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21 August 2023

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 to credit analysis

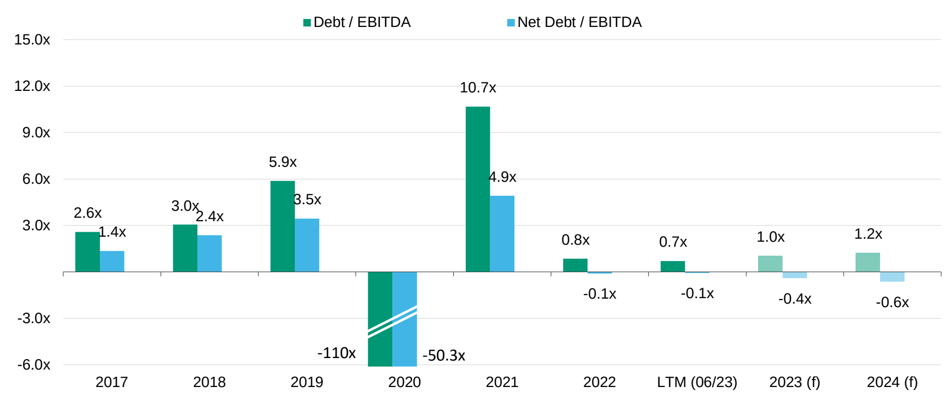
## Summary


Turkiye Petrol Rafinerileri A.S.'s (Tupras) B3 Corporate Family Rating (CFR) reflects (1) the company's dominant position in the Turkish market being the leading refiner; (2) a relatively high average refinery complexity with a 9.5 Nelson complexity index and high grade product slate with about 54% production of higher margin middle distillates in 2022; (3) exposure to a supportive domestic market, with Turkiye having a sizeable net deficit position of diesel; and (4) a strong liquidity profile underpinned by sizeable unrestricted cash totalling TRY39.5 billion as of 30 June 2023 that covers all funding needs for the next 18 months.

We expect fuel demand to remain strong during 2023 supported by supply and demand imbalances and refining margins to start to normalize to pre-pandemic levels during 2024. Consequently, we expect Moody's adjusted gross debt to EBITDA to remain in the 1.0x to 1.5x range in the next 18 months.

The rating positioning is constrained by the company's asset concentration in Turkiye (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. The exposure to the country's political, legal, fiscal and regulatory environment constrains Tupras' ratings at Turkiye's foreign currency bond ceiling of B3.


Exhibit 1
**Leverage is projected to remain low as demand for fuel and refining margins stabilize**




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 Turkiye, despite growth in UK based Tupras Trading

## Rating outlook

The stable outlook mirrors that of the Government of Turkiye 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 Turkiye'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 Turkiye'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 Turkiye Petrol Rafinerileri A.S.[1][2][3]**

| | 12/31/2018 | 12/31/2019 | 12/31/2020 | 12/31/2021 | 12/31/2022 | 6/30/2023(L) | 2023(f) | 2024(f) |
|---|---|---|---|---|---|---|---|---|
| Crude Distillation Capacity (mbbls/day) | 611 | 652 | 652 | 652 | 652 | 652 | 652 | 652 |
| EBIT / Total Throughput Barrels ($/Bbl) | $6.2 | $2.0 | -$0.8 | $1.3 | $14.4 | $13.6 | $7.1 | $6.0 |
| EBIT / Average Capitalization | 20.4% | 8.4% | -2.6% | 3.6% | 58.5% | 63.4% | 29.6% | 25.1% |
| EBIT / Interest Expense | 4.2x | 1.3x | -0.5x | 0.8x | 14.0x | 16.5x | 9.8x | 9.1x |
| Debt / EBITDA | 3.0x | 5.9x | -110.0x | 10.7x | 0.8x | 0.7x | 1.0x | 1.2x |
| RCF / Debt | 9.0% | -9.4% | -5.2% | 6.5% | 138.6% | 85.2% | 55.2% | 30.5% |
| Debt / Capitalization | 67.1% | 61.7% | 73.4% | 64.0% | 37.6% | 36.2% | 32.1% | 30.8% |

[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.
*Source: Moody's Investors Service*

## Profile

Turkiye Petrol Rafinerileri A.S. is the leading refiner in Turkiye, 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 42% effective ownership stake in Opet, Turkiye's second-largest oil-products distribution company with over 1,500 stations operating under the Opet and Sunpet brands; (2) an 80% stake in Ditas, a shipping company which primarily serves

Tupras' logistic needs; (3) a 100% stake in Korfez Ulastirma A.S., Turkiye's first private railway operator that began freight operations in December 2017 with the aim to transport fuel across Turkiye; and (4) a 99% stake in Entek, a renewable energy company.

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. As of December 2022, 47% of the company's share are free floating.

Headquartered in Istanbul in Turkiye, Tupras generated sales of TRY464 billion ($17.2 billion) and Moody's adjusted EBITDA of TRY54 billion ($2.0 billion) for the last 12 months (LTM) ending 30 June 2023.

## Detailed credit considerations

### Credit metrics to remain strong on high crack margins

Tupras is exposed to a highly competitive and cyclical industry which is susceptible to external events. Crude oil and refined products supply and demand dynamics have a direct impact on Tupras' profitability. Following a difficult year in 2020 and part of 2021 the company's performance gradually improved. Middle distillate and gasoline crack levels increased from early 2022 as a result of the Russia-Ukraine conflict due to supply disruptions and higher energy consumption after the Covid-19 recovery phase. Tupras' net refining margin remains above it's 5 year average at $9.6 per barrel during the first six months of 2023. Nevertheless, we expect the company's net refining margin to stabilize in 2024 between $8 and $10 per barrel under a market equilibrium.

Tupras' profitability and credit metrics have strongly improved during the last 12 months from a weaker performance in 2020 as middle distillate and gasoline crack levels remain above the 5 year average. However, the company's 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 continue above the 5 year average until the end of 2023. Under this scenario, we estimate Tupras' Moody's adjusted debt to EBITDA to remain in the 1.0x to 1.5x range during the next 18 months. Following the high crack margin market momentum since early 2022, the company's Moody's adjusted leverage for the last 12 months to June 2023 is 0.7x. It is also 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 (company reported TRY46 billion as of 30 June 2023) well above its operational needs, the company has a net cash position and we expect the company to maintain it. We also expect retained cash flow (RCF) / debt to remain above 25% in 2023 and 2024, despite the expectation of dividend distributions. With no major investment planned over the next several years except for the strategic transition investment program and assuming a stable Turkish lira exchange rate, Tupras' gross debt is projected to steadily decline. Lower debt levels 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.

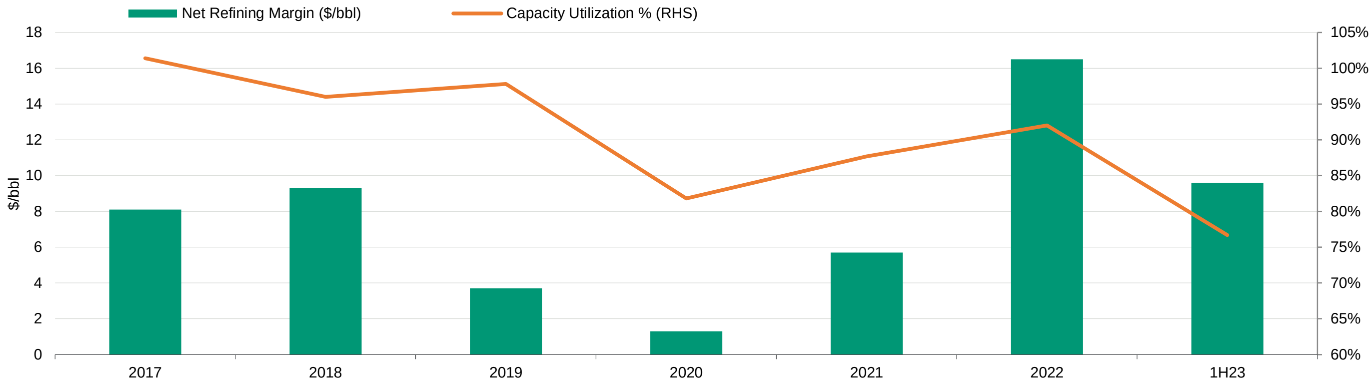
### Dominant position in the Turkish market

As the dominant refiner in Turkiye, 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 Turkiye is a net importer. For the first 5 months of 2023, diesel consumption in Turkiye was up 5% and gasoline consumption increased by 24.2% compared to a year earlier. Over the same period jet fuel consumption increased 23% as airline passenger traffic recovered above 2019 levels.

Tupras' total product sales decreased in the first half of 2022 to 13.6 million tons from 13.8 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 continued high cracks for diesel, jet fuel and gasoline from Q1 2022 to Q2 2023. Due to the demand increase and healthy margins, Tupras keeps its plant utilisation guidance between 85%-90%, slightly below historical levels of 91%. In the absence of any structural changes in the import of diesel into the Turkish market, we expect demand for fuels to remain stable.

Exhibit 3

**Tupras' Net Refining Margin will continue to stabilize**




1H23 reflects results of the first half of FY2023.
*Sources: Investor Presentations, Tupras*

In terms of domestic competitors, Turkiye's second oil refining company — the STAR refinery — is fully operational since 2019 with a production level 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 12.3 MT of diesel and 3.6 MT of jet fuel produced in 2022. Given the 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 21% of first half 2023 revenue.

The commissioning of the Dangote refinery in Nigeria during May 2023 will increase the market's capacity although it will predominantly serve the African market. The refinery, with a production capacity in line with Tupras (652 mbbl/day) will not fully ramp up operations until 2025. We expect that the increase in market capacity from the Dangote refinery added to net capacity additions up to 2025 will slowly reduce the high crack margins to normalized pre-pandemic levels.

### Limited vertical integration but a moderately sized refiner

Unlike some other rated peers such as ORLEN S.A. (A3 stable; baa2 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 99% stake in Entek, a renewable energy company and 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 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 both the Izmit and Izmir refineries are considered 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 historically 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.

### Exposure to Turkiye is a key credit constraint

Tupras is domiciled in Turkiye and generated 79% of its revenues in 2022 from Turkiye customers. All of its core assets are located in the country and a material portion of its profitability is derived from the domestic market. As such, the company is materially exposed to Turkiye's political, legal, fiscal and regulatory environment. During 2022, 21% of total sales were international exports of refined products of which gasoline and fuel oil are key products. Under normal conditions the company's ability to increase the export of its refined products is a mitigating factor against drop in domestic demand.

We consider the unpredictable policy shifts, fueled by unorthodox measures of the government in an attempt to stabilize the currency and restore foreign-currency buffers as a risk for Turkiye's corporates. Government and regulatory policy changes are also risk factors, such as increases in taxes which could impact the demand for refined products. These risks constrain Tupras' rating at Turkiye's foreign currency ceiling of B3. While not anticipated, any amendment in Turkiye’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 2 years continues to be a risk for companies in Turkiye that have structural currency mismatches between their financial assets and liabilities. For the 2022 financial year, the lira depreciated about 40% (2021: 80%) against the dollar with periods of high volatility and has depreciated further by 40% during year to date 2023 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

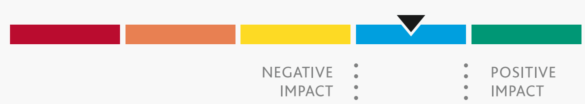
### Turkiye Petrol Rafinerileri A.S.'s ESG Credit Impact Score is Neutral-to-Low CIS-2

Exhibit 4

**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*

Tupras' CIS-2 indicates that ESG considerations do not have a material impact on the current credit rating, which is constrained by the sovereign rating of Turkiye (B3 stable). 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 Turkiye and track record of managing environmental and social risks.

Exhibit 5
**ESG Issuer Profile Scores**

| ENVIRONMENTAL | SOCIAL | GOVERNANCE |
|---|---|---|
| E-5 | S-5 | G-3 |
| Very Highly Negative | Very Highly Negative | Moderately Negative |

*Source: Moody's Investors Service*

### Environmental

Tupras' E-5 environmental issuer profile score reflects it's material exposure to carbon transition risk, high waste and pollution risks and 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

Tupras' S-5 social issuer profile score reflects the company's material exposure to demographic & societal pressures and the push for responsible production. Oil and gas companies' exposure to demographics and societal trends reflects social and regulatory pressure for the economy as a whole to transition away from fossil fuels and toward cleaner energy sources. However, the pace is currently limited by the lack of widespread availability of alternative clean fuels.

### Governance

Tupras' G-3 governance issuer profile score is linked primarily to financial policy and high risk related to leverage. The moderate governance risk incorporates our low risk assessment with respect to management creditability, 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; 43% effective holding) – one of Turkiye'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.

## Liquidity analysis

Tupras' liquidity remains strong as of 30 June 2023. The company has sizeable cash balances of TRY39.5 billion ($1.5 billion, excluding TRY6.6 billion of restricted blocked deposits and revenue share) which is sufficient to cover TRY10.2 billion of short-term debt ($0.4 billion) and projected capital expenditure for the next 12-18 months. As of June 2023, 75% of the company's hard currency is held in international accounts for operational usage.

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, although we do not foresee such scenario in the near future.

## Rating methodology and scorecard factors

Tupras maps to a score-indicated output of Baa3 over the next 12-18 months, which is six notches above the company's B3 credit rating. This gap is because of the Turkiye'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 2023 have been distorted by above average crack levels which we expect will begin to revert over the next 12-18 months.

Exhibit 6

| Energy, Oil & Gas - Refining & Marketing Industry Scorecard [1][2] | Current LTM 6/30/2023 | | Moody's 12-18 Month Forward View As of August 2023 [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) | $13.6 | A | $6 - $7 | Baa |
| b) EBIT / Average Capitalization | 63.4% | A | 24% - 29% | A |
| **Factor 4 : Financial Policy (20%)** | | | | |
| a) Financial Policy | Ba | Ba | Ba | Ba |
| **Factor 5 : Leverage and Coverage (20%)** | | | | |
| a) EBIT / Interest Expense | 16.5x | A | 9x - 10x | Baa |
| b) Debt / EBITDA | 0.7x | A | 1.0x - 1.2x | A |
| c) RCF / Debt | 85.2% | A | 30% - 40% | Baa |
| d) Debt / Capitalization | 36.2% | Ba | 25% - 35% | Baa |
| **Rating:** | | | | |
| a) Scorecard-Indicated Outcome | | Baa2 | | Baa3 |
| 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 30/06/2023
[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]

| | Turkiye Petrol Rafinerileri A.S. | | | ORLEN S.A. | | | Thai Oil Public Company Limited | | |
|---|---|---|---|---|---|---|---|---|---|
| | B3 Stable | | | A3 Stable | | | Baa3 Stable | | |
| | FYE | FYE | LTM | FYE | FYE | LTM | FYE | FYE | LTM |
| (in USD million) | Dec-21 | Dec-22 | Jun-23 | Dec-21 | Dec-22 | Mar-23 | Dec-21 | Dec-22 | Mar-23 |
| Revenue | 17,669 | 29,495 | 24,461 | 34,054 | 62,521 | 75,825 | 10,819 | 15,142 | 14,925 |
| EBITDA | 371 | 2,942 | 2,890 | 3,707 | 8,914 | 12,147 | 943 | 1,057 | 977 |
| Crude Distillation Capacity (mbbls/day) | 652 | 652 | 652 | 707 | 904 | 904 | 275 | 275 | 275 |
| EBIT / Average Book Capitalization | 3.6% | 58.5% | 63.4% | 11.9% | 25.1% | 33.5% | 7.3% | 8.8% | 8.0% |
| EBIT / Interest Expense | 0.8x | 14.0x | 16.5x | 15.9x | 29.1x | 36.4x | 3.2x | 3.5x | 2.8x |
| Debt / EBITDA | 10.7x | 0.8x | 0.7x | 1.5x | 1.0x | 0.6x | 6.7x | 5.4x | 5.4x |
| RCF / Debt | 6.5% | 138.6% | 85.2% | 88.5% | 184.4% | 492.0% | 6.2% | 8.1% | 5.8% |
| Total Debt / Capital | 64.0% | 37.6% | 36.2% | 27.6% | 21.8% | 18.0% | 62.9% | 56.3% | 53.4% |

[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.
*Source: Moody's Financial Metrics*TM

Exhibit 9

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

| (in USD million) | FYE Dec-18 | FYE Dec-19 | FYE Dec-20 | FYE Dec-21 | FYE Dec-22 | LTM Jun-23 |
|---|---|---|---|---|---|---|
| **As Reported Total Debt** | 3,339 | 3,177 | 3,902 | 2,500 | 1,777 | 1,393 |
| Pensions | 35 | 39 | 37 | 28 | 56 | 40 |
| Securitization | 438 | 346 | 400 | 48 | 332 | 54 |
| **Moody's Adjusted Total Debt** | 3,812 | 3,562 | 4,339 | 2,576 | 2,165 | 1,487 |

[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* TM

Exhibit 10

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

| (in USD million) | FYE Dec-18 | FYE Dec-19 | FYE Dec-20 | FYE Dec-21 | FYE Dec-22 | LTM Jun-23 |
|---|---|---|---|---|---|---|
| **As Reported EBITDA** | 1,206 | 424 | (187) | 680 | 2,685 | 2,556 |
| Unusual Items | 185 | 182 | 116 | (325) | 240 | 317 |
| Securitization | 27 | 30 | 28 | 16 | 16 | 17 |
| **Moody's Adjusted EBITDA** | 1,418 | 636 | (42) | 371 | 2,942 | 2,890 |

[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* TM

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