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CREDIT OPINION

28 September 2021

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RATINGS

Turkiye Petrol Rafinerileri A.S.

Domicile	Turkey
Long Term Rating	B2
Type	LT Corporate Family Ratings - Dom Curr
Outlook	Negative

Please see the ratings section at the end of this report for more information. The ratings and outlook shown reflect information as of the publication date.

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Turkiye Petrol Rafinerileri A.S.

First half 2021 results supported by inventory gains and improving market conditions

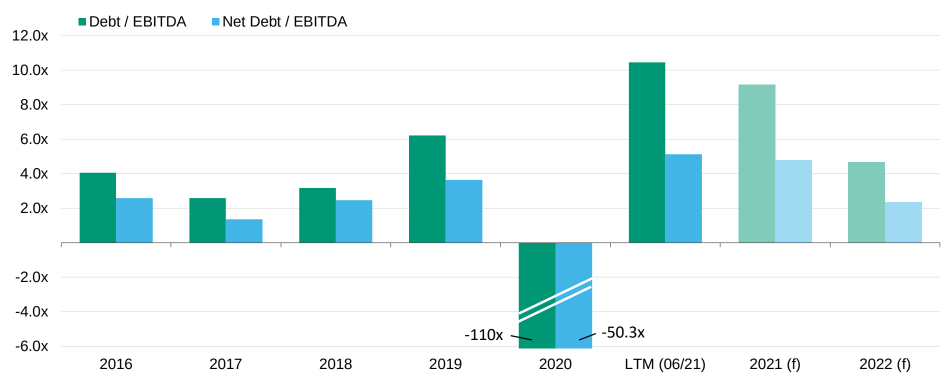
Summary

Tupras' B2 rating reflects (1) the company's dominant position in the Turkish market being the leading refiner; (2) a relatively high weighted average plant complexity of 9.5 and high grade product slate with about 59% production of higher margin middle distillates; (3) exposure to a supportive domestic market, with Turkey having a sizeable net deficit position of diesel; and (4) an adequate liquidity profile underpinned by sizeable unrestricted cash totalling TRY16.9 billion as of 30 June 2021 that covers sizeable short term funding.

The rating positioning also takes into consideration its asset concentration in Turkey (B2 negative) and the company's exposure to cyclical market conditions inherent to the refining industry, an unstable domestic currency and working capital swings that result in volatile credit metrics. With the expectation of no significant coronavirus-induced disruptions, fuel demand and refining margins are predicted to improve towards pre-pandemic levels leading to profitability and credit metrics to rebound over the next 18 months. Consequently, we expect Moody's adjusted gross debt to EBITDA to decrease from elevated levels of 10.5x as of last twelve months (LTM) to 30 June 2021 to below 5.0x by year end 2022.

Exhibit 1

Leverage is projected to revert towards pre-covid 19 levels as demand for fuel and refining margins improve



Note: All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Forecasts represents Moody's forward view, not the view of the issuer. Leverage includes inventory gains and losses.
Source: Moody's Financial Metrics™

Credit strengths

» Leading and dominant position in the domestic market, with established infrastructure including storage, pipeline and terminal facilities

» Supportive long term fundamentals in the domestic market

» Financially strong and supportive shareholder

Credit challenges

» Exposure to the volatile and cyclical refining industry exacerbated by Covid-19

» Asset concentration risk with all core assets located in Turkey

Rating outlook

The negative outlook on Tupras is in line with the negative outlook on the ratings of the Government of Turkey reflecting the operational exposure to the Government of Turkey's political, legal, fiscal and regulatory environment.

Factors that could lead to an upgrade

Given the negative outlook and credit linkages with the Government of Turkey, an upgrade of Tupras' ratings is unlikely over the next 12-18 months.

The ratings of Tupras could be upgraded if Turkey's foreign currency bond ceiling is raised. This would also require the company's operating and financial performance to trend towards pre-covid levels with no material deterioration in its market position and liquidity.

Factors that could lead to a downgrade

Tupras' ratings are likely to be downgraded in case of a further downgrade of Turkey's sovereign rating or a lowering of the foreign currency bond ceiling. In addition, downward rating pressure could arise if there are signs of a deterioration in liquidity or if government-imposed measures were to have an adverse impact on corporate credit quality.

Furthermore, Tupras' ratings could experience downward ratings pressure if plant utilisation and net refining margins remain low, leading to depressed operating cash flow in 2021 and 2022. Specifically, the ratings could be downgraded if Moody's adjusted debt/ EBITDA remains above 5.5x or adjusted EBITDA/interest remains below 1.25x, on a sustained basis.

Key indicators

Exhibit 2

Key Indicators for Turkiye Petrol Rafinerileri A.S.[1][2][3]

	12/31/2017	12/31/2018	12/31/2019	12/31/2020 [4]	6/30/2021(L)	2021(f)	2022(f)
Crude Distillation Capacity (mbbls/day)	611	611	652	652	652	652	652
EBIT / Total Throughput Barrels ($/Bbl)	$6.9	$6.2	$2.0	-$0.8	$1.6	$1.5	$2.8
EBIT / Average Capitalization	23.1%	20.3%	8.4%	-2.6%	5.4%	5.6%	12.6%
EBIT / Interest Expense	6.9x	4.0x	1.2x	-0.5x	1.0x	0.8x	1.9x
Debt / EBITDA	2.6x	3.2x	6.2x	-110.0x	10.5x	9.2x	4.7x
Net Debt / EBITDA	1.4x	2.5x	3.7x	-50.3x	5.1x	4.8x	2.3x
RCF / Debt	21.7%	9.0%	-9.4%	-5.2%	5.7%	10.0%	9.5%
Debt / Capitalization	60.5%	67.1%	61.7%	73.4%	72.6%	72.9%	68.9%

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments.
[2] Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.
[3] Moody's Forecasts (f) or Projections (proj.) are Moody's opinion and do not represent the views of the issuer. [4] The weak credit metrics in FY2020 was because of reduced fuel demand from covid-19 related travel restrictions combined with lower refining margins and significant decline in oil prices that lead to high inventory-related losses and negative EBITDA.
Source: Moody's Investors Service

Profile

Turkiye Petrol Rafinerileri A.S. is the leading refiner in Turkey, with a dominant position in the domestic petroleum product market. The refining business consists of one very high complexity refinery in Izmit, two medium complexity refineries located in Izmir and Kirikkale and one simple refinery in Batman, with a combined annual crude processing capacity of 30 million tonnes (652 mbbl/day). Other core companies include (1) a 40% effective ownership stake in Opet, Turkey's second-largest oil-products distribution company with 1,779 stations operating under the Opet and Sunpet brands as of 30 June 2021; (2) an 80% stake in Ditas, a shipping company which primarily serves Tupras' logistic needs; and (3) a 100% stake in Korfez Ulastirma A.S., Turkey's first private railway operator that began freight operations in December 2017 with the aim to transport fuel across Turkey.

The company was established in 1983 when various state-owned refineries were combined under the Tupras name. As part of the privatisation process, 2.5% of its shares were publicly floated in 1991, which had increased to 49% by 2005. The company was fully privatised on 26 January 2006 when the remaining 51% stake was bought by EYAS, a special purpose vehicle owned by a consortium led by Koc Holding, one of the largest business groups in Turkey.

Headquartered in Istanbul in Turkey, Tupras generated sales of TRY90.5 billion ($11.8 billion) and reported a net income of TRY896 million ($117 million) for the last 12 months (LTM) ending 30 June 2021.

Detailed credit considerations

Credit metrics to recover; limited headroom for further market disruptions

Tupras is exposed to a highly competitive industry which is cyclical and susceptible to external events. Global and domestic supply/demand dynamics of both crude oil and refined products has a direct impact on the profitability of the company. Following a difficult year in 2020 we expect 2021 performance to gradually recover as the supply and demand for fuels rebalance, leading to higher net refining margins for Tupras of between $3-$4 per barrel for 2022 from a low of $1.3 per barrel in 2020.

During the pandemic Turpas demonstrated its ability to manage operations through the downcycle by changing its product mix with a focus on profitable products, working capital improvements and maintaining a good liquidity profile. While profitability and credit metrics are improving, Tupras' credit metrics are weakly positioned and vulnerable to sudden shifts in market sentiment or disruptions that are difficult to predict. In our base case, we expect the effects from the coronavirus will persist with a gradual improvement in economic activity in Turkey over the next 18 months. Under this scenario, we estimate Tupras adjusted debt to EBITDA will remain elevated in 2021 at around 9.2x but is projected to decline below 5.0x by year end 2022. Because Tupras maintains a high cash balance (TL16.9 billion as of 30 June 2021) well above its operational needs, its net debt to EBITDA is expected to be much lower at 4.8x and 2.3x for 2021 and 2022, respectively. We also expect the retained cash flow (RCF) / debt to improve to around 10% over the next 12 to 18 months from 5.7% as of LTM June 2021, given the expectation of no dividend payments for financial year 2021. With no major investment planned over the next several years, Tupras' gross debt is projected to steadily decline as project finance loans amortise, helping to lower leverage and provide a buffer against future market volatility.

Dominant position in the Turkish market

As the dominant refiner in Turkey, Tupras benefits from the location of its main refineries that lies near major domestic consumption centres, and from operational flexibility in having multiple distillation units across its refineries. Tupras continues to benefit from a supportive domestic market with long term demand for refined products, specifically diesel given Turkey is a net importer. For the first 5 months of 2021, diesel consumption in Turkey was up 9.7% and gasoline consumption increased by 13.5% compared to a year earlier which was negatively affected by the mobility restrictions imposed by the Turkish government because of COVID-19. Over the same period jet fuel consumption increased 2.7% as airline passenger traffic improved. The slow demand recovery however has resulted in Tupras keeping its plant utilisation guidance between 85%-95% below historical levels of 95%-100%. In the absence of a resurgence of further lock downs, we expect demand for fuels to improve over the second half of 2021 and into 2022, with jet fuel volumes taking longer to recover.

Turkey's second oil refining company — the STAR refinery — became fully operational in August 2019 with among other products, production of 4.5 million tons (MT) of diesel and 1.6 MT of jet fuel. The STAR refinery is designed to have the flexibility to convert 1.0 MT of jet fuel (out of the 1.6 MT capacity) to diesel. Tupras still accounts for most of domestic production with 10.6 MT of diesel and 2.2 MT of jet fuel produced in 2020. Given the sizeable diesel deficit in Turkey and high freight costs for importers, should domestic demand fall Tupras will still be able to sell its diesel production. We also note that in an environment of high currency volatility, domestic commodity producers such as Tupras generally have an advantage over distributors that import commodities, since the latter are generally more exposed to foreign exchange risks and therefore may shy away from importing or doing business in the country unless they can reliably hedge their currency exposure. Tupras also has the flexibility to sell its refined products in the international markets, which contributed 22% to first half 2021 revenue.

Moderately sized refiner with limited upstream/downstream operations

Unlike some other rated peers such as Polski Koncern Naftowy ORLEN S.A. (Baa2 positive; baa3 baseline credit assessment (BCA)) and MOL Hungarian Oil and Gas Plc (Baa3 stable), Tupras does not have material vertical integration with the absence of upstream/downstream operations apart from its 40% stake in Opet, Turkey's second largest refined products distributor. Most of Tupras' operating profit is derived from the refining business, with the distribution business complementing the former, although it does not provide a large scale of earnings diversification.

The company's asset base comprises of one very high, two medium and one simple-complexity refineries geographically located in a single market and with dependency on imported crude oil. Under our industry rating methodology assessment for operational scale, Tupras maps to the lower end of the Baa ranges for both the Crude Distillation Capacity sub-factor (500-1,000 mbbl/day capacity range) and Number of Large-Scale Refineries sub-factor (3-5 refineries range). We define a large-scale refinery as one that has more than 100 mbbl/day of crude distillation capacity and in light of this see both the Izmit and Izmir refineries being large-scale refineries (239 mbbl/day each) while the Kirikkale refinery is at the lower end of the definition (109 mbbl/day). Putting all these considerations together, we see Tupras as having a business that is comparable to peers at the cusp of a high Ba/low Baa rating.

Tupras competitive position was enhanced by the completion of the RUP upgrade on its Izmit refinery in May 2015. This enabled Tupras to process high sulphur/low value fuel oil into higher yielding products (diesel, jet fuel, gasoline and LPG) translating into improved net refining margins that have been consistently above the regional mediterranean benchmark. Tupras' net refining margin however remain vulnerable to change in heavy crude differentials, as experienced in late 2018 when US sanctions were placed on Iran, a material supplier of cheaper heavy crude to Tupras at the time. Given Tupras' broad supplier base, there was no disruption of supply, however it forced Tupras to source more expensive alternatives in the region, contributing to lower net refining margins in 2019.

Asset concentration in Turkey constrains rating

All of Tupras' core assets are located in Turkey and a material portion of its profitability is derived from the domestic market which creates credit linkages with the Turkish sovereign. On average, around 22% of the refiner's revenue are from exports, of which gasoline and fuel oil are key products sold in the international market. Under normal conditions the company's ability to increase the export of its refined products is a mitigating factor against drop in domestic demand.

Government and regulatory policy changes are risk factors, such as increases in taxes which could impact the demand for refined products. In 2018, the Government of Turkey made an adjustment to the special consumption tax on petroleum products such that increases in product prices because of the lira depreciation and/or higher crude oil prices would offset the special consumption tax. This mechanism enabled petroleum product prices to remain fixed and this change did not have any financial impact on Tupras. While not anticipated, any amendment in Turkey's regulatory framework that causes a financial burden on Tupras is likely to weigh on the current rating.

The Turkish lira has weakened significantly over the past few years and remains vulnerable to further instability which leads to more volatile credit metrics. The company actively manages its currency risk, and its cash flow are naturally hedged from the lira depreciation because domestic sales of petroleum products are indexed to the US dollar.

ESG considerations

Environmental considerations for Tupras include the risk that environmental concerns, penetration of electric cars and regulation result in a declining demand for Tupras' main products gasoline, diesel and other derivatives of oil. Tupras has positioned its operations and product mix to benefit from IMO 2020 regulations requiring the shipping industry to switch to low sulphur fuels, starting from 1 January 2020.

Tupras' credit profile positively incorporates a financially strong and supportive shareholder in the form of Koc Holding A.S. (B2 negative; 39.3% effective holding) – one of Turkey's largest business groups. While Koc Holding's rating is also constrained by Turkey's foreign currency rating, we recognise that it has a strong balance sheet, with sizable cash balances. We also recognise that Koc Holding provides strict governance and financial oversight.

Liquidity analysis

Tupras' liquidity is adequate, underpinned by sizeable cash balances of TRY16.9 billion ($1.9 billion, excluding restricted blocked deposits representing fuel levies collected and held for government) which is sufficient to cover TRY12.0 billion of short-term debt ($1.4 billion) and projected capital expenditure of TL1.7 billion ($200 million) over the next 12 months. We however view the weak credit quality of Turkey-based financial institutions to be a risk for Tupras given its reliance on short-term funding and large foreign currency cash deposits held in domestic banks.

We recognise the company's strategic importance to the country and to its main shareholder, Koc Holding, which could step-in to alleviate any unanticipated liquidity pressures.

Rating methodology and scorecard factors

The following table shows Turkiye Petrol Rafinerileri A.S.'s scorecard-indicated outcome using Refining and Marketing Industry, with data as of June 30, 2021, and on a forward-looking basis. Tupras maps to a score-indicated output of Ba2 over the next 12-18 months, which is 3 notches above the company's B2 credit rating. This gap is because of the Turkey's sovereign bond rating and foreign currency ceiling of B2 which represents a cap to the company's rating as well as weakly positioned credit metrics. The credit metrics for LTM June 2021 have been distorted by the lower fuel demand and low net refining margin caused by covid-19 and are expected to recover over the next 18 months as fuel volumes and refining margins revert to pre-Covid levels.

Exhibit 3

Scorecard Factors				
Turkiye Petrol Rafinerileri A.S.				
Energy, Oil & Gas - Refining & Marketing Industry Scorecard [1][2]	Current LTM 6/30/2021		Moody's 12-18 Month Forward View As of 9/20/2021 [3]	
Factor 1 : Scale (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Crude Distillation Capacity (mbbls/day)	652	Baa	652	Baa
b) Number of Large-Scale Refineries	Baa	Baa	Baa	Baa
Factor 2 : Business Profile (20%)				
a) Business Profile	Ba	Ba	Ba	Ba
Factor 3 : Profitability and Efficiency (15%)				
a) EBIT / Total Throughput Barrels ($/Bbl)	$1.6	B	$2 - $3	Ba
b) EBIT / Average Capitalization	5.4%	B	10% - 13%	Ba
Factor 4 : Financial Policy (20%)				
a) Financial Policy	Ba	Ba	Ba	Ba
Factor 5 : Leverage and Coverage (20%)				
a) EBIT / Interest Expense	1.0x	Caa	1.5x - 2x	B
b) Debt / EBITDA	10.5x	Ca	4.5x - 5.5x	B
c) RCF / Debt	5.7%	B	9% - 11%	Ba
d) Debt / Capitalization	72.6%	Caa	65% - 70%	B
Rating:				
a) Scorecard-Indicated Outcome		Ba3		Ba2
b) Actual Rating Assigned				B2

[1] All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations. Leverage ratios use gross debt.
[2] As of 30/06/2021
[3] This represents Moody's forward view, not the view of the issuer, and unless noted in the text, does not incorporate significant acquisitions and divestures. The forward-looking credit metrics assume no foreign exchange gain or loss from financial liabilities.
Source: Moody's Financial Metrics™

Ratings

Exhibit 4

Category	Moody's Rating
TURKIYE PETROL RAFINERILERI A.S.	
Outlook	Negative
Corporate Family Rating -Dom Curr	B2
Senior Unsecured	B2/LGD4

Source: Moody's Investors Service

Appendix

Exhibit 5

Peer Comparison[1][2]

(in USD million)	Turkiye Petrol Rafinerileri A.S. B2 Negative FYE Dec-19	FYE Dec-20	LTM Jun-21	Polski Koncern Naftowy ORLEN S.A. Baa2 Positive [3] FYE Dec-19	FYE Dec-20	LTM Jun-21	Thai Oil Public Company Limited Baa3 Negative FYE Dec-19	FYE Dec-20	LTM Jun-21	S-OIL Corporation Baa2 Stable [4] FYE Dec-19	FYE Dec-20	LTM Jun-21
Revenue	15,792	9,094	11,781	28,979	22,145	26,764	11,725	7,928	8,901	20,939	14,283	17,831
EBITDA	601	(42)	412	2,419	2,101	3,353	568	(9)	746	733	(460)	1,594
Crude Distillation Capacity (mbbls/day)	652	652	652	707	707	707	275	275	NA	669	669	NA
EBIT / Total Throughput Barrels	12	(5)	12	23	17	36	90	(77)	156	NA	(4)	NA
EBIT / Average Book Capitalization	8.4%	-2.6%	5.4%	11.1%	6.2%	11.6%	3.8%	-2.9%	5.7%	1.8%	-9.2%	8.9%
EBIT / Interest Expense	1.2x	-0.5x	1.0x	17.7x	7.5x	14.2x	2.5x	-1.8x	4.0x	1.3x	-7.4x	9.4x
Debt / EBITDA	6.2x	-110.0x	10.5x	1.4x	2.5x	1.7x	8.0x	-605.5x	7.2x	8.2x	-11.2x	3.2x
RCF / Debt	-9.4%	-5.2%	5.7%	53.0%	35.3%	61.1%	5.3%	-4.4%	5.9%	7.3%	-9.1%	31.5%
Total Debt / Capital	61.7%	73.4%	72.6%	24.6%	30.9%	30.3%	53.1%	57.4%	58.3%	51.1%	51.7%	47.3%

[1] All figures & ratios calculated using Moody's estimates & standard adjustments.
[2] FYE = Financial Year-End. LTM = Last Twelve Months. RUR* = Ratings under Review, where UPG = for upgrade and DNG = for downgrade.
[3] Polski Koncern Naftowy ORLEN S.A. benefits from a one-notch uplift from it baa3 Baseline Credit Assessment (BCA) based on its strategic importance to the Government of Poland (A2 Stable).
[4] S-OIL Corporation's Baa2 issuer rating incorporates a three-notch uplift from the company's underlying credit strength because of our expectation that it will receive parental support from Saudi Arabian Oil Company (Saudi Aramco, A1 Negative) and strong institutional support from the Government of Korea (Aa2 Stable), if necessary.
Source: Moody's Financial Metrics™

Exhibit 6

Moody's-Adjusted Debt Reconciliation for Turkiye Petrol Rafinerileri A.S.[1][2]

(in TRY million)	FYE Dec-16	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-20	LTM Jun-21
As Reported Total Debt	12,033	14,916	17,760	18,905	29,000	30,316
Pensions	159	168	187	232	272	272
Leases	59	82	0	0	0	0
Securitization	1,626	861	2,332	2,059	2,976	2,547
Moody's Adjusted Total Debt	13,877	16,026	20,279	21,196	32,248	33,135

[1] All figures are calculated using Moody's estimates and standard adjustments.
[2] Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.
Source: Moody's Financial Metrics™

Exhibit 7

Moody's-Adjusted EBITDA Reconciliation for Turkiye Petrol Rafinerileri A.S.[1][2]

(in TRY million)	FYE Dec-16	FYE Dec-17	FYE Dec-18	FYE Dec-19	FYE Dec-20	LTM Jun-21
As Reported EBITDA	3,193	5,749	5,656	2,405	(1,300)	2,632
Unusual Items - Income Statement	266	583	869	1,033	810	544
Leases	20	27	0	0	0	0
Securitization	94	97	125	171	197	223
Non-Standard Public Adjustments	(159)	(245)	(266)	(197)	0	(230)
Moody's Adjusted EBITDA	3,415	6,211	6,384	3,412	(293)	3,169

[1] All figures are calculated using Moody's estimates and standard adjustments.
[2] Periods are Financial Year-End unless indicated. LTM = Last Twelve Months.
Source: Moody's Financial Metrics™

REPORT NUMBER 1284245

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