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CREDIT OPINION
30 August 2018

Update

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RATINGS

Turkiye Petrol Rafinerileri A.S.

Domicile	Turkey
Long Term Rating	Ba2
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. (Tupras)

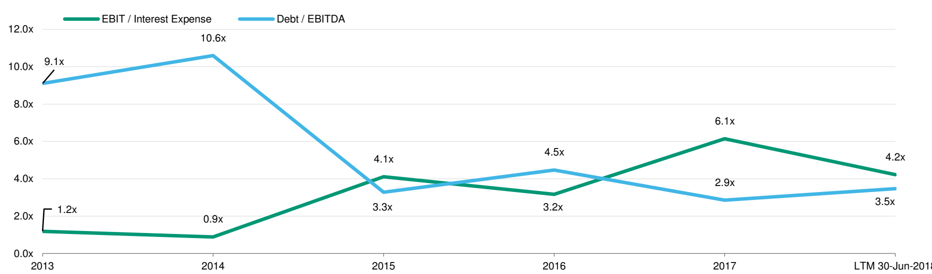
Update following Turkey sovereign rating action

Summary

Tupras' Ba2 negative rating reflects (1) the company's dominant position in the Turkish market being the sole refiner in the country; (2) exposure to a supportive domestic market with growing demand for refined products; (3) the improvement in the company's financial profile following the completion of the Residual Upgrade Program (RUP) in May 2015 and as a result of healthy refining margins in 2016 and 2017; and (4) a strong liquidity profile underpinned by TRY4.6 billion of unrestricted cash as of 30 June 2018. Gross debt/EBITDA as adjusted by Moody's decreased to 3.5x as of 30 June 2018 (LTM) from 4.5x as of year-end 2016.

The rating positioning also takes into consideration (1) the company's exposure to cyclical market conditions inherent to the refining industry; (2) asset concentration in Turkey (Ba3 negative); and (3) potential for increased competition and supply/demand imbalance risk over the medium term, stemming from capacity addition by international and local players both in Turkey and in the MENA region.

Exhibit 1
The completion of RUP and supportive market conditions have strengthened Tupras' credit metrics



Note: All ratios are based on 'Adjusted' financial data and incorporate Moody's Global Standard Adjustments for Non-Financial Corporations.
Source: Moody's Financial Metrics™

On 17 August 2018, the rating on the government of Turkey was downgraded to Ba3 negative from Ba2 under review for downgrade. As a result of this, on 28 August 2018 we took rating action on various Turkish corporates - including Tupras - given the companies' high dependence on their Turkish operations for revenue and cash flow generation.

Tupras' rating is constrained by the government of Turkey's sovereign rating, reflecting the company's credit linkages to the operating environment in Turkey. The rating outlook on Tupras is therefore aligned with the negative outlook on the sovereign rating. Tupras' core assets are located in Turkey and a majority of its cash flows are generated domestically. At the same time, Tupras' rating is positioned one notch higher than the government bond rating to reflect the company's healthy financial profile, dominant business position in Turkey and its exposure to a commodity business where its refined products can be readily sold in the international markets. Given that Turkey is a significant importer of diesel, we anticipate that the company's competitive position will endure should there be a weakening of the economic environment such that it reduces domestic demand for refined products.

In determining Tupras' ratings, we have applied our Global Refining and Marketing Rating Methodology.

Credit strengths

» Dominant position in the domestic market as the sole refiner in Turkey, with established infrastructure including storage, pipeline and terminal facilities

» Positive and supportive economic fundamentals in the domestic market, although economic growth is expected to slow down in 2018 and 2019

» Improved financial profile following the completion of RUP and healthy industry refining margins in 2016 and 2017

Credit challenges

» Exposure to cyclical market conditions inherent to the industry, combined with emerging market risk factors, including public policy, regulatory, and currency volatility risks

» Asset concentration risk with all core assets located in Turkey

Rating outlook

The negative outlook mirrors that of the Government of Turkey and reflects Tupras' credit linkages with the Turkish economy and its material exposure to the domestic operating environment.

Factors that could lead to an upgrade

The rating is constrained by the government of Turkey's Ba3 negative rating and upward pressure on the rating is unlikely because of Tupras' credit linkages with Turkey. A positive pressure on the sovereign rating could lead to positive pressure on Tupras' rating along with adjusted gross debt/EBITDA maintained below 3.5x and adjusted EBIT/interest cover above 4.0x. For the last twelve month (LTM) ending 30 June 2018, the metrics were 3.5x and 4.2x respectively.

Factors that could lead to a downgrade

The rating could be downgraded if adjusted gross debt/EBITDA trends above 4.0x and adjusted EBIT/interest cover trends towards 3.0x. Negative rating pressure on the sovereign will lead to negative pressure on Tupras' rating.

Key indicators

Exhibit 2

KEY INDICATORS [1]

Turkiye Petrol Rafinerileri A.S. [1]	FYE2013	FYE2014	FYE2015	FYE2016	FYE2017	LTM 30-Jun-2018
EBIT / Average Capitalization	5.8%	5.0%	15.7%	12.5%	20.7%	17.8%
EBIT / Interest Expense	1.2x	0.9x	4.1x	3.2x	6.1x	4.2x
Debt / EBITDA	9.1x	10.6x	3.3x	4.5x	2.9x	3.5x
Net Debt / EBITDA	5.7x	7.5x	2.6x	2.9x	1.5x	2.5x
RCF / Debt	3.9%	0.1%	28.9%	7.6%	21.5%	4.7%
Debt / Capitalization	62.2%	64.9%	56.7%	63.4%	60.6%	66.9%

[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 unless specified otherwise.
Source: Moody's Financial Metrics™

Profile

Turkiye Petrol Rafinerileri A.S. is the sole 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 28.1 million tonnes (611 mbbl/day). Other core companies include (1) a 40% effective ownership stake in Opet, Turkey's second-largest oil-products distribution company with 1,589 stations operating under the Opet and Sunpet brands as of 30 June 2018; (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 Korfez in Turkey, Tupras generated sales of TRY62.5 billion ($16.2 billion) and reported a net profit of TRY2.9 billion ($751 million) for the LTM ending 30 June 2018.

Detailed credit considerations

Dominant position in the growing Turkish market

As the sole refiner in Turkey, Tupras benefits from the location of its main refineries that lie 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 growing demand for refined products. Diesel and gasoline consumption in Turkey increased by 8.3% and 3.1% respectively in 2017 compared to a year earlier. Jet fuel consumption increased 2.7% over the same period as airline passenger traffic picked up in the second half of 2017. For the first five months of 2018, diesel and gasoline demand in Turkey grew by 12.5% and 5.5% respectively, while jet fuel demand grew by 12.6%.

The overall positive growth in refined product demand in Turkey could reverse in a scenario of a sustained deterioration in the macroeconomic environment. However, we believe Tupras' competitive position will endure in such situations because Turkey is a significant importer of diesel while excess production of other products can be exported. In 2017, Tupras produced 9.58 million tonnes (MT) of diesel while an additional 14.6 MT were imported overall into Turkey. By mid-2019, Turkey's second oil refining company - the STAR refinery - is expected to become fully operational with amongst other products, an anticipated production of 4.8 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. Given the sizeable diesel deficit, Tupras will be able to sell its diesel production even if domestic demand declines and once its local competitor becomes operational.

Asset concentration in Turkey constrains rating, ability to substantially increase exports supports rating one notch above sovereign

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 Turkey sovereign. On average, about 15%-20% of the refiner's revenues are from exports, of which gasoline and fuel oil are key products sold in the international market. The company's ability to increase the export of its refined products is a mitigating factor against an unlikely scenario of a significant drop in domestic demand. The company actively manages its currency risk, and its cash flows are naturally hedged from the lira depreciation because domestic sales of petroleum products are indexed to the US dollar. Overall, we believe that Tupras can be rated above the Turkey government bond rating but limited to one notch above.

Government and regulatory policy changes are risk factors, such as increases in taxes which could impact the demand for refined products. In May 2018, the Government of Turkey made an adjustment to the special consumption tax on petroleum products such that increases in product prices due to 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.

Moderate sized player compared to global peers

Unlike some other rated peers such as Polski Koncern Naftowy ORLEN S.A. (Baa2 stable; 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. The majority 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 and two medium-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 profile that is comparable to peers at the cusp of a high Ba/low Baa rating.

Tupras' credit risk assessment however does positively incorporate a financially strong and supportive shareholder in the form of Koc Holding A.S. (Ba2 negative) – one of Turkey's largest business groups. While Koc Holding's rating is also constrained by Turkey's issuer rating, we see it as having strong investment grade financial strength.

Supportive market conditions and completion of RUP have improved financial performance

Tupras' financial metrics have improved significantly following the completion of RUP in May 2015 and the company has also benefitted from the favorable refining margins in 2016 and 2017. Adjusted gross debt/EBITDA decreased to 3.5x as of 30 June 2018 from 4.5x as of year-end 2016. Adjusted retained cash flow (RCF)/debt was low at 4.7% for the LTM ending 30 June 2018 because of a material TRY3.4 billion of dividends paid over the past twelve months. The company's cash balances are significant as reflected by net debt/EBITDA of 2.5x as of Q2 2018 as opposed to 2.6x as of year-end 2015 and 2.9x as of year-end 2016.

Refining margins in 2017 increased compared to 2016 and currently remain healthy, resulting in adjusted funds from operations (FFO) increasing to TRY4.2 billion for the LTM ending 30 June 2018 from TRY2.7 billion in 2016. This exemplifies the volatility inherent in the refining industry because of changes in market dynamics and crack spreads.

With the completion of an intensive multi-year capex programme and no major investment plan over the next several years, we anticipate that Tupras' gross debt would steadily decline as project finance loans amortize. The company's ability to reduce gross financial debt is significant when crack margins are strong such as in the current environment. A reversal in industry refining margins will directly lower Tupras' cash flow generation and weigh on the pace of its deleveraging trend. In addition, the company's financial policy to maximize dividend payouts - after taking into account market conditions and investment plans - moderates its deleveraging path. However, we believe the company has financial flexibility to accommodate a weaker market environment and recognize that its core shareholder - Koc Holding - would remain supportive should Tupras need to reduce shareholder remuneration.

Exposure to a highly cyclical and competitive industry

Tupras is exposed to a highly competitive industry which is cyclical and susceptible to external events. Global supply/demand dynamics of both crude oil and refined products has a direct impact on the profitability of the company. New and upcoming refineries - particularly from the Middle East - tend to be ones that are sophisticated, highly cost effective and benefit from economies of scale. In addition, there are no regulatory or tariff barriers that can mitigate import competition risk and local competition will increase in 2019 after the STAR refinery is completed. Nevertheless, we believe that Tupras' dominant position in the market can help to mitigate some of these business risks.

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 FX risks and therefore may shy away from importing or doing business in the country unless they can reliably hedge their currency exposure.

Liquidity analysis

Tupras has an adequate liquidity position as of 30 June 2018, with TRY3.5 billion of short-term debt ($757 million) versus TRY4.6 billion ($997 million) of cash balances (excluding blocked deposits) and funds from operations expected to be in excess of $900 million over the next 12 months according to our forecast. We expect annual capex over the next several years to be in the range of $200 - $250 million.

As is common with Turkish corporates, Tupras does not generally have committed long-term liquidity facilities. However, the lack of available committed lines is mitigated by (1) Tupras' strong relationship with its banking pool; (2) ample factoring limits which the company has used in the past; (3) the company's strategic importance to the country and to its main shareholder, Koc Holding, which could step-in to alleviate any unanticipated liquidity concerns.

The company paid TRY1.6 billion in dividends in 2017 and TRY3.4 billion in 2018 - split between TRY1.7 billion payment in Q1 2018 and a TRY1.7 billion payment in Q2 2018. We note that the 2018 shareholder remuneration is significantly higher than what we had initially anticipated.

Rating methodology and scorecard factors

Exhibit 3

Rating Factors				
Turkiye Petrol Rafinerileri A.S.				
Energy, Oil & Gas - Refining & Marketing Industry Grid [1][2]	**Current LTM 6/30/2018**		**Moody's 12-18 Month Forward View As of 8/27/2018 [3]**	
Factor 1 : Scale (25%)	**Measure**	**Score**	**Measure**	**Score**
a) Crude Distillation Capacity (mbbls/day)	611	Baa	611	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)	$6.2	Baa	$4.8 - $5.2	Baa
b) EBIT / Average Capitalization	17.8%	A	17% - 18%	A
Factor 4 : Financial Policy (20%)				
a) Financial Policy	Ba	Ba	Ba	Ba
Factor 5 : Leverage and Coverage (20%)				
a) EBIT / Interest Expense	4.2x	Ba	4.0x - 5.0x	Ba
b) Debt / EBITDA	3.5x	Ba	2.5x - 3.0x	Baa
c) RCF / Debt	4.7%	Caa	10% - 20%	Ba
d) Debt / Capitalization	66.9%	B	50% - 60%	B
Rating:				
a) Indicated Rating from Grid		Ba1		Ba1
b) Actual Rating Assigned				Ba2

[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 6/30/2018; Source: Moody's Financial Metrics™
[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 divestitures. The forward-looking credit metrics assume no foreign exchange gain or loss from financial liabilities.

Appendix

Exhibit 4

Peer Comparison Table

(in USD millions)	Turkiye Petrol Rafinerileri Ba2 negative FYE Dec-16	FYE Dec-17	LTM Jun-18	Polski Koncern Naftowy ORLEN Baa2 stable (baa3 BCA) FYE Dec-16	FYE Dec-17	LTM Jun-18	HollyFrontier Corp. Baa3 stable FYE Dec-16	FYE Dec-17	LTM Mar-18	Andeavor Baa3 RUR-UPG FYE Dec-16	FYE Dec-17	LTM Mar-18
Revenue	$11,567	$14,817	$16,237	$20,182	$25,322	$28,027	$10,536	$14,251	$15,299	$24,582	$34,975	$38,637
EBITDA	$1,050	$1,553	$1,219	$2,272	$2,765	$2,405	$623	$1,200	$1,417	$2,311	$2,697	$2,870
Distil. Capacity (MB/day)	611	611	611	707	707	707	457	457	457	895	1,157	1,157
EBIT / Throughtput Bbls	$4	$6	$6	$8	$9	$7	$2	$5	$6	$4	$4	$4
EBIT / Avg Book Capital	12.5%	20.7%	17.8%	18.0%	18.8%	13.6%	4.1%	9.5%	12.0%	7.6%	6.9%	7.4%
EBIT / Int. Exp.	3.2x	6.1x	4.2x	21.6x	27.7x	21.1x	3.3x	6.3x	7.7x	3.0x	2.4x	2.6x
Debt / EBITDA	4.5x	2.9x	3.5x	1.1x	0.8x	1.3x	4.3x	2.4x	2.0x	4.0x	3.8x	3.9x
RCF / Debt	7.6%	21.5%	4.7%	74.6%	102.0%	64.6%	10.0%	23.2%	31.9%	9.7%	8.8%	8.3%
Total Debt / Capital	63.4%	60.6%	66.9%	24.5%	18.4%	24.0%	31.9%	31.4%	29.7%	51.3%	42.5%	45.4%

[1] All figures and ratios calculated using Moody's estimates and standard adjustments. FYE = Financial Year-End. LTM = Last Twelve Months. RUR = Ratings under Review, where UPG = for upgrade and DNG = for downgrade. Leverage ratios use gross debt.
Source: Moody's Financial Metrics™

Exhibit 5

Moody's-Adjusted Debt Breakdown
Turkiye Petrol Rafinerileri A.S.

(in TRY thousands)	FYE Dec-13	FYE Dec-14	FYE Dec-15	FYE Dec-16	FYE Dec-17	LTM Ending Jun-18
As Reported Debt	**6,500,806**	**7,725,724**	**9,848,268**	**12,032,939**	**14,916,086**	**14,649,591**
Pensions	114,551	132,587	144,547	159,190	167,907	167,907
Operating Leases	66,033	71,757	56,406	59,196	81,594	81,594
Securitizations	1,609,499	3,018,108	903,111	1,875,766	960,788	1,360,000
Moody's-Adjusted Debt	**8,290,889**	**10,948,176**	**10,952,332**	**14,127,091**	**16,126,375**	**16,259,092**

[1] All figures and ratios calculated using Moody's estimates and standard adjustments. FYE = Financial Year-End.
Source: Moody's Financial Metrics™

Exhibit 6

Moody's-Adjusted EBITDA Breakdown
Turkiye Petrol Rafinerileri A.S.

(in TRY thousands)	FYE Dec-13	FYE Dec-14	FYE Dec-15	FYE Dec-16	FYE Dec-17	LTM Ending Jun-18
As Reported EBITDA	**526,633**	**736,744**	**3,244,382**	**3,193,384**	**5,749,099**	**4,806,264**
Operating Leases	22,011	23,919	18,802	19,732	27,198	27,198
Securitizations	134,941	201,070	153,124	108,515	110,767	119,298
Unusual	307,693	55,307	-2,560	-161	10,199	4,762
Non-Standard Adjustments	-80,546	16,380	-70,080	-158,750	-244,639	-270,409
Moody's-Adjusted EBITDA	**910,732**	**1,033,420**	**3,343,668**	**3,162,720**	**5,652,624**	**4,687,113**

[1] All figures and ratios calculated using Moody's estimates and standard adjustments. FYE = Financial Year-End.
Source: Moody's Financial Metrics™

Ratings

Exhibit 7

Category	Moody's Rating
TURKIYE PETROL RAFINERILERI A.S.	
Outlook	Negative
Corporate Family Rating -Dom Curr	Ba2
Senior Unsecured	Ba2/LGD4

Source: Moody's Investors Service

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