

17 SEPTEMBER 2021

THAILAND / PETROCHEM &amp; CHEMICALS

# INDORAMA VENTURES IVL TB

## BUY

UNCHANGED

|                 |          |
|-----------------|----------|
| TARGET PRICE    | THB62.00 |
| CLOSE           | THB44.50 |
| UP/DOWNSIDE     | +39.3%   |
| PRIOR TP        | THB57.00 |
| CHANGE IN TP    | +8.8%    |
| TP vs CONSENSUS | +16.5%   |

## IOD & PET leading the growth charge

### Stronger h-h 2H21 core net profit of THB10b-11b

Unlike in 2020 when IVL suffered from a series of mishaps that largely led to its weak 1H20 and 2020 reported net profits, we think IVL's net profit growth will remain strong in 2H21, up from the already solid 1H21 net profit of THB14b and core net profit of THB10.5b. We project IVL's core net profit in 2H21 to be in the range of THB10b-11b, driven by the continually strong PET-PTA margins in Western markets (Europe and the Americas), improving PET-PTA margins in Asia, and strong product margins for the integrated oxide and derivatives (IOD) group.

### Three drivers for a stronger net profit trajectory in 2H21-2022

We see three key drivers for IVL's net profit growth in 2H21-2022. First, we estimate that the start-up of its 0.44mtpa ethane cracker in Sep-21, after a one-year shutdown, should generate USD30m-50m EBITDA in 2021. Second, the strong integrated PET-PTA margin in Asian and Western markets due to the stronger demand should help offset the impact from the new supply in China. Third, we expect to see a margin upside of up to USD30-50/t y-y for IVL's combined PET, its largest product group, in 2022. IVL is now negotiating with global customers for new contract prices for PET in Western markets.

### Untamed by hurricanes in 2021

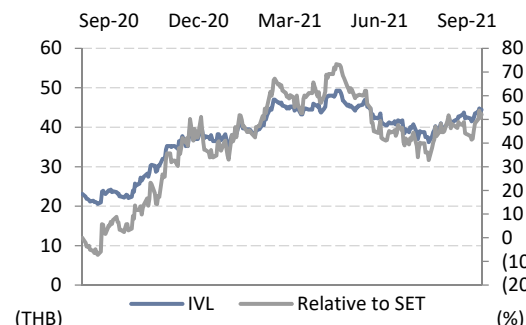
Unlike Hurricane Laura, which directly hit the southern Texas area where IVL's IOD production plants are located, Hurricane Ida landed in southern Louisiana where IVL has no production plants. Hence, IVL saw no impact from Ida, and only the short period of precautionary shutdowns before Ida hit the Gulf of Mexico had a very limited impact, based on management's guidance. We think IVL is less likely to suffer from major damage to its IOD production plants in 2H21, as most of the future storms are projected to be less severe than Ida, based on the National Oceanic and Atmospheric Administration (NOAA)'s forecast.

### Maintain BUY; target price raised to THB62

We raise our target price from THB57, previously based on 11.1x 2021E EV/EBITDA, to THB62, now based on 8x 2021E EV/EBITDA. Our lower forward EV/EBITDA valuation is due to 1) the projected margin weakness for PTA in Asia but the resilient upcycle for PET we expect to see in 2021-22; and 2) our EPS and EBITDA revisions.

## KEY STOCK DATA

| YE Dec (THB m)       | 2020    | 2021E   | 2022E   | 2023E   |
|----------------------|---------|---------|---------|---------|
| Revenue              | 331,513 | 362,740 | 361,292 | 367,431 |
| Net profit           | 2,122   | 24,731  | 28,041  | 34,366  |
| EPS (THB)            | 0.38    | 4.37    | 4.96    | 6.07    |
| vs Consensus (%)     | -       | 21.3    | 47.2    | 70.8    |
| EBITDA               | 31,473  | 61,577  | 64,899  | 78,026  |
| Core net profit      | 6,430   | 22,909  | 26,019  | 32,344  |
| Core EPS (THB)       | 1.14    | 4.05    | 4.60    | 5.72    |
| Chg. In EPS est. (%) | -       | 98.9    | 78.6    | 88.5    |
| EPS growth (%)       | (46.4)  | 256.3   | 13.6    | 24.3    |
| Core P/E (x)         | 39.1    | 11.0    | 9.7     | 7.8     |
| Dividend yield (%)   | 0.4     | 4.6     | 5.2     | 6.4     |
| EV/EBITDA (x)        | 13.8    | 6.6     | 5.9     | 4.6     |
| Price/book (x)       | 2.0     | 1.7     | 1.5     | 1.3     |
| Net debt/Equity (%)  | 128.9   | 74.9    | 53.3    | 31.6    |
| ROE (%)              | 5.0     | 16.5    | 16.4    | 18.2    |



| Share price performance        | 1 Month                  | 3 Month | 12 Month |
|--------------------------------|--------------------------|---------|----------|
| Absolute (%)                   | 8.5                      | 2.3     | 91.0     |
| Relative to country (%)        | 1.9                      | 1.9     | 51.4     |
| Mkt cap (USD m)                | 7,558                    |         |          |
| 3m avg. daily turnover (USD m) | 27.0                     |         |          |
| Free float (%)                 | 33                       |         |          |
| Major shareholder              | Indorama Resources (63%) |         |          |
| 12m high/low (THB)             | 50.00/20.20              |         |          |
| 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 in 2019-23.

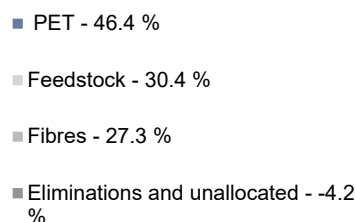
Unlike its last two growth cycles when IVL funded its capacity growth through debt and capital increases using warrants (IVL-W1 and IVL-W2), key growth strategies in IVL's third growth cycle could be driven by 1) M&A in the global packaging business, non-PET packaging in frontier markets and specialty 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.

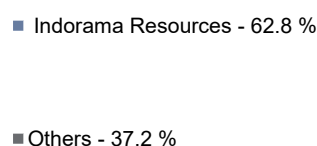
[www.indoramaventures.com](http://www.indoramaventures.com)

## Principal activities (revenue, 2020)



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                     |
|----------|---------------------------|
| Nov 2021 | 3Q21 results announcement |

## Key assumptions

|                            | 2021E<br>(USD/tonne) | 2022E<br>(USD/tonne) | 2023E<br>(USD/tonne) |
|----------------------------|----------------------|----------------------|----------------------|
| Utilisation rate (%)       | 87                   | 88                   | 89                   |
| PET margin                 | 249                  | 261                  | 357                  |
| PTA-PX margin              | 142                  | 147                  | 122                  |
| MEG-(0.58) ethylene margin | 250                  | 230                  | 230                  |
| IOD EBITDA                 | 340                  | 360                  | 440                  |

Source: FSSIA estimates

## Earnings sensitivity

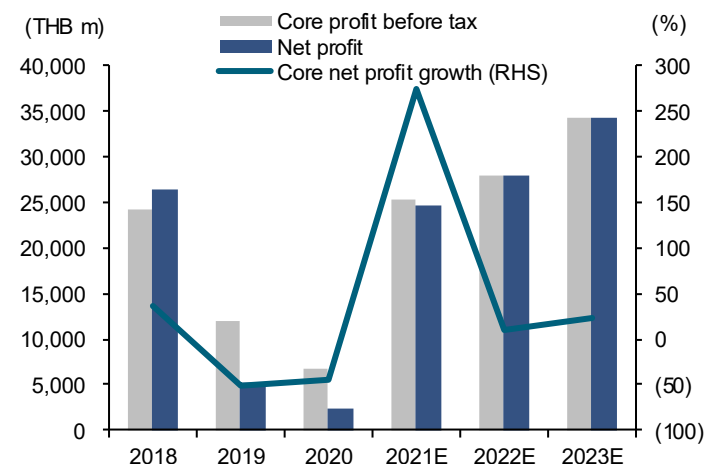
- For every 1% change in the THB/USD exchange rate, we estimate a 1.4% change in 2021 EPS, all else being equal.
- For every 1% increase in latex price, we estimate 2021 EPS would fall 0.7%, and vice versa, all else being equal.
- For every 1% increase in utilisation rate, we estimate 2021 EPS would rise 1.5%, and vice versa, all else being equal.
- For every 1% increase in ASP, we estimate 2021 EPS would rise by 0.8%, and vice versa, all else being equal.

Source: FSSIA estimates

## IOD and PET leading the growth charge

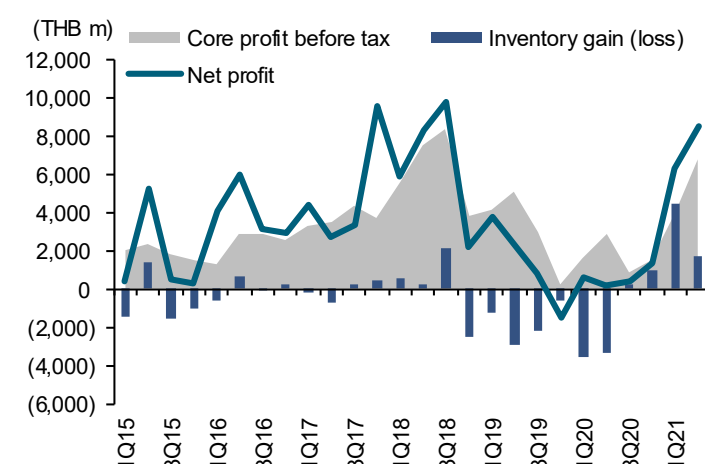
Unlike in 2020 when IVL suffered from a series of mishaps that largely led to its weak 1H20 and 2020 reported net profits, we think IVL's net profit growth will remain strong in 2H21, up from the already solid 1H21 net profit of THB14b. We project IVL's core net profit in 2H21 to be in the range of THB10b-11b, driven by the continually strong PET-PTA margins in Western markets (Europe and the Americas), improving PET-PTA margins in Asia, and strong product margins for the IOD group.

**Exhibit 1: Annual core profit before tax, inventory gains (losses), and reported net profit**



Source: IVL, FSSIA estimates

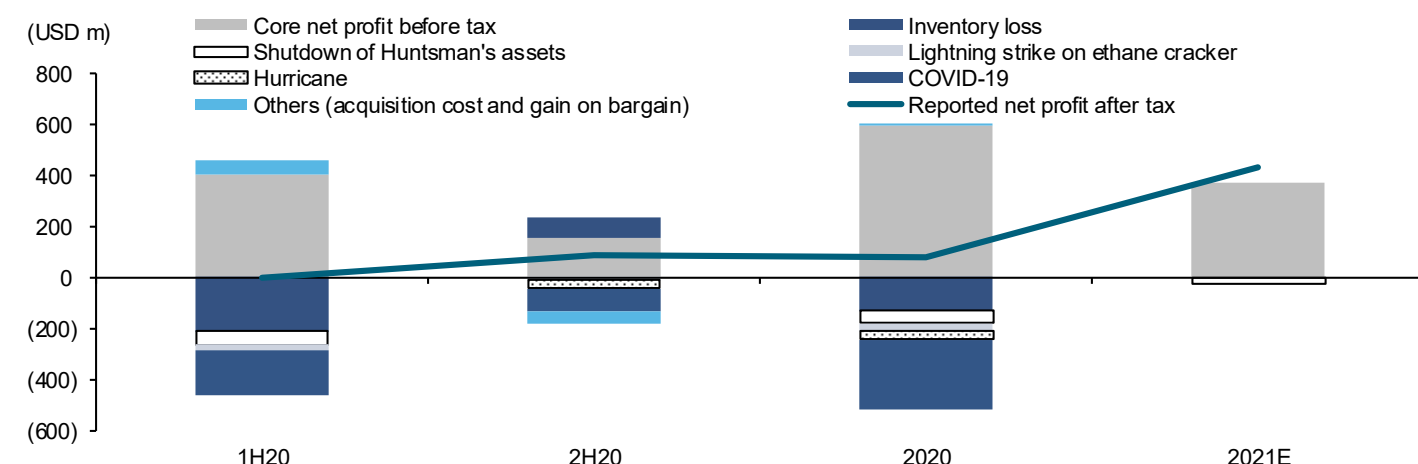
**Exhibit 2: Quarterly core profit before tax, inventory gains (losses), and reported net profit**



Source: IVL

**Mishaps unlikely in 2021.** We think IVL will see earnings growth from the start-up of its 0.44mtpa ethane cracker in Sep-21, following the already improving utilisation rate of the IOD product group in 1H21. In 2020, IVL witnessed an unprecedented series of mishaps that resulted in significant net losses amounting to USD479m, based on our estimate, comprising both internal factors (unplanned shutdowns of its MTBE/propylene oxide (PO) plants) and external factors (plant shutdowns and damages due to a hurricane, lightning strike damage, inventory losses, and lower demand due to the Covid-19 pandemic).

**Exhibit 3: Breakdown of IVL's core net profit against the multiple non-recurring items in 2020**

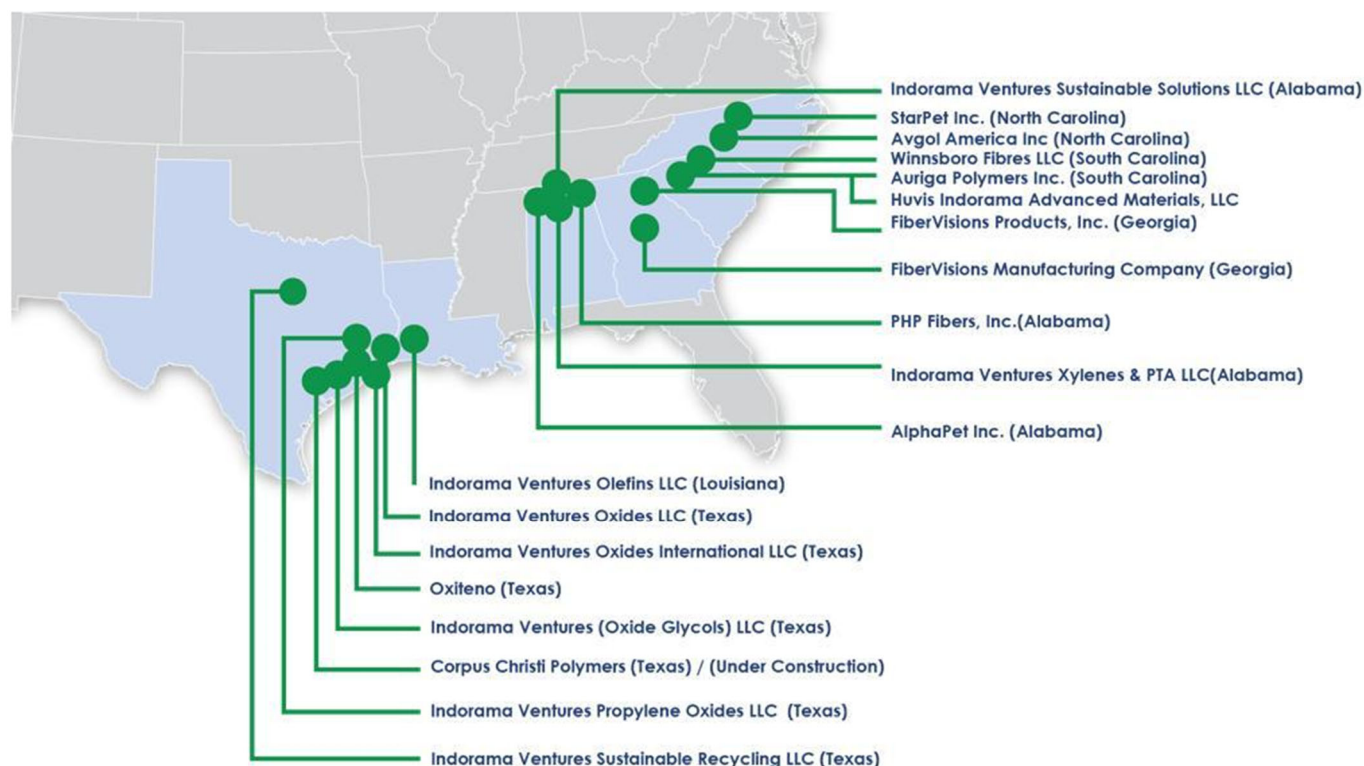


Sources: IVL; FSSIA estimates

Our analysis indicates that IVL's multiple net losses from non-recurring items in 2020 included 1) a USD131m inventory loss due to the sharp plunge in the oil price in 1H20; 2) USD50m due to the unplanned shutdowns of its MTBE and PO plants in 1H20; 3) USD30m due to the lightning strike on its 0.44mtpa ethane cracker in Mar-20; 4) USD35m due to the hurricane impact in 2H20; and 5) USD271m from the demand drop by 9% y-y, particularly for lifestyle and automotive fibres, due to the Covid-19 impact throughout 2020.

As a result, IVL's 2020 reported net profit was only THB2.1b and its reported EBITDA was only USD1.1b, significantly below IVL's EBITDA target of USD1.3b and our projected EBITDA of USD1.4b in 2020.

#### Exhibit 4: IVL's US plant locations



Source: IVL

#### Hurricane impact on IVL's IOD production is less likely in 2H21

In Oct-20, Hurricane Laura made landfall on the US Gulf Coast where IVL's key assets for its IOD group are located. These assets were mostly acquired from Huntsman in 2019 with a total capacity of 3.1mtpa. The hurricane caused operational disruptions to IVL's IOD plants, which amounted to a total loss of USD35m, based on management's guidance.

**Hurricane Ida is the first major hurricane to strike the US GOM in 2021.** On 29 August, Hurricane Ida, which started as a ferocious Category 4 hurricane with wind speeds up to 150 miles per hour, landed on the US Gulf of Mexico (GOM), affecting the energy supply and demand, especially for transportation fuels and electricity. However, Hurricane Ida, 12 hours after coming ashore, weakened into a Category 1 hurricane after forcing a precautionary shutdown of GOM oil and refinery production. As of 30 Aug-21, nearly 1.74m barrels per day (mbpd) of oil production was suspended in advance of the storm.

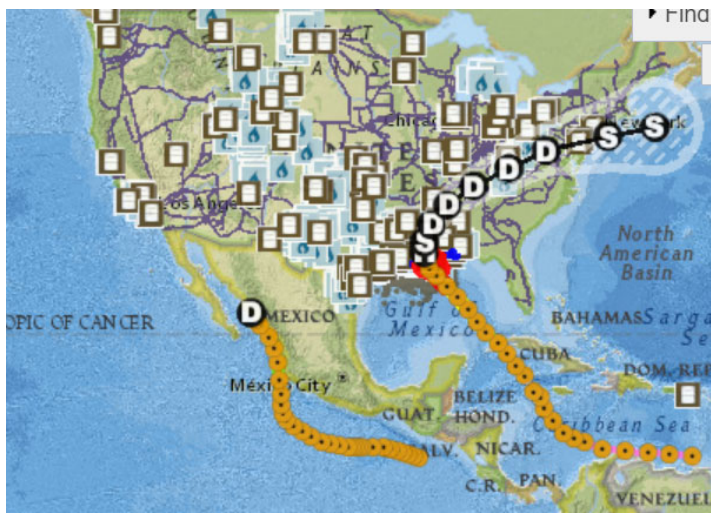
Unlike Hurricane Laura, which directly hit the southern Texas area where IVL's IOD production plants are located, Hurricane Ida landed in southern Louisiana where IVL has no production plants. Hence, IVL saw no impact from Ida, and only the short period of precautionary shutdowns before Ida hit the Gulf of Mexico had a very limited impact, based on management's guidance.



**2021 hurricane season is less likely to impact IVL's IOD production.** The US federal government expects an active Atlantic hurricane season in 2021, with 7-10 hurricanes forming, according to an updated forecast released on 25 Aug-21. According to NOAA, up to 15-21 named storms could develop in the 2021 hurricane season, including tropical storms, which have wind speeds of around 39 miles per hour (mph) or higher.

Storms become hurricanes when winds reach 74mph. Of the predicted hurricanes, 3-5 could be major like Ida, with wind speeds of 111mph or higher. YTD, 5-6 named storms, including Hurricane Elsa and Ida have formed and hit the GOM and Florida, according to NOAA.

**Exhibit 5: US energy infrastructure with active storms and other hazards**

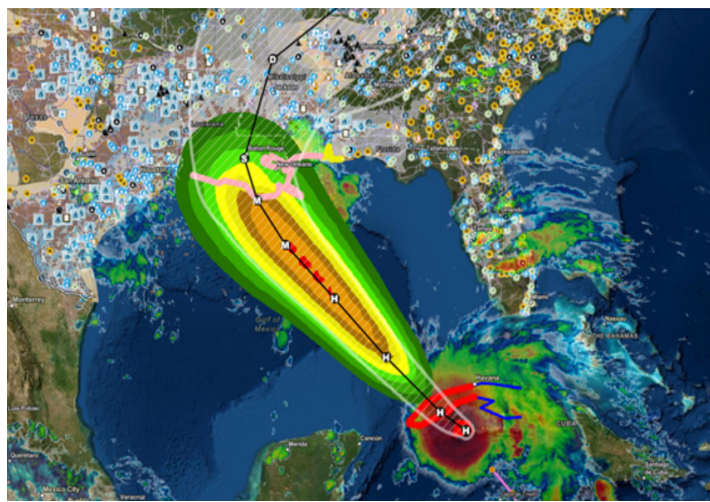


Source: [Energy Information Administration \(EIA\)](#)

We believe the coming hurricane season in the GOM that is expected to last until Dec-21, according to the US National Hurricane Center, could lead to supply disruptions for US upstream oil & gas and downstream refineries and petrochemical production in 3Q-4Q21. The US Gulf Coast area is a key region for US petroleum infrastructure, with over half of its 9.7mbpd refinery capacity.

We think IVL is less likely to suffer from major damage to its IOD production plants in 2H21, as most of the future storms are projected to be less severe than Hurricane Ida, based on NOAA's forecast.

**Exhibit 6: Mapping system and data series show energy infrastructure near Hurricane Ida**



Source: [EIA](#)

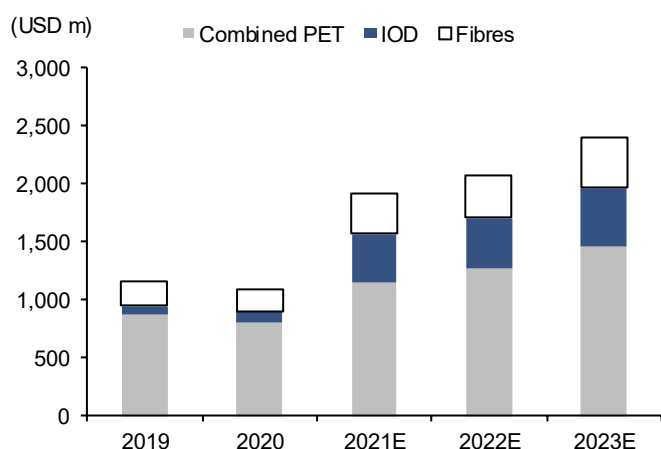
## Ethane cracker start-up to strengthen IVL's IOD EBITDA

We think the upcoming commencement of the commercial operation date (COD) of IVL's 0.44mtpa ethane cracker will further strengthen the EBITDA from its IOD product group.

We now expect IVL's net profit growth in 2021 to be strong at 256% y-y. We estimate that IVL will generate USD1.9b EBITDA in 2021, up from our previous forecast of USD1.47b and USD1.1b in 2020. This should be backed by a sharp EBITDA rebound from its IOD group that we project to rise from USD105m in 2020 to USD420m in 2021, from fibres (USD195m in 2020 to USD340m in 2021) and from combined PET (USD794m in 2020 to USD1.14b in 2021).

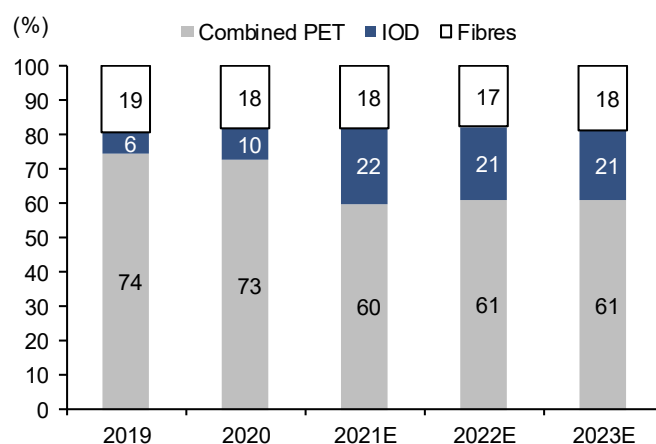
In 1H21, IVL generated total core EBITDA of USD844m and reported EBITDA of USD1b, driven by the stronger EBITDA at USD579m from combined PET, USD134m from IOD, and USD137m from fibres. We believe the EBITDA growth will continue for all three units in 2H21, thanks to the higher demand and tight supply in North America and Asia due to the impact of the Covid-19 pandemic.

**Exhibit 7: EBITDA breakdown by business unit**



Sources: IVL; FSSIA estimates

**Exhibit 8: EBITDA breakdown by business unit (%)**



Sources: IVL; FSSIA estimates

**Ethane cracker is now back on track.** In Apr-20, IVL's 0.44mtpa ethane cracker, which just started operations in 4Q19, was hit by a lightning strike, forcing a complete shutdown for 10 months until Feb-21, according to management. While management stated that most of the property damage of up to USD8m-10m and the earnings loss of USD10m-15m per quarter was mostly covered by insurance, we estimate that IVL still suffered up to a USD20m net loss in 2020.

As management indicated that IVL plans to start up its ethane cracker unit in Sep-21, a 7-month delay from February due to the impact of Covid-19 and technical problems, we expect the ethane cracker to drive up IVL's net profit starting in 4Q21.

#### Exhibit 9: IVL's US plants

|                        | Product               | Location                             | State          | Capacity (ktpa) |
|------------------------|-----------------------|--------------------------------------|----------------|-----------------|
| IVSRLLC R              | PET Recycling         | Corpus Christi                       | Texas          | 44              |
| IVSSF                  | PET Recycling         | Fontana                              | California     | 40              |
| Custom Polymers        | PET Recycling         | Athens                               | Alabama        | 33              |
| Auriga Polymer         | PET                   | Spartanburg                          | South Carolina | 458             |
| AlphaPet               | PET                   | Decatur                              | Alabama        | 450             |
| StarPet                | PET                   | Asheboro                             | North Carolina | 266             |
| IVXP                   | PTA                   | Decatur                              | Alabama        | 745             |
| IVXP                   | PIA                   |                                      |                | 220             |
| Avgol-NA FIBERS NA     | Fibre                 | Mocksville                           | North Carolina | 70              |
| DuraFiber WB FIBERS NA | Fibre                 | Winnsboro                            | South Carolina | 85              |
| PHP FIBERS NA          | Fibre                 | Scottsboro                           | Alabama        | 85              |
| Fibervision FIBERS NA  | Fibre                 | Covington                            | Georgia        | 221             |
| IVOL                   | Ethylene              | West lake                            | Louisiana      | 440             |
| IVOG                   | Crude EO              | Clear Lake                           | Texas          | 417             |
| IVOXUS                 | Crude EO              | Port Neches                          | Texas          | 683             |
| IVOXUS                 | PO, MTBE, Surfactants | Chocolate Bayou, Dayton, Port Neches | Texas          | NA              |
| IVOG                   | PEO, MEG              | Clear Lake                           | Texas          | NA.             |

Source: IVL

**IOD emerges as IVL's next growth driver.** After having successfully transitioned its production portfolio from commodity-driven to HVA-driven production during its two growth cycles (2000-18), we estimate that IVL is now in the next growth phase to increase its EBITDA by 2.3x during 2019-23 to USD2.7b in 2023. It should be backed by the EBITDA from its IOD group that we project at USD0.6b-1.0b, and the remaining EBITDA growth should come from IVL's capacity expansion into new markets and the capacity growth of its recycling PET (rPET) globally, which we project to reach 750ktpa by 2025. On 16 Aug-21, IVL announced the 100% acquisition of the IOD Oxiteno asset from Ultrapar for USD1.3b. The acquisition of Oxiteno follows the acquisition of the USD2b IOD assets from Huntsman in 1Q20, indicating that IVL is aiming to grow its IOD capacity in 2021-23.

#### Exhibit 10: IVL's and Oxiteno's IOD product portfolios

| IVL's capacity post acquisition of Huntsman's assets | Huntsman<br>(ktpa) | Ethane cracker<br>(ktpa) | Texas plant<br>(ktpa) | Oxiteno<br>(ktpa) | Total<br>(ktpa) |
|--|--------------------|--------------------------|-----------------------|-------------------|-----------------|
| Ethylene   | 218                | 420                      |                       |                   | 638             |
| Propylene  | 64                 | 20                       |                       |                   | 84              |
| EG   | 532                |                          | 300                   | /                 | 832             |
| EO   | 635                |                          | 250                   | 440               | 1,325           |
| Surfactants  | 360                |                          |                       | /                 | 360             |
| PO   | 238                |                          |                       | /                 | 238             |
| MTBE   | 731                |                          |                       | /                 | 731             |
| Ethanolamine (EOA, MEA, DEA, TEA)                    | 181                |                          |                       |                   | 181             |
| Natural fatty alcohol                                |                    |                          |                       | /                 |                 |
| Others   | 188                |                          |                       | /                 | 188             |
| <b>Total</b>   | <b>3,147</b>       | <b>440</b>               | <b>550</b>            | <b>440</b>        | <b>4,577</b>    |

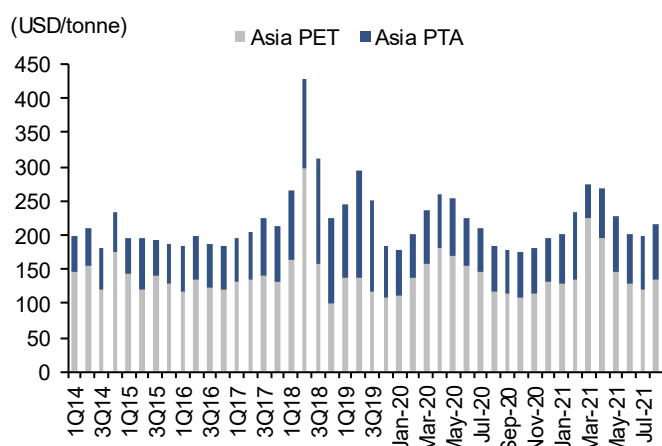
Source: IVL

## Rising margin to continue for integrated PET-PTA

The integrated PET-PTA margin (IPPM) in Asia has improved to USD220/t in Aug-21, up from USD200/t in Jul-21, due to the stronger demand that helped offset the impact of the new supply in China. While IVL has only 10-15% EBITDA generated from the combined capacity of PET and PTA in Asia, we believe the impact will be positive for IVL's share price. The IPPM margin in Western markets is linked to Asia, as Europe and North America import PET and PTA from Asia.

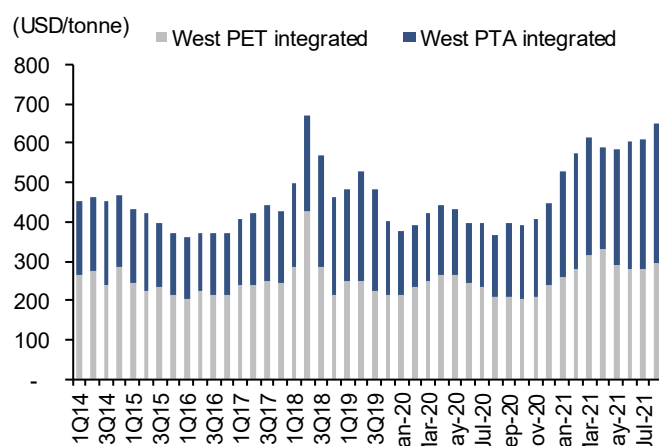
The IPPM in Western markets has continued to rise to over USD630/t in Aug-21, the highest level since it peaked at 680/t in 2Q18, thanks to the high freight cost and the container shortage caused by the global lockdowns to curb the Covid-19 pandemic. The higher demand for PET and fibres, particularly for automobile and lifestyle fibre products, have further boosted the IPPM margin globally. We think the IPPM margin uptrend should continue in 2H21 into 2022, driven by higher demand on the global reopening and the gradual return to normalcy of economic activities due to an improving situation via 'herd immunity' for the Covid-19 pandemic.

**Exhibit 11: Asia industry PET and PTA spread**



Source: IVL

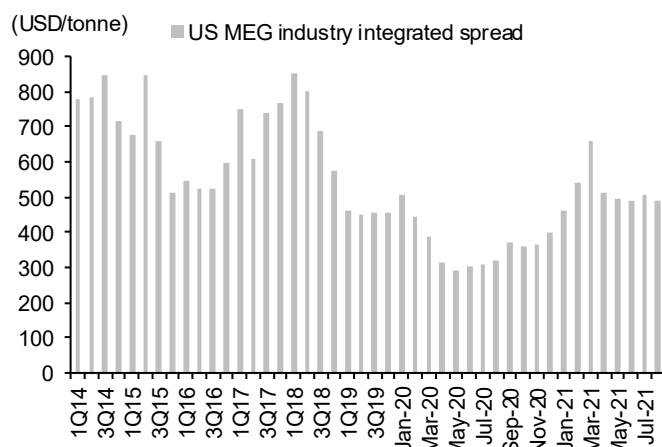
**Exhibit 12: West industry PET and PTA spread**



Source: IVL

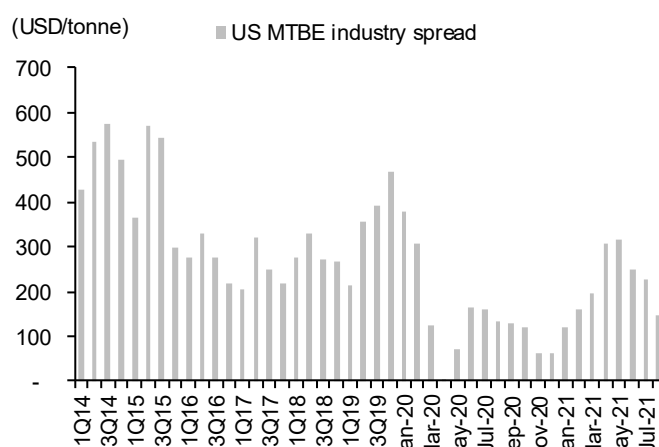
The MEG and MTBE margins have remained strong YTD, recovering from their bottoms in 2020 due to the demand recovery in North America and Europe. However, the MTBE margin has dropped below USD200/t YTD due to the export constraints from the US to South American markets caused by the transportation disruptions. Despite this, we still expect a strong overall IOD EBITDA in 2H21, backed by the solid margins of other IOD products.

**Exhibit 13: US MEG industry integrated spread**



Source: IVL

**Exhibit 14: US MTBE industry spread**

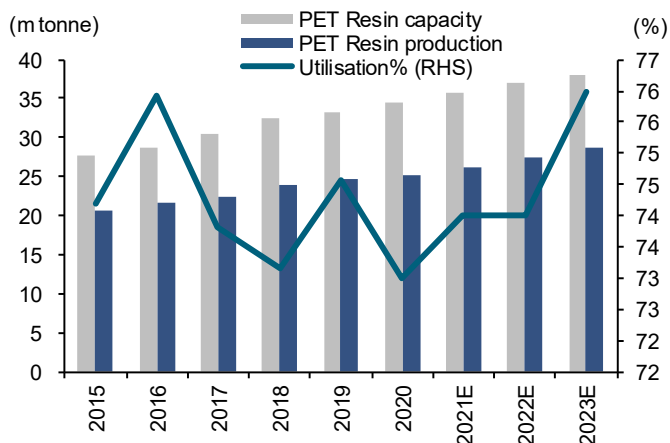


Source: IVL



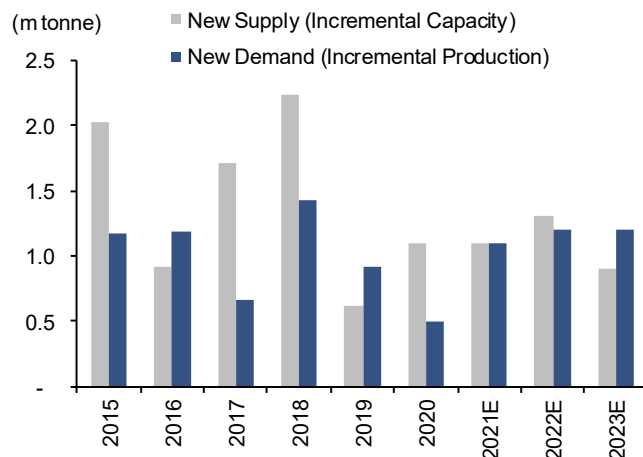
**Higher PET-PTA margin to offset a weak PTA-PX margin in 2H21-2022.** While the PTA-PX margin has continued to weaken due to the new supply from China, leading to a lower projected utilisation rate for global PTA producers, including IVL, we think the sustained, strong margin of PET-PTA globally and our projected higher utilisation rate for global PET producers should more than offset the impact of the weak PTA-PX margin for IVL.

**Exhibit 15: PET capacity, production and utilisation**



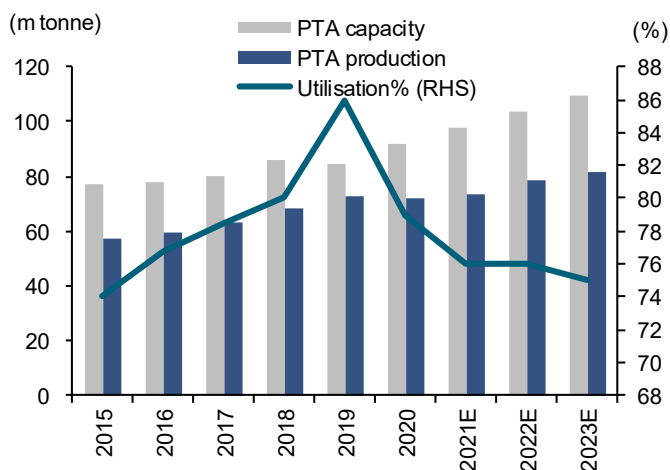
Source: IVL

**Exhibit 16: PET new supply and new demand**



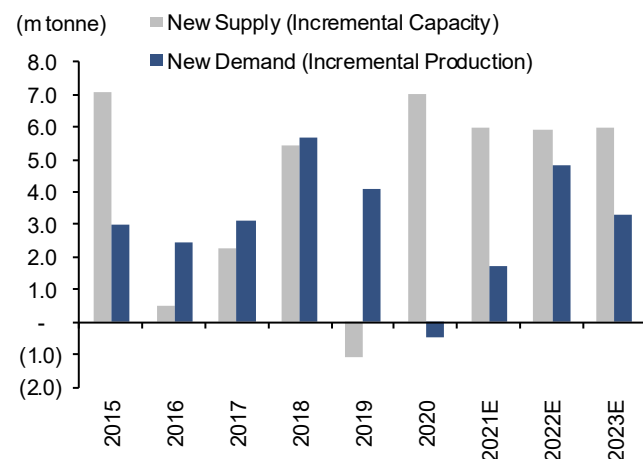
Source: IVL

**Exhibit 17: PTA capacity, production and utilisation**



Source: IVL

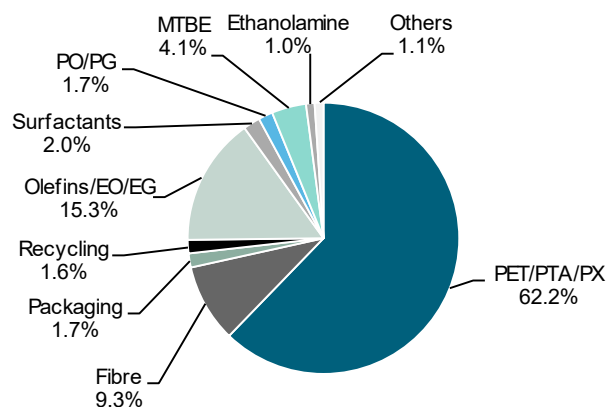
**Exhibit 18: PTA new supply and new demand**



Source: IVL

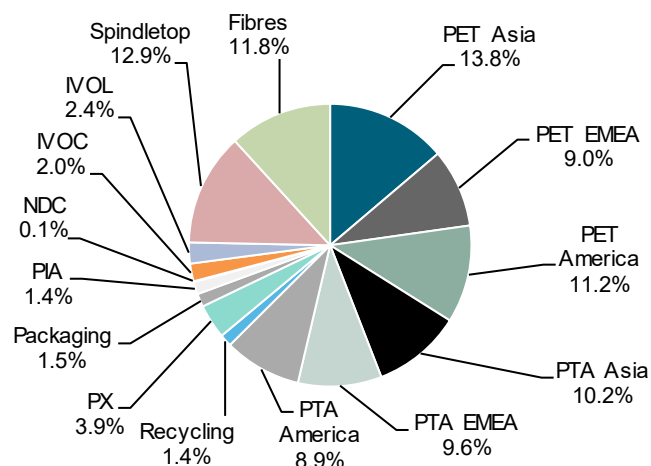
In particular, IVL's global PET and PTA capacity, which accounts for two-thirds of IVL's current total capacity of 18mtpa, should continue to generate USD0.8b-1.4b EBITDA annually to IVL in 2021-23, despite the weak PTA-PX margin, thanks to IVL's large capacity of PET and PTA in Western markets where the margin premium over the Asian margin has risen from the historical USD100/t average to USD300-400/t since Jan-21 due to the production and shipping industry disruptions caused by Covid-19.

Exhibit 19: IVL's capacity breakdown by key product groups



Source: IVL

Exhibit 20: IVL's capacity breakdown by key product groups



Source: IVL

**Margin upside for PET in 2022.** We believe IVL will have a margin upside for its combined PET, its largest product group, in 2022, given that it is now negotiating with global customers for new contract prices for PET in Western markets. This is possible due to the currently tight supply and high freight costs for intercontinental shipping, which we think are unlikely to subside anytime soon until at least mid-2022, due to the container shortage and the chronic Covid-19 pandemic.

Within IVL's product portfolio, we estimate that around two-thirds of its EBITDA comes from fixed margin products: 1) the IOD group: pure EO (PEO), PO, ethanolamine, and surfactants (18% of 2021E contribution margin); 2) the fibre group: HVA products in polyester, nylon, polypropylene (PP), polyethylene (PE) and rayon; and 3) combined PET group: PET and PTA with contract pricing (50% of sales volume) and specialty chemical products (PIA and NDC). We estimate that IVL's fixed products will generate EBITDA of USD0.8b-1.0b annually in 2021-23 thanks to their fixed margin natures.

Exhibit 21: IVL's product portfolio breakdown by fixed and floating margins

| Margin structure                      | Product group | Product  | Contribution margin (%) |
|---------------------------------------|---------------|--|-------------------------|
| Fixed margin products                 | IOD           | PEO/PO/Ethanolamine/surfactants                            | 18                      |
| Fixed margin products                 | Fibres        | HVA for polyester, nylon, PP/PE, and rayon                 | 15                      |
| Fixed margin products                 | Combined PET  | Contract cost-plus PET and PTA in North America and Europe | 30                      |
| <b>Total fixed margin products</b>    |               |  | <b>63</b>               |
| Gas-based products                    | IOD           | MTBE/MEG   | 12                      |
| Commodity products                    | Fibres        | Lifestyle attire and clothes                               | 5                       |
| Spot margin products                  | Combined PET  | Spot price PET and PTA in Asia                             | 20                      |
| <b>Total volatile margin products</b> |               |  | <b>37</b>               |

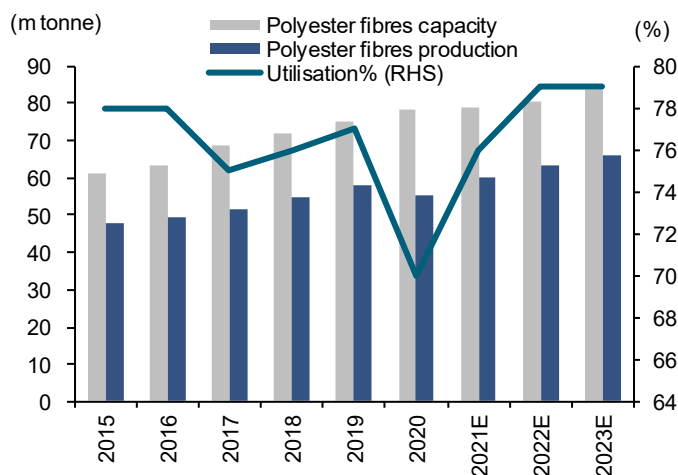
Sources: IVL; FSSIA estimates

**Margin upside for fibres in 2H21-23.** Within IVL's fibre group, we estimate that up to 80% of its 3mtpa fibre capacity consists of HVA products with end applications in automobiles (100% HVA), hygiene personal care products (100% HVA) and lifestyle polyester fibres (60% HVA). The remaining 20% of IVL's fibre capacity is in lifestyle commodity products used to produce clothing, which was hit by the Covid-19 lockdowns in 2020.

The demand-supply balance for fibres is much more promising than that of PET and PTA, considering that the new demand growth is expected to outpace the supply growth in 2021-23, according to management. Its fibre capacity accounts for 9.3% of IVL's total 2021E capacity, and we believe that improving utilisation rates for global fibre producers, including IVL, in 2021-23, should continue to drive up IVL's EBITDA from the fibre group.

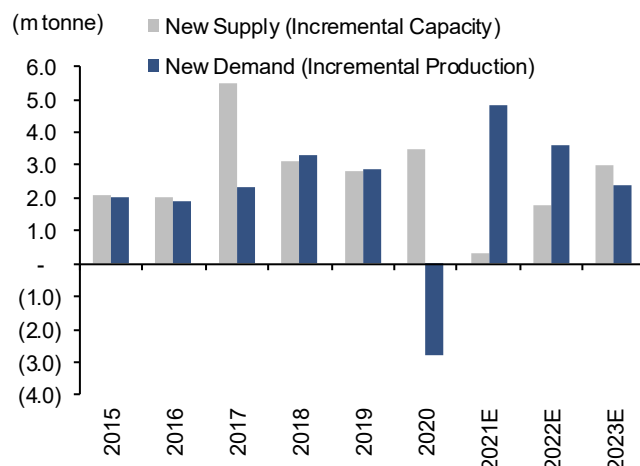
For IVL's commodity fibres, we think the margin will improve y-y as IVL's data indicates that the new supply for fibres and polyester should be lower than the new demand in 2021-22, potentially driving up the global utilisation rates from 67% in 2020 to 76-78% in 2021-23, up from IVL's previous forecast of 72% for the same period in Jun-21. We think the key driver will be stronger-than-expected fibre demand growth that IVL expects at around 5mtpa in 2021 and 2.5-3.5mtpa in 2022-23, up from its previous forecast of 4.2mt in 2021 and 2.0-2.5mt in Jun-21.

**Exhibit 22: Polyester fibre capacity, production and utilisation**



Source: IVL

**Exhibit 23: Polyester fibre new supply and new demand**



Source: IVL

## EPS and target price revisions

We raise our EPS forecasts for 2021-23 by 79-99% to reflect 1) the incorporation of the acquired 1mt IOD Oxiteno assets in 2022 onward; 2) higher expected margins of PET-PTA and PTA-PX due to the high freight costs and tight supply; and 3) higher projected EBITDA from the IOD unit due to higher IOD product margins.

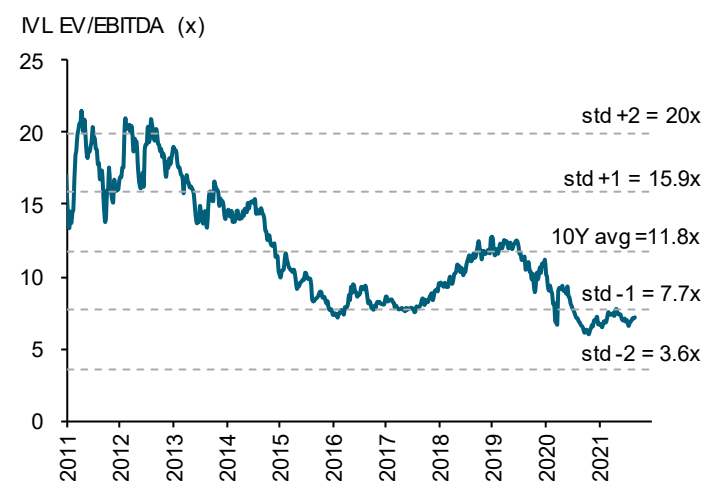
### Exhibit 24: Key changes in EPS forecasts and assumptions

|                                    | Current |         |         | Previous |         |         | Change |       |       |
|------------------------------------|---------|---------|---------|----------|---------|---------|--------|-------|-------|
|                                    | 2021E   | 2022E   | 2023E   | 2021E    | 2022E   | 2023E   | 2021E  | 2022E | 2023E |
|                                    | (THB m) | (THB m) | (THB m) | (THB m)  | (THB m) | (THB m) | (%)    | (%)   | (%)   |
| Revenue                            | 362,740 | 361,292 | 367,431 | 348,866  | 347,417 | 355,020 | 4.0    | 4.0   | 3.5   |
| Gross profit                       | 83,342  | 86,577  | 100,072 | 65,090   | 68,325  | 76,008  | 28.0   | 26.7  | 31.7  |
| Operating profit                   | 61,577  | 64,899  | 78,026  | 44,158   | 47,480  | 54,707  | 39.4   | 36.7  | 42.6  |
| Recurring net profit               | 22,909  | 26,019  | 32,344  | 11,518   | 14,571  | 17,158  | 98.9   | 78.6  | 88.5  |
| Core EPS (THB/share)               | 4.0     | 4.6     | 5.7     | 2.0      | 2.6     | 3.0     | 98.9   | 78.6  | 88.5  |
| <b>Key assumptions (USD/tonne)</b> |         |         |         |          |         |         |        |       |       |
| Utilisation rate (%)               | 87      | 88      | 89      | 87       | 88      | 89      | -      | -     | -     |
| PET margin                         | 249     | 261     | 357     | 149      | 161     | 211     | 67.0   | 62.0  | 69.2  |
| PTA-PX margin                      | 142     | 147     | 122     | 101      | 106     | 116     | 41.2   | 39.3  | 5.6   |
| MEG-(0.58) ethylene margin         | 250     | 230     | 230     | 200      | 210     | 220     | 25.0   | 9.5   | 4.5   |
| IOD EBITDA                         | 340     | 360     | 440     | 220      | 240     | 240     | 54.5   | 50.0  | 83.3  |

Sources: IVL; FSSIA estimates

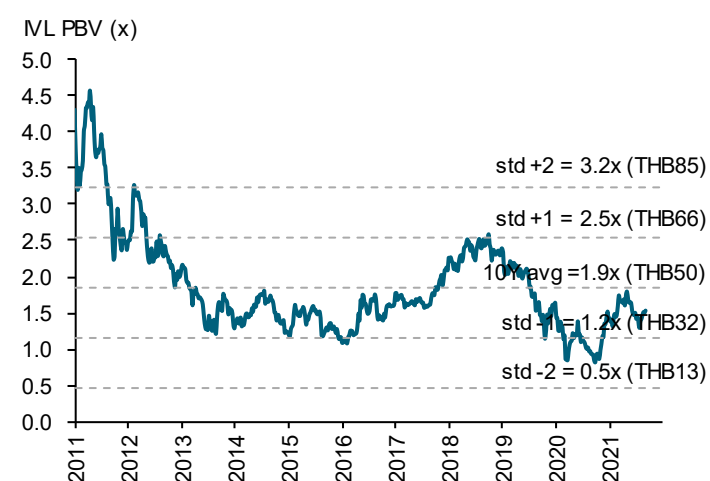
We raise our target price from THB57, previously based on 11.1x 2021E EV/EBITDA, to THB62, now based on 8x 2021E EV/EBITDA. Our lower forward EV/EBITDA valuation is due to 1) the projected margin weakness for PTA in Asia but the resilient upcycle for PET we expect to see in 2021-22; and 2) our EPS and EBITDA revisions.

### Exhibit 25: One-year prospective EV/EBITDA band



Sources: Bloomberg; FSSIA estimates

### Exhibit 26: One-year prospective P/BV band



Sources: Bloomberg; FSSIA estimates

## Financial Statements

### Indorama Ventures

| Profit and Loss (THB m) Year Ending Dec           | 2019          | 2020          | 2021E          | 2022E          | 2023E          |
|---|---------------|---------------|----------------|----------------|----------------|
| Revenue   | 352,692       | 331,513       | 362,740        | 361,292        | 367,431        |
| Cost of goods sold                                | (285,554)     | (267,316)     | (279,399)      | (274,715)      | (267,360)      |
| <b>Gross profit</b>                               | <b>67,138</b> | <b>64,197</b> | <b>83,342</b>  | <b>86,577</b>  | <b>100,072</b> |
| Other operating income                            | -             | -             | -              | -              | -              |
| Operating costs                                   | (32,129)      | (32,724)      | (21,764)       | (21,677)       | (22,046)       |
| <b>Operating EBITDA</b>                           | <b>35,010</b> | <b>31,473</b> | <b>61,577</b>  | <b>64,899</b>  | <b>78,026</b>  |
| Depreciation                                      | (17,040)      | (20,487)      | (18,241)       | (18,870)       | (19,498)       |
| Goodwill amortisation                             | 0             | 0             | 0              | 0              | 0              |
| <b>Operating EBIT</b>                             | <b>17,969</b> | <b>10,986</b> | <b>43,336</b>  | <b>46,030</b>  | <b>58,528</b>  |
| Net financing costs                               | (5,728)       | (7,362)       | (6,751)        | (4,543)        | (7,278)        |
| Associates  | 5             | 143           | 633            | 633            | 633            |
| Recurring non-operating income                    | 407           | 1,949         | 633            | 633            | 633            |
| Non-recurring items                               | (6,750)       | (4,308)       | 1,822          | 2,022          | 2,022          |
| <b>Profit before tax</b>                          | <b>5,898</b>  | <b>1,265</b>  | <b>39,040</b>  | <b>44,142</b>  | <b>53,905</b>  |
| Tax   | (1,534)       | 1,243         | (13,664)       | (15,450)       | (18,867)       |
| <b>Profit after tax</b>                           | <b>4,364</b>  | <b>2,508</b>  | <b>25,376</b>  | <b>28,692</b>  | <b>35,038</b>  |
| Minority interests                                | 888           | (386)         | (645)          | (651)          | (672)          |
| Preferred dividends                               | 0             | 0             | 0              | 0              | 0              |
| Other items                                       | -             | -             | -              | -              | -              |
| <b>Reported net profit</b>                        | <b>5,252</b>  | <b>2,122</b>  | <b>24,731</b>  | <b>28,041</b>  | <b>34,366</b>  |
| <b>Non-recurring items &amp; goodwill (net)</b>   | <b>6,750</b>  | <b>4,308</b>  | <b>(1,822)</b> | <b>(2,022)</b> | <b>(2,022)</b> |
| <b>Recurring net profit</b>                       | <b>12,002</b> | <b>6,430</b>  | <b>22,909</b>  | <b>26,019</b>  | <b>32,344</b>  |
| <b>Per share (THB)</b>                            |               |               |                |                |                |
| Recurring EPS *                                   | 2.12          | 1.14          | 4.05           | 4.60           | 5.72           |
| Reported EPS                                      | 0.93          | 0.38          | 4.37           | 4.96           | 6.07           |
| DPS   | 0.35          | 0.20          | 2.05           | 2.32           | 2.85           |
| Diluted shares (used to calculate per share data) | 5,656         | 5,657         | 5,657          | 5,657          | 5,657          |
| <b>Growth</b>                                     |               |               |                |                |                |
| Revenue (%)                                       | 1.6           | (6.0)         | 9.4            | (0.4)          | 1.7            |
| Operating EBITDA (%)                              | (15.7)        | (10.1)        | 95.6           | 5.4            | 20.2           |
| Operating EBIT (%)                                | (38.8)        | (38.9)        | 294.5          | 6.2            | 27.2           |
| Recurring EPS (%)                                 | (52.4)        | (46.4)        | 256.3          | 13.6           | 24.3           |
| Reported EPS (%)                                  | (80.2)        | (59.6)        | 1,065.2        | 13.4           | 22.6           |
| <b>Operating performance</b>                      |               |               |                |                |                |
| Gross margin inc. depreciation (%)                | 14.2          | 13.2          | 17.9           | 18.7           | 21.9           |
| Gross margin of key business (%)                  | 12.3          | 13.2          | 17.9           | 18.7           | 21.9           |
| Operating EBITDA margin (%)                       | 9.9           | 9.5           | 17.0           | 18.0           | 21.2           |
| Operating EBIT margin (%)                         | 5.1           | 3.3           | 11.9           | 12.7           | 15.9           |
| Net margin (%)                                    | 3.4           | 1.9           | 6.3            | 7.2            | 8.8            |
| Effective tax rate (%)                            | 26.0          | -79.8         | 35.0           | 35.0           | 35.0           |
| Dividend payout on recurring profit (%)           | 16.5          | 17.6          | 50.6           | 50.5           | 49.8           |
| Interest cover (X)                                | 3.2           | 1.8           | 6.5            | 10.3           | 8.1            |
| Inventory days                                    | 84.5          | 79.3          | 73.8           | 78.3           | 80.9           |
| Debtor days                                       | 37.2          | 37.3          | 35.2           | 36.9           | 36.5           |
| Creditor days                                     | 76.0          | 86.5          | 89.4           | 94.8           | 98.1           |
| Operating ROIC (%)                                | 8.0           | 4.6           | 1.1            | 1.2            | 1.6            |
| ROIC (%)  | 6.8           | 4.4           | 0.9            | 1.1            | 1.4            |
| ROE (%)   | 8.7           | 5.0           | 16.5           | 16.4           | 18.2           |
| ROA (%)   | 4.5           | 3.5           | 5.2            | 5.5            | 6.5            |

\* Pre-exceptional, pre-goodwill and fully diluted

| Revenue by Division (THB m)  | 2019     | 2020     | 2021E    | 2022E    | 2023E    |
|------------------------------|----------|----------|----------|----------|----------|
| PET                          | 196,047  | 153,889  | 153,332  | 153,804  | 155,117  |
| Feedstock                    | 132,911  | 100,905  | 117,776  | 117,110  | 121,937  |
| Fibres                       | 107,059  | 90,601   | 110,868  | 109,613  | 109,613  |
| Eliminations and unallocated | (83,325) | (13,882) | (19,236) | (19,236) | (19,236) |

Sources: Indorama Ventures; FSSIA estimates



## Financial Statements

### Indorama Ventures

| Cash Flow (THB m) Year Ending Dec | 2019            | 2020            | 2021E           | 2022E           | 2023E           |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Recurring net profit              | 12,002          | 6,430           | 22,909          | 26,019          | 32,344          |
| Depreciation                      | 17,040          | 20,487          | 18,241          | 18,870          | 19,498          |
| Associates & minorities           | -               | -               | -               | -               | -               |
| Other non-cash items              | (978)           | (1,002)         | (1,001)         | (1,001)         | (1,001)         |
| Change in working capital         | 19,446          | 19,603          | 30,180          | 20,903          | 21,722          |
| <b>Cash flow from operations</b>  | <b>47,510</b>   | <b>45,518</b>   | <b>70,329</b>   | <b>64,790</b>   | <b>72,564</b>   |
| Capex - maintenance               | -               | -               | -               | -               | -               |
| Capex - new investment            | (16,233)        | (16,231)        | (13,200)        | (13,200)        | (13,200)        |
| Net acquisitions & disposals      | 0               | 0               | 0               | 0               | 0               |
| Other investments (net)           | (9,065)         | (9,059)         | (9,059)         | (9,059)         | (9,059)         |
| <b>Cash flow from investing</b>   | <b>(25,298)</b> | <b>(25,290)</b> | <b>(22,259)</b> | <b>(22,259)</b> | <b>(22,259)</b> |
| Dividends paid                    | (6,929)         | (6,930)         | (1,131)         | (11,590)        | (13,141)        |
| Equity finance                    | 0               | 0               | 0               | 0               | 0               |
| Debt finance                      | 8,881           | 51,695          | (9,654)         | (9,654)         | (9,654)         |
| Other financing cash flows        | (19,297)        | (56,491)        | 5,896           | 6,102           | 6,122           |
| <b>Cash flow from financing</b>   | <b>(17,344)</b> | <b>(11,726)</b> | <b>(4,889)</b>  | <b>(15,142)</b> | <b>(16,673)</b> |
| Non-recurring cash flows          | -               | -               | -               | -               | -               |
| Other adjustments                 | 0               | 0               | 0               | 0               | 0               |
| <b>Net other adjustments</b>      | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        | <b>0</b>        |
| <b>Movement in cash</b>           | <b>4,868</b>    | <b>8,502</b>    | <b>43,180</b>   | <b>27,389</b>   | <b>33,631</b>   |
| Free cash flow to firm (FCFF)     | 27,827.25       | 27,901.55       | 55,452.34       | 49,914.18       | 57,687.50       |
| Free cash flow to equity (FCFE)   | 11,796.62       | 15,431.42       | 44,310.96       | 38,978.80       | 46,772.12       |

#### Per share (THB)

|                               |      |      |      |      |       |
|-------------------------------|------|------|------|------|-------|
| FCFF per share                | 4.96 | 4.97 | 9.88 | 8.89 | 10.27 |
| FCFE per share                | 2.10 | 2.75 | 7.89 | 6.94 | 8.33  |
| Recurring cash flow per share | 4.96 | 4.58 | 7.10 | 7.76 | 8.99  |

| Balance Sheet (THB m) Year Ending Dec             | 2019           | 2020           | 2021E          | 2022E          | 2023E          |
|---|----------------|----------------|----------------|----------------|----------------|
| Tangible fixed assets (gross)                     | 304,108        | 376,464        | 389,664        | 402,864        | 416,064        |
| Less: Accumulated depreciation                    | (91,686)       | (112,173)      | (130,414)      | (149,284)      | (168,782)      |
| <b>Tangible fixed assets (net)</b>                | <b>212,423</b> | <b>264,291</b> | <b>259,250</b> | <b>253,580</b> | <b>247,282</b> |
| <b>Intangible fixed assets (net)</b>              | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       | <b>0</b>       |
| Long-term financial assets                        | -              | -              | -              | -              | -              |
| Invest. in associates & subsidiaries              | 0              | 0              | 0              | 0              | 0              |
| Cash & equivalents                                | 10,447         | 18,949         | 62,128         | 89,517         | 123,148        |
| A/C receivable                                    | 34,305         | 33,422         | 36,570         | 36,424         | 37,043         |
| Inventories                                       | 62,165         | 53,938         | 59,019         | 58,784         | 59,783         |
| Other current assets                              | 11,840         | 13,526         | 13,526         | 13,526         | 13,526         |
| <b>Current assets</b>                             | <b>118,757</b> | <b>119,835</b> | <b>171,243</b> | <b>198,250</b> | <b>233,500</b> |
| Other assets                                      | 49,388         | 69,046         | 46,416         | 46,416         | 46,416         |
| <b>Total assets</b>                               | <b>380,568</b> | <b>453,172</b> | <b>476,909</b> | <b>498,246</b> | <b>527,197</b> |
| Common equity                                     | 129,712        | 126,655        | 150,254        | 166,706        | 187,931        |
| Minorities etc.                                   | 8,455          | 8,953          | 25,473         | 28,882         | 35,397         |
| <b>Total shareholders' equity</b>                 | <b>138,167</b> | <b>135,608</b> | <b>175,727</b> | <b>195,588</b> | <b>223,328</b> |
| Long term debt                                    | 105,611        | 164,073        | 164,073        | 164,073        | 164,073        |
| Other long-term liabilities                       | 11,828         | 39,552         | 10,135         | 11,897         | 11,897         |
| <b>Long-term liabilities</b>                      | <b>117,439</b> | <b>203,625</b> | <b>174,208</b> | <b>175,971</b> | <b>175,971</b> |
| A/C payable                                       | 61,281         | 65,366         | 71,523         | 71,238         | 72,448         |
| Short term debt                                   | 36,413         | 29,645         | 29,645         | 29,645         | 29,645         |
| Other current liabilities                         | 27,268         | 18,927         | 25,805         | 25,805         | 25,805         |
| <b>Current liabilities</b>                        | <b>124,962</b> | <b>113,938</b> | <b>126,974</b> | <b>126,688</b> | <b>127,899</b> |
| <b>Total liabilities and shareholders' equity</b> | <b>380,568</b> | <b>453,172</b> | <b>476,909</b> | <b>498,246</b> | <b>527,197</b> |
| Net working capital                               | 19,762         | 16,593         | 11,787         | 11,691         | 12,098         |
| Invested capital                                  | 281,573        | 349,930        | 317,453        | 311,687        | 305,796        |

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

#### Per share (THB)

|                               |       |       |       |       |       |
|-------------------------------|-------|-------|-------|-------|-------|
| Book value per share          | 22.93 | 22.39 | 26.56 | 29.47 | 33.22 |
| Tangible book value per share | 22.93 | 22.39 | 26.56 | 29.47 | 33.22 |

#### Financial strength

|                           |      |       |      |      |      |
|---------------------------|------|-------|------|------|------|
| Net debt/equity (%)       | 95.2 | 128.9 | 74.9 | 53.3 | 31.6 |
| Net debt/total assets (%) | 34.6 | 38.6  | 27.6 | 20.9 | 13.4 |
| Current ratio (x)         | 1.0  | 1.1   | 1.3  | 1.6  | 1.8  |
| CF interest cover (x)     | 5.9  | 5.3   | 9.5  | 12.5 | 9.2  |

| Valuation                                 | 2019        | 2020        | 2021E       | 2022E       | 2023E       |
|---|-------------|-------------|-------------|-------------|-------------|
| <b>Recurring P/E (x) *</b>                | <b>21.0</b> | <b>39.1</b> | <b>11.0</b> | <b>9.7</b>  | <b>7.8</b>  |
| <b>Recurring P/E @ target price (x) *</b> | <b>29.2</b> | <b>54.5</b> | <b>15.3</b> | <b>13.5</b> | <b>10.8</b> |
| Reported P/E (x)                          | 47.9        | 118.6       | 10.2        | 9.0         | 7.3         |
| Dividend yield (%)                        | 0.8         | 0.4         | 4.6         | 5.2         | 6.4         |
| Price/book (x)                            | 1.9         | 2.0         | 1.7         | 1.5         | 1.3         |
| Price/tangible book (x)                   | 1.9         | 2.0         | 1.7         | 1.5         | 1.3         |
| EV/EBITDA (x) **                          | 11.2        | 13.8        | 6.6         | 5.9         | 4.6         |
| EV/EBITDA @ target price (x) **           | 14.0        | 17.0        | 8.2         | 7.5         | 5.9         |
| EV/invested capital (x)                   | 1.4         | 1.2         | 1.3         | 1.2         | 1.2         |

\* 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 2020

| EXCELLENT LEVEL |        |        |       |       |       |        |        |        |        |        |
|-----------------|--------|--------|-------|-------|-------|--------|--------|--------|--------|--------|
| AAV             | ADVANC | AF     | AIRA  | AKP   | AKR   | ALT    | AMA    | AMATA  | AMATAV | ANAN   |
| AOT             | AP     | ARIP   | ARROW | ASP   | BAFS  | BANPU  | BAY    | BCP    | BCPG   | BDMS   |
| BEC             | BEM    | BGRIM  | BIZ   | BKI   | BLA   | BOL    | BPP    | BRR    | BTS    | BWG    |
| CENTEL          | CFRESH | CHEWA  | CHO   | CIMBT | CK    | CKP    | CM     | CNT    | COL    | COMAN  |
| COTTO           | CPALL  | CPF    | CPI   | CPN   | CSS   | DELTA  | DEMCO  | DRT    | DTAC   | DTC    |
| DV8             | EA     | EASTW  | ECF   | ECL   | EGCO  | EPG    | ETE    | FNS    | FPI    | FPT    |
| FSMART          | GBX    | GC     | GCAP  | GEL   | GFPT  | GGC    | GPSC   | GRAMMY | GUNKUL | HANA   |
| HARN            | HMPRO  | ICC    | ICHI  | III   | ILINK | INTUCH | IRPC   | IVL    | JKN    | JSP    |
| JWD             | K      | KBANK  | KCE   | KKP   | KSL   | KTB    | KTC    | LANNA  | LH     | LHFG   |
| LIT             | LPN    | MAKRO  | MALEE | MBK   | MBKET | MC     | MCOT   | METCO  | MFEC   | MINT   |
| MONO            | MOONG  | MSC    | MTC   | NCH   | NCL   | NEP    | NKI    | NOBLE  | NSI    | NVD    |
| NYT             | OISHI  | ORI    | OTO   | PAP   | PCSGH | PDJ    | PG     | PHOL   | PLANB  | PLANET |
| PLAT            | PORT   | PPS    | PR9   | PREB  | PRG   | PRM    | PSH    | PSL    | PTG    | PTT    |
| PTTEP           | PTTGC  | PYLON  | Q-CON | QH    | QTC   | RATCH  | RS     | S      | S & J  | SAAM   |
| SABINA          | SAMART | SAMTEL | SAT   | SC    | SCB   | SCC    | SCCC   | SCG    | SCN    | SDC    |
| SEAFCO          | SEOIL  | SE-ED  | SELIC | SENA  | SIRI  | SIS    | SITHAI | SMK    | SMPC   | SNC    |
| SONIC           | SORKON | SPALI  | SPI   | SPRC  | SPVI  | SSSC   | SST    | STA    | SUSCO  | SUTHA  |
| SVI             | SYMC   | SYNTEC | TACC  | TASCO | TCAP  | TFMAMA | THANA  | THANI  | THCOM  | THG    |
| THIP            | THRE   | THREL  | TIP   | TIPCO | TISCO | TK     | TKT    | TTB    | TMILL  | TNDT   |
| TNL             | TOA    | TOP    | TPBI  | TQM   | TRC   | TSC    | TSR    | TSTE   | TSTH   | TTA    |
| TTCL            | TTW    | TU     | TVD   | TVI   | TVO   | TWPC   | U      | UAC    | UBIS   | UV     |
| VGI             | VIH    | WACOAL | WAVE  | WHA   | WHAUP | WICE   | WINNER | TRUE   |        |        |

| VERY GOOD LEVEL |         |        |       |        |       |        |        |        |        |       |
|-----------------|---------|--------|-------|--------|-------|--------|--------|--------|--------|-------|
| 2S              | ABM     | ACE    | ACG   | ADB    | AEC   | AEONTS | AGE    | AH     | AHC    | AIT   |
| ALLA            | AMANAHA | AMARIN | APCO  | APCS   | APURE | AQUA   | ASAP   | ASEFA  | ASIA   | ASIAN |
| ASIMAR          | ASK     | ASN    | ATP30 | AUCT   | AWC   | AYUD   | B      | BA     | BAM    | BBL   |
| BFIT            | BGC     | BJC    | BJCHI | BROOK  | BTW   | CBG    | CEN    | CGH    | CHARAN | CHAYO |
| CHG             | CHOTI   | CHOW   | CI    | CIG    | CMC   | COLOR  | COM7   | CPL    | CRC    | CRD   |
| CSC             | CSP     | CWT    | DCC   | DCON   | DDD   | DOD    | DOHOME | EASON  | EE     | ERW   |
| ESTAR           | FE      | FLOYD  | FN    | FORTH  | FSS   | FTE    | FVC    | GENCO  | GJS    | GL    |
| GLAND           | GLOBAL  | GLOCON | GPI   | GULF   | GYT   | HPT    | HTC    | ICN    | IFS    | ILM   |
| IMH             | INET    | INSURE | IRC   | IRCP   | IT    | ITD    | ITEL   | J      | JAS    | JCK   |
| JCKH            | JMART   | JMT    | KBS   | KCAR   | KGI   | KIAT   | KOOL   | KTIS   | KWC    | KWM   |
| L&E             | LALIN   | LDC    | LHK   | LOXLEY | LPH   | LRH    | LST    | M      | MACO   | MAJOR |
| MBAX            | MEGA    | META   | MFC   | MGT    | MILL  | MITSI  | MK     | MODERN | MTI    | MVP   |
| NETBAY          | NEX     | NINE   | NTV   | NWR    | OCC   | OGC    | OSP    | PATO   | PB     | PDG   |
| PDI             | PICO    | PIMO   | PJW   | PL     | PM    | PPP    | PRIN   | PRINC  | PSTC   | PT    |
| QLT             | RCL     | RICHY  | RML   | RPC    | RWI   | S11    | SALEE  | SAMCO  | SANKO  | SAPPE |
| SAWAD           | SCI     | SCP    | SE    | SEG    | SFP   | SGF    | SHR    | SIAM   | SINGER | SKE   |
| SKR             | SKY     | SMIT   | SMT   | SNP    | SPA   | SPC    | SPCG   | SR     | SRICHA | SSC   |
| SSF             | STANLY  | STI    | STPI  | SUC    | SUN   | SYNEX  | T      | TAE    | TAKUNI | TBSP  |
| TCC             | TCMC    | TEAM   | TEAMG | TFG    | TIGER | TITLE  | TKN    | TKS    | TM     | TMC   |
| TMD             | TMI     | TMT    | TNITY | TNP    | TNR   | TOG    | TPA    | TPAC   | TPCORP | TPOLY |
| TPS             | TRITN   | TRT    | TRU   | TSE    | TVT   | TWP    | UEC    | UMI    | UOBKH  | UP    |
| UPF             | UPOIC   | UT     | UTP   | UWC    | VL    | VNT    | VPO    | WIJK   | WP     | XO    |
| YUASA           | ZEN     | ZIGA   | ZMICO |        |       |        |        |        |        |       |

| GOOD LEVEL |      |        |        |       |        |       |       |        |        |       |
|------------|------|--------|--------|-------|--------|-------|-------|--------|--------|-------|
| 7UP        | A    | ABICO  | AJ     | ALL   | ALUCON | AMC   | APP   | ARIN   | AS     | AU    |
| B52        | BC   | BCH    | BEAUTY | BGT   | BH     | BIG   | BKD   | BLAND  | BM     | BR    |
| BROCK      | BSBM | BSM    | BTNC   | CAZ   | CCP    | CGD   | CITY  | CMAN   | CMO    | CMR   |
| CPT        | CPW  | CRANE  | CSR    | D     | EKH    | EP    | ESSO  | FMT    | GIFT   | GREEN |
| GSC        | GTB  | HTECH  | HUMAN  | IHL   | INOX   | INSET | IP    | JTS    | JUBILE | KASET |
| KCM        | KKC  | KUMWEL | KUN    | KWG   | KYE    | LEE   | MATCH | MATI   | M-CHAI | MCS   |
| MDX        | MJD  | MM     | MORE   | NC    | NDR    | NER   | NFC   | NNCL   | NPK    | NUSA  |
| OCEAN      | PAF  | PF     | PK     | PLE   | PMTA   | POST  | PPM   | PRAKIT | PRECHA | PRIME |
| PROUD      | PTL  | RBF    | RCI    | RJH   | ROJNA  | RP    | RPH   | RSP    | SF     | SFLEX |
| SGP        | SISB | SKN    | SLP    | SMART | SOLAR  | SPG   | SQ    | SSP    | STARK  | STC   |
| SUPER      | SVOA | TC     | TCCC   | THMUI | TIW    | TNH   | TOPP  | TPCH   | TPIPP  | TPLAS |
| TTI        | TYCN | UKEM   | UMS    | VCOM  | VRANDA | WIN   | WORK  | WPH    |        |       |

| Description | Score Range |
|-------------|-------------|
| Excellent   | 90-100      |
| Very Good   | 80-89       |
| Good        | 70-79       |

**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; \*\* delisted

Source: Thai Institute of Directors Association (IOD); FSSIA's compilation

## Anti-corruption Progress Indicator 2020

| CERTIFIED |        |        |        |        |        |        |        |        |        |        |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 2S        | ADVANC | AI     | AIE    | AIRA   | AKP    | AMA    | AMANAH | AP     | AQUA   | ARROW  |
| ASK       | ASP    | AYUD   | B      | BAFS   | BANPU  | BAY    | BBL    | BCH    | BCP    | BCPG   |
| BGC       | BGRIM  | BJCHI  | BKI    | BLA    | BPP    | BROOK  | BRR    | BSBM   | BTS    | BWG    |
| CEN       | CENTEL | CFRESH | CGH    | CHEWA  | CHOTI  | CHOW   | CIG    | CIMBT  | CM     | CMC    |
| COL       | COM7   | CPALL  | CPF    | CPI    | CPN    | CSC    | DCC    | DELTA  | DEMCO  | DIMET  |
| DRT       | DTAC   | DTC    | EASTW  | ECL    | EGCO   | FE     | FNS    | FPI    | FPT    | FSS    |
| FTE       | GBX    | GC     | GCAP   | GEL    | GFPT   | GGC    | GJS    | GPSC   | GSTEEL | GUNKUL |
| HANA      | HARN   | HMPRO  | HTC    | ICC    | ICHI   | IFS    | INET   | INSURE | INTUCH | IRPC   |
| ITEL      | IVL    | K      | KASET  | KBANK  | KBS    | KCAR   | KCE    | KGI    | KKP    | KSL    |
| KTB       | KTC    | KWC    | L&E    | LANNA  | LHFG   | LHK    | LPN    | LRH    | M      | MAKRO  |
| MALEE     | MBAX   | MBK    | MBKET  | MC     | MCOT   | MFC    | MFEC   | MINT   | MONO   | MOONG  |
| MPG       | MSC    | MTC    | MTI    | NBC    | NEP    | NINE   | NKI    | NMG    | NNCL   | NSI    |
| NWR       | OCC    | OCEAN  | OGC    | ORI    | PAP    | PATO   | PB     | PCSGH  | PDG    | PDI    |
| PDJ       | PE     | PG     | PHOL   | PL     | PLANB  | PLANET | PLAT   | PM     | PPP    | PPPM   |
| PPS       | PREB   | PRG    | PRINC  | PRM    | PSH    | PSL    | PSTC   | PT     | PTG    | PTT    |
| PTTEP     | PTTGC  | PYLON  | Q-CON  | QH     | QLT    | QTC    | RATCH  | RML    | RWI    | S & J  |
| SABINA    | SAT    | SC     | SCB    | SCC    | SCCC   | SCG    | SCN    | SEAOIL | SE-ED  | SELIC  |
| SENA      | SGP    | SIRI   | SITHAI | SMIT   | SMK    | SMPC   | SNC    | SNP    | SORKON | SPACK  |
| SPC       | SPI    | SPRC   | SRICHA | SSF    | SSSC   | SST    | STA    | SUSCO  | SVI    | SYNTEC |
| TAE       | TAKUNI | TASCO  | TBSP   | TCAP   | TCMC   | TFG    | TFI    | TFMAMA | THANI  | THCOM  |
| THIP      | THRE   | THREL  | TIP    | TIPCO  | TISCO  | TKT    | TTB    | TMD    | TMILL  | TMT    |
| TNITY     | TNL    | TNP    | TNR    | TOG    | TOP    | TPA    | TPCORP | TPP    | TRU    | TSC    |
| TSTH      | TTCL   | TU     | TVD    | TVI    | TVO    | TWPC   | U      | UBIS   | UEC    | UKEM   |
| UOBKH     | UWC    | VGI    | VIH    | VNT    | WACOAL | WHA    | WHAUP  | WICE   | WIIK   | XO     |
| ZEN       | TRUE   |        |        |        |        |        |        |        |        |        |
| DECLARED  |        |        |        |        |        |        |        |        |        |        |
| 7UP       | ABICO  | AF     | ALT    | AMARIN | AMATA  | AMATAV | ANAN   | APURE  | B52    | BKD    |
| BM        | BROCK  | BUI    | CHO    | CI     | COTTO  | DDD    | EA     | EFORL  | EP     | ERW    |
| ESTAR     | ETE    | EVER   | FSMART | GPI    | ILINK  | IRC    | J      | JKN    | JMART  | JMT    |
| JSP       | JTS    | KWG    | LDC    | MAJOR  | META   | NCL    | NOBLE  | NOK    | PK     | PLE    |
| ROJNA     | SAAM   | SAPPE  | SCI    | SE     | SHANG  | SINGER | SKR    | SPALI  | SSP    | STANLY |
| SUPER     | SYNEX  | THAI   | TKS    | TOPP   | TRITN  | TTA    | UPF    | UV     | WIN    | ZIGA   |

| 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 June 24, 2019) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

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

## GENERAL DISCLAIMER

### ANALYST(S) CERTIFICATION

#### Suwat Sinsadok FSS International Investment Advisory Securities Co., Ltd

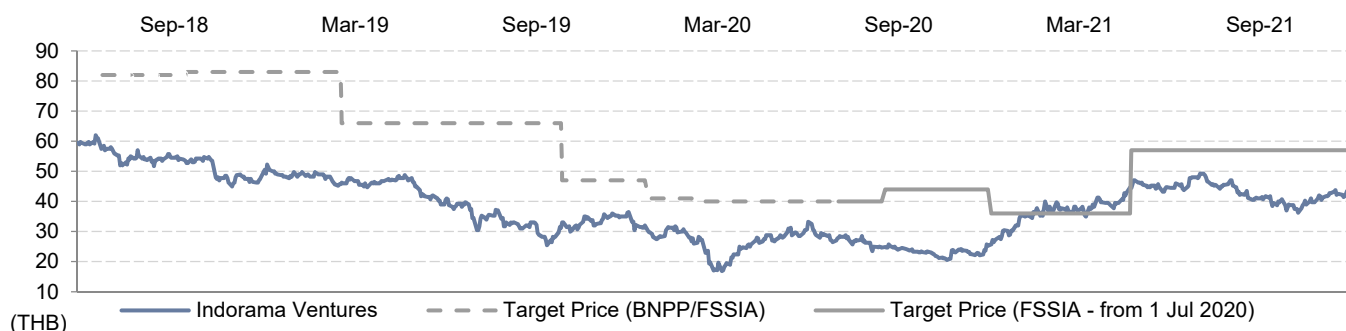
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s) was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed herein.

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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 |
|-------------|--------|--------------|-------------|--------|--------------|-------------|--------|--------------|
| 09-Oct-2018 | BUY    | 82.00        | 20-Jan-2020 | BUY    | 41.00        | 06-Nov-2020 | BUY    | 36.00        |
| 21-Dec-2018 | BUY    | 83.00        | 27-Feb-2020 | BUY    | 40.00        | 08-Mar-2021 | BUY    | 57.00        |
| 02-May-2019 | BUY    | 66.00        | 09-Jun-2020 | BUY    | 40.00        |             |        |              |
| 07-Nov-2019 | BUY    | 47.00        | 07-Aug-2020 | BUY    | 44.00        |             |        |              |

Suwat Sinsadok started covering this stock from 09-Oct-2018

Price and TP are in local currency

Source: FSSIA estimates

| Company           | Ticker | Price     | Rating | Valuation & Risks   |
|-------------------|--------|-----------|--------|---|
| Indorama Ventures | IVL TB | THB 44.50 | 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 Finansia Syrus Securities Public Company Limited

FSSIA may incorporate the recommendations and target prices of companies currently covered by FSS Research into equity research reports, denoted by an 'FSS' before the recommendation. FSS Research is part of Finansia Syrus Securities Public Company Limited, which is the parent company of FSSIA.

All share prices are as at market close on 16-Sep-2021 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.