

6 NOVEMBER 2020

THAILAND / PETROCHEM & CHEMICALS

INDORAMA VENTURES IVL TB

BUY

UNCHANGED

TARGET PRICE	THB36.00
CLOSE	THB25.75
UP/DOWNSIDE	+39.8%
PRIOR TP	THB44.00
CHANGE IN TP	-18.2%
TP vs CONSENSUS	+18.8%

จากปี 2020 ที่ยุ่งเหยิงสู่ปี 2021 ที่โรยด้วยกลีบกุหลาบ

แนวโน้มการเติบโตของกำไรสุทธิและชัดเจนมากขึ้นในปี 2021-2022

ในปี 2020 กำไรสุทธิของ IVL มีแนวโน้มที่อ่อนแอ บริษัทฯ ได้รับผลกระทบจากผลขาดทุนที่ไม่ได้มาจากการดำเนินงานหลายประการใน 1H20 ซึ่งคาดว่าจะสูงถึง USD384 ล้าน ส่วนมากมาจากปัจจัยภายนอก เราเชื่อว่าผลิตภัณฑ์ที่มีอัตรากำไรคงที่หรือค่อนข้างคงที่ เช่น PET และ PTA ในทวีปอเมริกาเหนือและยุโรป สารลดแรงตึงผิว และบรรจุภัณฑ์ควรสร้าง EBITDA ให้ IVL อย่างน้อยปีละ USD0.8b-0.9 พันล้าน ในปี 2021-2022 ในขณะที่ EBITDA ที่มาจากผลิตภัณฑ์อื่นของ IVL เช่น PET และ PTA ในทวีปเอเชีย ผลิตภัณฑ์ IOD (ประกอบด้วย MTBE PO/PG EO/EG และ Ethanolamine) โอลิฟินส์ต้นน้ำ และผลิตภัณฑ์พิเศษอื่น ๆ เช่น เส้นใยโพลีเอสเตอร์ PIA NDC และ Recycling PET ควรสร้าง EBITDA รวมอยู่ในช่วง USD0.6b-0.9 พันล้าน ในปี 2021-2022 เพิ่มขึ้นจาก USD0.3b-0.4 พันล้านในปี 2020 เนื่องจากบริษัทฯ ควรได้รับผลกระทบที่ลดลงจากพายุเฮอริเคน ไฟฟ้า COVID-19 และการปิดโรงงานทั้งหมดและนอกแผน

กำไรสุทธิจากการดำเนินงานที่พร้อมฟื้นตัวและยั่งยืน

เมื่อหักรายการพิเศษที่ไม่ได้มาจากการดำเนินงานหลายรายการ ประกอบด้วย กำไร (ขาดทุน) จากสินค้าคงคลัง รายการที่เกี่ยวข้องกับภัยธรรมชาติ เช่น ความเสียหายจากไฟฟ้าและพายุเฮอริเคน และผลกระทบจาก COVID-19 เราพบว่านับตั้งแต่ไตรมาส 1Q15 กำไรสุทธิจากการดำเนินงาน (Core Net Profit) ของ IVL ยังคงเป็นบวกตลอดช่วงวงจรผลิตภัณฑ์โพลีเอสเตอร์ที่ผันผวนทั้งขึ้นและลง ผลลบที่ไม่เคยเกิดขึ้นมาก่อนจากการแพร่ระบาด COVID-19 และความเสียหายที่เพิ่มสูงขึ้นของสงครามการค้าระหว่างสหรัฐฯ และจีน ในปี 2021-2022 เราคาดว่ากำไรรวมของ 2 ผลิตภัณฑ์หลักสำคัญของ IVL กล่าวคือ PET และ PTA จะยังคงอ่อนแอ อย่างไรก็ตาม ปริมาณขายที่สูงขึ้นจะช่วยหนุนการเติบโตของกำไรสุทธิ

ส่วนลด 38% จากราคาตลาด(replacement value)ที่ 46 บาท

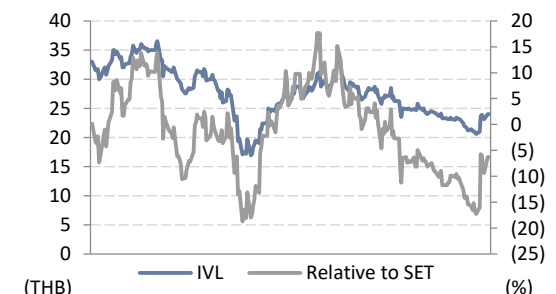
การวิเคราะห์ของเราเชื่อว่าราคาหุ้นของ IVL ในปัจจุบันอยู่ในระดับที่น่าสนใจ โดยให้ส่วนลด 38% จากราคาตลาดที่เราคาดว่าจะอยู่ที่ 46 บาท จากข้อมูลในอดีต ราคาหุ้นของ IVL มีการซื้อขายในราคาที่ต่ำกว่าราคาตลาด 40% ถึงสูงกว่าราคาตลาด 50% ดังนั้นเมื่อพิจารณาถึงส่วนลด 38% จากราคาตลาดในปัจจุบัน เรามองว่า IVL อยู่ในระดับที่น่าสนใจ เนื่องจากมีความเสี่ยงขาดจำกัด

ปรับประมาณการกำไรต่อหุ้นและราคาเป้าหมาย

เราปรับประมาณการกำไรต่อหุ้นในปี 2020-2022 ลง 38-85% เพื่อสะท้อน 1) PET/PTA และ PTA-PX margins ที่ลดลงจากผลกระทบของ COVID-19; และ 2) ผลขาดทุนสินค้าคงคลังจำนวนมากถึง 0.6 พัน ลบ. ในช่วง 1H20 เราลดราคาเป้าหมายของเราลงเหลือ 36 บาท (คิดจากค่า 2021E EV/EBITDA ที่ 9.4x) จาก 44 บาท (คิดจากค่า 2021E EV/EBITDA ที่ 9.6x) เพื่อสะท้อน 1) PTA margin ที่คาดว่าจะลดลงและวงจรอุตสาหกรรมระยะกลางสำหรับ PET ในปี 2021-2022; และ 2) การปรับลดประมาณการกำไรต่อหุ้นและ EBITDA ของเรา

KEY STOCK DATA

YE Dec (THB m)	2019	2020E	2021E	2022E
Revenue	352,692	312,483	344,703	343,920
Net profit	5,252	2,974	9,316	14,375
EPS (THB)	0.93	0.53	1.65	2.54
vs Consensus (%)	-	(53.8)	(23.0)	(12.4)
EBITDA	26,475	32,815	35,119	40,951
Core net profit	3,465	1,189	7,531	12,590
Core EPS (THB)	0.61	0.21	1.33	2.23
Chg. In EPS est. (%)	-	(84.6)	(44.2)	(37.9)
EPS growth (%)	(86.3)	(65.7)	533.6	67.2
Core P/E (x)	42.0	122.5	19.3	11.6
Dividend yield (%)	1.4	0.8	2.4	3.7
EV/EBITDA (x)	10.8	8.2	7.7	6.4
Price/book (x)	1.1	1.1	1.0	1.0
Net debt/Equity (%)	95.2	94.9	78.6	62.5
ROE (%)	2.5	0.9	5.6	8.7



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	22.6	3.0	(18.3)
Relative to country (%)	20.6	8.9	5.2
Mkt cap (USD m)	4,683		
3m avg. daily turnover (USD m)	21.3		
Free float (%)	33		
Major shareholder	Indorama Resources (63%)		
12m high/low (THB)	37.00/15.90		
Issued shares (m)	5,614.55		

Sources: Bloomberg consensus; FSSIA estimates



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PREPARED BY FSS INTERNATIONAL INVESTMENT ADVISORY SECURITIES CO LTD (FSSIA). ANALYST CERTIFICATION AND IMPORTANT DISCLOSURES CAN BE FOUND AT THE END OF THIS REPORT

บทวิเคราะห์ฉบับนี้แปลมาจากบทวิเคราะห์ของ FSSIA ฉบับวันที่ 6 พฤศจิกายน 2020

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 into a packaging, olefin-integrated company in 2019-23.

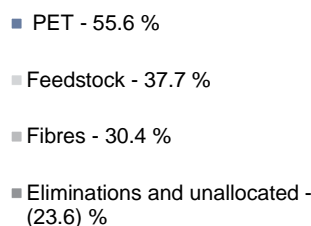
Unlike its last two growth cycles when IVL funded its capacity growth through debt and capital increases using warrants (IVL-W1 and IVL-W2), key growth strategies in IVL's third growth cycle could be driven by 1) M&As in the global packaging business, non-PET packaging in frontier markets and specialty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

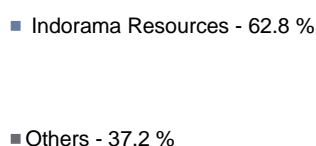
www.indoramaventures.com

Principal activities (revenue, 2019)



Source: Indorama Ventures

Major shareholders



Source: Indorama Ventures

Catalyst

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

Risk 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
9 Nov 2020	3Q20 results announcement

Key assumptions

	2020E (USD/tonne)	2021E (USD/tonne)	2022E (USD/tonne)
Utilisation rate (%)	86	87	88
PET margin	92	55	41
PTA-PX margin	61	81	86
MEG-(0.58)ethylene margin	180	200	200

Source: FSSIA estimates

Earnings sensitivity

- For every 1% change in 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

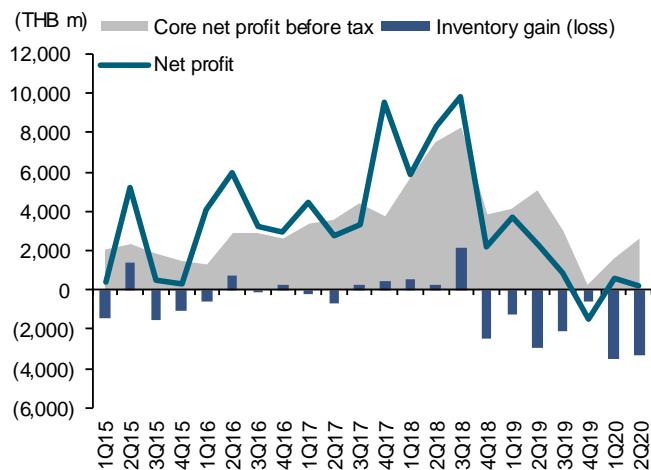
Net profit to rebound in 2021 after a miss in 2020

IVL's net profit outlook for 2020 is weak. The company was impacted by a series of non-operating losses in 1H20, amounting to an estimated USD384m, mostly from external factors. Despite these large non-operating losses, IVL still reported a net profit of THB736m in 1H20 and maintained quarterly profits in both 1Q20 and 2Q20, thanks to its well-diversified product portfolio with a global presence in terms of both product sites and markets.

Excluding multiple non-operating, non-recurring items, including inventory gains (losses), natural disaster-related items like lightning damage and hurricanes, and the COVID-19 impact, we have determined that since 1Q15, IVL's core net profit has remained positive throughout the tumultuous polyester product up and downcycle period, the unprecedented negative impact from the COVID-19 pandemic, and the rising risk of a US-China trade war.

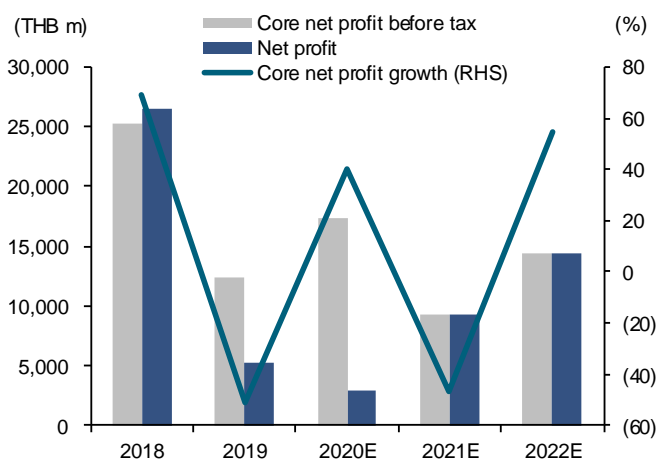
Looking ahead to 2021-22, when we expect the global demand for polyester products to improve, we believe IVL's reported net profits in 2021-22 will significantly improve from 2020, despite our projection of weaker core net profits in 2021-22 due to weaker product margins.

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



Source: IVL

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



Sources: IVL; FSSIA estimates

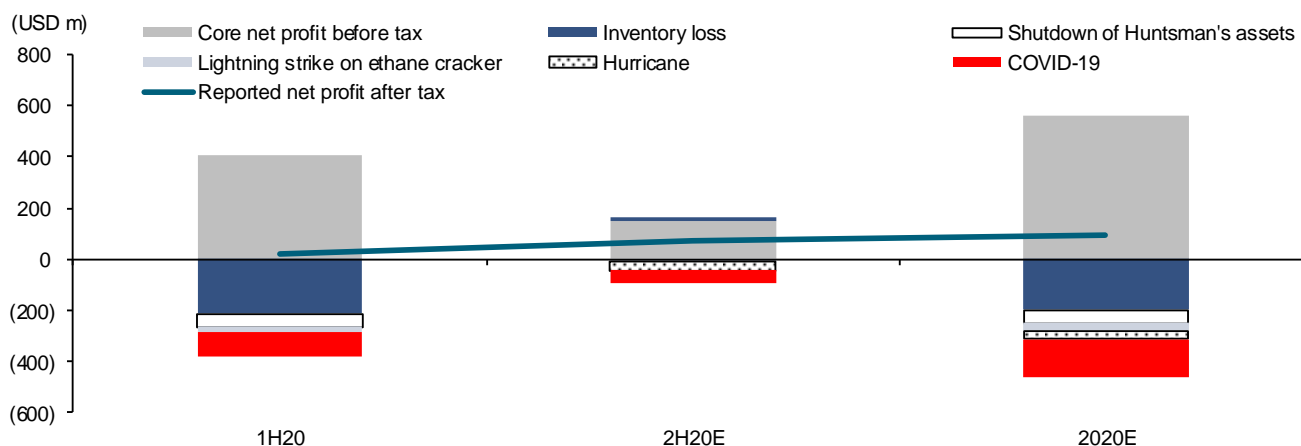
A series of mishaps in 1H20 are the major causes of IVL's weak 1H20 and 2020E reported net profits. Our analysis indicates that IVL, similar to other petrochemical and global companies, has suffered from a series of events that led to a weak reported net profit in 1H20.

The mishaps in 1H20, with some extending into 2H20, include:

- **An inventory loss of THB213m in 1H20**, due to the sharp decline in oil price that led to the plunging prices of paraxylene (PX), purified terephthalic acid (PTA), monoethylene glycol (MEG), and polyethylene terephthalate (PET); all being IVL's intermediate and end products sold globally. While we project IVL to have some inventory gains in 2H20, in the range of USD15-20m due to the oil price recovery, we think the inventory loss impact will remain the most significant factor in eroding IVL's reported net profit in 2020.

- COVID-19 impact leading to a loss of up to USD150m in 2020.** This year, the global economy and demand for all petrochemical products have been hit by the coronavirus pandemic. For IVL, the demand for lifestyle attire polyester and automotive tire cords, which account for over 15-25% of IVL's sales volume, have been hit the hardest due to the global lockdowns. We estimate that in 2020 IVL will have lost USD150m from the demand collapses caused by the COVID-19 outbreak, which includes USD100m EBITDA from the automotive industry and USD50m EBITDA from the lifestyle attire industry. We believe that once a vaccine is successfully implemented, likely in 2021, the demand for the attire and automotive industries should rebound to close to pre-COVID levels, driving up the demand for IVL's products.
- Lightning strike on IVL's ethane cracker for a loss of THB20m.** In April 2020, 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 February 2021, according to management. While management stated that most of the property damage of up to USD8-10m and the earnings loss of USD10-15m a quarter would mostly be covered by insurance, we estimate that IVL will still suffer up to a USD20m net profit loss in 2020. As management indicated that IVL plans to start up its ethane cracker unit in February 2021, we think the impact of the lightning strike on IVL's net profit should evaporate in 2021.
- Hurricane Laura caused a loss of USD35m.** In October 2020, hurricane Laura made landfall on the US Gulf Coast where IVL's key assets for its integrated oxide derivatives (IOD) group are located. These assets were mostly acquired from Huntsman in 2019 with a total capacity of 3.1mtpa. The hurricane caused an operational disruption to IVL's IOD plants, which amounted to a total loss of USD35m, based on management's guidance.
- Unplanned shutdown of IOD plants in 1H20.** In 1H20, IVL's planned maintenance shutdown for its methyl tert-butyl ether (MTBE) and propylene oxide (PO) plants took longer than expected, lasting more than five months vs the planned two to three months. This led to a net loss of USD51m in 1H20, according to management. Note that these two key plants generated over USD200m EBITDA in 2019, based on our estimate. Hence, we think the return of these PO and MTBE plants to normal operations should be a key earnings driver for IVL in 2021-22.

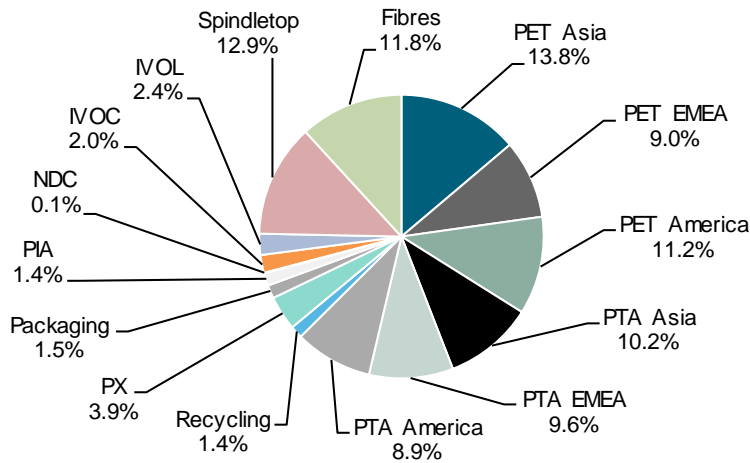
Exhibit 3: Breakdown of IVL's core net profit against the multiple non-recurring items in 2020E



Sources: IVL; FSSIA estimates

Sustainability is key. We believe IVL's current asset portfolio is one of the most competitive portfolios among global petrochemical players, given its highly integrated polyester value chain which includes 1) the upstream feedstocks of ethylene and propylene via its two crackers and PX; 2) the two key intermediate feedstocks of PTA and MEG; 3) the three downstream end-products of PET, polyester fibres, and packaging; 4) the IOD assets acquired from Huntsman (Spindletop), including many high-margin products in the IOD chain like MTBE, PO, ethylene oxide (EO), ethylene glycol (EG), and surfactants; and 5) recycling PET.

Exhibit 4: IVL’s capacity breakdown by key products



Source: IVL

In addition to IVL’s well-diversified and integrated product portfolio, we think the global presence of its production sites worldwide in five continents further strengthens IVL’s earnings sustainability vs other petrochemical peers. This has been reflected in its profitable quarterly results over the past six years after it successfully transitioned from a commodity-driven, polyester-focused product portfolio to a specialty-driven, polyester and IOD-focused product portfolio.

Exhibit 5: IVL’s capacity growth cycle

	Unit	2 nd growth cycle	Current growth cycle
Period		2015-16	2020-23
Capacity growth	%	25	22
% EBITDA	%	26	23
Key drivers		AlphaPET, HVA	Huntsman, ethane cracker
Product added		PET, HVA	Olefins and derivatives
PET-PTA integrated margin	USD/t	188-194	200
Estimated EBITDA contribution from new capacity	USD m	200	270

Sources: IVL; FSSIA estimates

Margin trend of IVL’s key products

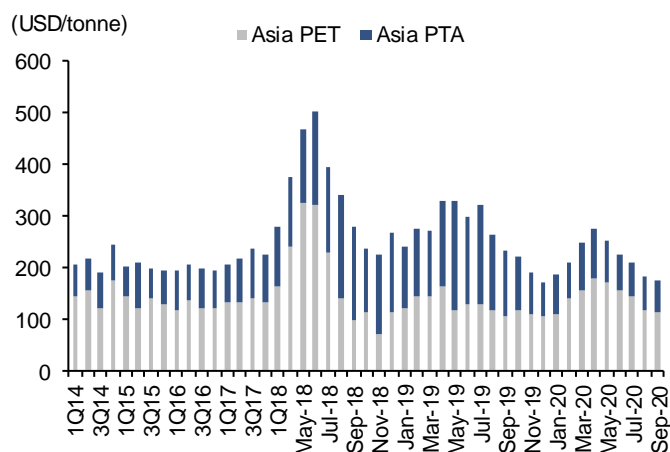
Expect weak PET-PTA margin in 2021-22. In 2021-22, we project the integrated margins of IVL’s two key downstream products, PET and PTA, to remain weak. IVL has a total PET and PTA capacity of 11.6mtpa in North America, Asia and Europe, which accounts for 62% of its total capacity of 18.6mtpa as of 2Q20.

Since its peak in 2Q18 at USD500/t, the integrated PET-PTA margin has declined to its current USD190-200/t in 3Q20, dragged down mainly by the weak PTA-PX margin as a result of the new PTA supply influx in China. The PTA-PX margin in Asia has collapsed from USD212/t in May 2019 to USD64/t in September 2020, entering into a downcycle since the beginning of 2020 when the PTA-PX margin dropped below USD100/t for the first time since 2018.

However, the integrated PET-PTA margin in Europe and North America has been much more resilient than the PET-PTA margin in Asia, given the more favourable oligopolistic market structure with three dominating players in North America and fewer than 10 key players in Europe vs the large number of producers in Asia. Thanks to IVL’s geographical production presence and market diversification, we believe the expected integrated PET-PTA margin downcycle in 2021-22 will have a smaller impact on IVL’s net profits than on its regional and local peers’.

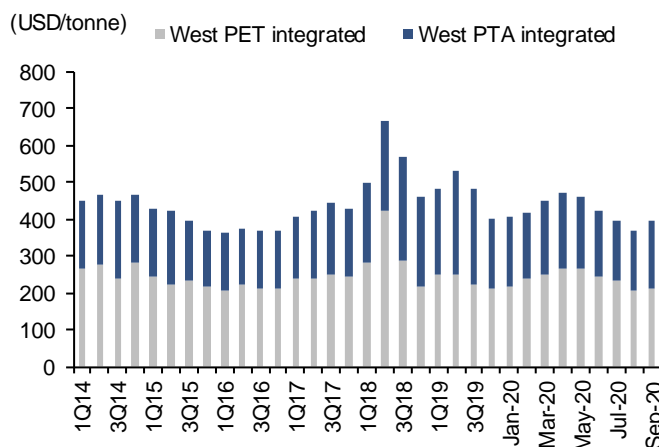
We project the integrated PET-PTA margin to remain in the range of USD180-220/t in Asia and USD380-459/t in Europe and North America (West). This would generate USD800m to USD1b EBITDA for IVL from PET and PTA alone in 2021-22, based on our estimate.

Exhibit 6: PET-PTA and PTA-PX spreads in Asia



Source: IVL

Exhibit 7: PET-PTA and PTA-PX spreads in Europe and North America (West)



Source: IVL

The margins of IOD products should rebound in 2021-22. There are four key products in IVL’s IOD portfolio – MTBE and EO/EG as two key commodity product groups and PO/propylene glycol (PG) and ethanolamine/surfactants as two key specialty product groups.

Exhibit 8: IVL’s capacity and application breakdown

	Product	COMA (%)	Application
Combined PET	PET/PTA	50	F&B
	PX, IPA		Packaging
Fibres	Polyester, Nylon, PP/PE, Rayon	24	Automotive, Hygiene, Personal care, Lifestyle
Integrated Oxides (IOD)	Ethane/Propylene	26	PO/Oxyfuel
	EG/EO		
	PO/PG		
	Ethanolamine/Surfactants		
	MTBE		

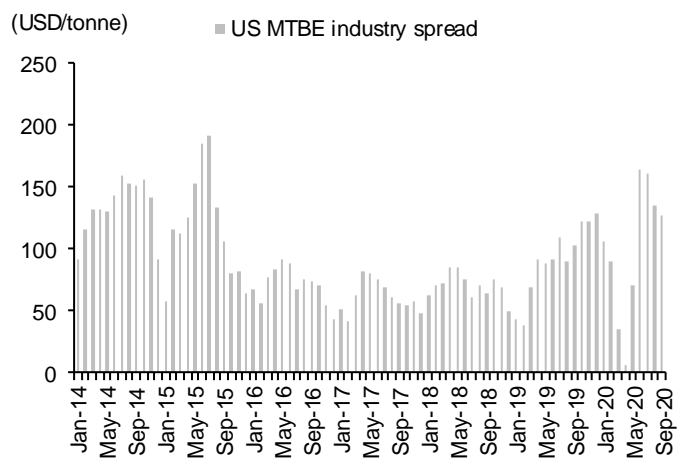
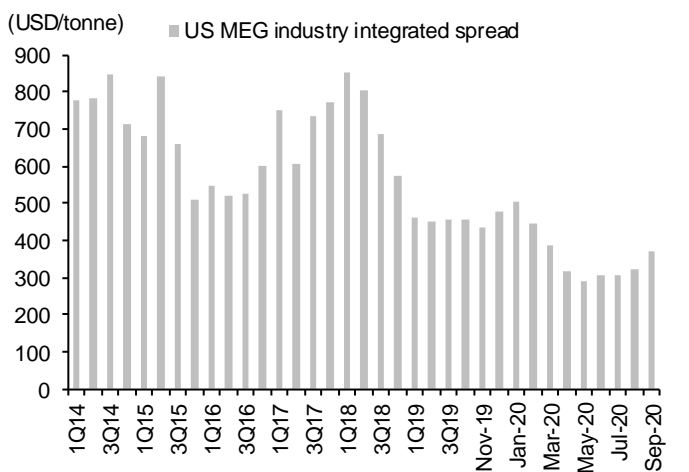
Source: IVL

The margins of PO/PG and ethanolamine/surfactants have been relatively stable at high levels, thanks to their limited supply and necessary nature in terms of their use in hygiene, anti-freeze, and packaging applications. On the other hand, the MTBE – the blending product for gasoline – margin collapsed from USD130/t in December 2019 to only USD6/t in April 2020 when the US implemented its nationwide lockdown to fight the COVID-19 outbreak, causing the gasoline demand collapse in the US market. Since then, the MTBE margin has sharply rebounded to USD161/t in June, and recently softened to USD127/t in September 2020 due to the concerns over the second wave of infections in the US.

We believe IVL’s net profit from MTBE (0.73mtpa capacity, or 6% of IVL’s total capacity as of 2Q20) will recover meaningfully in 2021, when we project the MTBE margin to average USD140/t, up from USD99/t in 2020, potentially generating EBITDA of USD60-100m for IVL in 2021.

Exhibit 9: US MEG-ethylene spread

Exhibit 10: US MTBE spread



Source: IVL

Source: IVL

The MEG-ethylene margin should rebound marginally in 2021-22. The MEG-ethylene margin, another of IVL’s key products in the IOD value chain, has similarly declined sharply from its USD845/t peak in 1Q18 down to USD369/t in September 2020, due to the demand collapse and industry oversupply. However, we believe the MEG-ethylene margin should rebound to stay at USD350-450/t in 2021-22, supported by the tighter supply as a result of the damage caused by hurricanes in 2020 and the strong demand for packaging.

We believe that fixed or relatively fixed-margin products, such as PET and PTA in North America and Europe, surfactants, and packaging, should generate at least USD0.8b-0.9b annual EBITDA for IVL in 2021-22.

In addition, we estimate that the EBITDA generated from IVL’s other products – PET and PTA in Asia, other IOD products (MTBE, PO/PG, EO/EG, and ethanolamine), upstream products like ethylene, propylene, PX and other specialty products including polyester fibres, purified isophthalic acid (PIA), naphthalene dicarboxylate (NDC), and recycling PET – should generate aggregate EBITDA in the range of USD0.6b-0.9b in 2021-22, up from USD0.3b-0.4b in 2020, as there should be a smaller impact from hurricanes, lightning, COVID-19, and planned and unplanned shutdowns.

3Q20E results preview

We project IVL to post a 3Q20 net profit of THB1.2b, up 51% y-y and 678% q-q. Key points are:

- A projected 10% q-q higher sales volume to 3.5mtpa, despite the forced shutdown of production plants in Port Neches, Texas, due to a hurricane;
- An estimated weaker integrated PET-PTA margin of USD190/t in Asia and USD395/t in the West markets, down from USD247/t and USD423/t in 2Q20, due mainly to the seasonally lower demand and rising PTA supply from China;
- The MTBE margin is projected to rebound to USD140/t, up from only USD79/t in 2Q20, thanks to the expected gasoline demand recovery;
- An estimated inventory gain of THB320m driven by the rising PX price.

Exhibit 11: 3Q20E/9M20E results preview

	3Q19	2Q20	3Q20E		9M19	9M20E		2020E	Comments	
	(THB m)	(THB m)	(THB m)	(q-q%)	(y-y%)	(THB m)	(THB m)	(y-y%)	(THB m)	
Revenue	84,478	75,010	84,523	12.7	0.1	275,184	251,557	(8.6)	312,483	Higher due to higher sales volume
Operating costs	(82,860)	(74,699)	(76,523)	2.4	(7.6)	(266,539)	(243,398)	(8.7)	(257,794)	Higher q-q due to higher volume
EBITDA	6,419	6,431	7,210	12.1	12.3	23,428	19,707	(15.9)	32,815	Higher due to higher product margins
<i>EBITDA margin (%)</i>	7.6	8.6	7.6	<i>nm</i>	<i>nm</i>	8.5	7.8	<i>nm</i>	11	<i>Lower due to lower product margins</i>
Deprn & amort.	(4,353)	(3,716)	(3,852)	3.7	(11.5)	(12,649)	(12,450)	(1.6)	(15,535)	
EBIT	2,066	2,715	2,569	(5.4)	24.4	10,779	7,257	(32.7)	17,280	Lower q-q due to inventory gain
Interest expense	(1,357)	(1,785)	(1,865)	4.5	37.5	(4,284)	(5,837)	36.3	(9,702)	Higher due to higher debt
Interest & invt inc	50	92	152	66.0	203.7	143	2,269	1,485.6	1,179	
Associates' contrib	(5)	66	69	5.1	<i>nm</i>	(10)	150	<i>nm</i>	491	
Exceptionals	(2,125)	(2,456)	320	<i>nm</i>	<i>nm</i>	(6,310)	(3,127)	(50.4)	1,785	Inventory loss
Pretax profit	618	(409)	1,245	<i>nm</i>	101.4	6,700	2,164	(67.7)	4,833	Higher due to inventory gain
Tax	(27)	569	(45)	<i>nm</i>	66.2	(204)	530	<i>nm</i>	(1,257)	
<i>Tax rate (%)</i>	4	139	4	<i>nm</i>	<i>nm</i>	3	(25)	<i>nm</i>	26	
Minority interests	202	(6)	(6)	-	<i>nm</i>	272	12	(95.4)	(602)	
Net profit	793	154	1,194	677.6	50.6	6,768	2,707	(60.0)	2,974	
Core net profit	2,788	2,609	842	(67.7)	(69.8)	10,857	5,013	(53.8)	1,189	
EPS (THB)	0.15	0.03	0.22	677.6	50.6	1.25	0.50	(60.0)	0.53	
Core EPS (THB)	0.52	0.48	0.16	(67.7)	(69.8)	2.01	0.93	(53.8)	0.21	

Sources: IVL; FSSIA estimates

EPS and TP revisions

We cut our net profit and EPS forecasts for 2020-22 by 38-85% to reflect 1) a lower PET-PTA margin by 40-67% in 2020-22 due to the COVID-19 impact that we expect to continue from 2020 into 2021-22, though to a lesser degree; 2) a lower PTA-PX margin by 19-36% due to the impact from the new supply influx in China and the weaker demand caused by the COVID-19 outbreak; and 3) we have incorporated the large 1H20 inventory loss of THB0.6b into our revised net profit and EPS forecast for 2020.

Exhibit 12: Change of key assumptions

	Current			Previous			Change		
	2020E (THB m)	2021E (THB m)	2021E (THB m)	2020E (THB m)	2021E (THB m)	2021E (THB m)	2020E (%)	2020E (%)	2020E (%)
Revenue	312,483	344,703	343,920	326,503	357,855	358,326	(4.3)	(3.7)	(4.0)
Gross profit	54,689	55,801	61,586	64,494	64,639	72,731	(15.2)	(13.7)	(15.3)
Operating profit	32,815	35,119	40,951	41,639	43,168	51,232	(21.2)	(18.6)	(20.1)
Recurring net profit	1,189	7,531	12,590	7,735	13,500	20,259	(84.6)	(44.2)	(37.9)
Core EPS (THB)	0.2	1.3	2.2	1.4	2.4	3.6	(84.6)	(44.2)	(37.9)
Key assumptions	(USD/tonne)	(USD/tonne)	(USD/tonne)	(USD/tonne)	(USD/tonne)	(USD/tonne)	(%)	(%)	(%)
Utilisation rate (%)	86	87	88	86	87	88	-	-	-
PET margin	92	55	41	153	124	124	(39.6)	(55.5)	(66.9)
PTA-PX margin	61	81	86	96	106	106	(36.4)	(23.7)	(18.9)
MEG-(0.58) ethylene margin	180	200	200	180	200	200	-	-	-

Source: FSSIA estimates

Replacement value is now attractive. Our analysis indicates that IVL's share price is now attractive, trading at a 38% discount to our estimated replacement value of THB46. Historically, IVL's share price has traded at a 40% discount to a 50% premium to its replacement value. Hence, at the current 38% discount to replacement value, we think IVL is now attractive with a limited downside.

Exhibit 13: Implied EV/EBITDA valuation based on estimated replacement value

NAV based on replacement cost		Unit	Comment
Asset value	541,270	THB m	USD17.5b
Net debt	(116,782)	THB m	At end-21
NAV	424,489	THB m	USD13.7b
No. of outstanding shares	5,656	m shares	
NAV per share	75.1	THB/share	
Market price (as of 5 Nov 2020)	25.8	THB/share	
Market cap	145,642	THB m	
Net debt at end-2021E	116,782	THB m	
EV	262,424	THB m	
EV per share	46.4	THB/share	
EV % (discount)/premium to replacement value	(38.2)	%	
Base case - 2021E EBITDA	1,002	USD m	
Worst case - 20% drop in 2021E EBITDA	802	USD m	
Implied EV/EBITDA	At USD1b EBITDA	At USD0.8b EBITDA	Unit
At market price	8.4	10.6	x
At replacement value	13.7	17.1	x

Sources: IVL; FSSIA estimates

We have calculated our replacement value of THB46 by assigning different replacement costs, including working capital, for each product capacity according to their different geographical locations, considering that the construction costs for different products and countries differ. We have determined that IVL's replacement value before subtracting the net debt is USD17.5b, or THB541.3b.

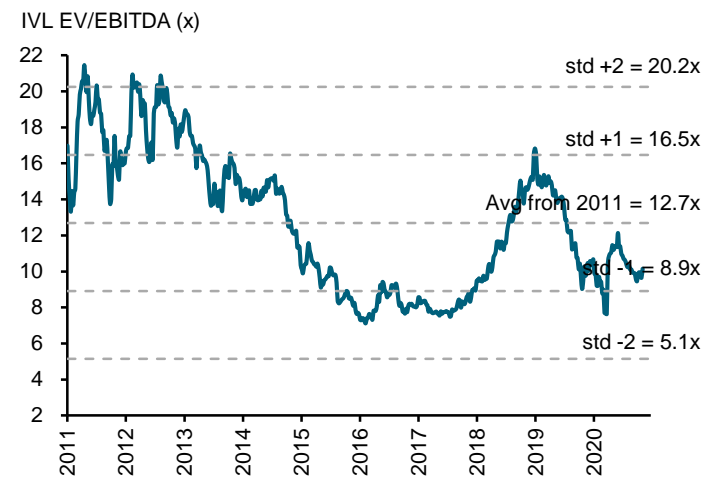
Exhibit 14: Replacement value, 2020E

2020E	Capacity (ktpa)	Replacement cost incl. net working capital (USD/t)	Replacement value (USD m)
PET Asia	2,544	550	1,399
PET EMEA	1,654	600	992
PET America	2,056	700	1,439
PTA Asia	1,886	600	1,132
PTA EMEA	1,768	650	1,149
PTA America	1,643	750	1,233
Recycling	253	2,000	506
PX	720	500	360
Packaging	279	1,500	419
PIA	267	800	214
NDC	27	8,000	216
IVOG	495	1,400	693
IVOL	440	2,500	1,100
Spindletop	2,383	1,400	3,336
Fibres	2,182	1,500	3,272
Total in USD m			17,460
Total in THB m			541,270

Sources: IVL; FSSIA estimates

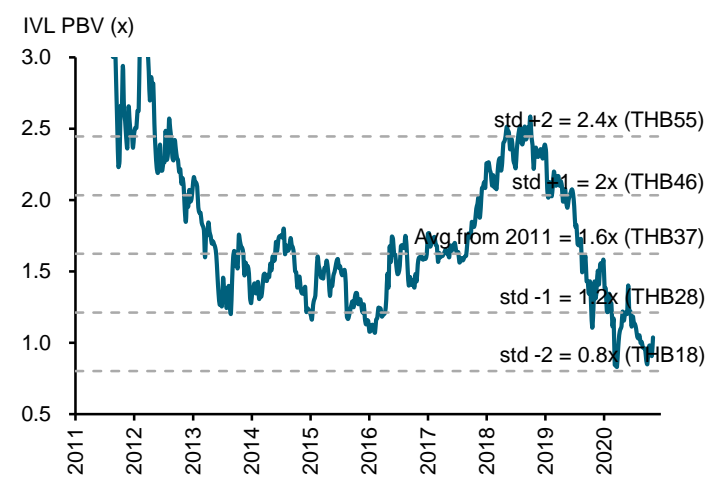
We lower our TP to THB36, based on 9.4x 2021E EV/EBITDA, from THB44, previously based on 9.6x 2021E EV/EBITDA, to reflect 1) the projected margin weakness for PTA but the resilient mid-cycle for PET in 2021-22; and 2) our EPS and EBITDA revisions. We think IVL remains attractive, trading at 7.7x 2021E EV/EBITDA and 1.0x 2021E P/BV, against its improving net profit outlook in 2021-22.

Exhibit 15: One-year prospective EV/EBITDA band



Sources: Bloomberg; FSSIA estimates

Exhibit 16: One-year prospective P/BV band



Sources: Bloomberg; FSSIA estimates

Exhibit 17: Peer comparisons

Company	BBG code	Rec	Share Price (LCY)	Target price (LCY)	Upside (%)	Market Cap (USD m)	3Y EPS CAGR (%)	-----PE-----		-----ROE-----		---PBV---		--EV/ EBITDA--	
								20E (x)	21E (x)	20E (%)	21E (%)	20E (x)	21E (x)	20E (x)	21E (x)
THAILAND															
Indorama Ventures	IVL TB	BUY	25.75	36.00	40	4,683	80.4	122.5	19.3	0.9	5.6	1.1	1.0	8.2	7.7
Irpc Pcl	IRPC TB	BUY	2.16	4.20	94	1,430	(309.3)	5.7	5.1	9.1	9.5	0.5	0.5	5.5	4.5
Ptt Global Chem	PTTGC TB	BUY	44.25	50.00	13	6,431	33.7	20.8	12.5	3.4	5.8	0.7	0.7	7.6	5.5
Siam Cement	SCC TB	BUY	350.00	445.00	27	13,605	3.9	12.7	11.8	11.5	11.7	1.4	1.3	12.8	12.3
Eastern Polymer	EPG TB	BUY	5.40	6.30	17	490	9.5	15.0	16.4	9.6	8.7	1.4	1.4	10.4	10.8
Vinythai Public	VNT TB	NA	24.90	NA	NA	943	(11.2)	13.0	10.4	10.3	12.2	1.3	1.2	6.7	5.8
THAILAND avg						27,582	7.2	32.9	12.9	7.6	9.1	1.1	1.1	10.2	9.3
INDIA															
Reliance Industries	RIL IN	NA	1,955.00	NA	NA	177,988	12.7	28.7	30.7	10.6	8.2	2.9	2.3	17.1	17.5
INDIA avg						177,988	12.7	28.7	30.7	10.6	8.2	2.9	2.3	17.1	17.5
TAIWAN															
Formosa Plastics	1301 TT	NA	81.50	NA	NA	18,178	2.7	28.9	15.9	5.4	9.2	1.6	1.5	22.3	16.7
Nan Ya Plastics	1303 TT	NA	61.50	NA	NA	17,062	14.6	26.6	17.8	5.2	8.0	1.4	1.3	17.4	16.5
Formosa Chem&Fi	1326 TT	NA	71.30	NA	NA	14,601	(3.1)	28.9	19.5	3.8	5.5	1.2	1.2	15.3	14.3
Formosa Petro	6505 TT	NA	81.20	NA	NA	27,035	5.8	134.8	23.4	1.4	9.8	2.5	2.3	48.4	14.3
TAIWAN avg						76,875	5.3	65.6	19.6	3.6	8.5	1.8	1.7	29.1	15.4
SOUTH KOREA															
Hanwha Solutions	009830 KS	NA	47,950.00	NA	NA	6,715	46.3	17.8	12.7	7.4	9.2	1.2	1.1	10.5	9.0
Lotte Chemical	011170 KS	NA	245,000.00	NA	NA	7,503	0.5	40.2	12.0	1.5	5.3	0.6	0.6	8.3	5.0
Lg Chem	051910 KS	NA	677,000.00	NA	NA	45,040	73.8	37.6	26.8	7.9	10.3	2.9	2.7	12.7	10.3
Kumho Petro	011780 KS	NA	154,000.00	NA	NA	4,040	14.6	10.1	9.8	15.9	14.6	1.6	1.4	6.9	6.7
Oci	010060 KS	NA	64,700.00	NA	NA	1,373	(217.6)	NA	14.5	(3.3)	4.1	0.6	0.6	39.0	7.9
SOUTH KOREA avg						64,671	52.6	33.3	22.3	7.4	9.7	2.4	2.2	12.2	9.3
MALAYSIA															
Petronas Chem	PCHEM MK	NA	6.37	NA	NA	11,939	3.5	30.4	19.9	5.5	7.7	1.6	1.5	11.6	8.9
Lotte Chemical Titan	TTNP MK	NA	2.25	NA	NA	1,251	(11.8)	51.8	25.1	0.9	1.4	0.4	0.4	2.3	2.1
MALAYSIA avg						13,191	2.0	32.5	20.4	5.1	7.1	1.5	1.4	10.7	8.3
Average (Asia)						360,306	17.5	37.9	25.1	8.1	8.5	2.4	2.0	18.0	14.6
US															
Eastman Chem	EMN US	NA	86.42	NA	NA	11,707	3.3	14.6	12.3	11.9	14.5	1.9	1.8	9.8	8.9
Dupont De Nem	DD US	NA	60.19	NA	NA	44,170	14.9	18.9	17.7	5.1	5.3	1.1	1.1	13.1	12.5
Celanese	CE US	NA	119.67	NA	NA	13,989	3.3	16.9	13.1	30.4	37.9	5.3	4.8	12.7	10.8
Westlake Chem	WLK US	NA	73.65	NA	NA	9,407	(2.9)	38.5	25.5	4.5	5.1	1.5	1.5	10.4	8.9
Ppg Industries	PPG US	NA	138.26	NA	NA	32,658	5.1	24.6	20.5	23.9	26.3	5.6	5.1	15.4	13.4
Alpek Sa De Cv	ALPEKA MM	NA	15.84	NA	NA	1,616	(20.4)	21.2	9.7	3.3	9.2	0.9	0.9	6.1	5.1
Avg (US)						113,547	7.5	21.5	17.9	14.3	16.4	3.0	2.8	13.1	11.8
ME/Europe															
Saudi Basic	SABIC AB	NA	89.90	NA	NA	71,910	7.6	245.0	29.3	0.6	5.5	1.7	1.7	14.1	10.1
Saudi Kayan	KAYAN AB	NA	10.04	NA	NA	4,015	(192.4)	NA	NA	(7.7)	(0.6)	1.1	1.1	17.5	11.3
Yanbu National	YANSAB AB	NA	57.00	NA	NA	8,549	9.1	60.1	28.4	3.3	8.1	2.1	2.2	18.1	12.9
Industries Qatar	IQCD QD	NA	9.60	NA	NA	15,706	9.1	30.5	22.0	4.9	6.6	1.8	1.7	25.4	19.5
Basf Se	BAS GR	NA	50.39	NA	NA	54,733	14.7	19.5	14.4	1.7	7.6	1.2	1.2	9.4	7.8
Arkema	AKE FP	NA	86.62	NA	NA	7,861	3.8	16.8	12.8	6.9	8.7	1.2	1.2	7.3	6.6
Lanxess Ag	LXS GR	NA	45.37	NA	NA	4,692	(6.1)	14.8	11.7	7.4	8.0	1.2	1.1	7.4	6.6
Solvay Sa	SOLB BB	NA	75.42	NA	NA	9,443	(0.7)	13.7	12.3	0.9	7.4	1.0	1.0	6.8	6.4
Avg (ME/Europe)						176,910	4.5	113.1	21.2	1.8	6.5	1.5	1.5	13.1	9.9
Petrochem under coverage							26,639	7.6	32.5	12.6	7.2	8.7	1.1	1.0	10.0
Average (all)						650,763	12.2	55.5	22.8	7.5	9.4	2.3	2.0	15.8	12.8

Share prices as of 5 Nov 2020

Sources: Bloomberg; FSSIA estimates

Financial Statements

Indorama Ventures

Profit and Loss (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022E
Revenue	347,171	352,692	312,483	344,703	343,920
Cost of goods sold	(277,071)	(292,304)	(257,794)	(288,902)	(282,334)
Gross profit	70,100	60,388	54,689	55,801	61,586
Other operating income	-	-	-	-	-
Operating costs	(28,569)	(33,914)	(21,874)	(20,682)	(20,635)
Operating EBITDA	41,531	26,475	32,815	35,119	40,951
Depreciation	(12,161)	(17,040)	(15,535)	(15,424)	(16,053)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	29,370	9,434	17,280	19,695	24,898
Net financing costs	(3,395)	(5,730)	(8,523)	(8,523)	(6,893)
Associates	586	5	491	506	506
Recurring non operating income	2,933	407	(5,709)	506	506
Non recurring items	1,243	1,787	1,785	1,785	1,785
Profit before tax	30,151	5,898	4,833	13,463	20,296
Tax	(3,812)	(1,534)	(1,257)	(3,502)	(5,279)
Profit after tax	26,339	4,364	3,576	9,961	15,017
Minority interests	128	888	(602)	(645)	(643)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	26,466	5,252	2,974	9,316	14,375
Non recurring items & goodwill (net)	(1,243)	(1,787)	(1,785)	(1,785)	(1,785)
Recurring net profit	25,224	3,465	1,189	7,531	12,590
Per share (THB)					
Recurring EPS *	4.46	0.61	0.21	1.33	2.23
Reported EPS	4.68	0.93	0.53	1.65	2.54
DPS	0.35	0.35	0.20	0.62	0.96
Diluted shares (used to calculate per share data)	5,656	5,656	5,656	5,656	5,656
Growth					
Revenue (%)	21.2	1.6	(11.4)	10.3	(0.2)
Operating EBITDA (%)	28.4	(36.3)	23.9	7.0	16.6
Operating EBIT (%)	35.6	(67.9)	83.2	14.0	26.4
Recurring EPS (%)	15.5	(86.3)	(65.7)	533.6	67.2
Reported EPS (%)	26.7	(80.2)	(43.4)	213.3	54.3
Operating performance					
Gross margin inc depreciation (%)	16.7	12.3	12.5	11.7	13.2
Gross margin of key business (%)	16.7	12.3	12.5	11.7	13.2
Operating EBITDA margin (%)	12.0	7.5	10.5	10.2	11.9
Operating EBIT margin (%)	8.5	2.7	5.5	5.7	7.2
Net margin (%)	7.3	1.0	0.4	2.2	3.7
Effective tax rate (%)	12.6	26.0	26.0	26.0	26.0
Dividend payout on recurring profit (%)	7.8	57.1	94.3	46.6	43.0
Interest cover (X)	9.5	1.7	1.4	2.4	3.7
Inventory days	76.5	82.6	83.0	73.2	78.5
Debtor days	36.7	37.2	37.8	33.8	35.5
Creditor days	65.6	74.2	81.8	72.1	77.3
Operating ROIC (%)	14.5	4.2	8.3	0.6	0.8
ROIC (%)	13.3	3.6	4.6	0.5	0.7
ROE (%)	19.3	2.5	0.9	5.6	8.7
ROA (%)	8.7	2.3	2.7	2.0	3.0
* Pre-exceptional, pre-goodwill and fully diluted					
Revenue By Division (THB m)					
PET	182,415	196,047	134,859	139,458	139,930
Feedstock	147,296	132,911	100,905	113,613	113,613
Fibres	99,207	107,059	90,601	110,868	109,613
Eliminations and unallocated	(81,747)	(83,325)	(13,882)	(19,236)	(19,236)

Sources: Indorama Ventures; FSSIA estimates

Financial Statements

Indorama Ventures

Cash Flow (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022E
Recurring net profit	25,224	3,465	1,189	7,531	12,590
Depreciation	12,161	17,040	15,535	15,424	16,053
Associates & minorities	-	-	-	-	-
Other non-cash items	(1,233)	(978)	(1,002)	(1,001)	(1,001)
Change in working capital	(5,933)	19,446	4,012	(3,215)	78
Cash flow from operations	30,218	38,973	19,734	18,739	27,719
Capex - maintenance	-	-	-	-	-
Capex - new investment	(16,275)	(16,233)	(13,200)	(13,200)	(13,200)
Net acquisitions & disposals	0	0	0	0	0
Other investments (net)	(39,953)	(9,065)	0	0	0
Cash flow from investing	(56,228)	(25,298)	(13,200)	(13,200)	(13,200)
Dividends paid	(9,615)	(6,929)	(1,980)	(1,121)	(3,511)
Equity finance	0	0	0	0	0
Debt finance	40,414	8,881	66,179	0	0
Other financing cash flows	(6,088)	(10,760)	2,898	2,926	2,923
Cash flow from Financing	24,711	(8,807)	67,097	1,805	(588)
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	0	0	0	0	0
Movement in cash	(1,299)	4,868	73,631	7,344	13,931
Free cash flow to firm (FCFF)	(21,782.24)	19,290.25	16,235.44	15,240.65	24,221.17
Free cash flow to equity (FCFE)	8,316.31	11,796.62	75,610.40	8,464.91	17,442.42
Per share (THB)					
FCFF per share	(3.88)	3.44	2.89	2.71	4.31
FCFE per share	1.48	2.10	13.47	1.51	3.11
Recurring cash flow per share	6.39	3.45	2.78	3.88	4.89
Balance Sheet (THB m) Year Ending Dec					
Tangible fixed asset (gross)	279,828	304,108	317,308	330,508	343,708
Less: Accumulated depreciation	(74,645)	(91,686)	(107,221)	(122,645)	(138,698)
Tangible fixed assets (Net)	205,182	212,423	210,087	207,863	205,011
Intangible fixed assets (Net)	0	0	0	0	0
Long-term financial assets	-	-	-	-	-
Invest. In associates & subsidiaries	0	0	0	0	0
Cash & equivalents	5,578	10,447	84,078	91,421	105,352
A/C receivable	37,637	34,305	30,394	33,528	33,452
Inventories	70,085	62,165	55,078	60,757	60,619
Other current assets	10,984	11,840	11,840	11,840	11,840
Current assets	124,284	118,757	181,390	197,546	211,263
Other assets	49,728	49,388	46,415	46,416	46,416
Total assets	379,195	380,568	437,892	451,826	462,690
Common equity	144,838	129,712	130,706	138,901	149,764
Minorities etc.	7,018	8,455	89	9,595	14,806
Total Shareholders' equity	151,855	138,167	130,795	148,496	164,570
Long term debt	93,244	105,611	171,790	171,790	171,790
Other long-term liabilities	20,395	11,828	4,169	10,135	11,897
Long-term liabilities	113,639	117,439	175,958	181,925	183,687
A/C payable	57,578	61,281	54,294	59,893	59,757
Short term debt	39,899	36,413	36,413	36,413	36,413
Other current liabilities	16,223	27,268	40,431	25,100	18,263
Current liabilities	113,700	124,962	131,139	121,405	114,433
Total liabilities and shareholders' equity	379,195	380,568	437,892	451,826	462,690
Net working capital	44,904	19,762	2,586	21,132	27,891
Invested capital	299,815	281,573	259,089	275,412	279,318
* Includes convertibles and preferred stock which is being treated as debt					
Per share (THB)					
Book value per share	25.61	22.93	23.11	24.56	26.48
Tangible book value per share	25.61	22.93	23.11	24.56	26.48
Financial strength					
Net debt/Equity (%)	84.0	95.2	94.9	78.6	62.5
Net debt/total assets (%)	33.6	34.6	28.3	25.8	22.2
Current ratio (x)	1.1	1.0	1.4	1.6	1.8
CF interest cover (x)	8.2	5.9	11.4	3.5	5.4
Valuation					
Recurring P/E (x) *	5.8	42.0	122.5	19.3	11.6
Recurring P/E @ target price (x) *	8.1	58.8	171.3	27.0	16.2
Reported P/E (x)	5.5	27.7	49.0	15.6	10.1
Dividend yield (%)	1.4	1.4	0.8	2.4	3.7
Price/book (x)	1.0	1.1	1.1	1.0	1.0
Price/tangible book (x)	1.0	1.1	1.1	1.0	1.0
EV/EBITDA (x) **	6.7	10.8	8.2	7.7	6.4
EV/EBITDA @ target price (x) **	8.1	13.0	10.0	9.4	7.8
EV/invested capital (x)	0.9	1.0	1.0	1.0	0.9
* Pre-exceptional & pre-goodwill are fully diluted ** EBITDA includes associate income and recurring non operating income					

Sources: Indorama Ventures; FSSIA estimates

Corporate Governance report of Thai listed companies 2019

EXCELLENT LEVEL										
AAV	ADVANC	AIRA	AKP	AKR	AMA	AMATA	AMATAV	ANAN	AOT	AP
ARROW	BAFS	BANPU	BAY	BCP	BCPG	BOL	BRR	BTS	BTW	BWG
CFRESH	CHEWA	CHO	CK	CKP	CM	CNT	COL	COMAN	CPALL	CPF
CPI	CPN	CSS	DELTA	DEMCO	DRT	DTAC	DTC	EA	EASTW	ECF
EGCO	GBX	GC	GCAP	GEL	GGP	GGC	GOLD	GPSC	GRAMMY	GUNKUL
HANA	HARN	HMPRO	ICC	ICHI	III	ILINK	INTUCH	IRPC	IVL	JKN
JSP	K	KBANK	KCE	KKP	KSL	KTB	KTC	KTIS	LH	LHFG
LIT	LPN	MAKRO	MALEE	MBK	MBKET	MC	MCOT	MFEC	MINT	MONO*
MTC	NCH	NCL	NKI	NSI	NVD	NYT	OISHI	OTO	PAP	PCSGH
PDJ	PG	PHOL	PJW	PLANB	PLANET	PORT	PPS	PR9	PREB	PRG
PRM	PSH	PSL	PTG	PTT	PTTEP	PTTGC	PYLON	Q-CON	QH	QTC
RATCH	ROBINS**	RS	S	S & J	SABINA	SAMART	SAMTEL	SAT	SC	SCB
SCC	SCCC	SCN	SDC	SEAFCO	SEAOIL	SE-ED	SELIC	SENA	SIS	SITHAI
SNC	SORKON	SPALI	SPI	SPRC	SSSC	STA	STEC	SVI	SYNTEC	TASCO
TCAP	THAI	THANA	THANI	THCOM	THIP	THREL	TIP	TISCO	TK	TKT
TMB	TMILL	TNDT	TOA	TOP	TRC	TRU	TRUE	TSC	TSR	TSTH
TTA	TTCL	TTW	TU	TVD	TVO	U	UAC	UV	VGI	VIH
WACOAL	WAVE	WHA	WHAUP	WICE	WINNER					
VERY GOOD LEVEL										
2S	ABM	ADB	AF	AGE	AH	AHC	AIT	ALLA	ALT	AMANA
AMARIN	APCO	APCS	AQUA	ARIP	ASAP	ASIA	ASIAN	ASIMAR	ASK	ASN
ASP	ATP30	AUCT	AYUD	B	BA	BBL	BDMS	BEC	BEM	BFIT
BGC	BGRIM	BIZ	BJC	BJCHI	BLA	BPP	BROOK	CBG	CEN	CENDEL
CGH	CHG	CHOTI	CHOW	CI	CIMBT	CNS	COLOR	COM7	COTTO	CRD
CSC	CSP	DCC	DCON	DDD	DOD	EASON	ECL	EE	EPG	ERW
ESTAR	ETE	FLOYD	FN	FNS	FORTH	FPI	FPT	FSMART	FSS	FVC
GENCO	GJS	GL	GLOBAL	GLOW**	GULF	HPT	HTC	HYDRO	ICN	IFS
INET	INSURE	IRC	IRCP	IT	ITD***	ITEL	J	JAS*	JCK	JCKH
JMART	JMT	JWD	KBS	KCAR	KBS	KIAT	KOOL	KWC	KWM	L&E
LALIN	LANNA	LDC	LHK	LOXLEY	LRH	LST	M	MACO	MAJOR	MBAX
MEGA	METCO	MFC	MK	MODERN	MOONG	MPG	MSC	MTI	NEP	NETBAY
NEX	NINE	NOBLE	NOK	NTV	NWR	OCC	OGC	ORI	OSP	PATO
PB	PDG	PDI	PL	PLAT	PNR	PPP	PRECHA	PRIN	PRINC	PSTC
PT	QLT	RCL	RICHY	RML	RWI	S11	SAAM	SALEE	SAMCO	SANKO
SAPPE	SAWAD	SCG	SCI	SCP	SE	SFP	SIAM	SINGER	SIRI	SKE
SKR	SKY	SMIT	SMK	SMP	SMT	SNP	SONIC	SPA	SPC	SPCG
SPVI	SR	SRICHA	SSC	SSF	SST	STANLY	STPI	SUC	SUN	SUSCO
SUTHA	SWC	SYMC	SYNEX	T	TACC	TAE	TAKUNI	TBSP	TCC	TCMC
TEAM	TEAMG	TFG	TFMAMA	THG	THRE	TIPCO	TITLE	TIW	TKN	TKS
TM	TMC	TMD	TMI	TMT	TNITY	TNL	TNP	TNR	TOG	TPA
TPAC	TPBI	TPCORP	TPOLY	TRITN	TRT	TSE	TSTE	TVI	TVT	TWP
TWPC	UBIS	UEC	UMI	UOBKH	UP	UPF	UPOIC	UT	UWC	VNT
WIKI	XO	YUASA	ZEN	ZMICO						
GOOD LEVEL										
A	ABICO	ACAP***	AEC	AEONTS	AJ	ALUCON	AMC	APURE	AS	ASEFA
AU	B52	BCH	BEAUTY	BGT	BH	BIG	BLAND	BM	BR	BROCK
BSBM	BSM	BTNC	CCET	CCP	CGD	CHARAN	CHAYO	CITY	CMAN	CMC
CMO	CMR	CPL	CPT	CSR	CTW	CWT	D	DIMET	EKH	EMC
EPCO	ESSO	FE	FTE	GIFT	GLAND	GLOCON	GPI	GREEN	GTB	GYT
HTECH	HUMAN	IHL	INGRS	INOX	JTS	JUBILE	KASET	KCM	KKC	KWG
KYE	LEE	LPH	MATCH	MATI	M-CHAI	MCS	MDX	META	MGT	MJD
MM	MVP	NC	NDR	NER	NNCL	NPK	NUSA	OCEAN	PAF	PF
PICO	PIMO	PK	PLE	PMTA	POST	PPM	PROUD	PTL	RCI	RJH
ROJNA	RPC	RPH	SF	SGF	SGP	SKN	SLP	SMART	SOLAR	SPG
SQ	SSP	STI	SUPER	SVOA	TCCC	THE	THMUI	TIC	TIGER	TNH
TOPP	TPCH	TPIPP	TPLAS	TQM	TTI	TYCN	UTP	VCOM	VIBHA	VPO
WIN	WORK	WP	WPH	ZIGA						
Score Range	Number of Logo					Description				
90-100						Excellent				
80-89						Very Good				
70-79						Good				
60-69						Satisfactory				
50-59						Pass				
Less than 50	No logo given					-				

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

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

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

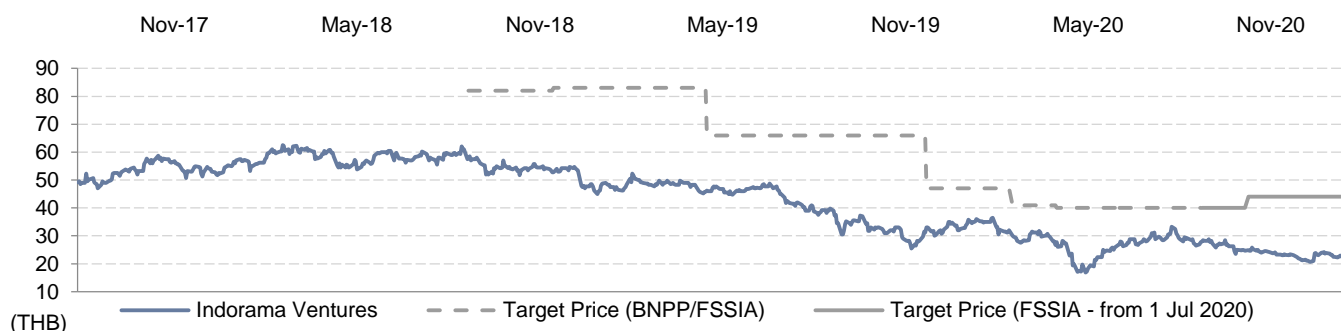
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s) 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)



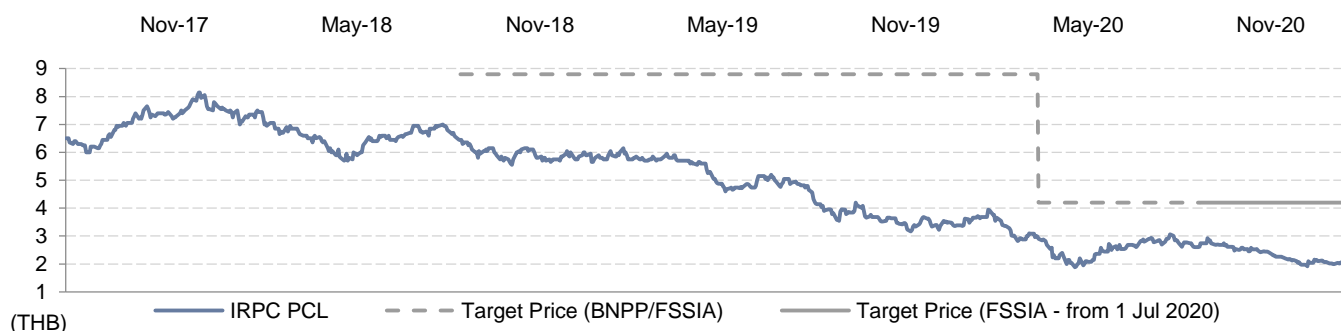
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Oct-2018	BUY	82.00	07-Nov-2019	BUY	47.00	09-Jun-2020	BUY	40.00
21-Dec-2018	BUY	83.00	20-Jan-2020	BUY	41.00	07-Aug-2020	BUY	44.00
02-May-2019	BUY	66.00	27-Feb-2020	BUY	40.00			

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

Price and TP are in local currency

Source: FSSIA estimates

IRPC PCL (IRPC TB)



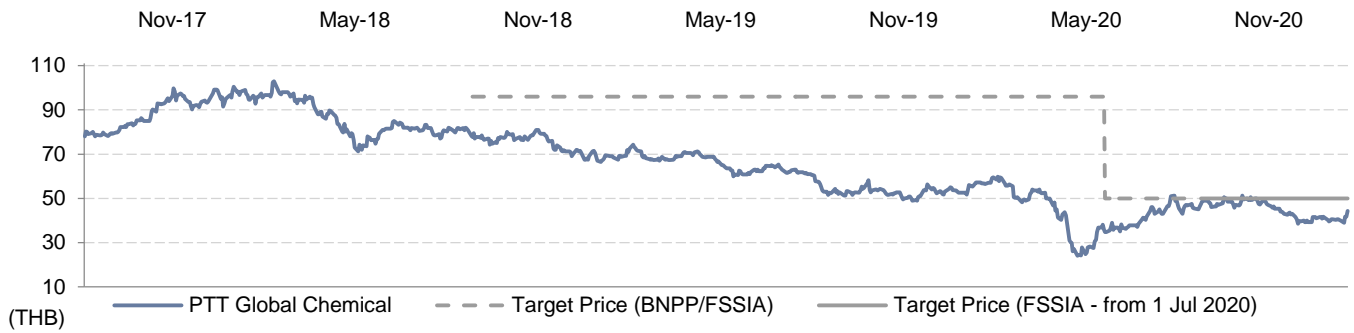
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Oct-2018	BUY	8.80	13-Feb-2019	BUY	8.80	14-Feb-2020	BUY	4.20

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

Price and TP are in local currency

Source: FSSIA estimates

PTT Global Chemical (PTTGC TB)



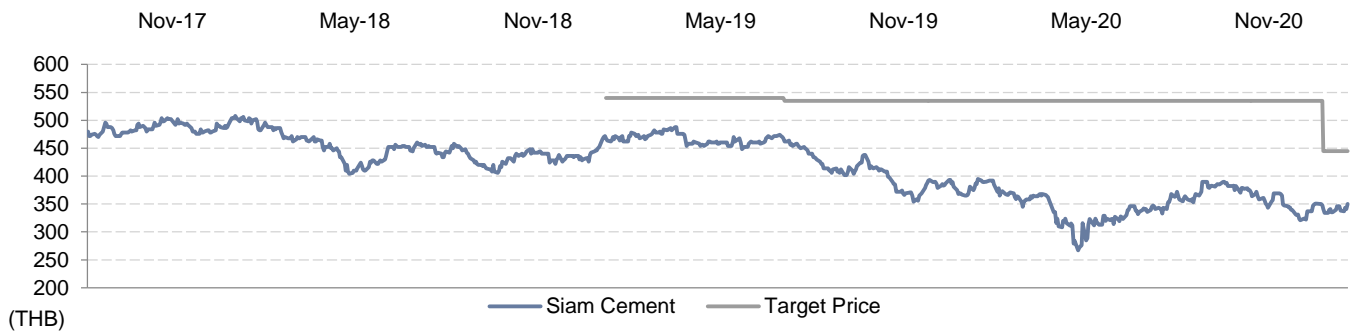
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Oct-2018	BUY	96.00	09-Apr-2020	BUY	50.00	-	-	-

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

Price and TP are in local currency

Source: FSSIA estimates

Siam Cement (SCC TB)



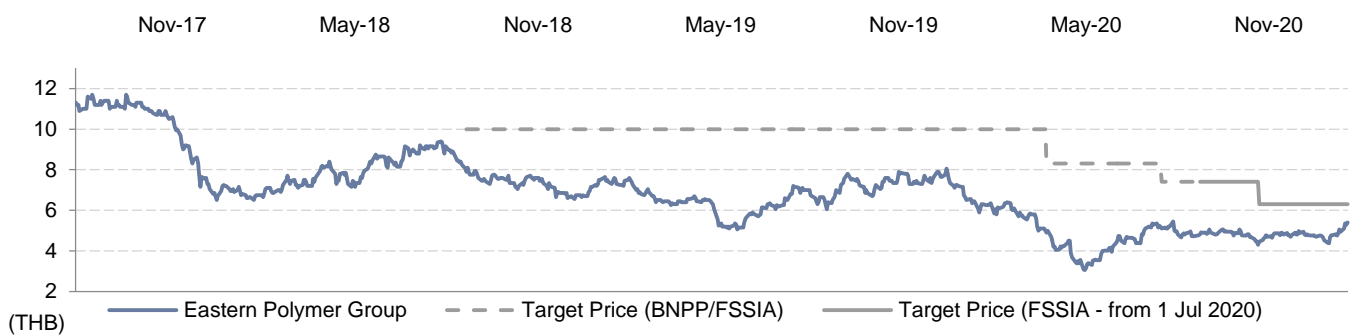
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
31-Jan-2019	BUY	540.00	02-Apr-2020	BUY	535.00	-	-	-
05-Jul-2019	BUY	535.00	14-Oct-2020	BUY	445.00	-	-	-

Suwat Sinsadok started covering this stock from 14-Oct-2020

Price and TP are in local currency

Source: FSSIA estimates

Eastern Polymer Group (EPG TB)



Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Oct-2018	BUY	10.00	29-May-2020	BUY	7.40	20-Aug-2020	BUY	6.30
20-Feb-2020	BUY	8.30	29-May-2020	BUY	7.40	-	-	-

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 25.75	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.
IRPC PCL	IRPC TB	THB 2.16	BUY	Key risks to our positive view and EV/EBITDA-based target price are weaker-than-expected oil product demand growth and lower-than-expected PP-naphtha and SM-benzene margins.
PTT Global Chemical	PTTGC TB	THB 44.25	BUY	The key downside risks to our EV/EBITDA-based TP are the weaker-than-expected HDPE price and HDPE-naphtha margin.
Siam Cement	SCC TB	THB 350.00	BUY	Downside risks to our call include 1) a lower-than-expected demand for chemicals, CBM, and packaging; 2) rising coal costs for its cement and packaging units; and 3) weaker demand from the automobile industry that could erode the demand for SCC's chemical unit and its dividend contributions.
Eastern Polymer Group	EPG TB	THB 5.40	BUY	Downside risks to our EV/EBITDA-based target price include 1) a sharp rise in feedstock prices, driven mostly by a higher oil price; and 2) lower-than-expected demand for plastics used for insulators and the automobile and packaging industries.

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 05-Nov-2020 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

Stock ratings are based on absolute upside or downside, which we define as (target price* - current price) / 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.