

INDORAMA VENTURES

 THAILAND / PETROCHEM & CHEMICALS

IVL TB

BUY

UNCHANGED

No better time to invest in IVL

- We believe IVL's recent share price plunge is unjustified, as margin increases should more than offset the rise in the gas cost.
- In 2H22-2024, IVL should generate a core net profit of THB8b-12b/quarter, depending on industry integrated PET-PTA margins.
- Maintain BUY and TP of THB65.

TARGET PRICE	THB65.00
CLOSE	THB40.25
UP/DOWNSIDE	+61.5%
PRIOR TP	THB65.00
CHANGE IN TP	UNCHANGED
TP vs CONSENSUS	+15.4%

KEY STOCK DATA

YE Dec (THB m)	2021	2022E	2023E	2024E
Revenue	468,108	443,823	444,616	442,642
Net profit	22,247	41,004	43,114	44,648
EPS (THB)	3.96	7.30	7.68	7.95
vs Consensus (%)	-	1.8	25.6	37.7
EBITDA	58,084	71,393	80,628	80,912
Core net profit	21,886	36,355	38,465	39,999
Core EPS (THB)	3.90	6.48	6.85	7.12
Chg. In EPS est. (%)	-	-	-	-
EPS growth (%)	204.5	66.1	5.8	4.0
Core P/E (x)	10.3	6.2	5.9	5.6
Dividend yield (%)	3.0	9.0	9.4	9.7
EV/EBITDA (x)	7.4	5.3	4.3	3.8
Price/book (x)	1.4	1.1	1.0	0.9
Net debt/Equity (%)	111.0	77.0	52.0	31.7
ROE (%)	15.3	20.4	18.2	16.7

Gas cost poison to be undermined by rising prices and margins

We believe IVL's recent share price plunge is unjustified, as the revenue and margin increases should more than offset the rise in the gas cost, even at a TTF price of €250-300/MWh. In 1H22, IVL incurred an additional energy cost of USD36m in 1Q22 (TTF gas price of €75/MWh), which rose to USD63m in 2Q22 (TTF €100/MWh), but our higher estimated gas cost of USD123m would still be lower than EBITDA of cUSD1.2b in 2H22, based on an average TTF gas price of €250/MWh.

What makes IVL's core EBITDA sustainable and strong?

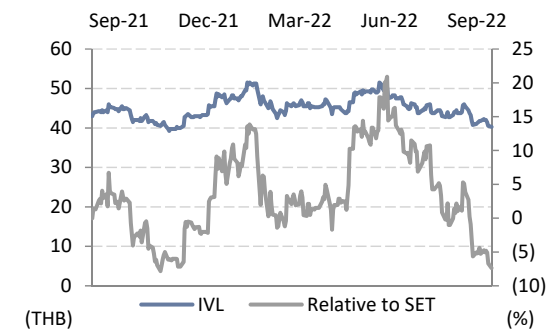
Amid the sudden hikes in the energy prices, IVL has continued to post solid quarterly EBITDA of over USD0.4b in 2Q21-2Q22. The key reasons for IVL's growing quarterly EBITDA include 1) its high cost pass-through ability; 2) the timely annual selling price increases for its 30-40% sales volumes of PET and PTA in Western markets; 3) the price premiums and discounts that IVL can charge to customers to manage the risks of the highly volatile market prices and margins of its two core products, PET and PTA; 4) a 35% hedging gas volume in 2H22 at the hedging price of €70/MWh vs the €174/MWh TTF gas price as of 19 September 2022; and 5) a locked-in €150/t margin for integrated PET-PTA at around 55% of total volume since the beginning of 2022.

Expect quarterly core net profits of THB8b-12b in 2H22-2024

In 2H22-2024, under the premium/discount margin structure, the benefits from the hedging and pass-through ability, and the projected strong EBITDA generated from IOD products, we think IVL will generate quarterly core net profits of THB8b-12b, depending on the industry integrated PET-PTA margins, the IOD product margins – particularly the highly volatile products of MTBE and MEG – and the gas cost level.

Time to Buy Thailand's most undervalued chemical growth play

We maintain BUY and our TP of THB65. We think IVL's share price will rebound to THB50-60 by end-2022 when the company announces a strong 3Q22 core net profit of THB8b-10b, despite the negative impact of the higher gas cost and lower import parity. With over 50% of its EBITDA from the Americas, 75% from its product portfolio with highly sustainable margins, and its solid growth strategy, we think IVL's trading range is highly unjustified at only 6x 2022-23E P/E and 4-5x 2022-23E EV/EBITDA, far below IVL's historical EV/EBITDA average of 8-15x.



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	(8.0)	(15.3)	(9.0)
Relative to country (%)	(8.3)	(19.0)	(9.4)
Mkt cap (USD m)	6,104		
3m avg. daily turnover (USD m)	27.6		
Free float (%)	33		
Major shareholder	Indorama Resources (63%)		
12m high/low (THB)	52.75/38.75		
Issued shares (m)	5,614.55		

Sources: Bloomberg consensus; FSSIA estimates



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Investment thesis

We believe IVL is now at an inflection point for its third growth phase, transforming from a high value-added (HVA)-driven, polyethylene terephthalate (PET)/purified terephthalic acid (PTA)-focused product company into a packaging, olefin-integrated company from 2019-23.

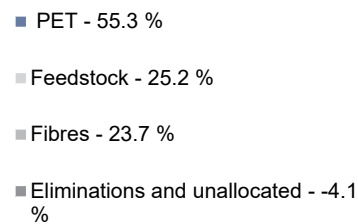
Unlike its last two growth cycles when IVL funded its capacity growth through debt and capital increases using warrants (IVL-W1 and IVL-W2), the key growth strategies in IVL's third growth cycle could be driven by: 1) M&A in the global packaging business, non-PET packaging in frontier markets and specialty chemicals for polyester chain products; and 2) backward integration into the olefins business, including an ethane cracker, propylene production, and downstream polyethylene (PE) and polypropylene (PP), as these are key feedstock materials for IVL's growing packaging segment. The integration focus should only be on self-sufficient, non-merchant applications.

Company profile

Indorama Ventures (IVL) was incorporated in 2003 to start up a petrochemical business in Thailand. Initially focusing on wool fibre, the company expanded into the polyester chain, including polyester fibre, PET, and PTA.

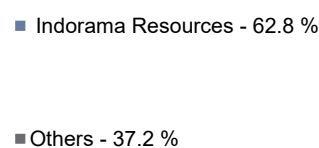
www.indoramaventures.com

Principal activities (revenue, 2021)



Source: Indorama Ventures

Major shareholders



Source: Indorama Ventures

Catalysts

Potential catalysts for IVL include: 1) higher PET and PTA margins; 2) a 10% y-y rising sales volume due to multiple acquired assets in 2018; and 3) an EBITDA margin recovery for HVA products, given the re-pricing of HVA products to reflect higher feedstock costs.

Risks to our call

The key downside risks to our EV/EBITDA-based TP are weaker-than-expected margins for PX-PTA and PET-PTA, lower demand for polyester, and delays in IVL's projects.

Event calendar

Date	Event
Oct 2022	3Q22 results announcement

Key assumptions

	2022E (USD/tonne)	2023E (USD/tonne)	2024E (USD/tonne)
Utilisation rate (%)	88	89	89
PET margin	478	604	594
PTA-PX margin	147	122	122
MEG-(0.58) ethylene margin	230	230	230
IOD EBITDA	400	400	620

Source: FSSIA estimates

Earnings sensitivity

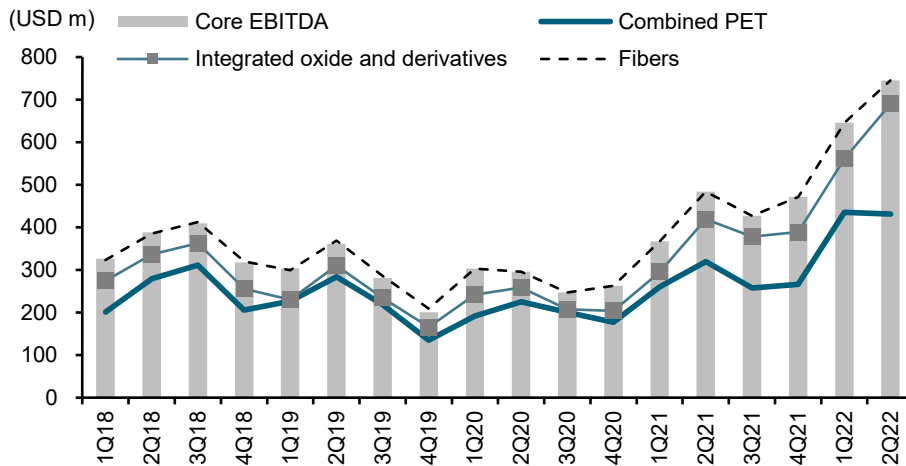
- We project that every 1% change in PTA-PX margin would result in a 2022 net profit change of 1.2%, all else being equal.
- We project that every 1% change in PET-PTA margin would result in a 2022 net profit change of 1.3%, all else being equal.
- We project that every 1% change in the average Dubai oil price would result in a 2022 net profit change of 0.9%, all else being equal.

Source: FSSIA estimates

Thailand's most undervalued chemical growth play

In the past three weeks, IVL's share price has plunged by 12.5% from its recent high of THB46 on 25 August 2022 down to THB40.25 on 19 September 2022, mainly due to investors' concerns over the negative impacts of the gas price hike in Europe and North America, the declining margins of integrated PET-PTA in the Western market (Europe and North America), and the potential demand weakness due to the looming recessions in the US and EU.

Exhibit 1: Quarterly core EBITDA by segment



Sources: IVL; FSSIA estimates

We disagree with these views and believe the share price plunge is overdone and unjustified, as we estimate the revenue and margin increases to be much higher and more than offset the rise in the gas cost, even at a Title Transfer Facility (TTF) gas index price of €250-300/MWh.

IVL's revenue y-y growth in 2022 has been much higher than the rising gas cost in the West, resulting in higher EBITDA to USD1.4b vs the incremental gas cost increase of USD99m in 1H22. The key supporting factors for IVL's strong EBITDA despite the spike in the gas cost include:

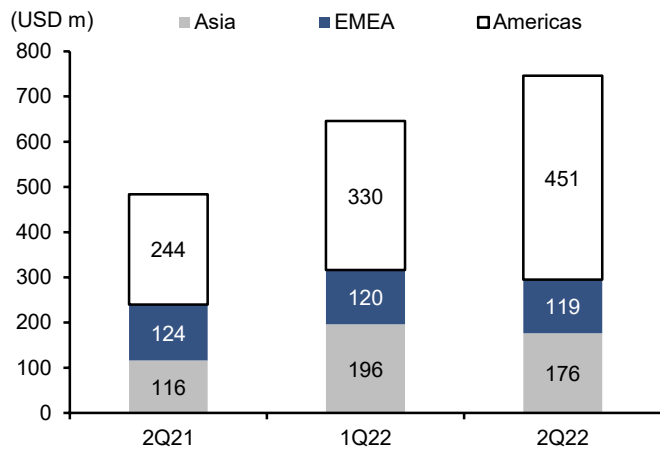
- 1) A 35% hedging gas volume in 2H22 at the hedging price range of €70/MWh, far lower than the current €174/MWh TTF gas price as of 19 September 2022;
- 2) A locked-in €150/t margin for integrated PET-PTA at around 55% of total volume since the beginning of 2022;
- 3) An ability to pass through around 40% of its sales volume cost to its customers for the remaining 65% uncontracted sales volume in the Western market;
- 4) The timely addition of estimated annual EBITDA of USD0.3b-0.5b from the acquired integrated oxide and derivative (IOD) assets from Oxiteno, which focuses on the South American market;
- 5) Highly sustainable margins for downstream IOD products, including surfactants, ethanolamine, propylene oxide, and other specialty chemical products, which together accounted for over one-third of IVL's total EBITDA in 1H22;
- 6) An upcycle margin for MTBE products, with a capacity of 0.7mtpa, due to the strong demand for gasoline and the tight supply.

Hence, we think in 2H22 IVL should generate core EBITDA of USD1.1b-1.2b, down slightly h-h from USD1.4b in 1H22, as the margins of integrated PET-PTA have slightly declined h-h, there is a h-h higher gas cost, and the MTBE margin is lower following the end of the high-demand driving season for gasoline in the US.

Limited impact from the gas cost hike

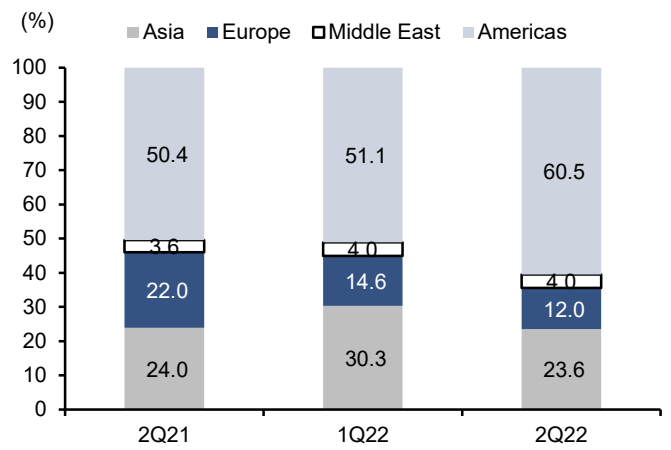
Despite the sharp spike in the gas cost in Europe in 1H22, IVL was still able to generate strong EBITDA in 1H22 when the gas price rose markedly by 3-4x y-y due to the gas supply shortage, as Russia has gradually cut its gas supply to the EU and eventually stopped delivering the gas supply via its Nord Stream 1 pipeline since the beginning of September 2022.

Exhibit 2: EBITDA breakdown by region



Source: IVL

Exhibit 3: EBITDA breakdown by region (%)



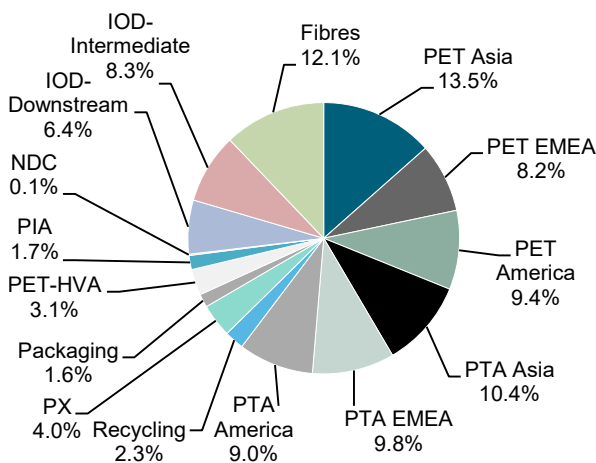
Source: IVL

In 1Q22-2Q22, IVL generated EBITDA mostly from its operations in the Americas, which include North, Central, and South America. But the most significant market for IVL is the US market where IVL has a total capacity of 6.7mt, including IOD, PET, and PTA, bolstered by Brazil via the IOD assets acquired from Oxitenio.

While the Americas contributed over 50% of IVL’s EBITDA in 1H22 on the 6.7mtpa capacity, which accounts for 37% of IVL’s total capacity of 18mtpa as of 2Q22, the Europe and Middle East (EMEA) markets made up only 13% and 4% of IVL’s total EBITDA in 1H22, respectively.

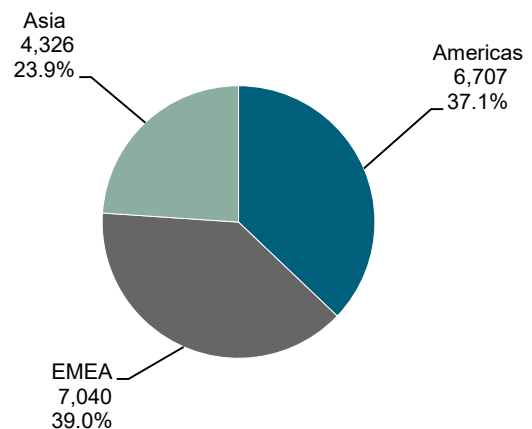
The weak EBITDA contribution from Europe is mainly due to the higher gas cost in the European markets, which led to lower EBITDA margins for the products of PET, fibres, packaging, recycling, dimethyl 2,6-naphthalene dicarboxylate (NDC), and purified isophthalic acid (PIA).

Exhibit 4: Capacity breakdown by product



Sources: IVL; FSSIA estimates

Exhibit 5: Capacity breakdown by region (total 18mtpa) as of 2Q22



Sources: IVL; FSSIA estimates

In Europe, IVL has a total capacity of 4.5mtpa, comprising 2.5mtpa of PET and PTA, packaging, PIA and NDC, specialty fibres, and recycling, and has no IOD capacity. The impact of the higher costs of gas and electricity in Europe have already eroded IVL's EBITDA margins for the combined PET (cPET) group, which includes PET, PTA, packaging, recycling, and PIA & NDC.

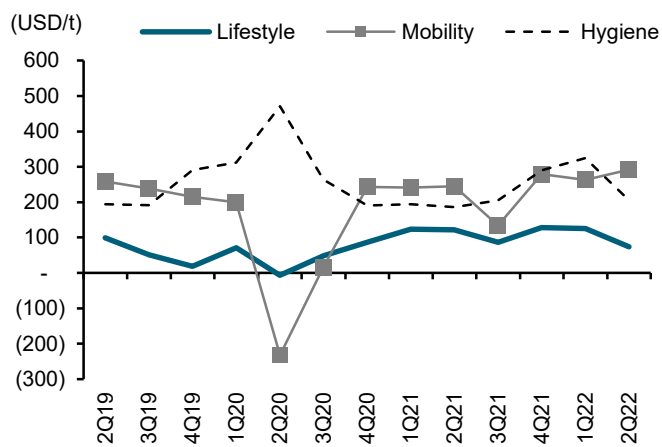
Exhibit 6: Capacity breakdown by product group

cPET	2018	2019	2020	2021	2022E
	(mtpa)	(mtpa)	(mtpa)	(mtpa)	(mtpa)
PET Asia	1.2	2.3	2.5	2.4	2.5
PET EMEA	1.4	1.5	1.5	1.5	1.5
PET NA	1.4	1.6	1.7	1.7	1.6
PTA Asia	1.5	1.9	1.9	1.9	1.9
PTA EMEA	1.4	1.7	1.8	1.8	1.8
PTA NA	1.6	1.4	1.6	1.6	1.7
Packaging	0.3	0.3	0.3	0.3	0.4
PET HVA	0.5	0.6	0.6	0.6	0.6
PIA & NDC	0.3	0.5	0.3	0.3	0.3
Recycling	0.4	0.2	0.3	0.4	0.6
Total cPET	10.0	12.0	12.5	12.5	12.9
IOD	2018	2019	2020	2021	2022E
Intermediate-EG	0.3	0.3	0.8	0.8	1.0
Intermediate-MTBE	0.2	0.2	0.7	0.7	0.7
Downstream	0.0	0.0	1.2	1.2	2.0
Total IOD	0.5	0.5	2.7	2.7	3.7
Fibres	2018	2019	2020	2021	2022E
Lifestyle	0.8	1.2	1.4	1.4	1.5
Hygiene	0.3	0.5	0.4	0.4	0.5
Mobility	0.3	0.3	0.3	0.3	0.3
Total Fibres	1.4	2.0	2.1	2.1	2.3
Total	2018	2019	2020	2021	2022E
cPET	10.0	12.0	12.5	12.5	12.9
IOD	0.5	0.5	2.7	2.7	3.7
Fibres	1.4	2.0	2.1	2.1	2.3
Grand total	11.9	14.5	17.3	17.3	18.9

Sources: IVL; FSSIA estimates

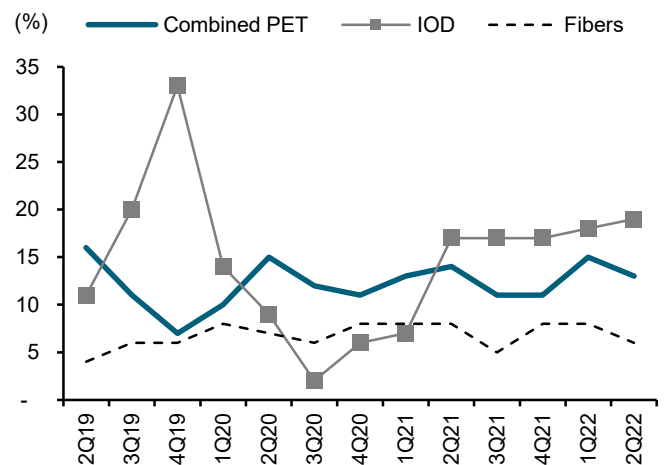
Since Covid-19 hit the global economy in 2020, IVL has felt the pinch of the weak demand for lifestyle fibres and mobility fibres due to the global lockdowns, but has since witnessed improvements in the EBITDA margins for all three segments of its fibre product group after the global reopening.

Exhibit 7: EBITDA margins of fibre products by segment



Source: IVL

Exhibit 8: EBITDA margins of IVL's core product groups



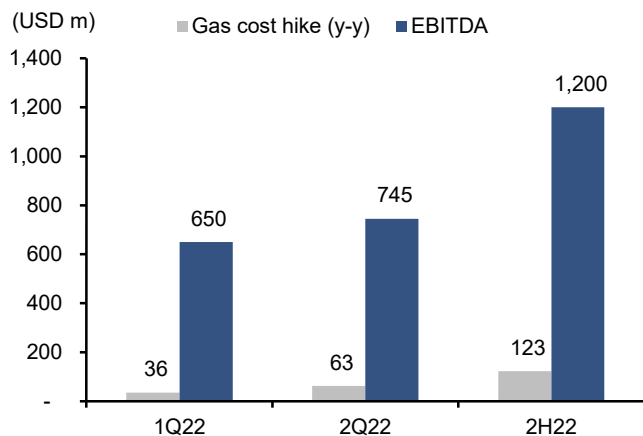
Source: IVL

Higher EBITDA to overshadow rising gas cost in 2022. In 3Q22 onward, while we project IVL to see a higher gas cost due to a rising TTF gas price to €200-250/MWh, up from the €100/MWh average in 1H22, we think IVL will have a limited impact from the gas price hike at an estimated USD123m in 2H22, up from the USD96m incremental gas cost in 1H22.

The major factors to help reduce the impact of the higher gas cost include IVL's 35% hedging gas volume at only €70/MWh and the ability to pass through around 40% of its sales volume cost to its customers for the remaining 65% uncontracted sales volume in the West market.

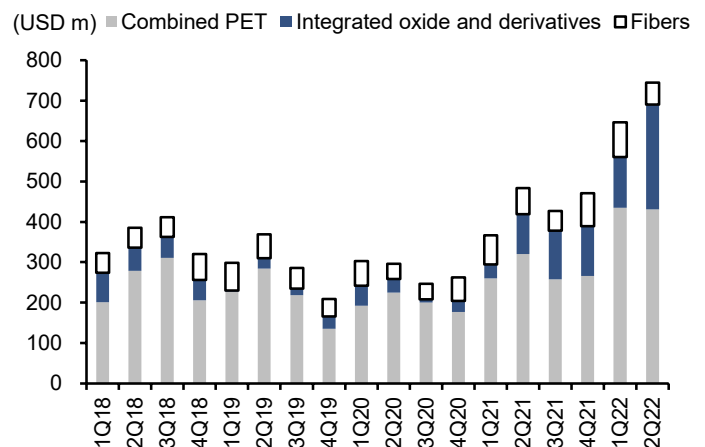
However, the lower EBITDA caused by the higher gas cost from Europe, which accounted for 13% of IVL's total EBITDA of USD1.4b in 1H22, should be more than offset by the rising product margins, resulting in strong EBITDA generation for cPET which should help offset the weak EBITDA from fibres, IVL's key product in Europe.

Exhibit 9: IVL's estimated incremental gas cost in 2022



Sources: IVL; FSSIA estimates

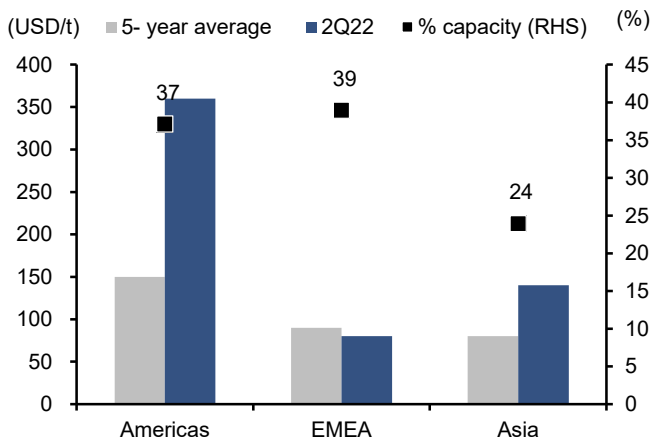
Exhibit 10: Quarterly EBITDA breakdown by product group



Source: IVL

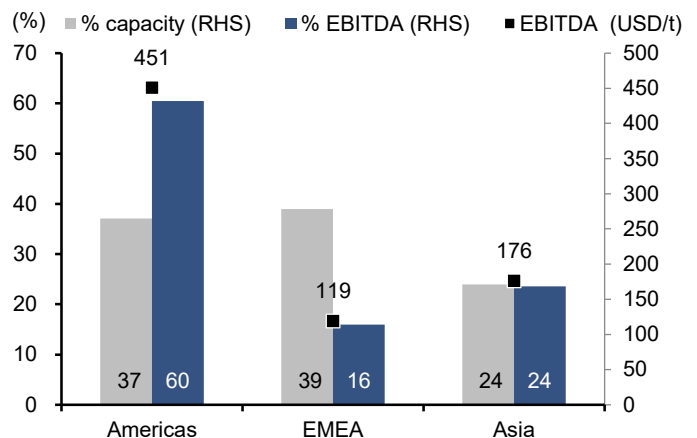
IVL's margin analysis: In the past few quarters since 4Q21 when the global gas prices, particularly the spot LNG price and Henry Hub, have shot up markedly due to the tight supply and the sudden hike in demand from the EU to speed up the replacement of the Russian gas supply, which accounted for over 40% of the total gas supply for the EU in 2021.

Exhibit 11: Quarterly EBITDA per tonne (2Q22 vs 5-year average) and as a % of total capacity by region



Sources: IVL; FSSIA estimates

Exhibit 12: Quarterly EBITDA, EBITDA/t margin, and % of total capacity breakdown by region in 2Q22

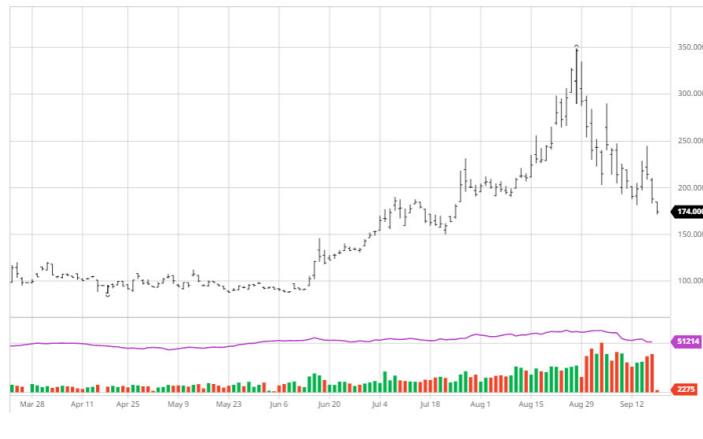


Sources: IVL; FSSIA estimates

By region, IVL generated the highest EBITDA from the Americas (North and South America) at 60% (USD451m) in 2Q22, which only accounted for 37% of its total capacity of 18mtpa, followed by Europe (13%) and the Middle East (3%) (EMEA) at 16% (USD119m) of total EBITDA with 39% of total capacity, and Asia at 24% (USD176m) of total EBITDA with 24% capacity.

This clearly indicates that IVL’s EBITDA from Europe was relatively small at 13% of total EBITDA, even under the high gas price of over €100/MWh for the TTF gas futures and £0.25-0.40/thermal for the UK gas futures in 2Q22.

Exhibit 13: Dutch TTF gas futures Oct 2022 (TGV22) as of 19 Sep 2022



Source: [Barchart.com](https://www.barchart.com)

Exhibit 14: UK gas price futures Nov 2022 (NFX22) as of 19 Sep 2022



Source: [Barchart.com](https://www.barchart.com)

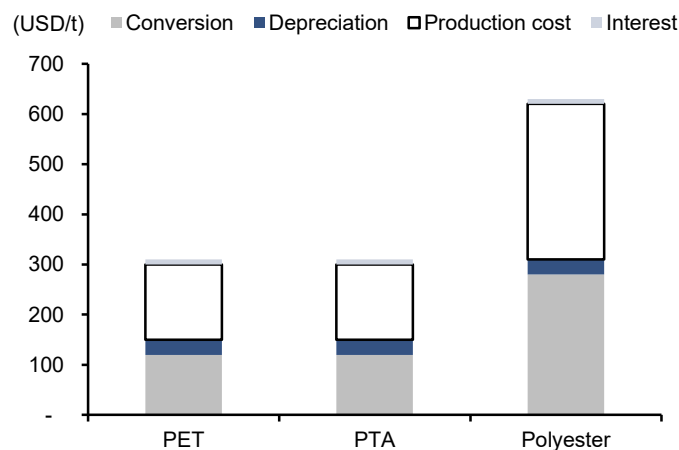
Why IVL might sustain its quarterly core EBITDA at over USD0.4b/quarter in 2H22

Amid the sudden hikes in the energy prices, IVL has continued to post solid quarterly EBITDA of over USD0.4b in 2Q21-2Q22.

The key reasons for IVL’s growing quarterly EBITDA include:

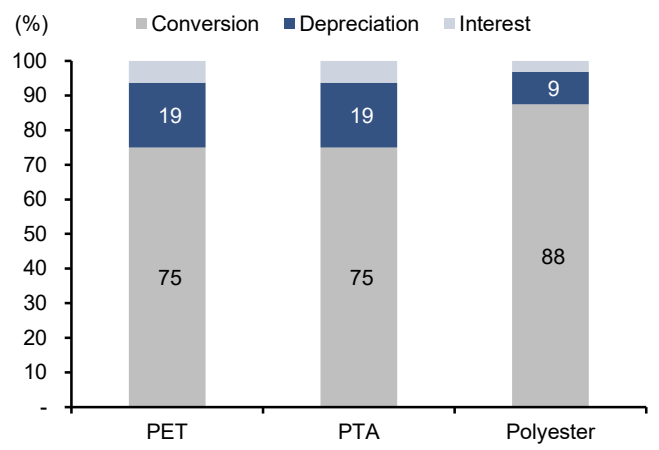
- Its high cost pass-through ability;
- The timely annual selling price increases for its 30-40% sales volumes of PET and PTA in the Western markets;
- The price premiums and discounts that IVL can charge to customers to manage the risks of the highly volatile market prices and margins of its two core products, PET and PTA.

Exhibit 15: Cost structure of key products



Sources: IVL; FSSIA estimates

Exhibit 16: Cost structure of key products (%)



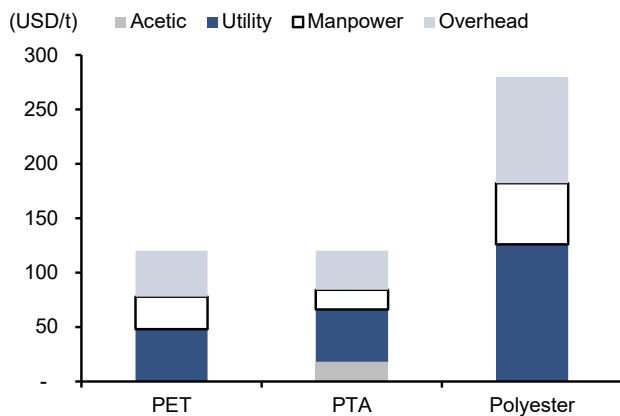
Sources: IVL; FSSIA estimates

However, we think the market misunderstands these mechanisms and has penalised IVL's share price by heavily selling the stock off, which led to IVL's share price plunging from THB51.25 on 16 June 2022 down to the current THB40.25 as of 19 September 2022.

While we project the quarterly core net profits to soften from THB11b-THB13b in 1H22, we still expect IVL's core net profit to remain strong at THB8b-10b a quarter, supported by the solid margin of integrated PET-PTA in the West, the limited impact of the gas price hike, and the strong EBITDA from the IOD unit, including the acquired assets from Oxiteno.

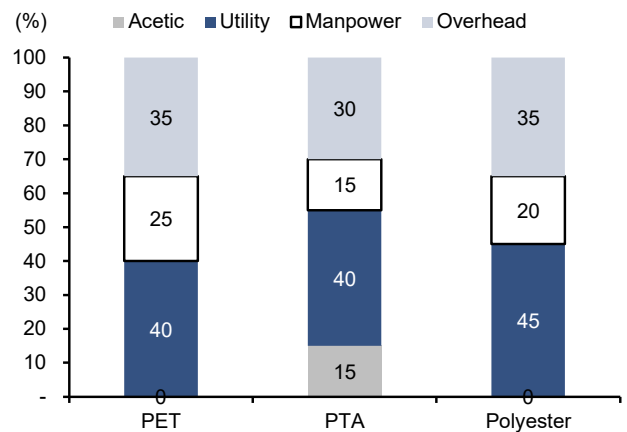
Based on management's guidance and our analysis, we estimate that the cost structures of IVL's three major units contain around three quarters of the total cost as conversion costs, ranging from 75% for PET and PTA but rising to 88% for polyester due to the longer production process for polyester compared to PET and PTA. Within the conversion costs, we further break the costs down into four components, with the utility cost representing the highest cost component for PET (40%), PTA (40%), and polyester (45%).

Exhibit 17: Conversion cost per tonne by segment



Sources: IVL; FSSIA estimates

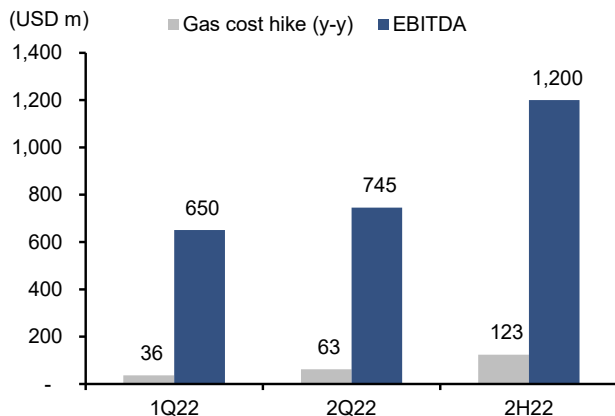
Exhibit 18: Conversion cost per tonne by segment (%)



Sources: IVL; FSSIA estimates

According to management, in 1H22, IVL incurred an additional energy cost of USD36m in 1Q22 (TTF gas price of €75/MWh), which rose to USD63m in 2Q22 (TTF €100/MWh). We estimate that IVL would incur an additional gas cost of USD123m, which would still be lower than projected EBITDA of cUSD1.2b in 2H22, based on an average TTF gas price of €250/MWh, with a 35% hedging gas volume in 2H22 at the hedging price of €70/MWh, and 55% of the total sales volume of PET-PTA of over 5mtpa in the Western market with a locked-in margin at €150/t.

Exhibit 19: Estimated gas cost increase vs EBITDA in 2022



Sources: IVL; FSSIA estimates

Exhibit 20: Dutch TTF gas price index Oct 2022 (TGV22) as of 19 Sep 2022



Source: [Barchart.com](https://www.barchart.com)

Our projected USD123m additional gas cost in 2H22 is due mainly to IVL's 35% hedging gas volume at the hedging price of €70/MWh, which is far lower than the current €174/MWh TTF gas price as of 19 September 2022. In addition, IVL also has around 55% of its total PET-PTA sales volume since the beginning of 2022 locked in at a €150/t margin.

Hence, we estimate that the net impact of the gas price increase on IVL would be USD1m for every €1/MWh TTF price increase, netting the benefits of the hedging and the locked-in margin sales volume.

Natural hedging for selling price volatility

Another key factor that differentiates IVL from not only its competitors but also other petrochemical peers is IVL's selling price premiums and discounts to its PET and PTA in Europe and the Americas.

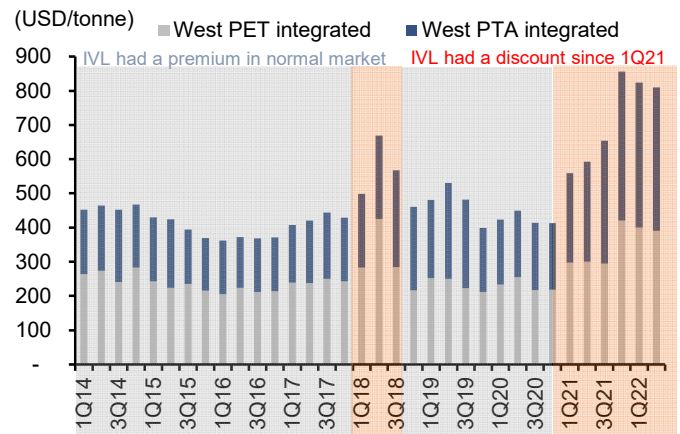
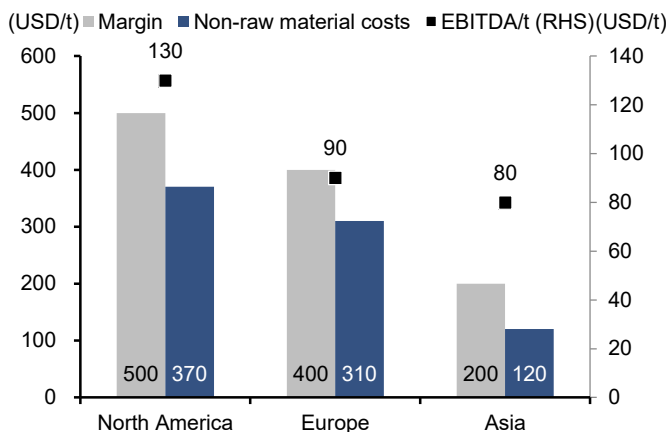
Structurally, IVL has successfully created a naturally hedged pricing model for its PET and PTA in the Western markets.

Margin premium in average cycle vs margin discount in supercycle. In the normal market situation when the margin premium of integrated PET-PTA (IPP) is within USD200/t, IVL commands premium margins for its PET and PTA sales volumes in Europe and North America over the industry margin of IPP, normally around a USD100/t premium due to its lower cost structure and the price premium charged for IVL's higher reliability and more geographical supply coverage vs its competitors.

However, amid the supercycle IPP margins, which normally exceed USD600/t for the IPP margins in the Western markets (occurred in 1Q18-3Q18 and 1Q21 to date), IVL's margins are at a discount, usually around USD100-200/t, to the industry IPP margins due to the locked-in margin for the contracted sales volume (55% of total sales volume in the West market), the discounts provided to clients to alleviate the impacts of the margin spikes, and the lead-lag time for the costs and selling prices.

Exhibit 21: Average product margin, EBITDA/t, and non-raw material cost per tonne of IVL's integrated PET-PTA

Exhibit 22: IVL has a margin premium during normal market conditions but a margin discount to the industry margins of integrated PET-PTA during supercycle margin periods



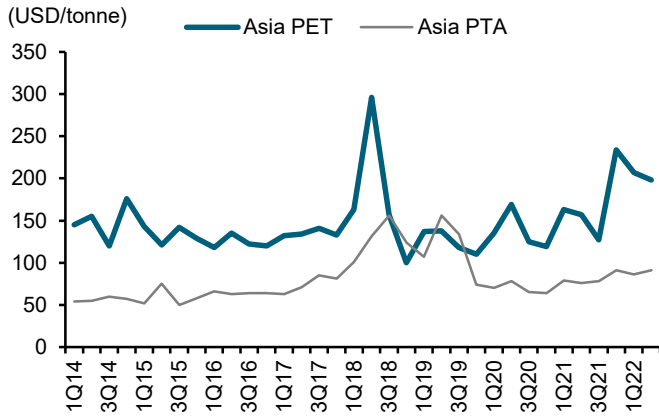
Sources: IVL; FSSIA estimates

Sources: IVL; FSSIA estimates

As a result, IVL's actual realised margins for IPP have been higher than the industry's by 25-30% when the industry IPP margins premiums have ranged around USD200-450/t (USD200/t IPP margin for Asia and USD400-450/t for the West). In contrast, IVL's actual realised margins for IPP are typically at 20-30% discounts when the industry IPP margins spike to over the USD600-800/t range, similar to what has been happening since 1Q21-2Q22 when the industry IPP margins in the West shot up to over USD800/t vs only the USD250/t average in Asia.

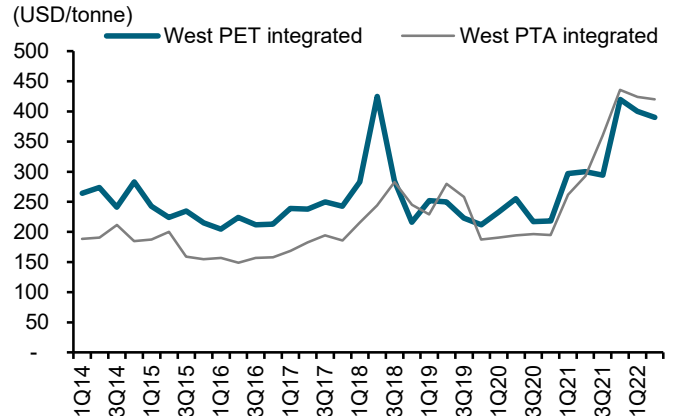
USD20-40/t EBIT margin difference between PET-PTA in the West vs Asia. Note that the final realised EBITDA margin per tonne for PET and PTA in North America and Europe, compared to Asia's, during the average cycle margin of USD200/t for Asia and USD400/t for the west, would be at USD20-40/t premiums given the higher SG&A mainly for labour costs, higher utility expenses, and higher depreciation expenses due to the higher investment cost in the US and Europe than in Asia by 2-4x.

Exhibit 23: Integrated PET-PTA margins in Asia have remained high above USD250/t since 4Q21



Source: IVL

Exhibit 24: Integrated PET-PTA margins in the West have spiked to record highs since 4Q21

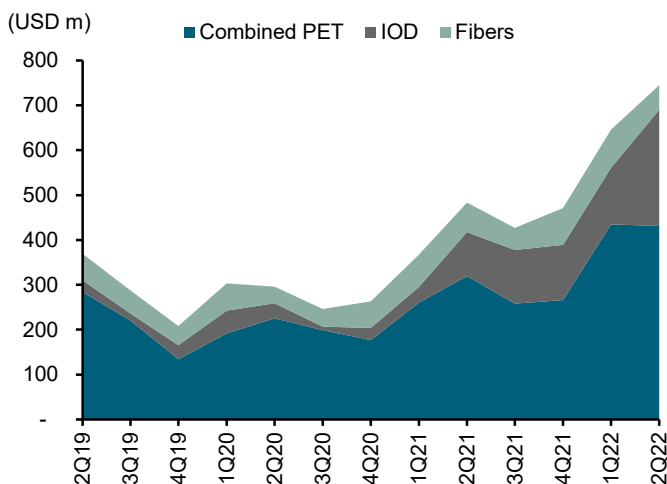


Source: IVL

THB8b-12b quarterly core net profit is highly achievable. In 2H22-2024, under the premium/discount margin structure, the benefits from the hedging and pass-through ability, and the projected strong EBITDA generated from IOD products, we think IVL will be able to generate quarterly core net profits of THB8b-12b, depending on the industry IPP margins, the IOD product margins – particularly the highly volatile products of MTBE and MEG – and the gas cost level.

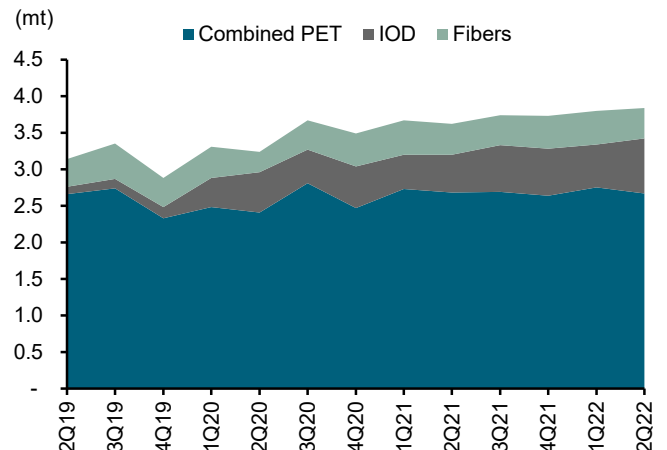
The case in point is the rising quarterly EBITDA from cPET in 1Q21-4Q21 when the industry IPP margins soared to USD600-900/t for the West, while it rose to USD270-320/t for Asia. Against the backdrop of the USD300-600 IPP margin difference between the West and Asia, up from the USD200/t average during normal market conditions, IVL's quarterly EBITDA from cPET rose from USD0.1b-USD0.2b a quarter to only USD0.25b-USD0.35b a quarter in 1Q21-4Q21. In 1Q22-2Q22, the impact of the high gas cost started to erode the margins of IVL's products in Europe and the US, but was more than offset by the strong IPP margins due to the higher import parity caused by the rising freight cost, resulting in IVL's rising EBITDA from cPET in 1H22.

Exhibit 25: Quarterly core EBITDA by segment



Source: IVL

Exhibit 26: Quarterly production by segment

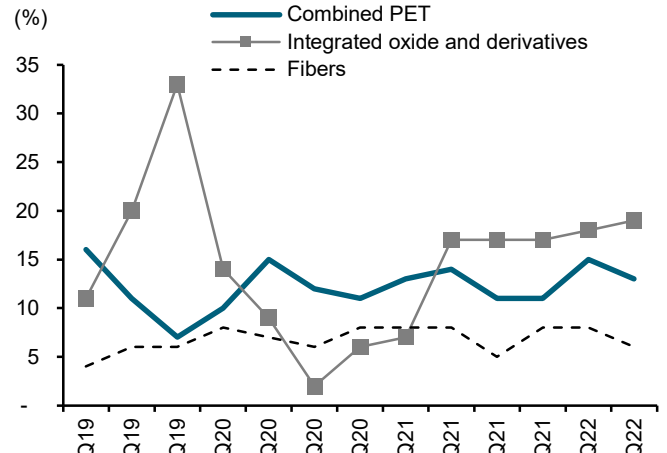
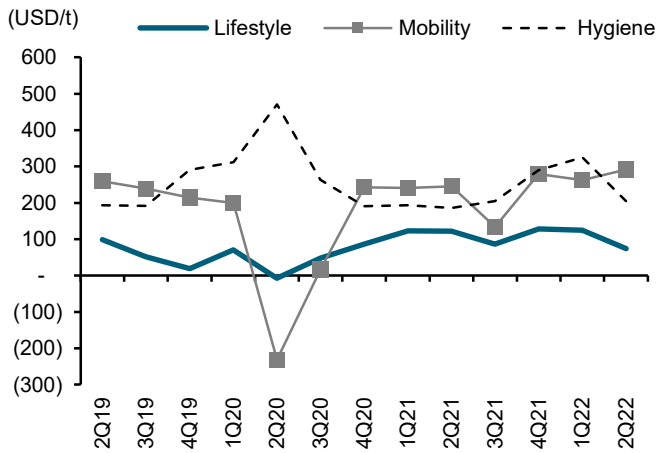


Source: IVL

Meanwhile, the EBITDA margin per tonne for fibres, IVL's smallest unit but with a high level of specialty products, has seen its overall EBITDA margin relatively stable in the range of 4-7%, thanks to the margin volatility of the lifestyle (clothing and textiles) and mobility (automotive) segments due to the impacts of the lockdowns and higher gas cost in 4Q21-2Q22.

Exhibit 27: EBITDA per tonne of fibre products by segment

Exhibit 28: EBITDA margin by segment



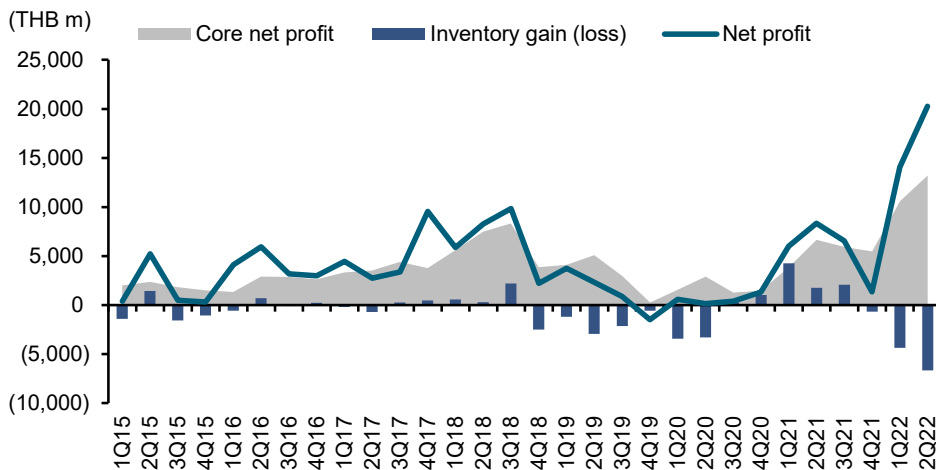
Source: IVL

Source: IVL

IVL's three competitive strengths embedded in its product portfolio. We think the resilient EBITDA margins of IVL's cPET and fibres, and the improving EBITDA margin of the IOD segment, mainly from M&As and the margin spike of MTBE, reflect three key strengths in IVL's business model.

Key strength #1: effective cost control and management. First, IVL should have a limited downside from the higher gas cost in Europe and North America due to its well-diversified, timely adjusted pricing and spread, and sound PET-PTA portfolio with strong sales volumes on the back of gas price hedging, fixed PET-PTA margins over cost (cost plus), IVL's pass-through ability, and the timely, value-accretive acquisitions of IOD assets in 2021 (Huntsman) and 2022 (Oxiten).

Exhibit 29: Quarterly net profit, core net profit, and inventory gain (loss)

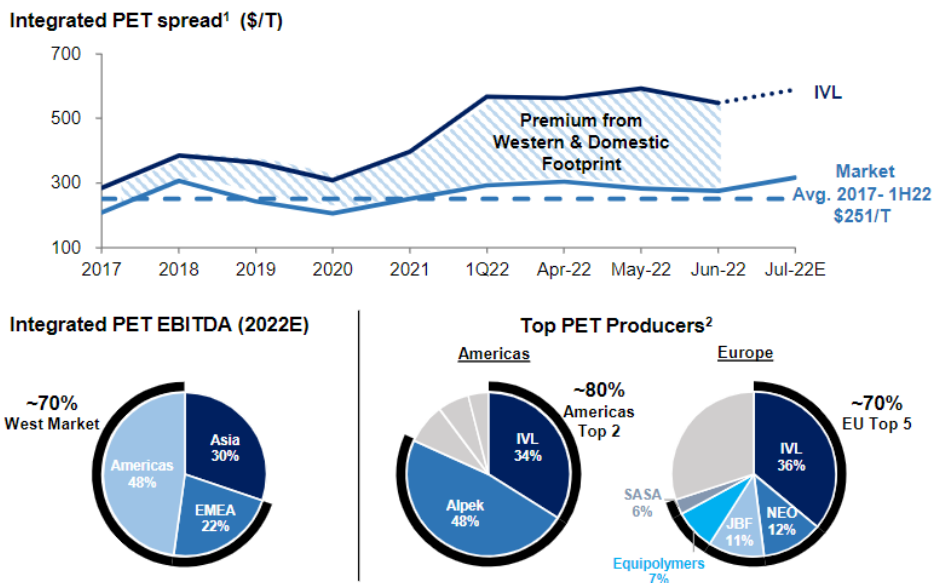


Source: IVL

Key strength #2: superior margin structures in the West. Second, IVL has an IPP margin structure in the West with the naturally hedged characteristics of margin premiums when needed in the average low-margin cycle and margin discounts when its customers need it in the supercycle margin period. IVL’s compromising, win-win business model for IPP margins allows IVL to capture a high market share and strong EBITDA margins on average above its peers in North America and Europe where the industry landscapes are more favourable.

Key strength #3: well-diversified with a large specialty downstream production level. Third, IVL has a superior product portfolio of cPET, IOD, and fibres, with partial integration via feedstocks (MEG from IOD and PTA from cPET for PET and fibres) and large specialty downstream product capacities (specialty fibres and PET for cPET and fibres and surfactants for IOD).

Exhibit 30: IVL’s highest EBITDA contribution is from the Americas, the most consolidated market with an oligopolistic market structure



Source: IVL

Up to 75% or USD1.88b annual EBITDA would be highly sustainable. As a result, IVL’s EBITDA from the Western market is now not only sustainably high but also highly competitive at the premium margins over its competitors in each continent. We estimate that IVL’s annual EBITDA alone generated from products with highly sustainable and less volatile margins would be USD2b annually, accounting for around 80% of IVL’s total estimated annual EBITDA of USD2.5b in 2022.

Exhibit 31: IVL’s estimated EBITDA generated from products with lower margin volatility

Region	Annual EBITDA (USD b)	% total EBITDA (%)	Comment	Products
Americas	0.80	32.0	60-70% relatively fixed margins	Contract PET, PTA
Americas	0.70	28.0	90-100% relatively fixed margins	Surfactants, PO, ethanolamine, EO
EMEA	0.20	8.0	60-70% relatively fixed margins	Contract PET, PTA
EMEA	0.18	7.0	50-60% relatively fixed margins	Specialty fibres, NDC, IPA
Total highly sustainable-margin products	1.88	75.0		
Americas	0.05	2.0	Spot pricing	MTBE, MEG, PET, PTA
EMEA	0.08	3.0	Spot pricing	PET, PTA, fibres
Asia	0.50	20.0	Spot pricing	PET, PTA, fibres
Total commodity products	0.63	25.0		

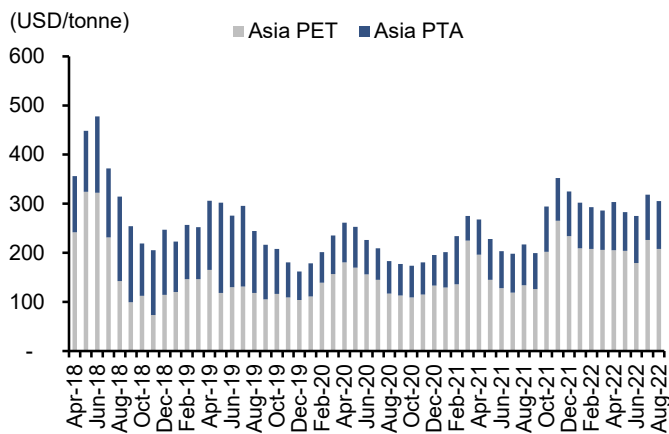
Sources: IVL; FSSIA estimates

The largest sustainable annual EBITDA portion of USD1.2b would come from IVL's contracted PET and PTA in the Western market, which would represent around 48% of total EBITDA in 2022, based on our estimate. Another USD0.7b EBITDA or 28% of total EBITDA in 2022 would be derived from the IOD downstream products, which have a number of product SKUs that have to be catered for each application, thereby allowing IVL to charge higher margins, creating high entry barriers for competitors, and generating high switching costs for customers.

Commodity EBITDA from Asian PET and PTA. Most of IVL's volatile EBITDA comes from its Asian PET and PTA, whose prices are linked to the spot market prices that have been driven mainly by China's demand and supply. Not only are the margins of IPP in Asia lower than the West by a large margin but they are also highly volatile and much less predictable than in the West.

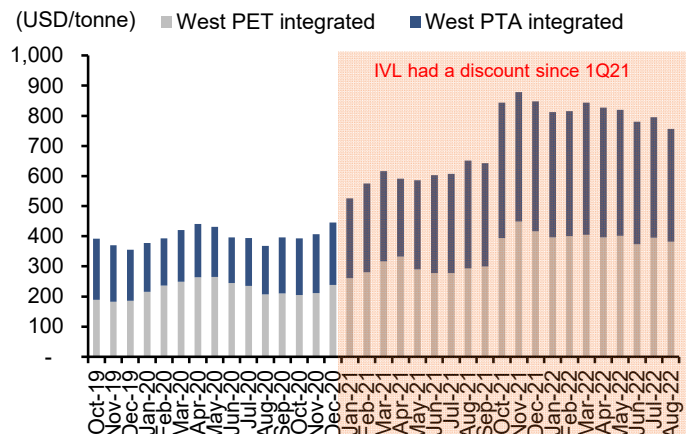
However, due to the solid demand and tight supply, Asian IPP margins have remained high at over USD250-300/t since October 2021, and are likely to stay high at above USD250/t in 2H22 into 2023, as we project the demand for PET and polyester to rise substantially when China reopens its economy, likely by 1Q23.

Exhibit 32: Asia industry PET and PTA spread



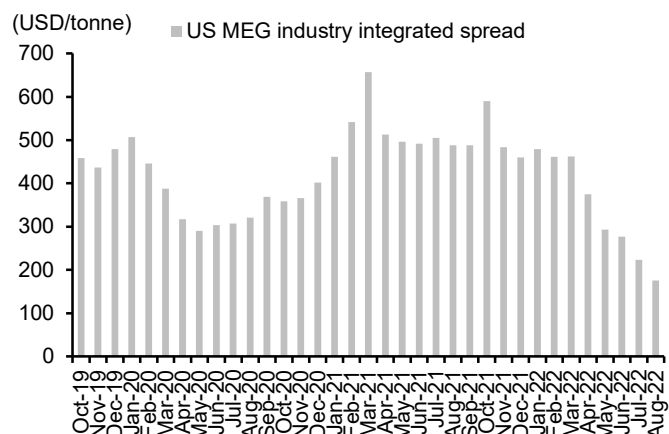
Source: IVL

Exhibit 33: Western industry PET and PTA spread



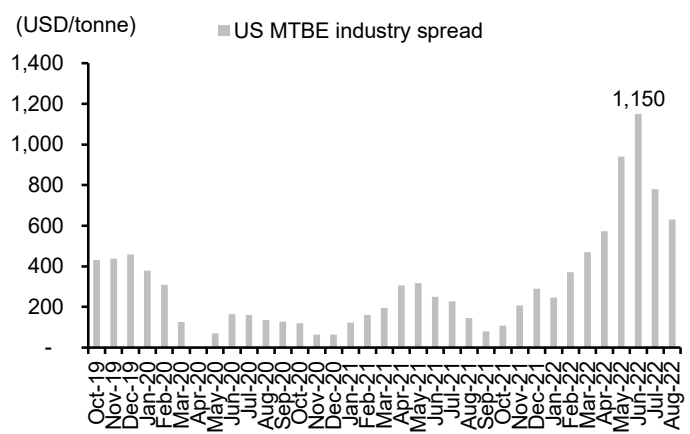
Source: IVL

Exhibit 34: US MEG industry integrated spread



Source: IVL

Exhibit 35: US MTBE industry spread



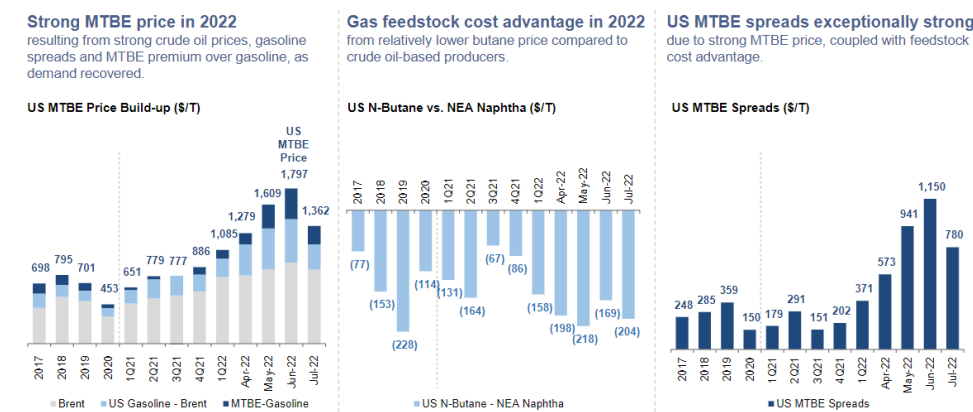
Source: IVL

MEG and MTBE are IVL's two key IOD commodity products. Within IVL's 4mtpa capacity for IOD products, around 1.6mt of capacity are in the commodity products of MTBE (0.75mtpa), MEG (0.4mtpa) and ethylene (0.5mtpa) which are produced from two ethane crackers using shale gas as a key feedstock.

Since 1Q22, the monthly margins of MTBE over the prices of its feedstocks butane and methanol have shot up markedly due to the rising demand for gasoline in the US and Mexico and the low price of butane gas as a result of the oversupply of shale gas. The MTBE margin has stayed at a high level of USD600/t, though it dropped from the peak of USD1,150/t in June 2022, but it is still higher than the historical average of below USD100/t.

MEG generated net losses for IVL in the past few quarters due to the impacts of the industry oversupply and the weak demand on China's lockdown. But once China reopens its economy, we project the MEG margin to rebound to USD300-500/t, up from USD122-150/t in August to September 2022.

Exhibit 36: MTBE margins spiked due to strong low butane cost and high demand for gasoline

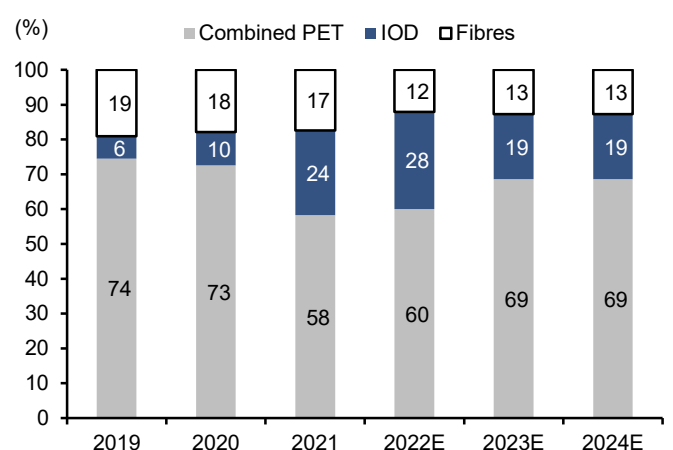
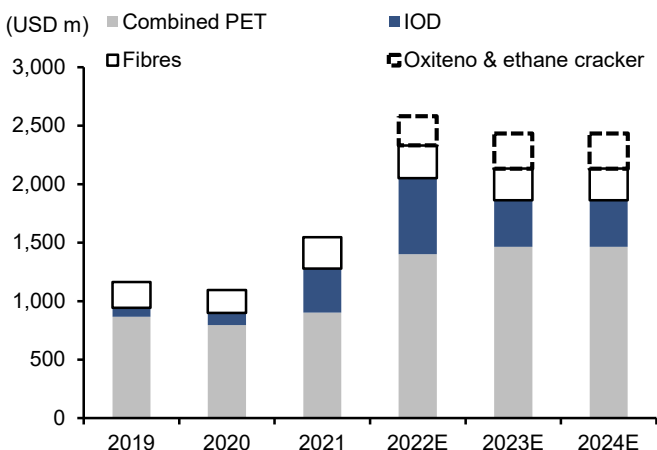


Source: IVL

IVL is a victim of misunderstanding and the underestimation of its business model's strength. In conclusion, we believe the share price plunge by 12.5% from its recent peak in August 2022, potentially caused by investors' concerns over the negative impacts of the higher gas cost, weaker IPP margins on lower freight costs, and the likely unsustainable margins of IOD products, have all led to a good opportunity to re-accumulate IVL ahead of the 3Q22 net profit of THB8b-12b that we estimate. IVL's superior business model, well-crafted product pricing, and timely acquisitions should drive its share price back to THB60 in the next 12 months, in our view.

Exhibit 37: Annual EBITDA breakdown by segment

Exhibit 38: Annual EBITDA breakdown by segment (%)



Sources: IVL; FSSIA estimates

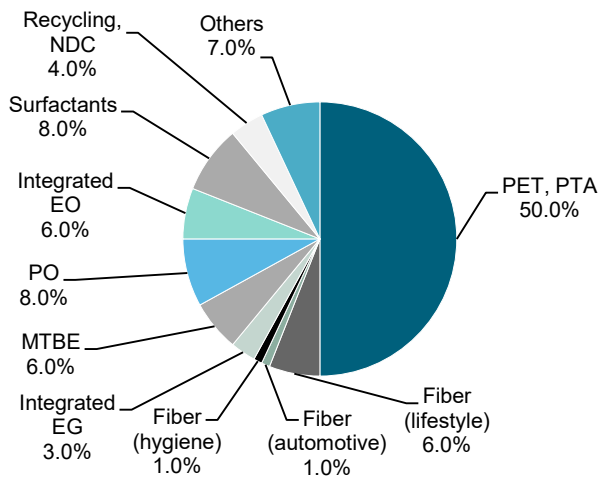
Sources: IVL; FSSIA estimates

Time to Buy with a 2022-23E forward P/E of only 6x

We think IVL's share price will rebound strongly back to the THB50-60 level by the end of 2022 when the company announces a strong 3Q22 core net profit of THB8b-10b, despite the negative impact of the higher gas cost and lower import parity.

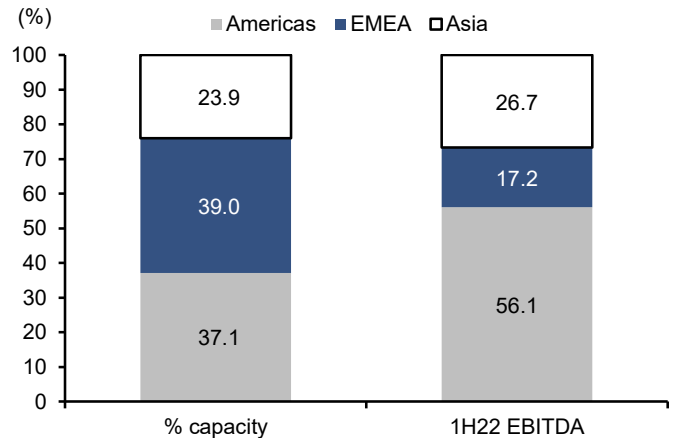
With over 50% of its EBITDA from the Americas, up to 75% of total EBITDA from its product portfolio with highly sustainable margins, and its solid strategy for both organic and inorganic growth, we think IVL's trading range is highly unjustified at only 6x 2022-23E P/E and 4-5x 2022-23E EV/EBITDA, far below IVL's historical EV/EBITDA average of 8-15x.

Exhibit 39: Capacity breakdown by product



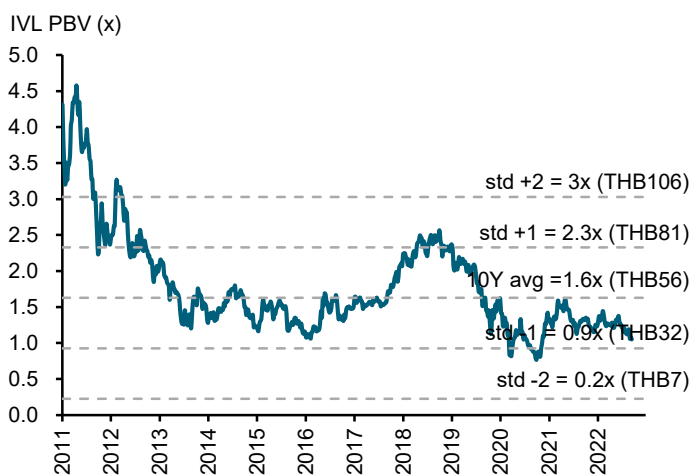
Source: IVL

Exhibit 40: Capacity and 1H22 EBITDA breakdown by region (%)



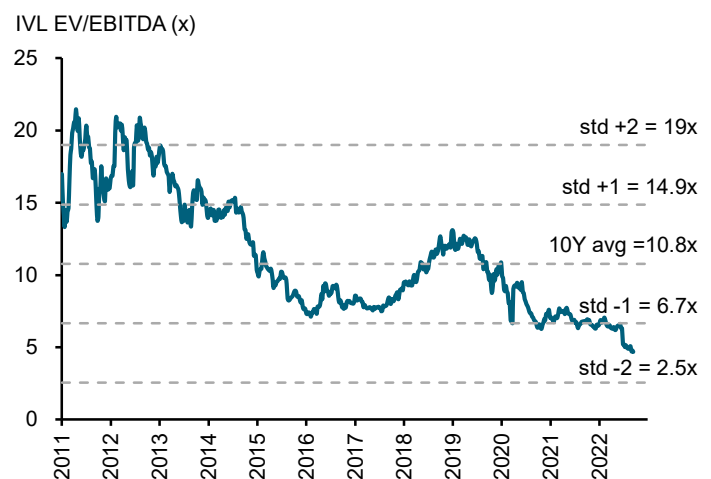
Source: IVL

Exhibit 41: Prospective P/BV band



Sources: Bloomberg; FSSIA estimates

Exhibit 42: Prospective EV/EBITDA band



Sources: Bloomberg; FSSIA estimates

Financial Statements

Indorama Ventures

Profit and Loss (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Revenue	331,513	468,108	443,823	444,616	442,642
Cost of goods sold	(266,558)	(363,002)	(345,801)	(330,642)	(328,531)
Gross profit	64,955	105,107	98,022	113,974	114,111
Other operating income	-	-	-	-	-
Operating costs	(32,724)	(47,022)	(26,629)	(33,346)	(33,198)
Operating EBITDA	32,231	58,084	71,393	80,628	80,912
Depreciation	(20,487)	(20,487)	(20,521)	(21,149)	(21,778)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	11,744	37,597	50,872	59,478	59,134
Net financing costs	(7,362)	(7,202)	(3,618)	(9,588)	(7,345)
Associates	143	160	712	692	692
Recurring non-operating income	1,949	160	712	692	692
Non-recurring items	(758)	361	4,649	4,649	4,649
Profit before tax	5,573	30,916	52,615	55,232	57,130
Tax	1,243	(6,703)	(10,981)	(11,483)	(11,847)
Profit after tax	6,816	24,213	41,634	43,749	45,284
Minority interests	(386)	(1,966)	(631)	(635)	(635)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	6,430	22,247	41,004	43,114	44,648
Non-recurring items & goodwill (net)	758	(361)	(4,649)	(4,649)	(4,649)
Recurring net profit	7,188	21,886	36,355	38,465	39,999
Per share (THB)					
Recurring EPS *	1.28	3.90	6.48	6.85	7.12
Reported EPS	1.15	3.96	7.30	7.68	7.95
DPS	0.10	1.20	3.60	3.77	3.89
Diluted shares (used to calculate per share data)	5,615	5,615	5,615	5,615	5,615
Growth					
Revenue (%)	(6.0)	41.2	(5.2)	0.2	(0.4)
Operating EBITDA (%)	(5.2)	80.2	22.9	12.9	0.4
Operating EBIT (%)	(30.8)	220.1	35.3	16.9	(0.6)
Recurring EPS (%)	(34.7)	204.5	66.1	5.8	4.0
Reported EPS (%)	22.4	246.0	84.3	5.1	3.6
Operating performance					
Gross margin inc. depreciation (%)	13.4	18.1	17.5	20.9	20.9
Gross margin of key business (%)	13.2	18.2	18.5	21.9	21.9
Operating EBITDA margin (%)	9.7	12.4	16.1	18.1	18.3
Operating EBIT margin (%)	3.5	8.0	11.5	13.4	13.4
Net margin (%)	2.2	4.7	8.2	8.7	9.0
Effective tax rate (%)	-79.8	19.2	19.2	19.2	19.2
Dividend payout on recurring profit (%)	7.8	30.8	55.7	55.0	54.6
Interest cover (X)	1.9	5.2	14.3	6.3	8.1
Inventory days	79.5	71.9	91.5	93.2	93.7
Debtor days	37.3	33.8	42.6	41.4	41.6
Creditor days	86.7	82.2	100.8	102.7	103.2
Operating ROIC (%)	4.9	0.9	1.1	1.3	1.4
ROIC (%)	4.6	0.7	1.0	1.2	1.2
ROE (%)	5.6	15.3	20.4	18.2	16.7
ROA (%)	3.7	4.9	6.5	6.7	6.8
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue by Division (THB m)					
PET	153,889	258,701	176,399	162,510	162,054
Feedstock	100,905	117,776	117,110	121,937	121,937
Fibres	90,601	110,868	109,613	109,613	109,613
Eliminations and unallocated	(13,882)	(19,236)	40,701	50,555	49,037

Sources: Indorama Ventures; FSSIA estimates

Financial Statements

Indorama Ventures

Cash Flow (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Recurring net profit	7,188	21,886	36,355	38,465	39,999
Depreciation	20,487	20,487	20,521	21,149	21,778
Associates & minorities	-	-	-	-	-
Other non-cash items	(1,002)	(1,001)	(1,001)	(1,001)	(1,001)
Change in working capital	19,603	19,639	11,313	20,892	21,135
Cash flow from operations	46,276	61,011	67,188	79,505	81,912
Capex - maintenance	-	-	-	-	-
Capex - new investment	(16,231)	(16,229)	(13,200)	(13,200)	(13,200)
Net acquisitions & disposals	0	0	0	0	0
Other investments (net)	(9,059)	(9,053)	(9,053)	(9,053)	(9,053)
Cash flow from investing	(25,290)	(25,282)	(22,253)	(22,253)	(22,253)
Dividends paid	(3,088)	(5,474)	(6,737)	(20,232)	(21,167)
Equity finance	0	0	0	0	0
Debt finance	51,695	12,380	65,893	(24,107)	5,893
Other financing cash flows	(61,091)	(45,368)	(7,469)	(7,444)	(7,444)
Cash flow from financing	(12,484)	(38,462)	51,686	(51,783)	(22,718)
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	0	0	0	0	0
Movement in cash	8,502	(2,733)	96,621	5,468	36,940
Free cash flow to firm (FCFF)	28,659.55	42,849.85	54,737.48	65,775.79	68,182.24
Free cash flow to equity (FCFE)	11,589.60	2,741.28	103,358.00	25,700.59	58,107.04

Per share (THB)

FCFF per share	5.10	7.63	9.75	11.72	12.14
FCFE per share	2.06	0.49	18.41	4.58	10.35
Recurring cash flow per share	4.75	7.37	9.95	10.44	10.82

Balance Sheet (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Tangible fixed assets (gross)	376,464	424,337	437,537	450,737	463,937
Less: Accumulated depreciation	(112,173)	(132,660)	(153,181)	(174,330)	(196,108)
Tangible fixed assets (net)	264,291	291,677	284,356	276,407	267,829
Intangible fixed assets (net)	0	0	0	0	0
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	0	0	0	0	0
Cash & equivalents	18,949	16,215	112,836	118,305	155,245
A/C receivable	33,422	53,172	50,413	50,503	50,279
Inventories	53,938	88,979	84,363	84,513	84,138
Other current assets	13,526	18,493	18,493	18,493	18,493
Current assets	119,835	176,859	266,105	271,815	308,155
Other assets	69,046	73,292	46,416	46,416	46,416
Total assets	453,172	541,828	596,878	594,637	622,400
Common equity	126,655	158,769	197,684	225,215	253,344
Minorities etc.	8,953	12,235	1,370	1,433	1,479
Total shareholders' equity	135,608	171,003	199,054	226,647	254,823
Long term debt	164,073	169,893	229,893	199,893	199,893
Other long-term liabilities	39,552	43,034	11,897	11,897	11,897
Long-term liabilities	203,625	212,927	241,790	211,790	211,790
A/C payable	65,366	98,049	92,962	93,128	92,715
Short term debt	29,645	36,206	36,206	36,206	36,206
Other current liabilities	18,927	23,643	26,866	26,866	26,866
Current liabilities	113,938	157,898	156,034	156,200	155,787
Total liabilities and shareholders' equity	453,172	541,828	596,878	594,637	622,400
Net working capital	16,593	38,952	33,442	33,516	33,330
Invested capital	349,930	403,922	364,214	356,339	347,575

* Includes convertibles and preferred stock which is being treated as debt

Per share (THB)

Book value per share	22.56	28.28	35.21	40.11	45.12
Tangible book value per share	22.56	28.28	35.21	40.11	45.12

Financial strength

Net debt/equity (%)	128.9	111.0	77.0	52.0	31.7
Net debt/total assets (%)	38.6	35.0	25.7	19.8	13.0
Current ratio (x)	1.1	1.1	1.7	1.7	2.0
CF interest cover (x)	4.8	3.6	33.2	5.1	10.7

Valuation	2020	2021	2022E	2023E	2024E
Recurring P/E (x) *	31.4	10.3	6.2	5.9	5.6
Recurring P/E @ target price (x) *	50.8	16.7	10.0	9.5	9.1
Reported P/E (x)	35.1	10.2	5.5	5.2	5.1
Dividend yield (%)	0.2	3.0	9.0	9.4	9.7
Price/book (x)	1.8	1.4	1.1	1.0	0.9
Price/tangible book (x)	1.8	1.4	1.1	1.0	0.9
EV/EBITDA (x) **	12.7	7.4	5.3	4.3	3.8
EV/EBITDA @ target price (x) **	17.0	9.8	7.3	6.0	5.5
EV/invested capital (x)	1.2	1.1	1.0	1.0	0.9

* Pre-exceptional, pre-goodwill and fully diluted ** EBITDA includes associate income and recurring non-operating income

Sources: Indorama Ventures; FSSIA estimates

Corporate Governance report of Thai listed companies 2021

EXCELLENT LEVEL – Score range 90-100										
AAV	BCPG	CPALL	GCAP	K	MSC	PLANET	SAMART	SPI	THRE	TVD
ADVANC	BDMS	CPF	GFPT	KBANK	MST	PLAT	SAMTEL	SPRC	THREL	TVI
AF	BEM	CPI	GGC	KCE	MTC	PORT	SAT	SPVI	TIPCO	TVO
AH	BGC	CPN	GLAND	KKP	MVP	PPS	SC	SSSC	TISCO	TWPC
AIRA	BGRIM	CRC	GLOBAL	KSL	NCL	PR9	SCB	SST	TK	U
AKP	BIZ	CSS	GPI	KTB	NEP	PREB	SCC	STA	TKT	UAC
AKR	BKI	DDD	GPSC	KTC	NER	PRG	SCCC	STEC	TMT	UBIS
ALT	BOL	DELTA	GRAMMY	LALIN	NKI	PRM	SCG	STI	TNDT	UV
AMA	BPP	DEMCO	GULF	LANNA	NOBLE	PROUD	SCGP	SUN	TNITY	VGI
AMATA	BRR	DRT	GUNKUL	LH	NSI	DRS	SCM	SUSCO	TOA	VIH
AMATAV	BTS	DTAC	HANA	LHFG	NVD	PSL	SDC	SUTHA	TOP	WACOAL
ANAN	BTW	DUSIT	HARN	LIT	NWR	PTG	SEAFCO	SVI	TPBI	WAVE
AOT	BWG	EA	HMPRO	LPN	NYT	PTT	SEAOL	SYMC	TQM	WHA
AP	CENTEL	EASTW	ICC	MACO	OISHI	PTTEP	SE-ED	SYNTEC	TRC	WHAUP
ARIP	CFRESH	ECF	ICHI	MAJOR	OR	PTTGC	SELIC	TACC	TRU	WICE
ARROW	CHEWA	ECL	III	MAKRO	ORI	PYLON	SENA	TASCO	TRUE	WINNER
ASP	CHO	EE	ILINK	MALEE	OSP	Q-CON	SHR	TCAP	TSC	ZEN
AUCT	CIMBT	EGCO	ILM	MBK	OTO	QH	SIRI	TEAMG	TSR	
AWC	CK	EPG	INTUCH	MC	PAP	QTC	SIS	TFMAMA	TSTE	
AYUD	CKP	ETC	IP	MCOT	PCSGH	RATCH	SITHAI	TGH	TSTH	
BAFS	CM	FPI	IRPC	METCO	PDG	RS	SMK	THANA	TTA	
BANPU	CNT	FPT	ITEL	MFEC	PDJ	S	SMPC	THANI	TTB	
BAY	COM7	FSMART	IVL	MINT	PG	S & J	SNC	THCOM	TTCL	
BBL	COMAN	GBX	JSP	MONO	PHOL	SAAM	SONIC	THG	TTW	
BCP	COTTO	GC	JWD	MOONG	PLANB	SABINA	SPALI	THIP	TU	
VERY GOOD LEVEL – Score range 80-89										
2S	ASIMAR	CHOW	FLOYD	IT	LOXLEY	OCC	RPC	SKY	TCC	TVT
7UP	ASK	CI	FN	ITD	LRH	OGC	RT	SLP	TCMC	TWP
ABICO	ASN	CIG	FNS	J	LST	PATO	RWI	SMIT	TEAM	UEC
ABM	ATP30	CMC	FORTH	JAS	M	PB	S11	SMT	TFG	UMI
ACE	B	COLOR	FSS	JCK	MATCH	PICO	SA	SNP	TFI	UOBKH
ACG	BA	CPL	FTE	JCKH	MBAX	PIMO	SAK	SO	TIGER	UP
ADB	BAM	CPW	FVC	JMART	MEGA	PJW	SALEE	SORKON	TITLE	UPF
AEONTS	BC	CRD	GEL	JMT	META	PL	SAMCO	SPA	TKN	UPOIC
AGE	BCH	CSC	GENCO	KBS	MFC	PM	SANKO	SPC	TKS	UTP
AHC	BEC	CSP	GJS	KCAR	MGT	PMTA	SAPPE	SPCG	TM	VCOM
AIT	BEYOND	CWT	GYT	KEX	MICRO	PPP	SAWAD	SR	TMC	VL
ALL	BFIT	DCC	HEMP	KGI	MILL	PPP	SCI	SRICHA	TMD	VPO
ALLA	BJC	DCON	HPT	KIAT	MITSIB	PRIME	SCN	SSC	TMI	VRANDA
ALUCON	BJCHI	DHOUSE	HTC	KISS	MK	PRIN	SCP	SSF	TMILL	WGE
AMANAH	BLA	DOD	HYDRO	KOOL	MODERN	PRINC	SE	STANLY	TNL	WIJK
AMARIN	BR	DOHOME	ICN	KTIS	MTI	PSG	SFLEX	STGT	TNP	WP
APCO	BROOK	DV8	IFS	KUMWEL	NBC	PSTC	SFP	STOWER	TOG	XO
APCS	CBG	EASON	IMH	KUN	NCAP	PT	SFT	STPI	TPA	XPG
APURE	CEN	EFORL	IND	KWC	NCH	QLT	SGF	SUC	TPAC	YUASA
AQUA	CGH	ERW	INET	KWM	NETBAY	RBF	SIAM	SWC	TPCS	
ASAP	CHARAN	ESSO	INSET	L&E	NEX	RCL	SINGER	SYNEX	TPS	
ASEFA	CHAYO	ESTAR	INSURE	LDC	NINE	RICHY	SKE	TAE	TRITN	
ASIA	CHG	ETE	IRC	LEO	NRF	RML	SKN	TAKUNI	TRT	
ASIAN	CHOTI	FE	IRCP	LHK	NTV	ROJNA	SKR	TBSP	TSE	
GOOD LEVEL – Score range 70-79										
A	BGT	CITY	GIFT	JTS	MDX	PK	SGP	SUPER	TQR	YGG
AI	BH	CMAN	GLOCON	JUBILE	MJD	PLE	SICT	SVOA	TTI	ZIGA
AIE	BIG	CMO	GREEN	KASET	MORE	PPM	SIMAT	TC	TYCN	
AJ	BLAND	CMR	GSC	KCM	MUD	PRAKIT	SISB	TCCC	UKEM	
ALPHAX	BM	CPT	GTB	KK	NC	PRAPAT	SK	THMUI	UMS	
AMC	BROCK	CRANE	HTECH	KKC	NDR	PRECHA	SMART	TNH	UNIQ	
APP	BSBM	CSR	HUMAN	KWI	NFC	PTL	SOLAR	TNR	UPA	
AQ	BSM	D	IHL	KYE	NNCL	RJH	SPACK	TOPP	UREKA	
ARIN	BTNC	EKH	IIG	LEE	NOVA	RP	SPG	TPCH	VIBHA	
AS	BYD	EMC	INGRS	LPH	NPK	RPH	SQ	TPIPL	W	
AU	CAZ	EP	INOX	MATI	NUSA	RSP	SSP	TIPIP	WIN	
B52	CCP	F&D	JAK	M-CHAI	PAF	SABUY	STARK	TPLAS	WORK	
BEAUTY	CGD	FMT	JR	MCS	PF	SF	STC	TPOLY	WPH	

Disclaimer:

The disclosure of the survey results of the Thai Institute of Directors Association ("IOD") regarding corporate governance is made pursuant to the policy of the Office of the Securities and Exchange Commission. The survey of the IOD is based on the information of a company listed on the Stock Exchange of Thailand and the Market for Alternative Investment disclosed to the public and able to be accessed by a general public investor. The result, therefore, is from the perspective of a third party. It is not an evaluation of operation and is not based on inside information.

The survey result is as of the date appearing in the Corporate Governance Report of Thai Listed Companies. As a result, the survey results may be changed after that date. FSS International Investment Advisory Company Limited does not confirm nor certify the accuracy of such survey results.

* CGR scoring should be considered with news regarding wrong doing of the company or director or executive of the company such unfair practice on securities trading, fraud, and corruption SEC imposed a civil sanction against insider trading of director and executive

Sources: Thai Institute of Directors Association (IOD); FSSIA's compilation; data as of 26 October 2021

Anti-corruption Progress Indicator

CERTIFIED										
2S	BCH	CPALL	GC	K	MFC	PE	QLT	SNP	THCOM	TU
7UP	BCP	CPF	GCAP	KASET	MFEC	PG	QTC	SORKON	THIP	TVD
ADVANC	BCPG	CPI	GEL	KBANK	MILL	PHOL	RATCH	SPACK	THRE	TVI
AF	BE8	CPN	GFPT	KBS	MINT	PK	RML	SPALI	THREL	TVO
AI	BEYOND	CSC	GGC	KCAR	MONO	PL	RWI	SPC	TIDLOR	TWPC
AIE	BGC	DCC	GJS	KCE	MOONG	PLANB	S & J	SPI	TIPCO	U
AIRA	BGRIM	DELTA	GPI	KGI	MSC	PLANET	SAAM	SPRC	TISCO	UBE
AKP	BJCHI	DEMCO	GPSC	KKP	MST	PLAT	SABINA	SRICHA	TKS	UBIS
ALPHAX	BKI	DIMET	GSTEEL	KSL	MTC	PM	SAPPE	SSF	TKT	UEC
AMA	BLA	DRT	GUNKUL	KTB	MTI	PPP	SAT	SSP	TMD	UKEM
AMANAHA	BPP	DTAC	HANA	KTC	NBC	PPPM	SC	SSSC	TMILL	UOBKH
AMATA	BROOK	DUSIT	HARN	KWC	NEP	PPS	SCB	SST	TMT	UPF
AMATAV	BRR	EA	HEMP	KWI	NINE	PR9	SCC	STA	TNITY	UV
AP	BSBM	EASTW	HENG	L&E	NKI	PREB	SCCC	STOWER	TNL	VGI
APCS	BTS	ECL	HMPRO	LANNA	NMG	PRG	SCG	SUSCO	TNP	VIH
AQUA	BWG	EGCO	HTC	LH	NNCL	PRINC	SCN	SVI	TNR	WACOAL
ARROW	CEN	EP	ICC	LHFG	NOBLE	PRM	SEAOIL	SYMC	TOG	WHA
AS	CENTEL	EPG	ICHI	LHK	NOK	PROS	SE-ED	SYNTEC	TOP	WHAUP
ASIAN	CFRESH	ERW	IFEC	LPN	NSI	PSH	SELIC	TAE	TOPP	WICE
ASK	CGH	ESTAR	IFS	LRH	NWR	PSL	SENA	TAKUNI	TPA	WIJK
ASP	CHEWA	ETE	ILINK	M	OCC	PSTC	SGP	TASCO	TPP	XO
AWC	CHOTI	FE	INET	MAKRO	OGC	PT	SINGER	TBSP	TRU	ZEN
AYUD	CHOW	FNS	INSURE	MALEE	ORI	PTG	SIRI	TCAP	TRUE	
B	CIG	FPI	INTUCH	MATCH	PAP	PTT	SITHAI	TCMC	TSC	
BAFS	CIMBT	FPT	IRC	MBAX	PATO	PTTEP	SKR	TFG	TSTE	
BAM	CM	FSMART	IRPC	MBK	PB	PTTGC	SMIT	TFI	TSTH	
BANPU	CMC	FSS	ITEL	MC	PCSGH	PYLON	SMK	TFMAMA	TTA	
BAY	COM7	FTE	IVL	MCOT	PDG	Q-CON	SMPC	TGH	TTB	
BBL	COTTO	GBX	JKN	META	PDJ	QH	SNC	THANI	TTCL	
DECLARED										
AJ	CHG	DDD	ETC	JR	MAJOR	NUSA	RS	SSS	TQM	YUASA
ALT	CPL	DHOUSE	FLOYD	JTS	NCAP	NYT	SAK	STECH	TSI	ZIGA
APCO	CPR	DOHOME	GULF	KEX	NCL	OR	SCGP	STGT	VARO	
B52	CPW	ECF	III	KUMWEL	NOVA	PIMO	SCM	TKN	VCOM	
BEC	CRC	EKH	INOX	LDC	NRF	PLE	SIS	TMI	VIBHA	

Level	
Certified	This level indicates practical participation with thoroughly examination in relation to the recommended procedures from the audit committee or the SEC's certified auditor, being a certified member of Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) or already passed examination to ensure independence from external parties.
Declared	This level indicates determination to participate in the Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC)

Disclaimer:

The disclosure of the Anti-Corruption Progress Indicators of a listed company on the Stock Exchange of Thailand, which is assessed by Thaipat Institute, is made in order to comply with the policy and sustainable development plan for the listed companies of the Office of the Securities and Exchange Commission. Thaipat Institute made this assessment based on the information received from the listed company, as stipulated in the form for the assessment of Anti-corruption which refers to the Annual Registration Statement (Form 56-1), Annual Report (Form 56-2), or other relevant documents or reports of such listed company. The assessment result is therefore made from the perspective of Thaipat Institute that is a third party. It is not an assessment of operation and is not based on any inside information. Since this assessment is only the assessment result as of the date appearing in the assessment result, it may be changed after that date or when there is any change to the relevant information. Nevertheless, FSS International Investment Advisory Company Limited does not confirm, verify, or certify the accuracy and completeness of the assessment results.

Note: Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of 26 October 2021) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

Sources: The Securities and Exchange Commission, Thailand; * FSSIA's compilation

GENERAL DISCLAIMER

ANALYST(S) CERTIFICATION

Suwat Sinsadok, CFA, FRM, ERP FSS International Investment Advisory Securities Co., Ltd

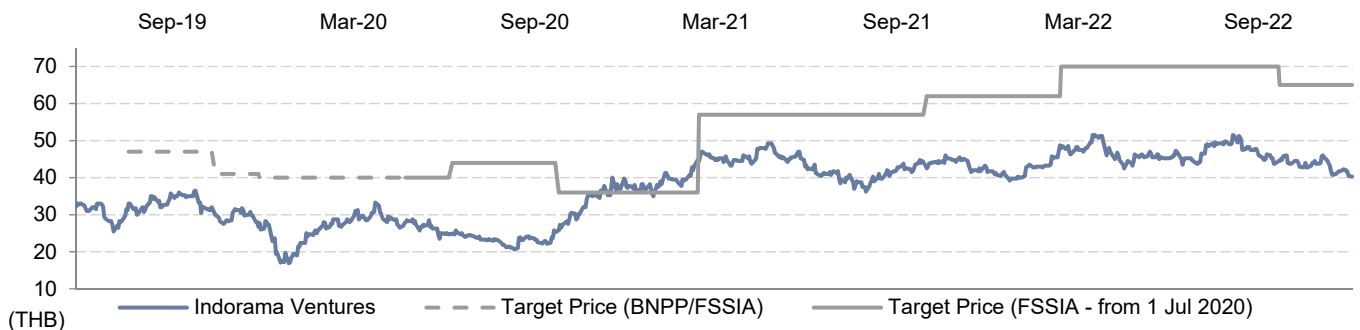
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History of change in investment rating and/or target price

Indorama Ventures (IVL TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
07-Nov-2019	BUY	47.00	07-Aug-2020	BUY	44.00	17-Sep-2021	BUY	62.00
20-Jan-2020	BUY	41.00	06-Nov-2020	BUY	36.00	12-Jan-2022	BUY	70.00
27-Feb-2020	BUY	40.00	08-Mar-2021	BUY	57.00	18-Jul-2022	BUY	65.00

Suwat Sinsadok, CFA, FRM, ERP started covering this stock from 09-Jun-2020

Price and TP are in local currency

Source: FSSIA estimates

Company	Ticker	Price	Rating	Valuation & Risks
Indorama Ventures	IVL TB	THB 40.25	BUY	The key downside risks to our EV/EBITDA-based TP are weaker-than-expected margins for PX-PTA and PET-PTA, lower demand for polyester, and delays in IVL's projects.

Source: FSSIA estimates

Additional Disclosures

Target price history, stock price charts, valuation and risk details, and equity rating histories applicable to each company rated in this report is available in our most recently published reports. You can contact the analyst named on the front of this note or your representative at Finasia Syrus Securities Public Company Limited

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All share prices are as at market close on 19-Sep-2022 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

Stock ratings are based on absolute upside or downside, which we define as $(\text{target price}^* - \text{current price}) / \text{current price}$.

BUY (B). The upside is 10% or more.

HOLD (H). The upside or downside is less than 10%.

REDUCE (R). The downside is 10% or more.

Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

* In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.

Industry Recommendations

Overweight. The analyst expects the fundamental conditions of the sector to be positive over the next 12 months.

Neutral. The analyst expects the fundamental conditions of the sector to be maintained over the next 12 months.

Underweight. The analyst expects the fundamental conditions of the sector to be negative over the next 12 months.

Country (Strategy) Recommendations

Overweight (O). Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Neutral (N). Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Underweight (U). Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.