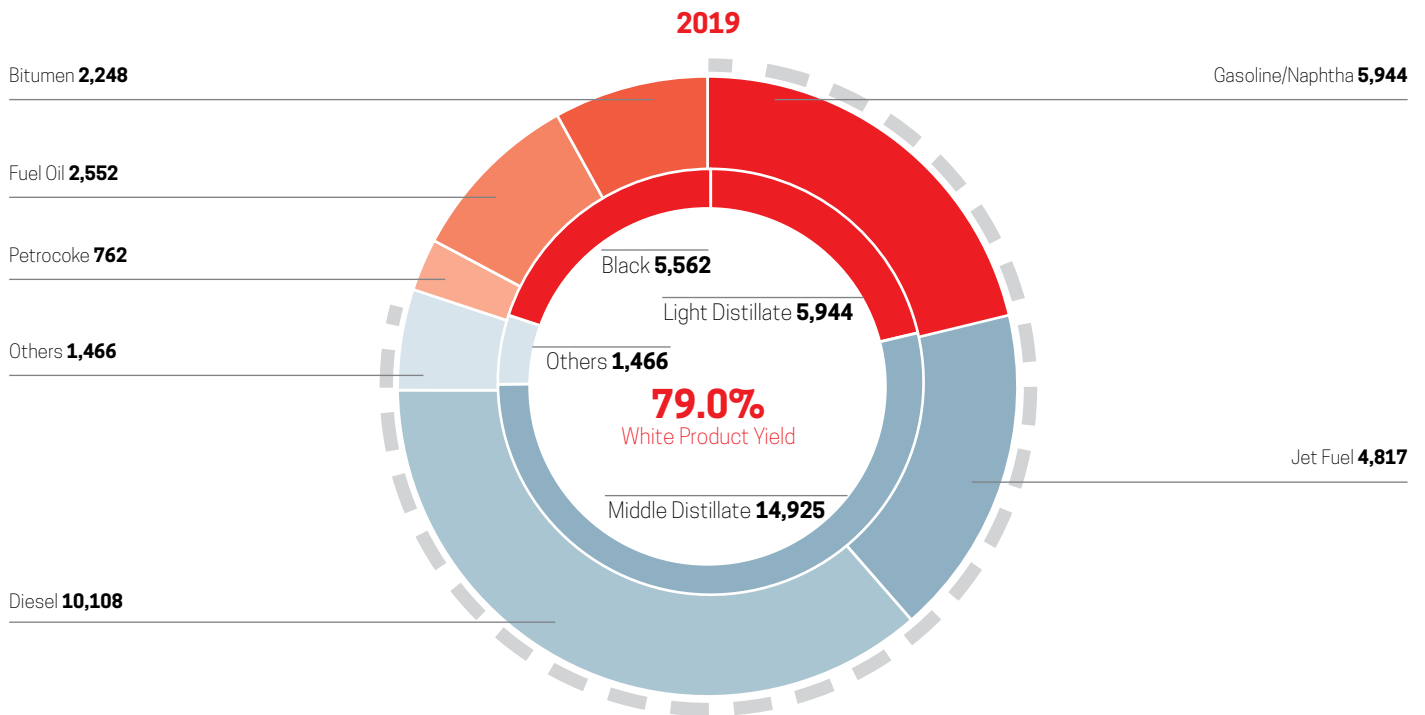
Fuel Oil (million tons)



50.8%

The increase in fuel oil production, which increased to 2.6 million tons, was recorded as 50.8%.

Product Yields



PRODUCTION AND SALES

TÜPRAŞ SUPPLIES 45 TYPES OF PETROLEUM PRODUCTS AND MEETS A SIGNIFICANT PROPORTION OF THE COUNTRY'S ENERGY NEEDS.

Competitive advantages that come with structural advantages

Tüpraş enjoys a competitive advantage with its four refineries that allow production and sales optimization and are located close to large centers of consumption throughout the country with their existing warehouses and terminals. The company reinforces this advantage by providing an uninterrupted supply through Körfez Ulaştırma A. S., a railway transportation company carrying out fuel oil transportation between the refineries, and Ditaş, a subsidiary of Tüpraş carrying out the transportation of crude oil and petroleum products in line with Tüpraş's needs.

- Tüpraş refineries offer structural superiority compared to the other regional refineries:
- Its refineries are located in large centers of consumption,
- The refineries were designed in such a way as to handle heavy and high-sulfur crudes,
- It can benefit from price advantages in bulk crude oil and product purchases,
- It has the ability to supply a variety of crudes at a reasonable cost, thanks to its proximity to key crude oil suppliers,
- Turkey is a net importer of many products,
- It enjoys a strong infrastructure and facilities for crude oil strong product import and sales channels,
- The company commands logistical advantages in marine and railway transportation with its subsidiaries, Ditaş and Körfez Ulaştırma.
- It has direct pipelines to domestic customers,
- Additional value added in the supply and sales chain with the international sales office
- It has high export capability.

Turkey's first and largest refinery company to meet a significant proportion of the country's energy needs

Tüpraş is Turkey's first and largest refinery. It supplies 45 types of petroleum products through four refineries utilizing leased terminals throughout Turkey and meets a significant proportion of the country's energy needs.

The customers that the company sells directly to, and sells wholesale products to, include companies distributing fuel oil, LPG, bunker fuel, jet fuel and mineral oil, which are licensed by the Energy Market Regulatory Authority (EMRA); industrial, petrochemical and paint companies which intensively use petroleum products in industry; the General Directorate of Highways, Municipalities, other official institutions and the contractors approved by these institutions, private construction or contracting companies, cement manufacturers, trading companies and the Ministry of National Defence on behalf of the Turkish Armed Forces.

In order to develop its customer-focused sales approaches in rapidly changing market conditions, entire sales, delivery, after-sales service and marketing processes are continuously reviewed, and customer demands and expectations are met rapidly at the highest level. As a result, in 2020, high quality, planned and systematic services will continue to be provided for the customer stakeholder, which is one of the most important stakeholders of Tüpraş, within the scope of the Customer Relations Policy.

29.2 mn ton

Tüpraş sold a total of 29.2 million tons of products in 2019, of which 22.4 million tons were domestic sales with 6.8 million tons of exports.

29.2 million tons of products sold

Tüpraş sold a total of 29.2 million tons of products in 2019, of which 22.4 million tons were domestic sales with 6.8 million tons of exports.

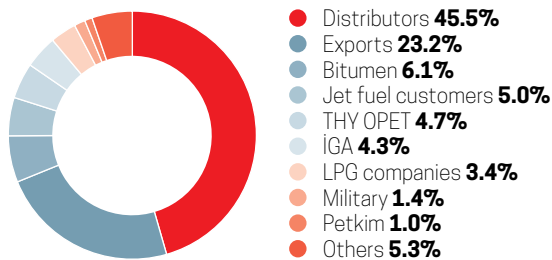
Exporting high quality products which are surplus to the national demand, in 2019 Tüpraş exported surplus production that emerged during periods of contraction in the domestic market, in line with

market conditions and changes in the conjuncture. While this helped lower production and inventory costs, it also created a natural protection mechanism against exchange rate risk.

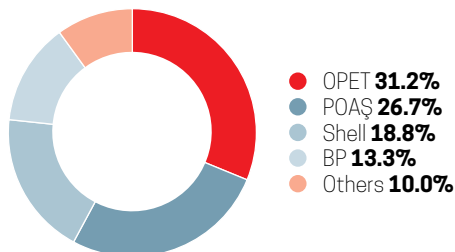
6.8 million tons of exports

In 2019, Tüpraş exported 6.8 million tons of products with a total value of USD 3.5 billion. The exports consisted of 3.0 million tons of gasoline, 1.7 million tons of fuel oil, 526 thousand tons of jet fuel, 499 thousand tons of bitume, 424 thousand tons of diesel, 313 thousand tons of reformat, 289 thousand tons of vacuum, 18 thousand tons of LPG, 51 thousand tons of naphtha and 13 thousand tons of other products.

Breakdown of Sales



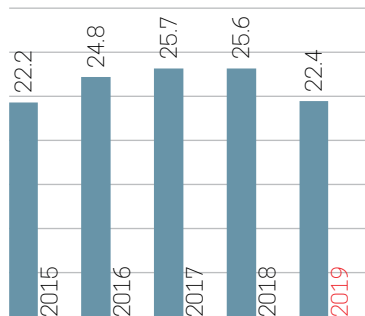
Breakdown of Sales to Distributors



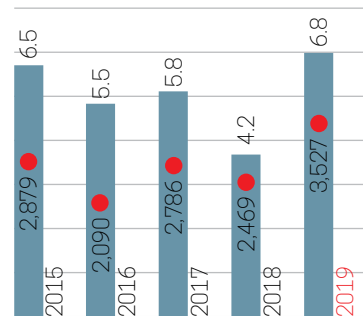
Sales of Tüpraş Refineries (thousand tons)

Products	2018	2019	Change %
LPG	956	996	4.2
Naphtha	241	290	20.6
Gasoline	2,244	2,325	3.6
Jet Fuel/Kerosene	4,867	4,266	-12.3
Diesel	11,885	10,430	-12.2
Fuel Oil	1,145	1,051	-8.2
Bitumen	2,939	1,769	-39.8
Base Oils	147	121	-17.6
Coke	869	812	-6.6
Others	346	330	-4.7
Total Domestic Sales	25,638	22,391	-12.7
Exports	4,191	6,807	62.4
Total Sales	29,830	29,197	-2.1

Domestic Sales (million tons)



Exports



● Quantity (million tons)
● Value (million USD)

İZMİT REFINERY

One of the highest conversion rates in Turkey

11.3 million tons

refinery capacity

2,073

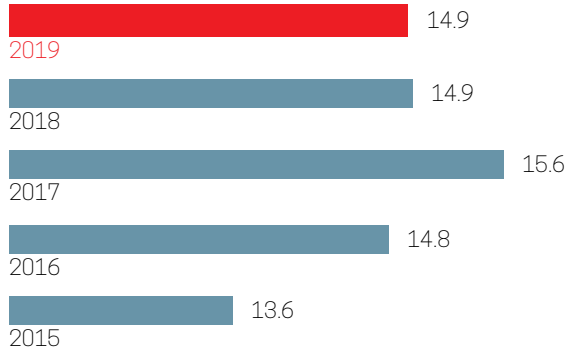
number of employees (year-end)

14.5

Nelson complexity

3.0 million m³

storage capacity

Sales (million tons)

The İzmit Refinery began production in 1961 with a capacity to process 1 million tons of crude oil per year. As a result of significant capacity increases and the conversion unit investments over the years, the Refinery's design capacity was registered at 11.3 million tons/year by the end of 2019.

Producing to Euro V standards, the İzmit Refinery is truly located in a center of consumption, accounting for 33% of Turkey's consumption of petroleum products.

The RUP Facility in the İzmit Refinery was mechanically completed at the end of 2014. The unit converts 4.2 million tons of black products into approximately 3.5 million tons of high-value, environmentally friendly white products which meet EU standards - mostly diesel, gasoline and LPG. After the Fuel Oil Conversion Facility was commissioned, the İzmit Refinery reached one of the highest conversion rates in the world, with a Nelson Complexity value of 14.5.

A total of 13.0 million tons of material, including 11.1 million tons of crude oil and 2.0 million tons of semi-finished products, were processed at the RUP Facility at the İzmit Refinery in 2019.

As of the end of 2019, the Refinery's total product sales amounted to 14.9 million tons, of which 11.8 million tons were domestic sales.

The planned maintenance and improvement downtime initiated at the Hydrocracker, Hydrogen, DHT, SRU, Coker, Vacuum units at the Fuel Oil Conversion Facility on 26 February 2019 was completed on in May 2019, 14 days before the planned end time, and the units started production with full capacity safely.

AS OF THE END OF 2019, THE REFINERY'S TOTAL PRODUCT SALES AMOUNTED TO 14.9 MILLION TONS, OF WHICH 11.8 MILLION TONS WERE DOMESTIC SALES.

Within the Scope of the Planned Maintenance and Improvement Work at the Fuel Oil Conversion Facility

- In the Hydrocracker Unit, the designs of four high-pressure exchangers that cause operational bottlenecks and cause frequent stoppages were changed and renewed.
- With the CFD (Centering Feed Device) equipment installed in the coke drum inlet at the Coker Unit, homogeneous diffusion of charge and water into the coke drums were provided.
- The supply and installation of spare of the existing fan, which caused the unit stop arising from the VSD (Variable Speed Drive) in the hydrogen unit, was completed. The fans and auxiliary equipment supplied as spare within the scope of the project were ensured to work together with the existing fan.
- The maintenance of a total of 9,744 equipment, including 2,097 metal, 5,019 instruments, 2,487 electricity and 141 mechanics was completed. Approximately 4,000 blinding operations were performed as a mechanical isolation.

Approximately 1.5 million man/hour workforce was used in the works, and the service was purchased from approximately 50 different contractors.

Other major projects completed during the year

- Modernization of Petroleum coke sales methods
- Building of a new sulfur storage area in the Phase-3 berth
- Replacing the 6C-1 unifier reactor
- Renovation of the PHU control building

İZMİR REFINERY

The only refinery with a lubricants production complex in Turkey

11.9 million tons

refinery capacity

7.66

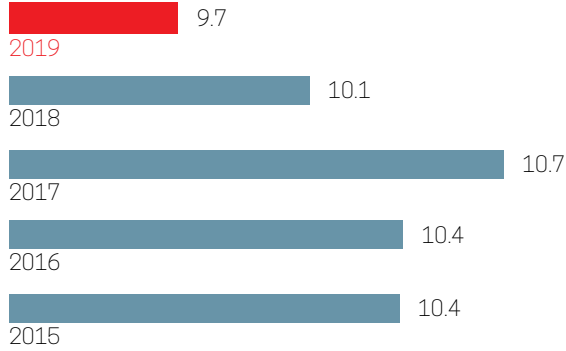
Nelson complexity

1,484

number of employees (year-end)

2.5 million m³

storage capacity

Sales (million tons)

With the aim of meeting Turkey's growing requirement for petroleum products, the İzmir Refinery was brought into operation in 1972. The refinery, which started production with an annual crude oil processing capacity of 3 million tons, is now registered as having an annual refining capacity of 11.9 million tons following significant capacity increases and unit modernizations carried out over the years. İzmir Refinery has a Nelson Complexity of 7.66. In 2019 a total of 10.9 million tons of raw materials, including 10.7 million tons of crude oil and the remainder being semi-finished products, was processed with 91.3% capacity utilization in İzmir Refinery.

IN 2019, İZMİR REFINERY ACHIEVED SALES OF 9.7 MILLION TONS, OF WHICH 6.0 MILLION TONS WAS SOLD DOMESTICALLY.

The refinery's production of main marketable petroleum products -consisting of LPG, naphtha, gasoline, jet fuel, diesel, base oil, heating oil, fuel oil, bitumen, wax, extracts and other products- reached 10.5 million tons in 2019. The İzmir Refinery has a 400,000 tons capacity base oil production unit, the only one of its kind in Turkey. In 2019, İzmir Refinery achieved sales of 9.7 million tons, of which 6.0 million tons was sold domestically.

KIRIKKALE REFINERY

**Turkey's largest road tanker
filling capacity**

5.4 million tons

refinery capacity

954

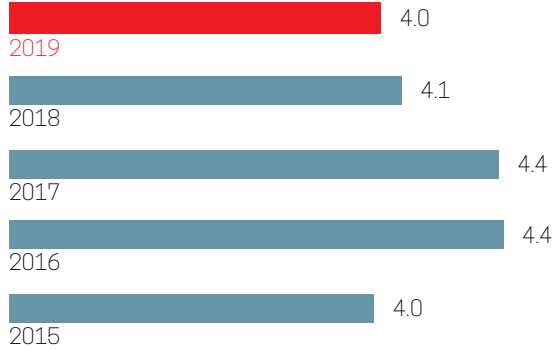
number of employees (year-end)

6.32

Nelson complexity

1.3 million m³

storage capacity

Sales (million tons)

The Kırıkkale Refinery was established in 1986 to meet the demand for petroleum products in the Central Anatolia, Eastern Mediterranean and Eastern Black Sea regions, specifically Ankara.

Over the years, the Refinery has developed the configuration offering a mid-level complexity by Mediterranean standards with the addition of a hydrocracker, isomerization, diesel desulphurization and CCR reformer units. With a Nelson complexity of 6.32, Kırıkkale Refinery has Turkey's largest road tanker filling capacity.

The crude oil supply of the Refinery, which has a nameplate annual crude oil processing capacity of 5.4 million tons, is provided from the Botaş Ceyhan Terminal, using the Ceyhan-Kırıkkale pipeline.

Once production got underway at the İzmit Refinery Fuel Oil Conversion Facility, it was ensured that the Kırıkkale Refinery - which sends semi-finished products to this unit to be fed to the charger - achieved its targeted operational performance. In 2019, the Refinery processed a total of 4.9 million tons, including 4.8 million tons of crude oil and with semi-finished products, and 91% capacity utilization was achieved.

AT THE KIRIKKALE REFINERY A TOTAL OF 4.0 MILLION TONS OF PRODUCTS WERE SOLD DURING THE YEAR.

In 2019, 4.8 million tons of petroleum products was produced - including the main products of LPG, gasoline, jet fuel, kerosene, diesel, fuel oil and bitumen- in addition to the products processed at the RUP facility. A total of 4.0 million tons of products were sold during the year.

Tüpraş demonstrated the reflection of the value it attaches to life by leading work related to industrial rescue. In this area, the Industrial Rescue Team, which was assigned under the Technical Safety Unit at the Kırıkkale Refinery that had been determined as the first application point at the Tüpraş refineries, completed its preparations and started work at the end of 2019.

Major projects completed during the year

- Crude oil control building renovation project
- Modernization of firefighting systems
- Patent application for integrating the DHP R / D T-95 analyzer into the APC model
- Contract and system infrastructure works of the Kırıkkale Aygaz and Aytemiz warehouses were completed and the warehouses were commissioned.

BATMAN REFINERY

The first refinery in Turkey

1.4 million tons

refinery capacity

477

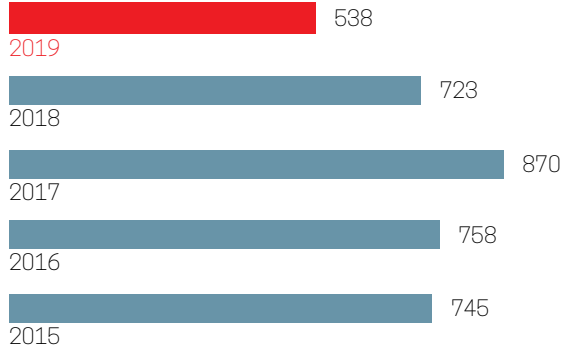
number of employees (year-end)

1.83

Nelson complexity

299 thousand m³

storage capacity

Sales (thousand tons)

Commissioned in 1955 with a crude oil processing capacity of 330,000 tons, the Batman Refinery was the first refinery to be founded in Turkey. The annual refining capacity of the Batman Refinery, which reached 1.1 million tons after the commissioning of the second crude oil processing unit in 1972, was registered as 1.4 million tons in 2019 after the investments of new F-1101 furnace and the E-1114 and E-1115 exchangers.

With the advantage of its geographical proximity to Turkey's own domestic heavy crude oil resources, Batman Refinery is structured in a simple configuration to process this crude oil. The Refinery has a Nelson Complexity Index of 1.83. In 2019, the Batman Refinery processed 558 thousand tons of crude oil in the bitumen mode and sold 340 thousand tons of bitumen.

Semi-finished products produced in Batman Refinery and the diesel and gasoline products from the Kırıkkale and İzmir refineries are transported by railway.

At the Refinery, where the bottom-filling system of the wagon was completed in 2019, emission formation that may occur during filling was prevented, and an infrastructure was established which will allow all intermediate products to be transferred by a wagon at the same time. The HSRN and LSRN intermediate products started to be sent to other refineries by filling the wagons from the bottom.

AT THE BATMAN REFINERY, THE SALE OF 538,000 TONS OF PRODUCTS, WHICH MET EU SPECIFICATIONS, WAS CARRIED OUT WITH PRODUCTS TRANSPORTED FROM KIRIKKALE AND İZMİR REFINERIES.

At the Batman Refinery, the sale of 538 thousand tons of products, which met EU specifications, was carried out with products transported from Kırıkkale and İzmir refineries.

In addition, with the completion of the new bitumen tank project, the total bitumen stocking capacity was increased to 299 thousand m³ and the Refinery License was revised.

The Batman Refinery employed female field operators for the first time at Tüpraş, which aims to make a difference in the refining sector, a sector where the number of women employees has been structurally low.

With the principle of a "Single Common Health and Safety Unit", the HSE services, which are obligatory for all contractors within the scope of legislation and the company standards on behalf of Tüpraş, were provided in the field actually and effectively. Moreover, Control of Work (CoW), consisting of Business Control Systematics, started to be implemented in all units of the Batman Refinery. In 2019, the safety of the refinery was enhanced by commissioning the Fire Water Pump Automation System and the Refinery Ambient Gas Detection Systems.

THE LONDON TRADE OFFICE



The London Trade Office, Tüpraş's first international office, was established at the end of 2018. The main purpose of the office is to participate more closely in the market by being in London, which is one of Europe's most important centers in the oil trade, to reach market information faster and to create added value from the arbitrage opportunities in a manner which optimizes the current refinery system in Turkey and from the three party trade.

In accordance with this purpose, the office, which was established as a branch of Tüpraş in the first instance, started its commercial activities by marketing gasoline and fuel oil products which are exported to the world markets by the Tüpraş refineries in continuity on behalf of Tüpraş. The first fuel oil trading transaction was realized through the London Trade Office in March 2019, while the first gasoline trade was realized in June.

With the opening of the London Trade Office, a one-to-one negotiating method started to be used in addition to the tender method, the processes previously carried out from Turkey. The trade, which was previously carried out largely on the basis of FOB (Free On Board), started to be carried out on the basis of CIF (Cost, Insurance, and Freight) in a manner to exercise control of a larger part of the supply chain. The cargoes sold through the CIF delivery were preferred as a priority because they allow for freight optimization, both in terms of reaching end users and creating commercial options.

In 2019, a total of 11 fuel oil cargoes, including four high-tonnage arbitrage cargoes shipped to Singapore and Saudi Arabia, were traded by the London Trade Office. A total of seven cargoes were discharged to Italy, Malaysia, Malta and Spain with the CIF delivery. Thus, a total of 615 thousand tons of fuel oil were traded. In addition, in the second half of 2019, a total of 535 thousand tons (18 cargoes) of low sulfur fuel oil, atmospheric straight-run fuel oil and vacuum gasoil imports were performed by the London Trade Office to meet the fuel and intermediate product needs of the Tüpraş refineries.

For gasoline, a total of 1,476 thousand tons of Gasoline/Reformat was exported, including 27 FOB and 19 CIF cargoes. The CIF delivered cargoes were discharged to the United States, the United Arab Emirates, Bahamas, Belgium, France, the Netherlands, Spain, Lebanon, Saudi Arabia and Trinidad.

Since the London Trade Office's business model requires the purchase and sale of products by taking the current price indices in different geographical areas as a basis, and hedging the price shears that cause arbitrage by using various financial instruments, effective management of price risks has come to the forefront as a critical success factor. In order to address this need, a Risk Management unit was established within the office and the Risk Management Policy was developed under the leadership of this unit. Moreover, the Risk Management Committee was established to ensure that possible risks can be actively monitored and necessary improvements made.

The office, which continued its activities as a branch in 2019, is planned to continue its operations by being transformed into a company 100% owned by Tüpraş in 2020.

615,000 tons

In 2019 a total of 615 thousand tons of fuel oil were traded by the London Trade Office.

DISTRIBUTION



**2ND IN WHITE PRODUCT SALES
WITH 19.0% MARKET SHARE**

**1ST IN BLACK PRODUCT SALES
WITH 35.3% MARKET SHARE**

1.1 million m³

storage capacity

1,670

stations (including Sunpet)

TL 46,381 million

total revenues

Established by the Öztürk Family in 1992, Opet has been jointly managed by the Öztürk Group and the Koç Group since 2002. The Company operates in the fuel oil distribution sector via retail sales, commercial and industrial fuel oil sales, storage and international product trade. With more than 900 employees, 1,670 stations including the Sunpet brand and 1.1 million m³ of storage capacity, Opet manages an extensive service network throughout Turkey with 5 terminals and provides high-quality products and services to its customers.

Opet manufactures and markets mineral oil through its subsidiary Opet-Fuchs, a 50-50% partnership with the German mineral oil company, Fuchs. It also supplies and sells jet fuel oil via THY-Opet, a 50-50% partnership with Turkish Airlines.

Opet maintained its number 2 position in the market in 2019.

Opet achieved sales growth in line with the market during 2019 thanks to its well-established dealer network. The company maintained its 2nd position in the white products segment with a market share of 19.0%, and its leading position in the black products segment with a market share of 35.3%.

Opet generated strong financial results utilizing its effective risk policies against exchange rate and price fluctuations.

THY-Opet, which serves a number of domestic and international airlines in all airports throughout Turkey, realized jet fuel sales of 1.8 million m³ in 2019.

Opet implements numerous new projects in many fields aligned with its aim of being the first choice of customers with its “Perfect Service Understanding”.

Opet sets itself apart in its sector with its approach to social responsibility.

In addition to financial success, Opet aims to generate added value for all of its stakeholders, particularly the society, while minimizing its environmental impact. The Company developed and implemented a number of successful social responsibility projects such as “Clean Toilets”, “The Green Road”, “An Exemplary Town”, “Respecting History”, “Respecting History - Troy” and “Traffic Detectives” in line with this objective. In addition to these projects, the

Women Force Project, which started in 2018 and is aimed at increasing women’s employment in petrol stations, continued to be one of Opet’s most important social responsibility projects in 2019.

Forward-looking expectations

Opet’s main priority is to maintain customer satisfaction while growing above the sector without compromising profitability. 2020 is expected to be a year of investments in line with these objectives.

In line with this strategy, the company will continue to expand across the country in the Ultramarket project, which is one of the non-fuel development areas that the company initiated in 2019. However, it will also be a pioneer of innovation in different non-fuel channels.

The company aims to be the leader in its sector in this field by continuing to take decisive steps within the scope of the digital transformation.

1.8 million m³

THY-Opet realized jet fuel sales of 1.8 million m³ in 2019.

MARINE TRANSPORTATION



A subsidiary providing Tüpraş with an operational and financial advantage.

The Ditaş Marine Operations and Tanker Management Co. ("Ditaş") was founded on 16 March 1974 by the Turkish Petroleum Corporation ("TPAO"), İpraş and the Turkish Naval Foundation to purchase, build or charter marine tankers and use them for the marine transportation of crude oil and petroleum products.

A 29% stake in Ditaş, held by İpraş, was transferred to Tüpraş in 1983, the year the Company was established. In October 2002, Tüpraş purchased 50.98% of Ditaş shares held by the Directorate of Privatization Administration, whereupon it held 79.98% of the shares in Ditaş in total.

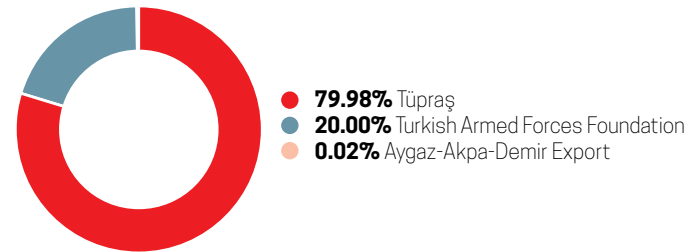
Ditaş entered a process of restructuring and growth after 2006. Within the framework of this process, 15 companies were established, with 100% of the capital belonging to Ditaş.

The Company provides shipping line operation, brokerage/ship leasing, guidance, tug operation, inspection and agency services. Ditaş carries out crude oil transportation in line with the needs of Tüpraş, and does petroleum products transportation by taking the needs of Tüpraş and other suppliers into consideration. Ditaş carries out these services with its own tankers as well as tankers leased on a time and expedition basis.

Providing operational and cost advantages to Tüpraş with more than 40 years of experience, Ditaş transported 11.0 million tons of crude oil and 5.9 million tons of petroleum products in 2019. 88.9% of crude oil shipments and 67.5% of petroleum product shipments during the year conducted in line with the needs of Tüpraş refineries. In 2019, Ditaş also provided product transportation services for THY Opet (17.5% of all operations) and other distribution companies (15.0% of all operations).

IN ORDER TO COMPLY WITH IMO REGULATIONS, WHICH WILL ENTER INTO EFFECT IN 2020, SCRUBBERS WERE INSTALLED IN THE T. SADBERK, T. SEMAHAT, T. ADALYN AND T. ELINOR TANKERS IN 2019.

Shareholder Structure



Port and marine agency services

Ditaş charters domestic and foreign tankers to intermediate between ship owners and the exporters and importers of crude oil and petroleum products. Ditaş also provides agency services in ports and straits.

Ditaş operates

- three 479,765 DWT crude oil tankers, a 51,532 DWT crude oil/product tanker, ten product carriers with a combined capacity of 171,453 DWT,
- 12 tug boats, seven mooring boats, two service boats and one pilot vessel.

In line with the Bareboat lease contract signed with Kuzey Tankercilik (Tanker Transportation) and Güney Tankercilik, which were both established by THY Opet, THY Opet's transportation operations continued to be carried out in 2019 with three 46,031 DWT product carriers (Elif Tuba, Kaya Tuna and Kuzey Ekim), which are owned by these companies.

In order to comply with IMO regulations, which will enter into effect in 2020, scrubbers were installed in the T. Sadberk, T. Semahat, T. Adalyn and T. Elinor tankers in 2019.

Work to expand the fleet

The T. Adalyn tanker with a tonnage of 14,954 DWT, the construction of which was completed at RMK Shipyard, was commissioned in May 2019, and the T. Elinor tanker with a tonnage of 15,975 DWT was commissioned in December 2019.

In order to realize the transportation required for the new Istanbul Airport, the T. Fatma tanker, with a tonnage of 49,990 DWT was purchased and included in the fleet in June 2019.

It is planned to be joined by 2 tugs, with 2x70 BP power, which were ordered in 2018, in January and February 2020.

MARINE TRANSPORTATION

The first company that holds ISPO certificate in Turkey

Ditaş was granted the International Safety Management (ISM) Code, the ISPS Code (International Ship and Port Facility Security Code), and the MLC (Maritime Labor Convention) compliance certifications for its vessels.

In addition, the company holds the ISO 9001: 2015 Quality Management System and ISO 14001: 2015 Environmental Management System certificates for the company's offices, ships and terminals.

The Company's İzmir Terminal was awarded the ISPO (International Standard for Pilot Organizations) certification for pilotage, mooring and tug services; Ditaş was the first company in Turkey and the 11th company in the world to hold this coveted designation.

Efforts are underway to implement the Tanker Management and Self-Assessment Scheme 3 (TMSA3), a major credential for tanker management operations that petroleum companies are expected to implement. The vessels operated by Ditaş comply with the OCIMF SIRE (Ship Inspection Report Program), and are regularly inspected by OCIMF members. Embracing its responsibilities as a good corporate citizen, Ditaş is also a member of KalDer (Turkish Quality Association) and TURMEPA (Turkish Marine Environment Protection Association).

DITAŞ CLOSELY FOLLOWS ALL APPLICABLE DOMESTIC AND INTERNATIONAL LAWS, RULES AND REGULATIONS, AND FULFILLS ALL COMPLIANCE REQUIREMENTS IN A TIMELY MANNER IN ORDER TO DELIVER HIGH QUALITY, SAFE AND ECO-FRIENDLY SERVICES.

Targeting full compliance with the regulations

Ditaş closely follows all applicable domestic and international laws, rules and regulations, and fulfills all compliance requirements in a timely manner in order to deliver high quality, safe and eco-friendly services. Additionally, the Company provides all training programs required by Law No: 6331 on Occupational Health and Safety and applicable regulations. The Company's occupational safety specialist and on-site physicians fulfill legal requirements such as risk assessment, emergency action plans and periodic health checks.

In 2019, cyber security work was completed on ships and information security awareness training was given. Since the Maritime sector has been identified as a critical sector in terms of cyber security, the Corporate Cyber Incidents Response Team (CIRT) was established to deal with such issues in the sector. As a corporate CIRT, support is received from KoçSistem. Electronic documentation started to be used for all publications, except for the publications where paper is required, in ships within the scope of digitalization activities and the Company's environmental policy. Document tracking started to be carried out via an online program. In order to improve the professional competency and safety culture of the ships' crew, an agreement was reached with an industry leading international company in digital training geared towards shipping.

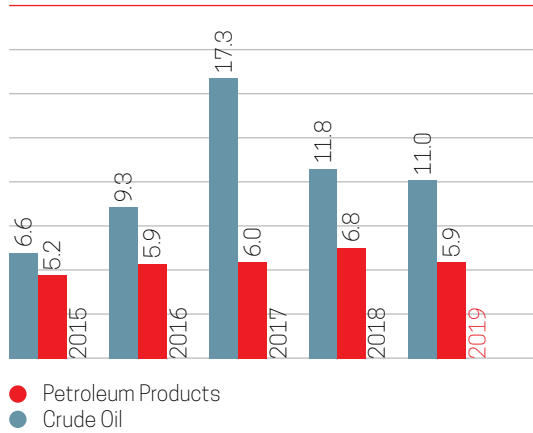
Since 2009, Ditaş has provided loading master services to ships arriving in Tüpraş's marine terminals in order to enhance safety. In 2010, Ditaş also started to check and report incoming ships' compliance with domestic and international regulations, as well as with Tüpraş's standards. Ditaş inspected 129 ships and provided loading master services to 206 vessels at the İzmit and İzmir terminals in 2019.

DITAŞ TRANSPORTED 11.0 MILLION TONS OF CRUDE OIL AND 5.9 MILLION TONS OF PETROLEUM PRODUCTS IN 2019.

TL 1,213 mn

Net sales of Ditaş reached TL 1,213 million in 2019.

Crude Oil and Petroleum Products Transported (million tons)



Financial Indicators (TL million)

	2015	2016	2017	2018	2019
Net Sales	309	457	925	1,009	1,213
Operating Profit	100	123	180	340	402
Net Profit	68	97	145	242	296

Affiliates of Ditaş Deniz İşletmeciliği ve Tankerciliği A.Ş.

Company	Vessel Owned
Üsküdar Tankercilik A.Ş.	T. Sevgi Tanker
Kadıköy Tankercilik A.Ş.	T. Gönül Tanker
Beykoz Tankercilik A.Ş.	Cumhuriyet and T. Sadberk
T. Damla Denizcilik A.Ş.	Tugboats and Mooring boats
Sarıyer Tankercilik A.Ş.	T. Suna Tanker
Karşıyaka Tankercilik A.Ş.	T. Leyla Tanker
Kartal Tankercilik A.Ş.	T. Esra Tanker
Maltepe Tankercilik A.Ş.	T. Aylin Tanker
Karaköy Tankercilik A.Ş.	T. Caroline Tanker
Çengelköy Tankercilik A.Ş.	T. Nevbahar Tanker
Bakırköy Tankercilik A.Ş.	T. Semahat Tanker
Pendik Tankercilik A.Ş.	T. Adalyn Tanker
Tuzla Tankercilik A.Ş.	T. Elinor Tanker
Göztepe Tankercilik A.Ş.	T. Fatma Tanker

Company	Charter Vessels
	Elif Tuba Tankeri
Salacak Tankercilik A.Ş. ^(*)	Kaya Tuna Tanker
	Kuzey Ekim Tanker

^(*) The transportation operations of the tankers that are the assets of Kuzey Tankercilik A.Ş and Güney Tankercilik A.Ş established by THY Opet are conducted by Salacak Tankercilik A.Ş under a bareboat lease contract.

MARINE TRANSPORTATION

Ditaş-Owned Tankers



M/T Cumhuriyet

Tanker Type	Crude Oil
Built in	2001
DWT	164,859 tons
Length	274.18 m



M/T T. Sevgi

Tanker Type	Oil Product/Chemical
Built in	2008
DWT	10,983 tons
Length	131.85 m



M/T T. Gönül

Tanker Type	Oil Product/Chemical
Built in	2009
DWT	10,873 tons
Length	131.85 m



M/T T. Caroline

Tanker Type	Oil Product/Chemical
Built in	2009
DWT	10,901 tons
Length	131.85 m



M/T T. Nevbahar

Tanker Type	Oil Product/Chemical
Built in	2009
DWT	11,544 tons
Length	130.12 m



M/T T. Leyla

Tanker Type	Oil Product/Chemical
Built in	2011
DWT	6,297 tons
Length	121.62 m



M/T T. Suna

Tanker Type	Oil/Chemical
Built in	2012
DWT	51,532 tons
Length	183.31 m



M/T T. Esra

Tanker Type	Asphalt/Chemical
Built in	2014
DWT	19,968 tons
Length	156.50 m



M/T T. Fatma

Tanker Type	Asphalt/Chemical
Built in	2014
DWT	49,990 tons
Length	183.11 m

**M/T T. Aylin**

Tanker Type	Asphalt/Chemical
Built in	2015
DWT	19,968 tons
Length	156.50 m

**M/T T. Sadberk**

Tanker Type	Crude Oil
Built in	2017
DWT	157,453 tons
Length	277.17 m

**M/T T. Semahat**

Tanker Type	Crude Oil
Built in	2017
DWT	157,453 tons
Length	277.17 m

**M/T Adalyn**

Tanker Type	Asphalt/Chemical
Built in	2019
DWT	14,954 tons
Length	153.9 m

**M/T Elinor**

Tanker Type	Oil Product/Chemical
Built in	2019
DWT	15,975 tons
Length	153.63 m

Ditaş-Operated Bareboat Charter Tankers**M/T Elif Tuba**

Tanker Type	Oil Product/Chemical
Built in	2007
DWT	13,011 tons
Length	128.6 m

**M/T Kaya Tuna**

Tanker Type	Oil Product/Chemical
Built in	2007
DWT	13,027 tons
Length	128.6 m

**M/T Kuzey Ekim**

Tanker Type	Oil Product/Chemical
Built in	2009
DWT	19,993 tons
Length	149.6 m

RAILWAY TRANSPORTATION (KÖRFEZ ULAŞTIRMA)





Providing flexibility and convenience to Tüpraş with its growing fleet, Körfez Ulaştırma is Turkey's first private railway operator.

Wholly owned by Tüpraş, Körfez Ulaştırma A.Ş. was established in 2009.

As a rail operator (RTO), Körfez Ulaştırma carried out fuel transportation between the Kırıkkale and İzmit refineries with one train from each refinery on a daily basis with a total of five locomotives which it leased from the TCDD (Turkish State Railways) throughout 2018, starting from December 2017. As of July 2019, with the addition of five new diesel locomotives to the fleet, Körfez Ulaştırma started to transport fuel between the Kırıkkale and İzmit refineries with two daily trains from each refinery. In 2019, trial runs were also carried out on the Kırıkkale-Batman and Kırıkkale-Mersin lines.

In addition to its RTO activities, the company carried out other transportation with the TCDD locomotives on the İzmit-Kırıkkale line and on the Kırıkkale-Mersin-Batman line with its organizer certificate and title.

IN 2019, WITH THE ADDITION OF FIVE NEW DIESEL LOCOMOTIVES TO THE FLEET, KÖRFEZ ULAŞTIRMA STARTED TO TRANSPORT FUEL BETWEEN THE KIRIKKALE AND İZMIT REFINERIES WITH TWO DAILY TRAINS FROM EACH REFINERY.

Körfez Ulaştırma transported 1.83 million tons of products and intermediate products in 2019, realizing 50% of this transportation with its own trains. In addition to the transportation between the Kırıkkale and Mersin Opet terminals, where it started as an organizer in November 2018, Körfez Ulaştırma started the transportation of terminal delivery sales to the Tüpraş fuel customers between the İzmit and Güvercinlik (Marşandız) sites in April 2019.

RAILWAY TRANSPORTATION (KÖRFEZ ULAŞTIRMA)

Turkey's most comprehensive wagon maintenance and repair workshop meeting ECM standards

In 2019, in addition to 439 wagons purchased by Körfez Ulaştırma from Tüpraş at different times during the year, 26 Opet tank wagons and the TCDD tank wagons, numbering between 100 and 250, were used in the transportation.

The wagon maintenance workshop located at Kırıkkale Refinery is the most comprehensive wagon repair and maintenance workshop in Turkey according to ECM standards. In addition, a technical maintenance team was established within the Kırıkkale Refinery in order to carry out maintenance activities for the locomotives owned by the Company, and investments in this area are still ongoing.

As of the end of 2019, 73 train driver were working on the trains operated by Körfez Ulaştırma. As of the end of 2019, the company also had 21 salaried personnel in the Istanbul and Ankara offices and at Kırıkkale Locomotive Workshop.

57% reduction in road transportation

With the performance of Körfez Ulaştırma in 2019, the volume of road transportation was reduced by 57% (235 thousand tons). In addition to the economic benefits provided, social benefits were also achieved, such as lower tanker traffic on highways.

Five diesel locomotives with the General Electric license, which were ordered by Körfez Ulaştırma in 2018, were manufactured at the Eskişehir factory owned by TULOMSAŞ, a subsidiary of the TCDD, and the locomotives were received between May and July of 2019.

Additional investments in locomotives and wagons

Additional investments in locomotives and wagons were carried out in 2019. In July, an agreement was signed for the purchase of seven diesel-electric locomotives (capable of operating in diesel/ electric modes) with state-of-the-art technological features, which will be produced at the Swiss Stadler company's factory in Spain and delivered in 2021. Work on the purchase of additional tank and platform wagons has reached the final stage.



The Company's capital was increased from TL 10 million to TL 250 million following the decision of the Annual General Meeting held on 25 February 2019 and the entire capital amount was paid by Tüpraş, the main shareholder, in 2019.

Körfez Ulaştırma aims to complete the aforementioned locomotive and carriage investments targets the following.

- In addition to Tüpraş's total land transportation of 2.3 million tons per year, increasing railway transportation by diversifying third party transportation on different routes,
- To single-handedly perform 10% of the Turkey railway freight transportation in the near future,
- To become the largest railway fuel carrier in Turkey, and as such, increase its contribution to the country's goal of developing railway transportation

57%

With the performance of Körfez Ulaştırma in 2019, the volume of road transportation was reduced by 57% (235 thousand tons).

INVESTMENTS



Besides key investments for new units and process improvements, Tüpraş also carries out investments focusing on operational excellence, efficiency, environment, and workplace safety.

Continuing to undertake investments in line with advances in technology, industry developments and changes in demand, in 2019 Tüpraş, Turkey's leading industrial company, made investment spendings of USD 157 million in refining and a total of USD 236 million including its subsidiaries, Ditaş and Körfez Ulaştırma.

Along with the primary investments intended to improve product quality, which began after Tüpraş's acquirement by Koç Group, the company also made a number of strategic investment decisions focusing on improving, changing and transforming its technological capabilities in the areas of operational excellence and efficiency, the environmental, regulatory and workplace safety. Tüpraş's investments during the last fourteen years exceeded USD 6.7 billion, of which USD 6.2 billion was spent for refining.

IN 2019 TÜPRAŞ MADE INVESTMENT SPENDINGS OF USD 236 MILLION INCLUDING ITS SUBSIDIARIES, DITAŞ AND KÖRFEZ ULAŞTIRMA.

The total amount of Regional and Large Scale incentive certificates obtained for various projects continuing at the İzmit, İzmir, Kırıkkale and Batman refineries is TL 1.85 billion.

Having invested in the field of railway transportation with Körfez Ulaştırma A.Ş., which was established with 100% Tüpraş capital, Tüpraş became Turkey's first private railway train operator in December 2017. Its activities continued in 2019 with 465 tank wagons belonging to Tüpraş and Opet and 150-250 tank wagons rented from the TCDD, as well as five locomotives belonging to Tüpraş and five locomotives leased from TCDD.

Main topics of the 91 new and 173 ongoing investment projects in 2019, which are undertaken to contribute to Tüpraş's operations, productivity, and profitability, are presented below:

INVESTMENTS

İzmit, İzmir and Kırıkkale refineries

Off-gas recovery projects at vacuum units of refineries

The aim of these projects is to remove hydrogen sulfide from gases coming off from the vacuum columns at the İzmit, İzmir, and Kırıkkale refineries by means of amine-scrubbing and to inject the treated gas into refineries' furnace burner systems as fuel. Within the scope of the energy saving project, which will have a cost of approximately USD 50.8 million, detailed engineering phase continued.

Establishment of New Sulfur Units

With the commissioning of the RUP (Residuum Upgrading Project) at the İzmit, İzmir and Kırıkkale refineries, the crude oil unit charges of the refineries have reached their maximum levels. As a result of processing alternative crudes containing high sulfur content, a need for new capacity emerged at the sulfur units. To meet this need, the decision was taken to establish new sulfur units. It is planned within the scope of this project to establish ARU and SWS units at İzmit Refinery. An EPC (Engineering Procurement Construction) tender file was prepared and put out to tender in 2019 for the project, which has a cost of around USD 400 million for the three refineries.

İzmit Refinery

FCC unit revamp, flue gas treatment, and energy recovery

In the project carried out within the scope of the energy recovery and reactor efficiency improvement work at the İzmit Refinery FCC Unit, detailed engineering studies and equipment orders continued during 2019. The contract for the tender for the construction and installation of the unit was signed and field activities have been started. In the project, which has a cost of USD 66 million, installation work is planned to continue in 2020. Work on the project is planned to be completed in 2021 after the unit's downtime.

Installation of Retractable Center Feed Device at Entrance of Delayed Coker Unit Coke Drums

In order to operate the Plt-177 Delayed Coker unit in a more efficient and more reliable manner, a Retractable Center Feed Device is planned to be installed at the entrance of the coke drum. Accordingly, during the charging and quenching phase, water will be distributed more homogeneously within the coke drum. The project is envisioned to prolong the life of the coke drum while reducing equipment maintenance and processing of heavier crude oil. The project, which has a cost of USD 10.7 million, was commissioned after carrying out installation work during the 2019 planned downtime.

Modernization of PLT-7 LPG Merox Unit

In order to tighten the Autogas LPG total sulfur sales specification, which will be realized within the scope of legal requirement/ compliance with the legislation, from 50 ppm to 30 ppm, the Plt-7 LPG-1 and LPG-2 Merox units will be modernized within the scope of the project. Detailed engineering, equipment procurement and field installation work continued in the project, which has a cost of USD 3.9 million, in 2019. The project is planned to be completed in 2020.

Establishing Carriage Filling System for the Zone B Carriage Area

Within the scope of the project, in line with the increased transportation of products by rail between the refineries, a tank wagon filling system will be established in the Refinery Zone B. Detailed engineering, equipment procurement and field installation work in the project, which has a cost of USD 4.8 million, was completed in 2019, while the testing and commissioning work has got underway.

İzmir Refinery

CCR platforming unit capacity increase

The aim of this project is to raise the U-9200 platforming unit's capacity from 160 m³/hour to 225 m³/hour so that all heavy straight-run naphtha can be processed in order to increase platformate, hydrogen, and similar high-added-value product yields. Following the completion of preliminary engineering studies, detailed engineering and equipment procurement studies continued in 2019 in the USD 25 million project. Preparations for the tender file for the construction installation work have got underway. After the completion of the construction installation work, the unit is planned to be commissioned in line with the downtime schedule.

FCC unit revamp, flue gas treatment, and energy recovery

This project calls for improving energy-recovery and reactor efficiency at the refinery's FCC unit. After preliminary engineering studies were completed in the USD 69 million project, detailed engineering and equipment procurement studies continued in 2019. Following the completion of the detailed engineering studies, the unit is planned to be commissioned in line with the stoppage program following the completion of the construction and installation work.



New black product and base oil sales terminal

This project calls for the construction of a new black product terminal in order to reduce costs, allow filling to take place more safely and faster, and to reduce oil tanker traffic flows within the refinery grounds by relocating the refinery's filling operations, which are presently being carried out at four different places, into a single area. To this end, sales of fuel oil, heating oil, spindle oil, light neutral, heavy neutral and bright stock oil will be carried out from the new filling terminal. Detailed engineering studies were completed in the USD 18.6 million project and installation work continued in 2019, and the terminal started to be commissioned, stage by stage.

Installation of Wind Turbines

The current electricity demand at İzmir Refinery Power Plant is met by Gas Turbines and Condenser Steam Turbines. With the increase in the refinery's capacity, the need for electricity has increased and is expected to increase further with the introduction of new projects.

The increasing electricity demand is met by TEİAŞ (the Turkish Electricity Transmission Company) as well as condenser steam turbines. The project is aimed at meeting the increasing demand for electricity by installing new wind turbines which will generate electricity from renewable sources, without causing emissions and achieving a reduction in energy costs. Engineering studies in the USD 16 million project continued in 2019.

Kırıkkale Refinery

A new laboratory building

This project calls for the construction of a new experimental laboratory building at an investment cost of USD 6.5 million. The new laboratory will have improved ventilation systems, will provide for more efficient temperature, humidity, and similar ambient operating controls, and will be able to better accommodate the refinery's increased workloads. The project's building construction and installation works continued in 2019 and the temporary acceptance stage was reached.

Batman Refinery

Installation of a New Bitumen Tank

After the renewal work carried out in the process units, there was a requirement to store the increased bitumen production which resulted from the increase in the crude oil processing capacity of the refinery.

The planned new bitumen tank, which has a capacity of 30,000 tons, is aimed at eliminating unit downtimes and/or charge reductions. Construction and installation work related to the USD 4 million project continued in 2019 and the temporary acceptance stage was reached.

R&D



TÜPRAŞ CONTINUES TO PRODUCE ITS OWN TECHNOLOGY AND SET ITSELF APART BY DEVELOPING INNOVATIVE SOLUTIONS AND PROJECTS WITH ITS R&D ACTIVITIES, IN LINE WITH ITS SUSTAINABLE SUCCESS GOALS.

One of the oil industry's leading and innovative R&D centers in the World

Tüpraş continues to produce its own technology and set itself apart by developing innovative solutions and projects with its R&D activities, in line with its sustainable success goals.

The Tüpraş R&D center has continued to strengthen its research infrastructure since its establishment on 2 August 2010, when it obtained the R&D center certificate. The Tüpraş R&D center is taking firm steps towards becoming one of the World's leading and innovative R&D centers in the oil industry by strengthening its collaborations both in-house and in national and international arenas.

The Tüpraş R&D Center includes 47 researchers and 14 technicians, 26 of whom hold postgraduate degree and 10 of whom are PhD graduates. The Tüpraş R&D Center continues to work with 11 teams that work in harmony with the refinery teams and with common goals, with more than 150 devices on an area of 12,950 m² consisting of three buildings, including the design building, the laboratory building and the pilot facility building.

The R&D Center determined its vision as “to be a leading and innovative R&D center in the oil industry worldwide” and its mission as “to shape the future of the sector with the technology it develops, while providing innovative solutions to promote the sustainable growth of Tüpraş”. The strategy of the R&D Center is to reach its long term goals in terms of cooperation and communication by maintaining a focus on human resources, work areas, projects and processes, portfolio management, technology management and resource management. The studies carried out by the R&D teams which work by focusing on the refinery operations are gathered under the following areas.

- **Reaction Systems and Pilot Facilities:** Refinery or petrochemistry related processes and catalyser performance test studies
- **Characterization:** Characterization studies of hydrocarbons, catalysers or materials
- **Fuel, Product and Material Development:** Product and material development studies with fuel formulation studies
- **Energy Efficiency:** Making use of waste heat sources and optimizing energy use in order to increase energy efficiency
- **Modeling:** Chemometrics, principal modeling, statistical modeling, kinetic modeling and compositional modeling studies
- **Advanced Data Analytics:** Studies involving advanced computing methods such as data mining, predictive analytics, big-data, machine learning, artificial intelligence and neural networks
- **Renewable Energy and Fuels:** Studies for energy and fuel production from renewable resources
- **Sensor and Robotics Technologies:** Technology transfer studies for the use of sensor and robotics technologies in our refineries
- **Environmental Triggers:** Studies in areas such as the reduction of carbon dioxide emissions, hydrogen production from alternative sources, water and waste management and industrial symbiosis

The Horizon2020 successes

The Tüpraş R&D Center, which received the highest level of financial support from the Horizon2020 program in 2019, was awarded a total of EUR 6.02 million with a total of twelve Horizon2020 projects. Tüpraş was thus the most successful industrial organization in Turkey. Three of these projects have been successfully completed while work on nine of the projects is ongoing.

Three of the project applications made in 2019 were found to be successful and qualified for funding. The Tüpraş R&D Center has the following aims from the three projects which started in 2019.

- The project named “Hydroptics” involves the development of sensors for the measurement of hydrocarbons in water.
- The project named “Macbeth” involves the development of innovative membranes and catalyzers.
- The project named “Factlog” involves the use of cognitive digital twins for the process industry.

THE TÜPRAŞ R&D CENTER, WHICH RECEIVED THE HIGHEST LEVEL OF FINANCIAL SUPPORT FROM THE HORIZON2020 PROGRAM IN 2019, WAS AWARDED A TOTAL OF EUR 6.02 MILLION WITH A TOTAL OF TWELVE HORIZON2020 PROJECTS.

61 people

The Tüpraş R&D Center includes 47 researchers and 14 technicians, 26 of whom hold postgraduate degree and 10 of whom are PhD graduates.

R&D

The Horizon2020 Projects

BIZEOLCAT

The BiZeolCat (Bifunctional Zeolite Based Catalysts And Innovative Process for Sustainable Hydrocarbon Transformation) project, for which Tüpraş is one of its partners and which will be realized with the participation of 13 organizations from 9 different countries, was qualified for support within the scope of Horizon2020's call for "Industrial Sustainability". The project is aimed at the development of innovative processes and technologies that will enable the more efficient production of valuable petrochemical raw materials such as propylene, butadiene and benzene. Tüpraş will play an important role in the development of catalyzers within the scope of the project. Tüpraş will also perform pilot scale performance tests of the methods to be developed within the scope of the project with the reactor systems in its R&D laboratory.

BAMBOO

The Tüpraş R&D Center is one of the partners of the "BAMBOO" (Boosting new Approaches for flexibility Management By Optimizing process Off-gas and waste use) Project, which was qualified for funding within the scope of Horizon2020 program. Tüpraş has been awarded a budget of EUR 2.25 million for the Project, which is 50% funded by the European Union. With this Project, Tüpraş was awarded the highest incentive of any Turkish industrial organization at any one time in the Horizon2020 program. Within the scope of the project, new technologies for making use of waste heat will be implemented in four different energy intensive industries - steel, refining, paper and minerals. Within the scope of the project, an electricity generation system based on "Organic Rankine Cycle (ORC)" technology will be installed in the U-100 Crude Oil Unit at the Izmir Refinery, and electricity will be generated from waste heat.

COZMOS

The "COZMOS" (Efficient CO₂ conversion over multisite Zeolite-Metal nanocatalysts to fuels and Olefins) project, in which Tüpraş is one of its partners, received the highest score among the project applications for "Converting Captured Carbon Dioxide" within the scope of Horizon2020 and was thus qualified for funding. The COZMOS project aims to develop innovative catalyzers to efficiently convert carbon dioxide emitted by industrial processes into propane/propylene. The performance tests for the catalyzers that are to be developed are planned to be carried out in the pilot facility which will be established in the Pilot Facility Testing Building at the Tüpraş R&D Center.

MOF4AIR

The "MOF4AIR" (Metal Organic Frameworks for carbon dioxide absorption processes in power production and energy intensive industries) project, in which Tüpraş is one of its partners, qualified for funding within the scope of Horizon2020's call for "Advanced Carbon Dioxide Capture Technologies". The project is aimed at the development of innovative absorbant materials which will efficiently capture carbon dioxide gas emitted by industrial processes, and thus reduce carbon dioxide emissions. Within the scope of the project, Tüpraş will play a role in the development of technology for the capture of waste carbon dioxide in the flue gases and will perform field tests of the technology to be developed.

96 applications

In keeping with its ongoing efforts to protect its intellectual property rights, Tüpraş filed 9 patent applications in 2019. These filings bring the total number of such applications submitted by the center since it commenced operations to 96, of which 70 were national and 26 were international applications.

University Collaborations

With the awareness of the importance of benefiting from the educational backgrounds, knowledge and expertise of academics in terms of basic research, and taking the view that the reaction systems and devices available in universities are an important resource, collaboration with various academics continued in 2019.

Research studies and outputs at universities, which are within the scope of Tüpraş's field of activity, are followed up and new joint project ideas are developed.

Within the scope of Nextremers Summer Program, which aims to attract a qualified workforce to Tüpraş R&D Center, as well as contributing to the professional development of university students, four undergraduate students from Middle East Technical University, İzmir Institute of Technology and Koç University presented their projects and successfully completed the three month program in 2019.

Patents and scientific publications

In keeping with its ongoing efforts to protect its intellectual property rights, Tüpraş filed 9 patent applications in 2019. These filings bring the total number of such applications submitted by the center since it commenced operations to 96, of which 70 were national and 26 were international applications.

Last year the Tüpraş R&D Center published 36 national and international scientific publications, thereby bringing the total number of such publications since it commenced operation to 267.

Award for Services to the Environment and Society in Most Successful Koç Employees Competition

In the "Most Successful Koç Employees" competition organized every year by Koç Group to reveal the best practices in the Group, Tüpraş received third prize in the category of "Services to the Environment and Society" competition with the "Our Energy is for Students" Project, among the 16 projects which took part. The project, which started with the aim of instilling a love of science and scientific thought in primary and secondary school students, reached over 2,000 students in the space of less than a year. While emphasis is placed on the safety, health and environmental awareness, the egalitarian and inclusive culture at Tüpraş is reflected in the events, where the facet of fun in learning science is introduced through experimental activities. The project was successfully continued by 25 volunteers, mostly employees of the R&D Center, with a broadening experiment portfolio, and positive feedback was received from both students and teachers.



IN 2019 THE TÜPRAŞ R&D CENTER PUBLISHED 36 NATIONAL AND INTERNATIONAL SCIENTIFIC PUBLICATIONS, THEREBY BRINGING THE TOTAL NUMBER OF SUCH PUBLICATIONS SINCE IT COMMENCED OPERATION TO 267.

INNOVATION



TÜPRAŞ MAINTAINS ITS EFFORTS TO ADD VALUE TO BOTH THE COMPANY AND ENTREPRENEURS BY INTEGRATING INTO THE ENTREPRENEURSHIP ECOSYSTEM, IN ADDITION TO THE IN-HOUSE ENTREPRENEURSHIP PROGRAM.

1st

Tüpraş won the first prize in the “Innovation Strategy” category at the İnovalİG 2018 Award Ceremony held in May 2019, becoming the champion among the 1,216 companies which took part.

The İnovalig 2018 Award

Within the scope of the Turkey Innovation Week, which was organized in cooperation with the Turkish Exporters Assembly (TIM) and the IMP3rove Academy, an international management consulting company, Tüpraş won the first prize in the “Innovation Strategy” category at the İnovalİG 2018 Award Ceremony held in May 2019, becoming the champion among the 1,216 companies which took part.

The Tüpraş Innovation Studies

Tüpraş maintains its efforts to add value to both the Company and entrepreneurs by integrating into the entrepreneurship ecosystem, in addition to the in-house entrepreneurship program, in which its employees carry out their creative and innovative ideas, start-up methodologies and commercialization efforts.

Tüpraş was included in the Koç Innovation Program voluntarily in 2017. The process started with the determination of the innovation strategy. In parallel with the publication of the strategy and processes in the whole company, internal and external communication and training activities were carried out to support

the cultural transformation and increase competence. The Idea Unit portal, in which the employees with innovative ideas may share their ideas and which serves as a vehicle to spread the innovation culture within the company, was commissioned under the slogan of “A platform where Raw Ideas become Value” in 2017.

In-house entrepreneurship and open innovation studies are carried out under the leadership of and with the support of the upper management within the framework of the short term and long term goals in line with the company’s strategies, and with the focus areas determined during the strategy workshops.

In-house Entrepreneurial Projects

In line with the innovation focus areas that were determined during the strategy workshops, business model ideas which will support efforts to seek new areas of growth for a future that benefits from the opportunities brought by new business models are supported in the in-house entrepreneurship programs.

Tüpraş provides active support to the in-house entrepreneurs who convey their ideas through the Idea Unit portal, in all steps from the idea to the realization phase. The “Innovation and Entrepreneurship Seminars” on creativity and entrepreneurship are held at all refineries with wide participation. In addition, Idea Generation Sessions are organized in order to support the emergence of innovative ideas for the focus areas in all locations. Within the scope of the in-house entrepreneurship programs, more than 80 in-house entrepreneurs had the opportunity to work on their ideas with the methods similar to those used by start-ups to date. The in-house entrepreneurs included in the program complete their training by focusing mainly on entrepreneurship methodologies and receive entrepreneurial mentoring support. At the same time, when the projects mature, the entrepreneurship projects are closely monitored by the upper and middle management and sponsorship support is provided.

Innovation and entrepreneurship news from around the country and in the world, innovative applications and the Tüpraş innovation studies and in-house entrepreneurship project activities are regularly shared through the Inowhatif E-Bulletins and Entrepreneurship News Bulletins.

Internal Mentoring Program

As of 2019, the employees designated from among the in-house entrepreneurs were included in the special training and development program, so they could support the projects as internal mentors. The program aims to help them gain the competencies they need to actively mentor in the in-house entrepreneurship activities which will be carried out in the coming periods. The entrepreneurs involved in the program participate in the ecosystem activities, in addition to participating in the in-house activities, idea generation workshops and all processes of the in-house entrepreneurship program. They also participate in these events as panelists or speakers.

The Innovation Volunteers Team

The Company set up “Innovation Volunteers” teams, consisting of employees at different levels who provide support for innovative idea to be part of the corporate culture and to promote the perspective of in-house entrepreneurship across the Company. Special training on innovation, open innovation and institutional entrepreneurship are provided for these teams and work programs are organized in this context. All employees who wish to support the studies on open innovation and to take part in the in-house entrepreneurial project teams may become an Innovation Volunteer through the Idea Unit portal.

Kırıkkale Innovation Garage

Tüpraş Innovation Garage (Innovation Garage), which is a special workspace devoted to innovation at Tüpraş, was set up at the Kırıkkale Refinery. The innovation garage is aimed at creating an environment where innovative ideas can be discussed and to provide entrepreneurs with a comfortable working environment by triggering creativity among teams conducting innovation projects. The workspace, which will contribute to the establishment of an in-house innovation culture, is open to all employees who wish to carry out innovation projects.

INNOVATION

Open Innovation Studies

Within the scope of its open innovation strategy, Tüpraş aims to find innovative solutions to its in-house needs and to seize new growth areas by following game disrupting technologies. Tüpraş continues its open innovation efforts for today's affairs and the needs of the future. It also nurtures the culture of the organization with cooperation mechanisms by getting to know the flexible and fast working cultures of the initiatives.

As part of the work for today's affairs, the needs of all business units are collected and the solutions from the domestic/international start-up ecosystem are brought together with the company's relevant units. Work is carried out with the support of the Start-up Evaluation Team with the expertise appropriate for the designated focus areas. The team was set up within the company in order to transform the culture of innovation and entrepreneurship within the company into active collaborations with start-ups. Within the framework of the stated open innovation areas, employees are actively in communication with more than 100 start-ups at home and abroad and are working to develop cooperation.

As part of the work for the needs of the future, new technologies and business models that may offer an opportunity or pose a threat to the company are monitored through start-ups in all channels at home and abroad. This business intelligence is presented to the company as a strategic input, and it supports strategic plans.

+100

Employees are actively in communication with more than 100 start-ups at home and abroad and are working to develop cooperation.

Within the scope of integration efforts with the entrepreneurship ecosystem, Tüpraş participates in many activities aimed for early and advanced stage start-ups and entrepreneurial candidates, organizes programs and provides mentoring support to entrepreneurs. More than 1,000 students and entrepreneurs have been reached through information sharing about entrepreneurship, innovation and the Tüpraş innovation studies at the activities of the students' clubs of universities and the universities as panelists or speakers. Tüpraş provides mentoring support in acceleration programs, competitions and other entrepreneurship activities and is actively involved as a jury member. Thousands of people have been reached through innovation sharing and entrepreneurship work through social media accounts.

Inowhatif Acceleration Program with Tüpraş

Run in conjunction with KWORKS, one of the most important centers of enterprise in Turkey, the "Inowhatif with Tüpraş" program is an acceleration program prepared for the potential needs, both present and future, at a major industrial company, and which helps the venture companies improve their business by supporting them in the areas they need. The venture companies selected among the applicants to the "Inowhatif with Tüpraş" program were able to share solution proposals with the Tüpraş mentors and experts. The venture companies selected for the 5-month program, one month of which consists of a trial process, will have the opportunity to work with a real problem, with the opportunity to become closely acquainted with the sector through progress meetings that will take place in certain periods with the Tüpraş mentors, the opportunity to develop business ideas and to learn entrepreneurship methods through the acceleration program, as well as the opportunity to use the KWORKS' working environments and the right to participate in weekly mentor sessions, the right to participate in the presentation rehearsal sessions, the opportunity to use the KWORKS' infrastructure and consulting services, and the opportunity to cooperate with Tüpraş at the end of the acceleration program.

New Ideas, New Work (NINW)

Tüpraş, which was a strategic partner of the 'New Ideas New Work' Acceleration Program in 2018, continued to support the program in 2019, taking pride of place among the partners and mentors. Within the scope of the 'New Ideas New Work' partnership, the processes of the transformation of ideas into initiatives were followed up and entrepreneurs were given mentoring support. In addition to contributing to the ecosystem through the program, the program also provided access to entrepreneurs who would be able to offer collaboration. The Tüpraş Special Award was handed to the Ulakfin team, which is a smart news analytics platform.

The TÜSIAD Entrepreneurial Ecosystem Working Group:

Tüpraş takes part in the TÜSIAD Entrepreneurial Ecosystem Working Group, which was established with the aim of developing the entrepreneurial ecosystem in Turkey.

The Turkey Entrepreneurial Institutions Platform:

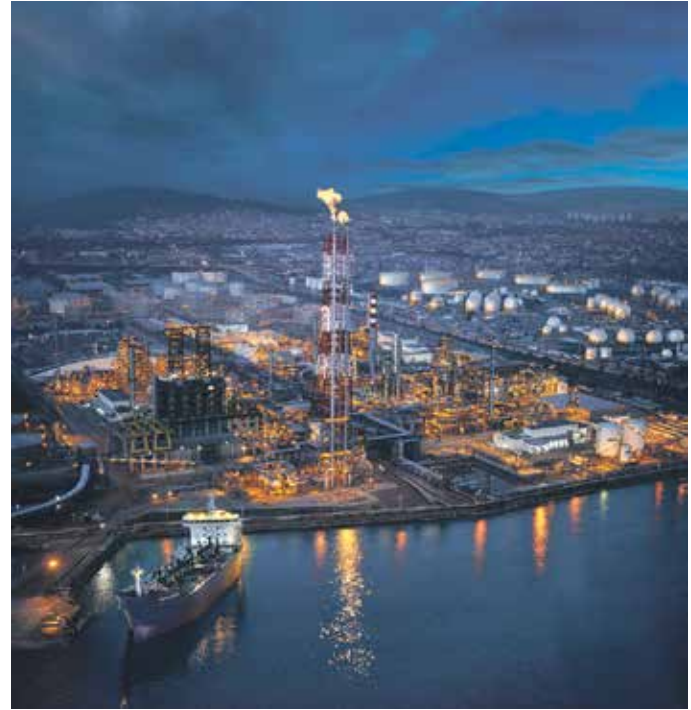
Tüpraş was included in The Turkey Entrepreneur Institutions Platform that was established with the aim of developing learning between institutions, raising awareness over best practices and spreading the systematic applications of in-house entrepreneurship in 2018.

Etohum (E-seed):

Tüpraş, which carries out a wide range of activities aimed at being in closer communication with the entrepreneurship ecosystem and reaching innovative initiatives and the start-up network at an early stage, strives to achieve early access to digital technologies with its membership of Etohum.

A.SPIRE

A.SPIRE is a non-profit international association, which represents the private sector as a partner under the SPIRE Public-Private Partnership PPP and which was established as part of the Horizon2020 Frame Program. Tüpraş is the first Turkish company to have joined the A.SPIRE platform. The platform, which directs EU policies and projects and is directly addressed by the European Commission as the representative of the private sector, supports open innovation studies. Representatives from the Tüpraş Innovation and R&D departments join the meetings.



TÜPRAŞ IS THE FIRST TURKISH COMPANY TO HAVE JOINED THE A.SPIRE PLATFORM.

DIGITAL TECHNOLOGIES AND CYBER SECURITY



THE DIGITAL TRANSFORMATION STRATEGY REVIEWED IN 2019 HAS BEEN RESHAPED IN LINE WITH THE INTERNALIZATION AXIS OF “DATA-BASED DECISION-MAKING AND ACTION”.

2019 was a year in which the digital transformation journey, which was started 3 years ago, was reviewed and its vision and strategy were updated. The strategy, which focused on **“value added solutions in useful areas”** in the past three years, thus benefiting from new technologies and establishing trust in the Company culture, has been reshaped in line with the internalization axis of **“data-based decision-making and action”**.

The new vision is based on the keyword, “connected”. The vision of “being connected” does not only express the meaning of being “connected to the internet, online”, but further emphasizes the meaning of being “connected to each other”, advancing to a common goal, with common “data”. This vision, where data equipping is placed at the heart of digitalization to embrace the culture and to be more productive, consists of four main axes:

- **Affiliated employees:** This refers to a culture in which the data generated by one can affect and be of use to the direct business processes of another department or person, thus making use of the data created by one another.

- **Connected processes:** Providing processes that share, use, and exploit data in a similar way, not just employees, is a supportive part of the culture formation.
- **Affiliated refinery:** This newly maturing concept refers to optimizing data as a whole in the entire refinery with an integrated understanding rather than separate operations and using it at the top tier of the value chain.
- **Connected field operations:** It refers to the production of value from generated data by making use of the power of the data in the maintenance or project operations performed in the field as well as in production and other processes.

These 4 strategies are among the building blocks of the program created to transition from the concept of an “Analytic Company”, which uses data in its decisions, to an “Analytical Competitor”, where data use is a routine and basic understanding, which sees data as a competitive advantage and superiority, which is the highest level of data use.

As a result of the projects created within the framework of these principles, efficiency gains of over TL 50 million have been achieved in 2019. Shift Optimization, Laboratory Result Forecasting, Hydrogen Optimization, Ship Planning and Stock Management are some of the projects carried out in different areas of the value chain using agile methodologies. The agile methodologies used have ensured that the efficiency obtained from the projects was realized as soon as possible and an important step was taken towards the agile company culture.

In the RPA (Robotic Process Automation) project, which started in 2018, more than 50 processes were carried out by the software robot, thereby preventing errors as well as saving time and manpower.

Within the framework of Industry 4.0 principles, technologies using IoT devices such as the Corrosion Monitoring System and wearable technologies, field applications of wireless and mobile solutions have been tested and those that will provide added value have been commissioned.

All of these projects are applications which support occupational health and technical safety along with the productivity provided.

Besides the advantages brought by the digital world, the biggest risk has always been cyber security. Just like in technical security, Tüpraş has created a road map and strategy that aims for highest level of protection in cyber security by following and implementing world and sectoral standards in cyber security as well as investing in technologies that are developing in this area.

In this context, in addition to the work carried out in the field of Information Security, a special team working on Operational Technologies (OT) has been established and processes and policies in this field have been created and implemented. Investments have been undertaken with a focus on the human side and process as well as cyber security solutions using high technology and security, and immunity from production to information technologies has been improved. Tüpraş constantly monitors and develops its competencies in this regard, through both international and local audits and assessments.

THE AGILE METHODOLOGIES USED HAVE ENSURED THAT THE EFFICIENCY OBTAINED FROM THE PROJECTS WAS REALIZED AS SOON AS POSSIBLE AND AN IMPORTANT STEP WAS TAKEN TOWARDS THE AGILE COMPANY CULTURE.

HEALTH AND SAFETY PRACTICES



TÜPRAŞ EXPECTS ALL OF ITS SOLUTION PARTNERS AS WELL AS ITS EMPLOYEES TO UNWAVERINGLY COMPLY WITH THE HEALTH, SAFETY, ENVIRONMENT (HSE) STANDARDS.

Tüpraş identifies risks in all its operations and aims to eliminate or reduce risks to locally and internationally accepted standards. To this end, all employees of the Company as well as solution partners are expected to strictly adhere to Health, Safety and Environment (HSE) and Process Safety standards. 16 Process Safety preliminary and after-basic performance indicators, which are prepared in accordance with international standards and applications (API754, CCPS etc.), are monitored on a monthly basis. The aim is to take measures before accidents occur by following preliminary and after-basic performance indicators, and to prevent a repeat of accidents by learning lessons from the accidents that have happened.

In Tüpraş's Refineries, the Process Safety Management System consisting of 14 main titles aimed at Operational Discipline and Operational Excellence is implemented on the basis of management leadership and ownership with the CCPS and OSHA reference. With the Process Safety Management System, all areas such as

maintenance and control activities, operating procedures, change management, process hazard analysis, training and competence, and contractor management that may lead to process safety accidents are evaluated together within the scope of Tüpraş's safety requirements.

Within the scope of the Regulation on the Prevention of Major Industrial Accidents, numerical risk assessments are performed in all of our refineries and critical scenario analysis and actions are determined and the Safety Reports are prepared.

Our Process Safety Event Frequency (Level 1 and Level 2 event frequency) decreased in 2019, and our goal is to lower this value and make it sustainable. Tüpraş's Occupational Health and Safety (OHS) mission is to ensure employees return home, healthy, at the end of each working day, while its vision is to ensure employees return home in an even healthier manner with more awareness. In line with this mission and vision, it incorporates all kinds of applications and technologies so that each individual considers the safety first and foremost of themselves and then of the others and the facilities around them, and takes the necessary actions, in terms of both health and OHS.

In order to create a productive and sustainable safety culture at Tüpraş, behavior-based safety tours are held at the refineries to encourage positive conduct, raise general safety awareness and monitor compliance with safety standards. Tüpraş executives also

participate in these tours as part of the “Visible Leadership” practice. In the safety tours that are periodically evaluated and updated, the principle of “visible leadership” is demonstrated with the active participation of the management, where positive safety behavior receives appreciation and is encouraged, risks in the behavior of people and working conditions are identified and corrected, communication and dialogue are strengthened to ensure a safe working environment, awareness is developed, and an environment in which employees can share their opinions and observations on safety is created.

In decisions taken or not taken by the managers, the phenomenon of safety is always taken into consideration and an evaluation is conducted into how every job affects human and facility safety.

In order to improve the safety perception of its employees and prevent possible unsafe situations and accidents by assessing risks correctly in advance, in 2019 Tüpraş carried out the following;

- Started to transfer the “Competence Management” studies, which are widely used in the international oil - gas sector, to its own body,
- Accelerated Safety Campaigns on certain topics in the field,
- In order to use the Control of Work system more effectively, implemented more effective identification and control systems with the work conducted jointly by the Operation, Maintenance and OHS teams,
- Carried out reviews with the users of the system to make the Work Permit System more effective,
- Employees are included in international certificate programs externally and intensive training and application programs internally,
- Prepared the ground for the single Joint Health and Safety Unit to enable contractors to benefit from OHS services more effectively and accurately,

- As the General Maintenance Contractor, more experienced and institutional solution partners were appointed at the refineries, and significant improvements were achieved in the contractor OHS statistics.

Health Risk Assessment (HRA) studies are carried out in all of the refineries. As part of the HRA studies, all area-specific (units, workshops, laboratories, warehouses) risk factors, including chemical, physical, biological, ergonomic and psychological, are evaluated in detail.

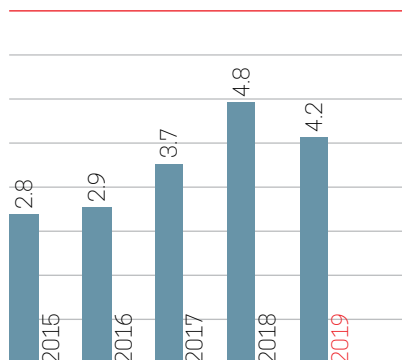
Tüpraş responds to emergencies with high capacity modern equipment and competent personnel. National and international relevant standards are taken as a basis in training for the modernization of emergency protection and response systems, continuous improvement, and increasing the competence of the teams. Fire, disaster plan, hydrocarbon cloud/toxic gas emission and environmental spill drills are carried out at all refineries in order to minimize the risks that may occur in emergency situations and to respond with methods that will reach the target. Neighboring facilities, together with public institutions and organizations, participated in these drills as stakeholders with their teams and equipment.

In addition, in the “Hazard and Effect Management Process” (HEMP), which was carried out in accordance with the legislation in 2019, within the scope of preparation of risk analyses, priority was placed on identification and management of risks, carrying out health-risk assessment studies and allocation of resources to critical activities.

Tüpraş shares its gains, experience and best practices in the fields of OHS, process safety and emergency response in congresses and symposiums with its reliable and leading corporate identity in the energy industry.

Accident Frequency Rate*

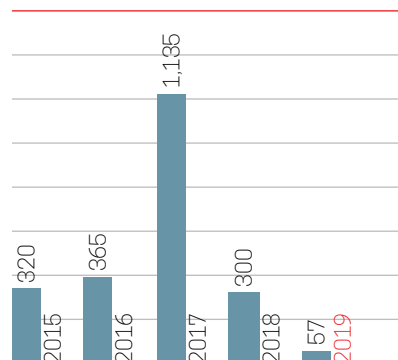
(number of accidents x 1,000,000) /
(people x hours)



* Based on accidents with two days or more reports.

Accident Severity Rate*

(work days lost x 1,000,000) /
(people x hours)



* Based on accidents with two days or more reports.

QUALITY MANAGEMENT SYSTEMS



TÜPRAŞ CARRIES OUT ALL OF ITS ACTIVITIES WITHIN THE FRAMEWORK OF THE INTEGRATED MANAGEMENT SYSTEM.

EFQM

The EFQM evaluation was carried out at the General Directorate and the İzmit Refinery between 16-19 December, and the score was 500-550, an increase compared to the external evaluation carried out in 2011.

Tüpraş carries out all of its activities within the framework of the Integrated Management System, consisting of the ISO 9001 Quality Management System, the ISO 14001 Environmental Management System, the OHSAS 18001 Occupational Health and Safety Management System and the ISO 50001 Energy Management System.

Integrated Management System Internal Audits were performed at the Head Office and the refineries in 2019.

In 2019, external audits of the Integrated Management System were carried out by the BSI at the General Directorate, the İzmit Refinery and the Batman Refinery. The Certificate of ISO 50001 Energy Management System, the certification audit of which was carried out, was extended until 20 August 2021.

The certification company for the ISO 27001 Information Security Management System was changed and the company began to work with TÜV Austria. Following an external audit conducted by this organization, the certification was extended until 14 December 2020.

In 2019, Tüpraş's İzmit, İzmir, Kırıkkale and Batman Refinery Laboratories successfully passed the TS EN IEC/ISO 17025 audit, the internationally recognized quality management system standard for laboratory accreditation.

At the İzmit and Kırıkkale refineries, the CE certification external audits of the bitumens to EN 12591 standards (Specifications for paving grade bitumens) and EN 15322 (Framework for specifying cut-back and fluxed bituminous binders) were carried out and the validity of the certificates was extended for 1 year.

As of May 2019, the M-Files system started to be used for the Document Management System instead of QDMS.

After the ISO 10002 Customer Satisfaction Management System certification audit conducted by the BSI in December 2019, the validity of the certificate was extended until the end of 2020.

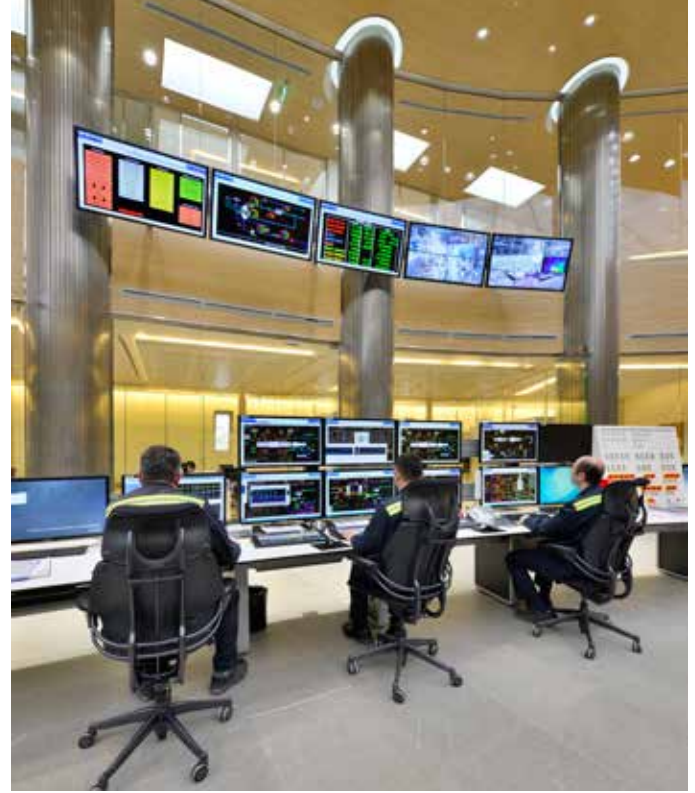
The EFQM evaluation was carried out at the General Directorate and the İzmit Refinery between 16-19 December, and the score was 500-550, an increase compared to the external evaluation carried out in 2011.

Scan the QR codes to reach management system certificates:

ISO 9001 Quality Management System



ISO 14001 Environmental Management System



OHSAS 18001 OHS Management System



ISO 50001 Energy Management System



ENVIRONMENTAL MANAGEMENT



TÜPRAŞ FULFILLS ALL NATIONAL REQUIREMENTS WITH A SENSE OF RESPONSIBILITY FOR THE ENVIRONMENT AND THE SOCIETY, AND CONTINUES ITS ACTIVITIES OF COMPLIANCE BY CLOSELY FOLLOWING DEVELOPMENTS IN THE SECTOR AND THE WORLD.

Thanks to the investments undertaken in units which can carry out production with reduced environmental impacts through highly advanced technologies, Tüpraş offers environment friendly products that are in compliance with EU specifications to the market. Carrying out all its production and services with the principle of sensitivity to the environment, Tüpraş continues its activities with an approach that places human health, occupational safety, protection of the environment and the benefit of society at the heart of what it does at all times.

Tüpraş aims to minimize the environmental impact of its operations and avoid causing harm to its employees, contractors, clients, the wider society, and anyone affected by its business activities. Operating at world standards of environmental protection, Tüpraş recognizes the importance of improving the natural habitat as well as preserving it. The Company continues to develop and support various projects to this end.

Work carried out within the scope of Emission and Life Cycles

At refineries, flue gas emissions from 31 flues are monitored online by the Ministry and all national requirements were met. At the refinery, studies are carried out to ensure compliance of flue gas emissions with European Union legislation. Emission verification and air quality measurements were carried out at all refineries and reported.

The "Project for Facilitation of the Implementation for the Determination and Reduction of Air Pollution Caused by Industry", which is carried out by the Dokuz Eylül University under the leadership of the Ministry of Environment and Urbanization, was supported within the scope of the Izmit and İzmir refineries.

In line with the Sustainable Development Goals, efforts were taken to manage the environmental impacts arising from operations and planned investments with a holistic approach through the Life Cycle Analysis studies. In this context,

- In order to adopt this approach throughout Tüpraş, employees were provided with a two-day Sustainability and Life Cycle Thought and Analysis (LCA) training program.
- Different emission output limits for the steam recovery units, which are planned to be installed in the refineries in accordance with legal requirements and limits, were examined from a life cycle perspective and reported.
- The environmental impacts of the emissions generated by the different fuel scenarios used in production were reported by using the LCA.
- LCA work got underway as part of the "CO₂-to-fuels" R&D project for the production of methanol and dimethyl ether (DME) from carbon dioxide.

- A literature review was conducted and reported within the scope of the environmental impacts produced by electric vehicles during their life cycle.

In addition, infrastructure studies are underway to evaluate the LCA results of important projects within the scope of the investment program, along with the economic indicators resulting from feasibility studies.

Work carried out within the Scope of Waste Management

Work was carried out to reduce the environmental impact of the catalyst and refractory wastes, which are sent to a landfill at the İzmit Refinery, with the aim of bringing the wastes into the economy instead of sending them for disposal. Within the scope of industrial symbiosis, these wastes were recycled at the refractory brick facilities.

Tüpraş organized NEBOSH training for its employees who carry out work related to the environment. Within the scope of the Zero Waste project, approximately 300 students were provided with an information presentation.

Activities carried out within the scope of efforts to tackle climate change

Tüpraş has been participating in the United Nations Climate Change Parties Conference since 2015. It participated in the 25th Conference of the Parties (COP25) held in Madrid, Spain in 2019. The conference focused on the development of international climate policies, how these would shape national developments and sectoral expectations.

Within the scope of the Partnership for Market Readiness (PMR) project carried out by the Ministry of Environment and Urbanization, the first phase was completed and work on the second phase has got underway.

In the 2nd phase, contribution to the work of the following components continues.

- development of legal and institutional infrastructure,
- determination of the upper emission limit and establishing allocation plans,
- establishment of the DTS (Document Tracking System) registration system,
- development of emission trading system simulation application

In addition, Tüpraş effectively supports the “Climate Change” special studies carried out by TÜSİAD.

Within the scope of “Regulation on Monitoring Greenhouse Gas Emissions”, since 2015, the annual greenhouse gas emission reports of all refineries are prepared and verified and forwarded to the Ministry of Environment and Urbanization. In 2019, Tüpraş’s greenhouse gas emission savings stood at 26,292 tons.

While evaluating investment projects, Tüpraş continues its infrastructure studies regarding the consideration internal carbon pricing as a parameter in feasibility studies.

Greenhouse gas reduction amounts provided by some selected energy efficiency projects have been certified under the ISO 14064-2 (Greenhouse gases) standard since 2018.

R&D Activities

The İzmit Refinery is the implementation partner in the Integroil-Horizon 2020 project, an R&D project supported by European Union funding. Within the scope of the project, in which a water recovery system has been developed for the oil drilling and refining sectors, a detailed characterization of the waste water was carried out and technical and administrative meetings were held with the project partners.

Activities within the scope of Water Management and Wastewater Recovery

With the New Wastewater Recovery/Water Treatment Unit commissioned in 2016 at the İzmir Refinery with the aim of reducing the use of raw water, reducing consumption of natural resources, promoting sustainable use of natural resources, conserving biological diversity and obtaining economic benefits, a 67% recovery in the refinery wastewater was achieved in 2019.

With the İzmit Refinery Municipal Urban Wastewater Recovery Project, recovered water met 99% of the İzmit Refinery’s water needs, excluding utility water, in 2019.

Under the Council Directive 96/61/EC concerning Integrated Pollution Prevention and Control (IPPC), in order to comply with BAT (Best Available Techniques), an environmental current status assessment of all refinery processes was carried out and areas that may require operational change and/or investment were identified.

Within the scope of Horizon2020 Program, field work on the “Demonstration of a Decision Support System for a Novel Integrated Solution Aimed at Water Reuse in the Oil & Gas Industry” project, which is carried out by Acciona with the participation of Tüpraş as the implementing partner, was completed. <https://integroil.eu/>

Within the scope of the “Determination of Water Risks” study, existing risk assessment tools used in the sector were examined, and methods that could be used in refineries were determined.

Achievements

Tüpraş became a finalist in the Sustainable Business Awards in 2019 with the following projects.

- The “Our Energy is for Students” project in the “Social Impact” category,
- The “Sustainable Supply Chain: Safe, Environmental and Economic Transportation by Rail” project in the “Supply Chain Management” category, and
- The “İzmir Refinery New Water Treatment Unit” project in the “Water Management” category
- Tüpraş received an award in the “Energy Management” category with the “Kırıkkale Refinery New Power Plant Project”.

ENERGY EFFICIENCY



A TOTAL OF 24 ENERGY EFFICIENCY PROJECTS WERE CARRIED OUT IN 2019 WITHIN THE SCOPE OF ENERGY EFFICIENCY ACTIVITIES AT THE FOUR REFINERIES WITHIN TUPRAŞ.

98.44

Tüpraş's Energy Intensity Index value, which was 99.08 in 2018, stood at 98.44 points in 2019.

Energy Intensity Index

As a result of the energy saving projects and the modernization work carried out at the refineries, Tüpraş's Energy Intensity Index value, which was 99.08 in 2018, stood at 98.44 points in 2019.

Benefits of energy efficiency studies

A total of 24 energy efficiency projects were carried out in 2019 within the scope of energy efficiency activities at the four refineries within Tüpraş. In 2019, a total of TL 21.6 million of financial gains were achieved from these projects. These projects, which provide increased energy efficiency, paved the way for annual energy savings of 113,105.8 Gcal and a reduction of 26,292 tons in CO₂ emissions.

Highlights of Energy Efficiency Projects in 2019

Steam Savings achieved at Izmit Refinery 147E-001 and 147E-301 Air Cooler Bundles

Steam serpentine in the 147E-001 and 147E-301 air coolers prevent lines from freezing in commissioning and during cold weather. In accordance with the approval received from the licensor company, the decision was taken to stop operating serpentine except during exceptionally cold weather or during commissioning/downtime. With the project implemented since August 2019, an average decrease of 2.9 Gcal/hour was achieved in the low-stage steam consumed within the unit.

Fuel Savings achieved by Reducing the Izmit Refinery 147E-110 By-Pass Valve Opening

The fractionator bottom product passes through the tube side of the 147E-110 exchanger in unit 147 of the Izmit Refinery, and the 147C-101 scraper bottom product passes through the shell side. The fractionator bottom product temperature, which passes through the tube side of the 147E-110 exchanger, affects the fuel consumption of the 147F-002 furnace, while the scraper bottom temperature, which passes through the shell side of the 147E-110 exchanger, affects the 147F-101 furnace fuel consumption. Within the scope of the project, the extent of opening of the bypass valve of the 147E-110 exchanger was reduced from 40% to 11%. In this way, the amount passing through the tube side of the exchanger was increased and the entrance temperature of the 147F-002 furnace was reduced, while the entrance temperature of the 147F-101 furnace was increased. The project, implemented in September 2019, yielded an energy return of 2.4 Gcal/hour.

Energy Savings achieved with revision of Izmir Refinery U-1400 Unit PT-1402 Pump Steam Turbine-Electric Engine

Steam turbines used in rotary equipment have a less efficient drive mechanism than electric motors. The high-efficiency electric motors that can be used instead offer a number of advantages ranging from ease of maintenance to energy saving. For this purpose, the drive of the PT-1402A pump located in the Izmir Refinery Base Oils Complex was converted from one operating with high-stage steam to one using an electric motor. The project, which provides an energy advantage of approximately 3.1 Gcal/hour, was commissioned in August 2019.

Energy Savings achieved by backing up Kırıkkale Refinery Plant-1150 Unit E-1154 Exchanger

The LSRN charge, which enters the furnace with high pressure steam, is heated in the E-1154 exchanger in the isomerization unit of the Kırıkkale Refinery. The inefficiency caused by pollution problems occurring in the E-1154 exchanger increases the consumption of high pressure steam used in the exchanger, and the fuel consumption of

the F-1151 furnace. However, due to the lack of a backup in the field, the exchanger cannot be cleaned without halting operation of the unit. Thanks to the E-1183 exchanger, which is established as a backup to the related exchanger within the scope of the project, the exchangers are kept in place cleanly throughout the year without the need for a unit stop. The project, commissioned in June 2019, has yielded energy savings of 1.9 Gcal/h.

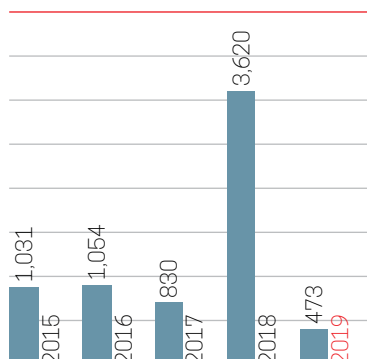
Batman Refinery E-1114/E-1115 Exchangers Heat Integration Project

The Batman Refinery crude oil unit E-1114/E-1115 exchangers heat integration project was commissioned in March 2019. Within the scope of the project, the E-1103 side reflux exchanger, which was located in front of the desalter, was moved behind the desalter as the E-1105. The E-1114 exchanger and the E-1101 A-E-1102 A/B exchangers were installed to meet pre-desalter heating needs. The project increased the furnace entrance temperature of crude oil by about 25 °C, thus reducing the amount of natural gas used as fuel in the furnace. The total impact of the project, which saves 3.6 Gcal/h of energy, was calculated as 18,835 Gcal in 2019.

Successes and Awards for Energy Efficiency in 2019

- The Izmir Refinery U-7000 Revamp Energy Saving Project - **1st Prize** in SENVER 2019 SEVAP-3 Category
- The Izmit Refinery Process Units Energy Roadmap Studies - **Jury Special Prize** in SENVER 2019 SEVAP-3 Category
- The Kırıkkale Refinery New Power Plant Project – 8th ICCI Energy Awards Thermal Power Plants Category, **the Project of the Year Award**
- The Kırıkkale Refinery New Power Plant Project - **1st Prize** in 2019 Sustainable Business Awards Energy Management Category
- The Izmir Refinery U-7000 Revamp Energy Saving Project – **Finalist** in Istanbul Chamber of Industry 2019 Energy Efficiency Awards

Energy Savings (TJ)



Energy Efficiency Projects and CO₂ Savings in 2019

	Number of Projects	Energy Gcal/year	CO ₂ tons	TL million
Izmit	14	45,655	10,613	8.7
Izmir	2	21,030	4,889	4.0
Kırıkkale	7	27,585	6412.3	5.3
Batman	1	18,835	4,378	3.6
Total	24	113,105.8	26,292	21.6

PERFORMANCE INDICATORS

Economic and Administrative Performance

	2015	2016	2017	2018	2019
Net Sales (USD million)	13,571	11,547	14,801	18,349	15,804
Operating Profit (USD million)	1,012	781	1,333	1,189	393
Profit Before Tax (USD million)	819	644	1,227	772	-55
Profit After Tax (USD million)*	938	594	1,046	769	93
EBITDA (USD million)	1,397	1,125	1,614	1,846	712
Net Debt (Cash) (USD million)	2,370	1,729	1,657	2,275	1,418
Return on Equity (ROE) (%)	35.3	21.9	41.3	36.8	4.6
Debt Leverage Ratio (%)	1.8	1.8	1.1	1.3	2.1
Net Working Capital (USD million)	536	405	786	1,163	-253
Investment Expenditures (USD million)	344	213	184	138	157
Earnings per Share (TL)	10.18	7.16	15.22	14.83	2.10
Gross Dividend per Share (TL)	6.5	6.22	13.60	15.15	-
Net Dividend per Share (TL)	5.53	5.29	11.56	12.88	-
Taxes and Other Liabilities (TL million)	31,916	37,548	42,430	31,590	31,260
Corporate Governance Rating Note	9.44	9.42	9.47	9.48	9.50
Fitch Ratings Long-term Foreign Currency Rating Note	BBB-	BBB-	BBB-	BB+	BB-
Fitch Ratings Long-term Local Currency (TL) Note	BBB-	BBB-	BBB-	BB+	BB-
Supply Operations (TL million)	1,573	1,921	1,692	1,911	2,017
Domestic	1,122	1,200	1,217	1,164	1,608
Custom Manufacturing	12	5	4	13	14
Foreign	439	716	471	734	395
Local Procurement Ratio (%)	72.10	62.72	72.16	61.60	80.43
Total Number of Suppliers	2,238	2,266	2,120	2,164	2,060

Operational Performance

	2015	2016	2017	2018	2019
Processed Crude Oil (thousand tons)	27,559	28,348	28,502	24,540	27,238
Refining Production (thousand tons)	27,268	27,928	28,883	25,695	28,112
Sales (thousand tons)	28,739	30,255	31,493	29,830	29,197
Export of Products (thousand tons)	6,494	5,491	5,804	4,191	6,807
Import of Products (thousand tons)	2,999	3,749	4,388	6,252	2,827
Total White Product Ratio (%)	75.4	76.6	76.3	77.4	79.0
Capacity Utilization Rate of Crude Oil (%)	98.1	100.9	101.4	87.3	90.8
Capacity Utilization Rate Including Semi Product (%)	102.5	105.3	108.1	95.9	97.8

TÜPRAŞ PLACES EMPHASIS ON EFFORTS TARGETING THE ELIMINATION OF SOCIAL, ECONOMIC AND ENVIRONMENTAL PROBLEMS THAT MAY ARISE DUE TO ITS ACTIVITIES, WHICH ARE AIMED AT CONTRIBUTING TO THE ECONOMIC AND SOCIO-CULTURAL DEVELOPMENT OF THE GEOGRAPHICAL REGION IN WHICH IT OPERATES.

PERFORMANCE INDICATORS

Environmental Performance

	2015	2016	2017	2018	2019
Direct Energy Consumption (TJ)	90,313	101,639	104,749	91,752	96,528
Natural Gas	36,005	39,085	47,306	45,342	51,039
Fuel Oil	13,184	15,487	8,581	3,481	2,292
Fuel Gas	38,512	44,265	46,164	40,562	41,028
Coke	2,612	2,802	2,698	2,367	2,169
Indirect Energy Consumption - Electricity (TJ)	483	518	315	172	32
Total Energy Consumption (TJ)	90,796	102,156	105,851	91,924	96,560
Change in Energy Consumption (%)	-35.45	-12.51	-3.62	13.16	-5.04
Energy Consumption Per Crude Oil (GJ/Ton)	3.29	3.60	3.71	3.75	3.55
Solomon Energy Intensity Index, EII	102.3	103.4	102.2	99.1	98.4
Number of Energy Efficiency Projects	21	18	15	21	24
Total Energy Efficiency Savings (TJ)	1,031	1,054	830	3,620	473
Total Energy Efficiency Savings (USD million)	9.6	9.1	4.9	36.0	3.2
Greenhouse Gas Emissions Reductions through Energy Efficiency Projects (tons CO ₂ e)	71,744	77,666	45,945	243,666	26,292
Total Grey Water Consumption (million m ³)	20.1	17.5	15.7	18.2	18.0
Total Water Consumption (million m ³)	25.7	31.2	31.4	29.9	29.6
Change in Grey Water Consumption to Total Water Consumption (%)	13.0	-10.1	-5.7	8.2	-0.9
Water Consumption per Product (m ³ /ton)	0.7	0.6	0.5	0.7	0.6
Total Recovered Water (million m ³)	17.2	20.0	25.7	20.8	20.6
Total Recovered Water to Total Consumption Ratio (%)	40.1	39.1	45.0	41.0	41.0
Total Recovered Water to Total Water Consumption Ratio (%)	67.0	64.1	81.9	69.5	69.6
Total Waste Water Discharge (million m ³)	11.3	17.1	14.9	14.3	15.5
Total Amount of Solid Waste (tons)	25,538	41,506	31,392	32,646	34,433
Hazardous Wastes (tons)	14,192	30,971	17,811	23,617	22,144
Non-Hazardous Wastes (tons)	11,346	10,534	13,581	9,029	12,290
Solid Wastes According to Disposal Method					
Recycling (tons)	17,812	27,746	22,618	28,934	23,947
Disposal (tons)	7,726	13,759	8,774	3,712	10,486
Solid Waste Recovery Rate (%)	69.7	66.8	72.1	88.6	69.5
Total Spending on Environmental Investments and Operating Expenses (TL million)	208	346	390	150	268
Environmental Training (people x hours)	17,787	17,331	16,012	10,391	14,127
Tüpraş Employees	7,438	4,310	4,010	4,168	4,200
Contractors' Employees	10,121	13,021	11,971	6,223	9,927
Community	228	-	31	-	-

Social Performance

	2015	2016	2017	2018	2019
Total Amount of Training (people x hours)	234,311	284,878	233,034	384,405	241,487
Female	31,140	21,827	35,601	34,968	41,330
Male	203,171	263,051	197,434	349,437	200,157
Monthly Waged	98,314	68,836	103,864	103,165	125,787
Hourly Waged	135,997	216,042	129,170	281,241	115,701
Total Amount of Training (average hours of training per employee)	49	59	45	70	44
Female	79	55	79	70	81
Male	46	59	42	71	40
Monthly Waged	93	65	91	82	98
Hourly Waged	36	57	32	67	28
Total Hours of OHS Training (people x hours)	104,091	135,951	141,729	165,038	201,813
Tüpraş Employees	63,596	85,609	83,381	87,805	108,026
Employees of Business Partners	40,495	50,342	58,348	77,233	93,787
Accident Frequency Rate (number of accidents x 1,000,000/people x hours)- 4 days	2.5	1.9	2.7	3.2	3.1
Accident Frequency Rate (number of accidents x 1,000,000/people x hours)- 2 days	2.8	2.9	3.7	4.8	4.2
Accident Severity Rate (work days lost x 1,000,000/people x hours) - 4 days	315	354	1132	292	54
Accident Severity Rate (work days lost x 1,000,000/people x hours) - 2 days	320	365	1135	300	57
Employee Satisfaction (%)	50.0	53.0	61.0	57.2	35.8
Customer Satisfaction (%)	88.8	89.0	88.2	88.8	88.0
Supplier Satisfaction (%)	95.8	88.8	86.9	88.1	86.5
Contractor Satisfaction (%)	80.4	84.8	78.1	80.6	79.2
Pension Fund Liabilities (TL million)	63.9	77.4	89.0	103.9	122.0
Donations and Sponsorships (TL million)	17.3	24.4	30.0	40.6	3.5
Total Number of Trainees	1,009	935	1,063	1,020	400
Minimum Starting Salary to Minimum Wage Ratio					
Monthly Waged	2.6	2.0	2.2	2.2	1.9
Hourly Waged	4.1	3.3	3.3	3.2	3.0

SOCIAL RESPONSIBILITY PROJECTS



In addition to its responsibility in meeting Turkey's energy needs, Tüpraş cares about contributing to social development multi-directionally with the awareness of being a corporate citizen.

TÜPRAŞ CREATES ADDED VALUE BY TRANSFERRING ITS STRENGTH, LEADERSHIP AND ENERGY IN THE INDUSTRY TO THE PROJECTS THAT WILL SUPPORT SOCIAL DEVELOPMENT.

Education

The “Our Energy to the Future; I Code, I Model, I Produce” Project, carried out by Tüpraş and the Ministry of National Education

Tüpraş aims to increase the new generations' access to technology by contributing to the “For My Country, I Design the Future” project led by the Koç Group. With the “Our Energy to the Future; I Code, I Model, I Produce” Project conducted in cooperation with the Ministry of National Education, Tüpraş established robotic coding, 3D modeling and production skills classes in 30 schools in Izmit, Izmir, Kırıkkale and Batman. Work also continues with the support of teacher and student training.

“Our Energy is for Students” project

Tüpraş implements the “Our Energy is for Students” project in primary and secondary schools in cooperation with the Ministry of National Education. The project aims to encourage the 5th, 6th, 7th and 8th grade students to become the scientists of the future by instilling them with a love of science. Students learn that science has a place in all aspects of life and they are explained about the importance of men and women working together, especially in the world of science and working safely.

As an instructor and practitioner, the project includes a group of 25 volunteers consisting of the employees of the Tüpraş R&D Center. In the classrooms, a laboratory environment is created by the volunteer employees of the Tüpraş R&D Center and experiments are carried out with materials that are easy to supply. The measurement and evaluation model was developed with the support of academic advisors from the Faculty of Education at Boğaziçi University for the evaluation of the project results. The project, which was initiated in the second half of the 2018-2019 academic year, is carried out primarily in four schools in the Kocaeli province, and has reached 3,000 students so far.

The Scholarship Fund of “Our Energy Never Ends for Equality” by TEV (the Turkish Education Foundation)

In 2016, Tüpraş established the Scholarship Fund for the “Our Energy Never Ends for Equality” under the roof of the Turkish Education Foundation in order to provide equal opportunities for girls in education. A total of 30 girl students received scholarship fund support in the 2018-2019 academic year.

Tüpraş and MESEP Technical Education Program

20 students and two teachers participated in the Tüpraş and MESEP (Strengthening Vocational Education and Training System Project) Technical Education Program this year. The project was implemented within the framework of the protocol signed by Tüpraş with Körfez Vocational and Technical Anatolian High School in 2012. The students visited the refineries and met Tüpraş employees at a number of events.

The Koç University Anatolian Scholarship Students Program

Tüpraş continues to support the Anatolian Scholarship Students Program, which was launched by Koç University in 2011 with the aim of providing equal opportunities in education to successful young people and those in need. A total number of 15 students have received scholarship support to date with the participation of two scholarship students, who started their courses in the departments of Industrial Engineering and Electrical and Electronics Engineering, who were included in the scope of the program this year.

TEGV Fireflies Education Programs continues

Tüpraş has been carrying out the operation sponsorship of the Education Volunteers Foundation of Turkey (TEGV) Firefly Mobile Learning Units since 2008. A 12-hour training program is implemented in the Firefly Mobile Learning Units, which are stationary and traveling all over Turkey. In 2019, 9,531 students were reached in Afyonkarahisar, Hatay, Iğdır, Kars, Şanlıurfa, Uşak, Adana, Mersin and Diyarbakır with the support of 169 volunteers. The total number of students reached over the 11-year period, with the support of Tüpraş, amounted to 273,142.

Kocaeli Metropolitan Municipality April 23rd International Children and Science Festival

Tüpraş and the Energy Group companies supported the eleventh April 23rd International Children and Science Festival organized by Kocaeli Metropolitan Municipality, which included 1,000 visiting students from 41 countries and was attended by 280,000 visitors.

Refineries play host to traditional April 23rd Children’s Festivities

The eleventh Tüpraş Children’s Festivities, which has become a traditional event since 2008, took place at the İzmit, Kırıkkale, İzmir and Batman refineries. The April 23rd National Sovereignty and Children’s Day was celebrated with a number of events at amusement parks, animators and stage shows established at the Tüpraş facilities with the participation of thousands of children between the ages of 7 and 10. More than 30,000 children have so far attended the Tüpraş April 23rd Children’s Festivities held at all refineries.

3,000

The “Our Energy is for Students” project has reached 3,000 students so far.

SOCIAL RESPONSIBILITY PROJECTS

Culture and the Arts

“Our Energy is for Art” sponsorship for Arter

Tüpraş has undertaken the corporate sponsorship of Arter, which was opened as the Vehbi Koç Foundation in 2010 and that was moved to its new building in Dolapdere in September 2019, for a period of 5 years. In this context, Tüpraş will help create an environment where young people and children freely become acquainted with contemporary art, while also allowing young people under the age of 25 to visit Arter exhibitions free of charge. Arter re-opened its doors to visitors at the venue designed by Grimshaw Architecture on 13 September 2019. Arter aims to be a vibrant and sustainable culture and life platform which is accessible for all with its program to cover all disciplines of art.

Young Musicians on World Stages

The “Young Musicians on the World Stage” project, supported by Tüpraş since 2013, was implemented in 2010 with the aim of transferring the 50 years of experience and vision of our world-renowned pianists Güher and Süher Pekinel to young people. The gifted young people aged from 12 to 23 continue their development and education in some of the world’s most prestigious musical schools with the finest musical instruments provided under the scholarship as accompanied by expert instructors in their fields. So far, 20 gifted students have been given the opportunity to study Music and 10 students are currently studying in the “Young Musicians on World Stage” program.

TÜPRAŞ HAS UNDERTAKEN THE CORPORATE SPONSORSHIP OF ARTER THAT WAS MOVED TO ITS NEW BUILDING IN DOLAPDERE IN SEPTEMBER 2019, FOR A PERIOD OF 5 YEARS.

Anatolian Civilizations

Since 2011, Tüpraş has carried the world of ancient civilizations that have left their mark on the ancient lands of Anatolia to future generations through an epic series of books on Anatolian Civilizations. So far, with the collaboration of Yapı Kredi Culture and Art Publishing, the following publications were introduced to readers: “Urartu, Change in the East”, “Phrygians: In Midas’s Land, In the Shadow of Monuments”, “Hittites - An Anatolian Empire”, “Pergamon, A Hellenistic Capital in Anatolia”, “From Lukka to Lycia: Sarpedon and The Land of St. Nicholas”, “Persians, the Power and Glory in Anatolia” and “Assyrians, From The Tigris to Taurus: The Kingdom of God Assur”.

The eighth book in the series, published in 2019 under the name of “Anatolia in Hellenistic and Roman Times: Kings, Emperors, City States”, discusses the political and cultural events which took place in the Anatolian area from the time of Alexander the Great to the Late Roman Empire Period from a broad perspective.

The 23rd Istanbul Theater Festival

Organized by the İKSV (The Istanbul Foundation for Culture and Arts) under the sponsorship of the Koç Holding Energy Group companies (Aygaz, Opet and Tüpraş), the 23rd Istanbul Theater Festival was brought to theater goes from November 13th to December 1st. In addition to 78 performances in 28 theaters, dance and performance ensembles, both from Turkey and abroad, as well as the festival program featured free-of-charge side events such as reading theaters, chat shows, workshops and masterclasses. The festival was brought to around 23,000 art lovers.

Like the previous years, in order to increase students’ access to the festival this year, the 23rd Istanbul Theater Festival Student Project was implemented with the sponsorship of Aygaz, Opet and Tüpraş, and 7000 students received support to attend the festival.

The 16th Istanbul Biennial

Organized by İKSV under the sponsorship of Koç Holding and with the support of Tüpraş, the 16th Istanbul Biennial hosted more than 220 works of art at three different venues in the city under the theme of “The Seventh Continent” between September 14th and November 10th. A total of 451,387 people visited the 16th Istanbul Biennial, which opened its doors free of charge and which received attracted a great deal of interest from the audience during the eight week exhibition.

Support for the Aktüel Archaeology Magazine

Aktüel Archaeology Magazine has been offered to its readers since 2010 with the support of Tüpraş. The magazine continues to be produced with the motto of “leaving an Anatolia to the future” in order to convey an Anatolia which has hosted countless civilizations over the centuries, to the present hosts or, in other words, to us.

Environment

DTO FETHİYE Waste Collection Boat visits Göcek Bay

The Deniz Temiz (Clean Sea) Association / (TURMEPA), which provides mobile services in the bays that are frequented by yachts and touristic boats through waste collection boats under the sustainable sea tourism, contributes to reducing the environmental footprint of marine tourism by collecting thousands of tons of liquid waste. The DTO FETHİYE liquid waste collection boat, which has been sponsored by Tüpraş since 2016, collected 600,697 liters of waste water from 949 boats in the Göcek Gulf between June and September 2019, an amount equivalent to the wastewater produced by 3,318 people. Black and grey water, with a volume equal to approximately 32,000 carboys, was prevented from mixing into the sea, thus ensuring that 4,805,576 liters of sea water remained clean.

The Tüpraş Volunteers gathered on the TURMEPA - International Coastal Clean up Day.

The Tüpraş volunteers participated in the zero waste blue mobilization led by TURMEPA (Turkish Marine Environment Protection Association) on the 21 September International Coastal Clean up (ICC) Day. As part of the event, the seas and shores were simultaneously cleaned up by volunteers in more than 100 countries, including Turkey. About 170 kilograms of waste consisting of plastic, metal, glass and cigarette ends were collected in the space of just one hour at the event, where more than 300 marine enthusiasts gathered for the coastal clean up.

170

About 170 kilograms of waste consisting of plastic, metal, glass and cigarette ends were collected in the space of just one hour at the event, where more than 300 marine enthusiasts gathered for the coastal clean up.



Sports

Tüpraş Batman Disabled Sports Club

Since the 2007-2008 season, Tüpraş has been supporting The Batman Disabled Sports Club Association. Competing in the Turkey Physically Handicapped Wheelchair Basketball 2nd League, the Batman Disabled Sports Club Association rose to the Wheelchair Basketball 1st League in the 2019-2020 season. The club, which has 42 basketball players, carries on its activities with 19 competing athletes. For 12 years, the club has provided the opportunity for hundreds of young people with disabilities to participate in sports.

Batman Tüpraşspor Football Club bringing young people into sports

Established in 1995, Tüpraşspor Football Club offers a platform for talented young people living near the Batman Refinery to enjoy sports with an awareness, in a healthy environment, thus giving them the chance to succeed. Managed by the Tüpraş volunteers in cooperation with the Provincial Directorate of Youth and Sports, Batman Amateur Sports Clubs Federation, Turkey Football Federation and other clubs, Tüpraşspor Football Club has a total of 95 players, 52 of whom are licensed and 43 of whom are unlicensed, between the ages of 10 and 18.

SOCIAL RESPONSIBILITY PROJECTS

Inclusiveness, Equality and Diversity Studies

Global cooperation in social gender equality by UN Women, Fenerbahçe Sports Club and Tüpraş continues.

The global cooperation for the gender equality carried out by the HeForShe movement of the United Nations Women's Unit (UN Women), Fenerbahçe Sports Club and Tüpraş continues.

Under the awareness movement organized with the mottos of "We Are Equal Together" and "Our Energy Never Ends for Equality", Fenerbahçe A Football Team started to carry the HeForShe logo on the right arm of their uniforms in 2018. This project is the only large-scale undertaking in the field of sport for social gender equality to date.

The HeForShe Movement invites men all around the world to become advocates of social gender equality, standing shoulder to shoulder with women. Since 2014, the movement has been working to spread the idea that men can play an important role in ensuring social gender equality. HeForShe touches every aspect of life, including sports, with the goal of reaching over 1 billion supporters. Tüpraş, which signed the United Nations Women's Empowerment Principles in 2017, continues its efforts in the direction of becoming an inclusive workplace.

Fenerbahçe A Football Team will continue to carry the HeForShe logo on the right sleeve of their shirts as part of the agreement which will continue in the 2019-2020 period. In the project, which Tüpraş supported with internal communication activities on International Women's Day on 8 March 2019, various sub-projects, events, training programs and communication activities were carried out within the company and at Fenerbahçe Sports Club under a vision of inclusiveness.

"My Energy is My Refinery": The Refinery Mothers Mentoring Program

Tüpraş supports new mothers and expectant mothers with the "Refinery Mothers Mentoring Program" to facilitate their adaptation to work postpartum, and for them to be able to juggle motherhood and their careers together. Within the framework of the program, which is realized with the motto of "My Energy is My Refinery", the experienced mothers working within Tüpraş are mentoring new mothers and expectant mothers. In 2019, five mentors were matched with five mothers and expectant mothers at the Batman Refinery. At the Kırıkkale Refinery, ten Tüpraş employees received mentoring training.

Father Support Program (BADEP) launched at our Four Refineries.

First launched at the Batman Refinery in cooperation with AÇEV (Mother Child Education Foundation) at the end of 2018, the "Father Support Program" (BADEP) was also implemented at the Izmit, Izmir and Kırıkkale refineries in 2019. A total of 112 Tüpraş employees benefited from the training program.

TÜPRAŞ, WHICH SIGNED THE UNITED NATIONS WOMEN'S EMPOWERMENT PRINCIPLES IN 2017, CONTINUES ITS EFFORTS IN THE DIRECTION OF BECOMING AN INCLUSIVE WORKPLACE.

112

A total of 112 Tüpraş employees benefited from the Father Support Program (BADEP).



The Koç Holding “For My Country” Work

“For My Country, I Design the Future”

Koç Group, which Tüpraş is a member of, carries out its work under an approach that views economic and social development as a whole and focuses on creating added value in both areas. Tüpraş continues to contribute to the “For My Country” project, which was implemented in 2006, to expand this approach to all Group employees, the dealers and suppliers network and to benefit from the total impact and access power.

The “For My Country” project, which focuses on the fundamental issues facing our country, worked with the theme of “Digital Transformation” this year. The project emerged from a desire to not fall behind change, and instead to direct change in our world, which has been reshaped by rapidly evolving technologies. Within the framework of this theme, Tüpraş has implemented its social investments and aims to help strengthen all individuals with technology, as much as possible. In this context, “For My Country, I Design the Future” training presentations were made to 877 employees at four refineries as well as the General Directorate in 2019.

Tüpraş wins “My Country 2019” Award

Tüpraş won the award by organizing a maximum number of “I Design the Future” meetings throughout Koç Group as well as implementing the “Our Energy to the Future; I Code, I Model, I Produce” project in cooperation with the Ministry of National Education.

TÜPRAŞ WINS “MY COUNTRY 2019” AWARD WITH THE “OUR ENERGY TO THE FUTURE; I CODE, I MODEL, I PRODUCE” PROJECT.

CORPORATE GOVERNANCE

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Risk Management and the Activities of the Risk Management Committee

Report on the Early Risk Identification System and Committee

Evaluation of Operating Principles and Effectiveness of Board Committees Policies

Audit Committee Report Related to Financial Statements

Statement of Responsibility Related to Approval of Financial Statements

Audit Committee Report Related to Annual Report

Statement of Responsibility Related to Approval of Annual Report

Declaration for Independency

LEGAL DISCLOSURES

Capital Structure

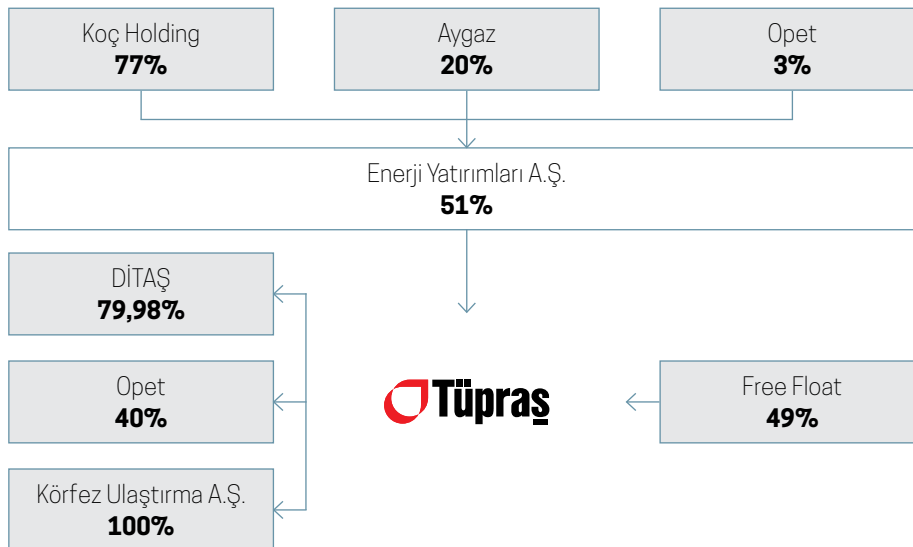
The Company's shares are divided into two groups, A and C, all of which are registered shares. The Company's issued capital is TL 250,419,200, and is fully paid-up free from any collusion.

Shareholders attending Ordinary and Extraordinary General Assembly meetings exercise their voting rights pro rata the nominal value of total shares they hold.

Group	Shareholder	Share Amount (TL)	Type	Number of Shares
A	Enerji Yatırımları A.Ş.	127,713,792.22	Registered	12,771,379,222
A	Others (Free Float)	122,705,407.77	Registered	12,270,540,777
C	Privatization Administration	0.01	Registered	1
Total		250,419,200.00		25,041,920,000

Shareholder Structure

The Company is registered with the Capital Markets Board ("CMB") of Turkey and its shares are quoted on Borsa İstanbul A.Ş. ("BIST") since 1991. The Company's shares quoted on the BIST constitute 49% of the total shares. The Company's shareholders and shareholding rates are as follows:



Voting Rights

As stipulated in the Articles of Association, material decisions concerning spin-offs or sales, acquisitions or lease of assets with significant value can only be taken with the positive vote of Group C (preferential) shares, represented by the Privatization Administration. In this context, at the General Assembly Meeting for deciding on issues that might restrict or hinder the supply of petroleum to the Turkish Armed Forces, such as closure or sale of one of the refineries, limitation of activities through establishment of restraint or any reduction corresponding to more than 10% of the capacity, or spin-off or merger and/or liquidation of the Company a positive voters needed. Class C shares do not hold any other privileges concerning voting rights, apart from those indicated above.

LEGAL DISCLOSURES

Information about significant changes in Tüpraş's ownership of financial assets held in 2019

No changes that reach or fall below the limits set by the Turkish Commercial Code occurred in 2019 in the ownership of financial assets that Tüpraş directly participates in.

Extraordinary General Assembly Meeting held during the year, if any

None.

Organizational changes within the year

None.

Associated Company Report

Pursuant to Article 199 of the Turkish Commercial Code No. 6102, which came into effect on 1 July 2012, the Board of Directors of Türkiye Petrol Rafinerileri A.Ş. is obliged to prepare, within the first three months of the operating year, a report on the Company's relations with its controlling shareholder, ultimate controlling shareholder and their associated companies for the previous operating year, and to include the conclusion section of this report in the annual report. Descriptions of the transactions Türkiye Petrol Rafinerileri A.Ş. carried out with related parties and the grounds therefor are provided in the financial report note 28.

Türkiye Petrol Rafinerileri A.Ş. Board of Directors report of 12 February 2019 reads as follows: "It has been concluded that in all the transactions Türkiye Petrol Rafinerileri A.Ş. conducted in 2019 with its controlling shareholder, ultimate controlling shareholder and their associated companies, according to the circumstances and events known to us, an appropriate counter-performance has been provided in each transaction at the time the transaction/action was conducted/taken or avoided and that there were no actions taken or avoided that caused loss to the Company, and accordingly, that there were no transactions or actions requiring equalization."

Information about changes to the legislation that might materially impact the Company's activities

With the amendment in the Petroleum Market Law No. 5015, the domestic crude oil purchase calculation method changed and this change has no significant impact on the Company's operations.

Lawsuits against Tüpraş and any probable outcomes that could impact the Company's financial situation and operations

There were no lawsuits initiated or concluded in 2019 against the Company significant enough to have a material impact on its financial situation or operations.

Information about administrative or judicial sanctions imposed on the Company and its management due to practices in violation of regulations

There were no administrative or judicial sanctions imposed on the Company or the members of its management due to regulatory violations in 2019.

Information about conflicts of interest between the Company and its service providers such as investment advisory and rating and measures taken to preclude the same

There are no such conflicts of interest.

Information about changes to the Articles of Association during the reporting period

No changes were made to the Articles of Association during 2019.

INFORMATION ABOUT CORPORATE GOVERNANCE

Declaration of Compliance with Corporate Governance Principles

Our Company embraces the “Corporate Governance Principles” first released in July 2003 by the Capital Markets Board of Turkey (“CMB”) and implements them to a great extent. In 2019, full compliance was achieved with the compulsory principles stipulated in the Corporate Governance Communiqué no. II-17.1 (the Communiqué) in force, while compliance was also achieved with most of the non-compulsory principles. Although the aim is to fully comply with the non-compulsory Corporate Governance Principles as well, full compliance has not yet been achieved due to various reasons such as the difficulties in practicing some of the principles, ongoing discussions on complying with some of the principles both in our country and on international platforms, and incompatibility of some of the principles with the current structure of the market and the Company. Work is ongoing regarding the principles that are not yet put into practice and their implementation will be considered upon reviewing the administrative, legal and technical infrastructure procedures in a manner that will contribute to effective management of our Company.

In 2019, activities related to Corporate Governance were carried out in accordance with the Capital Market Law covering the CMB’s requirements about Corporate Governance Principles and the communiqués issued based thereupon. At the Ordinary General Assembly Meeting convened in 2019, our Board of Directors and Board Committees were formed in line with the requirements set out in the Communiqué. Pursuant to legal obligations and Article 10 of our Articles of Association, one member of our Board of Directors is elected from amongst individuals nominated by the Privatization Administration, our Group C Shareholder. Under the authority covered in Article 6 (2) of the Communiqué, principle no. 4.3.7 does not apply to the said Board of Directors Member nominated by the Privatization Administration of our Company, whose principal field of activity consists of the utilization of a license or privilege granted by public agencies or institutions for a definite period of time or indefinitely to offer public service or in which public agencies or institutions hold preference shares.

While our Company achieved full compliance with the compulsory principles in the operating period from 1 January 2019 to 31 December 2019, the major non-compulsory principles under the Regulation that our Company has not yet achieved full compliance with are stated below. Relevant additional explanations are also provided in the related sections of the report. Our Company was not exposed to any conflicts of interest by reason of not achieving full compliance with non-compulsory principles.

- Regarding principle n. 1.4.2; the privileged voting right is stipulated in our Articles of Association as addressed in “Legal Disclosures” section of the Annual Report.
- Regarding principle n. 1.5.2, the Articles of Association do not grant minority rights to those who hold less than one twentieth of the capital, and rights are granted to the minority within the general legislative framework in parallel with the common practices,
- Regarding principle n.4.3.9; our Company has not yet determined a target ratio and target timing for women members on the Board of Directors. Assessments on this topic are ongoing.
- Regarding principle n. 4.4.5; the Company has in place long-standing and consistently implemented processes related to how the Board of Directors meetings will be held; however, there is no internal written regulation specific to this matter.
- Regarding principle n. 4.5.5; the knowledge and experiences of the members of our Board of Directors are taken into consideration when appointing members to the committees in line with the relevant regulations. Some of the Board members can be assigned to more than one committee. However, members who assume duties in more than one committee enable communication among the committees that carry out activities in connected subjects and increase the opportunity of collaboration.
- Regarding principle n. 4.6.1; there has been no specific initiative aimed at performance evaluation at the Board of Directors level.
- Regarding principle n. 4.6.5; remuneration of the members of the Board of Directors and managers who have administrative responsibilities is disclosed collectively in parallel with the common practice in the footnotes of our financial statements and at the Ordinary General Assembly meetings.

2019 Corporate Governance Compliance Report (CRF) and Corporate Governance Information Form (CGIF) of our Company, which has been drawn up pursuant to the CMB decision n. 2/49 dated 10 January 2019 and which has been approved by the Company’s Board of Directors, is presented in attachment to the Annual Report (pages 222-235), and the related documents are also accessible on our Company’s corporate governance page on the Public Disclosure Platform (KAP) at the address (<https://www.kap.org.tr/cgif/4028e4a140f2ed720140f37f139c0c>).

INFORMATION ABOUT CORPORATE GOVERNANCE

Shareholder Relations

All relations between Tüpraş and shareholders are handled on the basis of a collaboration with relevant units under the responsibility of the “Investor Relations Department”. The Investor Relations Department is in charge of informing shareholders and potential investors about the Company’s activities, financial position and strategies, save for trade secrets and confidential information, by obtaining other units’ inputs as and when necessary and in a manner that will not lead to information asymmetry. The Department also manages the bi-directional communication between shareholders and Company executives.

Some of the activities stipulated by the Communiqué are carried out by the Financial Planning and Reporting Division. These activities include, among others, ensuring that General Assembly Meetings are convened in accordance with the regulations in force, the Articles of Association and internal guidelines, preparation of the Annual Report and other documents that will be useful for shareholders at the General Assembly Meetings, and handling various regulatory obligations such as financial reporting.

All sorts of public disclosure obligations required by the regulatory framework such as public disclosure of material events are fulfilled by the Financial Planning and Reporting Division and the Investor Relations Department.

Investor Relations Department presents a report to the Corporate Governance Committee at least once a year - to be submitted to the Board of Directors - about the activities it carries out. The report regarding 2018 activities was submitted by the Corporate Governance Committee to the Board of Directors on 14 February 2019, and was assessed by the Board of Directors on 22 February 2019.

Investor Relations Department and Financial Planning and Reporting Department report to Doğan Korkmaz, Assistant General Manager responsible for Financial Affairs (CFO). The Assistant General Manager, Financial Planning and Reporting Group Manager, and Investor Relations Manager hold Capital Market Activities Advanced Level and Corporate Governance Rating Specialist Licenses.

Structure and Formation of the Board of Directors

The main qualifications that the Company seeks in the selection of Board members are in compliance with those outlined in the CMB’s Corporate Governance Principles. The positions of the Chairman of the Board of Directors and the General Manager are held by different individuals. Utmost care is taken to ensure that the members of the Board of Directors allocate sufficient time for the affairs of the Company. Nonetheless, there are no restrictions regarding outside positions held by Board members, especially given the significant contribution of the professional and sectoral experiences of independent members to the Board of Directors. Prior to the General Assembly meetings, positions held outside the Company by a Board member are submitted for the information of the shareholders together with the résumé of such member.

The functions of the Nomination Committee are performed by the Corporate Governance Committee. Pursuant to legal obligations and Article 10 of our Articles of Association, one member of the Board of Directors is elected from amongst individuals nominated by the Privatization Administration, our Group C Shareholder. Currently, all four independent members serving on the Board of Directors satisfy the independence criteria stipulated by the Communiqué. During 2019 operating period, no events took place that would prejudice the independence of independent Board members.

It is considered that ensuring diversity in terms of knowledge, experience, and point of view on the Board of Directors will positively contribute to the activities of the Company and to efficient performance of the Board of Directors. Currently there is no policy addressing women Board of Directors members. At present, there are two women members on the Board of Directors, and the ratio of women members is 13%. The table below lists the members of the Board of Directors and their qualifications, who are all non-executive in accordance with the definition stipulated in CMB’s Corporate Governance Principles and who were elected at the Company’s General Assembly held on 20 March 2019 to serve until the General Assembly meeting where 2019 activities will be discussed, while their résumés are available on the website and in the Annual Report.

Members of the Board of Directors

Name/Surname	Position	Independent/Non-Independent	Date of Initial Election to the BoD	Term of Office	Committees and Duties Therein	Outside Positions Held
Ömer M. Koç	Chairman	Non-Independent	26.01.06	1 Year	Chairman of Executive Committee	Member on the Boards of Directors of Koç Holding Companies
Ali Y. Koç	Vice Chairman	Non-Independent	27.03.09	1 Year	Member of Executive Committee	Member on the Boards of Directors of Koç Holding Companies
Rahmi M. Koç	Member	Non-Independent	04.06.08	1 Year	Member of Executive Committee	Member on the Boards of Directors of Koç Holding Companies
Semahat S. Arsel	Member	Non-Independent	27.03.09	1 Year	Member of Executive Committee	Member on the Boards of Directors of Koç Holding Companies
Levent Çakıroğlu	Member	Non-Independent	30.03.15	1 Year		Member on the Boards of Directors of Koç Holding Companies Koç Holding CEO
Erol Memioğlu	Member	Non-Independent	26.01.06	1 Year	Member of Risk Management Committee	Member on the Boards of Directors of Koç Holding Companies
Yağız Eyüboğlu	Member	Non-Independent	04.04.16	1 Year	Member of Corporate Governance Committee	Member on the Boards of Directors of Koç Holding Companies President of Energy Group
Zafer Sönmez	Independent Member (PA Representative)	Independent	20.03.19	1 Year		Board Member and CEO of Türkiye Varlık Fonu A.Ş.
Muharrem Hilmi Kayhan	Independent Member	Independent	21.03.18	1 Year	Chairman of Corporate Governance Committee, Chairman of Audit Committee	Chairman and Member of the Board of Directors of Söktaş A.Ş.
Ayşe Canan Ediboğlu	Independent Member	Independent	21.03.18	1 Year	Chairman of Risk Management Committee	Independent Board Member at ING Bank
Kamil Ömer Bozer	Independent Member	Independent	21.03.18	1 Year	Member of the Audit Committee	Independent Member on the Boards of Directors of Koç Holding Companies Board Member at Coca Cola İçecek, Adel Kalemçilik Ticaret ve Sanayi A.Ş., Mc Donalds Türkiye Hamburger İşletmeleri A.Ş., Kamil Yazıcı Yönetim ve Danışma A.Ş., Söktaş Tekstil A.Ş.

INFORMATION ABOUT CORPORATE GOVERNANCE

The Board of Directors consists of at least five members, elected in the General Assembly Meeting. In the election of the Board of Directors, one member must be elected from amongst the nominees nominated by the Class C shareholder. Other members are elected from amongst those receiving the highest number of votes in the General Assembly from amongst those nominated by Class A shareholders. The number of the members that qualify as independent members must be in conformity with the number stipulated in CMB regulations.

The General Assembly is authorized in determining the number of the members of the Board of Directors and their election. Without prejudice to the obligations regarding independent members imposed by the CMB's Corporate Governance Principles, members of the Board of Directors may always be replaced by the General Assembly if deemed necessary under Article 364 of the Turkish Commercial Code, taking the provisions of the Articles of Association into account.

In case of any vacancy on the Board of Directors for any reason or if an Independent Board Member loses his/her independence, or resigns or becomes incapable of executing his/her duties, the Board of Directors shall temporarily elect the nominee nominated by the group of shareholders that had originally nominated the former member of the Board, in conformity with the procedures set out in the provisions of the Turkish Commercial Code and CMB regulations, and submit such election for approval in the next General Assembly meeting.

Committees Set Up under the Board of Directors

According to the Articles of Association, the Board of Directors may set up committees or sub-committees for performing advisory, coordination, audit and similar functions from amongst its members and/or non-members, which will work on topics that the Board deems appropriate, provided that the provisions of applicable legislation are conformed to.

Following the Ordinary General Assembly meeting held on 20 March 2019, election of members to the committees that have been set up has been completed within the frame of the provisions set out in Article 4.5 of the CMB's Corporate Governance Principles as per the Board of Directors decision dated 25 March 2019.

Members of the Corporate Governance Committee, Risk Management Committee, Audit Committee and Executive Committee that have been set up and their activities during 2019 are presented in the Corporate Governance section of the Annual Report, under the heading "Evaluation of Operating Principles and Effectiveness of Board Committees".

Operating Principles of the Board of Directors

Tüpraş's Board of Directors operates in a transparent, accountable, equitable and responsible manner. The powers and responsibilities of the members of the Board of Directors are set out in the Articles of Association. Distribution of tasks and duties among the Members of the Board of Directors and their duties and powers are stated in the Annual Report.

The Board of Directors convenes as and when necessitated by the Company's business affairs. The Board of Directors must convene upon demand by the Chairman or two of its members. The meetings can be held in the Company's headquarters or any other location as determined by a majority of the Board members. In addition to its regular meetings, the Board of Directors can be convened by an absolute majority of its members to pass decisions on specific matters deemed necessary; the Board may also pass decisions without actually convening, as per Article 390/4 of the Turkish Commercial Code.

According to Article 367 of the Turkish Commercial Code, the Board of Directors is authorized to delegate administration partially or totally to one or more members or non-members based on an internal directive to be prepared. However, the power in relation to the preferential share set out in Article 10 of the Articles of Association may not be delegated, and these decisions must be discussed by the Board of Directors.

The Company complies with the provisions of the Turkish Commercial Code and CMB regulations in meeting procedures, meeting quorum, decision quorum, voting procedures, duties and powers of the Board of Directors.

The agenda of Board of Directors meetings is prepared by the secretariat of the Board of Directors in view of the decisions previously passed or the matters that need to be decided. The agenda of other meetings is determined by issues that need to be decided as per legal obligations. The Assistant General Manager responsible for Financial Affairs (CFO) fulfills the secretariat function for the Board of Directors.

During 2019, the Board of Directors met three times, on April 30th, July 24th and December 24th. Board members achieved 91% physical attendance in Board meetings. During the reporting period, a total of 30 decisions were passed. All independent members were present at the time the decisions were made. Each member has one vote in Board meetings; in Board of Directors meetings held in 2019, no dissenting votes were cast or no opposing opinions were put forth. None of the related party transactions or material transactions that were put to the vote of independent Board members were laid down for the approval of the General Assembly on account of having been rejected at the Board of Directors.

The General Assembly may authorize the Board members for situations stipulated in Articles 395 and 396 of the Turkish Commercial Code.

The place for meetings is the Company headquarters. Meetings may be held at another venue based on a Board of Directors decision. Matters to be discussed in Board Meetings must be pre-determined in an agenda, which must have been served to the Board members before the date of the meeting. Invitations to Board meetings must be made at least one week before the actual date of meeting.

The Company has a Directors' and Officers' Liability insurance with a coverage of up to EUR 75 million (in excess of 25% of the Company's capital) for indemnification of losses against the liabilities that the directors and the members of the Board of Directors can be personally held responsible within the scope of their duties.

While overseeing the Company's operations, the Board of Directors evaluates whether conflicts of interest may arise, and the consequences of such conflict of interest (if any) for the Company. The Board of Directors makes necessary decisions in the best interests of the Company. Furthermore, in addition to observing regulatory compliance in related party transactions, the Board of Directors also considers potential misconduct risks and addresses related party transactions meticulously.

RISK MANAGEMENT AND ACTIVITIES OF THE RISK MANAGEMENT COMMITTEE

A. CORPORATE RISK MANAGEMENT PROCESS

Corporate Risk Management process is developed to manage risks and opportunities by protecting the existing values of the Company and creating new values for the stakeholders and enable the communication between the processes regarding risks identified in all functions in accordance with the risk appetite assessed as acceptable by the Board of Directors and the top management of the Company.

Tüpraş strengthens its corporate culture and implements governance practices by establishing statements and policies within the framework of Corporate Governance Principles and Ethical Values.

Tüpraş is on Borsa Istanbul Corporate Governance Index since 2007 and its score evaluated by independent rating institutions for 2019 was 9.5.

B. EARLY DETECTION OF RISK COMMITTEE

In order to; i) comply with the 378th Article of the Turkish Code of Commerce n. 6102 that entered into force on 1 July 2012, and the Capital Markets Board's Corporate Governance Communiqué, ii) make sure that the committees under the Board of Directors function effectively, decision was taken at Tüpraş's Board of Directors meeting held on 28 July 2010, and Early Detection of Risk Committee was established with the aim of early detecting the risks that can endanger the Company's existence, development and continuity, implementing the necessary measures related to the identified risks, and performing tasks to manage the risks.

Committee chairwoman is the Independent Member of the Board of Directors Ms. Ayşe Canan Ediboğlu. Other member of the Committee is the Member of the Board of Directors Mr. Erol Memioğlu. Having held 6 meetings in 2019, the Committee evaluates Türkiye Petrol Rafinerileri A.Ş. Risk Management System and Risk Reporting principles, reviews the Risk Reports issued periodically within this scope, and presents its opinions on the measures to be taken for issues that are suggested beyond the specified limits determined in the Risk Management System due to current conjuncture. Reporting activities and committee decisions based on the Committee's evaluations are submitted to the Board of Directors' information.

C. RISK MONITORING COMMITTEE

Risk Monitoring Committee, which monitors the Corporate Risk Management practices, functions under the General Manager. Committee members are the General Manager, Assistant General Managers, Risk Management and Audit Manager. The aims of the Committee are; early detection of all risks that can endanger the Company's existence and sustainability, taking necessary measures regarding the identified risks, developing policies and practices necessary to effectively carry out corporate risk management processes, and monitoring risk-related action plans and risk trends periodically via key risk indicators.

D. INFORMATION SECURITY COMMITTEE

Tüpraş promises to safeguard the confidentiality, integrity and availability of all physical and electronic information of the Company, and to protect its commercial and corporate image maintaining regulatory compliance.

In order to practice information safety properly and to increase information safety awareness, the Information Safety Committee was established as per the Article n.5.3. "Corporate Roles, Responsibilities and Powers" of the ISO 27001 Standard. The Head of the Committee is the Assistant General Manager in charge of Financial Affairs (CFO), and Committee Executive is the Information Technologies Director. The Information Security Management System (ISMS) officer is the Cyber Security and Risk Manager, whereas committee members consist of Directorates and relevant Departments.

When necessary, the Committee meets every 6 months as long as there is an agenda, with absolute majority of the attending persons or their authorized representatives. Frequency and conditions of the meetings is determined by the Head of the Committee.

Cyber Security and Risk Management is responsible for all coordination activities including monitoring the outputs of the committee activities, management at the field, setting the new agenda, and presentation. Cyber Security and Risk Management was established in March 2019 by the approval of Tüpraş Senior Management as a result of the increase in significance of preventing cyber threats and risks brought by developing technologies and the need to manage these technologies by a separate and dedicated team. Information Security Committee held two meetings in 2019, first one in March and second in November.

E. OPERATIONAL TECHNOLOGIES CYBER SECURITY COMMITTEE

Operational technologies systems becoming more accessible, brings along cyber risks besides infinite opportunities. Accordingly, based on the resolution of Information Security Committee meeting on 1 August 2018, a decision was adopted for assigning the Operational Technologies Cyber Security Committee under the Information Security Committee. The said committee's activities are aimed at managing exacerbated cyber security risks around field equipment and practices, improving the technological security structure at Tüpraş, effective implementation of technological security structure within operation/maintenance/project and supplier management processes, developing necessary procedures and processes to ensure uninterrupted process continuity while protecting human health, and ultimately, upgrading Operational Technologies cyber security maturity level to a more manageable point on the basis of processes. Operational Technologies Cyber Security Committee consists of industrial information services, data center and infrastructure services, operation, electrical equipment maintenance, process control and process security teams. Additionally, sub committees were formed in all refineries for dissemination of decisions taken at Operational Technologies Cyber Security Committee and healthy execution of feedback.

F. TÜPRAŞ RISK INVENTORY

As a result of risk assessments, Tüpraş categorized its risks under 7 main topics:

- 1-Technical Safety and Environmental Risks
- 2-Financial Risks
- 3-Commercial Risks
- 4-Operational Risks
- 5-Strategic Risks
- 6-Compliance and Legal Risks
- 7-Reputational Risk

1- Technical Safety and Environmental Risks

1.a – Technical Safety Risks

Tüpraş continues its development in line with its goals of defining and eliminating risks and reducing them to acceptable levels within the frame of national and international norms in all its operational activities. In this context, Process Safety leading and lagging Key Performance Indicators (KPIs) are being monitored on a monthly basis in accordance with international standards and practices (e.g. API754, CCPS).

Process Safety Management System is being adopted at refineries with CCPS and OSHA references which targets Organizational Excellence with Operational Discipline based on leadership and ownership of management.

In 2019, following activities were realized with the objective of developing employees' perception of safety and preventing unsafe situations and accidents by properly assessing risks at an earlier time:

- Started the transfer of "Talent Management" activities which is commonly used in international oil and gas industry to the organization.
- Accelerated Safety Campaigns on specific subjects on the field.
- Launched more effective identification and control systems for more effective use of Control of Work system with joint activities of Operations, Maintenance and OHS teams
- Reviews have been performed with system users for a more effective Vacation System.
- Employees were included in extensive training and practice programs delivered by internal trainers and international certificate programs delivered by trainers from outside.
- Single Common Health and Safety Unit (OSGB) application was launched in Batman Refinery for a more effective and proper use of OHS services by contractors.
- More experienced and corporate solution partners were appointed as general maintenance contractors in refineries and noticeable improvements were observed at contractor OHS statistics.

Area-specific chemical, physical, biological, ergonomical and psychological factors are being reviewed in detail at Health-Risk Assessments in all of the refineries.

RISK MANAGEMENT AND ACTIVITIES OF THE RISK MANAGEMENT COMMITTEE

Tüpraş responds to emergency situations with high capacity modern equipment and expert personnel. Modernization of emergency protection and response systems, continuous improvements and trainings to increase the competencies of teams are based on national and international standards. Additionally, within the scope of preparing risk analyses for Hazard and Impact Management process carried on in line with regulations, recognizing and managing risks, health-risk assessments and allocation of resources for critical issues have been prioritized.

1.b – Environmental Risks

In addition to meeting the requirements of national environmental regulations, Tüpraş monitors and adopts international environmental legislation relevant to its industry and manages Environmental Risks by evaluating sustainability of the Company and environmental impact of its investments.

Observing a proactive vision, issues which may include a risk factor are as follows:

- Environmental Authorizations required for operation of all refineries are being updated.
- Production generated greenhouse emission values are calculated, reported and assured by independent firms on an annual basis. These assurance reports are presented to Ministry of Environment and Urbanization. Greenhouse gas reduction is being achieved by energy efficiency projects. Reduction amounts of selected projects are being certified within the scope of ISO 14064-2.
- Waste water discharge and flue gas analyzers are being continuously monitored by legal authorities and Tüpraş. Data transmission realization values are tracked by relevant teams at the refineries. Early warning systems are established for these indicators which are being monitored systematically at the field.

Quantity of water recovered through Waste Water Recovery Systems which were placed to reduce natural resource consumption are monitored periodically. Activities are being carried on to improve the annual target quantities for the above-mentioned recovery figures.

2- FINANCIAL RISKS

Tüpraş cares about keeping its Strategic Financial Management approach required to maintain business sustainability and regard it as a critical component of corporate culture. Continuous monitoring and improvement of processes to reach financial targets are priorities of the Financial Directorate. Financial resources and risks are being managed proactively within existing policies.

Foreign Exchange (FX) Risks

FX risk may arise due to financial liabilities in foreign currency and raw material imports. In tackling with the FX risk, foreign currency position limits are identified and derivative instruments are used. Accordingly, “zero F/X position” is targeted. On the other hand, FX changes are embedded in product sales prices thus FX risk is being limited and a natural hedge is created.

Liquidity Risk

Liquidity is daily monitored and managed through effective cash planning and asset-liability management. Cash cushion is being strengthened based on stress tests and scenario analyses as a response to risk of not being able to pay for liabilities at maturity. Objective of liquidity management is to maintain risk at minimum by meeting targets for financial ratios such as current ratio and long-term credit ratio.

Counterparty Risk

While receivables from public corporations do not carry the risk of collection, a significant portion of the receivables from sales made to private sector customers are managed by obtaining guarantees for eliminating the collection risk. In order to create business volume beyond the existing guarantees and to prevent possible future risks that may arise in international customers who are not subject to guarantees, the “Receivable Insurance” solution is introduced. In addition to this, counterparty risk is managed by the counterparty compliance policy which includes equal and objective criteria for all banks. Our deposit is kept, within certain limits, by banks that comply with rating, capital and similar criteria determined at the Company’s policies. Furthermore, counter-party risk management is significantly provided as our collections are directed to the banks.

Trade receivables or all other risks in fuel and non-fuel products are kept under control by making cash sales or very short-term sales, and products are delivered to customers within certain credit lines defined against letters of guarantee and/or Direct Debiting System. On the other hand, risk analysis reports are prepared in daily, weekly and monthly periods for trade receivables while action plans/measures are put into practice as a result of the rating reports issued for the customers based on a proactive approach.

3- COMMERCIAL RISKS

Commodity Price Risk

Tüpraş holds a significant quantity of crude oil, mid-product and product inventory as required by its operations. There is a risk of impairment in value of inventory due to reduction of crude oil and product prices. Within the frame of hedging policies for impairment of inventory value, inventory amount which is subject to price risk is being hedged through various derivative instruments at the beginning of the year and it reaches near full hedged level as of November.

Using various derivative instruments product profit margins (crack) for future periods are fixed within the frame of risk management policies, to eliminate the impacts of fluctuations in product profit margins.

Hedge transactions are realized taking minimum hedge ratio into account calculated by comparing prices for the following 4 quarters and historical average profit margins for those quarters. Thus, the amount of hedging transactions to be realized is determined as 0% to 50% based on budgeted production by sales volume considering crack margins with past and future maturities. When forward prices for the next 12 months approximate average prices for previous years, 25% of sales volume of the production is being hedged.

4- OPERATIONAL RISKS

Operational risk is defined as the possibility of loss or damage that may arise from: i) errors and fraud going unnoticed due to deficiencies in internal controls, ii) the company management and personnel's failure to act in accordance with the time and conditions, iii) faults in the management of the company, iv) faults and failures in information technology systems, and v) disasters such as earthquake, fire, flood and etc.

Supply/Transportation

The supply process in Tüpraş consists of crude oil, semi-product, final product and material supply operations. As being used for production of other products; crude oil is the major supply item. Continuity of the production is maintained partially by using domestically supplied and predominantly imported raw materials. Purchase operations of raw materials have been optimized; in order to diversify supply sources, distribute risk in supply chain, provide advantage in price and freight costs; and to increase operational capability of the Company.

One of the most critical phases of such operations is the physical supply of crude oil and products. There are many items among the supplied products, which may be harmful to environment and human health due to problems, which may possibly occur during their transportation. In order to eliminate such risks during transportation of these products; it is expected that measures and working conditions specifically determined for related products to be completely provided by suppliers.

Therefore; to ensure supply safety, suppliers are expected to maintain specific standards to be used for transportation. Especially for imports of crude oil, suppliers have to use vessel tankers, which are acceptable by ports as having ISO 9001 and class certificates and complying with ISPS (International Ship and Port Facility Security Code) requirements; so that the risks that may occur during transportation can be eliminated. In addition; required equipment (emergency response equipment) is kept ready for use and regular exercises are done to fight against any kinds of accidents or leakage incidents, which may occur despite all aforementioned measures. With all such measures taken; safety, environment and human health threatening risks are minimized.

To ensure safety of product supply between refineries and to customers; transportation is diversified among delivery via sea-land-railways and pipelines. This way; financial risk distribution among transportation operations is provided as well as enhancement in operation capability.

Financial risks that may occur during crude oil and product transportation between refineries are being transferred to third parties through commercial contracts and insurance policies.

Besides raw material and products; material procurement operations are also carried out at Tüpraş. All these operations are conducted according to specifications prepared by expert personnel. It is strongly expected that suppliers deliver in compliance with terms specified for product features and explicitly defined in purchase specification together with minimum standards required in terms of features, production and delivery conditions of such product. Environmental impacts of the products to be purchased are also involved in aforementioned specifications. Each party of product goes through various tests in laboratories in the Company and other institutions. Purchase of products which fail in any of these tests is aborted.

Product Analyses in Production and Sales Processes

Laboratories accredited by the Turkish Accreditation Agency carry out activities in Tüpraş refineries. The scope of the accreditation covers all analyses included in the specifications of the products for sale.

These laboratories make the necessary measurements in each phase of production and sales, and eliminate the risk of producing and selling defective products.

RISK MANAGEMENT AND ACTIVITIES OF THE RISK MANAGEMENT COMMITTEE

Information Technologies Risks

All risks related with Information Technologies and Operational Technologies are reviewed under this risk topic. Practices regarding the management of possible risks that may arise in the field of Information Technologies are defined in the Standard for Information Assets and IT Risk Management. Information Technology (IT) tier and Operational Technology (OT) tier are isolated from one another using advanced security tools in order to minimize all outside threats and risks.

New threats and attacks taking place at any moment around the world are monitored on the basis of instant intelligence received from global networks, required updates are made in line with operational processes, and necessary actions and countermeasures are incorporated in the systems immediately. In addition, all tiers are monitored 24/7 by a centralized and specialized security team, and necessary actions are taken in case of unexpected actions or activities.

In addition to the technical measures taken, business units included in the Information Security Management System (BGYS) and current risks are regularly reviewed and updated every year. In the light of Corporate Risk Management methodology, the effectiveness of existing controls on risks that exceed the Company risk acceptance criteria are evaluated within the scope of Information Security Management Review System and appropriate risk-management methods are processed.

Thus; additional controls are designed for the risks that will be reduced and continuous improvements are made regarding such risks. Moreover, suggestions and findings from annual IT audits of Koç Holding, ISO 27001 external BGYS audits, audits performed by independent audit firms, online and/or onsite audits conducted by institutions such as the Energy Market Regulatory Authority (EPDK), Information and Communication Technologies Authority (BTK), actions required for compliance with regulations such as KVKK and periodic tests and examinations that use automatic tools and manual methods also contribute to identification of IT risks. On the other hand, IT business continuity activities were carried out on the basis of departments, and routine internal audit activities were also performed for successful identification, analysis and monitoring of risks.

Today, businesses are exposed to threats caused by cyber security risks that grow at an ever-increasing pace in Turkey, as is the case in other parts of the world. Hence, in order to protect against cyber risks at Tüpraş, a "Cyber Risk Policy" which offers optimum coverage structure has been purchased in 2018 and it's being renewed annually.

Priority IT processes were identified with risk-based IT management which was determined as an initiative of Koç Holding Information Technologies and improvements are being carried out. Increased compliance requirements, operational technologies cyber security transformation project, data security strategy, cyber crisis management and drill process, critical application log management projects, major projects such as implementing cyber intelligence and security needs resulting from digital transformation projects are among other operations which are monitored.

5- STRATEGIC RISKS

Inherent risks that may prevent Tüpraş from reaching its targets set for short-, medium- or long-term can be classified within the scope of this heading. Typical examples of strategic risks include sanctions adopted against countries, OPEC's decisions, new product and capacity investments of industry players, local and global regulations bearing impact on refinery production and product demand, local market structure and increased competition, and market compatibility of the business model. Possible strategic risks that Tüpraş may be exposed to also include country risk and alternative energy sources. In addition, innovations and developments in the transportation sector, including electric vehicles, are monitored within this process.

International standards are being followed up in order to prevent the negative impacts of customer preferences. Tüpraş carries on with its investments in order to achieve compliance with the specs introduced by international standards and to produce more environment-friendly fuel oil. The new fuel regulation standard (IMO 2020) that entered into force in the whole world in 2020 in order to reduce emissions in the maritime industry is a good example of this. Moreover, improvements in this area will gain importance as a result of increased sensitivity for carbon emissions. As one of the leading companies in Turkey for compliance with regulations, and a follower of sector trends in energy efficiency and use of digital technologies, Tüpraş aims to keep its position in the following years with its strategic actions.

6- COMPLIANCE AND LEGAL RISKS

The possibility of rights to be lower than expected and liabilities to be higher than expected as a consequence of risks created by a regulation change that has a negative impact on activities, misinterpretation of regulations and insufficient or incorrect documentation.

Changes in the legislation are being followed to keep track of legal risks and relevant departments are informed.

In 2019, within the framework of the Competition Law compliance program, pre-assessments of new applications, projects and contracts were performed, action plans and strategies were developed about the measures that can be taken in order to eliminate potential risks. Moreover, Competition Law training was given.

As part of the efforts to achieve alignment with the Personal Data Protection Law, data processing inventory was prepared and registration to VERBİS was realized. Personal data processing policies and procedures, information and consent texts and contract/guarantee provisions were prepared, published and adopted.

Developed in accordance with our Code of Ethics for sustaining the existence, operations and business continuity of our Company, for safeguarding our prestige and for managing compliance risks, Tüpraş Anti-Corruption Policy and its annexes "Anti-Corruption Guidelines" and "Foreign Trade Control Implementation Guidelines" came into force in July 2017. All employees, Tüpraş subsidiaries and third parties doing business on behalf of Tüpraş are liable to read and understand this policy and act in accordance therewith. It should be specifically noted that this policy is implemented so as to cover all Company employees and directors, irrespective of their position within the Company hierarchy.

Online software programs are used to identify compliance risks, specifically to detect third parties who are subject to international sanctions. In case of a change in status of a sanctioned person, these online software programs send alerts to the Company and accordingly status of all parties in terms of sanction legislation are monitored for as long as business relations continue.

It is the common responsibility of us all to know our Code of Ethics, to espouse and carefully implement it, and to make sure that ethical values of our Company are safeguarded. In this context, trainings will be given on Code of Ethics and compliance to all Company employees.

7- REPUTATIONAL RISKS

Political, geopolitical, economic, social and geographical developments which may have a potential negative impact on the brand's prestige or cause to lose trust by damaging its reputation need to be handled with care.

Declining demand for products and services of the Company due to a reputational damage will have a negative impact on competitive power. Reputational risk can be defined as the potential negative reputation about the business practices of corporations.

Tüpraş has established various policies in order to maintain its corporate reputation strong at all times, and carries its crisis management processes within the framework of these policies.

RISK MANAGEMENT AND ACTIVITIES OF THE RISK MANAGEMENT COMMITTEE

G. INTERNAL CONTROL SYSTEM AND INTERNAL AUDIT

Audits in Tpraş are conducted by the specialized team of the Tpraş Risk Management and Audit Management, using a proactive methodology based on the International Internal Audit Standards and Tpraş Code of Ethics, in terms of the headings: financial, operational, risk, process, legal compliance, business ethics, and misconduct.

Basic financial and process audits throughout the activity units of Tpraş are performed twice a year.

The Audit Committee convenes at least four times every year and more frequently when deemed necessary. The Committee convened seven times during 2019.

Any facts found during internal audits regularly conducted for ensuring effective, reliable and permanent operation of Tpraş activities and for completeness, consistency, reliability, timely availability, and safety of information received from the accounting and financial reporting system of Tpraş, are shared with the Company's management and activities to improve the processes are accompanied.

In 2019, the refineries were visited by the Risk Management and Audit Office 14 times, involving a total of 343 person-day. In addition, process review activities were realized at the subsidiaries of the Company, Ditaş and Krfez Ulaştırma, for a period of 70 man days. Findings from the audits and results were reported to Audit Committee during the year.

Audit items identified are shared with the Company's relevant units at the beginning of every year to develop the annual risk-based audit plans. The audit findings are published within the Company without delay, and the required corrective actions are taken. Furthermore, matters that require action steps are entered into Tpraş Risk and Action Portal and the actions are tracked via this platform. The platform enables more systematic follow-up of actions according to their degree of importance.

ENGLISH TRANSLATION OF INDEPENDENT AUDITOR'S EARLY RISK DETECTION SYSTEM AND COMMITTEE REPORT



To the Board of Directors of Türkiye Petrol Rafinerileri A.Ş.

1. We have audited the early risk identification system and committee established by Türkiye Petrol Rafinerileri A.Ş. (the "Company").

Board of Directors' Responsibility

2. Pursuant to subparagraph 1 of Article 378 of Turkish Commercial Code ("TCC") No. 6102; Board of Directors is required to form an expert committee, and to run and to develop the necessary system for the purposes of early identification of causes that jeopardize the existence, development and continuity of the company; applying the necessary measures and remedies in this regard; and managing the related risks.

Auditor's responsibility

3. Our responsibility is to reach a conclusion on the early risk identification system and committee based on our audit. Our audit was conducted in accordance with TCC and "Principles on Independent Auditor's Report on the Early Risk Identification System and Committee" issued by the Public Oversight Accounting and Auditing Standards Authority. Those principles require us to identify whether the Company established the early risk identification system and committee or not and, if established requires us to assess whether the system and committee is operating or not within the framework of Article 378 of TCC. Our audit does not include evaluating the adequacy of the operations carried out by the management of the Company in order to manage these risks.

Information on the Early Risk Identification System and Committee

4. The Company established the early risk identification system and committee and it is comprised of 2 members. The Committee has submitted the relevant reports for the period 1 January - 31 December 2019 to the Board of Directors that had been prepared for the purpose of early identification of risks that jeopardize the existence of the Company and its development, applying necessary measures and remedies in this regard, and managing the risks.

Conclusion

5. Based on our audit, it has been concluded that Türkiye Petrol Rafinerileri A.Ş.'s early risk identification system and committee is sufficient, in all material respects, in accordance with Article 378 of TCC.

PwC Bağımsız Denetim ve
Serbest Muhasebeci Mali Müşavirlik A.Ş.

Ediz Günsel, SMMM
Partner

İstanbul, 12 February 2020

EVALUATION OF OPERATING PRINCIPLES AND EFFECTIVENESS OF BOARD COMMITTEES

Based on the provisions stipulated in the Capital Markets Board of Turkey (CMB) Corporate Governance Communiqué no. II-17.1 ("the Communiqué"), by its decision no. 2019/15 dated 25 March 2019, the Board of Directors resolved to:

- Structure the Audit Committee with 2 members and appoint Mr. Muharrem Hilmi Kayhan as the Committee Chairman, and Mr. Kamil Ömer Bozer as a Member;
- Structure the Corporate Governance Committee with 3 members and appoint Mr. Muharrem Hilmi Kayhan as the Committee Chairman, and Mr. Yağız Eyüboğlu and Mr. Doğan Korkmaz as members, and; authorize the Corporate Governance Committee to carry out the tasks of the Nomination Committee and Remuneration Committee in accordance with the Communiqué,
- Structure the Risk Management Committee with 2 members and appoint Ms. Ayşe Canan Ediboğlu as the Committee Chairman, and Mr. Erol Memioğlu as a member,
- Structure the Executive Committee with 6 members, and appoint Mr. Ömer Mehmet Koç as the Committee Chairman, Mr. Yıldırım Ali Koç as the Committee Vice Chairman and Mr. Mustafa Rahmi Koç, Ms. Semahat Sevim Arsel, and Ms. Caroline Nicole Koç as members,
- Structure the Ethics Committee with 5 members, and appoint Mr. İbrahim Yelmenoğlu, the Company General Manager, as its Chairman, and Mr. Doğan Korkmaz, Assistant General Manager (CFO), Mr. Ahmet Aksoy, HR Director, Can Akçaoğlu, Chief Legal Officer, and Ms. Çiler Teber, Corporate Communications Manager, as members.

The Corporate Governance Principles mandate the Investor Relations Department to report directly to the General Manager or Assistant General Manager, who must be a member of the Corporate Governance Committee. Along this line, in the Board of Directors meeting held on 30 December 2015, it has been decided that the duties stipulated in Article 11 of the CMB's Corporate Governance Communiqué no. II-17.1 be carried out under the management of Mr. Doğan Korkmaz, the Chief Financial Officer, and that he be assigned as a member of the Corporate Governance Committee.

In 2019, all Board Committees fulfilled their duties and responsibilities in accordance with the Corporate Governance Principles and their working principles. The Committees convened according to the annual meeting program, as follows:

- The Audit Committee held a total of seven meetings on 30 January 2019, 13 February 2019, 22 February 2019, 8 May 2019, 28 May 2019, 7 August 2019 and 7 November 2019.
- The Corporate Governance Committee held a total of seven meetings on 16 January 2019, 14 February 2019, 11 March 2019, 21 March 2019, 29 March 2019, 13 May 2019 and 31 December 2019.
- The Risk Committee held a total of six meetings on 18 February 2019, 13 May 2019, 29 May 2019, 22 July 2019, 23 October 2019 and 18 December 2019.
- The Executive Committee held a total of twelve meetings on 22 January 2019, 18 February 2019, 25 March 2019, 22 April 2019, 24 May 2019, 24 June 2019, 17 July 2019, 19 August 2019, 20 September 2019, 21 October 2019, 26 November 2019 and 30 December 2019.

The Board of Directors is of the opinion that the activities of the Board of Directors Committees have generated the expected benefits.

Operating Principles and Activities of the Audit Committee

The Audit Committee was set up based on the Board of Directors decision dated 26 December 2003 to oversee the operation of the Company's accounting and reporting systems under the applicable laws and regulations, public disclosure of financial information, and the operation and effectiveness of independent audit and internal control system.

Basically, the Board of Directors monitors financial control and audit activities via the Audit Committee. While fulfilling this function, the Audit Committee analyzes and assesses the reports from the Risk Management and Audit Department established to review, audit and report on the efficiency of Company processes from a financial perspective. The Audit Committee then gives the necessary instructions to the Company management and when deemed necessary, submits these for the attention and approval of the Board of Directors. Decisions made by the Committee are of a recommendation nature and the Board of Directors is the ultimate decision-making authority in related matters.

Duties, Responsibilities and Operating Principles of the Audit Committee:

The Committee's duties are as follows:

- Designate the independent audit firm, determine the scope of services to be procured therefrom, initiate the independent audit process upon preparation of independent audit engagement agreements, and oversee the work of the independent auditor at every stage,
- Evaluate the independent auditor's qualifications in terms of the independence criteria, the declaration of independence, and additional services that can be procured from the independent auditor,
- Assess the findings derived from the independent audit communicated by the independent auditor to the Committee, important considerations related to the Company's accounting policy and practices; alternative practice and public disclosure options within the frame of the CMB's accounting standards and accounting principles which were previously communicated by the independent auditor to the Company management; their possible outcomes and suggested implementation, and the important correspondences with the Company management,
- Review and finalize the complaints the Company receives about the Company's accounting, reporting and internal control systems and independent audit processes; establish the methods and criteria that will be applied for handling Company employees' notifications about accounting, reporting, internal control and independent audit within the frame of confidentiality principle,
- Obtain the opinions of the Company's responsible executives and independent auditors in relation to the accuracy and fairness of the annual and interim financial statements to be disclosed, as well as their conformity to the accounting principles followed by the Company, and report them in writing to the Board of Directors together with the Committee's own assessments,
- Carry out the duties that are/will be incumbent upon the Committee by the CMB's regulations and the Turkish Commercial Code.

The operating principles of the Audit Committee are posted on the Company website.



<https://tprstaticfilessa.blob.core.windows.net/assets/uploads/kurumsalYonetim/Audit-Committee.pdf>

During 2019, the Audit Committee:

- Obtained the opinions of the Company's responsible executives and independent auditors in relation to the accuracy and fairness of the annual and interim financial statements to be disclosed, as well as their conformity to the accounting principles followed by the Company, and reported them in writing to the Board of Directors together with the Committee's own assessments,
- Oversaw the work of the independent auditor upon designation of the independent audit firm, determination of the scope of services to be procured therefrom, preparation of independent audit engagement agreements and initiation of the independent audit process,
- Reviewed the independent auditor's work schedule, the outcomes obtained and recommendations,
- Monitored the effectiveness of the internal control system, and studied the audit department's program, business results and recommendations, as well as related practices and results,
- Established the methods and criteria that will be applied for reviewing and finalizing the complaints the Company receives about the Company's accounting, reporting and internal control systems and independent audit processes; and for handling Company employees' notifications about accounting, reporting, internal control and independent audit within the frame of confidentiality principle.

Operating Principles and Activities of the Corporate Governance Committee

Established with the Board of Directors' resolution dated 20 November 2007 to oversee and improve the Company's compliance with Corporate Governance Principles and make recommendations to the Board of Directors on further improving the corporate governance practices, the Corporate Governance Committee establishes whether the Company achieves full compliance with the Corporate Governance Principles, determines the reasons for noncompliance, if applicable, and the conflicts of interest arising from failure to achieve full compliance. In addition, the Committee presents recommended improvements to the Board of Directors.

Under the provisions of the Corporate Governance Principles published by the Capital Markets Board of Turkey, the Corporate Governance Committee also fulfills the functions of nominating members to the Board of Directors, developing corporate governance practices in relation to the remuneration of the Board of Directors members and senior executives, and presenting suggestions and recommendations to the Board of Directors regarding the same. The Committee meets at the frequency required by the duties incumbent upon it.

EVALUATION OF OPERATING PRINCIPLES AND EFFECTIVENESS OF BOARD COMMITTEES

Duties, Responsibilities and Operating Principles of the Corporate Governance Committee:

The Committee's duties are as follows:

- Establish whether corporate governance principles are being implemented, grounds for non-implementation (if applicable) and conflicts of interest arising from failure to achieve total alignment with these principles; recommend improvements to corporate governance practices to the Board of Directors,
- Oversee the activities of the Investor Relations Department,
- Review the Corporate Governance Principles Compliance Report that will be publicly disclosed, and verify the accuracy and consistency of the information therein against the information available to the Committee,
- Ensure the development, adoption and implementation of Corporate Governance Principles within the Company, work on topics where the principles are not implemented, and make recommendations to the Board of Directors for improving the extent of compliance,
- Follow up the Corporate Governance Principles across the world, and make recommendations to the Board of Directors for the implementation of necessary components at the Company.

The functions of nomination and remuneration committee stipulated in the CMB regulations are fulfilled by the Company's Corporate Governance Committee. The duties of the Committee in this respect are as follows:

- Create a transparent system for the identification, assessment and training of candidates fit for serving on the Board of Directors and in managerial positions with administrative responsibility; work on the development of related policies and strategies,
- Evaluate nominations for independent member seats, including those nominated by the management and investors, taking into consideration whether the candidate(s) possess(es) the independence criteria, and present its evaluation of this matter for the approval of the Board of Directors,
- In case of any vacancies on the Board of Directors seats, make assessments for electing independent members to the vacated seats who will serve until the next general assembly meeting so as to ensure that the minimum number of independent members is re-established, and present the conclusion in writing to the Board of Directors,
- Make regular assessments about the structure and efficiency of the Board of Directors, and present its recommendations about possible changes in these matters to the Board of Directors,
- Establish and monitor the approach, principles and practices in relation to performance appraisal and career planning of Board of Directors members and senior executives,
- Determine its suggestions associated with the remuneration principles of the Board of Directors members and senior executives, taking into consideration the Company's long-term targets, and oversee the same,
- Set the remuneration criteria, linking them to the performance of the Company and the Board member,
- Present its suggestions regarding the remuneration to be paid to the Board of Directors members and senior executives taking into consideration the degree at which the criteria are attained.

The operating principles of the Corporate Governance Committee are posted on the Company website.



<https://tprstaticfilessa.blob.core.windows.net/assets/uploads/kurumsalyonetim/Corporate-Governance.pdf>

During 2019, the Corporate Governance Committee:

- Reviewed the Corporate Governance Principles Compliance Report that will be publicly disclosed, and verified the accuracy and consistency of the information therein against the information available to the Committee,
- Oversaw the activities of the Investor Relations Department, and presented information about the Department's activities to the Board of Directors,
- Obtained a written declaration of independence from the candidate standing for independent member's seat on the Board of Directors within the frame of the required criteria under the applicable regulation and the Company's Articles of Association as of his/her nomination to the Committee,
- Evaluated all nominations for independent member's seat, including those nominated by the management and investors, taking into consideration whether the candidate(s) possess(es) the independence criteria, and presented its evaluation of this matter for the approval of the Board of Directors,
- Ensured the public disclosure of the final list of independent member nominees together with the General Assembly meeting announcement,
- Worked in relation to the benefits provided to the Board of Directors members and senior executives.

Operating Principles and Activities of the Risk Management Committee

The Risk Management Committee was set up based on the Board of Directors decision dated 28 July 2010 to early detect and assess all kinds of strategic, operational, financial, legal and other risks that may endanger the Company's existence, development and continuation, to estimate the impacts and probabilities of these risks, and to manage these risks in accordance with the Company's risk taking profile.

Duties, Responsibilities and Operating Principles of the Risk Management Committee:

The Committee's duties are as follows:

- Define, assess, and monitor existing and potential risk elements that may impact the achievement of the Company's goals under the Enterprise Risk Management systematic, establish the principles for managing the related risks in accordance with the Company's risk taking profile, and ensure their use in decision-making mechanisms,
- Identify the risks that will be kept and managed, shared or totally eliminated in the Company according to probability and impact estimations,
- Ensure integration of risk management and internal control systems within the Company's corporate structure,
- Review risk management systems at least annually and oversee that the implementations in relevant departments undertaking the responsibility of risk management are in accordance with the Committee's decisions,
- Early diagnose technical bankruptcy and warn the Board of Directors in this respect, recommend precautions,
- Carry out the duties that are/will be incumbent upon the Committee by the CMB's regulations and the Turkish Commercial Code.

Operating principles of the Risk Management Committee are posted on the company website.



<https://tprstaticfilessa.blob.core.windows.net/assets/uploads/kurumsalyonetim/Risk-Management-Committee.pdf>

During 2019, the Risk Management Committee:

- Reviewed the existing and potential risk elements within the frame of the operation of the Enterprise Risk Management function and made recommendations for further improvement,
- Identified the risks that will be kept and managed, shared or totally eliminated in the Company,
- Ensured the performance of the necessary work for identifying the opportunities that will increase the Company's profitability and effectiveness of its operations, as well as for identified opportunities, and supported the Board of Directors in accurately setting the Company strategy in view of potential risks and opportunities,
- Oversaw the reviewing of risk management systems at least annually and verified that the execution of the implementations by departments undertaking the responsibility of risk management are in accordance with the Committee's decisions.

The report dated 12 February 2020 prepared by PwC Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik concluded that the early detection of risk system in place at Türkiye Petrol Rafinerileri A.Ş. and the Risk Management Committee are adequate in all material respects under Article 378 of the TCC.

EVALUATION OF OPERATING PRINCIPLES AND EFFECTIVENESS OF BOARD COMMITTEES

Executive Committee and its Operating Principles

The Executive Committee is set up based on the Board of Directors' decision dated 4 May 2012 to advise and make suggestions to the Board of Directors for increasing the efficiency of the Board of Directors and securing improvement in the fields of investment and business development in areas aligned with its strategic goals, by providing the coordination between the Board of Directors and the administrative structure.

Duties, Responsibilities and Operating Principles of the Executive Committee:

The duties of the Committee are as follows:

- Ensure that necessary preparations and analyses have been completed for important matters that will be decided by the Board of Directors before they are submitted for the approval of all members, and make sure that they have been assessed with respect to various aspects such as their impact on operations, financial aspects, legal status and alignment with strategic priorities,
- Ensure that the matters that are required to be decided by the General Assembly or the Board of Directors are communicated to the Company management and deployed under specific guidelines and policies,
- Verify that the Company's activities are carried out in accordance with the Board of Directors decisions and annual business plans,
- Follow up the economic, social and political developments concerning the sector in which the Company is engaged, assess their effects and establish the strategies that will increase its competitive strength,
- Monitor the sector's dynamics and identify the probable opportunities in line with the set strategies,
- Monitor the Company's strengths and weaknesses through internal analyses to be conducted, and opportunities and threats through external analyses,
- Explore internal and external growth opportunities that will help the Company achieve its strategic goals,
- Supervise the functionality of the system that will ensure the Company's business programs are created, revised as necessary according to external developments, and used as a performance benchmark,
- Follow up the management of strategies and projects accepted by the Board of Directors,
- Consider important developments in the regulatory environment with a potential impact on the activities and their impact.

Operating principles of the Executive Committee are posted on the Company website.



https://tprstaticfilessa.blob.core.windows.net/assets/uploads/kurumsalyonetim/Tupras_executive_committee.pdf

During 2019, the Executive Committee:

- Verified that the Company's activities were carried out in accordance with the Board of Directors decisions and business plans,
- Followed up the economic, social and political developments concerning the sector in which the Company is engaged, assessed their effects, set the strategies, and offered guidance to the Company management for potential opportunities, by monitoring the sector's dynamics,
- Pursued growth opportunities that will help the Company achieve its strategic goals,
- Supervised the functionality of the system that ensures the Company's business programs are created, revised as necessary according to external developments and used as a performance benchmark,
- Followed up the management of the strategies and projects accepted by the Board of Directors.

AUDIT COMMITTEE REPORT RELATED TO FINANCIAL STATEMENTS

TÜRKİYE PETROL RAFİNERİLERİ A.Ş. AUDIT COMMITTEE REPORT RELATED TO FINANCIAL STATEMENTS

Decision Date: : 12.02.2020

Decision No: : 2020/2

Subject: Consolidated Financial Statements dated 31.12.2019

To the Board of Directors of Tüpraş

We convene to review and give our opinion on the financial statements of Türkiye Petrol Rafinerileri A.Ş. for the period of 1 January- 31 December 2019 and also to review the independent audit report of PwC Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik A.Ş. The consolidated financial statements of Türkiye Petrol Rafinerileri A.Ş. have been prepared by the company management in accordance with the CMB Financial Reporting Communiqué numbered as II.14.1. According to the related Communiqué, entities shall prepare their financial statements in accordance with Turkish Financial Reporting Standards ("TFRS") and in line with the recommended formats of the CMB.

During this review, the fair presentation and accuracy of the financial statements referred to above in conformity with the accounting policies of the company have been elaborated. Independent auditors' and company management's opinions were requested as deemed necessary.

After the review and evaluations we made based on the information provided to us; we have concluded that the consolidated financial statements referred to above are fairly and accurately presented and are in line with the accounting policies of the company. Therefore, we would like to submit the aforementioned financial statements to the approval of the Board of Directors.

Sincerely,

[Signature]

Muharrem Hilmi Kayhan
Chairman of the Audit Committee

[Signature]

Kamil Ömer Bozer
Member of the Audit Committee

STATEMENT OF RESPONSIBILITY RELATED TO APPROVAL OF FINANCIAL STATEMENTS

STATEMENT OF RESPONSIBILITY PREPARED IN ACCORDANCE WITH ARTICLE 9 OF THE II-14.1 PRINCIPLES OF FINANCIAL REPORTING IN CAPITAL MARKETS COMMUNIQUE BY THE CAPITAL MARKETS BOARD

REGARDING THE APPROVAL OF FINANCIAL STATEMENTS BY THE BOARD OF DIRECTORS

Decision Date: 12.02.2020

Resolution No: 2020/4

We hereby accept our responsibility for the statement made and thus present that:

The “Financial Statements” - issued as per the 9th article of the Capital Markets Board’s (CMB) “Communiqué II-14.1. (Communiqué) on the principles of financial reporting in capital markets” in conformity with the Turkish Financial Reporting Standards (“TFRS”) and with the formats stipulated by the CMB - for the accounting period between 01.01.2019-31.12.2019, including the footnotes, consolidated financial situation statement, income statement, comprehensive income statement, cash flow statement and statement of changes in equity prepared by our Company and audited independently by PwC Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik A.Ş.;

- were reviewed by our Company,
- within the framework of the information we have obtained in our area of duty and responsibility at our Company - do not include any statements on the important issues contrary to facts and do not have any imperfections that could be misleading as of the date the statement was made,
- and that the financial statements, together with the consolidated statements, issued as per the Communiqué within the framework of the information we have obtained in our area of duty and responsibility at our Company - truly reflect the facts about the Company’s assets, liabilities, financial situation, and profit and loss,

in accordance with the CMB regulations.

Sincerely,

[Signature]

Muharrem Hilmi Kayhan
Chairman of Audit Committee

[Signature]

Kamil Ömer Bozer
Member of Audit Committee

[Signature]

Doğan Korkmaz
Assistant General Manager
Financial Affairs (CFO)

AUDIT COMMITTEE REPORT RELATED TO ANNUAL REPORT

TÜRKİYE PETROL RAFİNERİLERİ A.Ş. AUDIT COMMITTEE REPORT

Decision Date : 04.03.2020

Decision No : 2020/3

Subject : Annual Report dated 31.12.2019

To the Board of Directors of Tüpraş

We have convened to review and give our opinion on the 2019 Annual Report, which has been prepared by our Company in accordance with the Turkish Commercial Code and the Capital Markets Board of Turkey Communiqué no. II.14.1 on Financial Reporting Principles in the Capital Market and which has been independently audited by PwC Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik A.Ş.

We have reviewed the Annual Report prepared by our Company to the extent of the information available to us by virtue of our position and responsibility in the Company. During our review, opinions of the auditor of the independent audit firm and the responsible executives of the Company have been sought as needed.

As a result of our review and assessment based on the information provided to us; we have concluded that the disclosures in the Annual Report provide a true and fair view and are adequate, and that the report fairly represents the development and performance of the Company, together with those subject to consolidation, and includes the major risks and uncertainties that the Company is exposed to. Now therefore, we hereby submit the Annual Report for the approval of the Board of Directors.

Sincerely,

[Signature]

Muharrem Hilmi Kayhan
Chairman of Audit Committee

[Signature]

Kamil Ömer Bozer
Chairman of Audit Committee

STATEMENT OF RESPONSIBILITY RELATED TO APPROVAL OF ANNUAL REPORT

STATEMENT OF RESPONSIBILITY PREPARED IN ACCORDANCE WITH ARTICLE 9 OF THE II- 14.1. PRINCIPLES OF FINANCIAL REPORTING IN CAPITAL MARKETS COMMUNIQUÉ BY THE CAPITAL MARKETS BOARD

Regarding the Approval Of The Annual Report By The Board Of Directors

Decision Date: 04.03.2020

Resolution No: 2020/09

Our 2019 annual report prepared by our Company and audited independently by PwC Bağımsız Denetim ve Serbest Muhasebeci Mali Müşavirlik A.Ş. and which has been prepared in accordance with the II- 14.1. Principles of Financial Reporting in Capital Markets Communiqué by Capital Markets Board and the Turkish Commercial Code is presented as attachment.

We hereby represent as follows and acknowledge our responsibility for the statements made:

- In accordance with the CMB regulations, we have reviewed the Annual Report prepared by our Company, which also incorporates the Corporate Governance Compliance Report and Corporate Governance Information Form,
- It does not contain any gaps that could result in misleading statements as of the date of announcement or false statements about important matters in the framework of our areas of duties and responsibilities in our company,
- The annual report which has been prepared in accordance with the Communiqué reflects the performance and development of business and the financial state of the company together with those factors under consolidation and uncertainties and risks clearly.

Sincerely,

[Signature]

Muharrem Hilmi Kayhan
Chairman of Audit Committee

[Signature]

Kamil Ömer Bozer
Member of Audit Committee

[Signature]

Doğan Korkmaz
Assistant General Manager
Financial Affairs (CFO)

DECLARATION FOR INDEPENDENCY

I hereby declare that I am candidate for independent board membership on the Board of Directors of Türkiye Petrol Rafinerileri A.Ş. ("Company") under related regulations, Articles of Association of the Company and the criteria stated in the Capital Markets Board's Communiqué on Corporate Governance. In that regard I also confirm that;

- a) In the last five years, I, my spouse or my up to the second degree blood or affinity relatives is not or has not been; employed by as a key management personnel; has not had shareholding exceeding 5% directly or indirectly; or has not been involved in any material business dealings with the Company, its subsidiaries and affiliates, or shareholders controlling the Company or having material effect over the Company and all entities controlled by those shareholders,
- b) In the last five years, I am not or have not been employed by as an executive having significant duties and responsibilities or have not been a member of the board or did not have shareholding exceeding 5% of an entity which has had a contractual relationship with the Company for a material business transaction including audit (including tax audit, legal audit, and internal audit) rating or consulting services during the terms in which the goods or services were provided,
- c) My CV indicates that I have skills, knowledge and expertise relevant to the Company's business and extensive experience to fulfill my duties as an independent board member,
- d) After my election I will not work full time in a Turkish governmental or public institution, except for the faculty membership under relevant regulations,
- e) I am deemed to be resident in Turkey according to Revenue Tax Law No. 193 dated 31.12.1960,
- f) I am capable to contribute positively to the operations of the Company, to maintain my objectivity in conflicts of interests between the Company and the shareholders, to have strong ethical standards, professional reputation and experience to freely take decisions by considering the rights of the stakeholders,
- g) I will dedicate enough time to follow up the activities of the Company and for the duly fulfillment of my responsibilities,
- h) I have not been on the board of the Company for more than six years within last ten years,
- i) I am not serving as an independent board member in neither more than 3 corporations controlled by the company or its controlling shareholders nor in total more than 5 corporations listed in Borsa İstanbul,
- j) I am not registered in the name of any legal entity elected as a board member.

[Signature]

Kamil Ömer Bozer

DECLARATION FOR INDEPENDENCY

I hereby declare that I am candidate for independent board membership on the Board of Directors of Türkiye Petrol Rafinerileri A.Ş. ("Company") under related regulations, Articles of Association of the Company and the criteria stated in the Capital Markets Board's Communiqué on Corporate Governance. In that regard I also confirm that;

- a) In the last five years, I, my spouse or my up to the second degree blood or affinity relatives is not or has not been; employed by as a key management personnel; has not had shareholding exceeding 5% directly or indirectly; or has not been involved in any material business dealings with the Company, its subsidiaries and affiliates, or shareholders controlling the Company or having material effect over the Company and all entities controlled by those shareholders,
- b) In the last five years, I am not or have not been employed by as an executive having significant duties and responsibilities or have not been a member of the board or did not have shareholding exceeding 5% of an entity which has had a contractual relationship with the Company for a material business transaction including audit (including tax audit, legal audit, and internal audit) rating or consulting services during the terms in which the goods or services were provided,
- c) My CV indicates that I have skills, knowledge and expertise relevant to the Company's business and extensive experience to fulfill my duties as an independent board member,
- d) After my election I will not work full time in a Turkish governmental or public institution, except for the faculty membership under relevant regulations,
- e) I am deemed to be resident in Turkey according to Revenue Tax Law No. 193 dated 31.12.1960,
- f) I am capable to contribute positively to the operations of the Company, to maintain my objectivity in conflicts of interests between the Company and the shareholders, to have strong ethical standards, professional reputation and experience to freely take decisions by considering the rights of the stakeholders,
- g) I will dedicate enough time to follow up the activities of the Company and for the duly fulfillment of my responsibilities,
- h) I have not been on the board of the Company for more than six years within last ten years,
- i) I am not serving as an independent board member in neither more than 3 corporations controlled by the company or its controlling shareholders nor in total more than 5 corporations listed in Borsa İstanbul,
- j) I am not registered in the name of any legal entity elected as a board member.

[Signature]

Ayşe Canan Ediboğlu

DECLARATION FOR INDEPENDENCY

I hereby declare that I am candidate for independent board membership on the Board of Directors of Türkiye Petrol Rafinerileri A.Ş. ("Company") under related regulations, Articles of Association of the Company and the criteria stated in the Capital Markets Board's Communiqué on Corporate Governance. In that regard I also confirm that;

- a) In the last five years, I, my spouse or my up to the second degree blood or affinity relatives is not or has not been; employed by as a key management personnel; has not had shareholding exceeding 5% directly or indirectly; or has not been involved in any material business dealings with the Company, its subsidiaries and affiliates, or shareholders controlling the Company or having material effect over the Company and all entities controlled by those shareholders,
- b) In the last five years, I am not or have not been employed by as an executive having significant duties and responsibilities or have not been a member of the board or did not have shareholding exceeding 5% of an entity which has had a contractual relationship with the Company for a material business transaction including audit (including tax audit, legal audit, and internal audit) rating or consulting services during the terms in which the goods or services were provided,
- c) My CV indicates that I have skills, knowledge and expertise relevant to the Company's business and extensive experience to fulfill my duties as an independent board member,
- d) After my election I will not work full time in a Turkish governmental or public institution, except for the faculty membership under relevant regulations,
- e) I am deemed to be resident in Turkey according to Revenue Tax Law No. 193 dated 31.12.1960,
- f) I am capable to contribute positively to the operations of the Company, to maintain my objectivity in conflicts of interests between the Company and the shareholders, to have strong ethical standards, professional reputation and experience to freely take decisions by considering the rights of the stakeholders,
- g) I will dedicate enough time to follow up the activities of the Company and for the duly fulfillment of my responsibilities,
- h) I have not been on the board of the Company for more than six years within last ten years,
- i) I am not serving as an independent board member in neither more than 3 corporations controlled by the company or its controlling shareholders nor in total more than 5 corporations listed in Borsa İstanbul,
- j) I am not registered in the name of any legal entity elected as a board member.

[Signature]

Muharrem Hilmi Kayhan

Türkiye Petrol Rafinerileri A.Ş.

1 January - 31 December 2019
Consolidated Financial Statements

(Convenience Translation of Consolidated Financial Statements Originally Issued in Turkish)

INDEPENDENT AUDITOR'S REPORT



CONVENIENCE TRANSLATION INTO ENGLISH OF INDEPENDENT AUDITOR'S REPORT ORIGINALLY ISSUED IN TURKISH

To the General Assembly of Türkiye Petrol Rafinerileri A.Ş.

Audit of the consolidated financial statements

1. Our opinion

We have audited the accompanying consolidated financial statements of Türkiye Petrol Rafinerileri A.Ş. (the "Company") and its subsidiaries (collectively referred to as the "Group") which comprise the consolidated statement of financial position as at 31 December 2019, the consolidated statement of profit or loss, the consolidated statement of other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended and notes to the consolidated financial statements comprising a summary of significant accounting policies.

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2019, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Turkish Financial Reporting Standards ("TFRS").

2. Basis for opinion

Our audit was conducted in accordance with the Standards on Independent Auditing (the "SIA") that are part of Turkish Standards on Auditing issued by the Public Oversight Accounting and Auditing Standards Authority (the "POA"). Our responsibilities under these standards are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements" section of our report. We hereby declare that we are independent of the Group in accordance with the Ethical Rules for Independent Auditors (the "Ethical Rules") and the ethical requirements regarding independent audit in regulations issued by POA that are relevant to our audit of the financial statements. We have also fulfilled our other ethical responsibilities in accordance with the Ethical Rules and regulations. We believe that the audit evidence we have obtained during the independent audit provides a sufficient and appropriate basis for our opinion.

3. Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. Key audit matters were addressed in the context of our independent audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

INDEPENDENT AUDITOR'S REPORT

Key audit matters	How our audit addressed the key audit matters
<p>Fair value of lands recognised using the revaluation method</p> <p>As further explained in Note 2.2, the Group started to account its lands, that are classified under property, plant and equipment, through revaluation method commencing from 31 March 2019. The total fair value of lands as of 31 December 2019 amounts to TRY7,206,546 thousand, representing a fair value increase of TRY 6,425,788 thousand (net of deferred taxes) that is recognised under equity.</p> <p>As further described in Note 2.2, the accounting policy of lands, that are classified under property, plant and equipment, is 'revaluation method'. The fair values of these assets are being determined by independent valuation institutions, that are accredited by the Capital Markets Board ("CMB") and are recognized in the consolidated financial statements following the Group management's assessment. Fair value of lands depends on the valuation methods used as well as the input and assumptions used in the valuation model. Fair values are directly affected by factors such as market conditions, specifications of each land, their physical conditions and geographic locations.</p> <p>Since the value of lands are material to the consolidated financial statements and in the determination of land fair values certain assumptions, such as the benchmarking analysis approach (market), cost approach and income approach, are being used which include variables that can lead to changes in the fair values of the lands, 'fair value of lands recognised using the revaluation method' is identified as a key audit matter.</p>	<p>The audit procedures we performed on the accounting for lands under revaluation method are as follows:</p> <p>The capability, competency and objectivity of the independent property valuation institution appointed by the Group is assessed in accordance with SIA 500.</p> <p>The completeness of the lands subject to revaluation is checked by comparing accounting records to valuation reports.</p> <p>The deeds and ownership ratios of lands were tested through the sampling method.</p> <p>Besides, we appointed another independent property valuation institution, that is also accredited by the CMB and holds a license, as an "auditor's expert" to support the related audit process.</p> <p>The following audit procedures were performed based on the sampling method with the support of the auditor's expert:</p> <ul style="list-style-type: none"> - Comparison of the location, tenant and square meter information for the lands included in reports with the land registers, - Evaluation of the nature of the lands, - Evaluation of the appropriateness of the benchmarking analysis method used in revaluation of the relevant lands, - Determination of whether the lands that were the subject of calculations using the benchmark comparison method have features similar to the Group's lands or not, - Checking whether or not the valuation reports were prepared in line with the main principles. <p>Fair values in the valuation reports were compared with the notes to assess, whether the amounts in notes and in the consolidated financial statements are consistent with the valuation reports or not. In addition, the sufficiency of the note explanations under the TFRS were evaluated.</p> <p>We have no material findings as a result of the above audit procedures we performed in connection with the fair value of the lands recognised using the revaluation method.</p>

4. Responsibilities of management and those charged with governance for the consolidated financial statements

The Group management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with TFRS, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

5. Auditor's responsibilities for the audit of the consolidated financial statements

Responsibilities of independent auditors in an independent audit are as follows:

Our aim is to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an independent auditor's report that includes our opinion. Reasonable assurance expressed as a result of an independent audit conducted in accordance with SIA is a high level of assurance but does not guarantee that a material misstatement will always be detected. Misstatements can arise from fraud or error. Misstatements are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an independent audit conducted in accordance with SIA, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement in the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Assess the internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our independent auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

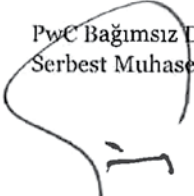
We provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence. We also communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

INDEPENDENT AUDITOR'S REPORT

Other responsibilities arising from regulatory requirements

1. No matter has come to our attention that is significant according to subparagraph 4 of Article 402 of Turkish Commercial Code ("TCC") No. 6102 and that causes us to believe that the Company's bookkeeping activities concerning the period from 1 January to 31 December 2019 period are not in compliance with the TCC and provisions of the Company's articles of association related to financial reporting.
2. In accordance with subparagraph 4 of Article 402 of the TCC, the Board of Directors submitted the necessary explanations to us and provided the documents required within the context of our audit.
3. In accordance with subparagraph 4 of Article 398 of the TCC, the auditor's report on the early risk identification system and committee was submitted to the Company's Board of Directors on 12 February 2020.


**PwC Bağımsız Denetim ve
Serbest Muhasebeci Mali Müşavirlik A.Ş.**

**Ediz Günsel, SMMM
Partner**

İstanbul, 12 February 2020

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Türkiye Petrol Rafinerileri A.Ş.

Consolidated Statements of Financial Position as at 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

ASSETS	Notes	Audited	Audited
		31 December 2019	31 December 2018
Current Assets		27,918,955	20,962,205
Cash and cash equivalents	4	10,652,009	5,982,828
Trade receivables	6	4,787,906	5,428,738
Due from related parties	6, 28	995,837	1,132,117
Trade receivables from third parties		3,792,069	4,296,621
Other receivables	7	45,617	29,048
Other receivables from third parties		45,617	29,048
Derivative instruments	18	303,992	175,532
Inventories	8	9,468,581	6,764,745
Prepaid expenses	13	236,762	108,689
Other current assets	14	2,424,088	2,472,625
Non-current assets		27,592,603	19,073,522
Investments accounted for using the equity method	9	1,362,777	1,266,334
Investment properties	10	-	4,621
Property, plant and equipment	11	20,334,715	12,339,167
Right of use asset		200,701	-
Intangible assets	12	51,744	58,185
Other intangible assets		51,744	58,185
Derivative instruments	18	98,741	168,266
Prepaid expenses	13	198,879	378,000
Deferred tax assets	26	3,767,503	3,566,132
Other non-current assets	14	1,577,543	1,292,817
Total assets		55,511,558	40,035,727

The accompanying notes form an integral part of these consolidated financial statements

Türkiye Petrol Rafinerileri A.Ş.

Consolidated Statements of Financial Position as at 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

LIABILITIES	Notes	Audited 31 December 2019	Audited 31 December 2018
Current liabilities		28,120,266	15,949,538
Short-term financial liabilities	5	1,798,683	1,141,869
Current portion of long term financial liabilities	5	3,379,019	2,971,529
Trade payables	6	17,816,174	7,496,141
Due to related parties	6, 28	226,072	77,096
Trade payables, third parties		17,590,102	7,419,045
Liabilities for employee benefits	16	147,409	127,500
Other payables	17	55,409	39,300
Due to related parties	17, 28	28,297	24,279
Other payables to third parties		27,112	15,021
Derivative instruments	18	79,247	236,050
Deferred income		20,813	4,878
Current income tax liabilities	26	2,405	98,749
Short-term provisions	15	117,152	80,345
Short-term provisions for employee benefits		15,777	8,863
Other provisions		101,375	71,482
Other current liabilities	14	4,703,955	3,753,177
Non-current liabilities		14,254,752	14,140,360
Long-term financial liabilities	5	13,898,092	13,836,142
Long-term provisions	15	316,052	257,392
Long-term provisions for employee benefits		316,052	257,392
Deferred income		7,820	3,638
Derivative Instruments	18	31,950	42,237
Other non-current liabilities		838	951
Non-current liabilities		42,375,018	30,089,898
Equity		13,136,540	9,945,829
Share capital	20	250,419	250,419
Adjustment to share capital	20	1,344,243	1,344,243
Accumulated other comprehensive income/(expense) not to be reclassified to profit or loss		6,437,136	3,478
Gains/losses on revaluation and remeasurement		6,418,891	5,021
Gain on revaluation of properties		6,425,788	-
Actuarial gain/(loss) arising from defined benefit plans		(6,897)	5,021
Share of other comprehensive income of investments accounted for using equity method that will not be reclassified to profit or loss		18,245	(1,543)
Accumulated other comprehensive income/(expense) to be reclassified to profit or loss		(1,850,305)	(1,822,867)
Currency translation differences		3,192	-
Hedging gains/(losses)		(2,100,116)	(2,094,224)
Cash flow hedge gains/(losses)		(2,100,116)	(2,094,224)
Share of other comprehensive income of investments accounted for using equity method that will be reclassified to profit or loss		246,619	271,357
Restricted reserves	20	503,343	597,086
Retained earnings		5,752,162	5,739,481
Net income		525,837	3,712,789
Total equity attributable to equity holders of the parent		12,962,835	9,824,629
Non-controlling interests		173,705	121,200
Total equity and liabilities		55,511,558	40,035,727

These consolidated financial statements as of and for the year ended 31 December 2019 has been approved for issue by the Board of Directors ("BOD") on 12 February 2020. These consolidated financial statements will be finalised following their approval in the General Assembly.

The accompanying notes form an integral part of these consolidated financial statements

Türkiye Petrol Rafinerileri A.Ş.

Consolidated Statement of Profit or Loss and Other Comprehensive Income for the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

		Audited	Audited
	Notes	1 January - 31 December 2019	1 January - 31 December 2018
Revenue	21	89,600,776	88,552,170
Cost of sales	21	(84,716,489)	(79,327,847)
Gross profit		4,884,287	9,224,323
General administrative expenses	22	(1,277,213)	(1,001,517)
Marketing expenses	22	(482,074)	(284,806)
Research and development expenses	22	(24,073)	(21,061)
Other operating income	23	838,573	930,619
Other operating expenses	23	(1,709,363)	(3,111,258)
Operating profit/(loss)		2,230,137	5,736,300
Income from investment activities	24	-	-
Expense from investment activities	24	(152)	(9,378)
Income/(loss) from investments accounted by equity method	9	197,393	265,880
Operating profit before financial income/(expense)		2,427,378	5,992,802
Financial income	25	1,522,758	3,286,945
Financial expense	25	(4,261,484)	(5,555,367)
Profit before tax from continued operations		(311,348)	3,724,380
Tax income/(expense)		896,678	37,065
Taxes on income		(9,471)	(218,388)
Deferred tax income/(expense)	26	906,149	255,453
Net income from continued operations		585,330	3,761,445
Other comprehensive income:			
Items not to be reclassified to profit or loss		6,433,511	6,917
Revaluation gain/(loss) on property	11	7,139,764	-
Actuarial gain/(loss) arising from defined benefit plans		(15,270)	9,273
Share of other comprehensive income accounted for investment using equity method that will be not reclassified to profit or loss		19,788	(393)
Actuarial gain/(loss) arising from defined benefit plans accounted for investment using equity method	9	(1,043)	(393)
Revaluation gain/(loss) on property of investments accounted with using equity method	9	20,831	-
Tax effect of other comprehensive income/(loss) not to be reclassified to profit or loss		(710,771)	(1,963)
Deferred tax income/(expense)		(710,771)	(1,963)

The accompanying notes form an integral part of these consolidated financial statements

Türkiye Petrol Rafinerileri A.Ş.

Consolidated Statements of Changes in Equity for the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

		Audited	Audited
	Notes	1 January - 31 December 2019	1 January - 31 December 2018
Items to be reclassified to profit or loss		(34,279)	(893,742)
Currency translation differences		3,192	-
Share of other comprehensive income accounted for investment using equity method that will be reclassified to profit or loss		(24,738)	90,483
Actuarial gain/(loss) of revaluation or classification of investments using equity method	9	(34,666)	72,644
Gain/(loss) from translation of foreign currency of investments using equity method	9	9,928	17,839
Income/(expense) relating to avoidance of risk of cash flow		(18,726)	(1,228,996)
Income/(loss) of avoidance of risk cash flow		(18,726)	(1,228,996)
Tax effect of other comprehensive income/(loss) to be reclassified to profit or loss		5,993	244,771
Deferred tax income/(expense)		5,993	244,771
Other comprehensive income/(expense)		6,399,232	(886,825)
Total comprehensive income/(expense)		6,984,562	2,874,620
Distribution of income for the period:			
Non-controlling interests		59,493	48,656
Attributable to equity holders of the parent		525,837	3,712,789
Distribution of total comprehensive income			
Non-controlling interests		52,505	16,886
Attributable to equity holders of the parent		6,932,057	2,857,734
Earnings (loss) per share from continued operations			
Earnings per share with nominal value Kr1 each (Kr)	27	2.10	14.83

The accompanying notes form an integral part of these consolidated financial statements

GENERAL ASSEMBLY

TUPRAŞ IN BRIEF

2019 PERFORMANCE

SUSTAINABILITY

CORPORATE GOVERNANCE

FINANCIAL INFORMATION

OTHER INFORMATION

Türkiye Petrol Rafinerileri A.Ş.

Consolidated Statements of Changes in Equity for the Year Ended 31 December

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

	Accumulated other comprehensive income/(expense) not to be reclassified to profit or loss				
	Gains/(losses) on valuation and remeasurement			Share of other comprehensive income of investments accounted for using equity method that will be not reclassified to profit or loss	
	Share capital	Adjustment to share capital	Gain on revaluation of properties	Actuarial gains/ (losses) arising from defined benefit plans	
Audited					
1 January 2018	250,419	1,344,243	-	(2,211)	(1,150)
Transfers	-	-	-	-	-
Dividends paid	-	-	-	-	-
- Net profit for the period	-	-	-	-	-
- Other comprehensive income	-	-	-	7,232	(393)
Total comprehensive income	-	-	-	7,232	(393)
31 December 2018	250,419	1,344,243	-	5,021	(1,543)
Audited					
1 January 2019	250,419	1,344,243	-	5,021	(1,543)
Transfers	-	-	-	-	-
Dividends paid	-	-	-	-	-
- Net profit for the period	-	-	-	-	-
- Other comprehensive income	-	-	6,425,788	(11,918)	19,788
Total comprehensive income	-	-	6,425,788	(11,918)	19,788
31 December 2019	250,419	1,344,243	6,425,788	(6,897)	18,245

Accumulated other comprehensive income/(expense) that will be reclassified to profit or loss			Total retained earnings						
Hedge gains/ (losses)		Share of other comprehensive income of investments accounted for using equity method that will be reclassified to profit or loss	Restricted reserves	Retained earnings	Net income/ (expense)	Equity holders of parent	Non controlling interest	Total equity	
Currency translation differences	Cash flow hedge gains/(losses)								
-	(1,141,847)	180,874	279,668	5,651,805	3,811,546	10,373,347	104,314	10,477,661	
-	-	-	339,393	3,472,153	(3,811,546)	-	-	-	
-	-	-	(21,975)	(3,384,477)	-	(3,406,452)	-	(3,406,452)	
-	-	-	-	-	3,712,789	3,712,789	48,656	3,761,445	
-	(952,377)	90,483	-	-	-	(855,055)	(31,770)	(886,825)	
-	(952,377)	90,483	-	-	3,712,789	2,857,734	16,886	2,874,620	
-	(2,094,224)	271,357	597,086	5,739,481	3,712,789	9,824,629	121,200	9,945,829	
-	(2,094,224)	271,357	597,086	5,739,481	3,712,789	9,824,629	121,200	9,945,829	
-	-	-	-	3,712,789	(3,712,789)	-	-	-	
-	-	-	(93,743)	(3,700,108)	-	(3,793,851)	-	(3,793,851)	
-	-	-	-	-	525,837	525,837	59,493	585,330	
3,192	(5,892)	(24,738)	-	-	-	6,406,220	(6,988)	6,399,232	
3,192	(5,892)	(24,738)	-	-	525,837	6,932,057	52,505	6,984,562	
3,192	(2,100,116)	246,619	503,343	5,752,162	525,837	12,962,835	173,705	13,136,540	

Türkiye Petrol Rafinerileri A.Ş.

Consolidated Statement of Cash Flow For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

		Audited	
		1 January - 31 December 2019	1 January - 31 December 2018
	Notes		
Cash flows from operating activities		11,334,588	1,351,978
Profit/(loss) for the period		585,330	3,761,445
Adjustment for reconciliation of profit/(loss) for the period		2,574,177	2,491,882
Adjustment for depreciation and amortisation expense	11, 12	706,116	622,494
Adjustments for impairment(cancellation)		(87,855)	86,609
Adjustments for inventory impairment	8	(87,855)	86,609
Adjustment for provisions	15	151,777	117,957
Adjustment for interest (income) and expense	25	1,371,357	940,320
Adjustment for unrealized foreign currency translation differences		(883,805)	(2,918,108)
Adjustment for fair value (gain) or loss		537,019	130,739
Adjustment for undistributed profit accounted by equity method	9	(197,393)	(265,880)
Adjustment for tax expenses(income)	26	(896,678)	(37,065)
Adjustment for (gain)/loss on sales of property, plant and equipment	24	152	9,378
Adjustment for other items related with cash flow of investment or financial activities	25	1,916,881	3,777,952
Other adjustments for reconciliation of profit/(loss)		(43,394)	27,486
Changes in working capital		8,354,542	(4,675,072)
Adjustment for decrease/(increase) in trade receivables		656,894	(403,568)
Adjustment for decrease/(increase) in other receivables related with operations		(381,602)	(1,990,959)
Adjustment for decrease/(increase) in derivative assets		(58,935)	103,671
Adjustment for decrease/(increase) in inventories		(2,615,981)	(1,560,264)
Adjustment for increase/(decrease) in trade payables		10,348,504	(719,275)
Adjustment for increase/(decrease) in other payables related with operations		572,752	(202,463)
Adjustment for decrease/(increase) in derivative liabilities		(167,090)	97,786
Cash flows from operating activities		11,514,049	1,578,255
Tax returns/(payments)		(105,823)	(140,935)
Other cash inflow/(outflow)		(73,638)	(85,342)
Cash flows from investing activities		(1,240,172)	(715,982)
Cash inflows from the sales of property, plant and equipment and intangible assets		1,195	1,081
Cash outflows from the purchase of property, plant and equipment and intangible assets		(1,337,367)	(941,063)
Dividends received	9	96,000	224,000
Cash flows from financing activities		(6,790,553)	(6,593,759)
Cash inflows from financial liabilities	5	49,759,252	38,952,115
Cash outflows from financial liabilities	5	(50,788,791)	(41,005,302)
Cash inflows from derivative instruments		84,997	405,021
Cash outflows from derivative instruments		(649,449)	(666,358)
Cash outflows from payments of rent agreements	5	(34,535)	-
Dividends paid	20	(3,793,851)	(3,406,452)
Interest paid		(1,961,722)	(1,248,137)
Interest received		593,546	375,354
Net increase/(decrease) in cash and cash equivalents before the effect of foreign currency translation differences		3,303,863	(5,957,763)
Impact of foreign currency translation differences on cash and cash equivalents	25	883,852	2,918,108
Net increase/(decrease) in cash and cash equivalents		4,187,715	(3,039,655)
Cash and cash equivalents at the beginning of the period		4,553,080	7,592,735
Cash and cash equivalents at the end of the period	4	8,740,795	4,553,080

The accompanying notes form an integral part of these consolidated financial statements

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

1. Organization and nature of operations of the group

Türkiye Petrol Rafinerileri A.Ş. ("Tüpraş" or the "Company") was established on 16 November 1983. The Company is mainly engaged in the following fields:

- To provide and refine all kinds of crude oil, petroleum and chemical products, to sustain all kinds of commercial operations of produced and imported crude oil, petroleum and chemical products including export along with the storage and transportation activities during production and selling stages and to establish and operate domestic and foreign refineries for this purpose.
- To establish and operate factories and facilities in petrochemical and other related industries,
- To provide the necessary raw and supplementary materials and process, produce or trade these materials in order to obtain petrochemical and other related products,
- To package the products produced during various phases of production and to establish a packaging industry for this purpose, to evaluate and/or to sell waste, by products and substandard products, to establish and operate the necessary facilities for the destruction of the waste products,
- To establish and operate facilities and plants related with all kinds of energy and energy related industries within the framework of the laws and regulations. To obtain, use and trade all kinds of equipment, materials and chemical substances for this purpose,
- To purchase, sell, import, export, store, market all kinds of petroleum products, LPG and natural gas, to establish marketing and distributing companies or similar partnerships with legal entities or real persons or to acquire, transfer or sell the shares of partnerships, when necessary.

The main operations of Tüpraş and its subsidiaries (collectively referred as "the Group") are in Turkey and the Group's business segment has been identified as refining.

The Company is registered at the Capital Markets Board ("CMB") of Turkey and its shares have been quoted at Borsa İstanbul A.Ş. ("BIST") since 1991. As at 31 December 2019, the shares quoted on the BIST are 49% of the total shares. As of 31 December 2019, the principal shareholders and their respective shareholdings in the Company are as follows (Note 20):

	(%)
	51.00
	49.00
	100.00

Enerji Yatırımları A.Ş., the parent of the Company is controlled by Koç Holding A.Ş., Koç Family and the companies owned by Koç Family.

The nature of the business of the subsidiaries and joint ventures of the Group is as follows:

Subsidiaries	Country of incorporation	Nature of business
Ditaş Deniz İşletmeciliği ve Tankerciliği A.Ş. ("Ditaş")	Turkey	Crude oil and petroleum products transportation
Üsküdar Tankercilik A.Ş. ("Üsküdar")	Turkey	Crude oil and petroleum products transportation
T Damla Denizcilik A.Ş. ("Damla")	Turkey	Mooring and tug service
Kadıköy Tankercilik A.Ş. ("Kadıköy")	Turkey	Crude oil and petroleum products transportation
Beykoz Tankercilik A.Ş. ("Beykoz")	Turkey	Crude oil and petroleum products transportation
Sarıyer Tankercilik A.Ş. ("Sarıyer")	Turkey	Crude oil and petroleum products transportation
Kartal Tankercilik A.Ş. ("Kartal")	Turkey	Crude oil and petroleum products transportation
Maltepe Tankercilik A.Ş. ("Maltepe")	Turkey	Crude oil and petroleum products transportation
Salacak Tankercilik A.Ş. ("Salacak")	Turkey	Crude oil and petroleum products transportation
Karşıyaka Tankercilik A.Ş. ("Karşıyaka")	Turkey	Crude oil and petroleum products transportation
Bakırköy Tankercilik A.Ş. ("Bakırköy")	Turkey	Crude oil and petroleum products transportation
Karaköy Tankercilik A.Ş. ("Karaköy")	Turkey	Crude oil and petroleum products transportation
Çengelköy Tankercilik A.Ş. ("Çengelköy")	Turkey	Crude oil and petroleum products transportation
Pendik Tankercilik A.Ş. ("Pendik")	Turkey	Crude oil and petroleum products transportation
Tuzla Tankercilik A.Ş. ("Tuzla")	Turkey	Crude oil and petroleum products transportation
Göztepe Tankercilik A.Ş. ("Göztepe") ^(*)	Turkey	Crude oil and petroleum products transportation
Körfez Ulaştırma A.Ş. ("Körfez")	Turkey	Air, maritime, road and rail transportation

^(*) Established and started its operations as of May 2019.

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

1. Organization and nature of operations of the Group (Continued)

Joint ventures	Country of incorporation	Nature of business
OPET Petrolcülük A.Ş. ("Opet")	Turkey	Petroleum products retail distribution
THY Opet Havacılık Yakıtları A.Ş.	Turkey	Jet fuel supply services
Opet International Limited	United Kingdom	Petroleum products trading
Opet Trade B.V.	Netherlands	Petroleum products trading
Opet Trade Singapore (In liquidation) ^(*)	Singapore	Petroleum products trading
Opet Market ve Akaryakıt İstasyon İşletmeciliği A.Ş. ^(**)	Turkey	Petroleum products and retail
Opet Fuchs Madeni Yağ San. ve Tic. A.Ş.	Turkey	Lube oil trading
Op Ay Akaryakıt Ticaret Ltd. Şti.	Turkey	Petroleum products trading
Akdeniz Akaryakıt Depolama Nakliyat ve Tic. A.Ş.	Turkey	Petroleum products trading
Nemrut Liman ve Boru İşl. Nak. İç ve Dış Tic. Ltd. Şti.	Turkey	Marine services
Opet Aygaz Gayrimenkul A.Ş.	Turkey	Real estate

^(*) The company discontinued its activities as of 15 July 2015.

^(**) Opet Market and Akaryakıt İstasyon İşletmeciliği A.Ş. have been established in April 2019.

The average number of employees of the Group as at 31 December 2019 is 6,098 (31 December 2018 - 5,952).

The address of the registered office of the Company is as follows:

Türkiye Petrol Rafinerileri A.Ş.
Güney Mahallesi
Petrol Caddesi No:25 41790
Körfez, Kocaeli

2. Basis of presentation of consolidated financial statements

2.1. Basis of presentation

2.1.1 Financial reporting standards

The consolidated financial statements and disclosures have been prepared in accordance with the communiqué numbered II-14.1 "Communiqué on the Principles of Financial Reporting In Capital Markets" (the Communiqué) announced by the Capital Markets Board ("CMB") on 13 June 2013 which is published on Official Gazette numbered 28676. In accordance with article 5th of the Communiqué, companies should apply Turkish Financial Reporting Standards ("TFRS") and interpretations regarding these standards as published by the Public Oversight Accounting and Auditing Standards Authority of Turkey ("POA").

The consolidated financial statements are presented in accordance with "Announcement regarding with TAS Taxonomy" which was published on 15 April 2019 by POA and the format and mandatory information recommended by CMB.

The Group and the group companies established in Turkey maintain their books of account and prepare their statutory financial statements ("Statutory Financial Statements") in accordance with rules and principles published by POA, the Turkish Commercial Code ("TCC"), tax legislation and the Uniform Chart of Accounts issued by the Ministry of Finance. These consolidated financial statements have been prepared under the historical cost convention except for the lands and derivative instruments that are carried at fair value. These consolidated financial statements are based on the statutory records with the required adjustments and reclassifications reflected for the purpose of fair presentation in accordance with the Turkish Financial Reporting Standards.

Functional and presentation currency

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). The consolidated financial statements are presented in TRY, which is the functional currency of Tüpraş and the presentation currency of the Group.

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.1. Basis of presentation (Continued)

2.1.2 Amendments in Turkish Financial Reporting Standards (TFRS)

The new standards, amendments and interpretations

The accounting policies adopted in preparation of the consolidated financial statements as at 31 December 2019 are consistent with those of the previous financial year, except for the adoption of new and amended TFRS and IFRIC interpretations effective as of 1 January 2019. The effects of these standards and interpretations on the Group's financial position and performance have been disclosed in the related paragraphs.

a) Standards, amendments and interpretations applicable as at 31 December 2019:

- **Amendment to TFRS 9, 'Financial instruments';** effective from annual periods beginning on or after 1 January 2019. This amendment confirmed two points: ⁽¹⁾ that reasonable compensation for prepayments can be both negative or positive cash flows when considering whether a financial asset solely has cash flows that are principal and interest and ⁽²⁾ that when a financial liability measured at amortised cost is modified without this resulting in de-recognition, a gain or loss should be recognised immediately in profit or loss. The gain or loss is calculated as the difference between the original contractual cash flows and the modified cash flows discounted at the original effective interest rate. This means that the difference cannot be spread over the remaining life of the instrument which may be a change in practice from TAS 39. The amendments do not have a significant impact in the Group's consolidated financial statement.
- **Amendment to TAS 28, 'Investments in associates and joint venture';** effective from annual periods beginning on or after 1 January 2019. These amendments clarify that companies account for long-term interests in associate or joint venture to which the equity method is not applied using TFRS 9. The amendments do not have a significant impact in the Group's consolidated financial statement.
- **TFRS 16, 'Leases';** effective from annual periods beginning on or after 1 January 2019, with earlier application permitted if TFRS 15 'Revenue from Contracts with Customers' is also applied. This standard replaces the current guidance in TAS 17 and is a far-reaching change in accounting by lessees in particular. Under TAS 17, lessees were required to make a distinction between a finance lease (on balance sheet) and an operating lease (off balance sheet). TFRS 16 now requires lessees to recognise a lease liability reflecting future lease payments and a 'right of use asset' for virtually all lease contracts. The TASB has included an optional exemption for certain short-term leases and leases of low-value assets; however, this exemption can only be applied by lessees. For lessors, the accounting stays almost the same. However, as the TASB has updated the guidance on the definition of a lease (as well as the guidance on the combination and separation of contracts), lessors will also be affected by the new standard. At the very least, the new accounting model for lessees is expected to impact negotiations between lessors and lessees. Under TFRS 16, a contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The impact of the amendment on The Group's financial position and performance has been assessed (Note 2.2).
- **TFRS 23, 'Uncertainty over income tax treatments';** effective from annual periods beginning on or after 1 January 2019. This TFRS clarifies how the recognition and measurement requirements of TAS 12 'Income taxes', are applied where there is uncertainty over income tax treatments. The TFRS Interpretation Committee previously clarified that if there is uncertainty in tax practices, TAS 37 'Provisions, Contingent Liabilities and Contingent Assets' should be applied instead of TAS 12. TFRS 23 explains how to recognise and measure deferred and current income tax assets and liabilities where there is uncertainty over a tax treatment. An uncertain tax treatment is any tax treatment applied by an entity where there is uncertainty over whether that treatment will be accepted by the tax authority. For example, a decision to claim a deduction for a specific expense or not to include a specific item of income in a tax return is an uncertain tax treatment if its acceptability is uncertain under tax law. TFRS 23 applies to all aspects of income tax accounting where there is an uncertainty regarding the treatment of an item, including taxable profit or loss, the tax bases of assets and liabilities, tax losses and receivables and tax rates. The amendments do not have a significant impact in the Group's consolidated financial statement.
- **Annual improvements 2015-2017;** effective from annual periods beginning on or after 1 January 2019. These amendments include minor changes to:
 - TFRS 3, 'Business combinations', - a company remeasures its previously held interest in a joint operation when it obtains control of the business.
 - TFRS 11, 'Joint arrangements', - a company does not remeasure its previously held interest in a joint operation when it obtains joint control of the business.
 - TAS 12, 'Income taxes' - a company accounts for all income tax consequences of dividend payments in the same way.
 - TAS 23, 'Borrowing costs' - a company treats as part of general borrowings any borrowing originally made to develop an asset when the asset is ready for its intended use or sale.

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.1. Basis of presentation (Continued)

a) Standards, amendments and interpretations applicable as at 31 December 2019 (Continued):

The amendments do not have a significant impact in the Group's consolidated financial statement.

- **Amendments to TAS 19, 'Employee benefits' on plan amendment, curtailment or settlement';** effective from annual periods beginning on or after 1 January 2019. These amendments require an entity to:
 - use updated assumptions to determine current service cost and net interest for the remainder of the period after a plan amendment, curtailment or settlement; and
 - recognise in profit or loss as part of past service cost, or a gain or loss on settlement, any reduction in a surplus, even if that surplus was not previously recognised because of the impact of the asset ceiling.

The amendments do not have a significant impact in the Group's consolidated financial statement.

b) Standards, amendments and interpretations that are issued but not effective as at 31 December 2019:

- **Amendments to TMS 1 and TMS 8 on the definition of material;** effective from Annual periods beginning on or after 1 January 2020. These amendments to TMS 1, 'Presentation of financial statements', and TMS 8, 'Accounting policies, changes in accounting estimates and errors', and consequential amendments to other TFRSs:
 - i) use a consistent definition of materiality throughout TFRSs and the Conceptual Framework for Financial Reporting;
 - ii) clarify the explanation of the definition of material; and
 - iii) incorporate some of the guidance in TMS 1 about immaterial information.

The amendments do not have a significant impact in the Group's consolidated financial statement.

- **Amendments to TFRS 3 - definition of a business;** effective from Annual periods beginning on or after 1 January 2020. This amendment revises the definition of a business. According to feedback received by the IASB, application of the current guidance is commonly thought to be too complex, and it results in too many transactions qualifying as business combinations.
- **Amendments to TFRS 9, TAS 39 and TFRS 7 - Interest rate benchmark reform;** effective from Annual periods beginning on or after 1 January 2020. These amendments provide certain reliefs in connection with interest rate benchmark reform. The reliefs relate to hedge accounting and have the effect that IBOR reform should not generally cause hedge accounting to terminate. However, any hedge ineffectiveness should continue to be recorded in the income statement. Given the pervasive nature of hedges involving IBOR-based contracts, the reliefs will affect companies in all industries. The effect of this amendment on the financial position and performance of the Group is being assessed.
- **TFRS 17, 'Insurance contracts';** effective from annual periods beginning on or after 1 January 2021. This standard replaces TFRS 4, which currently permits a wide variety of practices in accounting for insurance contracts. TFRS 17 will fundamentally change the accounting by all entities that issue insurance contracts and investment contracts with discretionary participation features. The amendment is not expected to have an impact on the financial position and performance of the Group.

2.1.3 Financial statements of joint ventures operating in foreign countries

Financial statements of joint ventures operating in foreign countries are prepared according to the legislation of the country in which they operate, and adjusted to the Turkish Financial Reporting Standards to reflect the proper presentation and content. Foreign joint ventures' assets and liabilities are translated into TRY with the foreign exchange rate at the balance sheet date. Exchange differences arising from the retranslation of the opening net assets of foreign undertakings and differences between the average and balance sheet date rates are included in the "Gain/(loss) from translation of foreign currency of investments using equity method" under the other comprehensive income statement and shareholders' equity.

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.1. Basis of presentation (Continued)

2.1.4. Principles of consolidation

a) The consolidated financial statements for the year ended 31 December 2019 have been prepared in accordance with principles stated on the consolidated financial statements for the year ended 31 December 2018 and include financial statements of Tüpraş, and its Subsidiaries.

b) At 31 December 2019, there are no changes in voting rights or proportion of effective interest on subsidiaries and joint ventures that are subject to consolidation from the information stated on consolidated financial statements for the year ended 31 December 2018.

	31 December 2019		31 December 2018	
	Direct and indirect Voting rights possessed by the Company (%)	Proportion of effective interest (%)	Direct and indirect Voting rights possessed by the Company (%)	Proportion of effective interest (%)
Subsidiary				
Ditaş	79.98	79.98	79.98	79.98
Üsküdar	79.98	79.98	79.98	79.98
Damla	79.98	79.98	79.98	79.98
Beykoz	79.98	79.98	79.98	79.98
Kadıköy	79.98	79.98	79.98	79.98
Sarıyer	79.98	79.98	79.98	79.98
Kartal	79.98	79.98	79.98	79.98
Maltepe	79.98	79.98	79.98	79.98
Salacak	79.98	79.98	79.98	79.98
Karşıyaka	79.98	79.98	79.98	79.98
Bakırköy	79.98	79.98	79.98	79.98
Karaköy	79.98	79.98	79.98	79.98
Çengelköy	79.98	79.98	79.98	79.98
Pendik	79.98	79.98	79.98	79.98
Tuzla	79.98	79.98	79.98	79.98
Göztepe ^(*)	79.98	79.98	-	-
Körfez	100.00	100.00	100.00	100.00

(*) Established and started its operations as of May 2019.

The statement of financial position and statement of comprehensive income of the subsidiaries are consolidated on a line-by-line basis and the carrying value of the investment held by the Company is eliminated against the related equity. Intercompany transactions and balances between the Company and its subsidiary are eliminated on consolidation. The cost of and the dividends arising from, shares held by the Company in its subsidiary are eliminated from equity and income for the year, respectively.

c) Joint ventures are companies in which the Group has joint control. Joint control is the contractually agreed sharing of control. The control, exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control. The Group's interest in joint ventures is accounted for with equity method. Investments accounted by equity method are presented in consolidated statement of financial position with additions or deductions of changes on share of the Group on net assets of the affiliate and with deduction of provisions for the decline in the value. The changes of the amount, not reflected on income or loss of the joint venture, on the equity of the joint venture can requisite an adjustment on the net book value of the joint venture in proportion of the Group's share.

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.1. Basis of presentation (Continued)

2.1.4. Principles of consolidation (Continued)

The table below shows the total interest of the Group in its joint ventures accounted by equity method as at 31 December 2019 and 31 December 2018:

	31 December 2019		31 December 2018	
	Direct and indirect Voting rights Possessed by the Company (%)	Proportion of interest (%)	Direct and indirect Voting rights Possessed by the Company (%)	Proportion of interest (%)
Joint ventures accounted by equity method				
Opet	50.00	40.00	50.00	40.00
Opet International Limited ^(*)	50.00	40.00	50.00	40.00
Opet Trade B.V. ^(*)	50.00	40.00	50.00	40.00
Opet Trade Singapore (In liquidation) ^(*) ^(**)	50.00	40.00	50.00	40.00
Opet Market ve Akaryakıt İstasyon İşletmeciliği A.Ş. ^(*) ^(***)	50.00	40.00	-	-
THY Opet Havacılık Yakıtları A.Ş. ^(*)	25.00	20.00	25.00	20.00
Opet Fuchs Madeni Yağ San. ve Tic. A.Ş. ^(*)	25.00	20.00	25.00	20.00
Op Ay Akaryakıt Ticaret Ltd. Şti. ^(*)	25.00	20.00	25.00	20.00
Akdeniz Akaryakıt Depolama Nakliyat ve Tic. A.Ş. ^(*)	16.65	13.32	16.65	13.32
Nemrut Liman ve Boru İşl. Nak. İç ve Dış Tic. Ltd. Şti. ^(*)	12.50	10.00	12.50	10.00
Opet Aygaz Gayrimenkul A.Ş. ^(*)	25.00	20.00	25.00	20.00

^(*) Related companies are consolidated or accounted by equity method in Opet's financial statements.

^(**) The company discontinued its activities as of 15 July 2015.

^(***) Opet Market and Akaryakıt İstasyon İşletmeciliği A.Ş. have been established in April 2019.

d) The non-controlling shareholders' share of the net assets and results for the period for the subsidiaries are classified separately in the consolidated statement of financial position and statements of comprehensive income as non-controlling interest.

2.2. Changes in accounting policies

The Group has adopted TFRS 16 "Leases" as at 1 January 2019 for the first time, in line with the transition provisions of the standard.

Impacts of the first time adoption of TFRS 16 on the condensed interim consolidated financial statements of the Group are as below:

TFRS 16 Leases

The Group - as a lessee

At inception of a contract, the Group assesses whether a contract is, or contains a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.2. Changes in accounting policies (Continued)

The Group - as a lessee (Continued)

To assess whether a contract conveys the right to control the use of an identified asset, The Group assess whether:

- The contract involved the use of an identified asset – this may be specified explicitly or implicitly.
 - The asset should be physically distinct or represent substantially all of the capacity of a physically distinct asset. If the supplier has a substantive substitution right, the asset is not identified.
 - The Group has the right to obtain substantially all of the economic benefits from the use of an asset throughout the period of use; and
 - The Group has the right to direct use of the asset.
- a) The Group concludes to have the right of use, when it is predetermined how and for what purpose the Group will use the asset.
 - b) The Group has the right to direct use of asset if either:
 - i. The Group has the right to operate (or to have the right to direct others to operate) the asset over its useful life and the lessor does not have the rights to change the terms to operate or;
 - ii. The Group designed the asset (or the specific features) in a way that predetermines how and for what purpose it is used

At inception or on reassessment of a contract that contains a lease component, the Group allocates the consideration in the contract to each lease component on the basis of their relative stand-alone prices.

Right of use asset

The right of use asset is initially recognized at cost comprising of:

- a) Amount of the initial measurement of the lease liability;
- b) Any lease payments made at or before the commencement date, less any lease incentives received;
- c) Any initial direct costs incurred by the Group; and
- d) An estimate of costs to be incurred by the lessee for restoring the underlying asset to the condition required by the terms and conditions of the lease (unless those costs are incurred to produce inventories)

The Group re-measure the right of use asset:

- a) After netting-off depreciation and reducing impairment losses from right of use asset,
- b) Adjusted for certain re-measurements of the lease liability recognized at the present value

The Group applies TMS16 "Property, Plant and Equipment" to amortize the right of use asset and to assess for any impairment.

TAS 36 "Impairment of Assets" is applied to determine whether an asset is impaired and to recognize any impairment loss.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.2. Changes in accounting policies (Continued)

The Group - as a lessee (Continued)

Lease Liability

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date. Lease liabilities are discounted to present value by using the interest rate implicit in the lease if readily determined or with the Group's incremental borrowing rate. Incremental borrowing rate is defined as borrowing rates of the Group companies at the date of contracts.

Lease payments included in the measurement of the lease liability comprise the following:

- a) Fixed payments, including in-substance fixed payments;
- b) Variable lease payments that depend on an index or a rate, initially measured using the index or rate as the commencement date,
- c) The exercise price under a purchase option that the Group is reasonably certain to exercise, lease payments in an optional renewable period if the Group is reasonably certain to exercise an extension option, and penalties for early termination of a lease unless the Group is reasonably certain to terminate early.

After initial recognition, the lease liability is measured:

- a) Increasing the carrying amount to reflect interest on lease liability
- b) Reducing the carrying amount to reflect the lease payments made and
- c) Remeasuring the carrying amount to reflect any reassessment or lease modifications. Group reflects the remeasurement amounts as an adjustment on right of use asset, in the statement of financial position.

Extension and termination options

In determining the lease liability, the Group considers the extension and termination options. The majority of extension and termination options held are exercisable both by the group and by the respective lessor. Extension and termination options are included in the lease term if the lease is reasonably certain to be extended and the options are enforceable by groups initiative in the contract. The group remeasures the lease term, if a significant event or a significant change in circumstances occurs which affects the initial assessment. As result of the evaluations performed in the current period, there is no lease obligation or right of use assets arising from the inclusion of extension and early termination options in the lease period.

Variable lease payments

Group's lease contracts also include variable lease payments. The variable lease payments are recognised in profit or loss in the related period according to TFRS 16. As of 31 December 2019, the total lease expense for the contracts with variable rent payments is TRY56,442 thousands.

Exemptions and simplifications

Short-term lease payments and payments for leases of low-value assets like IT equipments (mainly printers, laptops and mobile phones etc.) are not included in the measurement of the lease liabilities in the scope of TFRS 16. Lease payments of these contracts are continued to be recognised in profit or loss in the related period. The Group applied a single discount rate to a portfolio of leases which have similar characteristics (asset classes which have similar remaining rent periods in a similar economic environment)

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.2. Changes in accounting policies (Continued)

Group - as a lessor

The Group as a lessor is composed of operating leases. In operating leases, leased assets are classified in the consolidated balance sheet under investment property, tangible fixed assets or other current assets and the rent income obtained is reflected to the consolidated income statement in equal amounts during the leasing period. Rental income is recognized on a straight-line basis over the period of the lease in consolidated income statement.

First time adoption of TFRS 16 Leases

The Group has applied TFRS 16 "Leases", which replaces TAS 17, for the effective period beginning on 1 January 2019. The cumulative impact of applying TFRS 16 is accounted in the condensed interim consolidated financial statements retrospectively ("cumulative impact approach") at the start of the current accounting period. The simplified transition approach of the related standard does not require a restatement in the comparative periods or in the retained earnings.

With the transition to TFRS 16 "Leases", a "lease liability" is recognized in the condensed interim consolidated financial statements for the lease contracts which were measured under TAS 17 as operational leases before 1 January 2019. At transition, lease liabilities are measured at the net present value of the remaining lease payments, discounted at the Group's incremental borrowing rate on the effective transition date. The Group measured right-of-use assets at an amount equal to the lease liability (adjusted by the amount of any prepaid or accrued lease payments) under TFRS 16 simplified transition approach.

The reconciliation of operating lease commitments under TAS 17 before the transition date and the lease liabilities measured under TFRS 16 as of 1 January 2019 is as below:

	1 January 2019
Operating lease commitments within the scope of TAS 17	413,589
- Short term leases (-)	(10,044)
- Low value leases (-)	(133)
- Contracts evaluated within the scope of service procurement (-)	(41,871)
- Adjustments for extension or early termination options	20,188
Total lease liabilities within the scope of TFRS 16 (non-discounted)	381,729
Total lease liabilities within the scope of TFRS 16 (discounted with alternative borrowing rate)	198,739
- Short term lease liabilities	23,629
- Long term lease liabilities	175,110

The weighted average of alternative borrowing rates used by the Group is 20.80% for TRY and 3.23% for EUR as of 1 January 2019.

The rights of use assets recognized in the consolidated financial statements on the basis of asset groups are as follows as of 1 January 2019 and 31 December 2019:

	31 December 2019	1 January 2019
Land improvements	77,868	122,143
Buildings	99,641	38,816
Machinery and equipment	1,107	2,543
Motor vehicles	22,085	35,237
Total right of use asset	200,701	198,739

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.2. Changes in accounting policies (Continued)

Property, plant and equipment

The Group has revaluated all of the lands in its assets amounting to TRY66,782 thousand in accordance with TAS 16 Property, Plant and Equipment as of 31 March 2019 and included the revaluation amount amounting to TRY7,139,764 thousand in consolidated financial statements (Note 11). The items other than lands in property, plant and equipment are carried at cost less accumulated depreciation and impairment, if any, in the consolidated financial statements.

"Market Comparison Approach" is used to determine the fair value of the Group's lands.

The revaluation increase in property is recognized in the balance sheet after the deferred tax effect has been offset to the revaluation gain(loss) in equity. Land are not depreciated as their economic lives are considered to be unlimited.

The evaluation assessment of lands of Tüpraş has been carried by namely Açık Kurumsal Gayrimenkul Değerleme ve Danışmanlık A.Ş. which is accredited by the CMB; the valuation of lands of OPET and its subsidiaries, which is consolidated according to equity method, is carried by TSKB Gayrimenkul Değerleme A.Ş. which is accredited by the CMB.

	Fair value level as of reporting period			
	31 December 2019	Level 1	Level 2	Level 3
Lands	7,139,764	-	7,139,764	-

2.2.1. Comparative information

In order to allow for the determination of the financial situation and performance trends, the Group's consolidated financial statements have been presented comparatively with the previous year.

The Group presented the consolidated statement of financial position as of 31 December 2019 comparatively with the consolidated statement of financial position as of 31 December 2018. Also the consolidated statement of profit or loss and other comprehensive income, consolidated statement of cash flows and consolidated statement of changes in equity for the year ended 31 December 2019 are presented comparatively with the consolidated financial statements for the year ended 31 December 2018.

2.2.2. Offsetting

Financial assets and liabilities are offset and the net amount is reported in the balance sheet when there is a legally enforceable right to offset the recognised amounts and there is an intention to settle on a net basis or realise the asset and settle the liability simultaneously.

2.3. Summary of significant accounting policies

The significant accounting policies followed in the preparation of the consolidated financial statements are summarized below:

- Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, deposits at banks, highly liquid investments with maturity periods of three months or less and the revenue share collected is held at banks by the Petroleum Market Licence Regulation (Note 4). Cash and cash equivalents used in consolidated cash flow statement comprise cash and cash equivalents with short term maturities of less than 3 months, excluding accrued interest income and blocked deposits (Revenue share). The Group's cash and cash equivalents are evaluated within credit risk model, since there is no credit risk expected, they are carried at cost in the consolidated balance sheet.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.3. Summary of significant accounting policies (Continued)

- Trade receivables

Trade receivables that are created by the Group by way of providing goods or services directly to a debtor are carried at amortised cost. A credit risk provision for trade receivables is established when there is objective evidence that the Group is not able to collect all amounts due. The amount of the provision is the difference between the carrying amount and the recoverable amount, being the present value of all cash flows, including amounts recoverable from guarantees and collateral, discounted based on the original effective interest rate of the originated receivables at inception. If the amount of the impairment subsequently decreases due to an event occurring after the write-down, the release of the provision is credited to other income (Note 6).

The Group has chosen "simplified approach" explained in TFRS 9 for the calculation of impairment of trade receivables (with maturities less than one year) that do contain a significant financing component and accounted at amortised cost. In accordance with the simplified approach, Group measures the loss allowances regarding its trade receivables at an amount equal to "lifetime expected credit losses" except incurred credit losses in which trade receivables are already impaired for a specific reason date. The Group uses a provision matrix in the calculation of expected credit losses. Provision rate is calculated based on the overdue days of trade receivables and the rates are revised each reporting period if necessary. Since the change in expected credit loss provisions is not material, it is not accounted in consolidated income statement. For each reporting period, the recalculation is made and revaluated.

The Group collects some of its receivables via factoring. The receivables subject to factoring transaction which risk of collection is undertaken by factoring company are deducted from the related receivable accounts. Since the time between the factoring dates and maturities of trade receivables subject to factoring transactions is not significant, the business model of the Group related with trade receivables has not been changed and has been accounted at the amortized cost.

- Trade payables

Trade payables are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

Financial assets and liabilities at fair value through profit or loss

The financial assets of the Group which are carried at fair value include derivative instruments that are not subject to hedge accounting. Derivative financial instruments are initially recognised at the acquisition cost reflecting the fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Gains or losses arising from the valuation of these kinds of assets are recognized in the consolidated statement of income. Derivative instruments which are carried at fair value through profit or loss include forward foreign exchange and commodity purchase and sale transactions. Derivative instruments are recognized as asset when the fair value of the instrument is positive, as liability when the fair value of the instrument is negative (Note 18).

Financial assets and liabilities at fair value through other comprehensive income

The financial assets of the Group which are carried at fair value include derivative instruments that are subject to hedge accounting. Derivative financial instruments are initially recognised at the acquisition cost reflecting the fair value on the date on which a derivative contract is entered into and are subsequently remeasured at fair value. Gains and losses arising from the valuation of these kinds of assets are accounted as other comprehensive income/expense in the consolidated statement of comprehensive income related to cash flow hedge. Derivative instruments which are accounted in other comprehensive income include commodity purchase and sales transactions, interest rate swap transactions and cross currency swap transactions. Derivative instruments are recognized as asset when the fair value of the instrument is positive, as liability when the fair value of the instrument is negative (Note 18).

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.3. Summary of significant accounting policies (Continued)

- Cash flow hedge

Hedges of exposures to variability in cash flows that are attributable to a particular risk associated with a recognised asset or liability or a highly probable forecast transaction and could affect profit and loss are designated as cash flow hedges by the Group.

Changes in the fair value of derivatives, designated as cash flow hedges and qualified as effective, are recognised in equity as "hedge reserves". Where the forecasted transaction or firm commitment results in the recognition of an asset or of a liability, the gains and losses previously recognised under equity are transferred from equity and included in the initial measurement of the cost of the asset or liability. Otherwise, amounts recognised under equity are transferred to the consolidated income statement in the period in which the hedged firm commitment or forecasted transaction affects the consolidated income statement.

If the forecast transaction or firm commitment is no longer expected to occur, the cumulative gain or losses previously recognised in equity are transferred to the income statement. If the hedging instrument expires or is sold, terminated or exercised without replacement or rollover, or if its designation as a hedge is revoked, any cumulative gain or loss previously recognised in other comprehensive income remains in other comprehensive income until the forecast transaction or firm commitment affects profit or loss.

Recognition and de-recognition of financial instruments

All purchases and sales of financial assets are recognized on the trade date i.e. the date that the Group commits to purchase or to sell the asset. These purchases or sales are purchases or sales generally require delivery of assets within the time frame generally established by regulation or convention in the market place. A financial asset (or, where applicable a part of a financial asset or part of a group of similar financial assets) is derecognized where:

- the rights to receive cash flows from the asset have expired
- the Group retains the right to receive cash flows from the asset, but has assumed an obligation to pay them in full without material delay to a third party under a "pass-through" arrangement; or
- the Group has transferred its rights to receive cash flows from the asset and either (a) has transferred substantially all the risks and rewards of the asset, or (b) has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the assets.

Where the Group has transferred its rights to receive cash flows from an asset and has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the asset is recognized to the extent of the Group's continuing involvement in the consolidated financial statements.

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expired.

Related parties

For the purpose of these consolidated financial statements, shareholders, key management personnel, Board of Directors members and Koç Group companies including their family members and companies controlled by or affiliated with them are considered and referred to as related parties (Note 28).

Inventories

Inventories are valued at the lower of acquisition cost or net realisable value. The cost components of inventories include materials, conversion costs and other costs that are necessary to bring the inventories to their present location and condition. The cost of inventories is determined on the weighted average cost basis. As during the production process more than one product is produced from single raw material inputted, the costs of conversion of each product are not separately identifiable. In order to allocate the costs of conversion between the products on a rational and consistent basis, the approach used by the Company for the allocation is based on the relative sales prices of each product. Net realisable value is the estimated selling price in the ordinary course of business, less the costs of completion and selling expenses (Note 8).

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.3. Summary of significant accounting policies (Continued)

Spare parts and material stocks

Spare parts and material stocks are valued at the lower of cost or net realisable value. The cost elements of spare parts and material stocks include materials and other costs that are necessary to bring them to their present location and condition. The cost of spare parts and material stocks is determined on the weighted average cost basis. The Group has provided provision for the slow-moving spare parts (Note 14).

Property, plant and equipment

Property, plant and equipment are carried at cost less accumulated depreciation. Historical costs include the costs directly related to the acquisition of property plant and equipment. Costs incurred after the acquisition can be added to the net book value of the assets or can be booked as another asset if and only if it is probable that the future economic benefits will flow to the Group and cost of the asset can be measured reliably. All other repair and maintenance costs are expensed in the consolidated statement of comprehensive income for the period. Depreciation is provided using the straight line method based on the estimated useful lives of gross book value of assets (Note 11).

The depreciation periods for property, plant and equipment, which approximate the economic useful lives of such assets, are as follows:

	Useful life
Land improvements	3-50 years
Buildings	5-50 years
Machinery and equipment	3-35 years
Motor vehicles	4-20 years
Furniture and fixtures	2-50 years

Land is not depreciated as it is deemed to have an indefinite useful life.

Where the carrying amount of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount. Recoverable amount is the higher of asset net selling price or value in use. Net selling price is calculated by deducting the selling costs from the fair value of the asset. Value in use is calculated as the discounted value of the estimated future cash flows the entity expects to derive from the asset. An impairment loss is recognised for the amount by which the carrying amount of the asset exceeds its recoverable amount.

Gains or losses on disposals of property, plant and equipment are determined by comparing proceeds with their restated carrying amounts and are included in the related income and expense accounts, as appropriate.

Intangible assets

Intangible assets include rights and software and development costs (Note 12).

a) Rights and software

Rights and software are carried at cost less accumulated amortisation. Amortisation is calculated using the straight-line method over the estimated useful lives of such assets not exceeding 5 years.

b) Development costs

The accounting policy of development costs are explained in Research and Development Expenses.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.3. Summary of significant accounting policies (Continued)

Impairment of assets

The Group reviews all tangible and intangible assets except goodwill for indicators of impairment at every balance sheet date. If any indication of impairment exists, carrying value of the asset is compared with its recoverable amount which is the higher of value in use or fair value less costs to sell. Impairment exists when carrying value of the asset or cash generating unit that the asset belongs to is higher than the recoverable amount. An impairment loss is recognised immediately in the consolidated statement of comprehensive income.

An impairment loss recognised in prior periods for an asset is reversed if the subsequent increase in the asset's recoverable amount is caused by a specific event since the last impairment loss was recognised. Such a reversal amount cannot be higher than the previously recognised impairment and is recognized as income in the consolidated financial statements. The reversal of the impairment is recognized in the comprehensive income statement. Net book value of goodwill is evaluated annually and impairment is recorded when necessary considering a significant or prolonged decline.

Borrowing costs

Borrowings are recognised initially at the proceeds received, net of transaction costs incurred. In subsequent periods, borrowings are stated at amortised cost using the effective yield method; any difference between proceeds (net of transaction costs) and the redemption value is recognised in the consolidated statement of comprehensive income over the period of the borrowings.

Borrowing costs, which can be related to its purchase, construction or production when it comes to assets requiring a significant period of time to be ready for use and sales, are included in cost of asset until the related asset is made available for use or sales.

Other borrowing costs are charged to the consolidated statement of comprehensive income when they are incurred.

Operating leases

The Group as the lessee

Operational leases

Leases where a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the consolidated statement of comprehensive income on a straight-line basis over the period of the lease.

The Group as the lessor

Operational leases

In operational leasing, the leased assets are classified under tangible assets in the consolidated balance sheet and the rent income obtained is reflected in the consolidated comprehensive income statement during the lease period. Rental income is reflected to the consolidated comprehensive income statement by linear method during the lease period.

Deferred taxes

Deferred income tax is provided in full, using the liability method, on all temporary differences arising between the tax bases of assets and liabilities and their carrying values in the consolidated financial statements. Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset realized, based on tax rates (and tax laws) that have been enacted or substantively enacted by the balance sheet date. Deferred tax is charged or credited to consolidated statement of income, except when it relates to items charged or credited directly to the equity in which case the deferred tax is also dealt within the equity.

Deferred tax liabilities are recognised for all taxable temporary differences, where deferred tax assets resulting from deductible temporary differences are recognised to the extent that it is probable that future taxable profit will be available against which the deductible temporary difference can be utilised.

Government incentives enabling reduced corporate tax payments are considered within the scope TAS-12 "Income Taxes" and the deferred tax asset is recognized at the rate of the earned tax benefit under the condition that benefitting from this advantage by earning taxable income in the future is highly probable.

Provided that deferred tax assets and deferred tax liabilities relate to income taxes levied by the same taxation authority and it is legally eligible, they may be offset against one another. Deferred tax assets and liabilities are classified as noncurrent assets and liabilities in the consolidated financial statements (Note 26).

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.3. Summary of significant accounting policies (Continued)

Provision for employment termination benefits:

Employment termination benefits

a) Provision for employment termination benefits:

The provision for employment termination benefits, as required by Turkish Labour Law represents the present value of the future probable obligation of the Group arising from the retirement of its employees based on the actuarial projections.

TAS 19 "Employee Benefits" requires actuarial assumptions (net discount rate, turnover rate to estimate the probability of retirement etc.) to estimate the entity's obligation for employment termination benefits. The effects of differences between the actuarial assumptions and the actual outcome together with the effects of changes in actuarial assumptions compose the actuarial gains/losses.

In accordance with TAS 19 "Employee Benefits" effective before 1 January 2013, the actuarial gains/losses were recognised in the statement of income whereas the amendment, effective as of 1 January 2013, requires the actuarial gains/losses to be recognised under other comprehensive income.

b) Defined benefit plans

The Group has to pay contributions to the Social Security Institution on a mandatory basis. The Group has no further payment obligations once the contributions have been paid. These contributions are recognised as an employee benefit expense when they are accrued.

c) Unused vacation rights

Liabilities arising from unused vacations of the employees are accrued in the period when the unused vacations are qualified.

d) Seniority incentive bonus provision

The Group has an employee benefit plan called "Seniority Incentive Bonus" ("Bonus") which is paid to employees with a certain level of seniority. Seniority incentive bonus provision represents the present value at the date of the consolidated balance sheet of the estimated total reserve of the probable future obligations (Note 15).

Transactions in foreign currency

Transactions in foreign currencies during the year have been translated at the exchange rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated into Turkish Lira at the exchange rates prevailing at the balance sheet dates. Foreign exchange gains or losses arising from the settlement of such transactions and from the translation of monetary assets and liabilities are recognised in the consolidated statement of comprehensive income except the ones that are capitalized.

Revenue recognition

The Group adopted TFRS 15 "Revenue From Contracts with Customers" which proposes a five step model framework mentioned below for recognizing the revenue.

- Identify the contact with customers
- Identify separate performance obligations in the contract
- Determine the transaction price in contract
- Allocate the transaction price to the performance obligations in the contract
- Recognise revenue

The Group assess the goods or services promised in a contract with a customer and identify as a performance obligation each promise to transfer to the customer.

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.3. Summary of significant accounting policies (Continued)

For each performance obligation identified, the entity determine at contract inception whether it satisfies the performance obligation over time or satisfies the performance obligation at a point in time. If the Group transfers control of a good or service over time and therefore satisfies a performance obligation and recognises revenue over time.

The Group recognise revenue when the entity satisfies a performance obligation by transferring a promised good or service to the customer. An asset is transferred when the customer obtains control of that asset or service.

The Group considers the following in the assessment of transfer of control of goods sold and services,

- The entity has a right to payment for the goods or service,
- The customer has legal title to the goods or service,
- The entity has transferred physical possession of the asset,
- The customer has the significant risks and rewards related to the ownership of the goods or services,
- The customer has accepted the goods or services.

The Company does not adjust the promised amount of consideration for the effects of a significant financing component since the Company expects, at contract inception, that the period between when the entity transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less. If the financing component is significant in revenue, future collections are discounted by the interest rate in financing component. The difference is recognised as income from operating activities in current period.

Provisions

Provisions are recognised when the Group has a present legal or constructive obligation as a result of past events, when it is probable that an outflow of resources will be required to settle the obligation, and when a reliable estimate of the amount can be made. Provisions, as of the balance sheet date, are recorded with the best estimate of management in order to provide for the estimated obligation and are discounted, if they are material for the consolidated financial statements.

Commitments, contingent assets and liabilities

Possible assets or obligations that arise from past events and whose existence will be confirmed only by the occurrence or non-occurrence of one or more uncertain future events not wholly within the control of the Group are not included in the consolidated financial statements and are disclosed as contingent assets or liabilities (Note 19).

Dividends

Dividend income is recognised by the Group at the date the right to collect the dividend is realised. Dividend payables are recognised as liability in the consolidated financial statements in the period they are declared as a part of profit distribution.

Earnings per share

Earnings per share for each class of shares disclosed in the consolidated statement of comprehensive income is determined by dividing the consolidated net income for the year attributable to that class of shares by the weighted average number of shares of that class that have been outstanding during the year concerned.

In Turkey, companies can increase their share capital by making a pro-rata distribution of shares ("bonus shares") to existing shareholders from retained earnings and inflation adjustment to shareholders' equity. For the purpose of earnings per share computations, the weighted average number of shares outstanding during the period has been adjusted in respect of bonus shares issued without a corresponding change in resources by giving them retroactive effect for the period in which they were issued and for each earlier period.

Segment reporting

According to TFRS 11 "Joint Arrangements" standard, accounting for joint ventures in the consolidated financial statements by the equity method is mandatory. The amendment has been implemented retrospectively by the Group. Opet Petrolcülük A.Ş. is accounted by the equity method and petroleum distribution division is excluded from segment reporting scope. Since only refining segment remained within the consolidation scope, segment reporting is not presented effective 1 January 2013.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.3. Summary of significant accounting policies (Continued)

Statement of cash flow

Cash flows during the period are classified and reported by operating, investing and financing activities in the cash flow statements.

Cash flows from operating activities represent the cash flows generated from the Group's activities.

Cash flows related to investing activities represent the cash flows that are used in or provided from the investing activities of the Group (tangible and intangible assets and financial assets).

Cash flows arising from financing activities represent the cash proceeds from the financing activities of the Group and the repayments of these funds.

Research and development costs

Research expenditures are recognized as an expense when they are incurred.

Intangible assets arising from in-house development activities (or the improvement phase of an intergroup project) are recognized when all of the following conditions are met:

- existence of the technical feasibility of completing the intangible asset so that it will be available for use or sale,
- existence of the intention to complete the intangible asset and use or sell it,
- existence of the ability to use or sell the intangible asset,
- reliability of how the intangible asset will generate probable future economic benefits,
- the availability of adequate technical, financial and other resources to complete the development and to use or sell the intangible asset,
- existence of the ability to measure reliably the expenditure attributable to the intangible asset during its development.

Other development expenditures are recognized as an expense as incurred. Development costs previously recognized as an expense are not capitalized as an asset in a subsequent period.

Government grants

Government grants, investment and research and development incentives are accounted at the fair values on accrual basis when the Group's incentive applications are approved by related authorities.

Government incentives enabling reduced corporate tax payments are considered within the scope TAS-12 "Income Taxes".

Business combinations and goodwill

Business combinations are accounted for using the acquisition method in accordance with TFRS 3. The cost of a business combination, before 1 January 2011, is allocated by recognising the acquiree's identifiable assets, liabilities and contingent liabilities at the date of acquisition. Any excess of the acquirer's interest over the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities over the business combination cost is accounted for as goodwill. In business combinations, the acquirer recognizes identifiable assets, intangible assets (such as trademarks) and/or contingent liabilities which are not included in the acquiree's financial statements and which can be separated from goodwill, at their fair values in the consolidated financial statements. Goodwill recognised in business combinations is tested for impairment annually or more often under when circumstances indicating impairment risk.

The excess of the Group's share in the net fair value of the identifiable assets, liabilities and contingent liabilities over the cost of the business combination is accounted for as income in the related period.

Revised TFRS 3 "Business Combinations" effective as at 1 January 2011 has been applied to business combinations occurring after 1 January 2011. The main difference of revised TFRS 3 is to account for transaction costs of a purchase in comprehensive income statement. There has been no business combination in 2018 which requires the application of revised TFRS 3.

For the purpose of impairment testing, goodwill acquired in a business combination shall, from the acquisition date, be allocated to each of the acquirer's cash-generating units, or groups of cash-generating units, that is expected to benefit from the synergies of combination. The Group considered the significant position of Opet in the domestic market and the synergy expected from its cooperation with Tüpraş as the main reason leading to generation of goodwill related to the Opet acquisition dated 28 December 2006. Therefore, the Group management evaluated Opet, its subsidiaries and its joint ventures as one cash-generating unit.

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

2. Basis of presentation of consolidated financial statements (Continued)

2.4. Changes in accounting policies, accounting estimates and errors

Significant changes in accounting policies based on new application of TAS/IFRS are applied retrospectively or prospectively based on the transition clauses. If there are no transition clauses, the changes in accounting policies, optional changes in accounting policies and correction of significant accounting errors are applied retrospectively and prior period financial statements are restated.

2.5. Significant accounting evaluations, assumptions and estimates

The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities are outlined below:

a) Deferred tax asset:

Deferred tax assets are recognized to the extent that it is probable that future taxable profit will be available. If it is probable that future taxable profit will be available, deferred tax assets are accounted for over the deductible temporary differences and tax advantages resulted from investment incentives that enables the Company pay lower corporate tax.

The Company assess the recoverability of deferred tax assets based on business models that contain management estimations related to taxable profit for future periods. The models include key management estimations such as sales quantities, sales prices and foreign exchange rates. Based on the sensitivity analysis performed, it is concluded that 10% increase/decrease in related estimations does not have any effect on the assessment of recoverability of deferred tax assets (Note 26).

b) Cash flow hedge:

As explained in Note 29, the Company uses investment credit amounting to USD812,776 thousand as a hedging instrument against the USD spot exchange rate risk the Company is exposed to due to highly probable export sales income, and applies cash flow hedge accounting as a result of the effectiveness tests performed. The estimations in budgets for export income used for effectiveness test include estimations such as sales quantities and sales prices. Based on the sensitivity analysis performed for the estimations used in effectiveness tests, the Company concluded that 10% increase/decrease in estimations do not have any significant effect on the assessment of effectiveness tests.

c) Economic useful lives:

Tangible assets, investment property and intangible assets, except for goodwill, have been depreciated and amortized by using estimated useful lives. Estimated useful lives determined by management have been disclosed in Note 2.3.

d) Fair value of lands

The Group accounts its lands at fair value, the fair values of these assets are determined by the independent valuation firm authorized by the Capital Markets Board and are taken as the value carried in the statement of financial position. The assumptions such as valuation method, market conditions, unique properties of each plot and land, physical condition, geographical location and benchmark values are used in determining the fair values.

3. Business combinations

No business combinations occurred during the period 31 December 2019.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

4. Cash and cash equivalents

	31 December 2019	31 December 2018
Cash at banks		
Revenue share (blocked)	1,861,248	1,425,142
Time deposits	8,732,840	4,551,877
Demand deposits	7,955	1,203
Time deposit interest accruals	49,966	4,606
Total	10,652,009	5,982,828

Revenue Share (blocked)

As required by the Petroleum Market License Regulation, the revenue share collected from the customers by the Group is held at banks and considered as blocked deposit in the Company's books. The revenue share was invested as demand deposits with government debt securities interest rate and overnight interest rate as at 31 December 2019 and 2018 (Note 14).

Time deposits and other cash and cash equivalents

As at 31 December 2019 and 31 December 2018, the maturity and the currency information of the time deposits, is as follows:

31 December 2019

	Effective rate of interest (%)	Less than 1 month	1 - 3 months	Total
TL	11.28	7,482,221	50,000	7,532,221
USD	1.95	1,114,494	71,475	1,185,969
EUR	0.15	13,088	-	13,088
GBP	0.70	1,562	-	1,562
Time deposit		8,611,365	121,475	8,732,840

31 December 2018

	Effective rate of interest (%)	Less than 1 month	1 - 3 months	Total
TL	23.91	149,375	-	149,375
USD	4.68	2,635,014	107,196	2,742,210
EUR	2.71	1,653,547	6,631	1,660,178
GBP	1.40	114	-	114
Time deposit		4,438,050	113,827	4,551,877

Cash and cash equivalents included in the consolidated statements of cash flows for the periods ended 31 December 2019 and 31 December 2018 are as follows:

	31 December 2019	31 December 2018
Cash and cash equivalents	10,652,009	5,982,828
Less: Blocked deposits (Revenue share)	(1,861,248)	(1,425,142)
Less: Time deposit interest accruals	(49,966)	(4,606)
Cash and cash equivalents	8,740,795	4,553,080

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

5. Financial liabilities

	31 December 2019	31 December 2018
Short-term borrowings:		
Short-term bank borrowings	1,797,993	1,139,773
Interest accruals of bank borrowings	690	2,096
Total	1,798,683	1,141,869
Short-term portion of long-term borrowings:		
Short-term portion of long-term bank borrowings	3,108,084	2,780,773
Lease liabilities	25,699	-
Interest accruals of bank borrowings	191,241	156,611
Interest accruals of bonds issued	53,995	34,145
Total	3,379,019	2,971,529
Long-term borrowings:		
Long-term bank borrowings	8,909,295	10,148,979
Bonds issued	4,808,140	3,682,630
Lease liabilities	180,657	-
Interest accruals of bank borrowings	-	4,533
Total	13,898,092	13,836,142
Total borrowings	19,075,794	17,949,540

Tüpraş has issued a bond on 8 February 2019 with a nominal value of TRY400 million, with a maturity of 728 days, coupon payment every 3 months and repayment of principal and coupon at maturity, with 75 bps additional yields on 3MTRLIBOR reference rate.

Tüpraş has issued a bond on 25 January 2019 with a nominal value of TRY250 million, with a maturity of 728 days, coupon payment every 3 months and repayment of principal and coupon at maturity, with 75 bps additional yields on 3MTRLIBOR reference rate.

Tüpraş has issued a bond with a nominal value of USD700 million, with a maturity of 7 years, coupon payment every 6 months and repayment of principal and coupon at maturity, with an annual interest rate of 4.5%, on the London Stock Exchange on 12 October 2017.

As explained in material disclosure, Tüpraş signed a long term loan facility agreement with a group of lenders, consisting of HSBC (Coordinator), ING (Facility Agent), The Bank of Tokyo-Mitsubishi UFJ, Ltd., Citibank N.A, Intesa Sanpaolo and JPMorgan Chase Bank, N.A. London Branch, to meet the working capital requirements for forthcoming period and extent the weighted-average of debt maturities. The loans amounting to USD157.5 million and EUR261.5 million were utilized on 29 March 2016 and the loans have semi-annual interest payments, 5 years maturity with 3 years grace period.

In 2011, Tüpraş has signed three loan agreements in order to finance Residuum Upgrading Project ("RUP") and further to the agreements the loans amounting to USD1,998 million were utilized between 2011 and 2015 for credit insurance payments and capital expenditures. According to financing package loan was insured by SACE and CESCE have 12 years to maturity also there will be no principal and interest payment in first 4 years. The third loan has 7 years to maturity and there will be no principal payment in the first four years. The repayment of the loans has started in 2015 and as at 31 December 2019 the outstanding amount of the loans is USD765 million (31 December 2018 - USD954 million).

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

5. Financial liabilities (Continued)

The fair values of the total bonds issued by Tüpraş for domestic and foreign markets with a nominal value of USD 700 million and TRY 650 million are TRY 48 million below their fair values (Level 1) based on the quoted prices in active markets (2018: 311 million).

As of 31 December 2019, Tüpraş has fulfilled its financial commitments arising from borrowings.

Foreign currency balances and effective interest rates for the short and long-term financial liabilities as at 31 December 2019 and 31 December 2018 are as follows:

			31 December 2019
	Effective interest rate (%)	Original currency	Thousand TRY
Short-term borrowings:			
USD bank borrowing	2.23	267,300,000	1,587,815
TRY bank borrowings (*)	-	210,177,843	210,178
Interest accruals			690
Total short-term financial liabilities			1,798,683
Short-term portion of long-term borrowings:			
USD bank borrowings	3.91	322,136,658	1,913,556
EUR bank borrowings	2.02	113,393,640	754,135
TRY bank borrowings	14.95	440,393,063	440,393
GBP lease liabilities	4.16	279,174	2,171
EUR lease liabilities	2.95	833,008	5,541
TL lease liabilities	21.64	17,986,921	17,987
			3,133,783
Interest accruals			245,236
Total short-term portion of long-term borrowings			3,379,019
Long-term borrowings:			
USD bank borrowings	4.02	908,805,991	5,398,489
USD bonds issued	4.43	700,000,000	4,158,140
EUR bank borrowings	2.11	61,125,320	406,520
TL bank borrowings	16.72	3,104,285,714	3,104,286
TL bonds	15.47	650,000,000	650,000
GBP lease liabilities	4.16	904,130	7,031
EUR lease liabilities	3.20	7,416,683	49,325
TL lease liabilities	22.57	124,300,668	124,301
			13,898,092
Interest accruals			-
Total long-term borrowings			13,898,092

(*) Banks provide interest-free loans to the Group for the payment of SCT, Customs and Social Security debts amounting to TRY 210,178 thousand as of 31 December 2019 (31 December 2018 - TRY 245,028 thousand).

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

5. Financial liabilities (Continued)

			31 December 2018
	Effective interest rate (%)	Original currency	Thousand TRY
Short term borrowings:			
USD bank borrowings	3.83	160,000,000	841,745
TRY bank borrowings	24.25	298,027,981	298,028
Interest accruals			2,096
Total short-term borrowings			1,141,869
Short-term portion of long-term borrowings:			
USD bank borrowings	4.34	303,932,787	1,598,959
EUR bank borrowings	2.07	117,138,055	706,108
TL bank borrowings	18.80	475,705,563	475,706
			2,780,773
Interest accruals			190,756
Short-term portion of total long-term borrowings			2,971,529
Long-term borrowings:			
USD bank borrowings	4.36	1,194,244,687	6,282,802
USD bonds issued	4.55	700,000,000	3,682,630
EUR bank borrowings	2.05	174,435,583	1,051,498
TRY bank borrowings	24.11	2,814,678,778	2,814,679
			13,831,609
Interest accruals			4,533
Total long-term borrowings			13,836,142

As at 31 December 2019 and 31 December 2018, the redemption schedule of long-term bank borrowings is as follows:

	31 December 2019	31 December 2018
1-2 years	5,960,596	4,188,207
2-3 years	1,588,261	2,860,518
3-4 years	1,555,875	1,349,307
4-5 years	4,576,765	1,347,878
Over 5 years	216,595	4,090,232
Total	13,898,092	13,836,142

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

5. Financial liabilities (Continued)

The movement of borrowings as of 31 December 2019 and 31 December 2018 is as follows:

	2019	2018
1 January	17,949,540	15,050,984
New financial borrowings	49,759,252	38,952,115
Principal payments	(50,788,791)	(41,005,302)
Increase due to lease liabilities	235,666	-
Decrease due to payment of lease liabilities	(34,535)	-
Changes in interest accruals	48,541	61,020
Changes in foreign exchange rates	1,906,121	4,890,723
31 December	19,075,794	17,949,540

The interest sensitivity breakdown regarding the remaining time of borrowing to repricing is as follows:

	31 December 2019	31 December 2018
1-90 days	5,805,491	5,576,072
91-365 days	4,475,789	4,910,633
1-5 years	8,649,443	3,772,017
Over 5 years	145,071	3,690,818
Total	19,075,794	17,949,540

6. Trade receivables and payables

Short-term trade receivables:

	31 December 2019	31 December 2018
Trade receivables	3,806,348	4,327,765
Due from related parties (Note 28)	995,837	1,132,117
Doubtful trade receivables	5,243	4,740
Other trade receivables	21	21
Less: Unearned credit finance income	(14,300)	(31,165)
Less: Provision for doubtful receivables	(5,243)	(4,740)
Total short-term trade receivables (net)	4,787,906	5,428,738

Tüpraş discounts the domestic receivables by using domestic government bonds and foreign receivables by using monthly libor rates.

As at 31 December 2019, Tüpraş has offsetted TRY2,059,000 thousand (31 December 2018 - TRY2,332,000 thousand) from trade receivables that are collected from factoring companies as part of the irrevocable factoring.

Movement of the provision for doubtful receivables for the years ended 31 December 2019 and 2018 is as follows:

	2019	2018
1 January	4,740	3,184
Charge for the period	803	2,018
Payments during the period	(300)	(462)
31 December	5,243	4,740

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

6. Trade receivables and payables (Continued)

Short-term trade payables:

	31 December 2019	31 December 2018
Trade payables	17,624,694	7,425,166
Due to related parties (Note 31)	226,072	77,096
Less: Unrealised credit finance charges Trade payables	(34,592)	(6,121)
Total short term trade payables (net)	17,816,174	7,496,141

Tüpraş discounts short-term trade payables by using monthly libor rates.

7. Other receivables and payables

Other short-term receivables:

	31 December 2019	31 December 2018
Receivable from insurance recoveries	28,084	8,151
Receivable from personnel	12,403	12,809
Advances and guarantees given	5,130	8,088
Other doubtful receivables	1,526	324
Less: Provision for other doubtful receivables	(1,526)	(324)
Total	45,617	29,048

8. Inventories

	31 December 2019	31 December 2018
Raw materials and supplies	1,348,822	1,117,820
Work-in-progress	1,612,901	1,799,367
Finished goods	2,169,793	2,122,910
Trade goods	53,644	76,043
Goods in transit	4,201,510	1,705,496
Other	81,911	30,964
	9,468,581	6,852,600
Provision for doubtful receivables	-	(87,855)
Total	9,468,581	6,764,745

Movement of the provision for inventories for the years ended 31 December 2019 and 2018 is as follows:

	2019	2018
1 January	87,855	1,246
Charge for the period	-	87,855
Provisions no longer required	(87,855)	(1,246)
31 December	-	87,855

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(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

9. Investments accounted for using the equity method

	31 December 2019		31 December 2018	
	Participation share (%)	Amount	Participation share (%)	Amount
OPET Petrolcülük A.Ş.	40.00	1,362,777	40.00	1,266,334
		1,362,777		1,266,334

The goodwill amounting to TRY189,073 thousand arising from the purchase of Opet shares on 28 December 2006 were classified on the investments accounted for using the equity method in the financial statements.

The movement in the investments accounted for using the equity method during the period ended 31 December 2019 and 2018 is as follows:

	2019	2018
1 January	1,266,334	1,134,364
Investments accounted for using the equity method;		
Shares in current year profit	197,393	265,880
Dividend payment	(96,000)	(224,000)
Gain on revaluation of property	20,831	-
Actuarial gain/(loss) arising from defined benefit plans	(1,043)	(393)
Gain/(loss) on revaluation and remeasurement	(34,666)	72,644
Currency translation differences	9,928	17,839
31 December	1,362,777	1,266,334

Consolidated summary financial statements of investments accounted for using the equity method (before Group's effective interest) are as follows:

	31 December 2019	31 December 2018
Current assets	5,416,089	4,948,159
Non-current assets	3,319,884	2,963,133
Total assets	8,735,973	7,911,292
Short term liabilities	3,498,612	3,282,386
Long term liabilities	2,303,102	1,935,753
Equity	2,934,259	2,693,153
Total liabilities	8,735,973	7,911,292
	1 January - 31 December 2019	1 January - 31 December 2018
Sales (net)	46,380,766	42,997,122
Gross profit	1,852,142	1,878,634
Operating profit	877,570	982,049
Net income for the period	493,482	664,700

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9. Investments accounted for using the equity method (Continued)

Goodwill impairment test

The Group considers the significant position of Opet in the domestic market and the synergy expected from its cooperation with Tüpraş and Opet as the main source of generation of goodwill. Therefore, the Group management evaluated Opet, its subsidiaries and its joint ventures as a single cash generating unit and goodwill is allocated on Opet.

The cash-generating unit's fair value calculations include post-tax cash flow projections, which are based on US dollars and are based on ten-year plans approved by Opet management. The Group considers analysis covering a period longer than five years is more appropriate as to evaluation of operating results and prospective assumptions in the sector and therefore impairment test is based on ten years budget. As of 31 December 2019, fair value of Opet is above 61% of the value carried in including goodwill.

Other key assumptions used in the fair value calculation model are stated below:

Gross margin	3.3% - 4.5%
Discount rate	16.4%

The budgeted gross margin has been determined by Opet management based on past performance of the company and expected market growth rate. The discount rate used is the post-tax discount rate and includes company specific risks. An increase/decrease of 1% on the post-tax discount rate used in the discounted cash flow calculations, Opet's carrying value of goodwill would be 13% lower and 16% higher, respectively as at 31 December 2019.

As a result of the tests performed by using the assumptions above, no impairment on goodwill has been identified as at 31 December 2019. Since the asset's fair value less cost to sell is higher than its carrying amount, the Group management did not calculate the asset's value-in-use.

Competition Authority investigation:

With the decision of the Competition Authority dated 27.08.2018, in order to determine whether there is a violation of Article 4 of the Act On The Protection of Competition No. 4054, it has been decided that an investigation is opened to Opet, the investigation process is continuing.

10. Investment property

As of 31 March 2019, investment property is reclassified to lands due to not carrying rental income purpose and revaluated together with lands (31 December 2018 - TRY4,621 thousand). As of 31 December 2018, the fair value of the investment property has been determined as TRY156,767 thousand as a result of fair value assessments.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

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11. Property, plant and equipment

The movements of property, plant and equipment and related accumulated amortisation for the period ended 31 December 2019 and 2018 is as follows:

	1 January 2019	Gain on revaluation of property	Currency translation differences	Additions	Transfers	Disposals	31 December 2019
Cost:							
Lands	62,161	7,139,764	-	-	4,628	-	7,206,553
Land improvements	3,721,772	-	-	-	71,891	(176)	3,793,487
Buildings	789,073	-	-	-	50,851	(16)	839,908
Machinery and equipment	12,657,231	-	-	1,134	278,927	(604)	12,936,688
Motor vehicles	1,249,363	-	-	762,086	12,978	(60)	2,024,367
Furniture and fixtures	128,559	-	-	4,939	4,373	(2,654)	135,217
Construction in progress	339,919	-	-	730,454	(419,027)	-	651,346
Special costs	1,070	-	-	3,061	-	-	4,131
Other tangible assets	4,057	-	-	23	-	(1,286)	2,794
	18,953,205	7,139,764	-	1,501,697	4,621	(4,796)	27,594,491
Accumulated depreciation:							
Land improvements	(1,456,256)	-	-	(153,706)	(2,231)	176	(1,612,017)
Buildings	(210,688)	-	-	(17,258)	(8)	14	(227,940)
Machinery and equipment	(4,611,075)	-	-	(401,204)	(13,462)	587	(5,025,154)
Motor vehicles	(252,335)	-	(39)	(60,834)	-	60	(313,148)
Furniture and fixtures	(81,852)	-	-	(15,001)	15,701	2,451	(78,701)
Special costs	(44)	-	-	(774)	-	-	(818)
Other tangible assets	(1,788)	-	-	(371)	-	161	(1,998)
	(6,614,038)	-	(39)	(649,148)	-	3,449	(7,259,776)
Net book value	12,339,167						20,334,715

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

11. Property, plant and equipment (Continued)

	1 January 2018	Additions	Transfers	Disposals	31 December 2018
Cost:					
Land	48,814	-	16,138	(2,791)	62,161
Land improvements	3,645,079	40	76,667	(14)	3,721,772
Buildings	771,147	-	17,926	-	789,073
Machinery and equipment	12,001,323	90	669,851	(14,033)	12,657,231
Motor vehicles	1,221,669	12,055	16,110	(471)	1,249,363
Furniture and fixtures	134,130	1,752	(5,724)	(1,599)	128,559
Construction in progress	500,802	646,079	(806,962)	-	339,919
Special costs	-	-	1,070	-	1,070
Other tangible assets	2,614	1,443	-	-	4,057
	18,325,578	661,459	(14,924)	(18,908)	18,953,205
Accumulated depreciation:					
Land improvements	(1,304,166)	(152,103)	-	13	(1,456,256)
Buildings	(193,944)	(16,744)	-	-	(210,688)
Machinery and equipment	(4,235,088)	(382,664)	-	6,677	(4,611,075)
Motor vehicles	(206,631)	(45,970)	-	266	(252,335)
Furniture and fixtures	(80,869)	(2,476)	-	1,493	(81,852)
Special costs	-	(44)	-	-	(44)
Other tangible assets	(1,443)	(345)	-	-	(1,788)
	(6,022,141)	(600,346)	-	8,449	(6,614,038)
Net book value	12,303,437				12,339,167

Total depreciation expense amounting to TRY649,148 thousand (31 December 2018: TRY600,346 thousand) in the consolidated statement of comprehensive income for the period ended 31 December 2019 has been allocated to cost of goods sold amounting to TRY621,457 thousand (31 December 2018: TRY568,863 thousand), to marketing, sales and distribution expenses amounting to TRY7 thousand (31 December 2018: TRY4 thousand), to general administration expenses amounting to TRY27,684 thousand (31 December 2018: TRY31,479 thousand).

The depreciation expense related to right-of-use assets in the consolidated statement of comprehensive income for the period ended as of 31 December 2019 is TRY34,965 thousand and has been classified to general administration expenses (31 December 2018 - None).

As of 31 December 2019, there are no mortgage on property, plant and equipment (31 December 2018 : None). The Company has decided to account its lands from fair values as of 31 March 2019. Related details have been disclosed in Note 2.2.

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(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

12. Intangible assets

Other intangible assets:

The movements of intangible assets and related accumulated amortisation for the period ended 31 December 2019 and 2018 are as follows:

	1 January 2019	Additions	Transfers	Disposals	31 December 2019
Cost:					
Rights and software	91,242	8,471	-	-	99,713
Development expenses	85,407	7,091	-	-	92,498
	176,649	15,562	-	-	192,211
Accumulated amortisation:					
Rights and software	(54,295)	(13,215)	-	-	(67,510)
Development expenses	(64,169)	(8,788)	-	-	(72,957)
	(118,464)	(22,003)	-	-	(140,467)
Net book value	58,185				51,744
	1 January 2018	Additions	Transfers	Disposals	31 December 2018
Cost:					
Rights and software	81,464	222	9,556	-	91,242
Development expenses	80,039	-	5,368	-	85,407
	161,503	222	14,924	-	176,649
Accumulated amortisation:					
Rights and software	(43,060)	(11,235)	-	-	(54,295)
Development expenses	(53,256)	(10,913)	-	-	(64,169)
	(96,316)	(22,148)	-	-	(118,464)
Net book value	65,187				58,185

Total amortisation expenses amounting to TRY22,003 thousand (31 December 2018: TRY22,148 thousand) in the consolidated statement of comprehensive income for the period ended 31 December 2019 have been allocated to the general administration expenses.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

13. Prepaid expenses

Short term prepaid expenses:

	31 December 2019	31 December 2018
Insurance and other expenses	117,991	81,320
Advances given	118,771	27,369
Total	236,762	108,689

Long term prepaid expenses:

	31 December 2019	31 December 2018
Advances given to third parties for property, plant and equipment	142,369	124,885
Advances given to related parties for property, plant and equipment (Note 28)	54,725	252,101
Prepaid other expenses	1,785	1,014
Total	198,879	378,000

14. Other assets and liabilities

Other current assets:

	31 December 2019	31 December 2018
Deferred Value Added Tax ("VAT")	1,265,764	843,703
VAT Receivable	729,357	622,111
Taxes and funds to be offsetted	101,440	57,120
Spare parts and material stocks	93,795	67,081
Income accruals from commodity hedge	90,007	761,184
Deferred Special Consumption Tax ("SCT")	75,472	67,912
Deferred VAT	40,692	2,579
Income accruals	19,747	16,141
Other current assets	7,814	34,794
Total	2,424,088	2,472,625

As of 31 December 2019, income accruals consist of commodity derivatives transactions for inventory of Tüpraş which are exposed to commodity price risk. The income accruals recognition made as of 31 December 2019 is recognized under cost of goods sold and collected as of 8 January 2020.

As of 31 December 2018, income accruals consist of commodity derivatives transactions for inventory of Tüpraş which are exposed to commodity price risk (swap transactions and zero-cost transactions). The income accruals recognition made as of 31 December 2018 is recognized under cost of goods sold and collected as of 8 January 2019.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

14. Other assets and liabilities (Continued)

Other non-current assets:

	31 December 2019	31 December 2018
Spare parts and material stocks	1,569,443	1,284,892
Other	8,100	7,925
Total	1,577,543	1,292,817

Other long-term liabilities:

	31 December 2019	31 December 2018
Revenue share	1,866,833	1,430,111
Deferred VAT	1,265,764	843,703
SCT payable	1,175,211	1,254,611
Expense accruals from commodity hedge	200,167	-
Deferred SCT	75,472	67,912
Other taxes and liabilities	74,146	66,127
VAT payable	12,669	11,873
Other	33,693	78,840
Total	4,703,955	3,753,177

As of 31 December 2019, expense accruals consist of swap and zero cost corridor transactions for inventory of Tüpraş which are exposed to commodity price risk. The expense accruals recognition made as of 31 December 2019 is recognized under cost of goods sold and paid as of 8 January 2020.

Deferred VAT and SCT include VAT and SCT amounts related to export committed sales and are classified within "Other current assets" under assets and within "Other current liabilities" under liabilities. Such SCT and VAT amounts are offset when the export transaction is certified and the related taxes are cancelled by the tax office.

According to the Petroleum Market Law, financing needs of refinery owners to maintain the National Petroleum Stock are supplied by the revenue share, which is a surplus added to the sales price, limited to a ceiling of USD 10/ton as determined by Energy Market Regulatory Authority ("EMRA"). In the case of importation of petroleum products, the revenue share is to be paid to the refinery owner by the importer.

The Group has been collecting the revenue share over the sales of petroleum products and non-refinery imports of petroleum products since 1 January 2005, the date the relevant article of the regulation came into force.

The Group has been collecting revenue share for LPG sales since 16 September 2005 in addition to the revenue share collected for petroleum products, in accordance with the Liquefied Petroleum Gas ("LPG") Market Regulation.

It has been decided by the National Petroleum Reserves Commission that the investment management of the revenue share collected will be conducted by the General Directorate of Tüpraş, and the collected amount will be invested in overnight reverse repurchase agreements.

As a result of these regulations, the revenue share amounting to TRY1,866,833 thousand accumulated as at 31 December 2019 (31 December 2018: TRY1,430,111 thousand) which is not recognized in the comprehensive income statement, has been classified as "Revenue Share" within "Other short-term liabilities". TRY1,861,248 thousand is (31 December 2018: TRY1,425,142 thousand) blocked in banks as demand deposits with government debt securities interest rate and overnight interest rate related to the calculated revenue share has been classified as Revenue share "Blocked" within "Cash and cash equivalents"(Note 4).

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(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

15. Provisions

Provision for employee benefits:

Short-term provision for employee benefits:

	31 December 2019	31 December 2018
Seniority incentive bonus provision	8,377	3,521
Personnel bonus accruals	7,400	5,342
Total	15,777	8,863

Long-term employee benefits:

	31 December 2019	31 December 2018
Provision for employment termination benefits	232,075	186,525
Provision for unused vacation	71,754	59,787
Seniority incentive bonus provision	12,223	11,080
Total	316,052	257,392

Seniority incentive bonus provision:

The Group has an employee benefit plan called "Seniority Incentive Bonus", which is paid to the employees with a certain level of seniority.

Seniority incentive bonus is paid to personnel together with their monthly salary when certain seniority levels are reached. The bonus amounts to 45 days of salary for 5 years of seniority level, 55 days of salary for 10 years of seniority level, 70 days of salary for 15 years of seniority level, 80 days of salary for 20 years of seniority level, 90 days of salary for 25 years of seniority level and 100 days of salary for 30 years of seniority level, paid once for each seniority level.

The movements in the provision for seniority incentive bonus during the period are as follows:

	2019	2018
1 January	14,601	13,196
Charge for the period	10,998	11,535
Payments during the period	(4,999)	(10,130)
31 December	20,600	14,601

Provision for employment termination benefits:

Under the Labour Law, the Group is required to pay termination benefits to each employee who has completed one year of service and whose employment is terminated without due cause, is called up for military service, dies or who retires after completing 25 years of service (20 years for women) and achieves the retirement age (58 for women and 60 for men). Since the legislation was changed on 23 May 2002, there are certain transitional provisions relating to length of service prior to retirement.

The liability is not funded, as there is no funding requirement.

The provision has been calculated by estimating the present value of the future probable obligation of the Company arising from the retirement of the employees.

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(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

15. Provisions (Continued)

Provision for employment termination benefits: (Continued)

TAS 19 requires that actuarial valuation methods to be developed to estimate the Group's employment termination benefit provision. The following actuarial assumptions have been used in the calculation of the total provision:

	31 December 2019	31 December 2018
Discount rate (%)	4.67%	5.65%
Turnover rate to estimate probability of retirement (%)	99.36%	99.39%

The principal assumption is that maximum liability of employment termination benefits for each year of service will increase in line with inflation. Thus, the discount rate applied represents the expected real rate after adjusting for the anticipated effects of future inflation. Employment termination benefits of the joint ventures of the Group, which are registered in Turkey are calculated from the maximum amount of TRY6,730.15 which is effective as at 1 January 2020 (31 December 2018: TRY6,017.60).

The movement in the provision for employment termination benefits during the period is as follows:

	2019	2018
1 January	186,525	167,907
Interest expense	30,894	28,108
Actuarial (gain)/loss	15,270	(9,273)
Increase during the period	27,725	24,432
Payments during the period	(28,339)	(24,649)
31 December	232,075	186,525

	31 December 2019		31 December 2018	
	Net discount rate		Net discount rate	
Sensitivity analysis	100 Base Increase	100 Base Decrease	100 Base Increase	100 Base Decrease
Ratio	5.67%	3.67%	6.65%	4.65%
Provision for employee termination benefit adjustment	15,546	(18,957)	10,655	(12,829)

Provision for unused vacation:

The movement in the provision for unused vacation during the period is as follows:

	2019	2018
1 January	59,787	50,655
Increase during the period	18,462	15,247
Payments during the period	(6,495)	(6,115)
31 December	71,754	59,787

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(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

15. Provisions (Continued)

Provision for unused vacation: (Continued)

Other short term provisions:

	31 December 2019	31 December 2018
Provisions for pending claims and law suits	21,195	19,038
EMRA participation share ^(*)	37,054	33,473
Provision for demurrage	41,924	18,108
Other	1,202	863
Total	101,375	71,482

^(*) EMRA participation share is the participation fee that is paid by the refinery license owners in accordance with the Petroleum Market License Regulation, calculated by multiplying net sales with the participation share rate determined by EMRA.

Movement of the short-term provisions for the period ended 31 December 2019 and 2018 are as follow:

	Provision for pending claims and lawsuits	EMRA participation share	Provision for demurrage	Other	Total
1 January 2019	19,038	33,473	18,108	863	71,482
Changes for the period, net	2,489	37,054	23,816	339	63,698
Payments during the period, net	(332)	(33,473)	-	-	(33,805)
31 December 2019	21,195	37,054	41,924	1,202	101,375
1 January 2018	16,209	23,823	11,484	25,779	77,295
Changes for the period, net	3,544	47,588	12,419	(24,916)	38,635
Payments during the period, net	(715)	(37,938)	(5,795)	-	(44,448)
31 December 2018	19,038	33,473	18,108	863	71,482

16. Liabilities for employee benefits

	31 December 2019	31 December 2018
Due to the personnel	113,039	100,854
Social security withholdings payment	34,370	26,646
Total	147,409	127,500

17. Other payables

	31 December 2019	31 December 2018
Deposits and guarantees received	27,112	15,021
Other payables to related parties (Note 28)	28,297	24,279
Total	55,409	39,300

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18. Derivative instruments

	31 December 2019				31 December 2018			
	Fair values				Fair values			
	Purchase contract amount	Sales contract amount	Assets	Liabilities	Purchase contract amount	Sales contract amount	Assets	Liabilities
<i>Cash flow hedge</i>								
Interest rate swap	584,678	584,678	-	51,176	519,039	519,039	12,607	2,694
Cross currency swap	1,215,184	1,097,828	119,942	20,707	463,224	438,266	95,282	42,123
Commodity derivative	102,213	102,212	13,702	-	2,146,042	2,146,042	66,580	184,388
<i>Derivatives held for trading</i>								
Currency forwards	9,559,306	9,679,259	163,578	695	2,156,969	2,177,520	1,063	6,845
Commodity derivative	404,147	404,147	6,770	6,669	-	-	-	-
Short term derivative financial instruments			303,992	79,247			175,532	236,050
<i>Cash flow hedge</i>								
Interest rate swap	2,429,277	2,429,277	-	24,187	2,096,063	2,096,063	21,942	5,648
Cross currency swap	820,186	654,292	98,741	7,763	884,668	759,476	146,324	36,589
Long term derivative financial instruments			98,741	31,950			168,266	42,237
Total			402,733	111,197			343,798	278,287

As of 31 December 2019, forward foreign exchange transactions consist of forward, cross currency swap and futures and options market transactions which generate a sales obligation of TRY9,679,259 thousand in exchange of USD1,609,257 thousand and will expire in 2020 (as of 31 December 2018, forward foreign exchange transactions consist of forward transactions which generate a sales obligation of TRY2,177,520 thousand in exchange of USD410,000 thousand and will expire in January 2019).

As of 31 December 2019, interest rate swap consists of exchange of floating rate instalment payments of long term borrowings USD378,126 thousand (31 December 2018: USD466,637), EUR17,714 thousand (31 December 2018: EUR26,571) and TRY650,000 thousand bonds with fixed instalment payments.

As of 31 December 2019, cross currency swap transactions consist of swaps with fixed interest rate transaction of foreign currency indexed floating interest rate USD141,616 thousand and fixed interest rate long-term borrowings amounting to TRY624,434 thousand and indexed to Turkish Lira, swap of foreign currency indexed floating interest long-term borrowing of EUR156,900 thousand (31 December 2018: None) and fixed interest rate long-term borrowings amounting to TRY979,448 thousand and indexed to Turkish Lira, foreign currency indexed interest rate swap transactions EUR8,857 thousand (31 December 2018: TRY13,286) with Turkish Lira indexed long term borrowings and fixed interest payments amounting to TRY32,859 thousand (31 December 2018: TRY49,288 thousand) and fixed interest payments with total of USD9,337 thousand (31 December 2018: USD14,005 thousand) with Turkish Lira indexed fixed interest payments and swap transaction of EUR8,857 thousand (31 December 2018: EUR13,286) foreign currency indexed fixed interest rate of long-term borrowing and USD10,086 thousand (31 December 2018: USD15,130) and USD indexed fixed interest payments.

Commodity future purchase and sales transactions consist of transactions of product crack margin fixing as of 31 December 2019. Future sales product crack margin fixing transactions have been made for gasoline stocks of 374 thousand barrels, jet stocks of 265 thousand barrels, diesel stocks of 749 thousand barrels, fuel oil stocks of 172 barrels for first quarter of 2020. The weighted average of the fixed margin of these transactions are USD6,33/barrel for gasoline, USD15,04/barrel for jet fuel, USD17,87/barrel for diesel and USD-14,76/barrel for fuel oil.

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18. Derivative instruments (Continued)

Commodity future purchase and sales transactions consist of transactions of product crack margin fixing as of 31 December 2018. Future sales product crack margin fixing transactions have been made for jet stocks of 4,515 thousand barrels, diesel stocks of 5,580 thousand barrels, fuel oil stocks of 4,371 barrels for first quarter of 2019, gasoline stocks of 315 thousand barrels, jet fuel stocks of 4,188 thousand barrels, diesel stocks of 5,910 thousand barrels and fuel oil of 3,957 thousand barrels for second quarter of 2019, fuel oil stock of 1,650 thousand barrels for third quarter of 2019. The weighted average of the fixed margin of these transactions are USD9,54/barrel for gasoline, USD13,98/barrel for jet fuel, USD15,92/barrel for diesel and USD-10,05/barrel for fuel oil.

19. Commitments and contingent assets and liabilities

	31 December 2019		31 December 2018	
Guarantees received:	Original currency:	TRY amount:	Original currency:	TRY amount:
Letter of guarantees received		1,118,403		1,369,463
- Letter of guarantees in TRY	719,088	719,088	726,627	726,627
- Letter of guarantees in USD	32,249	191,566	99,623	524,106
- Letter of guarantees in EUR	30,088	200,104	18,830	113,509
- Letter of guarantees in other currencies	-	7,645	-	5,221
Guarantee notes received		679		1,137
- Guarantee notes in TRY	679	679	1,137	1,137
Guarantee letters received		347,675		313,045
- Guarantee letters received in TRY	50,000	50,000	50,000	50,000
- Guarantee letters received in USD	50,000	297,010	50,000	263,045
- Guarantee letters received in EUR	100	665	-	-
Guarantee letters of credit		500,212		784,400
- Letters of credit in USD	84,208	500,212	149,100	784,400
Direct debiting limits		506,841		405,337
- TRY direct debiting limits	506,841	506,841	405,337	405,337
Total guarantees received		2,473,810		2,873,382
Guarantees given:				
Letter of credits given		2,496,440		310,392
- Letter of credits in USD	416,672	2,475,117	40,260	211,804
- Letter of credits in EUR	2,749	18,283	1,309	7,888
- Letter of credits in other currencies	-	3,040	-	90,700
Letter of guarantees given		1,394,723		1,067,670
- Letter of guarantees in TRY	1,274,730	1,274,730	941,808	941,808
- Letter of guarantees in USD	20,200	119,993	20,200	106,271
- Letter of guarantees in EUR	-	-	3,250	19,591
Letters of guarantee given to customs offices		773,804		1,399,598
- Letter of guarantees in TRY	733,900	733,900	1,399,598	1,399,598
- Letter of guarantees in EUR	6,000	39,904	-	-
Letters of guarantee given to banks		980,238		970,480
- Letter of guarantees in USD	139,315	827,559	139,129	731,946
- Letter of guarantees in EUR	22,957	152,679	39,571	238,534
Total guarantees given		5,645,205		3,748,140

As at 31 December 2019 and 31 December 2018, letter of guarantees received are composed of guarantees from customers and suppliers. Guarantees given are mainly composed of guarantees given to government entities and customs offices. As at 31 December 2019, letters of guarantee given to banks are given for loans which were used by Companies within scope of consolidation amounting to TRY857,850 thousand (31 December 2018: TRY863,992 thousand) and for derivative financial instruments amounting to TRY122,388 thousand (31 December 2018: TRY106,488 thousand).

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19. Commitments and contingent assets and liabilities (Continued)

Collaterals, pledges, mortgages given by the Group as at 31 December 2019 and 31 December 2018 are as follows:

	31 December 2019	31 December 2018
A. CPMs given for companies in the name of its own legal personality	4,664,967	2,777,660
- TRY	2,008,630	2,341,406
- USD	2,595,110	318,075
- EUR	58,187	27,479
- Other	3,040	90,700
B. CPMs given on behalf of the fully consolidated companies	980,238	970,480
- USD	827,559	731,946
- EUR	152,679	238,534
C. CPMs given for continuation of its economic activities on behalf of third parties	-	-
D. Total amount of other CPMs	-	-
i) Total amount of CPMs given on behalf of the majority shareholder	-	-
ii) Total amount of CPMs given to on behalf of other Group companies which are not in scope of B and C.	-	-
iii) Total amount of CPMs given on behalf of third parties which are not in scope of C.	-	-
Total	5,645,205	3,748,140

A commission at an amount of TRY3,274 thousand is recognized as of 31 December 2019 related to letter of guarantees given in favor of partnerships included in full consolidation (31 December 2018 - TRY4,100 thousand).

20. Equity

The Company's shareholders and their shareholding percentages as at 31 December 2019 and 31 December 2018 are as follows:

	31 December 2019	Share (%)	31 December 2018	Share (%)
Enerji Yatırımları A.Ş.	127,714	51	127,714	51
Publicly Owned	122,705	49	122,705	49
Total	250,419	100	250,419	100
Adjustment to share capital	1,344,243		1,344,243	
Total paid-in capital	1,594,662		1,594,662	

Adjustment to share capital represents the difference between the inflation adjusted amounts of cash and cash equivalents of the paid-in capital and the amounts before the inflation adjustment.

Registered capital of the Company is TRY500,000 thousand and is divided into 50,000,000,000 shares with a registered nominal value of 1 Kuruş ("Kr") (31 December 2018: 1Kr) each. The authorised and paid-in share capital of the Company comprises 25,041,919,999 Group A shares with a registered nominal value of 1Kr and one Group C share with privileges belonging to the Privatisation Administration.

As per the articles of association of the Company, one member of the Board of Directors should be nominated by the Group C shareholders. Board of Directors' decisions on the supply needs of petroleum products of the Turkish Military Forces requires the consent of the member representing the Group C shareholders.

Retained earnings, as per the statutory financial statements other than legal reserves, are available for distribution, subject to the legal reserve requirement referred to below.

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20. Equity (Continued)

Restricted reserves

The legal reserves consist of first and second reserves, appropriated in accordance with the Turkish Commercial Code ("TCC"). The TCC stipulates that the first legal reserve is appropriated out of statutory profits at the rate of 5% per annum until the total reserve reaches 20% of the Company's paid-in share capital. The second legal reserve is appropriated at the rate of 10% per annum of all cash distributions in excess of 5% of the paid-in share capital. Under the TCC, the legal reserves can only be used to offset loss and are not available for any other usage unless the reserve exceeds 50% of paid-in share capital.

In accordance with Turkish Financial Reporting Standards the aforementioned amounts should be classified under "Restricted Reserves". At 31 December 2019, the restricted reserves of the Company amount to TRY503,343 thousand (31 December 2018 - TRY597,086 thousand).

Dividend distribution

Listed companies distribute dividend in accordance with the Communiqué No. II-19.1 issued by the CMB which is effective from 1 February 2014.

Companies distribute dividends in accordance with their dividend payment policies settled and dividend payment decision taken in general assembly and also in conformity with relevant legislations. The communiqué does not constitute a minimum dividend rate. Companies distribute dividend in accordance with the method defined in their dividend policy or articles of incorporation. In addition, dividend can be distributed by fixed or variable instalments and advance dividend can be paid in accordance with profit on interim financial statements of the Company.

In accordance with the Turkish Commercial Code (TCC), unless the required reserves and the dividend for shareholders as determined in the article of association or in the dividend distribution policy of the company are set aside, no decision may be made to set aside other reserves, to transfer profits to the subsequent year or to distribute dividends to the holders of usufruct right certificates, to the members of the board of directors or to the employees; and no dividend can be distributed to these persons unless the determined dividend for shareholders is paid in cash.

In the period ended as of 31 December 2019, the Company committed to make dividend payment in cash amounting to TRY3,793,851 thousand which is the total amount remained after first and second composition legal reserves deducted from 2018 distributable net profit of the period and a portion of second composition legal reserves. The Company paid a cash dividend at the rate of 1,515.0% which corresponds to TRY15,15 gross and TRY15,15 net cash dividend for the shares with a nominal value of TRY1.00 to institutional shareholders who are full taxpayers or limited liable taxpayers and obtain dividends through a business or permanent representative in Turkey. The Company paid also a cash dividend at the rate of 1,515.0%, which corresponds to TRY15,15 gross and TRY12,8775 net cash dividend for the shares with a nominal value of TRY1.00 to other shareholders.

In the period ended as of 31 December 2018, the Company committed to make dividend payment in cash amounting to TRY3,406,452 thousand which is the total amount remained after first and second composition legal reserves deducted from 2017 distributable net profit of the period and a portion of second composition legal reserves. The Company paid a cash dividend at the rate of 1,360.3% which corresponds to TRY13,603 gross and TRY13,603 net cash dividend for the shares with a nominal value of TRY1.00 to institutional shareholders who are full taxpayers or limited liable taxpayers and obtain dividends through a business or permanent representative in Turkey. The Company paid also a cash dividend at the rate of 1,360.3%, which corresponds to TRY13,603 gross and TRY11,563 net cash dividend for the shares with a nominal value of TRY1.00 to other shareholders.

21. Revenue and cost of sales

	1 January - 31 December 2019	1 January - 31 December 2018
Domestic revenue	70,538,290	77,547,173
Export revenue	20,144,188	12,490,970
Gross revenue	90,682,478	90,038,143
Less: Sales discounts	(922,258)	(1,258,595)
Less: Sales returns	(159,444)	(227,378)
Sales (net)	89,600,776	88,552,170
Cost of goods sold	(84,716,489)	(79,327,847)
Gross profit	4,884,287	9,224,323

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

21. Revenue and cost of sales (Continued)

Cost of sales:

	1 January - 31 December 2019	1 January - 31 December 2018
Raw material, manufactured and consumable material	79,406,426	75,263,115
Energy expenses	2,589,357	1,664,001
Personnel expenses	873,662	769,199
Depreciation and amortization (Note 11)	621,457	568,863
Other production expenses	1,225,587	1,062,669
Cost of sales	84,716,489	79,327,847

22. General administrative expenses, marketing expenses and research and development expenses

General administrative expenses:

	1 January - 31 December 2019	1 January - 31 December 2018
Personnel expenses	532,773	410,945
Insurance expenses	161,175	109,109
Taxes and duties	142,029	118,762
Outsourced services	115,725	90,389
Depreciation and amortization (Note 11-12)	84,652	53,627
Office expenses	79,185	34,255
Subscription fees	43,993	35,903
Lawsuit and consultancy expenses	39,431	20,786
Transportation and travel expenses	6,125	5,317
Rent expenses	4,174	21,680
Donations	3,490	45,597
Other	64,461	55,147
Total general administrative expenses	1,277,213	1,001,517

Marketing expenses:

	1 January - 31 December 2019	1 January - 31 December 2018
Transportation, storage and insurance expenses	189,129	67,633
Personnel expenses	150,965	117,350
Energy expenses	25,963	15,309
Outsourced services	10,929	8,429
Advertising expenses	23,977	6,358
Depreciation and amortization (Note 11)	7	4
Other	81,104	69,723
Total marketing expenses	482,074	284,806

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

22. General administrative expenses, marketing expenses and research and development expenses (Continued)

Research and development expenses:

	1 January - 31 December 2019	1 January - 31 December 2018
Personnel expenses	14,177	11,499
Licence expenses	3,893	2,451
Outsourced services	1,080	732
Lawsuit and consultancy expenses	598	549
Other	4,325	5,830
Total research and development expenses	24,073	21,061

23. Other operating income/(expenses)

	1 January - 31 December 2019	1 January - 31 December 2018
Other operating income:		
Credit finance gains	729,393	759,479
Foreign exchange gain from trade receivables	25,644	50,133
Rent income	4,816	4,127
Provisions no longer required	136	57,931
Other	78,584	58,949
Total other operating income	838,573	930,619

	1 January - 31 December 2019	1 January - 31 December 2018
Other operating expense:		
Foreign exchange loss from trade payables	(882,606)	(2,878,278)
Credit finance charges	(777,816)	(215,034)
Other	(48,941)	(17,946)
Total other operating expense	(1,709,363)	(3,111,258)

24. Income/(expense) from investment activities

	1 January - 31 December 2019	1 January - 31 December 2018
Gain/(loss) on sales of property plant and equipment and intangible assets	(152)	(9,378)
Total income/(expense) from investment activities	(152)	(9,378)

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

25. Financial income/(expenses)

	1 January - 31 December 2019	1 January - 31 December 2018
Financial income:		
Foreign exchange gains on deposits	883,852	2,918,108
Interest income on deposits	638,906	368,837
Total financial income	1,522,758	3,286,945
Financial expense:		
Interest expenses	(2,010,263)	(1,309,157)
Foreign exchange losses on borrowings	(1,916,881)	(3,777,952)
Losses on derivative instruments	(320,860)	(463,266)
Other	(13,480)	(4,992)
Total financial expense	(4,261,484)	(5,555,367)

As of 31 December 2019, TRY23,334 thousand interest expense from leasing transactions is included in interest expenses and TRY5,225 thousand expense from leasing transactions is included in the foreign exchange losses (31 December 2018: None).

26. Tax assets and liabilities

i) Corporate tax:

	31 December 2019	31 December 2018
Current period corporate tax provision	9,479	218,388
Current year tax assets	(7,074)	(119,639)
Corporation tax provision	2,405	98,749

Turkish tax legislation does not permit a parent company, its subsidiaries and its joint ventures to file a consolidated tax return. Therefore, provisions for taxes, as reflected in these consolidated financial statements, have been calculated on an individual-entity basis.

The corporation tax rate for the fiscal year 2019 is 22% (2018: 22%). Corporation tax is payable on the total income of the companies after adjusting for certain disallowable expenses, corporate income tax exemptions (participation exemption, investment allowance, etc.) and allowances (as research and development expenditures deduction).

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

26. Tax assets and liabilities (Continued)

i) Corporate tax (Continued):

Reconciliation of the income before tax with the calculated corporate tax is as follows:

	2019	2018
Profit before taxation	(311,348)	3,724,380
Expected tax expense ^(*)	68,497	(819,364)
Investment incentive income	728,958	729,249
Deductions and exemptions	101,055	128,152
Disallowable expenses and differences Not subject to taxation	(1,832)	(972)
Taxation on income	896,678	37,065

^(*) Expected tax expense is calculated with 22% tax rate for 2019 and 2018.

The analysis of cumulative temporary differences and the related deferred tax assets and liabilities in respect of items for which deferred income tax has been provided as at 31 December 2019 and 31 December 2018 using the enacted tax rates are as follows:

	Cumulative temporary differences		Deferred tax (liability)/asset	
	31 December 2019	31 December 2018	31 December 2019	31 December 2018
Gain on revaluation of property	7,139,764	-	(713,976)	-
Fair value difference of derivative instruments	365,686	68,004	(80,451)	(14,961)
Prepaid expenses	34,727	51,680	(7,640)	(11,370)
Deferred financial income, (net)	20,292	-	(4,464)	-
Deferred tax liability			(806,531)	(26,331)
Investment incentive income ^(*)	11,714,563	10,029,879	3,957,291	3,228,333
Difference between the carrying values and tax base of property, plant, equipment and intangible assets	1,313,409	1,210,352	288,950	266,277
Carry forward tax losses ^(**)	1,128,491	-	248,268	-
Employment termination benefits and seniority incentive bonus provision	243,951	190,477	53,669	41,905
Provision for unused vacation liability	61,369	51,646	13,501	11,362
Provisions for pending claims and lawsuits	21,195	18,547	4,663	4,080
Provision for inventory impairment	-	87,855	-	19,328
Deferred financial income, (net)	-	25,044	-	5,510
Other	34,968	71,219	7,692	15,668
Deferred tax assets			4,574,034	3,592,463
Deferred tax asset - net			3,767,503	3,566,132

^(*) In the first quarter of 2011, within the scope of the decree of the Council of Ministers dated 14 July 2009 and numbered 2009/15199, the Company was granted a Large-Scaled Investment Incentive Certificate for Residuum Upgrading Project (RUP). Investment expenditures made within the scope of this certificate are subject to 30% contribution from the government, where the contribution is provided as a reduction in corporate tax payable by 50%. As of 7 October 2013, Residuum Upgrading Project was granted Strategic Investment Incentive by Incentive Implementation and Foreign Investment Department of Ministry of Economy of Republic of Turkey which became applicable after 19 October 2012. Expenditures made within the scope of Strategic Investment Incentive Certificate are subject to 50% contribution from the government, where the contribution is provided as a reduction in corporate tax payable by 90%. The company has performed the revaluation of the unutilized investment incentives for both certificates by using the 22.58% revaluation rate, which was announced for the second provisional tax period of 2019 by the Ministry of Finance. In addition to the government contribution within the scope of Strategic Investment Incentive, the Company benefits from VAT exemption, VAT refund, customs duty exemption, incentive for employer share of insurance premium and interest incentive from this certificate.

^(**) Deferred tax assets amounting to TRY248,268 thousand which is to be used within 5 years consist of Group's financial losses amounting to TRY1,128,491 thousand in 2019.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

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26. Tax assets and liabilities (Continued)

i) Corporate tax (Continued):

The movement of deferred taxes is as follows:

	2019	2018
Deferred tax asset/(liability), net		
1 January	3,566,132	3,067,871
Charge for the period	906,149	255,453
Charge to equity:		
- Hedging cash flow gains/(losses)	5,993	244,771
- Actuarial gains/(losses) arising from defined benefit plans	3,205	(1,963)
- Revaluation of property gains/(losses)	(713,976)	-
31 December	3,767,503	3,566,132

27. Earnings per share

	1 January - 31 December 2019	1 January - 31 December 2018
Profit for the year attributable to shareholders of the Company	525,837	3,712,789
Weighted average number of shares with nominal value of Kr1 each	25,041,920,000	25,041,920,000
Basic and diluted earnings per share in Kr	2.10	14.83

28. Related party transactions

Related party transactions were classified according to the following groups and contain all descriptions in this footnote,

⁽¹⁾ Joint ventures⁽²⁾ Koç Holding group companies⁽³⁾ Parent, ultimate parent

a) Deposits:

	31 December 2019	31 December 2018
Yapı ve Kredi Bankası A.Ş. ⁽²⁾	2,031,019	2,428,620
Total	2,031,019	2,428,620

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(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

28. Related party transactions (Continued)

b) Due from related parties:

	31 December 2019	31 December 2018
Opet Petrolcülük A.Ş. ⁽¹⁾	835,956	642,361
Aygaz A.Ş. ⁽²⁾	85,399	64,500
THY OPET Havacılık Yakıtları A.Ş. ⁽¹⁾	67,283	420,121
Opet Fuchs Madeni Yağ San. ve Tic. A.Ş. ⁽¹⁾	6,104	5,055
Diğer ⁽²⁾	1,095	80
Total	995,837	1,132,117

As of 31 December 2019, Tüpraş has offset TRY373,000 thousand (31 December 2018: TRY650,000 thousand) from its trade receivables due from related parties that are collected from factoring companies as a part of irrevocable factoring agreements.

c) Trade payables:

	31 December 2019	31 December 2018
Aygaz Doğalgaz Toptan Satış A.Ş. ⁽²⁾	113,585	-
Zer Merkezi Hizmetler ve Ticaret A.Ş. ⁽²⁾	23,228	15,021
Opet Petrolcülük A.Ş. ⁽¹⁾	17,634	6,368
Ark İnşaat A.Ş. ⁽²⁾	15,140	5,126
Koç Sistem Bilgi ve İletişim A.Ş. ⁽²⁾	14,183	18,343
RAM Sigorta Aracılık Hizmetleri A.Ş. ⁽²⁾	9,635	9,348
Otokoç Otomotiv Tic. ve San. A.Ş. ⁽²⁾	9,337	5,144
THY OPET Havacılık Yakıtları A.Ş. ⁽¹⁾	5,429	4,022
Aygaz A.Ş. ⁽²⁾	4,995	6,885
Setur Servis Turistik A.Ş. ⁽²⁾	2,131	1,421
Diğer ⁽²⁾	10,775	5,418
Total	226,072	77,096

d) Other payables

	31 December 2019	31 December 2018
Koç Holding A.Ş. ⁽³⁾	28,297	24,279
Total	28,297	24,279

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

28. Related party transactions (Continued)

e) Advances given for property, plant and equipment:

	31 December 2019	31 December 2018
RMK Marine Gemi Yapım Sanayii ve Deniz Taşımacılığı İşl. A.Ş. ⁽²⁾	36,751	243,379
Ark İnşaat A.Ş. ⁽²⁾	17,909	8,722
Diğer ⁽²⁾	65	-
Total	54,725	252,101

f) Bank loans:

	31 December 2019	31 December 2018
Yapı ve Kredi Bankası A.Ş. ⁽²⁾	111,131	7,948
Total	111,131	7,948

g) Lease liabilities:

	31 December 2019	31 December 2018
Koç Ailesi ⁽¹⁾	55,806	-
Otokoç Otomotiv Tic. ve San. A.Ş. ⁽²⁾	22,658	-
Zer Merkezi Hizmetler ve Ticaret A.Ş. ⁽²⁾	299	-
Total	78,763	-

h) Product and service sales:

	1 January - 31 December 2019	1 January - 31 December 2018
Opet Petrolcülük A.Ş. ⁽¹⁾	14,400,870	14,593,024
THY OPET Havacılık Yakıtları A.Ş. ⁽¹⁾	4,948,781	10,550,334
Aygaz A.Ş. ⁽²⁾	686,695	710,537
Opet Fuchs Madeni Yağ San. ve Tic. A.Ş. ⁽¹⁾	38,967	39,965
Diğer ⁽²⁾	1,618	5,595
Total	20,076,931	25,899,455

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28. Related party transactions (Continued)

i) Product and service purchases:

	1 January - 31 December 2019	1 January - 31 December 2018
Aygaz Doğalgaz Toptan Satış A.Ş. ⁽²⁾	1,160,891	-
Aygaz A.Ş. ⁽²⁾	167,805	253,116
Ram Sigorta Aracılık Hizmetleri A.Ş. ^{(2) (**)}	167,652	120,398
Opet Petrolcülük A.Ş. ⁽¹⁾	148,375	89,159
Zer Merkezi Hizmetler ve Ticaret A.Ş. ⁽²⁾	103,662	85,722
Opet International Limited ⁽¹⁾	91,319	12,065
Koç Holding A.Ş. ^{(3) (*)}	55,133	41,493
Koç Sistem Bilgi ve İletişim A.Ş. ⁽²⁾	45,358	24,850
THY OPET Havacılık Yakıtları A.Ş. ⁽¹⁾	39,898	41,917
Otokoç Otomotiv Tic. ve San. A.Ş. ⁽²⁾	22,237	15,758
Diğer ⁽²⁾	97,135	66,192
Total	2,099,465	750,670

(*) Consists of the Group's share of invoices issued by Koç Holding, the ultimate parent of Tüpraş in accordance with the "11-Intra-group Services" of General Communique numbered 1 on Distribution of Hidden Income through Transfer Pricing which represents the services provided for financing, legal, tax and remuneration of senior management by the ultimate parent to its group companies.

(**) Includes paid and accrued insurance premiums in the periods ended 31 December 2019 and 2018 in connection with insurance policies signed with insurance companies through RAM Sigorta Aracılık Hizmetleri A.Ş. acting as an intermediary insurance agent.

j) Fixed asset purchases:

	1 January - 31 December 2019	1 January - 31 December 2018
RMK Marine Gemi Yapım Sanayii ve Deniz Taşımacılığı İşletmesi A.Ş. ⁽²⁾	132,775	-
Ark İnşaat A.Ş. ⁽²⁾	78,639	29,216
Entek Elektrik Üretimi A.Ş. ⁽²⁾	46,100	-
Algoritma Sağlık Hizmetleri A.Ş. ⁽²⁾	-	6,260
Koç Sistem Bilgi ve İletişim A.Ş. ⁽²⁾	-	16,699
Aygaz A.Ş. ⁽²⁾	-	17,800
Diğer ⁽²⁾	17,393	7,793
Total	274,907	77,768

k) Remuneration of board of directors and executive management:

The senior management of the Company is determined as members and chair of the Board of Directors and General Manager and General Manager Deputies. The total amount of benefits provided to senior management is TRY88,560 thousand as of period ending on 31 December 2019 (31 December 2018 - TRY86,411 thousand). TRY6,700 (31 December 2018 - TRY1,237) of this amount is related to payments due to termination of employment and the remaining portion consists of short-term benefits.

l) Financial expenses paid to related parties:

	1 January - 31 December 2019	1 January - 31 December 2018
Yapı ve Kredi Bankası A.Ş. ⁽²⁾	22,851	-
Yapı Kredi Faktoring A.Ş. ⁽²⁾	9,190	6,464
Yapı Kredi Bank Nederland N.V. ⁽²⁾	480	102
Total	32,521	6,566

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

28. Related party transactions (Continued)

m) Time deposit interest income:

	1 January - 31 December 2019	1 January - 31 December 2018
Yapı ve Kredi Bankası A.Ş. ⁽²⁾	99,462	198,197
Total	99,462	198,197

n) Donations:

As of 31 December 2019, total donation is amounting to TRY286 thousand (31 December 2018 - TRY36,410 thousand).

29. Financial instruments and financial risk management

The Group's activities expose it to a variety of financial risks, including the effects of changes in debt and equity market prices, foreign currency exchange rates and interest rates. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the financial performance of the Group.

Liquidity risk:

The ability to fund the existing and prospective debt requirements is managed by maintaining the availability of adequate fund providers from high quality lenders.

Prudent liquidity risk management comprises maintaining sufficient cash, the availability of funding through an adequate amount of committed credit facilities and the ability to close out open positions.

The table below demonstrates the Group's future cash outflows due to financial liabilities as at 31 December 2019 and 31 December 2018. The amounts demonstrated are undiscounted cash flows on agreements and the Group manages its liquidity risk by taking into account its expected undiscounted cash flows.

31 December 2019

Contractual maturities	Carrying value	Contractual cash outflows	Up to 3 months	3-12 months	1-5 years	More than 5 years
Total liabilities (non derivative)	36,947,377	40,964,423	18,192,261	579,809	17,064,913	5,127,440
Bank borrowings	14,007,303	17,100,274	285,660	361,259	16,226,349	227,006
Bonds & notes issued	4,862,135	5,467,954	-	187,116	748,465	4,532,373
Lease liabilities	206,356	490,020	426	31,434	90,099	368,061
Trade payables	17,816,174	17,850,766	17,850,766	-	-	-
Other liabilities	55,409	55,409	55,409	-	-	-
Contractual maturities	Carrying value	Contractual cash outflows	Up to 3 months	3-12 months	1-5 years	More than 5 years
Derivative instruments (net)	291,536	182,604	32,031	(63,732)	214,915	(610)
Derivative cash inflows	402,733	15,011,818	8,892,569	3,095,910	3,020,332	3,007
Derivative cash outflows	111,197	14,829,214	8,860,538	3,159,642	2,805,417	3,617

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29. Financial instruments and financial risk management (Continued)

Liquidity risk: (Continued)

31 December 2018

Contractual maturities	Carrying value	Contractual cash outflows	Up to 3 months	3-12 months	1-5 years	More than 5 years
Total liabilities (non derivative)	25,484,981	28,650,792	9,933,830	2,794,743	11,647,564	4,274,655
Bank borrowings	14,232,765	16,266,572	2,392,268	2,629,025	10,984,691	260,588
Bonds & notes issued	3,716,775	4,842,658	-	165,718	662,873	4,014,067
Trade payables	7,496,141	7,502,262	7,502,262	-	-	-
Other liabilities	39,300	39,300	39,300	-	-	-
Contractual maturities	Carrying value	Contractual cash outflows	Up to 3 months	3-12 months	1-5 years	More than 5 years
Derivative instruments (net)	65,511	(177,007)	(121,459)	(110,881)	55,527	(194)
Derivative cash inflows	343,798	1,791,311	221,052	436,689	1,123,097	10,473
Derivative cash outflows	278,287	1,968,318	342,511	547,570	1,067,570	10,667

Cash outflows will be financed through cash inflows generated from sales or through funding.

Credit risk:

The Group is subject to credit risk arising from trade receivables related to credit sales, deposits at banks. These risks are managed by limiting the aggregate risk from any individual counterparty and obtaining sufficient collateral where necessary and making only cash based sales to customers considered as having a higher risk. Collectability of trade receivables are evaluated by management depending on their past experiences and current economic condition, and are presented in the consolidated financial statements net of adequate doubtful provision.

Major portion of Tüpraş's customers are composed of financially strong companies or government entities. As at 31 December 2019 and 2018, trade receivables from the top 5 customers of the Group constitute 55% and 35% of total receivables, respectively. When these factors are considered together with the insignificant historical default experience for the Group's receivables, the Group management considers the credit risk as low. The Group uses the same risk management principles for the management of financial assets. Investments are made to highly liquid instruments and the banks that the Group deposits its cash and cash equivalents in are selected among the financially strong institutions. As the Group did not have any uncollected, past due, impaired or renegotiated bank deposits, the Group believes that it does not have any impairment risk related to bank deposits.

Türkiye Petrol Rafinerileri A.Ş.

Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

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29. Financial instruments and financial risk management (Continued)

Credit risk (Continued):

Credit risks of the Group for each financial instrument type as at 31 December 2019 and 2018 are as follows:

	Receivables				Bank deposits	Derivative instruments Related parties	Other
	Trade Receivables Related parties	Other Receivables Other parties	Trade Receivables Related parties	Other Receivables Other parties			
31 December 2019							
Maximum exposed credit risk as of reporting date	995,837	3,792,069	-	45,617	10,652,009	402,733	-
- Secured portion of the maximum credit risk by guarantees, etc.	-	568,028	-	-	-	-	-
A. Net book value of financial asset either are not due or not impaired	995,837	3,674,402	-	45,617	10,652,009	402,733	-
B. Net book value of overdue but not impaired financial assets	-	117,667	-	-	-	-	-
C. Net book value of the impaired assets	-	-	-	-	-	-	-
- Overdue(gross book value)	-	5,243	-	1,526	-	-	-
- Impairment (-)	-	(5,243)	-	(1,526)	-	-	-
- Secured portion of the net value by guarantees, etc.	-	-	-	-	-	-	-
- Not due yet (gross book value)	-	-	-	-	-	-	-
- Impairment (-)	-	-	-	-	-	-	-
- Secured portion of the net value by guarantees, etc.	-	-	-	-	-	-	-
D. Components which are including credit risk except financial statement	-	-	-	-	-	-	-
	Receivables				Bank deposits	Derivative instruments Related parties	Other
	Trade Receivables Related parties	Other Receivables Other parties	Trade Receivables Related parties	Other Receivables Other parties			
31 December 2018							
Maximum exposed credit risk as of reporting date	1,132,117	4,296,621	-	29,048	5,982,828	343,798	-
- Secured portion of the maximum credit risk by guarantees, etc.	-	593,892	-	-	-	-	-
A. Net book value of financial asset either are not due or not impaired	1,132,117	4,225,420	-	29,048	5,982,828	343,798	-
B. Net book value of overdue but not impaired financial assets	-	71,201	-	-	-	-	-
C. Net book value of the impaired assets	-	-	-	-	-	-	-
- Overdue(gross book value)	-	4,740	-	324	-	-	-
- Impairment (-)	-	(4,740)	-	(324)	-	-	-
- Secured portion of the net value by guarantees, etc.	-	-	-	-	-	-	-
- Not due yet (gross book value)	-	-	-	-	-	-	-
- Impairment (-)	-	-	-	-	-	-	-
- Secured portion of the net value by guarantees, etc.	-	-	-	-	-	-	-
D. Components which are including credit risk except financial statement	-	-	-	-	-	-	-

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

29. Financial instruments and financial risk management (Continued)

Credit risk (Continued):

31 December 2019	Receivables		Bank deposits	Derivative instruments	Other
	Trade receivables	Other receivables			
Overdue (1-30 days)	59,438	-	-	-	-
Overdue (1-3 months)	31,732	-	-	-	-
Overdue (3-12 months)	23,991	-	-	-	-
Overdue (1-5 years)	2,506	-	-	-	-
Overdue (5+ years)	-	-	-	-	-

31 December 2018	Receivables		Bank deposits	Derivative instruments	Other
	Trade receivables	Other receivables			
Overdue (1-30 days)	44,990	-	-	-	-
Overdue (1-3 months)	16,751	-	-	-	-
Overdue (3-12 months)	9,459	-	-	-	-
Overdue (1-5 years)	1	-	-	-	-
Overdue (5+ years)	-	-	-	-	-

During the impairment test of financial assets, the Group has considered the indicators regarding uncollectibility of receivables that are due. The Group has guarantees received amounting to TRY114,531 thousand (31 December 2018: TRY70,540 thousand) for trade receivables overdue but not impaired. Major part of receivables without guarantees are from government entities which regularly made sales, any collection risk is not projected.

The credit quality of trade receivables that are neither past due nor impaired

The Group categorizes the details of credit quality of trade receivables that are neither past due nor impaired or receivables whose conditions are examined under four groups. The details of credit quality of such trade receivables as at 31 December 2019 and 31 December 2018 are as follows:

	31 December 2019	31 December 2018
Group 1	241	4,842
Group 2	1,987,149	2,102,638
Group 3	2,453,724	3,137,892
Group 4	229,125	112,165
Total	4,670,239	5,357,537

Group 1 - New customers (less than three months)

Group 2 - State owned enterprises

Group 3 - Existing customers with no payment defaults in previous periods (have been customers by more than three months)

Group 4 - Customers with previous record of collection delays but from which all receivables due are collected (Excluding Group 1 and 2)

Market risk:

Tüpraş identifies commodity price, interest rate and currency risk as major components of market risk. Foreign exchange and interest risk are evaluated separately based on portfolio and product.

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Notes to the Consolidated Financial Statements For the Year Ended 31 December 2019

(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

29. Financial instruments and financial risk management (Continued)

Commodity price risk

The Company is exposed to effects of fluctuation in oil prices related to its crude oil inventory held for production. For the elimination of commodity price risk, the management regularly reviews the amount of stocks.

Sales prices' of Tüpraş's products, are determined based on Mediterranean product prices, which is described as the "closest accessible free market formation in the world" by the Turkish Petroleum Market Law N. 5015, and USD selling rates. Within the framework of legal definitions, changes of prices in Mediterranean petroleum products market and changes in USD exchange rate are assessed daily by the management and the new selling price based on these two factors is updated when it differs significantly upwards or downwards from the current sales price.

Since instability in crude oil prices may cause unwanted and unexpected fluctuations in net profit and cash flows, the Company has constituted hedging policy in order to eliminate this risk. Within this framework, short and long term hedging transactions are made by using various derivative instruments (Note 18).

Product crack risk

Besides the fluctuations in crude oil prices, in order to eliminate fluctuation risk in product prices profit margins of the products (crack) can be fixed by using various derivative instruments (hedging). Therefore, a hedging policy has been created by comparing historical price levels and by hedging a certain percentage of the total sales volume at certain crack levels (Note 18).

Interest rate risk

The Group is exposed to foreign exchange risk due to operations in foreign currency. These risks are managed by analysis of the foreign currency monetary assets and liabilities in the consolidated financial statements, by a comprehensive risk tracking system which includes natural hedging and similar practices.

The table below summarizes the net balance sheet foreign currency position risk and components that are managed within the risk tracking system of the Group as at 31 December 2019 and 31 December 2018:

	31 December 2019	31 December 2018
Financial instruments with fixed interest rate		
Financial assets		
Time deposits	10,644,054	5,981,625
Financial liabilities	11,162,541	9,639,986
Financial instruments with floating interest rate		
Financial liabilities ^(*)	7,913,253	8,309,554

^(*) As of 31 December 2019, there is interest rate swap and cross currency interest rate swap transactions for loans with floating interest rate amounting to USD519,742 thousand (31 December 2018: USD638,032 thousand) and EUR174,614 thousand (31 December 2018: EUR26,571) (Note 18).

As at 31 December 2019, had the interest rate for borrowings denominated in USD strengthened by 100 base points (1%), with all other variables held constant, profit before tax would be TRY8,731 thousand lower/higher (31 December 2018: TRY8,558 thousand). As at 31 December 2019, had the interest rate for borrowings denominated in EURO strengthened/weakened by 100 base points (1%), with all other variables held constant, profit before tax would be TRY5 thousand lower/higher (31 December 2018: TRY4,554 thousand). As of 31 December 2019 and 2018, there is no interest rate risk for TL bank loans.

Expected repricing and maturity dates do not differ from the contract dates excluding borrowings; therefore no additional table is presented.

The maturity groupings of borrowings at 31 December 2019 and 2018 based on their contractual repricing dates are disclosed in Note 5.

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(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

29. Financial instruments and financial risk management (Continued)

Foreign exchange risk

The Group is exposed to foreign exchange risk due to operations in foreign currency. These risks are managed by analysis of the foreign currency monetary assets and liabilities in the consolidated financial statements, by a comprehensive risk tracking system which includes natural hedging and similar practices.

The table below summarizes the net balance sheet foreign currency position risk and components that are managed within the risk tracking system of the Group as at 31 December 2019 and 31 December 2018:

	31 December 2019		31 December 2018	
	TRY	USD ^(*)	TRY	USD ^(*)
Monetary assets	1,540,805	259,386	5,288,783	1,005,300
Monetary liabilities	(27,315,520)	(4,598,418)	(20,841,883)	(3,961,657)
Monetary assets/(liabilities) foreign currency position	(25,774,715)	(4,339,032)	(15,553,100)	(2,956,357)
Non-monetary assets	188,515	31,735	807,947	153,576
Net foreign currency position of derivative financial instruments	11,446,439	1,926,945	3,302,295	627,705
Net foreign currency asset/(liability) position	(14,139,761)	(2,380,351)	(11,442,858)	(2,175,076)
Cash flow hedging ^(**)	4,828,054	812,776	5,166,635	982,082
Net foreign currency position after cash flow hedging	(9,311,707)	(1,567,575)	(6,276,223)	(1,192,994)
Inventory in natural hedge scope ^(***)	9,129,592	1,536,917	6,333,567	1,203,894
Net foreign currency position after cash flow hedging and natural hedge	(182,115)	(30,658)	57,344	10,900

^(*) Dollar equivalent amounts are determined through dividing total TRY equivalent positions to exchange rate of dollar as at balance sheet date.

^(**) The Group uses investment loans amounting to USD812,776 thousand, which is equivalent to TRY4,828,054 thousand (USD982,082 thousand/TRY5,166,635 thousand in 31 December 2018) as prevention against USD/TRY spot foreign exchange risk of USD denominated export revenue, which is highly probable to be realized. Based on the outcome of effectiveness test performed on related process, the Group has considered that the process is fully effective and therefore applied cash flow hedge accounting. As of 31 December 2019, TRY2,567,257 thousand of (31 December 2018: TRY2,575,965) foreign exchange loss that arose from investment loans is classified under equity "Cash flow hedge gains (losses)" which has no effect on current year income statement. As of 31 December 2019, the foreign exchange loss amounting to TRY647,079 thousand corresponding to the export income of investment loans denominated in USD has been transferred to the foreign exchange loss in the income statement from "Cash flow hedge gains (losses)" account under equity. Moreover, as of 31 December 2019, foreign exchange loss of these loans in 2019 amounting to TRY638,371 were added to the "Cash flow hedge gains (losses)" account under equity.

^(***) The Group manages its foreign currency risk arising from foreign currency denominated financial liabilities and trade payables by regularly considering and reflecting the foreign exchange rate changes in the determination of petroleum product prices. The Group follows the US dollar equivalence of these inventories with their historical costs in accordance with risk management policy. As at 31 December 2019, the Group has crude oil and petroleum products inventories amounting to TRY9,129,592 thousand (31 December 2018: TRY6,333,567 thousand).

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(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

29. Financial instruments and financial risk management (Continued)

	Foreign exchange position table									
	31 December 2019					31 December 2018				
	TRY equivalent (In terms of functional currency)	USD	EUR	GBP	Other	TRY equivalent (In terms of functional currency)	USD	EUR	GBP	Other
Trade receivables	274,884	46,183	65	2	103	744,813	141,461	57	-	257
Monetary financial assets (including cash, banks)	1,256,253	205,064	4,950	671	-	4,505,691	537,016	278,764	-	114
Other	188,515	31,471	59	152	1	807,947	153,492	73	-	-
Current assets	1,719,652	282,718	5,073	824	104	6,058,451	831,969	278,894	-	371
Monetary financial assets	7,479	-	1,125	-	-	38,279	4,171	2,710	-	-
Other	2,189	-	-	282	-	-	-	-	-	-
Non-current assets	9,668	-	1,125	282	-	38,279	4,171	2,710	-	-
Total assets	1,729,320	282,718	6,197	1,106	104	6,096,730	836,140	281,604	-	371
Trade payables	12,590,524	2,103,634	12,966	13	8,185	6,266,612	1,173,998	12,276	-	16,326
Financial liabilities	4,384,159	608,682	115,222	279	-	3,278,691	486,945	118,932	-	-
Other monetary liabilities	297,645	48,523	85	1,137	-	260,178	49,313	124	-	-
Current liabilities	17,272,328	2,760,839	128,273	1,429	8,185	9,805,481	1,710,256	131,332	-	16,326
Financial liabilities	10,019,505	1,608,806	68,542	904	-	11,016,934	1,894,245	174,436	-	-
Other monetary liabilities	23,687	3,949	34	-	-	19,468	3,578	107	-	-
Non-current liabilities	10,043,192	1,612,755	68,576	904	-	11,036,402	1,897,823	174,543	-	-
Total liabilities	27,315,520	4,373,593	196,850	2,334	8,185	20,841,883	3,608,079	305,875	-	16,326
Net asset/(liability) position of off-balance sheet foreign currency derivatives	11,446,439	1,731,449	174,614	-	-	3,302,295	597,260	26,571	-	-
Total amount of off-balance sheet derivative financial assets	11,561,817	1,750,872	174,614	-	-	3,455,571	626,395	26,571	-	-
Total amount of off-balance sheet derivative financial liabilities	(115,378)	(19,423)	-	-	-	(153,276)	(29,135)	-	-	-
Net foreign currency asset/(liability) position	(14,139,761)	(2,359,427)	(16,039)	(1,228)	(8,081)	(11,442,858)	(2,174,679)	2,300	-	(15,955)
Cash flow hedging	4,828,054	812,776	-	-	-	5,166,635	982,082	-	-	-
Net foreign currency position after cash flow hedging	(9,311,707)	(1,546,651)	(16,039)	(1,228)	(8,081)	(6,276,223)	(1,192,597)	2,300	-	(15,955)
Net monetary foreign currency asset/(liability) position	(25,776,904)	(4,122,347)	(190,711)	(1,661)	(8,082)	(15,553,100)	(2,925,431)	(24,344)	-	(15,955)
Fair value of derivative instruments used for hedging	353,096	55,083	3,893	-	-	162,894	24,253	5,856	-	-

As at 31 December 2019, the Group has TRY182,115 thousand as net foreign currency deficit after natural hedging (31 December 2018: TRY57,344 thousand net foreign currency surplus.) (Page:58)

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(Amounts expressed in thousands of Turkish Lira ("TRY"), unless otherwise indicated.)

29. Financial instruments and financial risk management (Continued)

The table below summarizes the effect of foreign currency rate changes on net balance sheet foreign currency position of the Group as at 31 December 2019 and 31 December 2018.

Statement of foreign currency risk sensitivity				
31 December 2019				
	Profit/Loss		Equity	
	Appreciation of foreign currency	Depreciation of foreign currency	Appreciation of foreign currency	Depreciation of foreign currency
10% change in USD rate:				
USD net assets/liabilities	(2,448,756)	2,448,756	(461,711)	461,711
Amount hedged for USD risk (-)	1,496,218	(1,496,218)	-	-
USD net effect	(952,538)	952,538	(461,711)	461,711
10% change in EUR rate:				
Euro net assets/liabilities	(126,834)	126,834	-	-
Amount hedged for Euro risk (-)	116,129	(116,129)	-	-
EUR net effect	(10,705)	10,705	-	-
TOTAL	(963,243)	963,243	(461,711)	461,711
31 December 2018				
	Profit/Loss		Equity	
	Appreciation of foreign currency	Depreciation of foreign currency	Appreciation of foreign currency	Depreciation of foreign currency
10% change in USD rate:				
USD net assets/liabilities	(1,539,040)	1,539,040	(516,663)	516,663
Amount hedged for USD risk (-)	838,835	(838,835)	-	-
USD net effect	(700,205)	700,205	(516,663)	516,663
10% change in EUR rate:				
Euro net assets/liabilities	(14,675)	14,675	-	-
Amount hedged for Euro risk (-)	16,017	(16,017)	-	-
EUR net effect	1,342	(1,342)	-	-
TOTAL	(698,863)	698,863	(516,663)	516,663

The Group accounted investment loans in scope of cash flow hedge accounting and foreign exchange income/expense arising from these loans are recognised in equity. 10% increase and decrease effect of foreign exchange rates are calculated with the same method and the calculated foreign exchange gains/losses are presented as hedged portion in the foreign exchange sensitivity table. Furthermore, the hedged portion of foreign exchange gains/losses via forwards and cross currency swap transactions is classified as the amount hedged against US dollar in the statement of exchange rate sensitivity analysis.

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29. Financial instruments and financial risk management (Continued)

Export and import

	1 January - 31 December 2019	1 January - 31 December 2018
Export		
USD (equivalent of thousand TRY)	20,112,369	12,489,247
Total	20,112,369	12,489,247
Import		
USD (equivalent of thousand TRY)	70,681,358	68,677,083
Total	70,681,358	68,677,083

Capital risk management

The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, issue new shares or sell assets to reduce debt. The gearing ratios as at 31 December 2019 and 31 December 2018 are as follows:

	31 December 2019	31 December 2018
Total financial liabilities (Note 5)	19,075,794	17,949,540
Less: Cash and cash equivalents (Note 4)	(8,790,761)	(4,557,686)
Net financial liabilities	10,285,033	13,391,854
Total shareholders' equity	13,136,540	9,945,829
Total capital invested	23,421,573	23,337,683
Gearing ratio	43.91%	57.38%

Fair value of financial instruments

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The estimated fair values of financial instruments have been determined by the Group, using available market information and appropriate valuation methodologies. However, judgment is necessarily required to interpret market data to estimate the fair value. Accordingly, the estimates presented herein are not necessarily indicative of the amounts the Group could realise in a current market exchange.

Following methods and assumptions were used to estimate the fair value of the financial instruments for which is practicable to estimate fair value:

Financial assets

The carrying amounts of foreign currency denominated monetary assets which are translated at year end exchange rates are considered to approximate their fair values.

The carrying values of cash and cash equivalents are estimated to be their fair values since they are short term.

The carrying values of trade receivables along with the related allowances for uncollectibility are estimated to be their fair values since they are short term.

Financial liabilities

The fair values of short-term financial liabilities and other financial liabilities are estimated to be their fair values since they are short term. The fair values of long-term bank borrowings with variable interest are considered to approximate their respective carrying values, since the initial rates applied to bank borrowings are updated periodically by the lender to reflect active market price quotations.

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29. Financial instruments and financial risk management (Continued)

Fair value of financial instruments (Continued)

Fair value hierarchy table:

The Group classifies the fair value measurement of each class of financial instruments according to the source, using the three-level hierarchy, as follows:

Level 1: Market price valuation techniques for the determined financial instruments traded in markets (unadjusted)

Level 2: Other valuation techniques includes direct or indirect observable inputs

Level 3: Valuation techniques does not contains observable market inputs

Fair value hierarchy table as at 31 December 2019 is as follows:

Financial assets at fair value in statement of financial position	Level 1	Level 2	Level 3
Derivative financial assets	-	402,733	-
Financial investments	-	-	-

Financial liabilities at fair value in statement of financial position

Derivative financial liabilities	-	111,197	-
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Fair value hierarchy table as at 31 December 2018 is as follows:

Financial assets at fair value in statement of financial position	Level 1	Level 2	Level 3
Derivative financial assets	-	343,798	-
Financial liabilities at fair value in statement of financial position			
Derivative financial liabilities	-	278,287	-

30. Government grants

Government incentives and aids that the Group has are as follows:

- 100% customs duty exemption for imported machinery and equipment,
- VAT exemption for investment goods procured domestically and abroad,
- Incentives in the scope of research and development law (100% Corporate Tax exemption, Social Security Institution incentives, Stamp tax incentive, etc.),
- Cash supports received from Teydeb in return for research and development expenses,
- Discounted corporate tax incentive,
- Insurance premium employer share support,
- Corporate tax incentive within the scope of investment allowance exemption (Note 26).

31. Subsequent events

None.

CORPORATE GOVERNANCE COMPLIANCE REPORT

CORPORATE GOVERNANCE COMPLIANCE REPORT

	Compliance Status					Explanation
	Yes	Partial	No	Exempted	Not Applicable	
1.1. FACILITATING THE EXERCISE OF SHAREHOLDER RIGHTS						
1.1.2- Up-to-date information and disclosures which may affect the exercise of shareholder rights are available to investors at the corporate website.	X					
1.2. RIGHT TO OBTAIN AND REVIEW INFORMATION						
1.2.1 - Management did not enter into any transaction that would complicate the conduct of special audit.	X					
1.3. GENERAL ASSEMBLY						
1.3.2 - The company ensures the clarity of the General Assembly agenda, and that an item on the agenda does not cover multiple topics.	X					
1.3.7- Insiders with privileged information have informed the board of directors about transactions conducted on their behalf within the scope of the company's activities in order for these transactions to be presented at the General Shareholders' Meeting.					X	There was no transaction notice in this manner.
1.3.8 - Members of the board of directors who are concerned with specific agenda items, auditors, and other related persons, as well as the officers who are responsible for the preparation of the financial statements were present at the General Shareholders' Meeting.	X					
1.3.10 - The agenda of the General Shareholders' Meeting included a separate item detailing the amounts and beneficiaries of all donations and contributions.			X			Donations and aids were included in the agenda of the General Assembly with a separate article. Total amount of donations along with the details of items with the highest amounts were included in the Information Document for 2019
1.3.11 - The General Shareholders' Meeting was held open to the public, including the stakeholders, without having the right to speak.	X					
1.4. VOTING RIGHTS						
1.4.1 - There is no restriction preventing shareholders from exercising their shareholder rights.	X					
1.4.2 - The company does not have shares that carry privileged voting rights.				X		The issued capital of Tüpraş is divided in to two groups as (A) and (C); all of them being registered shares. The shareholders attending the ordinary and extraordinary General Assembly meetings use their votes pro rata with the nominal value of their shares. While electing the Board of Directors, one of the members has to be elected out of the nominees nominated by the Group C share. The issues specified in Article 10 of Company's Articles of Association depends on the affirmative vote of the Group C shareholder owned by the Privatization Administration in order to take Board of Directors and General Assembly decisions.

CORPORATE GOVERNANCE COMPLIANCE REPORT

	Compliance Status					Explanation
	Yes	Partial	No	Exempted	Not Applicable	
1.4.3-The company withholds from exercising its voting rights at the General Shareholders' Meeting of any company with which it has cross-ownership, in case such cross-ownership provides management control.					X	Tüpraş does not have a cross-ownership relationship that provides management control.
1.5. MINORITY RIGHTS						
1.5.1 - The company pays maximum diligence to the exercise of minority rights.	X					
1.5.2 - The Articles of Association extend the use of minority rights to those who own less than one twentieth of the outstanding shares, and expand the scope of the minority rights.				X		The Articles of Association do not grant minority rights to those who hold less than one twentieth of the capital, and in parallel to the common practices, rights are granted to the minority within the general legislative framework. There was no demand from investors regarding this issue.
1.6. DIVIDEND RIGHT						
1.6.1 - The dividend policy approved by the General Shareholders' Meeting is posted on the company website.	X					
1.6.2 - The dividend distribution policy comprises the minimum information to ensure that the shareholders can have an opinion on the procedure and principles of dividend distributions in the future.	X					
1.6.3 - The reasons for retaining earnings, and their allocations, are stated in the relevant agenda item.					X	Dividend has been distributed.
1.6.4 - The board reviewed whether the dividend policy balances the benefits of the shareholders and those of the company.	X					
1.7. TRANSFER OF SHARES						
1.7.1 - There are no restrictions preventing shares from being transferred.				X		The Capital Market Board regulations shall be applied in connection with the transfer of the registered shares of the Company transacted in the stock exchange. The Group C share may be transferred to another Turkish public body having the same powers as the powers granted by the law no. 4046 to the Prime Ministry Privatization Administration Chairmanship.

	Compliance Status					Explanation
	Yes	Partial	No	Exempted	Not Applicable	
2.1. CORPORATE WEBSITE						
2.1.1. - The company website includes all elements listed in Corporate Governance Principle 2.1.1.	X					
2.1.2 - The shareholding structure (names, privileges, number and ratio of shares, and beneficial owners of more than 5% of the issued share capital) is updated on the website at least every 6 months.	X					
2.1.4 - The company website is prepared in other selected foreign languages, in a way to present exactly the same information with the Turkish content.	X					
2.2. ANNUAL REPORT						
2.2.1 - The board of directors ensures that the annual report represents a true and complete view of the company's activities.	X					
2.2.2 - The annual report includes all elements listed in Corporate Governance Principle 2.2.2.	X					
3.1. CORPORATION'S POLICY ON STAKEHOLDERS						
3.1.1- The rights of the stakeholders are protected pursuant to the relevant regulations, contracts and within the framework of bona fides principles.	X					
3.1.3 - Policies or procedures addressing stakeholders' rights are published on the company's website.	X					
3.1.4 - A whistleblowing program is in place for reporting legal and ethical issues.	X					
3.1.5 - The company addresses conflicts of interest among stakeholders in a balanced manner.	X					
3.2. SUPPORTING THE PARTICIPATION OF THE STAKEHOLDERS IN THE CORPORATION'S MANAGEMENT						
3.2.1 - The Articles of Association, or the internal regulations (terms of reference/manuals), regulate the participation of employees in management.	X					
3.2.2 - Surveys/other research techniques, consultation, interviews, observation method etc. were conducted to obtain opinions from stakeholders on decisions that significantly affect them.	X					
3.3. HUMAN RESOURCES POLICY						
3.3.1 - The company has adopted an employment policy ensuring equal opportunities, and a succession plan for all key managerial positions.	X					
3.3.2 - Recruitment criteria are documented.	X					

CORPORATE GOVERNANCE COMPLIANCE REPORT

	Compliance Status					Explanation
	Yes	Partial	No	Exempted	Not Applicable	
3.3.3 - The company has a policy on human resources development, and organises trainings for employees.	X					
3.3.4 - Meetings have been organised to inform employees on the financial status of the company, remuneration, career planning, education and health.	X					
3.3.5 - Employees, or their representatives, were notified of decisions impacting them. The opinion of the related trade unions was also taken.	X					
3.3.6 - Job descriptions and performance criteria have been prepared for all employees, announced to them and taken into account to determine employee remuneration.	X					
3.3.7 - Measures (procedures, trainings, raising awareness, goals, monitoring, complaint mechanisms) have been taken to prevent discrimination, and to protect employees against any physical, mental, and emotional mistreatment.	X					
3.3.8 - The company ensures freedom of association and supports the right for collective bargaining.	X					
3.3.9 - A safe working environment for employees is maintained.	X					
3.4. RELATIONS WITH CUSTOMERS AND SUPPLIERS						
3.4.1 - The company measured its customer satisfaction, and operated to ensure full customer satisfaction.	X					
3.4.2 - Customers are notified of any delays in handling their requests.	X					
3.4.3 - The company complied with the quality standards with respect to its products and services.	X					
3.4.4 - The company has in place adequate controls to protect the confidentiality of sensitive information and business secrets of its customers and suppliers.	X					
3.5. ETHICAL RULES AND SOCIAL RESPONSIBILITY						
3.5.1 - The board of the corporation has adopted a code of ethics, disclosed on the corporate website.	X					
3.5.2 - The company has been mindful of its social responsibility and has adopted measures to prevent corruption and bribery.	X					

	Compliance Status					Explanation
	Yes	Partial	No	Exempted	Not Applicable	
4.1. ROLE OF THE BOARD OF DIRECTORS						
4.1.1 - The board of directors has ensured strategy and risks do not threaten the long-term interests of the company, and that effective risk management is in place.	X					
4.1.2 - The agenda and minutes of board meetings indicate that the board of directors discussed and approved strategy, ensured resources were adequately allocated, and monitored company and management performance.	X					
4.2. ACTIVITIES OF THE BOARD OF DIRECTORS						
4.2.1-The board of directors documented its meetings and reported its activities to the shareholders.	X					
4.2.2 - Duties and authorities of the members of the board of directors are disclosed in the annual report.	X					
4.2.3-The board has ensured the company has an internal control framework adequate for its activities, size and complexity.	X					
4.2.4 - Information on the functioning and effectiveness of the internal control system is provided in the annual report.	X					
4.2.5 - The roles of the Chairman and Chief Executive Officer are separated and defined.	X					
4.2.7-The board of directors ensures that the Investor Relations department and the corporate governance committee work effectively. The board works closely with them when communicating and settling disputes with shareholders.	X					
4.2.8 - The company has subscribed to a Directors and Officers liability insurance covering more than 25% of the capital.	X					
4.3. STRUCTURE OF THE BOARD OF DIRECTORS						
4.3.9 - The board of directors has approved the policy on its own composition, setting a minimal target of 25% for female directors. The board annually evaluates its composition and nominates directors so as to be compliant with the policy.			X			Although there is no policy regarding the minimum number of women board members, The ratio of the woman board members is 18%.
4.3.10 - At least one member of the audit committee has 5 years of experience in audit/accounting and finance.	X					
4.4. BOARD MEETING PROCEDURES						
4.4.1-Each board member attended the majority of the board meetings in person.		X				The majority of the board members attended most of the meetings physically.
4.4.2 - The board has formally approved a minimum time by which information and documents relevant to the agenda items should be supplied to all board members.		X				No such period of time has been defined; the time of information provision to board members is determined in view of the topics on the meeting agenda and also the process, and the members are informed reasonably in advance.
4.4.3 - The opinions of board members that could not attend the meeting, but did submit their opinion in written format, were presented to other members.					X	Although there is a possibility of providing feedbacks for the board members who could not attend the meeting, there has been no notification made in this manner.

CORPORATE GOVERNANCE COMPLIANCE REPORT

	Compliance Status					Explanation
	Yes	Partial	No	Exempted	Not Applicable	
4.4.4 - Each member of the board has one vote.						<p>However, on the issues specified below depends on the affirmative vote of the Group C shareholder:</p> <p>a) Any changes to be made in the Company's Articles of Association that could affect the Board of Directors meetings and quorum and the rights related to the "Privileged Share" as well as the obligation of meeting the fuel requirements of the Turkish Armed Forces and the rights granted to the Privileged Share in connection with this obligation directly or indirectly.</p> <p>b) Since meeting the fuel requirements of the Turkish Armed Forces in the required quality, time and quantity with the established market prices and maintaining the capability of producing such fuels and providing and maintaining the transportation-related systems are of the essence; not meeting the fuel requirements of the Turkish Armed Forces in the required quality, time and quantity and above the established market prices.</p> <p>c) Any actions specified below that could restrict or obstruct the ability of meeting the fuel requirements of the Turkish Armed Forces:</p> <p>i) Closing or selling any of the refineries owned by the Company or restricting under any encumbrance or reducing its capacity by more than 10%, or</p> <p>i) Division of the company or merger with another company.</p> <p>d) Resolutions related to the liquidation of the company</p>

X

	Compliance Status					Explanation
	Yes	Partial	No	Exempted	Not Applicable	
4.4.5 - The board has a charter/written internal rules defining the meeting procedures of the board.			X			Although there have been consistently applied procedures in our Company for many years, there is no written internal regulations regarding the way Board of Directors Meetings are held.
4.4.6 - Board minutes document that all items on the agenda are discussed, and board resolutions include director's dissenting opinions if any.	X					
4.4.7-There are limits to external commitments of board members. Shareholders are informed of board members' external commitments at the General Shareholders' Meeting.		X				Due to the significant contribution of the experience of members of the Board of Directors, they are not limited to take other duties outside of the company. Curriculum vitae of our board members are included in our annual report.
4.5. BOARD COMMITTEES						
4.5.5 - Board members serve in only one of the Board's committees.			X			Members who assume duties in more than one committee improve communication among the committees that carry out activities in connected subjects and increase the opportunity of collaboration.
4.5.6 - Committees have invited persons to the meetings as deemed necessary to obtain their views.					X	It is possible for the committees to ask for the opinions of the independent experts professionals, if they need in accordance with the principles of the committees. There was no such need during 2018.
4.5.7 - If external consultancy services are used, the independence of the provider is stated in the annual report.					X	There was no consultancy service received for this purpose.
4.5.8 - Minutes of all committee meetings are kept and reported to board members.	X					
4.6. FINANCIAL RIGHTS						
4.6.1-The board of directors has conducted a board performance evaluation to review whether it has discharged all its responsibilities effectively.			X			There has been no specific initiative aimed at performance evaluation at the Board of Directors level.
4.6.4-The company did not extend any loans to its board directors or executives, nor extended their lending period or enhanced the amount of those loans, or improve conditions thereon, and did not extend loans under a personal credit title by third parties or provided guarantees such as surety in favour of them.	X					
4.6.5 - The individual remuneration of board members and executives is disclosed in the annual report.			X			Remuneration of the Members of the Board of Directors and managers who have administrative responsibilities is disclosed collectively in parallel to the common practice in the footnotes of our financial statements and at the General Assembly meetings.

CORPORATE GOVERNANCE INFORMATION FORM

CORPORATE GOVERNANCE INFORMATION FORM (CGIF)

1. SHAREHOLDERS

1.1. Facilitating the Exercise of Shareholders Rights

The number of investor meetings (conference, seminar/etc.) organised by the company during the year *14 Conferences and roadshows are attended. Meetings held with approximately 500 fund managers and analyst*

1.2. Right to Obtain and Examine Information

The number of special audit request(s) -

The number of special audit requests that were accepted at the General Shareholders' Meeting -

1.3. General Assembly

Link to the PDP announcement that demonstrates the information requested by Principle 1.3.1. (a-d) *<https://www.kap.org.tr/tr/Bildirim/741472>*

Whether the company provides materials for the General Shareholders' Meeting in English and Turkish at the same time *English and Turkish materials are provided at the same time*

The links to the PDP announcements associated with the transactions that are not approved by the majority of independent directors or by unanimous votes of present board members in the context of Principle 1.3.9 *There are no such transactions*

The links to the PDP announcements associated with related party transactions in the context of Article 9 of the Communiqué on Corporate Governance (II-17.1) *There are no such transactions*

The links to the PDP announcements associated with common and continuous transactions in the context of Article 10 of the Communiqué on Corporate Governance (II-17.1) *<https://www.kap.org.tr/tr/Bildirim/740905>*

The name of the section on the corporate website that demonstrates the donation policy of the company *Investor Relations/Corporate Governance/Policies*

The relevant link to the PDP with minute of the General Shareholders' Meeting where the donation policy has been approved *<https://www.kap.org.tr/tr/Bildirim/349385>*

The number of the provisions of the articles of association that discuss the participation of stakeholders to the General Shareholders' Meeting *Article 14 -a*

Identified stakeholder groups that participated in the General Shareholders' Meeting, if any *The General Assembly meeting was held open to the public, including stakeholders and the media without seeking a requirement of the right to speak.*

1.4. Voting Rights

Whether the shares of the company have differential voting rights *Yes*

In case that there are voting privileges, indicate the owner and percentage of the voting majority of shares. *The issued capital is divided in to two groups as (A) and (C) and all of the shares are registered shares. The shareholders attending the ordinary and extraordinary General Assembly meetings use their votes pro rata with the nominal value of their shares. While electing the Board of Directors, 1 of the members has to be elected out of the nominees nominated by the Group C share. The issues specified in Article 10 of Company's Articles of Association depends on the affirmative vote of the Group C shareholder owned by the Privatization Administration in order to take Board of Directors and General Assembly decisions.*

The percentage of ownership of the largest shareholder *51%*

1.5. Minority Rights

Whether the scope of minority rights enlarged (in terms of content or the ratio) in the articles of the association *No*

If yes, specify the relevant provision of the articles of association. -

1.6. Dividend Right

The name of the section on the corporate website that describes the dividend distribution policy *Investor Relations/Corporate Governance/Policies*

Minutes of the relevant agenda item in case the board of directors proposed to the general assembly not to distribute dividends, the reason for such proposal and information as to use of the dividend. *Dividend has been distributed.*

PDP link to the related general shareholder meeting minutes in case the board of directors proposed to the general assembly not to distribute dividends -

General Assembly Meetings

General Meeting Date	20 March 2019
The number of information requests received by the company regarding the clarification of the agenda of the General Shareholders' Meeting	-
Shareholder participation rate to the General Shareholders' Meeting	86.8%
Percentage of shares directly present at the GSM	-
Percentage of shares represented by proxy	86.8%
Specify the name of the page of the corporate website that contains the General Shareholders' Meeting minutes, and also indicates for each resolution the voting levels for or against	Investor Relations/General Assembly/Minutes of AGM
Specify the name of the page of the corporate website that contains all questions asked in the general assembly meeting and all responses to them	Investor Relations/General Assembly/Minutes of AGM
The number of the relevant item or paragraph of General Shareholders' Meeting minutes in relation to related party transactions	-
The number of declarations by insiders received by the board of directors	-
The link to the related PDP general shareholder meeting notification	https://www.kap.org.tr/tr/Bildirim/748872

2. DISCLOSURE AND TRANSPARENCY**2.1. Corporate Website**

Specify the name of the sections of the website providing the information requested by the Principle 2.1.1.	Investor Relations
If applicable, specify the name of the sections of the website providing the list of shareholders (ultimate beneficiaries) who directly or indirectly own more than 5% of the shares.	Investor Relations/Corporate Governance
List of languages for which the website is available	Turkish and English

2.2. Annual Report

The page numbers and/or name of the sections in the Annual Report that demonstrate the information requested by principle 2.2.2.	
a) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on the duties of the members of the board of directors and executives conducted out of the company and declarations on independence of board members	General Assembly/Board of Directors' Resumes Corporate Governance/Declaration for Independency
b) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on committees formed within the board structure	Corporate Governance/Evaluation of Operating Principles and Effectiveness of Board of Committees
c) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on the number of board meetings in a year and the attendance of the members to these meetings	Corporate Governance/Principles Compliance Report/Operating Principles of the Board of Directors
ç) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on amendments in the legislation which may significantly affect the activities of the corporation	Legal Disclosures
d) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on significant lawsuits filed against the corporation and the possible results thereof	Legal Disclosures
e) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on the conflicts of interest of the corporation among the institutions that it purchases services on matters such as investment consulting and rating and the measures taken by the corporation in order to avoid from these conflicts of interest	Legal Disclosures
f) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on the cross ownership subsidiaries that the direct contribution to the capital exceeds 5%	Legal Disclosures
g) The page numbers and/or name of the sections in the Annual Report that demonstrate the information on social rights and professional training of the employees and activities of corporate social responsibility in respect of the corporate activities that arises social and environmental results	Human Resources/Corporate Responsibility Projects

CORPORATE GOVERNANCE INFORMATION FORM

3. STAKEHOLDERS

3.1. Corporation's Policy on Stakeholders

The name of the section on the corporate website that demonstrates the employee remedy or severance policy	Investor Relations/Corporate Governance/Policies
The number of definitive convictions the company was subject to in relation to breach of employee rights	32
The position of the person responsible for the alert mechanism (i.e. whistleblowing mechanism)	Risk Management and Audit Manager
The contact detail of the company alert mechanism	https://piy.tupras.com.tr/BildirimKayit.aspx

3.2. Supporting the Participation of the Stakeholders in the Corporation's Management

Name of the section on the corporate website that demonstrates the internal regulation addressing the participation of employees on management bodies	<p>Summary of the activities carried out are explained below. In order to award the employees' actions and efforts that support business values and objectives, "Refined Suggestions" system is implemented to support and encourage individual and original ideas on process improvement, energy saving, resource efficiency, productivity in production, environmental protection and occupational safety through the "Tüpraş Appreciation Recognition and Rewarding" system. Furthermore, employees' evaluations on the practices, and their loyalty and satisfaction are measured with the Employee Satisfaction surveys. The results of the survey are considered in company activities, and the improvement targets are added to the performance cards of the Company's Top Management. Behavior-based safety tours, in which Tüpraş executives also participate, are held at Tüpraş as part of the "Visible Leadership" practice. In safety tours, "visible leadership" is demonstrated with the active participation of the management, where positive safety behavior receives appreciation and is encouraged, risks in the behavior of people and working conditions are identified and corrected, communication and dialogue are strengthened to ensure a safe working environment, awareness is developed, and an environment in which employees can share their opinions and observations on safety is created. Another practice for involving employees in decisions is the right to speak granted to two representatives from the labor union in disciplinary committee decisions concerning employees working on hourly basis, pursuant to the collective agreement.</p>
Corporate bodies where employees are actually represented	<p>Our colleagues' opinions are obtained unanimously through surveys and open-ended questions with annual Employee Commitment Survey. Through various communication meetings in Tüpraş, information on the Company is shared with employees and other stakeholders. Their questions and comments are also obtained during these meetings.</p>

3.3. Human Resources Policy

The role of the board on developing and ensuring that the company has a succession plan for the key management positions	A succession plan is created for all key management positions. This Succession Plan is finalized by submitting the approval of the Chairman of the Board of Directors following the approval of the CEO.
The name of the section on the corporate website that demonstrates the human resource policy covering equal opportunities and hiring principles. Also provide a summary of relevant parts of the human resource policy.	"Tüpraş assumes the responsibility to adopt attitudes and behaviors in compliance with Tüpraş Code of Ethics which is described in detail below, in all its operations and relationships, before all individuals and organizations which it has business relations with in Turkey and abroad, the society it operates in, its customers, suppliers, shareholders and employees. Tüpraş also commits itself to comply with Global Compact criteria adopted by Koç Holding and expand the adoption of these criteria by other parties, particularly in its industry. Personnel Guide which includes personnel recruitment criteria is available for all employees and qualifications required for each position are included in job postings. Moreover, equal opportunity in recruitment is highlighted in Ethical Code of Conduct. https://www.tupras.com.tr/uploads/Tupras_Etik_Davranis_Kurallari.pdf "
Whether the company provides an employee stock ownership program	There is no an employee stock ownership program.
The name of the section on the corporate website that demonstrates the human resource policy covering discrimination and mistreatments and the measures to prevent them. Also provide a summary of relevant parts of the human resource policy.	Decision was taken to ensure employees can appeal to Human Resources Department in case of any problems regarding discrimination and misconduct and this has been communicated to all employees. Ethics Board mechanism was established with the participation of Risk Management and Audit, Legal, Corporate Communications and Human Resources Departments and it's being actively operated.
The number of definitive convictions the company is subject to in relation to health and safety measures	9
3.5. Ethical Rules and Social Responsibility	
The name of the section on the corporate website that demonstrates the code of ethics	Career/Ethical Rules
The name of the section on the company website that demonstrates the corporate social responsibility report. If such a report does not exist, provide the information about any measures taken on environmental, social and corporate governance issues.	http://www.tupras.com.tr/cr-report
Any measures combating any kind of corruption including embezzlement and bribery	http://www.tupras.com.tr/anti-corruption-policy

4. BOARD OF DIRECTORS-I

4.2. Activity of the Board of Directors

Date of the last board evaluation conducted	-
Whether the board evaluation was externally facilitated	No
Whether all board members released from their duties at the GSM	Yes
Name(s) of the board member(s) with specific delegated duties and authorities, and descriptions of such duties	No delegation was given among the board members
Number of reports presented by internal auditors to the audit committee or any relevant committee to the board	The Audit Committee is given information about the quarterly audit activities, important findings, and ongoing lawsuits.
Specify the name of the section or page number of the annual report that provides the summary of the review of the effectiveness of internal controls	Risk Management and the Activities of the Risk Management Committee/G.Internal Control System and Internal Audit
Name of the Chairman	Mehmet Ömer Koç
Name of the CEO	İbrahim Yelmenoğlu
If the CEO and Chair functions are combined: provide the link to the relevant PDP announcement providing the rationale for such combined roles	-
Link to the PDP notification stating that any damage that may be caused by the members of the board of directors during the discharge of their duties is insured for an amount exceeding 25% of the company's capital	-
The name of the section on the corporate website that demonstrates current diversity policy targeting women directors	There is no such policy
The number and ratio of female directors within the Board of Directors	2 (18%)

CORPORATE GOVERNANCE INFORMATION FORM

Composition of Board of Directors

Name, Surname of Board Member	Whether Executive Director Or Not	Whether Independent Director Or Not	The First Election Date To Board	Link To PDP Notification That Includes The Independency Declaration	Whether the Independent Director Considered By The Nomination Committee	Whether She/ He is the Director Who Ceased to Satisfy The Independence or Not	Whether The Director Has At Least 5 Years' Experience On Audit, Accounting And/Or Finance Or Not
Ömer M. Koç	Non-executive	Not Independent Director	26/01/2006	-	Not considered	No	Yes
Ali Y. Koç	Non-executive	Not Independent Director	27/03/2009	-	Not considered	No	Yes
Rahmi M. Koç	Non-executive	Not Independent Director	04/06/2008	-	Not considered	No	Yes
Semahat S. Arsel	Non-executive	Not Independent Director	27/03/2009	-	Not considered	No	Yes
Levent Çakıroğlu	Non-executive	Not Independent Director	30/03/2015	-	Not considered	No	Yes
Erol Memioğlu	Non-executive	Not Independent Director	26/01/2006	-	Not considered	No	Yes
Yağız Eyüboğlu	Non-executive	Not Independent Director	04/04/2016	-	Not considered	No	Yes
Zafer Sönmez	Non-executive	Independent Director	20/03/2019	-	Considered	No	Yes
Muharrem Hilmi Kayhan	Non-executive	Independent Director	21/03/2018	https://www.kap.org.tr/en/Bildirim/741472	Considered	No	Yes
Ayşe Canan Ediboğlu	Non-executive	Independent Director	21/03/2018	https://www.kap.org.tr/en/Bildirim/741472	Considered	No	Yes
Kamil Ömer Bozer	Non-executive	Independent Director	21/03/2018	https://www.kap.org.tr/en/Bildirim/741472	Considered	No	Yes

4. BOARD OF DIRECTORS-II

4.4. Meeting Procedures of the Board of Directors

Number of physical board meetings in the reporting period (meetings in person)	3
Director average attendance rate at board meetings	91%
Whether the board uses an electronic portal to support its work or not	No
Number of minimum days ahead of the board meeting to provide information to directors, as per the board charter	There is no determination
The name of the section on the corporate website that demonstrates information about the board charter	There is no determination
Number of maximum external commitments for board members as per the policy covering the number of external duties held by directors	There is no restriction

4.5. Board Committees

Page numbers or section names of the annual report where information about the board committees are presented	Corporate Governance/Evaluation of Operating Principles and Effectiveness of Board of Committees
Link(s) to the PDP announcement(s) with the board committee charters	https://www.kap.org.tr/tr/Bildirim/749716

Composition of Board Committees - I

Names Of The Board Committees	Name Of Committees Defined As "Other" In The First Column	Name-Surname of Committee Members	Whether Committee Chair Or Not	Whether Board Member Or Not
Audit Committee	-	Muharrem Hilmi Kayhan	Yes	Board member
Audit Committee	-	Kamil Ömer Bozer	No	Board member
Corporate Governance Committee	-	Muharrem Hilmi Kayhan	Yes	Board member
Corporate Governance Committee	-	Yağız Eyüboğlu	No	Board member
Corporate Governance Committee	-	Doğan Korkmaz	No	Not board member
Committee of Early Detection of Risk	-	Ayşe Canan Ediboğlu	Yes	Board member
Committee of Early Detection of Risk	-	Erol Memioğlu	No	Board member

4. BOARD OF DIRECTORS-III**4.5. Board Committees-II**

Specify where the activities of the audit committee are presented in your annual report or website (Page number or section name in the annual report/website)	Corporate Governance/Evaluation of Operating Principles and Effectiveness of Board of Committees
Specify where the activities of the corporate governance committee are presented in your annual report or website (Page number or section name in the annual report/website)	Corporate Governance/Evaluation of Operating Principles and Effectiveness of Board of Committees
Specify where the activities of the nomination committee are presented in your annual report or website (Page number or section name in the annual report/website)	Corporate Governance/Evaluation of Operating Principles and Effectiveness of Board of Committees
Specify where the activities of the early detection of risk committee are presented in your annual report or website (Page number or section name in the annual report/website)	Corporate Governance/Evaluation of Operating Principles and Effectiveness of Board of Committees
Specify where the activities of the remuneration committee are presented in your annual report or website (Page number or section name in the annual report/website)	Corporate Governance/Evaluation of Operating Principles and Effectiveness of Board of Committees

4.6. Financial Rights

Specify where the operational and financial targets and their achievement are presented in your annual report (Page number or section name in the annual report)	Message from the Chairman
Specify the section of website where remuneration policy for executive and non-executive directors are presented.	Investor Relations/Corporate Governance/Remuneration Policy
Specify where the individual remuneration for board members and senior executives are presented in your annual report (Page number or section name in the annual report)	Financial Report Notes 28

Composition of Board Committees-II

Names Of The Board Committees	Name of committees defined as "Other" in the first column	The Percentage Of Non-executive Directors	The Percentage Of Independent Directors In The Committee	The Number Of Meetings Held In Person	The Number Of Reports On Its Activities Submitted To The Board
Audit Committee	-	100%	100%	7	7
Corporate Governance Committee	-	67%	33%	7	7
Committee of Early Detection of Risk	-	100%	50%	6	6

GLOSSARY

GLOSSARY OF TERMS

	TURKISH	ENGLISH
APC	İleri Proses Kontrolü	Advanced Process Control
API	Amerikan Petrol Enstitüsü (API) tarafından çıkarılan ve özgül ağırlığa bağlı API gravite tanımı, petrolün sınıflandırılması için kullanılır.	The American Petroleum Institute gravity, or API gravity, is a measure of how heavy or light petroleum liquid is compared to water.
ASRFO	Atmosferik Straight Run Fuel Oil	Atmospheric Straight Run Fuel Oil
ASTM	Uluslararası Standartlar	American Society for Testing and Materials
ARU	Amin Rejenerasyon Ünitesi	Amine Regeneration Unit
BAT	Mevcut teknoloji	Best Available Technology
CCR REFORMER	Katalist Rejenerasyonlu Reformer	Continuous Catalytic Regeneration Reformer
CDU	Ham Petrol	Distilasyon Ünitesi Crude Distillation Unit
CIF	İthalatta, mal fiyatının üzerine sigorta ve navlun giderlerinin de eklendiği bir alım-satım şekli	Cost, Insurance & Freight
ÇED	Çevresel Etki Değerlendirmesi	Environmental Impact Assessment
DCS	Kontrol Sistemi	Distributed Control System
DECOKER	Koklaştırma Ünitesi	Delayed Coker
DSS	Sürdürülebilir Çözümler	Dupont Sustainable Solutions
DWT	Uluslararası Denizcilik Ticaretinde ve Denizcilik Endüstrisinde kullanılan ağırlık birimi	Deadweight Tonnage
DYS	Değişiklik Yönetim Sistemi	Change Management System
EPC	Mühendislik, Satın Alma ve Devreye Alma Hizmeti	Engineering, Procurement and Construction
EBH	Kaynayan Yataklı Hidrokraker	Ebullated Bed Hydrocraker
EFQM	Avrupa Kalite Yönetimi Vakfı	European Foundation for Quality Management
EII	Enerji Yoğunluğu İndeksi	Energy Intensity Index
ENVER	Enerji Verimliliği	Energy Efficiency
EPDK	Enerji Piyasası Düzenleme Kurumu	Energy Market Regulatory Authority
ESD	Elektrostatik Deşarj	Electrostatic Discharge
EUREKA	Avrupa Araştırma Koordinasyon Ajansı	European Research Coordination Agency
EURO 3	Euro Emisyon Standardı (Maks. Kükürt 350 ppm)	Euro Emission Standard (Max. Sulphur 350 ppm)
EURO 4	Euro Emisyon Standardı (Maks. Kükürt 50 ppm)	Euro Emission Standard (Max. Sulphur 50 ppm)
EURO 5	Euro Emisyon Standardı (Maks. Kükürt 10 ppm)	Euro Emission Standard (Max. Sulphur 10 ppm)
FAVÖK	Faiz, Amortisman Vergi Öncesi Kâr	EBITDA

	TURKISH	ENGLISH
FCC	Ağır hidrokarbon petrol fraksiyonlarını benzin, kompenantlarına dönüştüren ünite	Fluid Catalytic Cracking Unit
Fed	ABD Merkez Bankası	Federal Reserve Bank
FOB	Tedarikçinin malzemeyi nakliye yapılacağı geminin güvertesine taşıyana kadar olan sorumluluğu olan mal teslim şekli	Free On Board
FP7	Avrupa Birliği'nde çok uluslu araştırma ve teknoloji geliştirme projelerinin desteklendiği başlıca Topluluk Programları'dır.	The Seventh Framework Program
GDR	Küresel Saklama Sertifikası	Global Depositary Receipt
GMB	Güvenlik Merkezli Bakım	Security Centered Maintenance
GTL/CTL	Gazdan Sıvı, Kömürden Sıvı	Gas to Liquid, Coal to Liquid
HAY	Hata Ayıklama Yöntemi	Debugging Method
HAZOP	Tehlike ve İşletilebilme Çalışması Metodu	Hazard and Operatibility Study
HDS	Kükürt Giderme	Hydro Desulphurisation
HORIZON	AB Araştırma ve Yenilikçi Çerçeve Programı	EU Research and Innovation Framework Program
HRSG	Isı recovery buhar jeneratörü	Heat Recovery Steam Generator
HSRN	Ağır Nafta	Heavy Straight-Run Naphtha
HVGO	Vakum distilasyon ünitesinden elde edilen HVGO, dönüşüm ünitelerinde daha değerli beyaz ürünlere çevrilir.	Heavy Vacuum Gas Oil
HYDROKRAKER	Rafineri Dönüşüm Ünitesi	Hydrocracker-Conversion Unit
IEA, UEA	Uluslararası Enerji Ajansı	International Energy Agency
IOPC	Uluslararası Petrol Kirliliği Tazminat Fonu	International Oil Pollution Compensation Funds
ISM	Uluslararası Emniyetli Yönetim	International Safety Management
ISPS	Uluslararası Gemi ve Liman Güvenlik Kuralları	International Ship and Port Security Rules
ITA	İş Tehlike Analizleri	Job Hazard Analysis
KBS	Kazan Besleme Suyu	Boiler Feed Water
KKO	Kapasite Kullanım Oranı	Capacity Utilization Rate
KOK	Kalıcı Organik Kirleticiler	Persistent Organic Pollutants
KPI	Temel Performans Göstergeleri	Key Performance Indicators
LCGO	Light Cycle Gas Oil	Light Cycle Gas Oil
LCGO/HCGO	Hafif/Ağır Dizel	Light/Heavy Gas Oil
LSRN	Hafif Nafta	Light Straight Run Naphtha
ME	Mekanik Emre Amadelik	Mechanical Availabilities

GLOSSARY

	TURKISH	ENGLISH
MTBE	Benzinin oktanını artırmak ve aromatik miktarını düşürmek amacıyla kullanılan yüksek oktanlı hidrokarbon.	Methyl Tertiary-Butyl Ether
NELSON COMPLEXITY	Beyaz Ürün Üretebilme Kapasitesi	White Product Yield Ability
OCIMF	Petrol Şirketlerinin Uluslararası Denizcilik Forumu	The Oil Companies International Marine Forum
OEA	Operasyonel Emreanadelik	Operational Availabilities
OSAR	Olay Sınıflandırma, Araştırma ve Raporlama	Event Classification, Research and Reporting
PCT	Uluslararası Patent Koruması	International Patent Protection
PETDER	Petrol Sanayi Derneği	Petroleum Industry Association
POX	Kısmi Oksidasyon Ünitesi	Partial Oxidation
PPM	Bir kilogram yakıtta mg cinsinden kükürt miktarını gösterir.	Parts Per Million
PT	Penetrant Test	Penetrant Test
QDMS	Tüpraş Kalite Yönetim ve Doküman Sistemi	Quality Documentation Management System
RAYEP	Rafinerici Yetiştirme Programı	Refining Training Program
RBI	Risk Tabanlı Teknik Kontrol	Technical Risk Control
RDT	Risk Değerlendirme Tablosu	Risk Evaluation Chart (REC)
RGY	Risk ve Güvenirlilik Yönetimi	Risk and Reliability Management
RON	Oktan sayısı, benzinin kalitesini gösteren parametre olup motordaki vuruntunun ölçümü	Research Octane Number
RTK	Risk Tabanlı Kontrol	Risk-Based Control
RUP	Fuel Oil Dönüşüm Ünitesi	Residuum Upgrading
SDA	Çözücü Yardımıyla Asfalt Ayırma Ünitesi	Solvent Deasphalting Unit
SEÇ	Sağlık, Emniyet ve Çevre	HSE
SEÇ-K	Sağlık, Emniyet, Çevre ve Kalite	Health, Safety, Environment and Quality
SEVESO-II	Büyük Endüstriyel Kazaların Önlenmesi ve Etkilerinin Azaltılması Hakkında Yönetmelik	Prevention of Major Industrial Accidents and Mitigation of Impacts on Regulation
SMR	Hidrojen Üretim Ünitesi	Stream Methane Reformer
SRD	Sağlık Risk Değerlendirmesi	Health Risk Assessment
SWS	Katı Suyu Sıyırma Ünitesi	Sour Water Stripping Unit
TAEK	Türkiye Atom Enerji Kurumu	Turkey Atomic Energy Agency
TEYDEB	Teknolojik ve Destek Programları Başkanlığı	Technological and Support Programs Department
TEYS	Tehlike ve etkilerin yönetim süreci	Management Process of the Dangers and Effects
TMSA 2	Petrol Tankeri Yönetimi ve Değerlendirmesi 2	Tanker Management Self Assessment 2
TPE	Ton Petrol Eşdeğeri	Tons Petroleum Equivalent
TPP	Termal Power Plant	Thermal Power Plant
TÜRKAK	Türk Akreditasyon Kurumu	Turkish Accreditation Agency
VAP	Verimlilik Artırıcı Proje	Efficiency Enhancement Project
VDU	Vakum Destilasyon Ünitesi	Vacuum Distillation Unit
VGO	Vakum Dizel	Vacuum Gasoil
VLCC	Çok Büyük Ham Petrol Gemisi	Very Large Crude Carrier
VOC	Uçucu Organik Bileşenler	Volatile Organic Compounds
WTI	Amerikan Referans Ham Petrolü	West Texas Intermediate

GLOSSARY OF UNITS

m ³	Metreküp	Cubic Meter
MW	Megavat	Megawatt
KG	Kilogram	Kilogram
GRT	Gros tonaj	Gross Tonnage
M/T	Milyon Tonaj	Million Tonnes
KW	Kilovat	Kilowatt
KWh	Kilovatsaat	Kilowatt Hour
m ²	Metrekare	Square Meter
CO ₂	Karbondioksit	Carbon Dioxide
GCAL	Giga kalori	Gcal
Ton CO ₂ e	Ton Karbondioksit Eşleniği	Ton Carbon Dioxide Equivalent
TJ	Terajoule	Terajoule
MJ	Megajoule	Megajoule
J	Joule	Joule
Mt	Milyon Ton	Million Ton
t	Ton	Ton
bpd	Bir Günde Üretilen Petrol Varil Sayısı	Barrel per Day
MtOE	Milyon Ton Petrol Eşdeğeri	Million Ton of Oil Equivalent
mmcf	Milyon Küp Feet	Milyon Cubic Feet
g/l	Gram/Litre	Gram/Litre
ppm	Milyon Başına Düşen Parça Sayısı	Number of Parts per Million
N	Newton	Newton

CONTACT

Trade Name	Turkish Petroleum Refinery Corp. (TÜPRAŞ)
Address	Güney Mah. Petrol Cad. No. 25 41790 Körfez/KOCAELİ
Trade Registry and Number	Körfez Trade Registry/408-14
Website Address	www.tupras.com.tr
Registered Capital Ceiling	TL 500,000,000
Paid-in Capital	TL 250,419,200

Stock Information

BIST Code	TUPRS
Reuters Code	TUPRS.IS
Bloomberg Code	TUPRS.TI
Date of initial public offering	1991

Disclaimer

The Board of Directors' Report, Auditors' Report, Consolidated Financial Statements and Independent Audit Report regarding the operations and financials of the year 2019, included in this Annual Report ("Report"), are prepared in accordance with the legal requirements for the Ordinary General Assembly, which will be held on Wednesday, 1 April 2020 at 10.00, at Turkish Petroleum Refinery Corp. Güney Mah. Petrol Cad. No. 25 41790 Körfez- Kocaeli- Türkiye

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