

Equity / Large Cap. / Petroleum

Tupras 03/07/2024

Company Update

Upside Potential 49%

TL

Operations back to normal, cracks still hovering above historical averages

We maintain our BUY rating for TUPRS shares with an unchanged PT of 242TL/share, implying an upside potential of 49%. A second dividend payment of TL10.38/share in 2H24, wih an estimated yield of 6.4%, is very likely. We have also incorporated additional EBITDA contribution from sustainable aviation fuel (SAF) (starting with US\$55mn in 2027 and US\$110mn in 2028 –20230) in our DCF analysis. This coupled with a slight downward revision in 2024E EBITDA to US\$1.78bn, left our 12m PT unchanged. Weak operational performance in 1H24 resulting from RUP maintenance has been weighing on the stock's performance. As the maintenance was completed on time, we expect Company's operational performance to improve in 2H24, driven by above-average crack margins, better white product yields and differentials. Despite the current high interest rate environment, we do not foresee a significant drop in fuel demand, positioning Tupras as a defensive pick for 2H24.

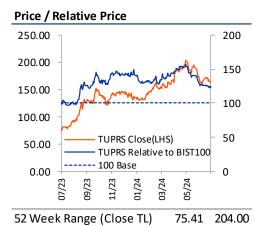
Cracks are normalizing but remain above pre-pandemic averages thanks to supply issues. Crack margins have eased from the highs of 2022 and 2023 but they are likely to remain above historical averages as long as the supply-side issues exist. Supply constraints in Europe due to the tensions in the Black Sea and Red Sea are still supporting middle distillate cracks while the suspension of the gasoline export ban by Russia has dragged down gasoline margins. Despite the current weakness in gasoline margins, we expect a turnaround in the coming months as driving season kicks in. New capacity additions coming online in Nigeria (650kb/d) may ease the supply deficit once the ramp-up period is over.

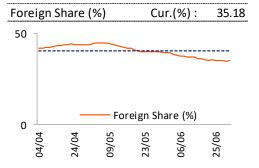
Taking advantage of the refining supercycle of the past two years, the company has built up a significant net cash position, reaching TL51.6bn as of 1Q24-end. The company's management is leveraging the strong cash flow generated in recent years to invest in its strategic transition plan. According to Company's Strategic Transition Plan, significant portion of investments (40% during 2022-2030, and 70% during 2031-2035), will be allocated towards (SAF), hydrogen and zero carbon electricity production.

Risks. Higher than expected contraction in demand for refined products in the European market, easing war-related supply issues in the product markets, faster than expected new capacity additions, higher than expected rise in energy costs are the main downside risks for our valuation. Key upside risks include delays in new capacity additions and increased heavy crude availability in the coming period.

Stock Data			
Price			162.40
Target Price*			242.00
Prev.TP			242.00
Mcap (mn)			312,912
Float Mcap (mn)			145,598
Avg.Daily Volume	(3M, mr	1)	4581.1
No. of Shares Out	standing	(mn)	1,927
Free Float (%)			47
Foreign Share (%)			35
Price Perf. (%)	1 Mn	Ytd	12 Mn
TL	-8.1	20.7	112.8
US\$	-9.5	8.9	69.8
Rel.to BIST-100	-8.5	-13.7	22.6
Kento Bist 100	0.5	13.7	
Multiples	2023	2024	2025
Multiples	2023	2024	2025

Stock Data





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47.25

46.4

Tupras

Company Description

Turkiye Petrol Rafinerileri A.Ş. (Tüpraş) is a Turkey-based company that is mainly engaged in Diğer

the production and marketing of petroleum and petrochemical products with a capacity of

30mn tons	oreum and petro	ochennica i pro	ducts with a t	apacity of	Koç Holding Anonim Şirketi				6.35
Income Statement (mn \$)	2022A	2023A	2024E	2025E	Balance Sheet (mn \$)	2022A	2023A	2024E	2025E
Net Sales	31,182	23,351	23,164	21,681	Current Assets	6,718	6,842	7,148	6,572
Gross Profit (Loss)	3,846	3,732	2,099	2,078	Cash and Cash Equivalents	2,789	3,334	3,307	3,096
Operating Expenses	550	665	572	561	Short-Term Trade Receivables	1,200	1,375	1,206	1,129
Core Operating Profit	3,297	3,067	1,527	1,517	Inventories	2,022	1,512	2,020	1,772
Non-operating Income (Exp.)	-703	-563	-183	-183	Other Current Assets	706	620	615	575
Net Financial Income (Exp.)	-6	-576	180	266	Long Term Assets	5,109	5,634	5,889	5,970
PBT	2,330	1,967	1,562	1,640	Investments with Equity Method	258	282	288	294
Tax Expense (Income)	237	134	390	410	Tangible Fixed Assets	4,374	4,552	4,799	4,912
Net Profit	2,086	1,822	1,165	1,223	Intangible Fixed Assets	95	145	152	156
EBITDA	3,510	3,273	1,780	1,754	Other Long-Term Assets	382	655	650	608
Growth & Operating Perf.	2022A	2023A	2024E	2025E	Total Assets	11,827	12,476	13,037	12,542
Growth					Short Term Liabilities	4,422	5,281	5,946	5,042
Net Sales	43.8%	-25.1%	-0.8%	-6.4%	Short-Term Financial Loans	672	1,019	1,675	1,064
∃ BIT	117%	-7%	-50%	-1%	Short-Term Trade Payables	2,954	3,332	3,347	3,115
EBITDA	100%	-7%	-46%	-1%	Other Short-Term Liabilities	796	930	923	864
Net Profit	70%	-13%	-36%	5%	Long Term Liabilities	1,302	292	391	454
Operating Performance					Long-Term Financial Loans	1,192	182	282	352
Gross Margin	12.3%	16.0%	9.1%	9.6%	Other Long-Term Liabilities	110	110	109	102
∃BIT Margin	10.6%	13.1%	6.6%	7.0%	Equity	6,102	6,903	6,700	7,045
EBITDA Margin	11.3%	14.0%	7.7%	8.1%	Total Liabilites & Equity	11,827	12,476	13,037	12,542
Effective Tax Rate	10.2%	6.8%	25.0%	25.0%	Total Elabilites & Equity	11,027	12,470	13,037	12,542
Net Profit Margin	6.7%	7.8%	5.0%	5.6%	Cash Flow (mn \$)	2022A	2023A	2024E	2025E
ROE	34.5%	28.3%	17.1%	18.0%		2,806	2,901	1,102	1,560
ROA	17.6%	15.0%	9.2%	9.6%	•	2,093	1,832	1,171	1,230
					Depreciation & Amortisation	214	206	253	237
Ratio Analysis	2022A	2023A	2024E	2025E		-883	904	-322	92
Adj. P/E(x)	4.6	5.3	8.2	7.8	Other Operating Cash Flow	1,869	740	19	6
EV / EBITDA (x)	2.4	2.6	4.8	4.9	Cash from Inv. Operations	-257	-325	-500	-350
EV / Sales (x)	0.3	0.4	0.4	0.4	Capital Expenditures	-146	-421	-500	-350
P/B(x)	1.6	1.4	1.4	1.4		-112	96	0	0
ア = (ハ) EPS (も)	222.75	27.81	17.78	18.67	Free Cash Flow	2,549	2,576	602	1,210
DPS (も)	0.15	17.77	20.85		Cash from Fin. Operations	-1,302	-1,183	-611	-1,416
Di ()	0.10	40.00/	20.00	0.00/	oash irom rin. Operations	.,002	.,		.,-10

0.0% Change in Financial Debt

n.m Net Change in Cash

n.m Other Financing Cash Flow

-1,680 Dividends Paid

-457

-843

759

-2

-336

318

611

-1,165

756

0

-27

-1,367

-542

-874

-212

0

Shareholder Structure (%)

Enerji Yatırımları Aş

Net Debt / Equity (x)
Source: Is Investment

Net Debt (Cash) (mn \$)

Net Debt / EBITDA (x)

Dividend Yield

IAS-29 Adjusted Forecasts in US\$ Basis. 2024 year-end USD/TL:37, 2025E year-end USD/TL:43.7

12.2%

-2,133

n.m

n.m

0.0%

-925

n.m

n.m

The monetary gain/loss item, which results from the IAS-29 inflation accounting, is recorded under financial expenses.

14.3%

-1,350

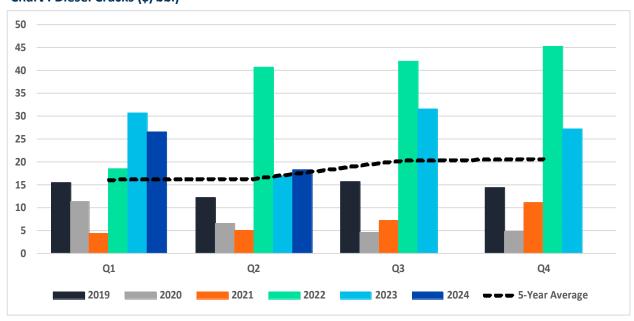
n.m

n.m



Geopolitical tensions are still priced in middle distillate margins. Middle distillate cracks continue to show resilience thanks to supply constraints in Europe due to the tensions in the Black Sea and Red Sea. Russian refined product flow is disrupted as Ukrainian drones targeting Russian refineries and sanctions are in place on Russian oil products. On the other hand, Red Sea tension lenghtens cargo durations, also adding premium on cracks. In 2Q24, middle distillate cracks were lower compared to 2022's high base but slightly above last year's. QoQ, diesel and jet fuel margins experienced corrections, partly due to the sudden renewal of stocks coming from Asia through the Cape of Good Hope and some seasonality factors including high temperatures in winter and a slowdown in industrial activity. We believe middle distillate cracks to remain above the 5-year average in the remainder of the year as the continent is a net importer in diesel and increasing air traffic should raise demand for jet fuel in the coming months. According to Eurocontrol, the number of flights is expected to reach 10.6mn in 2024, indicating 4.9% YoY growth, reaching 96% of pre-pandemic levels. As long as the supply constraints continue, we don't expect middle distillate margins to return to pre-pandemic levels.

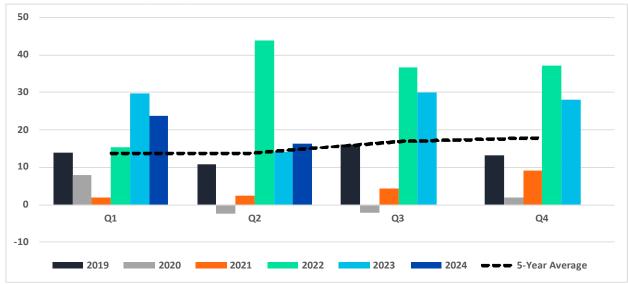
Chart: Diesel Cracks (\$/bbl)







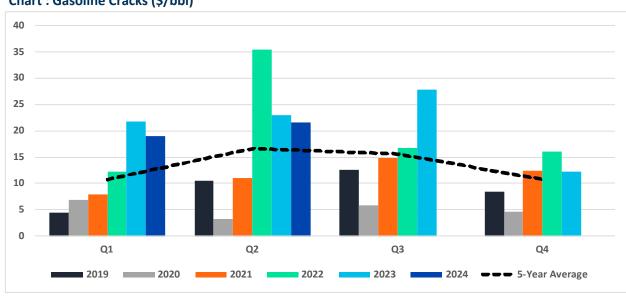




Source: The Company, IS Investment Estimates

Suspension of the gasoline export ban by Russia drags down gasoline margins despite high season. In 2Q24, gasoline cracks were lower compared to 2022's high base but slightly above the last year. Following attacks on refineries, the Russian government banned gasoline exports from March for six months resulting in low inventory levels in Europe and elevating cracks. Gasoline margins remained strong in 2Q24, but softened towards the end of the quarter as Russia lifted the export ban temporarily. However, global gasoline demand is expected to remain robust during peak summer driving season and softness in gasoline margins should be temporary. We expect gasoline margins to converge to the historical averages faster compared to middle distillates as the continent is less sensitive to disruptions in supply chains for gasoline as a net exporter, limiting upside movements.

Chart: Gasoline Cracks (\$/bbl)





RUP maintenance limited full benefits from favorable product differentials in 1H24. Complex refineries benefit from their ability to process heavier and sour crudes, which are typically cheaper than light sweet crudes. Tupras, as one of the most complex refineries in Europe and located in close proximity to major suppliers of heavy crude oil, is well-positioned to capitalize on these economical crude supplies and achieve substantial cost savings. In 1H24, geopolitical tensions caused the price differentials between heavy crude and Brent to widen, widening past five-year average. However, maintenance activities at the İzmit Refinery Fuel Oil Conversion Units, which lasted for 92 days during this period, limited Tupras's ability to fully take advantage of the lower-cost heavy crude.

-1
-2
-3
-4
-5
-6
-7
-8
-8
-Average Crude Price Differential to Brent (\$/bbl)
-5 -Year Average

Chart : Average Crude Price Differential to Brent

Source: The Company, IS Investment Estimates

During the projection period, we assumed that price diffferentials will remain close to historical averages, although there are risks to both sides. Rising supplies of light sweet crude and the current OPEC+ production policy which restricts the availability of heavy crude exert downward pressure on price differentials. This picture may change as OPEC+ has laid out a roadmap for unwinding extra voluntary cuts of up to 2.2mb/d from Q4 2024 to Q3 2025. However, new refining capacity additions in the Middle East could lead to a decrease in crude exports from the region, thus reducing the availability of heavy crude.





Following the all-time highs reached in 2022, natural gas prices moderated significantly both in Europe and Türkiye. Following the gas supply shock of 2022, natural gas markets moved towards a gradual rebalancing in 2023 thanks to the strengthened LNG imports and mild winter weather conditions. Although gas prices decreased significantly compared to their 2022 highs, they remain well above their historical averages.

2500
2000
1500
1000
1000
1000
Natural Gas EU Dutch TTF (\$/cubic meters)

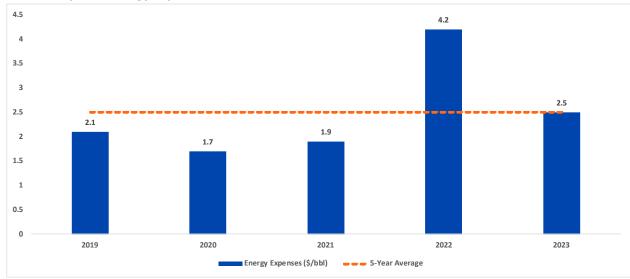
Türkiye Natural Gas Tariffs for Industrial Users (\$/cubic meters)

Source: Bloomberg, EPİAŞ

Natural gas tariffs for industrial producers in Türkiye typically follows European prices with a lag. Tupras enjoyed favorable natural gas prices compared to Europe in a volatile price environment, this advantage seems to have disappeared after prices stabilized. Average natural gas tariff for industrial producers were US\$528/cubic meters in 2023, down by 45% YoY. While In TL terms average natural gas tariffs have been kept same for the last three quarters, in USD terms 2Q24 average tariff were realized at US\$355, indicating a 14% decrease since 4Q23. According to our estimates, energy expenses per barrel decreased to last 5 years average in 2023 after peaking in 2022 and we expect it to remain at current levels throughout the projection period.



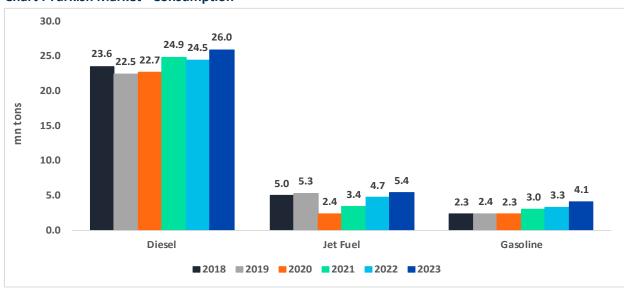
Chart: Tupras's Energy Expenses



Source: The Company, IS Investment Estimates

Domestic demand expected to remain robust despite tight monetary policy. According to April 2024 figures published by EMRA, domestic demand for petroleum products rose by 5.1% YoY in the first four months of the year (2023FY: 5.9%). Looking at the product breakdown, gasoline saw the highest YoY growth in demand at 21.4% YoY, followed by diesel at 3.7% and jet fuel at 2.5%. Despite the current high interest rate environment, we do not foresee a significant drop in fuel demand, positioning Tupras as a defensive pick for the latter half of this year as well as 2025.

Chart: Turkish Market - Consumption



Source: EPDK



The company's guidance for capacity utilization rate for 2024FY was kept at %85-%90 after 1Q24 financials. The management also maintained its annual production and sales expectations at 26mn tons and 30mn tons, respectively. We expect average annual production to be around 26.2mn tons, and annual sales to be around 30mn tons in the projection period as no major shutdown in scheduled for the next five years. No expansion in total refining capacity is expected as the company will focus more on strategic transformation in the upcoming years.

The completion of RUP maintenance should improve white product yield slightly. Following the completion of RUP investment in 2015, white product yield improved considerably as the company gained the ability to convert low value-added black products into more profitable white products such as diesel and jet fuel. However, due to the planned RUP maintenance in 1Q24, white product yield fell sharply to 75% from the usual levels of above 80%. Once the periodic maintenance is completed, we expect that RUP will operate more efficiently, resulting in a slight increase in white product yield above the last five-year average.

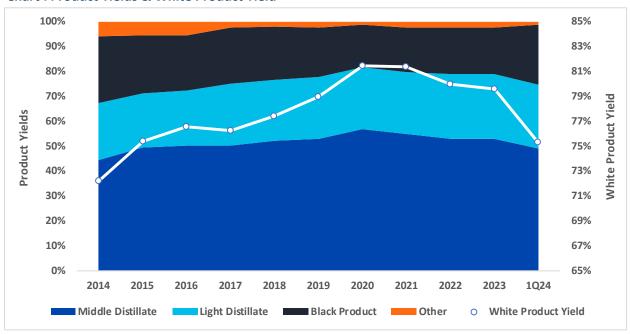


Chart: Product Yields & White Product Yield



During the projection period, we anticipate that Tupras will not face any demand-related issues that could affect capacity utilization rates or local product prices. Additionally, market share of the company is not expected to change significantly, as no additional domestic refining capacity is foreseen. Domestic fossil fuel consumption is projected to peak in 2030. After 2030, demand for diesel is expected to be gradually replaced by hydrogen, while electric vehicle vehicle penetration will further grow. However, the existing domestic refining capacity for diesel production, much of which is currently imported, will remain essential for the foreseeable future. By 2030, approximately 10% of aviation fuel consumption in Turkey is expected to come from Sustainable Aviation Fuel (SAF). Tupras's announced goal of becoming the top SAF producer in Türkiye, coupled with Istanbul's rising role as a regional aviation hub, is likely to drive growth in Tupras's aviation fuel sales and market share in the long term.

CUR is expected to be high in the next couple of years, with no major maintenance foreseen. Tupras produced 5.9mn tons in 1Q24 with a CUR of 82% as the periodic maintenance activities in Izmit Refinery led to approximately 300k tons of production loss. 600k tons of production loss is also anticipated in 2Q24 due to the maintenance activities, although no reduction is foreseen on Tupras's sales volume as production loss will be compensated by increased imports. The company generated 7mn tons of sales in 1Q24, up by 10% YoY thanks to strong demand for refinery products.

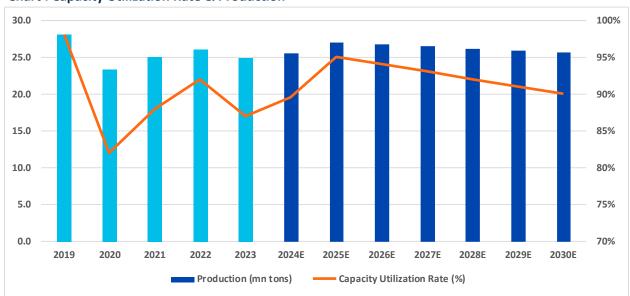


Chart: Capacity Utilization Rate & Production





According to IEA, global refining industry will face the challenge of meeting the rising demand for jet fuel and diesel, while witnessing a drop in gasoline consumption towards the end of the decade. In respond to this shift, refineries are projected to adjust their operations by increasing the production of middle distillates at the expense of naphtha and gasoline. However, due to technical constraints, it is challenging to switch between light and middle distillates, even for the most complex refineries. That is why we expect that Tupras's overall yield of middle distillates will remain within the range of 50% to 55%, in line with historical averages.

Crack margins are normalizing. 2022 and 2023 were exceptionally strong years in terms of EBITDA creation due to record-high crack margins. The company generated US\$3.5bn and US\$3.3bn EBITDA in 2022 and 2023 with estimated average crack margins of \$18.1/bbl and \$15.7/bbl, respectively. While we don't expect to see exceptionally high cracks in 2024, they are likely to remain above the last fiveyear averages, leading to a projected average crack margin of \$13.8/bbl in 2024. Normalizing crack margins coupled with RUP maintenance will drag down 2024YE EBITDA YoY. Consequently, we anticipate Tupras to generate US\$1.8bn EBITDA in 2024, down by 46% YoY. Looking ahead, crack margins are expected to regress to slightly below historical averages towards the end of the decade, resulting in the company's EBITDA declining to US\$1.5bn in 2030. SAF sales are projected to contribute to EBITDA starting from 2027.



Chart: EBITDA & EBITDA Margin





Above-average CAPEX in 2024. The company's management is leveraging the strong cash flow generated in recent years, thanks to historically high refining margins, to invest in its strategic transition plan. After 1Q24 financials, the company maintained its 2024FY capital expenditure target at US\$500mn. Starting from 2025, we expect capital expenditures to decrease to US\$350mn in line with the company's average annual capital expenditure target until 2035. Significant portion of investments, 40% between 2022-2030 and increasing to 70% between 2031-2035, will be allocated towards sustainable aviation fuel (SAF), hydrogen and zero carbon electricity production.

600 2.5% 500 2.0% 400 1.5% 300 1.0% 200 0.5% 100 0.0% 0 2022 2023 2024E 2025E 2026E 2027E 2028E 2029E 2030E Cap-Ex (\$ mn) Cap-Ex / Sales (%)

Chart: Capex & Capex / Sales

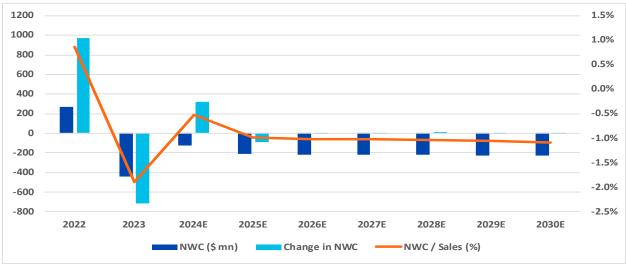
Source: The Company, IS Investment Estimates

The rising inventory levels due to the extended cargo times should be normalized in 2025. The company's working capital requirement decreased significantly to negative US\$444mn at the end of 2023 from US\$269mn at the end of 2022 thanks to less volatility in prices and better inventory turnover. Some YoY normalization in inventory and payables day was expected but the tensions in the Red Sea extended cargo times, resulting in longer than expected inventory days, which is likely to have a greater negative impact on cash flow in 2024 than initially expected. However, we expect that inventory days will shorten in the remainder of the year, return to historical averages starting from 2025. We assume the company to maintain the working capital days of 2025 throughout our projection period.



Tupras

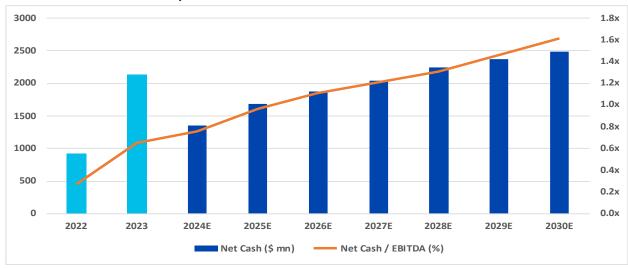
Chart: Net Working Capital



Source: The Company, IS Investment Estimates

Despite some pull-back in 2024, strong net cash position will be maintained. Following the completion of the US\$3.2bn RUP investment in 2015, Tupras has steadily deleveraged over the years. After the pandemic, taking advantage of the refining supercycle of the past two years, the company has built up a significant net cash position, reaching TL62.7bn (US\$2.13bn) by the end of 2023. However, the recent increase in working capital requirements, driven by inventory build-up due to Red Sea tensions, has led to a decline in the net cash position to TL51.6bn as of the end of 1Q24 (US\$1.6bn). It is anticipated that the working capital requirement will normalize throughout the year, but with above-average CAPEX of US\$500mn and a potential second dividend payment, the net cash position is expected to decrease to US\$1.35bn by the end of 2024.

Chart: Net Cash & Net Cash / EBITDA





Second dividend payment is expected to be made in 2H24. Tupras has a consistent track record of paying dividends and targets to pay 80% of distributable income and to remain as a high dividend payer while executing strategic transition plan. Following 2023YE financials, Tupras distributed a gross dividend of TL10.38/share indicating a dividend yield of 5.9%. The management also stated that an additional dividend distribution may be considered in the second half of the year, depending on market conditions. In light of the company's dividend distribution policy, strong net cash position of TL51.6bn and robust operating margins, we expect Tupras to announce a second dividend payment of gross TL10.38/share in 2H24 from 2023 net income, indicating a dividend yield of 6.4%. Unless unexpected negative conditions arise like pandemic, we expect the company to maintain its high dividend payout rate in the future.

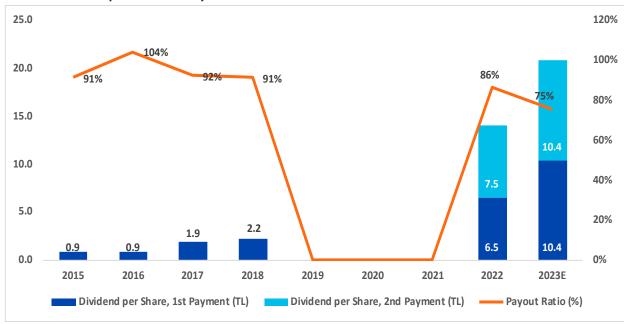


Chart: Dividend per Share & Payout Ratio



Valuation. We value TUPRS based on nominal non-inflation adjusted US\$-based cash flow projections. We use a blended valuation approach placing 50% weight on DCF and 50% weight on comparable company multiples. We maintain our BUY rating for TUPRS shares with an unchanged PT of 242TL/ share due to the upside potential of 49%. TUPRS shares underperformed the BIST-100 by 13.7% ytd and by 8.5% for the last one month. With its 2025E P/E of 7.8x and EV/EBITDA of 4.9x, TUPRS trades at 17% discount and 2% premium, respectively, compared to its global peers.

Table: Valuation Summary

	Equity Value	Weight	Weighted Equity Value
DCF	477,591	50%	238,795
Peer Comparison	456,143	50%	228,071
Target Equity Value			466,867
12-month Price Targe	et (TL/share)		242
Current Price			162.40
Upside Potential			49%

Source: The Company, IS Investment Estimates

Risks. Higher than expected contraction in demand for refined products in the European market, easing war-related supply issues in the product markets, faster than expected new capacity additions, higher than expected rise in energy costs are the main downside risks for our valuation. Key upside risks include delays in new capacity additions and increased heavy crude availability in the coming period.

Table: Sensitivity Analysis

		Terminal Growth Rate							
		0%	1%	2%	3%	4%			
	+2%	210	214	219	225	232			
ပ္ပ	+1%	218	223	229	237	247			
WACC	0%	228	234	242	253	267			
	-1%	239	248	259	273	294			
	-2%	254	265	281	302	334			

Tupras

Table: Discounted Cash Flow (DCF) Analysis

\$ mn								
	2024E	2025E	2026E	2027E	2028E	2029E	2030E	TV
Revenues	23,164	21,681	21,552	21,421	21,328	21,235	21,141	
EBITDA	1,780	1,754	1,695	1,693	1,720	1,632	1,545	
EBITDA Margin	7.7%	8.1%	7.9%	7.9%	8.1%	7.7%	7.3%	
EBIT	1,527	1,517	1,460	1,458	1,486	1,400	1,314	
(-) tax on EBIT	-382	-379	-336	-306	-312	-294	-276	
(+) Depreciation	253	237	236	234	233	232	231	
(+/-) Change in WC	-322	92	5	1	0	5	5	
WC / Sales	-0.5%	-1.0%	-1.0%	-1.0%	-1.0%	-1.1%	-1.1%	
(-) Cap-ex	-500	-350	-350	-350	-350	-350	-350	
Cap-ex / Sales	-2.2%	-1.6%	-1.6%	-1.6%	-1.6%	-1.6%	-1.7%	
Free cash - \$ mn	\$576	\$1,117	\$1,015	\$1,038	\$1,057	\$993	\$924	\$11,569
Free cash margin	2.5%	5.2%	4.7%	4.8%	5.0%	4.7%	4.4%	
WACC	10.7%	10.7%	10.6%	10.5%	10.4%	10.4%	10.4%	10.1%
Disc Factor	1.1	1.2	1.3	1.5	1.6	1.8	2.0	2.0
DCF - \$ mn	\$533	\$935	\$768	\$711	\$656	\$558	\$470	\$5,883

Terminal growth 2% Solo Firm Value - \$ \$10,381 Adjusted Net Cash - 3M24 - \$ \$980 Entek (99.23%) \$497 Ditas (79.98%) \$367 \$242 Opet Stake (41.67%) Target Equity Value - \$ 11,836 **Target Equity Value - TL** 477,591

Source: The Company, IS Investment Estimates

Table: WACC Assumptions

WACC	10.7%	10.7%	10.6%	10.5%	10.4%	10.4%	10.4%	10.1%
D/(D+E)	25%	25%	25%	25%	25%	25%	25%	25%
After tax cost of Debt	5.0%	5.0%	5.0%	5.1%	5.0%	5.0%	5.0%	4.7%
Cost of Debt	6.7%	6.6%	6.5%	6.4%	6.3%	6.3%	6.3%	6.0%
Cost of Equity	12.7%	12.6%	12.5%	12.4%	12.3%	12.3%	12.3%	12.0%
Beta	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Equity Risk premium	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%	5.5%
Risk Free rate	7.7%	7.6%	7.5%	7.4%	7.3%	7.3%	7.3%	7.0%





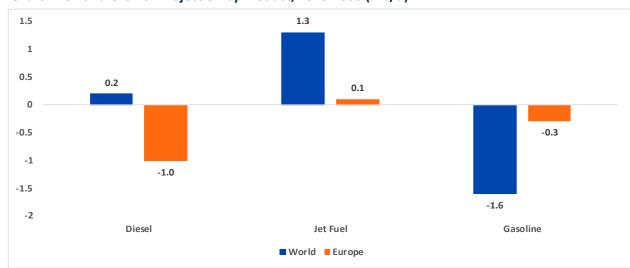
Table: International Peers

	P/E		EV/EE	BITDA
	2024E	2025E	2024E	2025E
OMV AG	6.1x	6.3x	3.2x	3.3x
NESTE OIL OYJ	11.7x	9.7x	7.6x	6.7x
HELLENIC PETRO	6.7x	7.9x	4.9x	5.3x
MOTOR OIL-HELLAS	6.4x	8.0x	4.7x	5.3x
MOL	4.6x	5.0x	2.9x	3.1x
ERG SPA	16.2x	16.3x	8.8x	8.4x
SARAS SPA	12.3x	16.9x	3.4x	3.8x
PKN ORLEN	6.1x	5.2x	2.6x	2.3x
Median	6.6x	7.9x	4.0x	4.6x
Average	8.8x	9.4x	4.8x	4.8x
TUPRS	8.2x	7.8x	4.8x	4.9x
TUPRS's disc/prem	-6%	-17%	1%	2%

Source: Bloomberg, Is Investment Estimates

New refining capacity additions are expected to surpass demand growth. Despite a rebound in oil demand following the pandemic, IEA forecasts that demand will peak as early as this decade, taking the biggest hit in Europe and North America. The shift towards renewables, biofuels, and natural gas liquids is expected to reduce the demand for refined products. According to the IEA, by 2030, EV sales growth will displace 4.7 mb/d of gasoline and 1.4 mb/d of diesel demand. However, oil will continue to play a substantial role in sectors such as chemicals, where it is used as a feedstock.

Chart: Demand Growth Projection by Product, 2023-2030 (mb/d)



Source: IEA, Oil 2024





Following the exceptionally profitable years for the industry, the trend of refinery closures has decelerated. IEA forecasts that global refining capacity is projected to expand by 3.3 mb/d by the end of the decade, concentrating in Asia, and most of the expansion projects are expected to be completed by 2026. Capacity additions are expected to outpace the growth in demand for refined products, which is projected to only increase by 1.2 mb/d by 2030. Advanced countries are likely to see a decrease in refining capacity utilization rates going forward, especially for less complex refineries. Refinery closures in Europe have been ongoing since 2010, with plans to shut down an extra 480 kb/d of capacity in 2024 and 2025 as the continent moves towards cleaner energy sources in response to stricter regulations and carbon taxes.

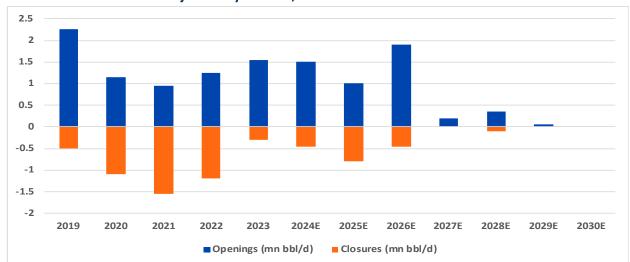


Chart: Demand Growth Projection by Product, 2023-2030

Source: IEA, Oil 2024

Diversifying portfolio through high value-added chemicals. Growth in oil demand in the medium term is expected to be largely driven by petrochemical feedstocks. IEA forecasts a 2.8 mb/d increase in demand for these feedstocks from 2023-2030, which would account for about three-quarters of the overall rise in oil consumption, primarily driven by ethane and LPG. While refining will continue to be a significant contributor to Tupras's EBITDA, with 90% generated through the refining segment until 2030, decreasing to 70% between 2031-2035, the company aims to boost refinery margins by diversifying its portfolio with higher value added products. A substantial portion of new investments, starting at 60% until 2030 and falling to 30% between 2031-2035, will be allocated towards sustainable refining projects. Tupras has recently announced a US\$256mn investment in two projects at İzmir and İzmit refineries to produce high value-added chemicals like propylene, which will be sold to petrochemical companies as feedstock and help reduce Scope 3 emissions.

Tupras

120% 100% **30%** 80% 60% 70% 60% 90% 40% 70% 20% 40% 10% 0% 2022-2030 2031-2035 2022-2030 2031-2035 Share in FBITDA Share in CAPEX ■ Sustainable Aviation Fuel & Zero Carbon Electricity & Green Hydrogen ■ Sustainable Refining

Chart: Strategic Transition Plan

Source: The Company

Zero-carbon electricity is key to achieving net zero emissions by driving electrification and green hydrogen production. According to IEA's Announced Pledges Scenario (APS), global electricity generation will almost double over the next 30 years, with renewables accounting for nearly 70% of electricity generation by 2050, up from 29% in 2020. As Tupras has set a target to completely eliminate its Scope 1 and 2 emissions by 2050, the company plans to allocate the majority of new investments to zero-carbon electricity facilities, amounting to US\$650 million in capital expenditures by 2030, to capture the increasing demand for electricity and support the electrification of refinery processes through green hydrogen production. Tupras will initially sell the electricity it generates and gradually shift towards integrating electricity production with green hydrogen production. By 2025, 15% of produced zero-carbon electricity will be allocated for green hydrogen production, increasing to 65% by 2030 and 85% by 2035. The company intends to utilize green hydrogen mainly in refinery processes and eventually supply it to the heavy transportation and logistics sectors in the 2030s.

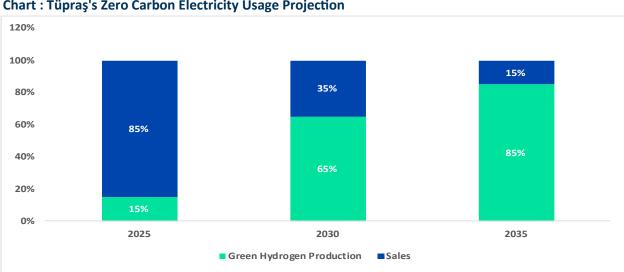


Chart: Tüpraş's Zero Carbon Electricity Usage Projection

Source: The Company





On a fast-track towards 1GW installed capacity target by 2030. In 2022, Tupras acquired Entek which had eight hydroelectric power plants, one wind power plant and one natural gas cycle power plant with a combined capacity of 492MW. Entek added the 50MW capacity Kınık Wind Power Plant into its portfolio in 2023 and total Zero Carbon Electricity installed generation capacity at Tupras reached 380MW. The company, which is focused on scaling up its capacity through production and potential acquisitions, has already secured preliminary licenses for the development of 11 storage solar and wind power plants with a combined capacity of 653.3MW. Recently, Entek's subsidiary Enspire Enerji signed a deal to acquire a Romanian energy company with solar power plant permits with a capacity of 214.3MW in a EUR 32.9 million agreement, bringing total planned capacity to 868MW in addition to its existing capacity of 492MW. With installed capacity targets set at 1GW by 2030 and 2.5GW by 2035, Tupras anticipates a robust 17% compound annual growth rate between 2023 and 2035.

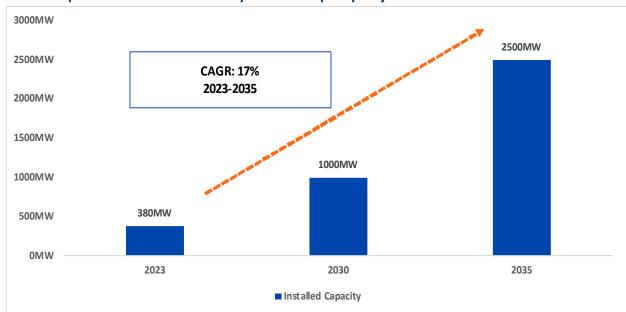


Chart : Tupras's Zero Carbon Electricity Installed Capacity Projection

Source: The Company



Tupras took a major step in securing feedstock supply to produce SAF. IEA emphasizes the need for significant advancements in aviation biofuels by 2030 to align with the Net Zero Scenario, projecting a rise in biojet demand to 150 kb/d. Countries worldwide are setting ambitious targets for Sustainable Aviation Fuel (SAF). In Türkiye, a rising regional aviation hub, approximately 10% of aviation fuel is expected to consist of SAF by 2030 and Tupras aims to become the leading SAF producer in Türkiye, sezing changing market dynamics for aviation fuels and securing long-term profitability in the aviation sector. Initially, 400k tons of biofuel production capacity is anticipated, with a projected share of SAF in total jet fuel sales reaching 10% by 2030. The goal is to triple production capacity by 2035.

0.16 2.5% 0.14 2.0% 0.12 0.1 1.5% 0.08 1.0% 0.06 0.04 0.5% 0.02 0.0% 2030 2023 Share of SAF in Aviation Fuels (%) ■ Global Sustainable Aviation Fuel Demand (mn bbl/d)

Chart: SAF Demand Projection

Source: IEA, Net Zero by 2050

In line with the company's SAF production target, Tupras announced that it will use Honeywell's UOP Ecofining technology to produce SAF. Basic engineering work has been completed for the Ecofining Unit that will be set up at the İzmir Refinery, with the final investment assessment expected to be completed by the end of 2025. The company has also recently signed a long-term agreement for the procurement of raw material to produce Sustainable Aviation Fuel (SAF). A minimum of 300k tons of the company's anticipated 450k tons plant-based and animal-based waste raw material requirement have been secured for a duration of 10 years starting from 2029. According to Strategic Transition Plan, which was announced in 2021, Tupras is expected to allocate capital expenditures of US\$230mn for SAF investments by 2030 with an anticipated EBITDA creation of US\$440mn. By 2035, the company projects consolidated capital expenditures and cumulative EBITDA to reach US\$600mn and US\$1.1bn, respectively.



Green hydrogen will be initially used for refining processes, then as a transportation fuel. Clean hydrogen, produced with renewables is crucial to reduce emissions in various industries such as heavy transportation, chemicals, and iron and steel. Hydrogen may also play a crucial role in integrating renewables into the electricity system thanks to hydrogen's ability to store energy over extended periods. Currently, hydrogen is mostly used in the refining and chemical industries and is primarily produced from fossil fuels resulting in significant carbon emissions. According to IEA's Announced Pledges Scenario, there will be a substantial increase in global hydrogen consumption, especially in the transportation sector. Global hydrogen-based fuel production is expected to climb from 87mn tons in 2020 to 212mn tons by 2030, and further to 520mn tons by 2050. The share of low-carbon hydrogen in the market is also forecasted to surge from 10% in 2020 to 71% in 2030, ultimately reaching 98% by 2050. This shift towards low-carbon hydrogen is crucial in achieving climate goals and reducing carbon emissions in the coming decades.

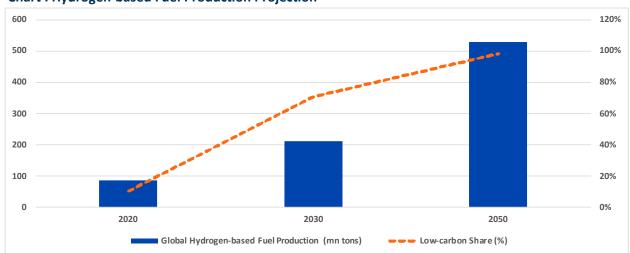


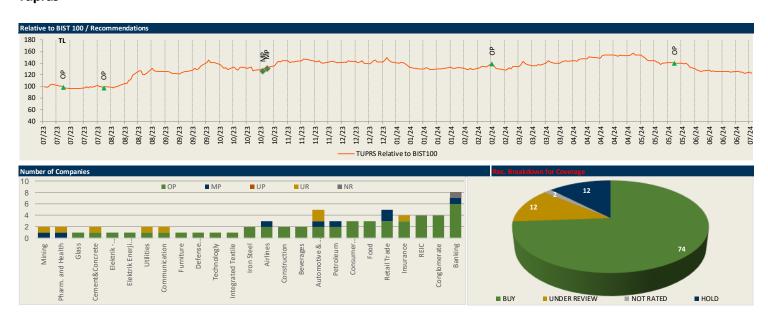
Chart: Hydrogen-based Fuel Production Projection

Source: IEA, Net Zero by 2050

While Tupras is currently utilizing grey hydrogen in its refining processes, the company plans to switch to green hydrogen, which is produced using renewable sources. Tupras has completed the basic engineering work for the installation of a 20MW pilot electrolyzer and aims to convert all existing grey hydrogen production to green hydrogen by 2040, targeting zero emissions from hydrogen production by the same year. To support its green hydrogen initiatives, the company aims to reach an electrolyser capacity of 1 GW by 2035. The company plans to sell green hydrogen for heavy transportation and logistics from 2030 onwards, anticipating a gradual growth in hydrogen usage as a fuel post-2030, with accelerated momentum after 2040. Tupras is expected to allocate US\$310 million in capital expenditures for green hydrogen production by 2030, with an anticipated EBITDA creation of US\$35 million. By 2035, the company projects consolidated capital expenditures and cumulative EBITDA to reach US\$690 million and US\$640 million, respectively.



Tupras



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