

CREDIT OPINION

22 August 2022

Update



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RATINGS

Turkiye Petrol Rafinerileri A.S.

Domicile	Turkiye
Long Term Rating	B3
Type	LT Corporate Family Ratings - Dom Curr
Outlook	Stable

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.

Update following Türkiye sovereign rating action downgrade to B3

Summary

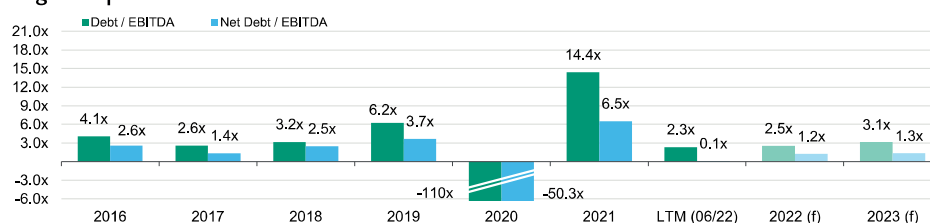
On 12 August 2022, the long-term issuer rating of the [Government of Türkiye](#) was downgraded to B3 from B2 and the outlook changed to stable from negative. Türkiye's foreign currency bond ceiling was also downgraded to B3 from B2. As a result, on 16 August, several Turkish corporates were downgraded to B3 given their exposure to the country's political, legal, fiscal and regulatory environment. The corporate family rating of Türkiye Petrol Rafinerileri A.S. (Tupras) was also downgraded to B3 from B2 as part of these developments.

Tupras' B3 rating reflects (1) the company's dominant position in the Turkish market being the leading refiner; (2) a relatively high weighted average plant with a 9.5 Nelson complexity index and high grade product slate with about 55% production of higher margin middle distillates; (3) exposure to a supportive domestic market, with Türkiye having a sizeable net deficit position of diesel; and (4) an improving liquidity profile underpinned by sizeable unrestricted cash totalling TRY29.4 billion as of 30 June 2022 that covers sizeable short term funding.

The rating positioning also takes into consideration its asset concentration in [Türkiye](#) (B3 stable) 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. We expect fuel demand and refining margins to remain strong during 2022 but normalize to pre-pandemic levels thereafter. Consequently, we expect Moody's adjusted gross debt to EBITDA to increase towards 2.5x in 2023 from 2.3x as of the last 12 months to June 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 leading to high middle distillate cracks
- » Financially strong and supportive shareholder

Credit challenges

- » Exposure to cyclical market conditions inherent to the industry, combined with country risk factors, including public policy, regulatory, and currency volatility risks
- » Asset concentration risk with all core assets located in Türkiye

Rating outlook

The stable outlook mirrors that of the Government of Türkiye and reflects Tupras' exposure to the country's political, legal, fiscal and regulatory environment.

Factors that could lead to an upgrade

The ratings of Tupras could be upgraded if Türkiye's foreign-currency bond ceiling is raised. This would also require no material deterioration in the company's operating and financial performance, market positions and liquidity.

Factors that could lead to a downgrade

Tupras' ratings could be downgraded in case of a further downgrade of Türkiye's sovereign rating and 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

Key indicators

Key Indicators for Türkiye Petrol Rafinerileri A.S.^{[1][2][3]}

	12/31/2018	12/31/2019	12/31/2020	12/31/2021	6/30/2022(L)	2022(f)	2023(f)
Crude Distillation Capacity (mbbls/day)	611	652	652	652	652	652	652
EBIT / Total Throughput Barrels (\$/Bbl)	\$6.2	\$2.0	-\$0.8	\$0.8	\$5.7	\$5.1	\$4.0
EBIT / Average Capitalization	20.3%	8.4%	-2.6%	3.1%	26.3%	27.3%	17.7%
EBIT / Interest Expense	4.0x	1.2x	-0.5x	0.5x	4.8x	4.6x	3.1x
Debt / EBITDA	3.2x	6.2x	-110.0x	14.4x	2.3x	2.5x	3.1x
RCF / Debt	9.0%	-9.4%	-5.2%	6.8%	62.2%	23.3%	13.6%
Debt / Capitalization	67.1%	61.7%	73.4%	64.4%	55.7%	62.0%	57.9%

[1] All figures and ratios are calculated using Moody's estimates and standard adjustments.

[2] Periods are Financial Year-End unless indicated. L = 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

Türkiye Petrol Rafinerileri A.S. is the leading refiner in Türkiye, with a dominant position in the domestic petroleum product market. The refining business consists of one very high complexity refinery in İzmit, two medium complexity refineries located in İzmir and Kırıkkale and one simple refinery in Batman, with a combined annual crude processing capacity of 30 million tonnes (652 mbbbl/day). Other core companies include (1) a 40% effective ownership stake in Opet, Türkiye's second-largest oil-products distribution company with 1,827 stations operating under the Opet and Sunpet brands as of 30 June 2022; (2) an 80% stake in Ditas, a shipping company which

This publication does not announce a credit rating action. For any credit ratings referenced in this publication, please see the issuer/deal page on <https://ratings.moodys.com> for the most updated credit rating action information and rating history.

primarily serves Tupras' logistic needs; and (3) a 100% stake in Korfez Ulastirma A.S., Türkiye's first private railway operator that began freight operations in December 2017 with the aim to transport fuel across Türkiye.

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 Türkiye.

Headquartered in Istanbul in Türkiye, Tupras generated sales of TRY309.8 billion (\$17.25 billion) and reported a net income of TRY13.9 billion (\$0.8 billion) for the last 12 months (LTM) ending 30 June 2022.

ESG considerations

Türkiye Petrol Rafinerileri A.S.'s ESG Credit Impact Score is Neutral-to-Low CIS-2

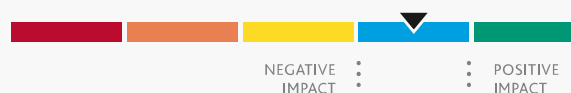
Exhibit 3

ESG Credit Impact Score

CIS-2

Neutral-to-Low

For an issuer scored CIS-2 (Neutral-to-Low), its ESG attributes are overall considered as having a neutral-to-low impact on the current rating; i.e., the overall influence of these attributes on the rating is non-material.



Source: Moody's Investors Service

CIS-2: Türkiye Petrol Rafinerileri A.S. (Tupras) ESG Credit Impact Score is neutral -to-low (**CIS-2**), where its ESG attributes are overall considered not to have a material impact on the current rating, which is constrained by the sovereign rating of Türkiye. The very high environmental and social risk exposures for the refining and marketing industry are not having a pronounced impact on the rating, given Tupras' strong refining position in Türkiye and track record of managing environmental and social risks.

Exhibit 4

ESG Issuer Profile Scores

ENVIRONMENTAL

E-5

Very Highly Negative



SOCIAL

S-5

Very Highly Negative



GOVERNANCE

G-3

Moderately Negative



Source: Moody's Investors Service

Environmental

E-5. Tupras has a very highly negative exposure to environmental risk (**E-5** issuer profile score) mainly driven by very high carbon transition risk and/or high waste and pollution risks and/or risks involving water management. Upstream companies will face increasing pressure over time, particularly oil producers, as decarbonization efforts and the transition towards cleaner energy continues leading to potential declines in demand for petroleum products. While the company has generally maintained a good track record of environmental compliance, Tupras is exposed to stricter regulations over time.

Social

S-5. Tupras has a very highly negative exposure to social risks (**S-5** issuer profile score) mainly driven by demographic & societal pressures and the push for responsible production.

Governance

G-3. Tupras' governance risks are moderately negative (**G-3** issuer profile score), linked primarily to financial policy and high risk related to the leverage metric volatility. The moderate risk score incorporates our low risk assessment with respect to management credibility, history of compliance and reporting disclosure. Tupras' benefits from good governance practices with strict oversight from its financially strong shareholder, Koc Holding A.S. (B3 stable; 39.3% effective holding) – one of Türkiye's largest business groups.

ESG Issuer Profile Scores and Credit Impact Scores for the rated entity/transaction are available on Moodys.com. In order to view the latest scores, please click [here](#) to go to the landing page for the entity/transaction on MDC and view the ESG Scores section.

Detailed credit considerations

Credit metrics to continue improving in 2022 before stabilizing

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 and part of 2021 the company's performance gradually improved before the Russia-Ukraine conflict began. By the end of the first quarter of 2022, supply disruption and higher demand have pushed Tupras' net refining margins to \$13 per barrel in the first half of 2022. We expect the company's net refining margin to decrease in 2024 towards \$5 per barrel under a market equilibrium.

Nevertheless, while profitability and credit metrics are improving, Tupras' credit metrics remain vulnerable to sudden shifts in market sentiment or disruptions that are difficult to predict. In our base case, we expect the effects of the high crack levels to peak in the first half of 2023. Under this scenario, we estimate Tupras' Moody's adjusted debt to EBITDA to fall to 2.1x in fiscal 2022 before slightly increasing towards 2.5x in 2023 as a result of lower and more stable margins. Moody's adjusted leverage for the last 12 months to June 2022 is 2.3x. It is worth noting that Moody's adjusted EBITDA includes inventory gains and losses as well as other foreign currency movements therefore it could be a volatile metric with sharp changes in oil prices.

Because Tupras maintains a high cash balance (TL29.4 billion as of 30 June 2022) well above its operational needs, its net debt to EBITDA is expected to be negative in 2022 and 2023. We also expect the retained cash flow (RCF) / debt to improve to 30% in 2022 and 20% in 2023, given the expectation of no dividend payments in 2022. However we expect dividend payments in 2023. With no major investment planned over the next several years and assuming a stable Turkish lira exchange rate, Tupras' gross debt is projected to steadily decline as project finance loans amortise and will provide an additional buffer against future market volatility.

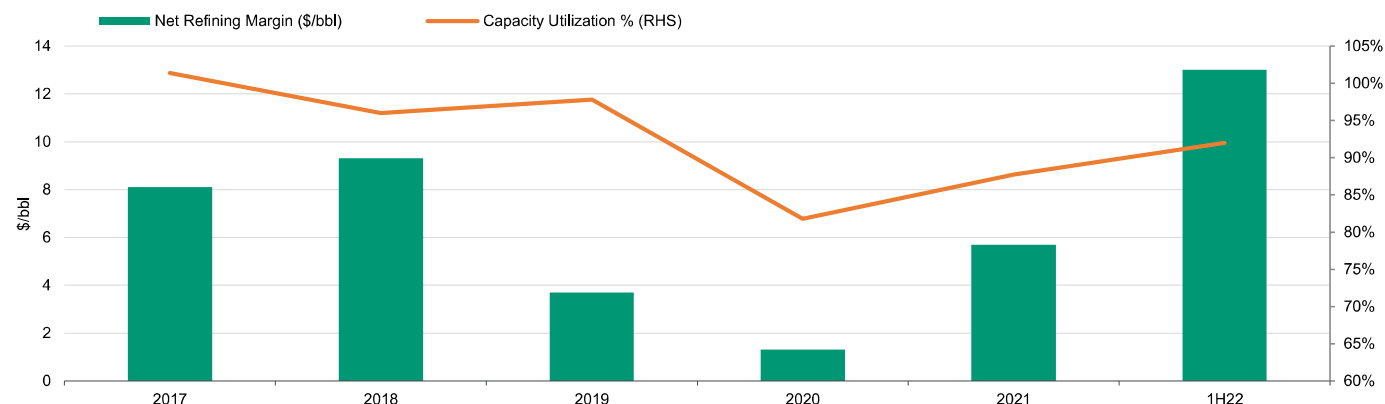
During downcycles such as the Covid-19 pandemic, Tupras has demonstrated its ability to manage operations by changing its product mix with a focus on profitable products, working capital improvements and maintaining a good liquidity profile.

Dominant position in the Turkish market

As the dominant refiner in Türkiye, 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 Türkiye is a net importer. For the first 5 months of 2022, diesel consumption in Türkiye was down 1.1% but gasoline consumption increased by 34.5% compared to a year earlier which was also negatively affected by the mobility restrictions imposed by the Turkish government because of COVID-19. Over the same period jet fuel consumption increased 58.3% as airline passenger traffic continues to improve.

Tupras' total product sales have increased in the first half of 2022 to 13.8 million tons from 11.9 million tons the same period last year. The increase in both local and international demand post-pandemic coupled with limited supply of crude oil as a result of decreasing Russian exports and capacity disruptions has resulted in record high cracks for diesel, jet fuel and gasoline in Q2 2022. We expect the market imbalance and high cracks to continue at least until early 2023 with net refining margins normalizing towards pre-pandemic levels in 2023 and 2024. Due to the demand increase and healthy margins, Tupras keeps its plant utilisation guidance between 90%-95%, in line with historical levels. In the absence of any structural changes in the import of diesel into the Turkish market, we expect demand for fuels to remain stable benefitting Tupras' predictability of cash flows.

Exhibit 5

Tupras' Net Refining Margin and Capacity Utilization recovering to pre-covid levels**Tupras' Net Refining Margin and Capacity Utilization**

1H22 reflects results of the first half of FY2022.

Source: Investor Presentations, Tupras

Turkiye's second oil refining company — the STAR refinery — became fully operational in 2019 with production of 4.5 million tons (MT) of diesel and 1.6 MT of jet fuel among other products. 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 11.4 MT of diesel and 2.9 MT of jet fuel produced in 2021. Given the sizeable diesel deficit in Turkiye 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 close to 25% of first half 2022 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, Turkiye'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 mbbbl/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 mbbbl/day of crude distillation capacity and in light of this see both the Izmit and Izmir refineries being large-scale refineries (239 mbbbl/day each) while the Kırıkkale refinery is at the lower end of the definition (109 mbbbl/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 Türkiye constrains rating

Tupras is domiciled in Türkiye, all of its core assets are located in the country and a material portion of its profitability is derived from the domestic market. Over 75% of Tupras' sales are domestic, which creates credit linkages with the Turkish sovereign. The remaining 25% of sales are exports of internally refined products, 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 Türkiye 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 Türkiye's regulatory framework that causes a financial burden on Tupras is likely to weigh on the current rating.

Volatility in foreign exchange rates and the Turkish lira depreciation suffered during the last 24 months continues to be a risk for companies in Türkiye that have structural currency mismatches between their financial assets and liabilities. For the 2021 financial year, the lira depreciated about 44% (2020: 19%) against the dollar with periods of high volatility and has depreciated further by 26% during 2022 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.

Liquidity analysis

Tupras' liquidity has strengthened during the first half of 2022. The company has a sizeable cash balances of TRY29.4 billion (\$1.6 billion, excluding TRY7.9 billion restricted blocked deposits) which is sufficient to cover TRY12.9 billion of short-term debt (\$1.4 billion) and projected capital expenditure for the next 12-18 months.

Additionally, 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

Tupras maps to a score-indicated output of Ba1 over the next 12-18 months, which is 5 notches above the company's B3 credit rating. This gap is because of the Türkiye's sovereign bond rating and foreign currency ceiling of B3 which represents a cap to the company's rating. The credit metrics for LTM June 2022 have been distorted by above average crack levels which we expect will revert over the next 12-18 months.

Exhibit 6

Energy, Oil & Gas - Refining & Marketing Industry Scorecard [1][2]			Current LTM 6/30/2022		Moody's 12-18 Month Forward View As of 8/19/2022 [3]	
Factor 1 : Scale (25%)	Measure	Score	Measure	Score	Measure	Score
a) Crude Distillation Capacity (mbbls/day)	652	Baa	652	Baa	652	Baa
b) Number of Large-Scale Refineries	Baa	Baa	Baa	Baa	Baa	Baa
Factor 2 : Business Profile (20%)						
a) Business Profile	Ba	Ba	Ba	Ba	Ba	Ba
Factor 3 : Profitability and Efficiency (15%)						
a) EBIT / Total Throughput Barrels (\$/Bbl)	\$5.7	Baa	\$4 - \$5.1	Baa	\$4 - \$5.1	Baa
b) EBIT / Average Capitalization	26.3%	A	17% - 27%	A	17% - 27%	A
Factor 4 : Financial Policy (20%)						
a) Financial Policy	Ba	Ba	Ba	Ba	Ba	Ba
Factor 5 : Leverage and Coverage (20%)						
a) EBIT / Interest Expense	4.8x	Ba	3.1x - 4.6x	Ba	3.1x - 4.6x	Ba
b) Debt / EBITDA	2.3x	Baa	2.5x - 3.1x	Baa	2.5x - 3.1x	Baa
c) RCF / Debt	62.2%	A	14% - 24%	Ba	14% - 24%	Ba
d) Debt / Capitalization	55.7%	B	58% - 62%	B	58% - 62%	B
Rating:						
a) Scorecard-Indicated Outcome		Baa3			Ba1	
b) Actual Rating Assigned					B3	

[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 7

Category	Moody's Rating
TURKIYE PETROL RAFINERILERI A.S.	
Outlook	Stable
Corporate Family Rating -Dom Curr	B3
Senior Unsecured	B3/LGD4

Source: Moody's Investors Service

Appendix

Exhibit 8

Peer Comparison^{[1][2]}

	Türkiye Petrol Rafinerileri A.Ş.			Polski Koncern Naftowy ORLEN S.A.			Thai Oil Public Company Limited		
	B3 Stable			Baa1 Positive			Baa3 Negative		
	FYE	FYE	LTM	FYE	FYE	LTM	FYE	FYE	LTM
(in USD million)	Dec-20	Dec-21	Jun-22	Dec-20	Dec-21	Jun-22	Dec-20	Dec-21	Jun-22
Revenue	9,094	17,492	26,751	22,145	34,054	44,180	7,928	10,819	13,967
EBITDA	(42)	259	1,310	2,106	3,549	4,660	(9)	926	1,399
Crude Distillation Capacity (mbbls/day)	652	652	652	705	707	707	275	275	275
EBIT / Average Book Capitalization	-2.6%	3.1%	26.3%	6.2%	11.9%	18.1%	-2.9%	7.3%	12.3%
EBIT / Interest Expense	-0.5x	0.5x	4.8x	7.5x	14.8x	20.6x	-1.2x	3.1x	5.3x
Debt / EBITDA	-110.0x	14.4x	2.3x	2.4x	1.5x	1.1x	-607.4x	6.9x	4.3x
RCF / Debt	-5.2%	6.8%	62.2%	35.4%	65.3%	117.9%	-5.6%	6.2%	17.8%
Total Debt / Capital	73.4%	64.4%	55.7%	30.9%	27.6%	25.5%	57.8%	62.9%	57.2%

[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 its baa2 Baseline Credit Assessment (BCA) based on its strategic importance to the [Government of Poland](#) (A2 Stable).

Source: Moody's Financial Metrics™

Exhibit 9

Moody's-Adjusted Debt Reconciliation for Türkiye Petrol Rafinerileri A.Ş.^{[1][2]}

	FYE	FYE	FYE	FYE	FYE	LTM
(in TRY million)	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Jun-22
As Reported Total Debt	14,916	17,760	18,905	29,000	31,234	31,720
Pensions	168	187	232	272	364	364
Leases	82	0	0	0	0	0
Securitization	861	2,332	2,059	2,976	642	3,362
Moody's Adjusted Total Debt	16,026	20,279	21,196	32,248	32,241	35,446

[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 10

Moody's-Adjusted EBITDA Reconciliation for Türkiye Petrol Rafinerileri A.Ş.^{[1][2]}

	FYE	FYE	FYE	FYE	FYE	LTM
(in TRY million)	Dec-17	Dec-18	Dec-19	Dec-20	Dec-21	Jun-22
As Reported EBITDA	5,749	5,656	2,405	(1,300)	5,477	17,456
Unusual Items - Income Statement	583	869	1,033	810	(2,786)	(1,552)
Leases	27	0	0	0	0	0
Securitization	97	125	171	197	141	136
Non-Standard Public Adjustments	(245)	(266)	(197)	0	(593)	(866)
Moody's Adjusted EBITDA	6,211	6,384	3,412	(293)	2,239	15,173

[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™

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