TURKISH EQUITIES / COMPANY UPDATE

Petkim

30 November 2023

Outperform
(Upgraded from Neutral)

Close Price: TRY21.40
12M Target Price: TRY30.00
Upside Potential: 40%

Returning to the game on nearing cyclical recovery

We are upgrading our rating for Petkim from Neutral to Outperform with a new 12-month target price of TRY30.00/share, pointing to 40% upside potential. In line with the down-cycle in the global petrochemical industry following its stirling performance during the pandemic, the company's EBITDA has suffered a compounded annual decline of 62% between 2021-2023F in USD-terms. In 3Q23, improvements in the company's efficiency in feedstock procurements led to a recovery in Petkim's operational performance despite ongoing headwinds in the industry, and we think the positive impact will remain apparent in the coming quarters. We forecast a significant recovery in the industry's position by 2H24 with 173% EBITDA growth in 2024 in USD-terms on the assumption of mid-cycle dynamics, even with the impact of efficiency gains on feedstock procurements fading in 2H24. Last but not least, as the first contribution from the STAR Refinery becomes apparent in the 4Q23 financials, the bottom-line is also set to be less vulnerable to sectoral cycles, while our net income forecast points to a ROE of 34.5% in 2024F. The stock trades at an EV/EBITDA of 8.9x and P/E of 4.5x, while the EV/EBITDA adjusted to include STAR Refinery points to a 7.3x multiple based on our 2024 prospective earnings. We are not optimistic for a reversal in the industry dynamics in short-term but further downside now appears limited. With an on-going earnings momentum and improving debt matrices - net debt/EBITDA of 2.5x in 2024F (2023F: 10.3x), we deem the current valuation good entry level for playing a revival of the petrochemical industry.

No signs of a near-term recovery in the industry: After record-high profitability during the pandemic, the petrochemical industry is still struggling to find a bottom while European ethylene cash spreads are still languishing in negative territory. On the other hand, we think further downside risks are now limited with a recovery likely during 2024 as the economy in China - comprising c.40% of the total market - starts to gain momentum while anticipated rate cuts from major central banks stimulate consumer spending in 2H24. Although we do not expect the same up-cycles as in 2017 and 2021 in our region due to 1) accelerating imports from US complexes with massive cost advantage working on shale gas and 2) a surge in capacity in China, we think we are close to the bottom and will enter the mid-cycle by 2H24 at latest.

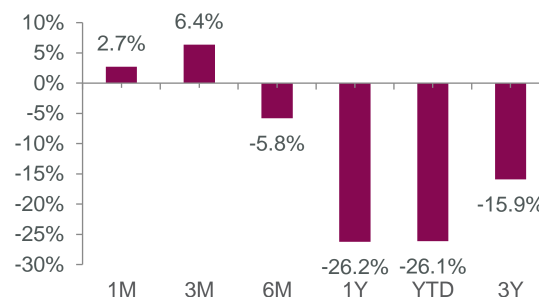
Forecasting 173% EBITDA growth in USD-terms for 2024: Petkim's EBITDA is forecasted to post a compounded annual rate of decline of 62% between 2021-2023F in USD-terms. We plug in a mid cycle dynamics into our model by 2H24 while with the 1H24 performance set to be supported by efficiency gains on Petkim's new feedstock procurement strategy with its revised agreement with the STAR Refinery. We forecast that this will pave the way for 173% EBITDA growth in 2024 in USD-terms, with a further 25% growth in 2025 assuming EBITDA/ton levels for petchem business remain in line with historical averages with additional support from port and trading activities. Lastly, the contribution of STAR Refinery will be visible from 4Q23, where we forecast a recovery in the ROE from 25.8% in 2023F to 34.5% in 2024F.

Returning to the game: We are aware that petchem dynamics remain weak and the structural changes over the last couple of years will continue to limit profitability dynamics. However, Petkim is well positioned with its dynamic managerial structure through 1) efficiency gains on feedstock procurements and 2) the positive contribution from the port and STAR Refinery becoming more apparent from 4Q23, and we calculate a normalized adjusted EBITDA of around USD345mn vs. its historical average of USD230mn. The stock trades at an EV/EBITDA of 8.9x, while STAR Refinery included EBITDA points to an EV/EBITDA of 7.3x which we find it more meaningful following the refiner's contribution into financials to be completed as of 4Q23 and 4.5x of P/E based on its 2024 prospective earnings. With our expectation of solid earnings momentum, strengthening balance sheet dynamics, and an FX-friendly operational performance, we upgrade our rating for the stock to Outperform.

Stock Data

Bloomberg / Reuters	PETKM TI / PETKM.IS
Mcap (US$mn)	1,883
EV (US$mn)	2856.5
Avg. Trd. Vol. (US$mn)	110.5
Free float	47%

Relative Performance to BIST100



Key Data (TRYmn)	2021	2022	2023F	2024F
Revenues	28716	48898	48268	90529
Growth	*137%*	*70%*	*-1%*	*88%*
EBITDA	6090	3390	2355	9859
Growth	*236%*	*-44%*	*-31%*	*319%*
Net profit	5452	6580	6066	12077
Growth	*401%*	*21%*	*-8%*	*99%*
P/E (x)	10.0	8.3	9.0	4.5
EV/ EBITDA (x)	10.5	19.2	29.9	8.9
P/BV (x)	2.2	1.7	2.0	1.8
FCF yield (%)	9%	n.m.	0%	5%
Div. yield (%)	0%	0%	0%	0%

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Figure 1 – Summary financials & key metrics (TRYmn)

Income statement	2019	2020	2021	2022	2023F	2024F
Revenues	**11,672.2**	**12,134.1**	**28,715.7**	**48,898.3**	**48,268.2**	**90,529.0**
Gross profit	**1,601.1**	**1,853.8**	**6,417.2**	**4,118.9**	**4,034.5**	**13,414.1**
EBITDA	**1,530.7**	**1,810.3**	**6,089.8**	**3,390.1**	**2,355.4**	**9,859.0**
Depreciation	335.8	423.8	539.8	906.1	1,406.7	2,232.4
EBIT	**1,194.9**	**1,386.5**	**5,550.0**	**2,484.0**	**948.7**	**7,626.6**
Net other income	18.7	91.9	922.9	922.3	1,069.4	2,169.7
Income from investing activities	220.9	215.7	837.8	3,369.4	7,718.4	8,104.4
Net financial income	-385.3	-423.7	-658.5	-2,097.8	-3,894.1	-2,804.8
Profit from associates	0.0	0.0	0.0	0.0	0.0	0.0
PBT	**1,049.2**	**1,270.4**	**6,652.2**	**4,677.9**	**5,842.4**	**15,095.9**
Taxes	-113.5	-199.2	-1,135.6	1,867.2	223.7	-3,019.2
Minority interest	-49.1	-16.5	64.9	-35.2	-32.5	-64.7
Net income	**984.7**	**1,087.7**	**5,451.7**	**6,580.3**	**6,066.1**	**12,076.7**

Balance sheet	2019	2020	2021	2022	2023F	2024F
Current assets	**9,546.6**	**11,859.7**	**19,623.3**	**34,404.9**	**33,939.2**	**53,969.7**
Cash equivalents	4,037.2	5,502.0	3,665.3	13,251.7	3,929.0	11,302.3
Trade receivables	1,552.2	1,717.1	5,106.6	4,734.9	7,470.0	13,255.2
Inventories	929.2	958.5	3,539.8	4,383.1	5,301.8	8,744.7
Other current assets	3,028.2	3,682.1	7,311.5	12,035.2	17,238.4	20,667.5
Non-current assets	**7,155.5**	**8,123.7**	**10,804.9**	**20,258.1**	**31,817.2**	**37,405.6**
Tangibles	4,691.1	5,429.1	7,303.2	11,946.2	16,172.8	17,622.5
Intangibles	35.7	41.9	91.4	90.1	101.6	101.6
Other non-current assets	2,428.6	2,652.7	3,410.3	8,221.8	15,542.9	19,681.5
Total assets	**16,702.1**	**19,983.4**	**30,428.2**	**54,663.0**	**65,756.5**	**91,375.3**
Current liabilities	**5,128.6**	**5,934.2**	**7,655.4**	**31,197.9**	**21,390.6**	**28,117.3**
Short-term loans	4,037.2	4,431.4	2,876.8	25,726.6	13,696.8	16,310.9
Trade payables	957.0	1,186.6	3,835.8	4,407.5	5,625.9	9,279.2
Other current liabilities	134.3	316.2	942.8	1,063.8	2,067.9	2,527.2
Non-current liabilities	**5,011.4**	**6,490.6**	**10,053.8**	**4,405.8**	**16,261.3**	**21,196.6**
Long-term loans	4,487.0	5,719.4	9,223.8	2,997.1	14,587.5	19,522.8
Other non-current liabilities	524.4	771.2	829.9	1,408.8	1,673.8	1,673.8
Minority Interest	**-11.0**	**-34.0**	**-3.3**	**34.5**	**61.7**	**89.7**
Shareholders' equity	**6,573.2**	**7,592.6**	**12,722.3**	**19,024.7**	**28,042.9**	**41,971.8**
Total liabilities and equity	**16,702.1**	**19,983.4**	**30,428.2**	**54,663.0**	**65,756.5**	**91,375.3**

Key metrics	2019	2020	2021	2022	2023F	2024F
Growth						
Revenue growth	25%	4%	137%	70%	-1%	88%
EBITDA growth	4%	18%	236%	-44%	-31%	319%
Net income growth	13%	10%	401%	21%	-8%	99%
Profitability						
Gross Margin	13.7%	15.3%	22.3%	8.4%	8.4%	14.8%
EBITDA margin	13.1%	14.9%	21.2%	6.9%	4.9%	10.9%
Net margin	8.4%	9.0%	19.0%	13.5%	12.6%	13.3%
Return on assets (ROA)	6.4%	5.9%	21.6%	15.5%	10.1%	15.4%
Return on equity (ROE)	16.1%	15.4%	53.7%	41.5%	25.8%	34.5%
Return on cap. emp. (ROCE)	4.5%	3.4%	14.6%	34.6%	21.6%	28.8%
Leverage						
Net Debt	4,487	4,649	8,435	15,472	24,355	24,531
Net debt / Equity	0.3	0.2	0.3	0.3	0.4	0.3
Net debt / EBITDA	2.9	2.6	1.4	4.6	10.3	2.5
EBIT Interest coverage	4.9	6.3	62.4	2.0	0.4	3.2
Efficiency						
Total asset turnover	0.7	0.6	0.9	0.9	0.7	1.0
Equity turnover	1.8	1.6	2.3	2.6	1.7	2.2
WC/Sales	12%	12%	11%	10%	12%	12%
Opex/Sales	3.5%	3.9%	3.0%	3.3%	6.4%	6.4%

Cash flow	2019	2020	2021	2022	2023F	2024F
EBITDA	1,530.7	1,810.3	6,089.8	3,390.1	2,355.4	9,859.0
Change in working capital	121.9	376.7	-3,413.6	-274.2	1,523.3	-1,979.8
Taxes (EBIT x 20%)	641.1	-859.6	-938.3	-1,423.2	-2,066.4	-1,525.3
Capital expenditure	-641.3	-769.8	-1,086.0	-4,105.5	-2,066.4	-3,456.5
Adjustment	-896.9	1,205.7	834.1	1,802.9	0.0	0.0
FCFF	755.5	1,763.3	1,486.1	-609.9	-254.1	2,897.4

QNB Finansinvest vs Consensus			2023E			2024E
	Estimate	Cons.	Deviation	Estimate	Cons.	Deviation
Revenues	48,268.2	51,302.4	-6%	90,529.0	79,439.7	14%
EBITDA	2,355.4	2,087.9	13%	9,859.0	7,826.8	26%
Net Income	6,066	3,520	72%	12,077	7,081	71%

Source: QNBFI Estimates

INVESTMENT THEME

We are upgrading our rating for Petkim from Neutral to Outperform with a revised 12-month target price of TRY30.00/share, pointing to 40% upside potential. In line with the down-cycle in global petrochemical industry following its impressive performance during the pandemic, the company's EBITDA has languished with a compounded annual rate of decline of 62% between 2021-2023F. However, with the company reaping efficiency gains through its revised agreement with STAR Refinery on feedstock procurements, Petkim's operational performance has started to set itself apart positively from its regional peers, which are still facing challenges with negative ethylene cash margins. We think the advantages of discounted naphtha procurements are likely to continue in the near-term amid the high volatility in oil prices and unexpected glut of products in the global market. We are also optimistic on the market outlook, as the 2-year long down-cycle is likely to end in 2024, most probably in the second half of the year, on the back of both an acceleration in domestic activity in China, which may limit exports from the region to global markets, and potential rate cuts that may support the growth prospects of developed economies. On our assumption that the positive impact of discounted naphtha procurements will be maintained in 1H24 as in 3Q23, and with mid-cycle market dynamics to kick in by 2H24, we calculate 173% EBITDA growth in USD-terms in 2024 and another 25% increase for 2025. In addition, with the STAR Refinery contribution from 4Q23, we calculate 30% growth in net income in USD terms for 2024 with an improvement in the ROE from 25.8% in 2023F to 34.5% in 2024F (as we assume a normalized effective tax rate for 2024, the growth at the bottom-line is lower than the EBIT growth). Last but not least, along with our expectation of an improvement in its operational performance, we forecast the company's net debt/EBITDA to decline from 10.3x in 2023F to 2.5x in 2024F. The stock trades at an EV/EBITDA of 8.9x and P/E of 4.5x, implying an average 25% discount to its global peers while its STAR Refinery included adjusted EV/EBITDA multiple points to 7.3x level. Petkim is a hard-currency denominated play in the BIST-Universe while its industry has been in a down-cycle over the last 2 years, and unlike most other industries, the Chinese economic recovery poses upside challenges to the dynamics and is expected to dominate the markets in 2024. Additionally, with its expected earnings momentum, strengthening balance sheet matrices and increasing resilience on the rising contributions from side businesses, we upgrade our rating for the stock to "Outperform".

What has changed in the petrochemical industry over the last couple of years?: Apart from the impact of the pandemic on the petrochemical industry, two major trends have dominated the industry over the last 5 years and will set the stage for a structured change in the market dynamics going forward. The first has been the gas shale boom in the US as US-based producers have gained a significant cost advantage over petrochemical plants elsewhere in the world. As a nature of the investment cycles, this structural change has paved the way for massive investments in polyethylene capacity in North America, with around 45% of their total revenues now being export-oriented while the target market has become Europe, leading to supply imbalances in the region.

The second major trend has been the acceleration in capacity investments in China, with the country accounting for almost 50% of global capacity additions while investments are still ongoing in parallel with China's target of becoming self-sufficient in petrochemical products, with China's total demand comprising around 40% of total global demand. Despite the cyclical nature of profitability dynamics, the petrochemical industry has been growing at a rate almost double the rate of global GDP between 2010-2020, and the demand side can accordingly be considered defensive when compared to other industrial products. On the other hand, high capacity expansions in China and North America along with the feedstock cost advantages of US and Middle Eastern complexes remain risks for the industry's profitability, even in the restocking cycles that may not return to the peaks seen in 2017 and 2022.

An industry still struggling to find a bottom: The petrochemical industry reaped record high profitability in 2021 as global economic activity was stimulated in the wake of the pandemic while demand for most thermoplastics were also solid strong given their use in film & food packing and for medical applications. Additionally, low feedstock costs on depressed oil prices - given 85% of total complexes in Europe are naphtha crackers - and supply chain constraints supported production of European complexes on a lack of supply from the US and China, also improving their profitability dynamics. Accordingly, ethylene-naphtha spreads averaged around USD583/ton in the same period, peaking at USD731/ton vs. a historical average of USD459/ton.

Following the anomalously high profitability in the pandemic period, the petrochemical industry is still struggling to find a bottom amid a weak demand environment and fluctuating oil prices, which are squeezing margins in naphtha-dependent Europe and Asia while the US and Middle East enjoy cheaper ethane feedstock price advantages. In other words, while European naphtha crack cash spreads plunged into negative territory, cash spreads of ethane-based producers in the US only sunk to a low of USD65 in 4Q22 before bouncing back to USD200/ton in 3Q23.

The fiercely competitive outlook for naphtha crackers has been compounded by the 45 million tons of new ethylene capacity that been added over the 2020-2024 period, 56% of which has been based in China. This expansion is forecasted to put pressure on sales prices in the near-future amid expectations that production will be around 10% higher than total demand. Additionally, the influx of cheaper ethane-based US ethylene and derivatives will be another reason behind the depressed price levels in Europe, as antidumping duties ranging from 3% to 60% are not sufficient to protect regional producers given their relatively high production costs.

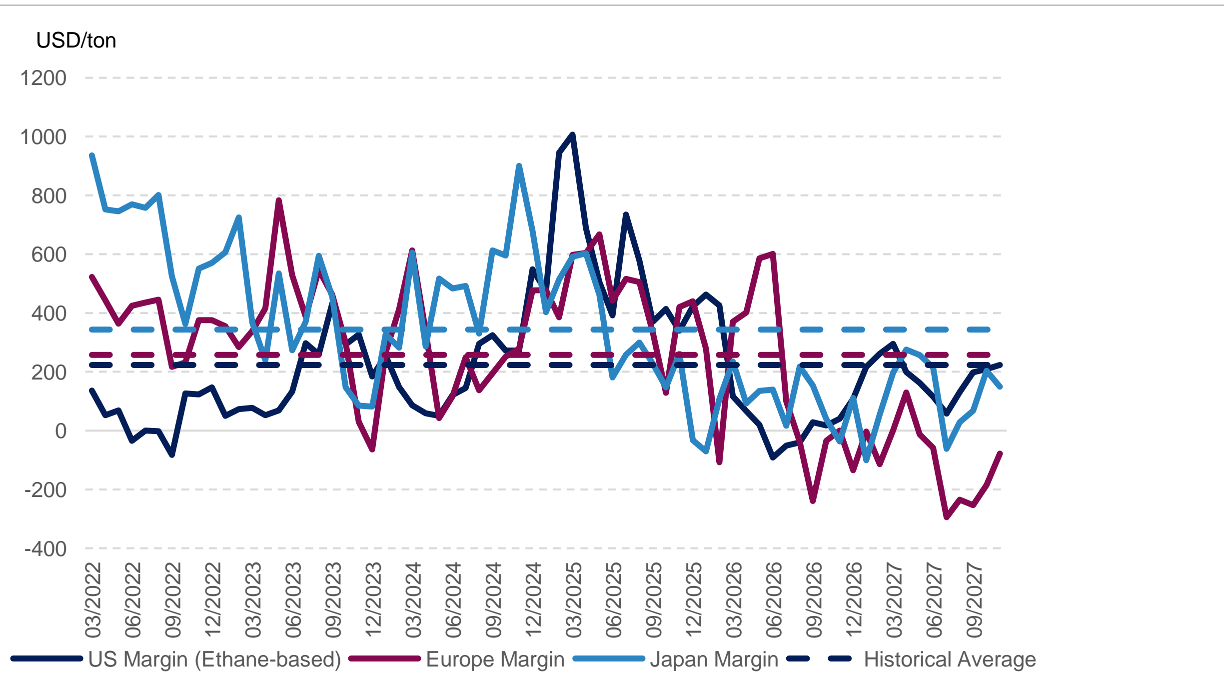
In the propylene segment, following a 25% growth in total capacity between 2018-2022, the surplus capacity over demand is forecasted to reach record high levels in 2023 and remain above historical averages in 2024 and 2025. Accordingly, the state of excess supply is likely to be a major factor in the coming period while any strong bounce-back in Chinese growth is likely to be the key driver of the recovery in profitability going forward as the market comprises 40% of total demand in the world under more normal conditions.

When it comes to aromatics, given that naphtha crackers offer a much higher production yield than ethane-based producers, high oil prices are fully reflected to margins when demand is strong and, accordingly, we would assume that cash spreads in the product segment are still hovering near historical averages, compared to an average of 60% lower for other product groups. Accordingly, aromatics are playing a defensive role for the profitability of naphtha crackers.

Going forward, we remain cautious on the industry's profitability as global economic concerns, inflationary pressure and high interest rates are likely to depress market dynamics in the near-future with prices hovering around 25% lower than their pre-pandemic levels in the US and Asia Pacific with cash spreads on average 55% lower. More dramatically, ethylene cash spreads for naphtha crackers in Europe are still languishing in negative territory. On the other hand, further downside now appears limited, with prospects of a recovery during 2024 as an expected acceleration in the Chinese economy supported by government stimulus and anticipated rate cuts potentially supporting consumer spending in the second half of 2024.

Additionally, due to high volatility in oil prices, some naphtha crackers, especially in our region, work with the advantage of discounted feedstock procurements. Accordingly, we would expect some partial differentiation in profitability between European players going forward, with Turkey at a significant advantage.

Figure 2 – Global Ethylene Spot Profit Margins



Source: Bloomberg, QNBFI Calculations

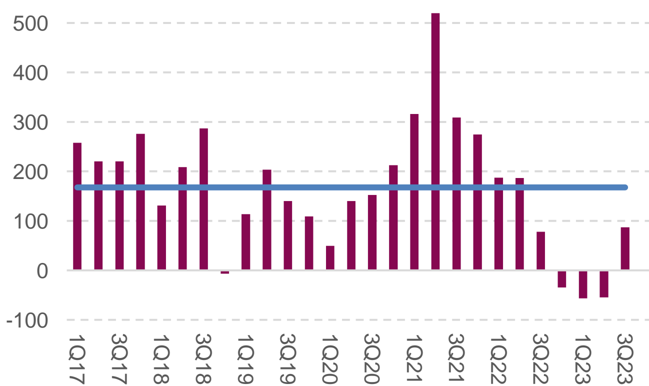
EBITDA forecasted to bottom-out in 2024: In line with global trends, Petkim's EBITDA generation reached a record high of USD683mn in 2021 with an adjusted clean EBITDA (excluding port, inventory and trading activities) reaching USD325/ton vs. its historical average of USD165/ton and a previous all-time-high of USD243/ton in 2017 when its cumulative EBITDA stood at USD479mn. In 2022 and 1H23, again in line with the global trends, Petkim's EBITDA generation was down to USD224mn in 2022 and USD34mn in 9M23, which was supported by EBITDA generation of USD46mn in 3Q23 thanks to the positive impact of efficiency gains on its raw material procurements, driven by a discount of approximately USD90/ton on naphtha procurements.

The global industrial economy is currently in a period of slowdown with languishing PMI indicators since August, while China has been bucking this trend with a slight recovery following a 2-year stagnation, while the petrochemical industry is still in a destocking process. However, we started to see some green shoots of recovery in the industry in China in August, as global oil demand reached a record high on the back of accelerating procurements by petrochemical complexes. Supported by the expected ongoing momentum in the Chinese economy, we think the industry is approaching a bottom while any rise in domestic demand is also likely to limit exports from the region and may pave the way for a better pricing environment globally.

Regarding the company's change in naphtha procurement discipline, we think the current volatility and price mismatches in different regions are not sustainable, but we also believe these mismatches are likely to continue in the near-term, offering a good opportunity for both refiners and petrochemical complexes as well as trading companies.

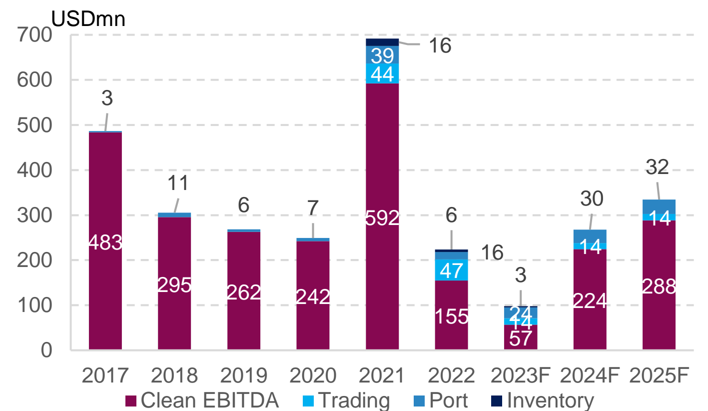
With our positive expectations for 2H24 and Petkim's feedstock procurement advantages in 1H24 with its revised contract with STAR Refinery, we currently forecast a trading adjusted EBITDA of USD165 /ton for the second half of 2024 , in line with its historical average, while also assuming that the positive contribution of discounted naphtha procurements will continue for the first half. Based on our expectation of a USD30mn EBITDA contribution from the port operations and USD14mn from trading activities, we calculate cumulative EBITDA generation of USD268mn for 2024 vs. the forecasted USD98mn for 2023. For 2025, we maintain our projection of the mid-cycle with a forecasted clean EBITDA of USD165/ton with a similar trading contribution as in 2023 and 2024, implying a further 25% EBITDA growth for 2025 in USD-terms.

Figure 3–Clean EBITDA/ton for Petchem Operations



Source: QNBFI Calculations

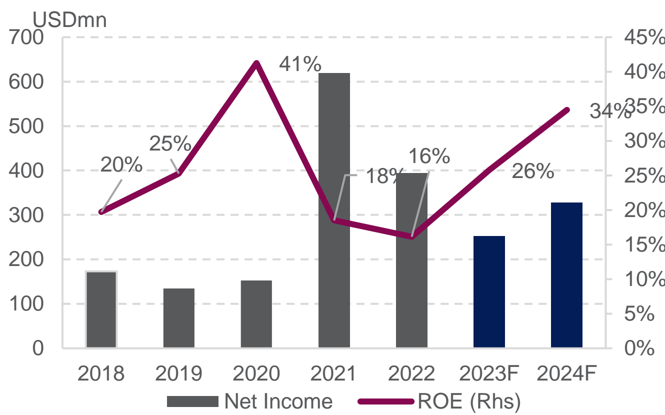
Figure 4– Petkim: EBITDA Breakdown



Source: QNBFI Calculations and Estimates

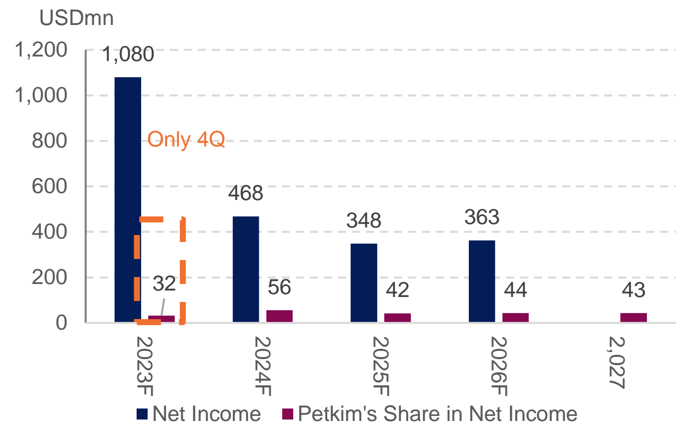
Net income likely to be boosted by STAR Refinery in 4Q23: The company's bottom line has also been depressed in the last 2 years in line with the deterioration in the company's operating performance, where we calculate a compounded annual rate of decline of 36% between 2021-2023F despite our forecast of a USD32mn contribution from the STAR Refinery in 4Q23 when the company starts to consolidate its contribution in the financial statements through the equity pick-up for the first time. On our expectation of some downward normalization in the refining industry's profitability dynamics, which we analyze more deeply below, we forecast a 57% decline in STAR Refinery's bottom-line in 2024, with its contribution forecasted to rise by 73% YoY in parallel with its full year consolidation in USD-terms. This implies 30% growth in net income for Petkim vs. an expected 173% jump in EBITDA generation in USD-terms as we assume a 20% effective tax rate, in contrast with the deferred tax income contribution in the previous year. Accordingly, the company's ROE is forecasted to increase from 25.8% in 2023F to 34.8% in 2024, vs. its historical average of 23.3%.

Figure 5–Petkim : Net Income Generation & ROE(%)



Source: QNBFI Calculations and Estimates

Figure 6– STAR Refinery: Net Income Projection



Source: QNBFI Estimates

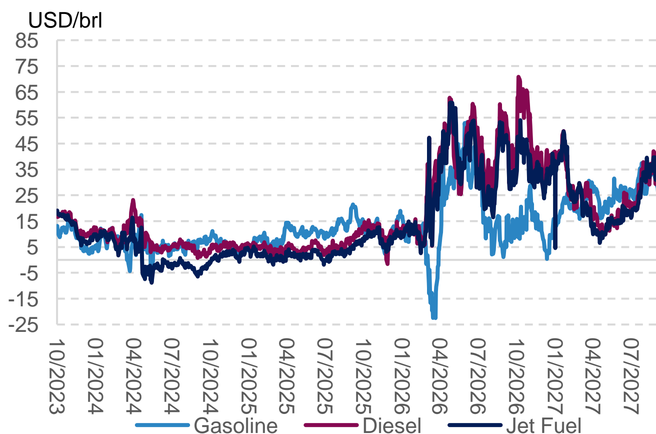
No bright outlook for the refining industry after 2023: Petkim signed a deal with Socar Turkey to acquire an 18% stake in the STAR Refinery for USD720mn at the beginning of 2018. Accordingly, the company carried out a USD 500mn Eurobond issue at a fixed coupon rate of 5.88% and a maturity date of January 26, 2023. The company had completed USD480mn of the payment for the acquisition to Socar Turkey, while not completing the final payment of USD240mn. Socar Turkey and Petkim subsequently revised their agreement where without any additional payment, 12% of STAR Refinery would be transferred to Petkim. As of 4Q23, the refinery will be booked in Petkim's financials through the equity pick-up method for the first time.

The refining industry enjoyed its most profitable period in 2022 with weighted average crack spreads around 191% higher than their historical average, coming in the wake of its record level in 3Q22 which was 289% higher than its historical average. Since then, crack spreads have come off their peak with middle distillate crack spreads now around 30% lower than their 2022 average and 12% lower than their 3Q23 average. The key reason behind the record-high crack spreads - especially for the middle distillate products which comprise nearly 54% of the product yield for regional refiners - was the Russia-Ukraine war and the limited natural gas inflows to Europe, sending natural gas prices to EUR232/MWh vs. a historical average of EUR31/MWh in a high demand environment fueled by a recovery in global air traffic, as c.10% of total refinery products comprise of jet fuel.

We now see concerns over the energy crisis in Europe fading with natural gas prices hovering at around EUR43/MWh as current winter temperatures in the region do not indicate any upside risk over the normalized levels of demand for the winter season. Furthermore, global economies are sluggish compared to their post-Covid boom and rising interest rates threaten further downside to global growth expectations. Although China is expected to be the main growth driver in the global economy over the next year, China only accounts for 13% of the global oil market while discounted Russian crude oil flows to Eastern countries poses downside risk to refinery product prices given the extent of their inventories. Additionally, the ramp up period of c.2.3mb/d in capacity additions over the last year may come to an end in the coming quarters. Accordingly, we assume a 20% decline in weighted average crack spreads while normalizing the oil differential impact for our coverage under the refinery universe for 2024 and another 15% decline - taking spreads to normalized levels - forecasted for 2025, which implies a compounded annual rate of decline of 39% in STAR Refinery's EBITDA generation between 2023F-2025F.

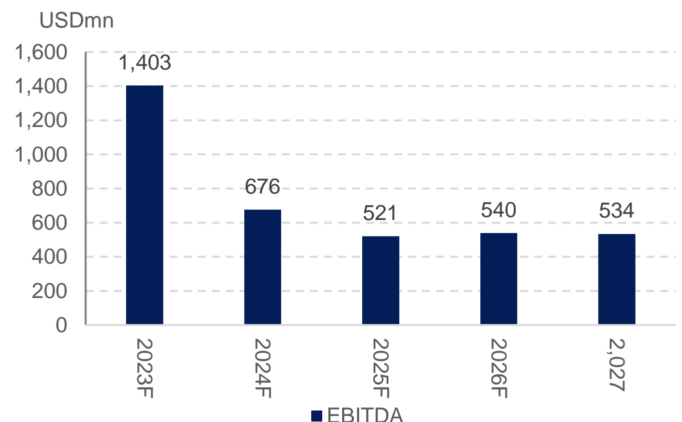
We value the STAR Refinery through two different approaches; 1) DCF analysis on sustainable crack spreads in line with their historical averages and 2) multiple analysis as its regional peers trade at 6.5x P/E and 4.6x EV/EBITDA based on their 2024 prospective earnings. Accordingly, we calculate a USD514mn equity value for 12% stake of Petkim.

Figure 7– Crack Spreads for Mediterranean Region



Source: QNBFI Estimates

Figure 8– STAR Refinery: EBITDA Generation Forecasts



Source: QNBFI Estimates

Balance sheet being strengthened with operational turn-around: Petkim had a net debt position of USD931mn as of 9M23, implying a 12-month trailing net debt/EBITDA of 34.2x vs. our year-end expectation of 10.3x. On the back of our expectation of a solid YoY recovery in its financial performance, we forecast a decline in the net debt/EBITDA ratio to 2.5x in 2024F. More importantly, Petkim's EBIT coverage ratio of 0.4x in 2023F is set to improve to 3.2x by the end of 2024. We expect to see a further improvement in debt dynamics in the near-future which may pave the way for a resumption of dividend payments from Petkim after having suspended the distribution of dividend payments since 2018. However, we do not expect Petkim to distribute any cash dividend in 2024 and 2025. For 2026, we forecast a dividend payout of around 40% from 2025 earnings, implying an 11.3% dividend yield. Also note that any dividend income from STAR Refinery in the near-future may boost dividend payments, although we have not incorporated this into our assumptions at this stage.

Valuation

We base our valuation on a 70-30 weighting of the results derived from the extrapolation of DCF and multiple valuation methodology, and derive a 12-month target value of USD2,499mn

Our USD-denominated DCF model is based on a 10.3% WACC and a beta of 1.0x. Meanwhile, we assume a risk-free rate of 7.5% and an equity risk premium of 5.0%.

- Our multiple analysis is based on a 50-50 blend of P/E and the EV/EBITDA multiples while we attach a 20% weighting to 2023F multiples as we approach the year-end.
- On our 2023 earnings forecasts, Petkim trades at a P/E of 9.0x and an EV/EBITDA of 29.9x with 32% discount and 129% premium to their global peers, respectively.
- On our 2024 earnings forecasts, the stock trades at a P/E of 4.5x and an EV/EBITDA of 8.9x, suggesting a 65% discount and 16% premium to their global peers, respectively.
- Although we now find the P/E multiple more meaningful for Petkim given the inclusion of the STAR Refinery contribution, we apply the EV/EBITDA multiple given its minority stake in the refiner and uncertain contribution of it at this stage.
- We value the STAR Refinery through two different approaches; 1) DCF analysis on sustainable crack spreads in line with their historical averages and 2) a multiple analysis, with its regional peers trading at a P/E of 6.5x and EV/EBITDA of 4.6x based on their 2024 prospective earnings.
- Note too that we also employ DCF to reach the equity value of the Petlim Port. Our valuation assumes a long-run 90% CUR and revenue generation of USD200 per TEU.

Figure 9 –Petkim DCF Valuation – Trading Adj. Petrochemical Business Only (USDmn)

USDmn	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F
Revenues	1,481	1,852	1,973	1,995	2,025	2,046	2,056	2,067	2,067	2,067	2,067
Revenue Growth	*-12%*	*25%*	*7%*	*1%*	*1%*	*1%*	*1%*	*1%*	*0%*	*0%*	*0%*
EBIT	1	164	244	243	243	239	240	236	222	210	215
EBITDA	72	238	302	303	306	305	307	311	307	304	308
EBITDA Margin	*4.9%*	*12.9%*	*15.3%*	*15.2%*	*15.1%*	*14.9%*	*15.0%*	*15.1%*	*14.9%*	*14.7%*	*14.9%*
Taxes	-71	-74	-59	-61	-63	-65	-67	-75	-85	-94	-93
Inc./dec. in W/C	64	-54	-15	-3	-4	-3	-1	-2	0	0	0
Capex	-86	-94	-98	-98	-99	-99	-99	-100	-100	-100	-94
FCF	**-22**	**17**	**131**	**141**	**140**	**138**	**140**	**135**	**123**	**111**	**122**
WACC	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%	10.3%
PV of FCFs	**931**										
Terminal Growth Rate	2%										
Terminal Value	2627										
PV of TV	**893**										
Value of Firm	1824										
Net Debt*	812										
Petlim Port	561										
Star Refinery	514										
Equity Value	**2087**										

Source: QNBFI Estimates

** 2023YE Forecast*

Figure 10 – Peer Analysis

Company	Mcap (USDmn)	P/E (x)		EV/EBITDA (x)	
		2023	2024	2023	2024
Europe					
Arkema	7,532	10.7	9.4	6.3	5.7
BASF	42,858	13.0	11.0	7.7	6.8
Lanxess AG	2,169	n.a.	15.8	8.5	6.2
Solvay SA	12,085	8.0	8.8	5.1	5.2
Wacker Chemie AG	6,626	18.2	14.9	7.4	6.4
America					
Braskem Sa Pref A	16,182	n.a.	n.a.	10.6	7.0
Celanese Corp	14,150	14.4	10.9	11.1	9.7
Westlake Chemical Corp	16,666	15.2	16.0	n.a.	n.a.
Asia					
Saudi Basic Industries Corp	64,388	n.m.	20.8	11.7	8.6
Saudi Kayan	4,439	n.m.	n.m.	20.8	9.8
Sumitomo Chemical Co LTD	4,280	n.a.	9.1	29.5	8.6
Yanbu National	5,684	n.a.	n.m.	25.2	10.3
Average		13.3	12.9	13.1	7.7
Petkim	1,926	9.0	4.5	29.9	8.9
Premium/Discount		-32%	-65%	129%	16%

Source: Bloomberg, Estimates

QNB Finansinvest Rating System

We employ a relative scale in our rating system (i.e. Market **Outperform, Neutral, Underperform**) in order to better present relative value propositions and more actively pursue long vs. short ideas at the BIST. The relevant benchmark is the broader Turkish stock market, using the BIST-100 index as a basis. The ratings also incorporate a certain degree of relativity within the analyst's own stock coverage universe due to asymmetric return expectations among the industries under our BIST coverage. The rating system combines analysts' views on a stock relative to the sectors under coverage, and the sector call relative to the market, together providing a view on the stock relative to the market.

Individual ratings reflect the expected performance of the stock relative to the broader market over the next 6 to 12 months. The assessment of expected performance includes a function of near-term company fundamentals, industry outlook, confidence in earnings estimates and valuation, and other factors.

An essential element of our rating methodology involves benchmarking a 12-month expected return against the cost of equity. We set a required rate of return for each stock, calculated from our risk-free rate and equity risk premium assumptions. The price target for a stock represents the value that the stock is expected to reach or sustain over the performance horizon of 12 months, according to the view of the analyst.

We have separated the stocks under our coverage into two groups, mainly with respect to their liquidity (market cap, free float market cap and historical average daily trading volume) as small-cap stocks exhibit different risk/return characteristics to more-liquid large-caps. For the purposes of the relative stock rating, however, stocks within each group will be considered on an unweighted basis with regard to their market capitalization.

For a stock to be assigned an **Outperform** rating, the implied return *must* exceed the required rate of return by at least 5 percentage points over the next 12 months for our larger-cap stock coverage, or by 10 percentage points for the small-cap group. For a stock to be assigned an **Underperform** rating, the stock must be expected to underperform its required return by at least 5 percentage points over the next 12 months. Stocks between these bands will be classified as **Neutral**.

When the potential upside of an *average* stock in our coverage exceeds its required rate of return (i.e. the market upside exceeding the implied average cost of capital), a greater number of stocks would fall into the aforementioned Outperform (Buy) category, illustrating the significance of the "relative return" concept (vis-à-vis absolute return) in picking better investment ideas with a positive alpha. The same holds true when the potential upside of an *average* stock in our coverage falls short of its required rate of return.

In this regard, as a supplemental methodology, we rank the stocks in our coverage according to their notional target price with respect to their current market price, and then categorise the top group (approximately 40-50% of the companies under coverage) as Outperform, the next 40-50% as Neutral and the lowest 10-20% (and no less than 10%) as Underperform.

It should be noted that the expected returns on some stocks may at times fall outside the relevant ranges of the applicable respective rating category because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges are permitted but becomes subject to review.

Also note that the analyst's short-term view may occasionally diverge from the stock's longer-term fundamental rating.

Outperform. We expect the stock to outperform the BIST-100 over the next 6 to 12 months.

Neutral (Market Perform). We expect the stock to broadly perform in line with the BIST-100 index over the next 6 to 12 months. (Although we would normally have a neutral assessment of stocks in this category, if a stock has gone through a period of market underperformance, it would be an indication that the stock may be expected to improve its performance relative to market averages in the coming period, and vice versa).

Underperform. We expect the stock to underperform the BIST-100 over the next 6 to 12 months.

N/R. Not Rated.

U/R. Under Review.

Analyst Certification

The following analysts hereby certify that the views expressed in this research report accurately reflect their own personal views regarding the securities and issuers referred to therein and that no part of their compensation was, is, or will be directly or indirectly related to the specific recommendations or views contained in the research report: **Can Alagöz.**

Unless otherwise stated, the individuals listed on the cover page of this report are research analysts.

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