

# Tupras

## Positive market fundamentals to continue...

**upgraded to OUTPERFORM**

Current price: TRY122.20

12-mo T.Price: TRY150.00

**Analyst** Aykut Ahlatcıoğlu, CFA

+90 (212) 334 95 09

aykut.ahlatcioglu@akyatirim.com.tr

• **We upgrade our rating on Tupras from “Neutral” to “Outperform” while revising our 12M target price from TRY101.00/sh to TRY150.00/sh.** The significant upward revision in our valuation reflects our increasing conviction that the fundamental drivers of crack spread strength (higher than expected demand coupled with lower than expected net capacity additions) will remain intact in the remaining part of 2017 and extend into 2018 as well. We expect Tupras’s net refining margin to average US\$8.2/bbl in 17F (1H17: US\$8.2/bbl, Tupras guidance: US\$7.0-US\$7.5/bbl) and US\$7.5/bbl in 18F. Accordingly, our 17F and 18F EBITDA estimates of TRY6.3bn and TRY5.5bn are 21% and 17% above the consensus estimates respectively. Tupras trades at 17F EV/EBITDA of 5.7x and 18F EV/EBITDA of 6.4x on our estimates compared to emerging market peers’ median 17F EV/EBITDA of 6.1x and 18F EV/EBITDA of 6.5x respectively. Being a pure play on currently the most profitable segment of the oil sector, we think the company with an expected 18F dividend yield of 12.7% is attractive on a relative basis, too.

• **We think the 3Q17 earnings will potentially act as a further catalyst in raising market expectations.** For 3Q17, our call is a net refining margin of US\$9.7/bbl translating to a 28% QoQ increase in EBITDA from an already very strong 2Q17 print of TRY1,480mn. Beside continuing strong market fundamentals, fires in two major European refiners followed by the temporary shutdown of several refiners in Texas with capacity of 5.4mb/d (corresponds to 5.5% of global capacity) due to Hurricane Harvey are significant one-offs that pushed spreads to record high levels in the quarter.

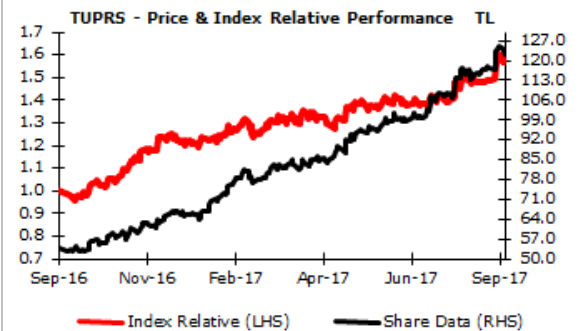
• **Supply-demand dynamics continue to play into the hands of the downstream players.** After IEA’s recent upward revision for 17F crude oil demand, we expect refinery throughput increase of 1.3mb/d in 17F and 1.1mb/d in 18F, which will outpace the forecasted net refinery capacity additions of 1.2mb/d in 17F and only 0.7mb/d in 18F. While low oil prices remain supportive of demand growth, it leads to cancellation or delay of several key projects due to cutbacks in budgets. We think that favourable supply-demand dynamics will allow for gradual recovery in middle-distillate cracks which is especially crucial for Tupras as diesel and jet fuel makes up 51% of product slate post RUP. Furthermore, the IMO regulation that will put a stricter sulphur limit for fuel used on board ships starting from 2020 could potentially reduce demand for residual fuel oil and heavy crude, both of which will be positive developments for a complex refiner like Tupras.

• **Risks.** The single biggest downside risk to our estimates and valuation is a drop in product crack spreads which will most likely could be due to worsening in global economic conditions. A US\$1.0 change in our net refining margin assumption will move our annual EBITDA estimate by c.15%.

### Stock Data

Ticker (Reuters, Bloomberg)	TUPRS.IS, TUPRS.TI
Market Cap. (TRYmn)	30,601
Number of Shares (000)	250,419
Free Float	49%
Daily Vol. (3-Month, TRYmn)	116.0
Net Debt (2017/06, TRYmn)	6,993
BIST-100 Index (TRY)	106,534

Stock data as of 18 September 2017



### Stock Performance

	1W	1M	3M	1Y
TRY	-1.8%	6.3%	23.4%	132.5%
Index Rel.*	0.7%	6.7%	13.6%	61.3%

\* vs. BIST Total Return Index

### Forecasts (TRYmn)

	2015	2016	2017F	2018F
Net Sales	36,893	34,855	51,573	57,557
EBITDA	3,735	3,195	6,341	5,800
EBITDA marg.	10.1%	9.2%	12.3%	10.1%
Net Profit	2,550	1,793	4,765	3,981
EV/Sales	0.6	0.7	0.7	0.6
EV/EBITDA	6.3	7.2	5.7	6.4
P/E	6.5	9.4	6.4	7.7

### Shareholding Structure

Enerji Yatirimlari A.S. (the SPV)	51.0%
Free Float	49.0%

## FORECASTS AND VALUATION

### P&L forecasts revisited

Major upward revision in our estimates come from increase in our crack spread estimates. We expect Tupras crack spread to average US\$6.1/bbl in 2017F and US\$6.3/bbl in 2018F which we expect to translate to a net refining margin of US\$8.2/bbl in 2017F (1H17: US\$8.2/bbl, Tupras guidance: US\$7.0-US\$7.5/bbl) and US\$7.5/bbl in 2018F. We continue to expect full capacity utilization and accordingly revise up our 2017F and 2018F EBITDA forecasts from TRY4,821mn and TRY4,254mn to TRY6,341mn and TRY5,800mn respectively. We are now 21% above the consensus estimate for the 2017F EBITDA and 17% above for the 2018F EBITDA. Single biggest upside/downside risk to our estimates is a change in the net refining margin assumption. A US\$1.0 change in our net refining margin estimate will move our annual EBITDA estimate by c.15%.

Tupras - revisions to forecasts						
TRYmn	Previous		New		Consensus	
	2017F	2018F	2017F	2018F	2017F	2018F
Revenues	53,826	62,301	51,747	57,557	51,843	56,751
EBITDA	4,821	4,254	6,341	5,800	5,229	4,949
Net profit	3,055	2,698	4,765	3,981	3,430	3,067
Source: Ak Investment Forecasts, Bloomberg						

## Valuation

We employed the discounted cash flow method to value Tupras. We increased our 12-month target price from TRY101.0 per share to TRY150.0 per share.

Discounted Cash Flow (US\$m)					
US\$ mn	2017F	2018F	2019F	2020F	TV
Oil processed (mn ton)	29.7	28.1	28.1	28.1	
CUR%	106%	100%	100%	100%	
Total production (mn ton)	29.0	27.5	27.5	27.5	
Tupras net refining margin (US\$/bbl)	8.2	7.5	7.4	6.9	
Revenue	14,364	15,523	16,751	18,036	
EBIT	1,608	1,401	1,385	1,288	1,288
EBITDA	1,766	1,564	1,542	1,440	
EBITDA margin	12.3%	10.1%	9.2%	8.0%	
Chg in net W/C	-282	-116	-123	-128	
Taxes	-145	-126	-125	-116	-258
Capex	-350	-250	-250	-250	
FCF*	546	1,072	1,044	946	11,314
PV of FCF	10,867				
Net debt	1,994	1,950	2,059	2,202	2,202
Minority	24				
Participation	277				
Fair value	9,127				
12M target mcap (US\$ mn)	10,062				
12M TP (TRY per share)	150				
Upside potential	23%				
<b>WACC</b>	<b>9.2%</b>	<b>9.2%</b>	<b>9.1%</b>	<b>9.1%</b>	<b>9.1%</b>
Risk Free Rate (%)	5.5%	5.5%	5.5%	5.5%	5.5%
Risk premium (%)	5.5%	5.5%	5.5%	5.5%	5.5%
Beta	0.86	0.88	0.91	0.93	0.93
CoE	10.2%	10.4%	10.5%	10.6%	10.6%
CoD * (1- tax rate)	4.4%	4.4%	4.4%	4.4%	4.4%
Equity/Capitalisation	83%	81%	78%	76%	76%
Debt/Capitalisation	17%	19%	22%	24%	24%
g%	0%	0%	0%	0%	0%

Source: Tupras, Ak Investment \*FCF for 2017 is only for 2H17.

## Peer valuation

For comparison purposes, we note that Tupras shares are trading on a 2017F EV/EBITDA of 5.7x and a P/E of 6.4x based on our forecasts. Tupras's emerging market peers trade on a median 2017 EV/EBITDA of 6.1x and P/E of 9.7x while its peers in developed markets are trading on a median 2017 EV/EBITDA of 8.2x and P/E of 17.9x.

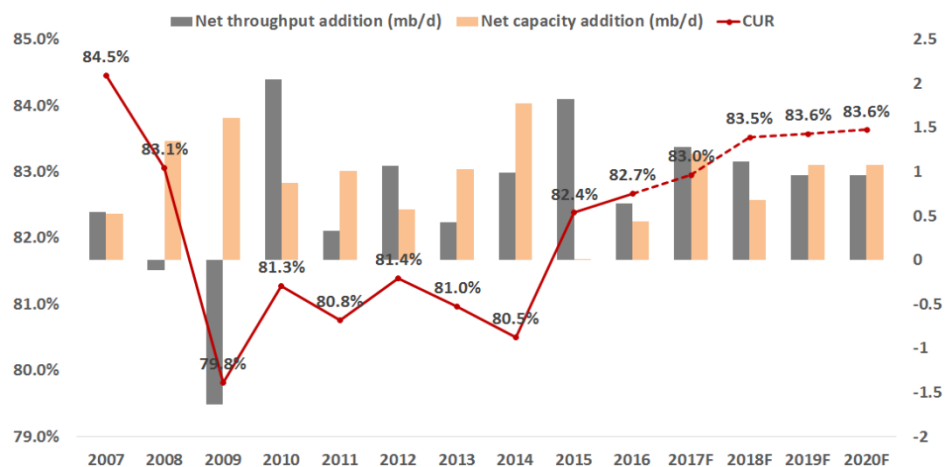
Tupras – Peer valuation							
Company	Country	EV/EBITDA		P/E		EBITDA Margin	
		2017F	2018F	2017F	2018F	2017F	2018F
GRUPA LOTOS SA	POLAND	5.8	5.5	9.5	10.1	11.4%	11.0%
MOL HUNGARIAN OIL AND GAS PL	HUNGARY	5.0	5.1	8.9	9.4	16.7%	15.4%
POLSKI KONCERN NAFTOWY ORLEN	POLAND	6.1	6.7	9.7	11.8	10.2%	8.9%
THAI OIL PCL	THAILAND	6.5	6.5	10.4	10.8	10.0%	9.6%
HINDUSTAN PETROLEUM CORP	INDIA	8.2	7.4	11.0	10.2	5.4%	5.7%
BHARAT PETROLEUM CORP LTD	INDIA	9.7	8.5	12.9	11.1	6.3%	6.7%
INDIAN OIL CORP LTD	INDIA	7.4	6.9	10.6	9.8	8.9%	8.6%
MOTOR OIL (HELLAS) SA	GREECE	4.3	4.9	6.6	9.0	7.6%	6.5%
HELLENIC PETROLEUM SA	GREECE	5.4	6.0	6.7	7.9	9.4%	8.2%
<b>Emerging Market Peers' Median</b>		<b>6.1</b>	<b>6.5</b>	<b>9.7</b>	<b>10.1</b>	<b>9.4%</b>	<b>8.6%</b>
CVR REFINING LP	UNITED STATES	4.3	4.4	13.8	11.1	6.2%	6.5%
DELEK US HOLDINGS INC	UNITED STATES	8.9	5.3	146.3	23.0	4.3%	5.1%
VALERO ENERGY CORP	UNITED STATES	6.8	6.0	16.2	12.9	6.1%	6.7%
HOLLYFRONTIER CORP	UNITED STATES	8.7	6.8	n.m.	14.2	n.m.	9.8%
PHILLIPS 66	UNITED STATES	10.1	8.5	19.9	15.4	5.2%	5.6%
MARATHON PETROLEUM CORP	UNITED STATES	8.5	7.6	17.9	16.3	7.4%	8.5%
ANDEAVOR	UNITED STATES	9.0	7.1	19.5	13.7	8.5%	10.0%
SARAS SPA	ITALY	3.7	4.3	n.m.	12.5	n.m.	5.6%
ERG SPA	ITALY	8.2	8.1	20.4	20.3	43.9%	44.7%
OMV AG	AUSTRIA	4.8	5.1	11.5	13.8	20.8%	18.8%
NESTE OYJ	FINLAND	7.9	8.3	13.7	13.8	10.2%	9.6%
<b>Developed Market Peers' Median</b>		<b>8.2</b>	<b>6.8</b>	<b>17.9</b>	<b>13.8</b>	<b>7.4%</b>	<b>8.5%</b>
<b>Global Peers' Median</b>		<b>7.1</b>	<b>6.6</b>	<b>12.2</b>	<b>12.1</b>	<b>8.7%</b>	<b>8.6%</b>
<b>TUPRAS</b>		<b>5.7</b>	<b>6.4</b>	<b>6.4</b>	<b>7.7</b>	<b>12.3%</b>	<b>10.1%</b>

## INVESTMENT THEME

### Both demand and supply dynamics to remain in favor of the refining business...

After average annual growth of 0.9mb/d in 2007-2014, oil demand has grown by 2.9mb/d in 2015 and 1.6mb/d in 2016 with the decline in oil price from an average of US\$100/bbl in 2011-2014 to US\$50/bbl playing an important role. At its latest oil market report published this month, the International Economic Agency (IEA) forecasts that this above trend growth will continue with demand forecasted to be 1.6mb/d in 2017F and 1.4mb/d in 2018F. Besides continuation of relatively low oil prices, higher than expected OECD demand growth underpins these strong consumption expectations. After 2018, we expect demand growth to moderate to 1.2mb/d per annum through 2022 consistent with IEA's medium-term forecasts. This demand outlook translates to refinery throughput increase of 1.3mb/d in 2017 and 1.1mb/d in 2018 which we think will outpace the projected net capacity additions of 1.2mb/d in 2017 and only 0.7mb/d in 2018. Note that low oil prices also play a role in the supply dynamics. Several significant projects especially in the Middle East had been cancelled or delayed due to cutbacks in the investment budgets following the oil price slump. Accordingly, we anticipate global CUR to continue inching up from its 2014 low of 80.5% to 83.5% by 2018. (see Chart 1).

**Chart 1: We expect gradual increase in CUR in the industry to continue...**



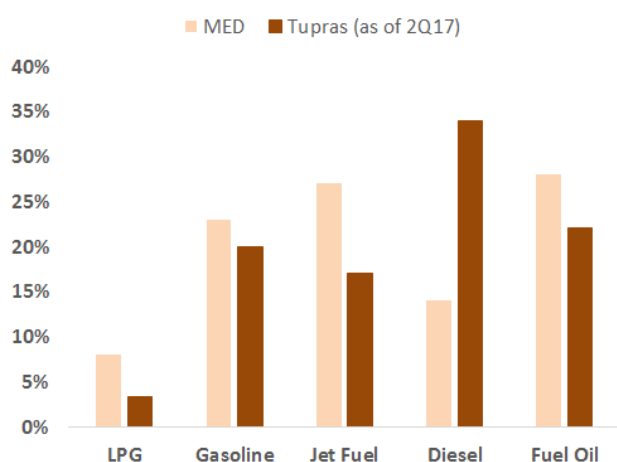
Source: BP Statistical Review, IEA, Ak Investment

### We envision the improvement albeit gradual in middle-distillate cracks to continue in our forecasting horizon...

After the completion of the Residuum Upgrade Project (RUP) which allows Tupras to convert fuel oil primarily into diesel, the share of diesel in Tupras's product slate increased to around 35%. This is much higher than the 14% weight at the Med refining margin which is typically used as a benchmark for Tupras margins. Accordingly, together with jet fuel which has 17% share, the middle-distillates make up c.50% of Tupras's product slate and their spread progression is crucial for Tupras profitability (see Chart 2). After facing 1H17 diesel crack spread of US\$10.6 and jet fuel crack spread of US\$9.7 well below the 2010-2017 averages of US\$14.4 and US\$12.4 respectively, in 3Q17 the industry is enjoying

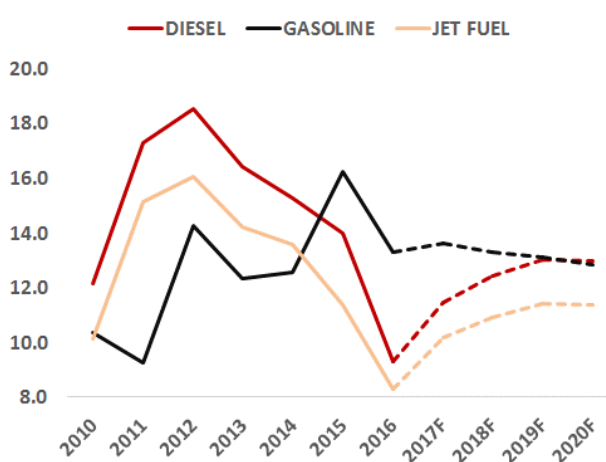
highest middle-distillate crack spreads since 3Q15. This is largely because of the impact of consecutive fires in two major European refiners in late July of total capacity 0.6mn bpd followed by the full or partial shutdown of as much as 5.4mn bpd of refining capacity (corresponding to 5.5% of global capacity) in Texas in late August due to Hurricane Harvey. Latest reports suggest that operations are gradually going back to normal as only 0.4mn bpd of capacity is in offline with 1.4mn bpd is in the process of resuming operations and 2.3mn bpd operating at below maximum output. Hence, as the influence of force majeure fades, we expect crack spreads to normalize in 4Q17. However, beyond 2017 we expect that favorable supply-demand dynamics will allow for diesel crack spreads to gradually recover to US\$13.0 by 2019F from US\$11.5 in 2017F and US\$9.3 in 2016 (see Chart 3).

**Chart 2: Tupras's product slate has more weight on middle-distillates than the Med benchmark**



Source: Tupras, Ak Investment

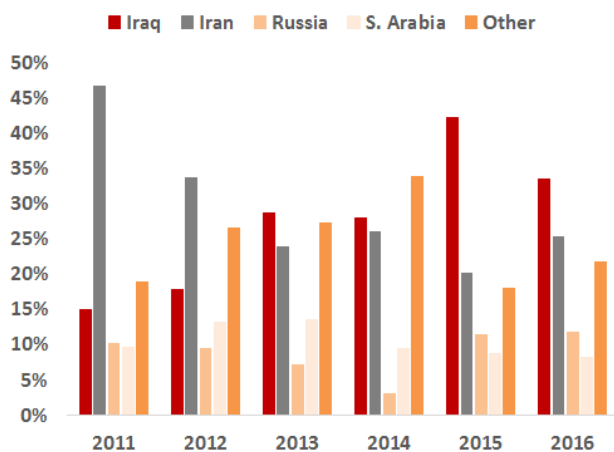
**Chart 3: Crack spread evolution for key Tupras products (in US\$/bbl)**



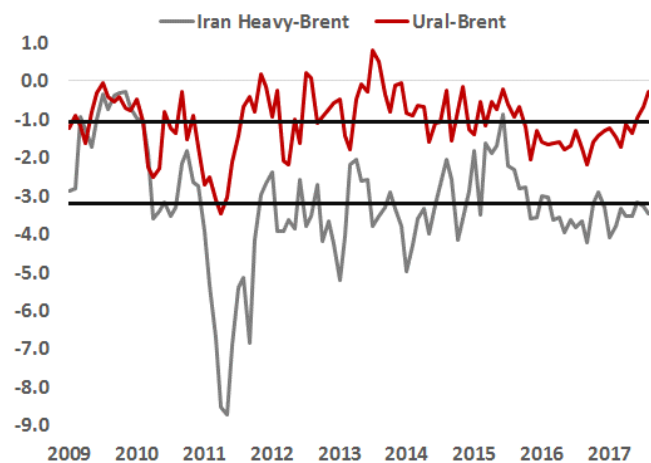
Source: Tupras, Ak Investment

High heavy crude oil utilization is a competitive advantage for Tupras, that might prove even more important with IMO's global sulphur limit coming into effect in 2020...

Operating in Turkey, Tupras enjoys being in close proximity to Iraq and Iran which primarily supplies heavier grades of crude oil compared to Brent. In 2016, Iraqi oil constituted 33% of Tupras's total feedstock while the share of Iranian oil stood at 25% (see Chart 4). Last year, the company started purchasing Kirkuk oil at very favorable terms following an agreement between the central government and the regional government in Northern Iraq. On the other hand, after some of the crucial sanctions to Iran are lifted in early 2016, Tupras increased the Iranian oil's share in its feedstock from 20% to 25% and is able to use its own fleet rather than relying on Iranian tankers for transportation. Although Ural-Brent spread narrowed to as low as -\$0.3/bbl compared to historical average of -\$1.1/bbl due to high fuel oil crack margins and strong bitumen demand, we do not observe a similar trend in spreads for heavy crude from Iran and Iraq. In particular, the spread between Iran heavy and Brent stands at a comfortable level for Tupras at around -US\$3.5 in line with the spread's historical average.

**Chart 4: Crude suppliers of Tupras by source country (in %)**


Source: Tupras, Ak Investment

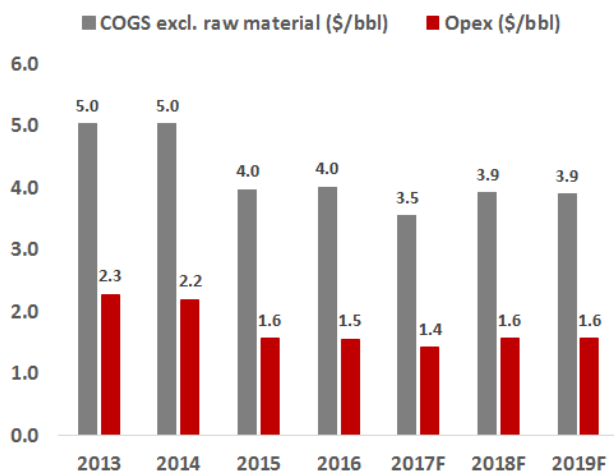
**Chart 5: Evolution of crude price differentials (\$/bbl)**


Source: Tupras, Ak Investment

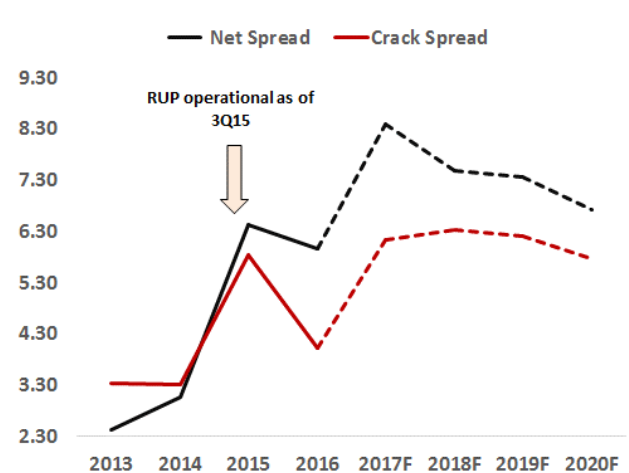
The International Maritime Organization (IMO) is set to drastically reduce the global limit for sulphur content for fuel used on board ships to 0.5% by January 2020 from its current level of 3.5%. After this date, ships will either have to use low-sulphur compliant fuel oil or continue using high-sulphur fuel with exhaust gas cleaning systems or “scrubbers” which reduces the emissions to allowable limits. Although some of the older bigger vessels are likely to prefer installing a scrubber and continue using high-sulphur fuel oil, it is still expected that there will be a demand shift of as much as 2mb/d from residual fuel oil into gasoil as a consequence of the regulation. This will likely result in higher middle distillate crack spreads as well as higher spread between heavy crude and Brent. As a complex refiner which can convert fuel oil to diesel and will potentially have access to heavy crude from Iran and Iraq that gets cheaper post IMO regulation, we think Tupras is well positioned to benefit.

#### **We expect net refining spread at US\$8.2 in 2017F and US\$7.5 in 2018F....**

Besides strong crack spreads, Tupras net refining margin strength in 1H17 (US\$8.2/bbl) is partly attributable to decline in per barrel cost of energy and labor within COGS as well as Opex. The TRY depreciation, high capacity utilization and the 10% cut in natural gas prices back in September 2016 are all tailwinds for net refining margin in 2017 in our opinion. In particular, we expect per barrel COGS excluding raw material to decline from US\$4.0/bbl in 2016 to US\$3.5/bbl in 2017F. Going beyond 2017, per barrel energy and labor costs in dollar terms are likely to increase under our base case scenario of stable Turkish lira. However, we think they will still be significantly lower than pre-2015 period at which energy prices were significantly higher in dollar terms and CUR was lower as the company lacked conversion technology. We expect Tupras’s crack spread to average US\$6.1/bbl in 2017F and US\$6.3/bbl in 2018F before it declines to sustainable crack spread level of US\$5.7/bbl in line with the historical averages of product spreads. This should translate to a net refining margin of US\$8.2/bbl in 2017F, US\$7.5/bbl in 2018F and a sustainable net refining margin of US\$6.7/bbl on our estimates.

**Chart 6: COGS and Opex evolution (\$/bbl)**


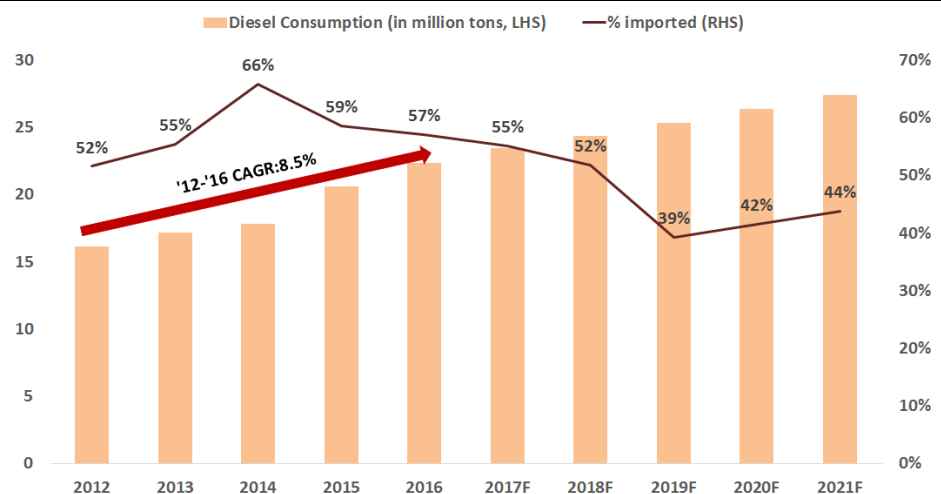
Source: Tupras, Ak Investment

**Chart 7: Tupras net and crack spread evolution (\$/bbl)**


Source: Tupras, Ak Investment

### Socar's star refinery not like to cause a major impact on margins...

We expect Socar's Star refinery to be fully operational in 4Q18 with crude oil processing capacity of 10mn ton per year (Tupras: 28.1mn ton per year). Besides producing 1.6mn ton of naphtha for Petkim, major outputs of the refinery will be 4.9mn ton of diesel and 1.6mn ton of jet fuel. Turkey's total diesel consumption had a CAGR of 8.5% in the 2012-2016 period. According to Energy Regulatory Agency (EMRA) data, growth remains fairly strong in 2017 as well with 5.2% YoY growth in 6M17. Assuming a growth of 5% in 2017F and 4% in 2018F and onwards, we expect diesel consumption to reach 25.3mn ton by 2019F. This will be the first year at which the Star refinery will be fully operational. Hence, even with the additional diesel production from the Star refinery, the total diesel production we estimate to be at 15.4mn ton will only be able to meet roughly 60% of diesel consumption. Therefore, although the entry of the Star refinery will potentially increase the competition in the Aegean region where Star refinery is located, we don't think it will have a major impact on margins according to our forecasts.

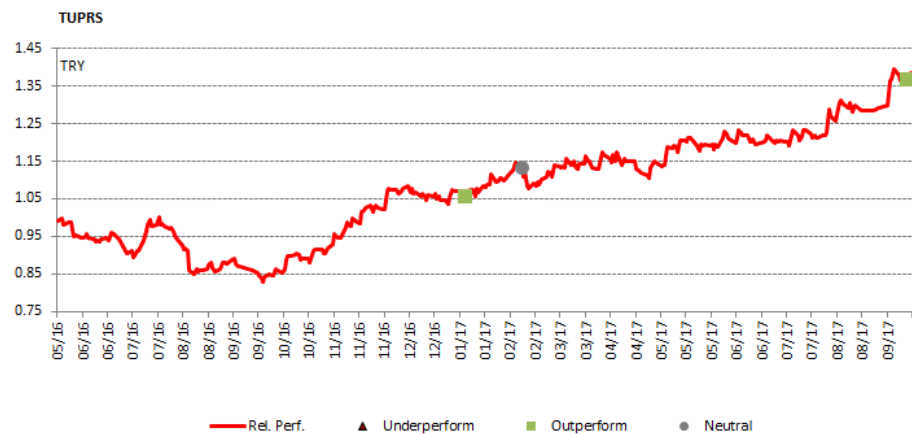
**Chart 8: We expect the significant diesel deficit to continue in the domestic market**


Source: EMRA, Ak Investment



## RATING HISTORY

### Tupras– Rating History



Source: Ak Investment

With this report, we raise our rating for Tupras from “Neutral” to “Outperform” and raise our 12-month target price from TRY101.0/share to TRY150.0/share implying 23% upside potential on the last closing price. Our last rating was issued on 13/02/2017.

**TUPRAS - Financial Statements & Key Ratios**

<b>Income Statement (TRYmn)</b>	<b>2015</b>	<b>2016</b>	<b>2017F</b>	<b>2018F</b>	<b>2019F</b>
<b>Net sales</b>	<b>36,893</b>	<b>34,855</b>	<b>51,573</b>	<b>57,557</b>	<b>67,627</b>
Cost of goods sold	-32,767	-31,206	-44,709	-51,182	-60,760
<b>Gross profit</b>	<b>4,126</b>	<b>3,649</b>	<b>6,864</b>	<b>6,374</b>	<b>6,867</b>
Operating expenses	-877	-995	-1,092	-1,179	-1,273
<b>EBIT</b>	<b>3,249</b>	<b>2,654</b>	<b>5,772</b>	<b>5,195</b>	<b>5,593</b>
Net other income & expense from operations	-495	-296	142	142	166
Net profit (loss) from subsidiaries	70	159	220	245	288
Net financial income & expense	-599	-572	-579	-600	-1,077
Profit before taxes	2,225	1,944	5,554	4,983	4,971
Taxation on Continuing Operations	339	-131	-757	-995	-993
Non-controlling Interest	-14	-20	-32	-6	-6
<b>Net Profit</b>	<b>2,550</b>	<b>1,793</b>	<b>4,765</b>	<b>3,981</b>	<b>3,972</b>
Depreciation	486	541	569	605	632
<b>EBITDA</b>	<b>3,735</b>	<b>3,195</b>	<b>6,341</b>	<b>5,800</b>	<b>6,225</b>
<b>Nominal Changes (YoY)</b>	<b>2015</b>	<b>2016</b>	<b>2017F</b>	<b>2018F</b>	<b>2019F</b>
Net Sales	-7%	-6%	48%	12%	17%
Gross Profit	227%	-12%	88%	-7%	8%
EBIT	512%	-18%	117%	-10%	8%
EBITDA	373%	-14%	98%	-9%	7%
Net Profit	75%	-30%	166%	-16%	0%
<b>Profit Margins</b>	<b>2015</b>	<b>2016</b>	<b>2017F</b>	<b>2018F</b>	<b>2019F</b>
Gross Profit Margin	11.2%	10.5%	13.3%	11.1%	10.2%
EBIT Margin	8.8%	7.6%	11.2%	9.0%	8.3%
EBITDA Margin	10.1%	9.2%	12.3%	10.1%	9.2%
Net Margin	6.9%	5.1%	9.2%	6.9%	5.9%

<b>Key Metrics</b>	<b>2015</b>	<b>2016</b>	<b>2017F</b>	<b>2018F</b>	<b>2019F</b>
Receivable days	13	30	28	31	28
Inventory days	25	33	32	29	24
Payable days	22	63	55	45	35
Working capital days	17	0	4	15	17
Capex/sales	-2.6%	-2.5%	-2.4%	-1.6%	-1.5%
Net debt (TRYmn)	6,892	6,084	5,336	6,399	7,790
Net debt / Equity	0.82	0.74	0.47	0.56	0.69
Net debt / EBITDA	1.85	1.90	0.84	1.10	1.25
ROA (%)	14.7%	6.3%	14.3%	11.0%	10.5%
ROIC (%)	17.0%	14.0%	28.4%	24.2%	26.0%
ROE (%)	16.7%	11.8%	29.3%	23.2%	23.0%
Dividend payout (%)	0.4%	63.8%	86.8%	81.7%	87.8%
Dividend yield (%)	0.0%	9.6%	5.1%	12.7%	11.4%
Effective tax rate (%)	15.2%	-6.8%	-13.6%	-20.0%	-20.0%
<b>Valuation</b>	<b>2015</b>	<b>2016</b>	<b>2017F</b>	<b>2018F</b>	<b>2019F</b>
EV/Sales	0.6	0.7	0.7	0.6	0.6
EV/EBITDA	6.3	7.2	5.7	6.4	6.2
PE	6.5	9.4	6.4	7.7	7.7
FCF yield (%)	-7.1%	22.9%	10.2%	13.4%	14.2%

Cash Flow Statement (TRYmn)	2015	2016	2017F	2018F	2019F
<b>Earnings Before Adjustments</b>	2,564	1,813	4,797	3,988	3,978
Depreciation	486	541	569	605	632
Changes in WC	-3,855	1,723	-1,672	-598	-1,007
<b>Operating Cash Flow</b>	<b>-294</b>	<b>4,705</b>	<b>4,385</b>	<b>5,019</b>	<b>5,354</b>
Capex	-959	-884	-1,257	-927	-1,009
<b>Free Cash Flow</b>	<b>-1,183</b>	<b>3,864</b>	<b>3,129</b>	<b>4,092</b>	<b>4,345</b>
Change in Financial Debt	37	278	754	556	606
Dividends paid	-6	-1,628	-1,557	-3,893	-3,496
<b>Cash from financial operations</b>	<b>31</b>	<b>-1,350</b>	<b>-803</b>	<b>-3,337</b>	<b>-2,890</b>
Other	140	-1,750	-1,231	-3,807	-3,408
<b>Change in cash &amp; equivalents</b>	<b>-1,012</b>	<b>2,823</b>	<b>1,898</b>	<b>285</b>	<b>937</b>
Cash – beginning of period	3,211	2,199	5,022	6,920	7,205
Cash – end of period	<b>2,199</b>	<b>5,022</b>	<b>6,920</b>	<b>7,205</b>	<b>8,142</b>

Balance Sheet (TRYmn)	2015	2016	2017F	2018F	2019F
<b>Current Assets</b>	<b>8,742</b>	<b>13,667</b>	<b>17,612</b>	<b>18,197</b>	<b>19,276</b>
Cash & equivalents*	3,028	6,051	7,949	8,233	9,170
Marketable securities	0	0	0	0	0
Short-term trade receivables	2,540	3,180	4,706	4,999	5,330
Other short-term receivables	26	26	26	26	26
Inventory	2,102	3,608	4,114	4,076	3,780
Other current assets	1,047	802	817	863	971
<b>L/T Assets</b>	<b>16,728</b>	<b>17,551</b>	<b>17,784</b>	<b>18,524</b>	<b>19,355</b>
Long-term trade receivables	0	0	0	0	0
Other long-term receivables	0	0	0	0	0
Financial Investments	4	4	4	4	4
Tangible fixed assets	11,480	11,741	12,429	12,751	13,128
Intangible fixed assets	59	55	51	47	42
Other long-term assets	5,185	5,751	5,300	5,723	6,180
<b>TOTAL ASSETS</b>	<b>26,025</b>	<b>31,218</b>	<b>35,395</b>	<b>36,721</b>	<b>38,631</b>
<b>S/T Liabilities</b>	<b>8,828</b>	<b>12,660</b>	<b>12,633</b>	<b>12,677</b>	<b>12,692</b>
Short-term financial loans	1,871	1,958	2,158	2,331	2,517
Short-term trade payables	3,861	6,988	6,482	6,053	5,557
Other short-term payables	32	28	28	28	28
Other short-term liabilities	3,065	3,687	3,965	4,266	4,590
<b>L/T Liabilities</b>	<b>8,828</b>	<b>10,391</b>	<b>11,355</b>	<b>12,543</b>	<b>14,698</b>
Long-term financial loans	8,048	10,176	11,127	12,301	14,443
Long-Term Provisions	0	0	0	0	0
Other long-term payables	0	0	0	0	0
Other long-term Liabilities	780	215	228	241	255
<b>EQUITY</b>	<b>8,368</b>	<b>8,167</b>	<b>11,407</b>	<b>11,502</b>	<b>11,241</b>
Shareholders' capital	8,305	8,088	11,297	11,385	11,118
Non-controlling interests	63	79	111	117	123
<b>TOTAL LIABILITIES &amp; SH. EQUITY</b>	<b>26,025</b>	<b>31,218</b>	<b>35,395</b>	<b>36,721</b>	<b>38,631</b>

\*Differs from cash figure at the cash flow statement due to Inclusion of restricted deposit

**Disclaimer**

This research report is for distribution only under such circumstances as may be permitted by applicable laws. The information and opinions in this report were prepared by AK INVESTMENT (Ak Yatırım Menkul Değerler A.Ş.) with information and data obtained from public sources, which are believed to be trustworthy. However, this research report is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to herein and, AK INVESTMENT does not guarantee that the information contained herein is true, accurate, complete or unchangeable. The views of AK INVESTMENT reflected in this document may change without notice. Investment information, recommendations and opinions contained in this report are not under the scope of investment advisory services. Investment advisory services are provided by authorized investment institutions to persons and entities privately by considering their risk and return preferences in accordance with the investment advisory services framework agreement to be executed by and between authorized investment institutions and clients, whereas the comments and advices included herein are of general nature. The statements indicated in this report should not be construed as an offer, invitation or solicitation to sell or purchase any securities or other instruments under any circumstances. This research report and any investment information, opinion and recommendation contained herein have not been prepared based on and may not fit to specific investment objectives, financial situation, investment goals, risk return preferences or particular needs of any specific recipient, and investments discussed or recommended in this report may involve significant risks, may be illiquid and may not be suitable for all investors. Therefore making an investment decision only by relying on the information given herein may not give results that fit your expectations. Investors must make their own investment decisions considering the said circumstances and based on their specific investment objectives and financial situation and obtaining independent specialized advice as may be necessary. In addition, AK INVESTMENT research department produces various types of research including, but not limited to, fundamental analysis, quantitative analysis, and trade ideas. Recommendations contained in one type of research product may differ from recommendations contained in other types of research, whether as a result of differing time horizons, methodologies, or otherwise. AK INVESTMENT is under no obligation to disclose or take account of this document when advising or dealing with or on behalf of customers. Readers are thus advised to have the accuracy of the information contained confirmed before acting by relying on such information and the readers shall bear the responsibility of the decisions taken by relying thereon. Neither AK INVESTMENT nor any of its directors, officers, employees or agents shall have any liability, however arising, for any error, inaccuracy or incompleteness of fact or opinion in this research report or any losses or damages which may arise from the use of this research report. Furthermore, the personnel and consultants of AK INVESTMENT shall not have any responsibility in any case for direct or indirect damage caused by such information. Moreover, AK INVESTMENT shall not be held liable for any damage to the hardware or software of the receiver caused by any viruses, detected transfer or any other technical reason in case of the receipt of the reports via the internet or through e-mail.

**Ak Investment Research Stock Rating Methodology**

Our rating system aims to indicate a relative value and is therefore based on a graduated scale (Outperform, Neutral and Underperform). While the BIST-100 (XU100) Index is treated as the point of reference when assigning our ratings, each analyst also takes into account views towards stocks in relation to the sectors under coverage and the sector call relative to the market. We also categorize the stocks in our coverage under two groups, principally in accordance with their liquidity (based on free-float market capitalization and historical average daily trading volume) as small-cap stocks exhibit different risk/return characteristics than more-liquid large-caps. In conjunction, the individual stock ratings reflect the expected return of the stock relative to the broader market over the next 6 to 12 months. The expected performance equals to the sum of forecasted share price appreciation and expected cash dividend income. It is a function of the near-term company fundamentals, the outlook for the sector, the confidence in earnings projections and the company valuation, along with other factors. In light of this expected return, the target price for a stock represents the value the analyst expects the stock to reach or sustain over a 12-month horizon. However, this

should be interpreted as a notional reference price and must be discounted by the stock's cost of equity to calculate the current fair price estimate.

A key element of our rating system is the benchmarking of the 12-month expected return against the cost of equity. We apply a required rate of return for each stock, calculated on the basis of our assumed risk-free rate and equity risk premium. A stock is normally assigned an Outperform rating if the implied return over the next 12 months exceeds the required rate of return (cost of equity) by at least 10 percentage points for our larger-cap stock coverage, or by 15 percentage points for the small-cap group. As the average potential upside of the stocks in our coverage may be considerably higher or lower than the average cost of equity, we also filter stocks according to their potential upside with respect to other stocks under coverage, with the practical aim of attaching an Outperform rating to the top group (generally 30-50% of the companies under our coverage), a Neutral rating for the next 40-50% and an Underperform rating to the lowest group (no less than 10%, and typically between 10-20% of the coverage group). The expected returns on some stocks may fall outside the range of the applicable rating category, due to movements in market prices and other short-term volatility or trading patterns, or analyst discretion. While temporary deviations from the specified ranges are permitted, they would subsequently become subject to review. Note too that the analyst's short-term view may occasionally diverge from the stock's longer-term fundamental rating.

**Outperform.** An outperform rating conveys an expectation that the stock will outperform the BIST-100 Index (XU100) within the next 6 to 12 months.

**Neutral.** A neutral rating would convey an expectation that the stock will perform broadly in line with the BIST-100 (XU100) Total Return Index.

**Underperform.** An underperform rating conveys an expectation that the stock will yield a return below that of the BIST-100 (XU100) Total Return Index within the next 6- to 12-month period.

**Not Rated (N/R).** A not rated rating is assigned when the analyst does not have adequate conviction about the stock's total return relative to the BIST-100 (XU100) Total Return Index or to the average total return of the analyst's industry coverage universe, on a risk-adjusted basis, over the next 6 to 12 months.

**Under Review (U/R).** An under review rating is temporarily assigned when the analyst starts an appraisal process of the rating for a potential revision, or the issuer has a significant material event with further information pending or to be announced. This does not revise the previously published rating, but indicates that the analyst is actively reviewing the investment rating or waiting for sufficient information to re-evaluate the analyst's expectation of total return on equity.

## **Disclosure**

AK INVESTMENT does and seeks to do business with companies covered in its research reports. AK INVESTMENT may rely on information barriers, such as "Chinese Walls" to control the flow of information within the areas, units, divisions, groups, or affiliates of AK INVESTMENT. While the analyst will have endeavoured to be objective in the preparation of this report, investors should be aware of any implications of such a relationship on the objectivity of the report, or unintended conflicts of interest which may have arisen in its preparation. Investors should consider this report as only a single factor in making their investment decision. AK INVESTMENT, any of its parents, subsidiaries or affiliates, agents, and/or their respective officers, directors or employees may hold positions and at any time make purchases or sales as a principal or agent of the securities referred to herein.

**Analyst Certification**

The analyst(s) listed on the cover page of this report certify that the views contained within this report accurately reflect their own personal views regarding the securities and the issuers referred to therein. The analyst(s), employed by AK INVESTMENT and named in this report, are not aware of any actual or material conflict of interest that may exist concerning any of the companies mentioned here at the time of this certification, and have not and will not receive any compensation for providing a specific recommendation or view in this report. AK INVESTMENT research reports are distributed internally only after they are distributed to clients. Research analysts will not conduct any disclosure of research reports they are planning to publish with any personnel outside the research department, except to legal and compliance personnel.

**IMPORTANT DISCLOSURES FOR U.S. PERSONS**

This research report was prepared by Ak Yatirim Menkul Degerler A.S. ("AK INVESTMENT"), a company authorized to engage in securities activities in Turkey. AK INVESTMENT is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act").

Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through Rosenblatt Securities Inc., 40 Wall Street 59th Floor, New York NY 10005, a registered broker dealer in the United States. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through AK INVESTMENT. Rosenblatt Securities Inc. accepts responsibility for the contents of this research report, subject to the terms set out below, to the extent that it is delivered to a U.S. person other than a major U.S. institutional investor.

The analyst whose name appears in this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA") and may not be an associated person of Rosenblatt Securities Inc. and, therefore, may not be subject to applicable restrictions under FINRA Rules on communications with a subject company, public appearances and trading securities held by a research analyst account.

**Ownership and Material Conflicts of Interest**

Rosenblatt Securities Inc. or its affiliates does not 'beneficially own,' as determined in accordance with Section 13(d) of the Exchange Act, 1% or more of any of the equity securities mentioned in the report. Rosenblatt Securities Inc., its affiliates and/or their respective officers, directors or employees may have interests, or long or short positions, and may at any time make purchases or sales as a principal or agent of the securities referred to herein. Rosenblatt Securities Inc. is not aware of any material conflict of interest as of the date of this publication

**Compensation and Investment Banking Activities**

Rosenblatt Securities Inc. or any affiliate has not managed or co-managed a public offering of securities for the subject company in the past 12 months, nor received compensation for investment banking services from the subject company in the past 12 months, neither does it or any affiliate expect to receive, or intends to seek compensation for investment banking services from the subject company in the next 3 months.

**Additional Disclosures**

This research report is for distribution only under such circumstances as may be permitted by applicable law. This research report has no regard to the specific investment objectives, financial situation or particular needs of any specific recipient, even if sent only to a single recipient. This research report is not guaranteed to be a complete statement or summary of any securities, markets, reports or developments referred to in this research report. Neither AK INVESTMENT nor any of its directors, officers, employees or agents shall have any liability, however arising, for any error, inaccuracy or incompleteness of fact or opinion in this research report or lack of care in this research report's preparation or publication, or any losses or damages which may arise from the use of this research report.

AK INVESTMENT may rely on information barriers, such as "Chinese Walls" to control the flow of information within the areas, units, divisions, groups, or affiliates of AK INVESTMENT.

Investing in any non-U.S. securities or related financial instruments (including ADRs) discussed in this research report may present certain risks. The securities of non-U.S. issuers may not be registered with, or be subject to the regulations of, the U.S. Securities and Exchange Commission. Information on such non-U.S. securities or related financial instruments may be limited. Foreign companies may not be subject to audit and reporting standards and regulatory requirements comparable to those in effect within the United States.

The value of any investment or income from any securities or related financial instruments discussed in this research report denominated in a currency other than U.S. dollars is subject to exchange rate fluctuations that may have a positive or adverse effect on the value of or income from such securities or related financial instruments.

Past performance is not necessarily a guide to future performance and no representation or warranty, express or implied, is made by AK INVESTMENT with respect to future performance. Income from investments may fluctuate. The price or value of the investments to which this research report relates, either directly or indirectly, may fall or rise against the interest of investors. Any recommendation or opinion contained in this research report may become outdated as a consequence of changes in the environment in which the issuer of the securities under analysis operates, in addition to changes in the estimates and forecasts, assumptions and valuation methodology used herein.

No part of the content of this research report may be copied, forwarded or duplicated in any form or by any means without the prior consent of AK INVESTMENT and AK INVESTMENT accepts no liability whatsoever for the actions of third parties in this respect.