

22 DECEMBER 2020

THAILAND / OIL & GAS

IRPC PCL IRPC TB

BUY

UNCHANGED

TARGET PRICE	THB5.30
CLOSE	THB3.62
UP/DOWNSIDE	+46.4%
PRIOR TP	THB4.20
CHANGE IN TP	+26.2%
TP vs CONSENSUS	+74.0%

การ Turnaround กำลังจะเกิดขึ้นในไม่ช้า

การ Turnaround กำลังจะเกิดขึ้นในไม่ช้า

หลังจากเผชิญกับส่วนต่างผลิตภัณฑ์รวม (GIM) ที่ตกต่ำอันเนื่องมาจากค่าการกลั่นตามราคาตลาด (Market GRM) และผลขาดทุนจากสต็อกจำนวนมาก เราเชื่อว่า IRPC จะกลับมาทำกำไรปกติตั้งแต่ 4Q20 เป็นต้นไป จาก 1) ส่วนต่างผลิตภัณฑ์ปิโตรเคมีที่ปรับขึ้นอย่างโดดเด่น โดยเฉพาะสายสไตรีน เช่น Acrylonitrile butadiene styrene (ABS), polystyrene (PS) และ expanded polystyrene (EPS) รวมถึงส่วนต่างผลิตภัณฑ์โอเลฟินส์-แนฟทา ซึ่งส่วนใหญ่ได้แก่ Polypropylene (PP) และ 2) ค่าการกลั่นตามราคาตลาด (Market GRM) ที่จะปรับตัวดีขึ้นใน 1Q21

ส่วนต่างผลิตภัณฑ์ปิโตรเคมีคือหัวใจ

จากปัจจัยกระตุ้น 3 ประการได้แก่ การเติบโตของปริมาณขาย การเพิ่มขึ้นของส่วนต่างกำไร และต้นทุนที่ลดต่ำลง ซึ่งจะเป็นปัจจัยผลักดันให้ IRPC พลิกกลับเป็นกำไรได้ในปี 2021-22 เราคิดว่าส่วนต่างผลิตภัณฑ์ปิโตรเคมีเป็นปัจจัยขับเคลื่อนที่สำคัญที่สุดในขณะที่ผลิตภัณฑ์ Polyethylene (PE) มีสัดส่วนใน EBITDA เล็กน้อยเพียง 5% ในปี 2019 เราคิดว่าส่วนต่างผลิตภัณฑ์ PE-แนฟทา ที่ทรงตัวได้ดี ประกอบกับส่วนต่าง PP-แนฟทาที่แข็งแกร่ง จะช่วยหนุน GIM สายโอเลฟินส์ได้ USD4-5/บาร์เรล ในปี 2021-22 โดยได้อานิสงส์จากความต้องการสินค้าบรรจุภัณฑ์ที่เพิ่มขึ้นตามสินค้าที่เกี่ยวข้องกับสุขอนามัยอันเป็นผลมาจากการแพร่ระบาดของ COVID-19

เป็นตัวเลือกที่ดีที่สุดสำหรับอัตรากำไรที่แข็งแกร่งของผลิตภัณฑ์สายสไตรีน

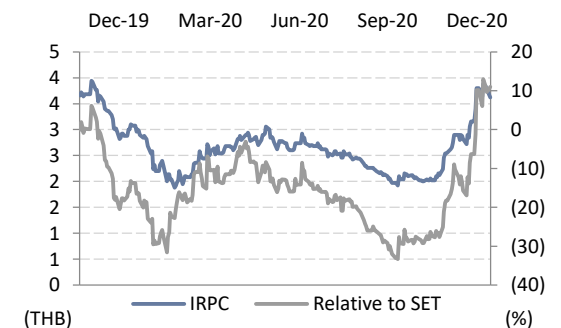
IRPC เป็นผู้ได้รับประโยชน์มากที่สุดในบรรดาผู้ผลิตสินค้าปิโตรเคมีทั้งหมดสำหรับผลิตภัณฑ์สไตรีน เนื่องจาก EBITDA จากผลิตภัณฑ์สายเบนซีน (ABS, PS และ EPS) มีสัดส่วน 15-20% ของ EBITDA ทั้งหมดในปี 2019 ซึ่งส่วนต่าง (GIM) ของผลิตภัณฑ์สายอะโรเมติกส์เบนซีนของ IRPC ได้ปรับขึ้นแล้วจาก USD1.22/บาร์เรลใน 1Q20 เป็น USD2.15/บาร์เรลใน 3Q20 และเราคาดว่า GIM ของอะโรเมติกส์จะปรับขึ้นเป็น USD2.5-3.0/บาร์เรลใน 4Q20 เพราะส่วนต่างผลิตภัณฑ์ที่สูงขึ้นมากของ ABS, PS และ EPS-แนฟทา

ยังคงแนะนำซื้อ ปรับราคาเป้าหมายขึ้นเป็น 5.3 บาท

เรายังคงแนะนำซื้อ และปรับราคาเป้าหมายขึ้นจาก 4.2 บาทซึ่งอิง 7.8x 2020E EV/EBITDA เป็น 5.3 บาทอิง 9x 2021E EV/EBITDA ซึ่งยังต่ำกว่าค่าเฉลี่ยย้อนหลัง 11 ปีของ IRPC สะท้อนแนวโน้ม Market GRM ที่ยังอ่อนแอ เราเชื่อว่าราคาหุ้น IRPC ปัจจุบันที่ซื้อขายที่ 4.8-7.2x 2021-22E EV/EBITDA และ 0.8-0.9x 2021-2022 P/BV ยังคงน่าสนใจแม้ว่าราคาหุ้นจะปรับขึ้นแรงในช่วงไม่นานที่ผ่านมา เนื่องจากเราคาดว่าผลประกอบการของ IRPC จะพลิกเป็นกำไรในปี 2021-22

KEY STOCK DATA

YE Dec (THB m)	2019	2020E	2021E	2022E
Revenue	239,315	195,659	244,442	255,150
Net profit	(1,174)	(6,808)	5,261	11,111
EPS (THB)	(0.06)	(0.33)	0.26	0.54
vs Consensus (%)	-	nm	113.1	205.1
EBITDA	4,231	12,458	19,114	28,418
Core net profit	(1,174)	(6,808)	5,261	11,111
Core EPS (THB)	(0.06)	(0.33)	0.26	0.54
Chg. In EPS est. (%)	nm	nm	(39.2)	(0.7)
EPS growth (%)	nm	nm	nm	111.2
Core P/E (x)	(63.0)	(10.9)	14.1	6.7
Dividend yield (%)	2.8	1.4	3.6	7.5
EV/EBITDA (x)	30.7	11.7	7.2	4.8
Price/book (x)	0.9	1.0	0.9	0.8
Net debt/Equity (%)	67.1	96.1	79.6	70.0
ROE (%)	(1.4)	(8.6)	6.9	13.4



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	38.0	76.6	6.2
Relative to country (%)	27.0	53.5	12.0
Mkt cap (USD m)	2,591		
3m avg. daily turnover (USD m)	21.5		
Free float (%)	52		
Major shareholder	PTT Plc. (48%)		
12m high/low (THB)	4.02/1.76		
Issued shares (m)	20,434.42		

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 22 ธันวาคม 2020

Investment thesis

We think IRPC's gross integrated margin will be driven by its upstream hygiene and value-added (UHV) unit, a higher refinery utilisation rate, and a favourable petrochemical product margin. With most of IRPC's upgrading and capacity expansion projects completed in 2017, we project the company's earnings to expand over 2021-22, led by: 1) y-y higher volumes for its refinery, aromatics and lube units due to the absence of major planned shutdowns; and 2) a market GRM recovery on the back of our projected diesel-Dubai spread recovery.

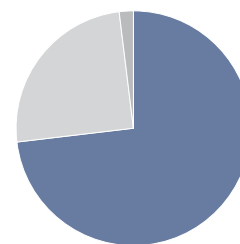
Company profile

IRPC is a fully integrated refinery and naphtha-based petrochemical producer. The company was founded in 1978 and listed in 1995.

www.irpc.co.th

Principal activities (revenue, 2019)

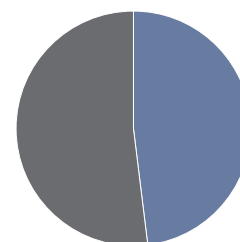
- Petroleum products - 73.1 %
- Petrochemical products - 24.9 %
- Other business - 1.9 %



Source: IRPC PCL

Major shareholders

- PTT Plc. - 48.1 %
- Others - 52.0 %



Source: IRPC PCL

Catalyst

Rising margins of PP-naphtha, SM and ABS-benzene, and market GRM are key potential earnings drivers for IRPC.

Risk to our call

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.

Event calendar

Date	Event
Feb 2021	4Q20/2020 results announcement

Key assumptions

	2020E	2021E	2022E
Oil price (USD/bbl)	44	52	50
Olefin utilisation rate (%)	92	93	94
Refinery utilisation rate (%)	90	96	97
Market GRM (USD/bbl)	(0.7)	1.7	4.8
Market GIM (USD/bbl)	8.6	11.8	14.9
HDPE-naphtha (USD/t)	590	473	532
PP-naphtha (USD/t)	620	573	632

Source: FSSIA estimates

Earnings sensitivity

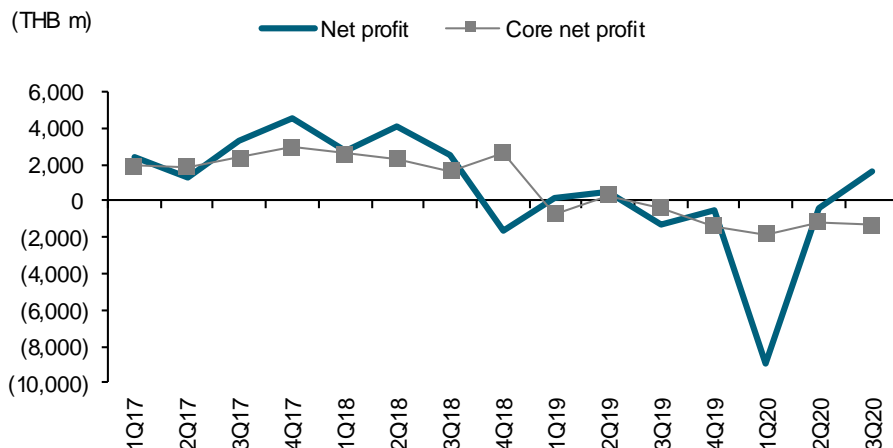
- For every 1% increase in avg. Dubai oil price, we project 2021 earnings to rise 1.4%, and vice versa, all else being equal.
- For every 1% increase in market GRM, we estimate 2021 earnings to rise 1.2%, and vice versa, all else being equal.
- Stability in crude oil price, rising diesel cracks and low crude premiums are key for earnings growth.

Source: FSSIA estimates

A turnaround on the horizon

After suffering from a poor market GIM, mainly as a result of the depressed market GRM and large inventory losses, we believe IRPC's quarterly results could turn profitable in 4Q20 onward. We expect this to be backed by 1) continued strong petrochemical product margins, particularly the styrene chain, which includes ABS, PS, and EPS, and the olefins-naphtha margins, mainly PP; and 2) an improving market GRM from its depressed level by 1Q21.

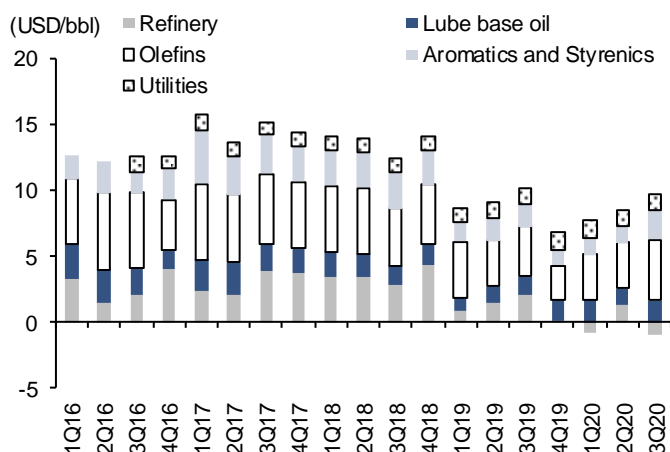
Exhibit 1: Quarterly net profits



Sources: IRPC; FSSIA estimates

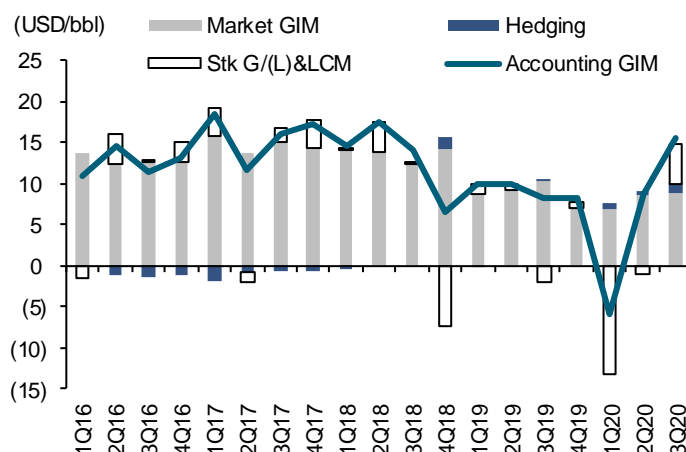
However, we expect IRPC's 4Q20 net profit to remain weak due to the THB1.7b one-time severance payment expense booked for the early retirement of employees, for which the company expects to cut costs by THB0.5b-1.0b annually starting in 2021 onward. We think that starting in 1Q21, IRPC could see a meaningful net profit turnaround driven by a market GRM recovery, sustained solid petrochemical margins, and lower operating costs from the lower number of employees. We project the staff reduction to lower IRPC's OPEX by USD0.2-0.5/bbl in 2021-24.

Exhibit 2: Quarterly net profit breakdown



Source: IRPC

Exhibit 3: Market GIM, hedging gain (loss), stock gain (loss) and lower of cost or market (LCM), and accounting GIM



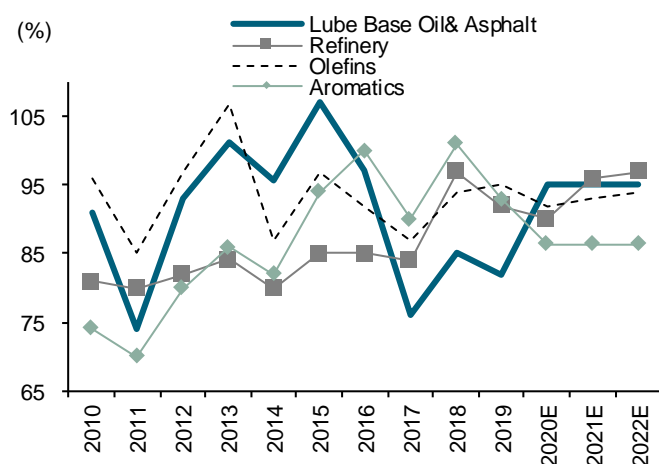
Source: IRPC

We see three catalysts – volume growth, margin expansion, and lower cost - to drive IRPC's net profit turnaround in 2021-22.

Sales volume growth. In 2020, IRPC has suffered from multiple planned shutdowns of its refinery and petrochemical units. However, in 1Q21, IRPC has a small number of planned shutdowns, including a one-month shutdown of its upgrading HYVAHL unit, but we think the impact will be small and hence project IRPC's refinery utilisation rate to rise from 193kbpd, or 90%, to 206kbpd, or 96%, in 2021 and 208kbpd, or 97%, in 2022.

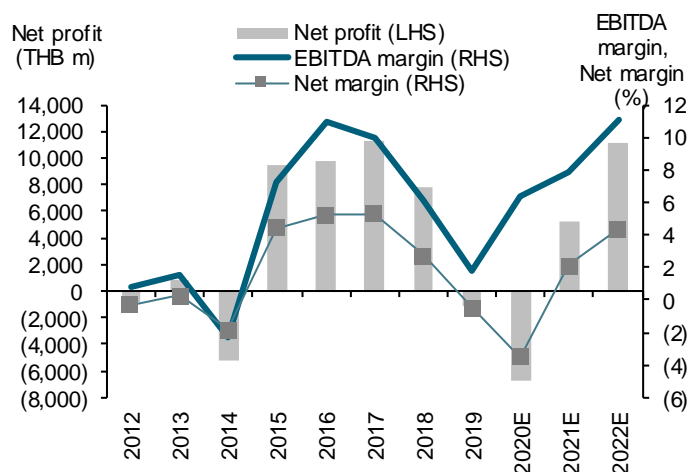
Other production units, including lube, aromatics, and olefins, are expected to remain high in 2021-22 at 86% for aromatics, 93% for olefins, and 95% for lube, thanks to the projected demand recoveries once the COVID vaccines have been successfully implemented, based on our estimate.

Exhibit 4: IRPC's utilisation



Sources: IRPC; FSSIA estimates

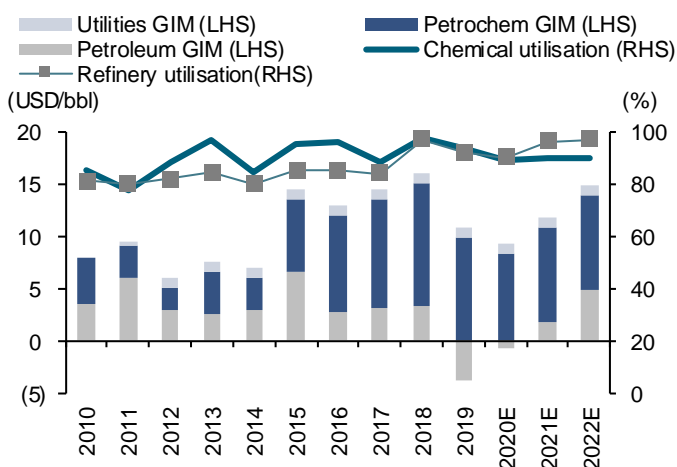
Exhibit 5: IRPC's net profit & margin



Sources: IRPC; FSSIA estimates

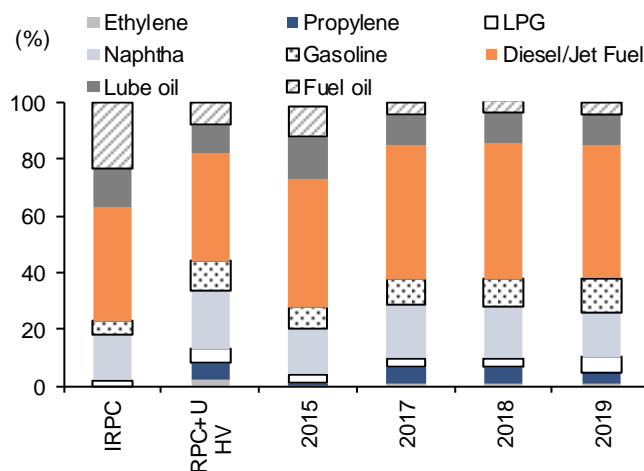
We now project that IRPC will post a net loss of THB6.8b in 2020 due to the weak GIM, planned shutdowns and large inventory losses. However, we forecast IRPC's net profit to turn around and rebound sharply by 2Q21, driven by continued strong petrochemical product margins, an improving market GIM, and higher production volumes.

Exhibit 6: IRPC's projected GIM



Sources: IRPC; FSSIA estimates

Exhibit 7: IRPC's refinery product yield pre- and post-UHV

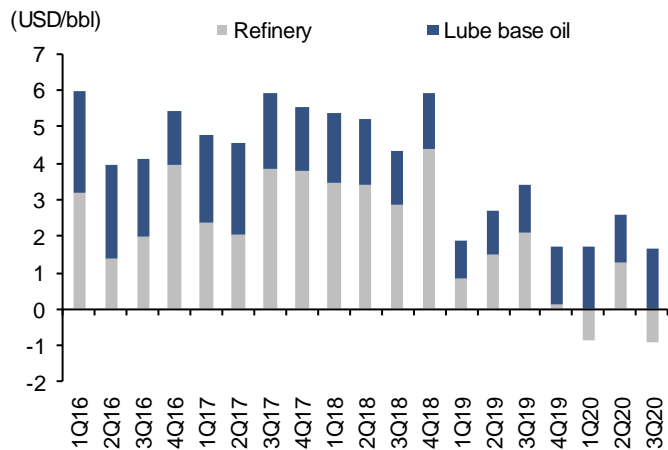


Sources: IRPC; FSSIA estimates

Margin expansion underway

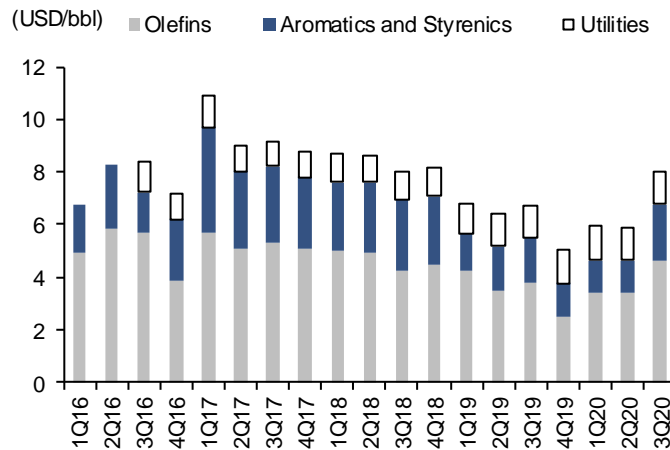
In 2019-20, IRPC suffered from a depressed GRM, which plunged from USD13.6/bbl in 2018 to USD9.3/bbl in 2019 and USD1.38/bbl in 9M20, down from 2.67/bbl in 9M19. The key drag was the depressed refinery GRM, which dropped to a negative USD0.17/bbl in 9M20, down from USD1.46/bbl in 9M19.

Exhibit 8: Petroleum GIM collapsed in 9M20 due to the sharp drop in refinery GRM



Source: IRPC

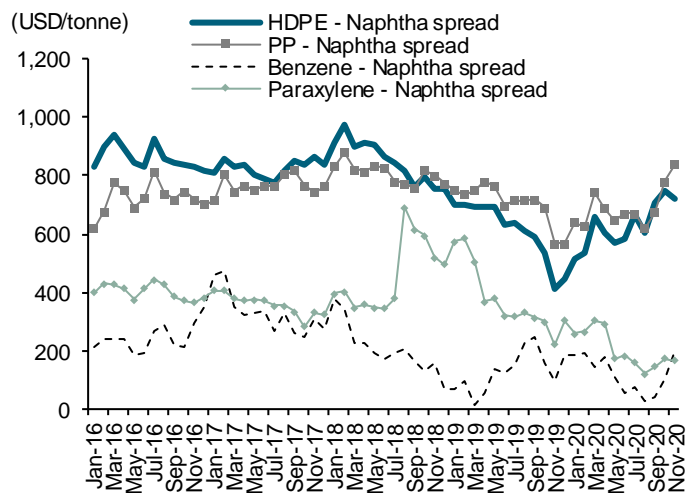
Exhibit 9: Petrochemical GIM recovered from the bottom in 4Q19, led by olefins GIM



Source: IRPC

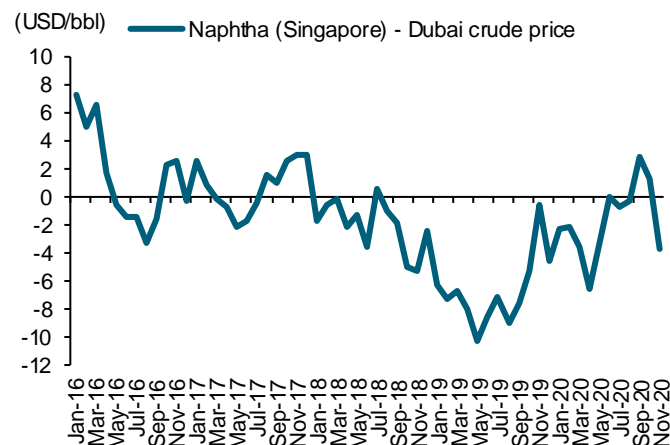
Petrochemical products: from the weakest link in 2019 to stronger products in 2020. However, IRPC's petrochemical GIM remained highly resilient, staying above USD5/bbl in 2019-9M20, backed by the olefins margin recovery since bottoming in 4Q19. In 3Q20, the aromatics unit's margin, led by ABS and PS, started to improve, driven by the tight supply and strong demand recovery.

Exhibit 10: Key product margins



Source: Bloomberg

Exhibit 11: Naphtha (Singapore) – Dubai crude price

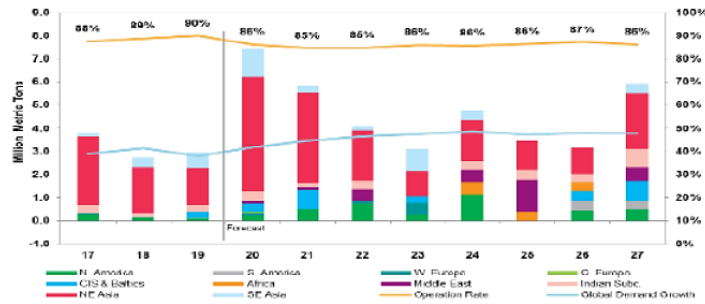


Source: Bloomberg

The margins of two olefins products – PP (1/3 of IRPC's EBITDA) and PE (5%) – over the naphtha cost have continued to strengthen, rising since 4Q19, even during the global lockdowns as a result of the COVID-19 outbreak.

We believe the PP-naphtha margin is likely to sustain at over USD600/t in 2021-22, even with the upcoming new supply of PP thanks to the strong demand for PP for the packaging and automotive industries and the weak naphtha cost. The naphtha cost has currently declined to a USD4/bbl discount to the Dubai crude oil price, down from a premium of USD2/bbl in 3Q20, due to the new supply influx from China.

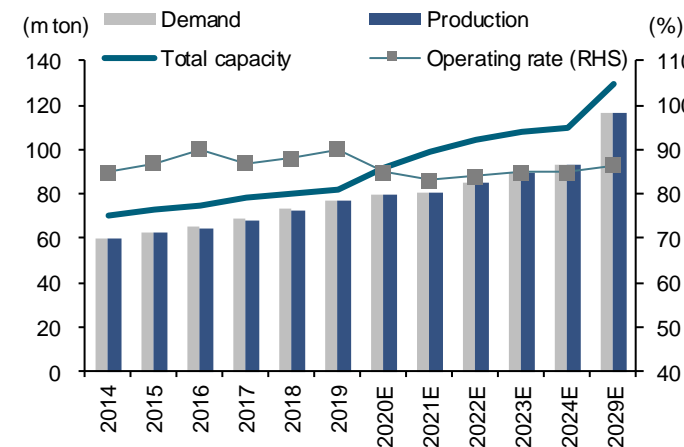
Exhibit 12: Polypropylene additional capacity



Source: IRPC

According to IRPC, the global PP plant operating rate is projected to decline from 90% in 2019 to 86% in 2020, and could flatten at 85-86% for the next seven years from 2021-27, thanks to the relative balance between new demand and supply. In addition, the consumption per capita of PP globally is projected to rise post-COVID-19, because PP applications for packaging should increase substantially, based on IRPC's estimate. We think that both the olefins-naphtha and PE-naphtha margins will remain strong in 2021-22, in the range of USD500-600/t for ethylene and USD500-700/t for PE.

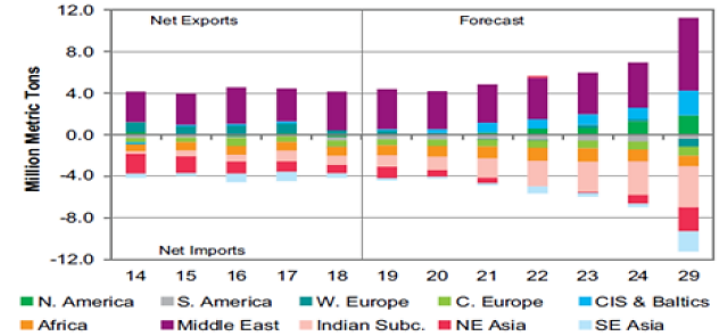
Exhibit 14: Polypropylene world operating rate



Source: IRPC

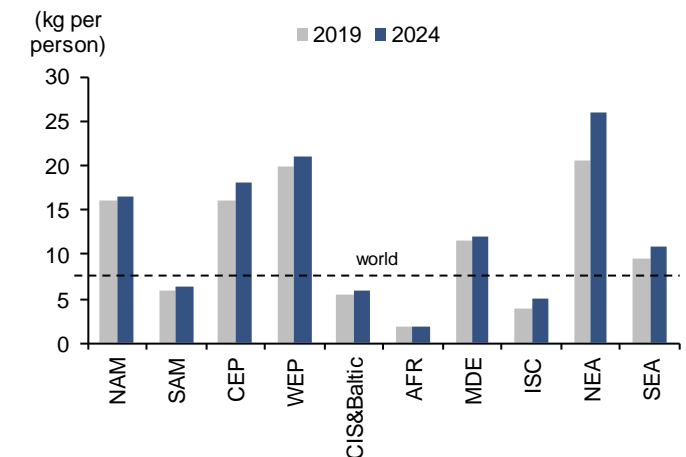
Exhibit 13: Regional polypropylene net trade

Mainly export from ME to Asia

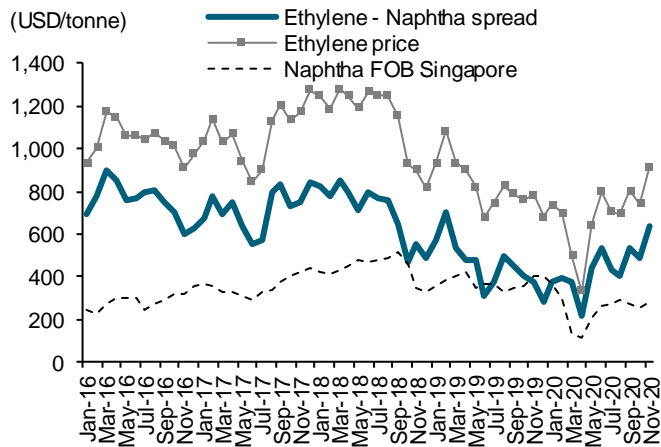


Source: IRPC

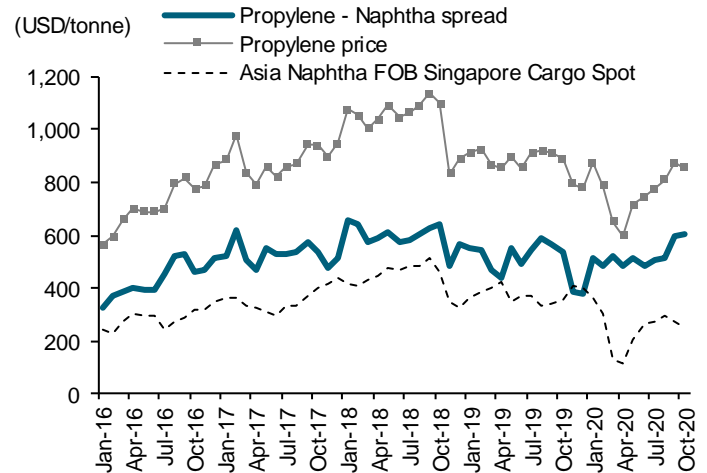
Exhibit 15: Polypropylene per capita consumption



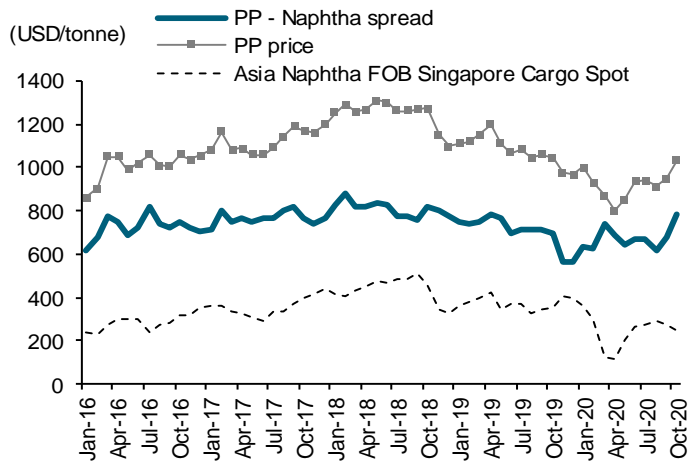
Source: IRPC

Exhibit 16: Naphtha spread – Ethylene

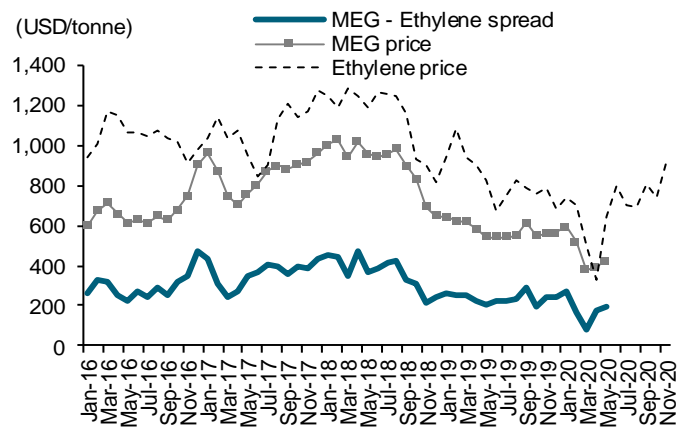
Source: Bloomberg

Exhibit 17: Naphtha spread – Propylene

Source: Bloomberg

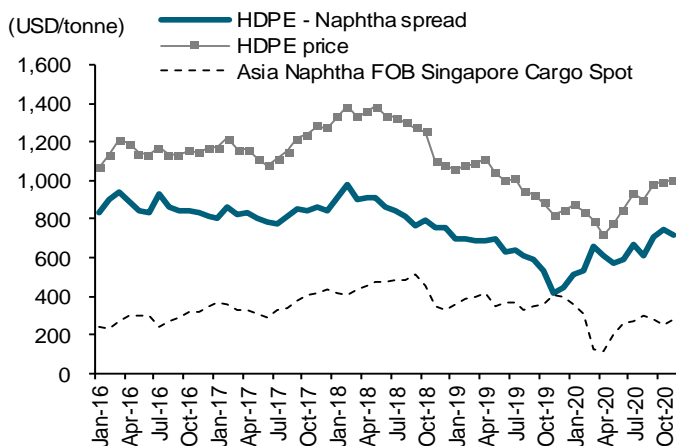
Exhibit 18: Naphtha spread – PP

Source: Bloomberg

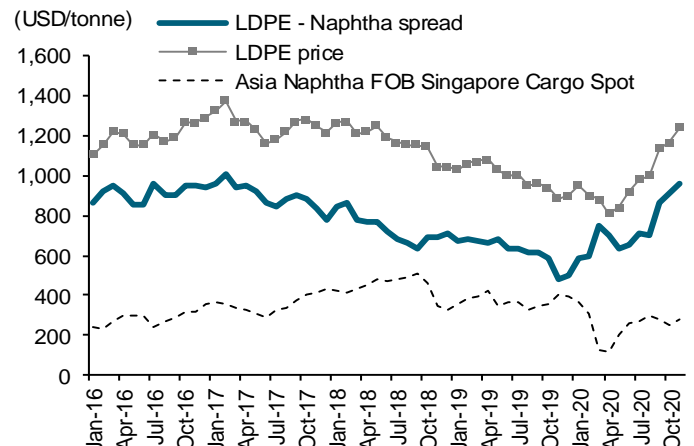
Exhibit 19: Ethylene spread – MEG

Source: Bloomberg

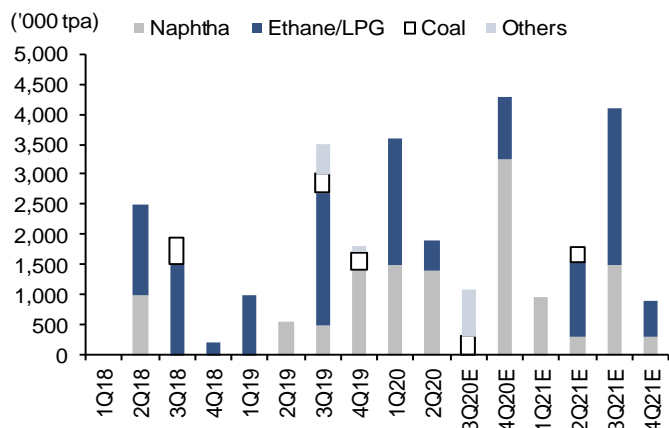
While PE products contributed small EBITDA to IRPC at 5% in 2019, we think the resilient PE-naphtha margin, combined with a strong PP-naphtha margin, could help support IRPC's olefins GIM at USD4-5/bbl in 2021-22, thanks to the rising demand for packaging caused by the high consumption of hygienic products after the global COVID-19 outbreak.

Exhibit 20: Naphtha spread – HDPE

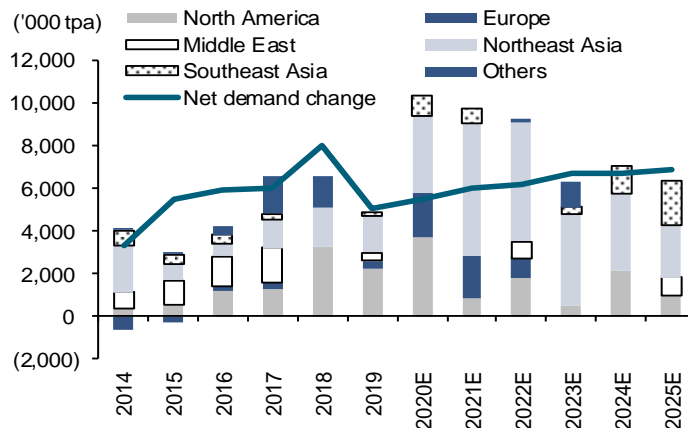
Source: Bloomberg

Exhibit 21: Naphtha spread – LDPE

Source: Bloomberg

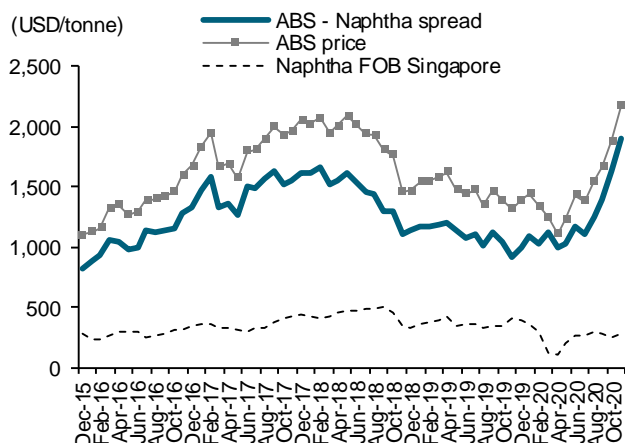
Exhibit 22: Global ethylene capacity addition by feedstock

Source: Extracted from PTTGC's investor presentation

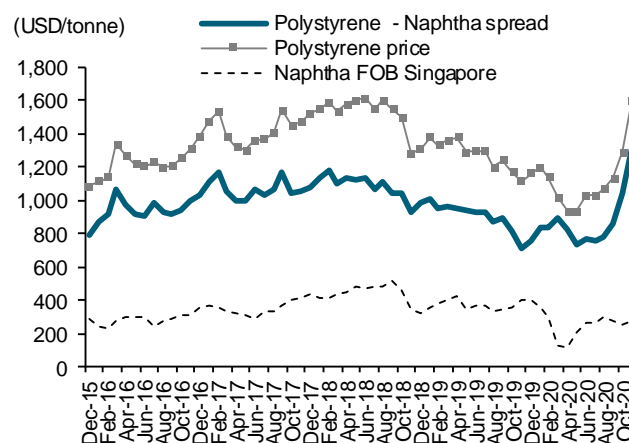
Exhibit 23: Global ethylene supply vs demand growth

Source: Extracted from PTTGC's investor presentation

Upsides from benzene products in 2021. Since Jul-20, the margins of IRPC's downstream benzene-chain products have all jumped markedly, led by ABS-naphtha which surged from USD1,000/t in Apr-20 to USD1,900/t in Nov-20. Similarly, the PS-naphtha margin rose from USD800/t in Apr-20 to USD1,350/t in Nov-20.

Exhibit 24: Naphtha spread – ABS

Source: Bloomberg

Exhibit 25: Naphtha spread – Polystyrene

Source: Bloomberg

IRPC is the largest beneficiary of styrene products among Thai petrochemical producers, with EBITDA from benzene-chain products (ABS, PS, and EPS) accounting for 15-20% of total EBITDA in 2019. The GIM of IRPC's aromatics benzene chain has already risen from USD1.22/bbl in 1Q20 to USD2.15/bbl in 3Q20, and we project the aromatics GIM to rise to USD2.5-3.0/bbl in 4Q20, driven by the sharp rise in ABS, PS, and EPS-naphtha margins.

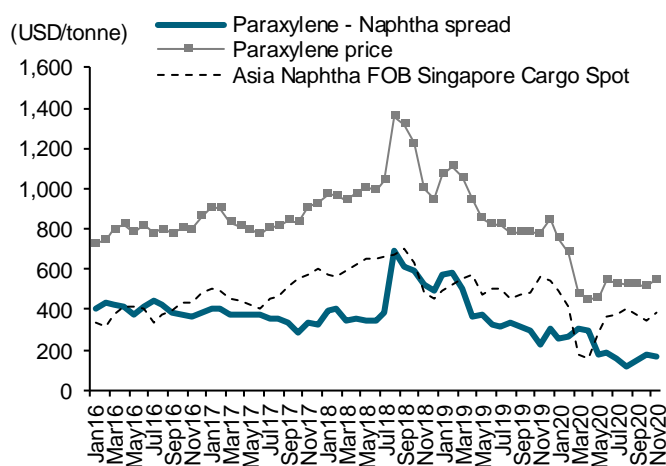
Exhibit 26: Capacity comparison of benzene and derivatives

Benzene capacity	TOP	PTTGC	IRPC	Unit
Capacity	0.26	0.70	0.14	mtpa
Production	0.25	0.60	0.14	mtpa
Internal consumption	0.04	0.42	0.14	mtpa
External sales	0.21	0.18	0.00	mtpa
Downstream capacity				
Linear Alkyl Benzene (LAB)	0.10			mtpa
Phenol		0.91		mtpa
Styrene Monomer (SM)			0.26	mtpa
Acrylonitrile Butadiene Styrene (ABS)			0.18	mtpa
Polystyrene (PS)			0.11	mtpa

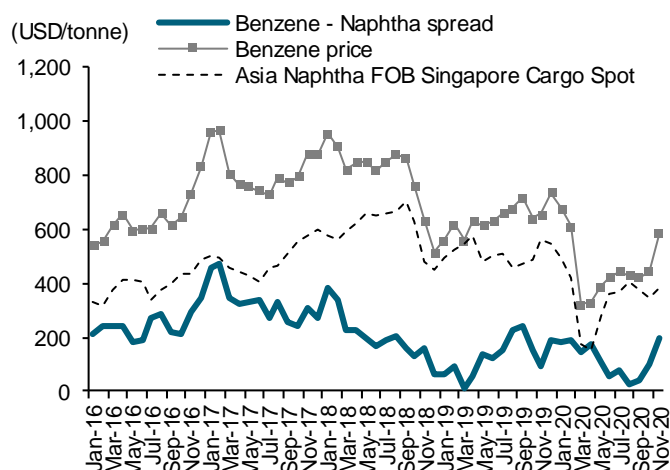
Source: IRPC

Expect a high, sustained GIM for aromatics products in 2021. We project that IRPC should see a GIM of USD2-3/bbl in 2021-22, given the higher demand, lower feedstock cost, and a relatively balanced demand-supply.

Lower feedstock cost. Despite the higher prices of ABS, PS, and EPS, the prices of benzene and paraxylene (PX) – a co-product of the benzene production process – have remained weak due to the large influx of new supply, mainly from China. The benzene-naphtha margin has hovered below USD300/t since mid-2018 when the US-China trade war kicked off. Fortunately, IRPC saw little impact from the weak benzene-naphtha margin, given that it sells no benzene and consumes all of its benzene internally for its production of ABS, PS, and EPS.

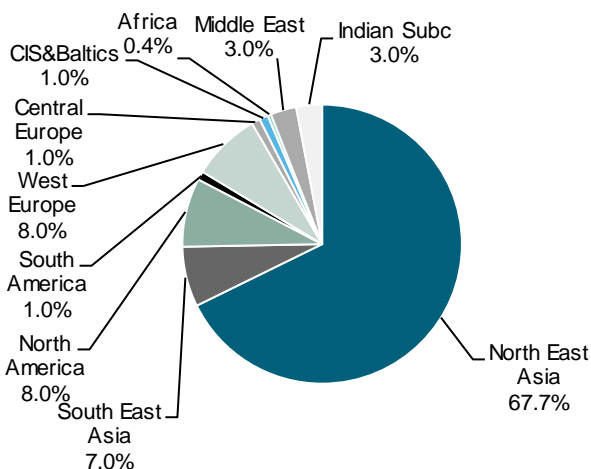
Exhibit 27: Naphtha spread – Paraxylene

Source: Bloomberg

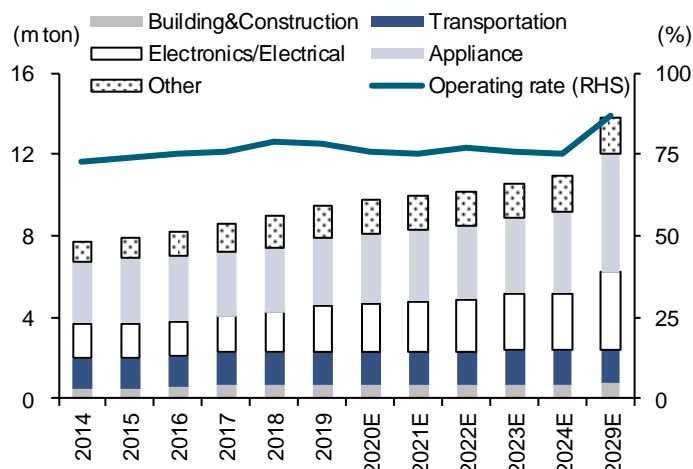
Exhibit 28: Naphtha spread – Benzene

Source: Bloomberg

Higher demand for ABS. ABS is IRPC's largest downstream product in the benzene and styrene chain, with a total capacity of 18,000tpa, accounting for around 2% of the global ABS capacity in 2019. After China reopened its economy in 3Q20, the demand for ABS, mainly from home appliance 'white goods' and from the electronics and electrical industries, increased markedly, driving up the ABS-naphtha margin. We think the demand growth should continue into 2021, and hence project a high ABS-naphtha margin of over USD1,200/t for that year.

Exhibit 29: 2019 ABS demand by region

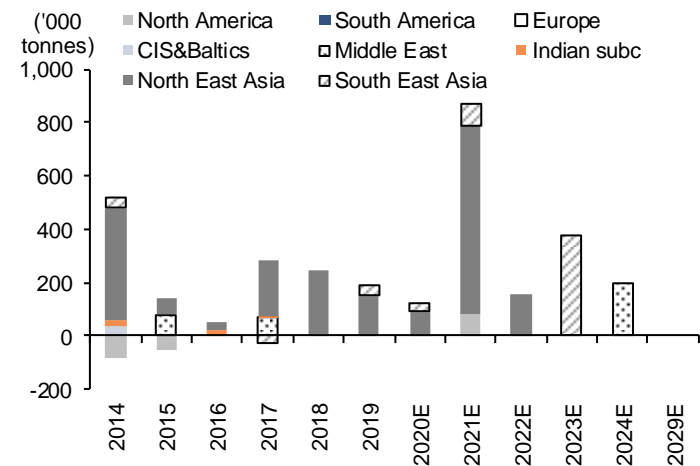
Source: IRPC

Exhibit 30: ABS demand by application

Source: IRPC

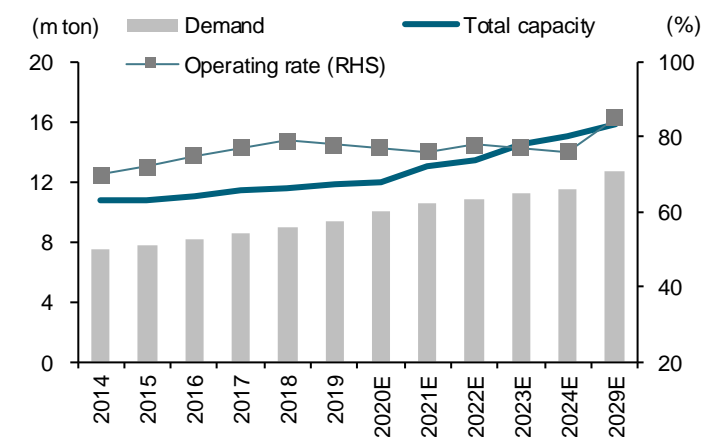
The ABS oversupply impact will likely soften the ABS-naphtha margin in 2021 onward. While we project the new ABS supply to rise in 2021 to 9mt, we think the negative impact would be lower than the market expects. However, it could still curb the ABS-naphtha margin from USD1,900/t down to USD1,300-1,500/t, considering that 1) some new supply is likely to be delayed to 2022 due to the COVID-19 impact; and 2) the demand growth should continue to absorb the supply growth.

Exhibit 31: ABS capacity addition by region



Source: IRPC

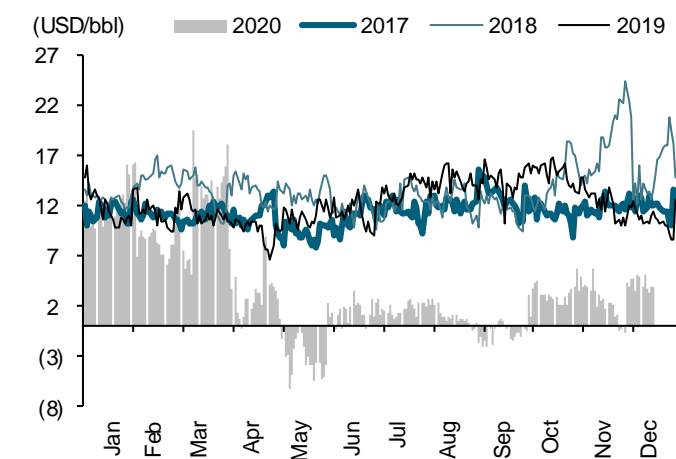
Exhibit 32: ABS supply and demand



Source: IRPC

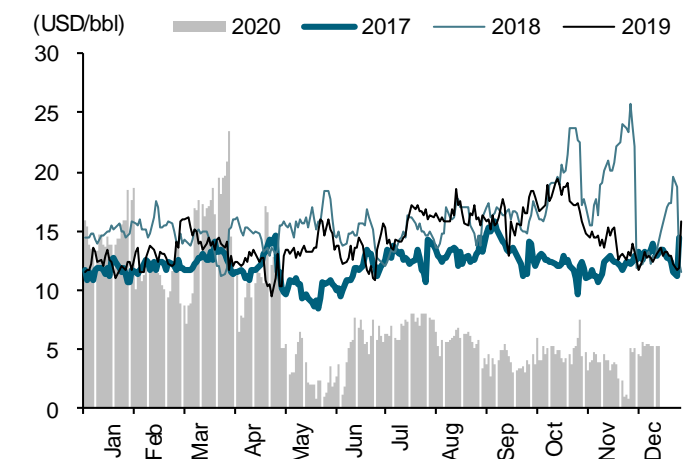
Petroleum product margins should be on the path to recovery in 2021. Since 1Q19, IRPC has suffered from a series of poor quarterly market GRMs, falling from USD4.37/bbl in 4Q18 down to negative USD0.94/bbl in 3Q20. The main culprit was the collapsing jet-Dubai margin caused by the abrupt disruption to the jet demand on the back of the global flight bans implemented to fight the COVID-19 outbreak. The weak jet-Dubai margin led to a global production diversion from jet to diesel, which later saw the diesel-Dubai margin plunge below USD8/bbl since May-20.

Exhibit 33: Jet Kerosene fob Spot Price - Dubai crude oil price



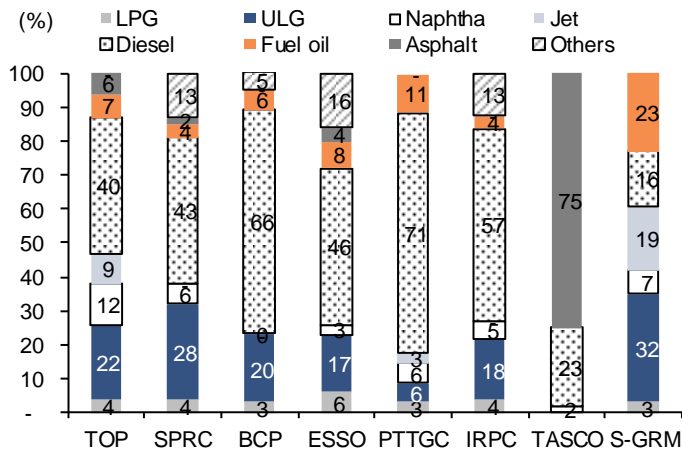
Source: Bloomberg

Exhibit 34: Gasoil 0.5% Sulphur fob SG Spot Price - Dubai crude oil price

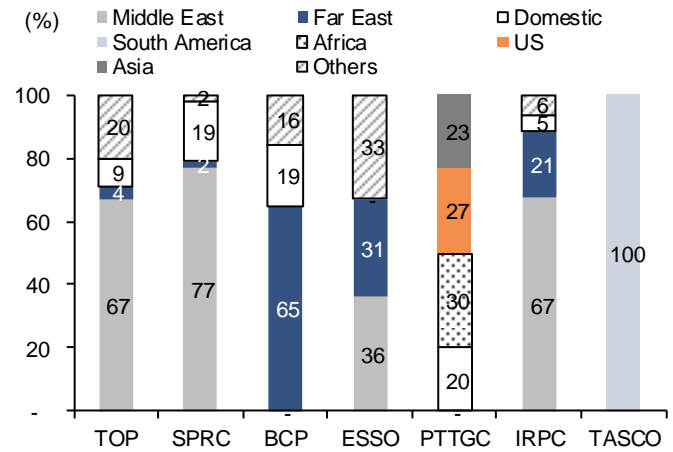


Source: Bloomberg

In response to the abrupt change in the industry, IRPC reduced its jet-fuel production to zero and produced a higher amount of diesel instead, at a 57% yield. However, the strategy has so far been insufficient to return IRPC's market GRM to a positive level, due to the weak diesel-Dubai margin.

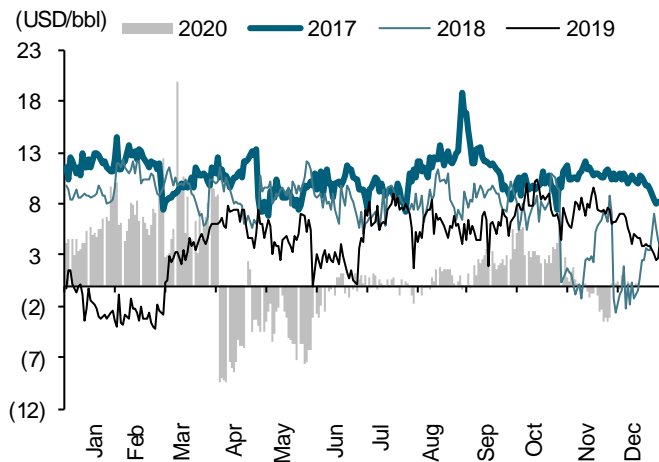
Exhibit 35: Product yield breakdown as of 3Q20

Source: Companies

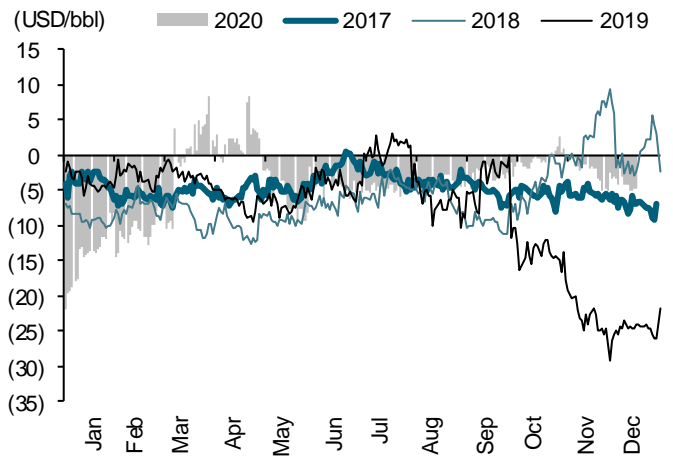
Exhibit 36: Crude mix breakdown as of 3Q19

Source: Companies

IRPC's crude strategy to lower the proportion of the expensive Arab Light (ARL) crude, a key feedstock to produce the feedstock for its lube plant, from 35% to 30% of its total crude intake, has effectively improved its market GRM by USD0.2-0.4/bbl, based on our estimate. However, the 5% lower ARL proportion was replaced with another light crude, Murban, which resulted in a higher diesel yield but not gasoline – the product with a higher margin over the Dubai crude price. Hence, IRPC continued to suffer from a weak market GRM in 9M20.

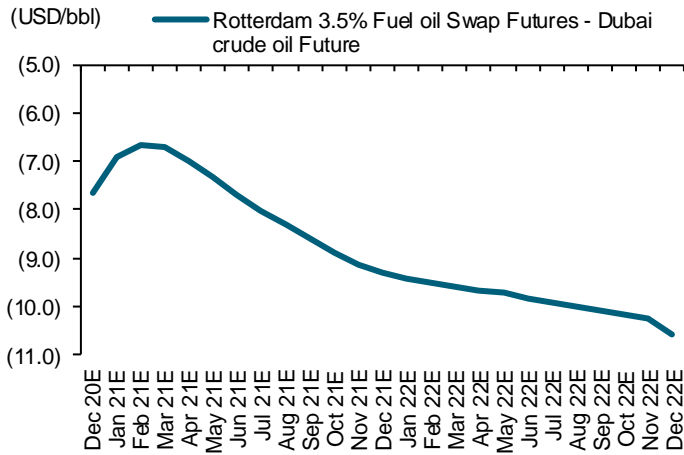
Exhibit 37: 92 Octane Gasoline fob Spot Price – Dubai crude oil price

Source: Bloomberg

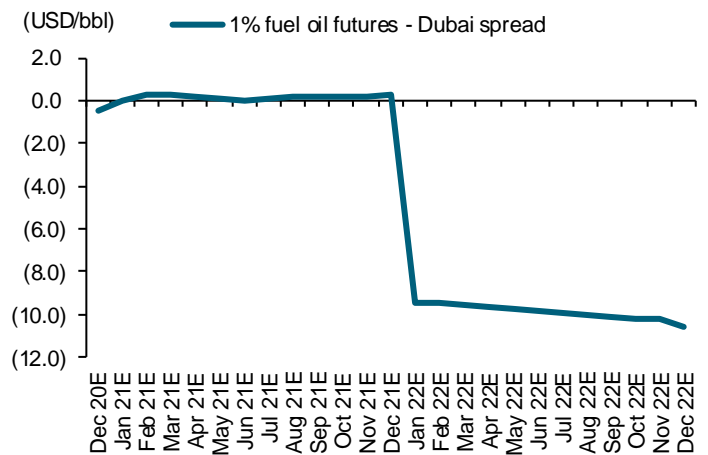
Exhibit 38: High Sulphur Fuel Oil Spot fob Singapore – Dubai crude oil price

Source: Bloomberg

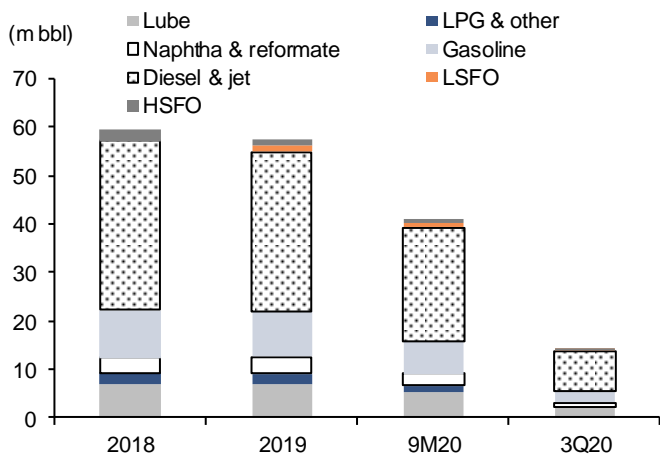
Since Jul-19, IRPC has continued to produce only low sulphur fuel oil (LSFO) at 4% of its total yield and zero high sulphur fuel oil (HSFO), given the higher margin of LSFO-Dubai vs HSFO-Dubai. It is likely that IRPC will continue to produce LSFO at a 4% yield in 2021, as we project the LSFO-Dubai margin to rise after the global freight industry returns to normality.

Exhibit 39: Rotterdam 3.5% fuel oil swap futures – Dubai crude oil future (HSFO)

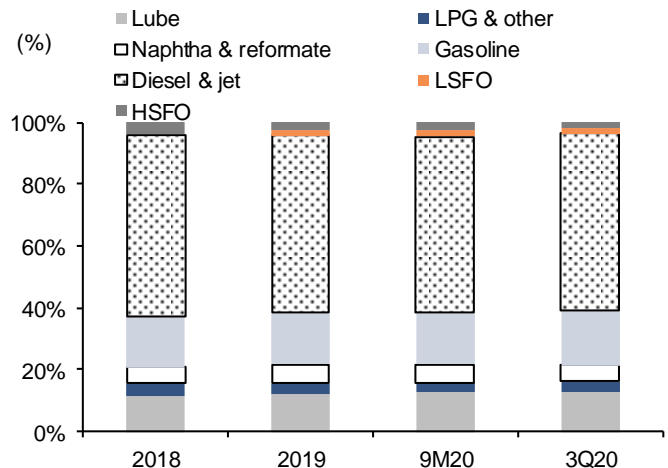
Source: Bloomberg

Exhibit 40: 1% fuel oil futures – Dubai forward spread

Source: Bloomberg

Exhibit 41: Production yields of IRPC (m bbl)

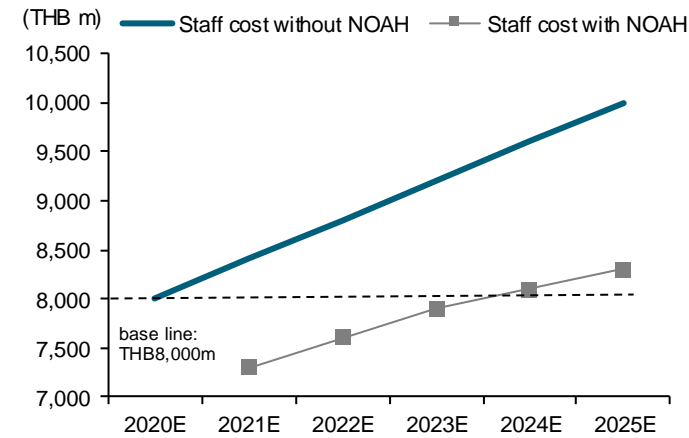
Source: IRPC

Exhibit 42: Production yields of IRPC (%)

Source: IRPC

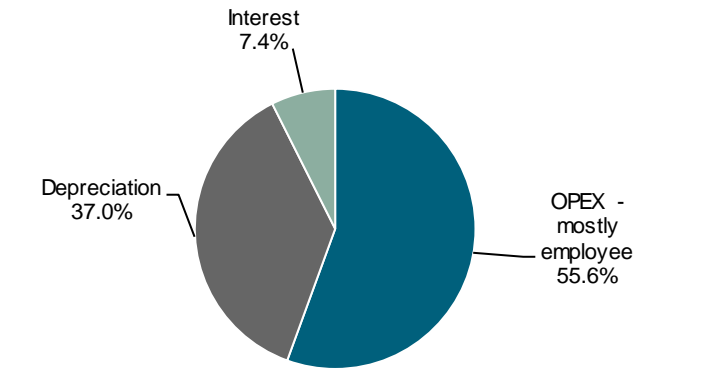
NOAH cost saving project. In 4Q20, management indicated that IRPC will book a one-time THB1.7b expense related to severance payments for employees taking early retirement. Under IRPC’s initiative, NOAH, comprising the Mutual Separation Program (MSP) and Aspiring Separation Program (ASP) for the early retirement of 2,900 employees, the company plans to cut its operating expenses by THB0.6b annually starting in 2021, down from its baseline operating expense of THB8b annually. We think the NOAH plan should reduce IRPC’s cost per unit by USD0.2/bbl in 2021 onward.

Exhibit 43: NOAH plan



Source: IRPC

Exhibit 44: Estimated cost breakdown per unit (USD11/bbl in 2019)



Sources: IRPC; FSSIA estimates

EPS and TP revisions

We cut our EPS forecasts for 2020-22 by 0.7-187% to reflect 1) the larger-than-expected inventory loss in 2020; 2) the lower-than-expected market GRM in 2020, resulting in a 37-131% lower market GRM in 2020-21E; and 3) a higher PP-naphtha margin to reflect our more positive view on the demand growth outlook.

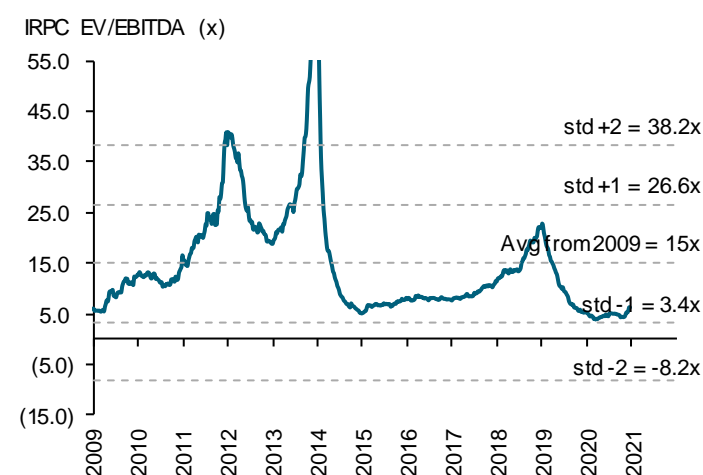
Exhibit 45: Key change assumption

	Current			Previous			Change (%)		
	2020E	2021E	2022E	2020E	2021E	2022E	2020E	2021E	2022E
Revenue	195,659	244,442	255,150	255,893	261,489	266,225	(23.5)	(6.5)	(4.2)
Gross profit	10,041	17,811	26,856	16,996	18,440	22,254	(40.9)	(3.4)	20.7
Operating profit	3,584	9,745	18,436	9,451	10,730	14,405	(62.1)	(9.2)	28.0
Core net profit	(6,808)	5,261	11,111	7,807	8,651	11,192	(187.2)	(39.2)	(0.7)
EPS	(0.3)	0.3	0.5	0.4	0.4	0.5	(187.2)	(39.2)	(0.7)
Key assumptions									
Oil price (USD/bbl)	44	52	50	40	50	50	10.0	4.0	0.0
Olefin utilisation rate (%)	92	93	94	92	93	94	0.0	0.0	0.0
Refinery utilisation rate (%)	90	96	97	96	97	96	(6.3)	(1.0)	1.0
Market GRM (USD/bbl)	(0.7)	1.7	4.8	2.3	2.8	3.8	(130.6)	(37.3)	26.8
Market GIM (USD/bbl)	8.6	11.8	14.9	11.4	12.1	13.5	(25.2)	(3.2)	10.0
HDPE-naphtha (USD/t)	590	473	532	446	437	487	32.3	8.2	9.2
PP-naphtha (USD/t)	620	573	632	496	537	587	25.0	6.7	7.7

Sources: IRPC; FSSIA estimates

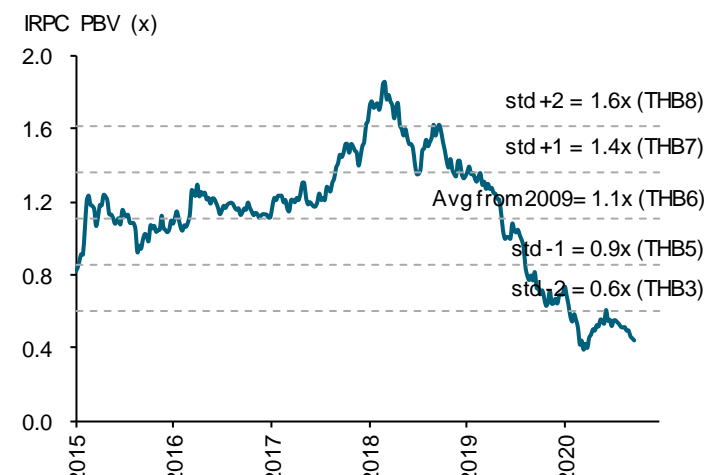
We maintain BUY and raise our TP from THB4.2, previously based on 7.8x 2020E EV/EBITDA, to THB5.3, now based on 9x 2021E EV/EBITDA – still a discount to IRPC's 11-year average – to reflect the weak market GRM outlook. We believe IRPC's current valuation, trading at 4.8-7.2x 2021-22E EV/EBITDA and 0.8-0.9x 2021-22E P/BV, remains attractive despite the recent share price rally, as we project IRPC's net profit to turnaround in 2021-22.

Exhibit 46: One-year forward rolling EV/EBITDA band



Sources: Bloomberg; FSSIA estimates

Exhibit 47: One-year forward rolling P/BV band



Sources: Bloomberg; FSSIA estimates

Exhibit 48: Peer comparisons

Company	BBG code	Rec	Share Price	Target price	Upside	Market Cap	3Y EPS CAGR	----- PE -----		---- ROE ----		--- PBV ---		EV / EBITDA	
								20E	21E	20E	21E	20E	21E	20E	21E
			(Local curr)	(Local curr)	(%)	(USD m)	(%)	(x)	(x)	(%)	(%)	(x)	(x)	(x)	(x)
THAILAND															
Indorama Ventures	IVL TB	BUY	37.75	36.00	(5)	7,109	54.0	179.8	28.4	0.9	5.6	1.6	1.5	10.3	9.7
Irpc Pcl	IRPC TB	BUY	3.62	5.30	46	2,591	(308.0)	(10.9)	14.1	(8.6)	6.9	1.0	0.9	11.7	7.2
Ptt Global Chem	PTTGC TB	BUY	59.25	69.00	16	8,916	34.5	58.1	14.4	1.7	7.0	1.0	1.0	15.4	8.4
Siam Cement	SCC TB	BUY	384.00	445.00	16	15,455	3.9	13.9	13.0	11.5	11.7	1.6	1.5	13.6	13.0
Eastern Polymer	EPG TB	BUY	6.50	6.30	(3)	610	9.5	18.1	19.7	9.6	8.7	1.7	1.7	12.4	12.9
Vinythai Public	VNT TB	NA	29.75	NA	NA	1,167	(12.5)	16.7	14.4	9.7	10.9	1.6	1.5	8.4	7.5
THAILAND avg						35,847	(1.5)	56.2	16.6	5.4	8.9	1.4	1.3	13.0	10.6
INDIA															
Reliance Industries	RIL IN	NA	1,939.70	NA	NA	172,223	12.8	27.8	29.4	10.6	8.1	2.8	2.2	16.6	17.5
INDIA avg						172,223	12.8	27.8	29.4	10.6	8.1	2.8	2.2	16.6	17.5
TAIWAN															
Formosa Plastics	1301 TT	NA	92.10	NA	NA	20,805	3.3	33.2	18.0	5.2	9.5	1.8	1.7	26.3	19.6
Nan Ya Plastics	1303 TT	NA	68.60	NA	NA	19,306	15.9	30.0	19.1	5.4	7.9	1.6	1.5	19.6	18.2
Formosa Chem & Fi	1326 TT	NA	79.70	NA	NA	16,577	(5.6)	30.0	21.5	4.4	6.3	1.3	1.3	15.7	13.9
Formosa Petro	6505 TT	NA	93.50	NA	NA	31,607	7.7	138.5	25.7	1.6	10.3	2.9	2.7	56.5	16.1
TAIWAN avg						88,295	6.0	69.6	21.6	3.8	8.9	2.1	1.9	33.7	17.0
SOUTH KOREA															
Hanwha Solutions	009830 KS	NA	45,600.00	NA	NA	6,588	52.9	14.4	11.1	8.5	10.1	1.2	1.1	9.6	8.5
Lotte Chemical	011170 KS	NA	260,000.00	NA	NA	8,053	9.0	33.1	9.4	2.0	7.0	0.7	0.6	8.1	4.6
Lg Chem	051910 KS	NA	797,000.00	NA	NA	50,843	79.1	39.7	28.0	8.4	10.9	3.2	2.9	13.5	10.9
Kumho Petro	011780 KS	NA	138,000.00	NA	NA	3,800	21.9	8.0	7.1	18.6	17.9	1.4	1.2	5.3	4.8
Oci	010060 KS	NA	82,300.00	NA	NA	1,774	(217.9)	NA	20.0	(3.0)	3.8	0.8	0.7	45.5	9.1
SOUTH KOREA avg						71,058	58.3	33.9	23.0	7.9	10.6	2.6	2.4	12.9	9.6
MALAYSIA															
Petronas Chem	PCHEM MK	NA	7.41	NA	NA	14,597	5.3	35.5	22.9	5.4	8.1	1.9	1.9	14.3	11.1
Lotte Chemical Titan	TTNP MK	NA	2.80	NA	NA	1,567	(10.9)	50.9	27.2	1.0	1.5	0.5	0.5	3.8	3.5
MALAYSIA avg						16,165	3.7	37.0	23.3	4.9	7.4	1.8	1.7	13.3	10.3
Average (Asia)						383,587	17.9	41.6	25.0	7.8	8.8	2.4	2.0	19.4	15.0
US															
Eastman Chem	EMN US	NA	102.58	NA	NA	13,896	3.6	17.3	14.4	11.8	14.5	2.3	2.1	11.0	9.9
Dupont De Nem	DD US	NA	70.45	NA	NA	51,700	14.7	22.0	20.7	5.3	5.7	1.3	1.1	13.4	12.5
Celanese	CE US	NA	130.76	NA	NA	15,285	3.7	18.3	14.1	28.7	35.5	5.8	5.3	13.5	11.5
Westlake Chem	WLK US	NA	82.53	NA	NA	10,541	(2.6)	39.8	27.1	4.5	5.5	1.7	1.7	11.2	9.5
Ppg Industries	PPG US	NA	146.10	NA	NA	34,509	5.1	26.0	21.5	23.5	25.7	5.9	5.3	16.1	13.8
Alpek Sa De Cv	ALPEKA MM	NA	17.68	NA	NA	1,859	(18.2)	14.3	10.0	5.2	9.6	0.9	0.9	6.5	5.7
Avg (US)						127,791	7.7	23.5	19.8	13.6	15.7	3.2	2.9	13.6	12.1
ME/Europe															
Saudi Basic	SABIC AB	NA	99.00	NA	NA	80,275	7.6	1,356.8	32.7	0.0	4.6	1.8	1.8	17.4	11.1
Saudi Kayan	KAYAN AB	NA	12.82	NA	NA	5,341	(210.2)	NA	105.2	(5.1)	1.6	1.4	1.4	17.2	12.0
Yanbu National	YANSAB AB	NA	65.50	NA	NA	9,894	11.4	67.0	32.9	3.5	8.1	2.5	2.5	20.2	14.9
Industries Qatar	IQCD QD	NA	11.05	NA	NA	18,191	4.3	36.3	26.7	4.6	6.7	2.1	2.1	33.1	25.4
Basf Se	BAS GR	NA	63.91	NA	NA	71,864	17.0	24.5	17.7	1.1	8.0	1.7	1.6	11.3	9.2
Arkema	AKE FP	NA	93.86	NA	NA	8,876	2.5	18.9	15.1	7.4	10.3	1.3	1.3	8.0	7.4
Lanxess Ag	LXS GR	NA	62.36	NA	NA	6,678	(4.4)	20.3	16.3	7.9	8.7	1.6	1.5	9.5	8.1
Solvay Sa	SOLB BB	NA	96.54	NA	NA	12,479	0.8	16.5	15.3	(1.3)	8.5	1.4	1.4	7.7	7.3
Avg (ME/Europe)						213,599	4.2	526.7	26.7	1.3	6.6	1.8	1.7	15.6	11.4
Petrochem under coverage						34,680	(1.1)	55.6	16.2	5.1	8.5	1.3	1.3	12.8	10.4
Average (all)						724,977	12.1	181.3	24.6	6.9	9.4	2.4	2.1	17.2	13.4

Share price as of 21 Dec 2020

Sources: Bloomberg; FSSIA estimates

Financial Statements

IRPC PCL

Profit and Loss (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022E
Revenue	280,551	239,315	195,659	244,442	255,150
Cost of goods sold	(256,400)	(228,027)	(176,744)	(217,261)	(218,312)
Gross profit	24,151	11,287	18,915	27,181	36,838
Other operating income	-	-	-	-	-
Operating costs	(6,973)	(7,056)	(6,457)	(8,067)	(8,420)
Operating EBITDA	17,178	4,231	12,458	19,114	28,418
Depreciation	(8,237)	(8,542)	(8,874)	(9,369)	(9,983)
Goodwill amortisation	0	0	0	0	0
Operating EBIT	8,941	(4,311)	3,584	9,745	18,436
Net financing costs	(1,961)	(1,931)	(2,377)	(2,677)	(2,499)
Associates	415	363	363	363	363
Recurring non operating income	1,936	4,318	(7,987)	763	763
Non recurring items	0	0	0	0	0
Profit before tax	8,915	(1,924)	(6,780)	7,832	16,700
Tax	(1,147)	779	0	(2,542)	(5,561)
Profit after tax	7,769	(1,146)	(6,780)	5,290	11,140
Minority interests	(34)	(28)	(28)	(28)	(28)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
Reported net profit	7,735	(1,174)	(6,808)	5,261	11,111
Non recurring items & goodwill (net)	0	0	0	0	0
Recurring net profit	7,735	(1,174)	(6,808)	5,261	11,111
Per share (THB)					
Recurring EPS *	0.38	(0.06)	(0.33)	0.26	0.54
Reported EPS	0.38	(0.06)	(0.33)	0.26	0.54
DPS	0.20	0.10	0.05	0.13	0.27
Diluted shares (used to calculate per share data)	20,434	20,434	20,434	20,434	20,434
Growth					
Revenue (%)	31.0	(14.7)	(18.2)	24.9	4.4
Operating EBITDA (%)	(19.4)	(75.4)	194.4	53.4	48.7
Operating EBIT (%)	(37.3)	nm	nm	171.9	89.2
Recurring EPS (%)	(31.9)	nm	nm	nm	111.2
Reported EPS (%)	(31.9)	nm	nm	nm	111.2
Operating performance					
Gross margin inc depreciation (%)	5.7	1.1	5.1	7.3	10.5
Gross margin of key business (%)	5.7	1.1	5.1	7.3	10.5
Operating EBITDA margin (%)	6.1	1.8	6.4	7.8	11.1
Operating EBIT margin (%)	3.2	(1.8)	1.8	4.0	7.2
Net margin (%)	2.8	(0.5)	(3.5)	2.2	4.4
Effective tax rate (%)	13.5	34.0	34.0	34.0	34.0
Dividend payout on recurring profit (%)	52.8	(174.1)	(15.0)	50.0	50.0
Interest cover (X)	5.5	0.0	(1.9)	3.9	7.7
Inventory days	41.6	43.6	47.6	37.7	41.5
Debtor days	16.3	17.0	17.2	10.9	7.3
Creditor days	37.2	40.9	45.6	36.1	39.7
Operating ROIC (%)	5.3	(2.6)	2.1	(1.4)	(2.7)
ROIC (%)	6.0	0.0	(2.4)	(1.4)	(2.6)
ROE (%)	8.9	(1.4)	(8.6)	6.9	13.4
ROA (%)	5.1	0.2	(2.7)	2.7	5.8

* Pre-exceptional, pre-goodwill and fully diluted

Revenue By Division (THB m)	2018	2019	2020E	2021E	2022E
Petroleum products	203,438	174,996	118,453	159,269	168,228
Petrochemical products	72,739	59,656	61,903	68,435	69,869
Other business	4,374	4,663	15,303	16,737	17,052

Sources: IRPC PCL; FSSIA estimates

Financial Statements

IRPC PCL

Cash Flow (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022E
Recurring net profit	7,735	(1,174)	(6,808)	5,261	11,111
Depreciation	8,237	8,542	8,874	9,369	9,983
Associates & minorities	415	363	363	363	363
Other non-cash items	-	-	-	-	-
Change in working capital	569	(558)	1,743	2,193	2,285
Cash flow from operations	16,956	7,174	4,172	17,187	23,743
Capex - maintenance	(4,481)	(4,536)	(4,712)	(4,975)	(5,301)
Capex - new investment	(676)	(418)	(12,404)	(1,453)	(13,217)
Net acquisitions & disposals	457	(1,484)	0	0	0
Other investments (net)	(3,235)	2,924	0	0	0
Cash flow from investing	(7,936)	(3,513)	(17,116)	(6,428)	(18,518)
Dividends paid	(6,130)	(4,087)	(2,043)	(1,022)	(2,631)
Equity finance	0	0	0	0	0
Debt finance	(1,486)	1,369	13,000	(5,000)	0
Other financing cash flows	(1,216)	(244)	(852)	(861)	(923)
Cash flow from Financing	(8,832)	(2,962)	10,105	(6,882)	(3,554)
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
Net other adjustments	0	0	0	0	0
Movement in cash	189	699	(2,840)	3,876	1,671
Free cash flow to firm (FCFF)	10,981.68	5,591.97	(10,567.33)	13,435.27	7,723.16
Free cash flow to equity (FCFE)	6,318.91	4,785.79	(796.15)	4,897.98	4,301.20

Per share (THB)

FCFF per share	0.54	0.27	(0.52)	0.66	0.38
FCFE per share	0.31	0.23	(0.04)	0.24	0.21
Recurring cash flow per share	0.80	0.38	0.12	0.73	1.05

Balance Sheet (THB m) Year Ending Dec	2018	2019	2020E	2021E	2022E
Tangible fixed asset (gross)	196,800	196,801	210,888	217,842	236,949
Less: Accumulated depreciation	(72,063)	(72,062)	(80,936)	(90,305)	(100,288)
Tangible fixed assets (Net)	124,737	124,739	129,952	127,537	136,661
Intangible fixed assets (Net)	546	564	564	564	564
Long-term financial assets	-	-	-	-	-
Invest. In associates & subsidiaries	8,441	9,925	9,925	9,925	9,925
Cash & equivalents	2,338	3,036	196	4,072	5,742
A/C receivable	12,197	10,100	8,386	6,245	4,009
Inventories	28,459	25,995	20,149	24,768	24,888
Other current assets	3,635	4,515	3,691	4,612	4,814
Current assets	46,629	43,647	32,423	39,696	39,453
Other assets	2,092	2,646	2,646	2,646	2,646
Total assets	182,446	181,521	175,510	180,368	189,249
Common equity	87,286	83,256	74,528	78,768	87,248
Minorities etc.	94	146	175	203	232
Total Shareholders' equity	87,380	83,402	74,703	78,971	87,480
Long term debt	43,561	43,881	56,881	51,881	51,881
Other long-term liabilities	2,609	4,860	4,860	4,860	4,860
Long-term liabilities	46,170	48,742	61,742	56,742	56,742
A/C payable	26,212	24,871	19,278	23,697	23,812
Short term debt	14,041	15,090	15,090	15,090	15,090
Other current liabilities	8,643	5,745	4,697	5,868	6,125
Current liabilities	48,896	45,707	39,065	44,655	45,027
Total liabilities and shareholders' equity	182,446	177,850	175,510	180,368	189,249
Net working capital	9,436	9,994	8,252	6,059	3,773
Invested capital	145,253	147,868	151,338	146,730	153,569

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

Per share (THB)

Book value per share	4.27	4.07	3.65	3.85	4.27
Tangible book value per share	4.24	4.05	3.62	3.83	4.24

Financial strength

Net debt/Equity (%)	63.2	67.1	96.1	79.6	70.0
Net debt/total assets (%)	30.3	30.8	40.9	34.9	32.4
Current ratio (x)	1.0	1.0	0.8	0.9	0.9
CF interest cover (x)	4.6	3.7	5.9	3.4	8.0

Valuation	2018	2019	2020E	2021E	2022E
Recurring P/E (x) *	9.6	(63.0)	(10.9)	14.1	6.7
Recurring P/E @ target price (x) *	14.0	(92.2)	(15.9)	20.6	9.7
Reported P/E (x)	9.6	(63.0)	(10.9)	14.1	6.7
Dividend yield (%)	5.5	2.8	1.4	3.6	7.5
Price/book (x)	0.8	0.9	1.0	0.9	0.8
Price/tangible book (x)	0.9	0.9	1.0	0.9	0.9
EV/EBITDA (x) **	7.5	30.7	11.7	7.2	4.8
EV/EBITDA @ target price (x) **	9.5	38.8	14.5	9.0	6.0
EV/invested capital (x)	0.9	0.9	1.0	0.9	0.9

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

Sources: IRPC PCL; 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	DEMC	DRT	DTAC	DTC	EA	EASTW	ECF
EGCO	GBX	GC	GCAP	GEL	GGC	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	SEAF	SEAOL	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	AMANAH
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	CENTEL
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	KGI	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	PM	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
WIIK	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	AMANAH	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

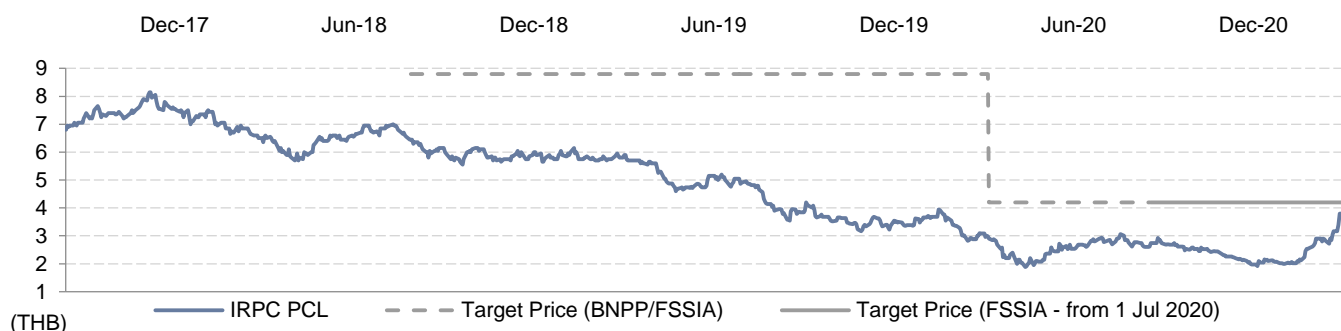
The individual(s) identified above certify(ies) that (i) all views expressed in this report accurately reflect the personal view of the analyst(s) with regard to any and all of the subject securities, companies or issuers mentioned in this report; and (ii) no part of the compensation of the analyst(s)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

This report has been prepared by FSS International Investment Advisory Company Limited (FSSIA). The information herein has been obtained from sources believed to be reliable and accurate; however FSS makes no representation as to the accuracy and completeness of such information. Information and opinions expressed herein are subject to change without notice. FSS has no intention to solicit investors to buy or sell any security in this report. In addition, FSS does not guarantee returns nor price of the securities described in the report nor accept any liability for any loss or damage of any kind arising out of the use of such information or opinions in this report. Investors should study this report carefully in making investment decisions. All rights are reserved.

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History of change in investment rating and/or target price

IRPC PCL (IRPC TB)



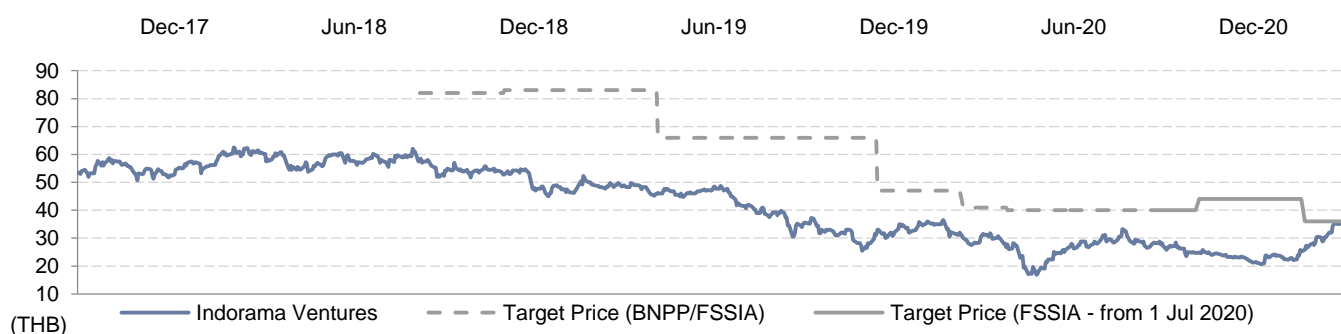
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Oct-2018	BUY	8.80	13-Feb-2019	BUY	8.80	14-Feb-2020	BUY	4.20

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

Price and TP are in local currency

Source: FSSIA estimates

Indorama Ventures (IVL TB)



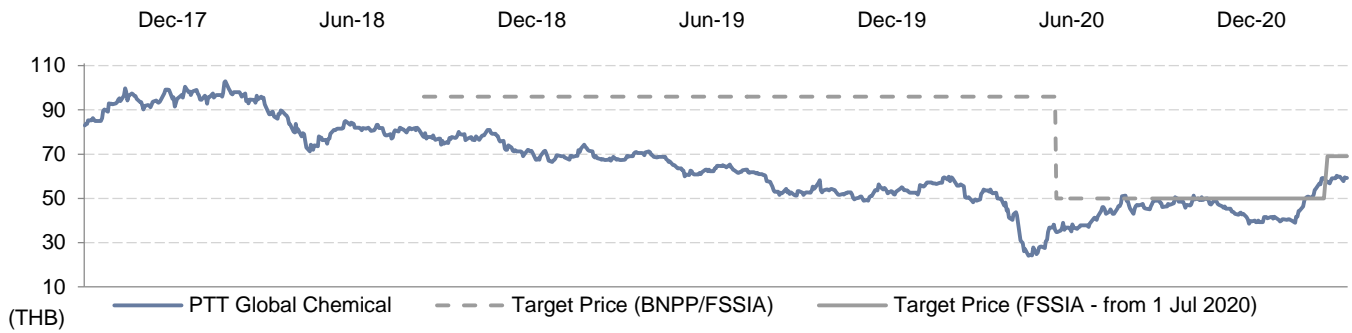
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Oct-2018	BUY	82.00	07-Nov-2019	BUY	47.00	09-Jun-2020	BUY	40.00
21-Dec-2018	BUY	83.00	20-Jan-2020	BUY	41.00	07-Aug-2020	BUY	44.00
02-May-2019	BUY	66.00	27-Feb-2020	BUY	40.00	06-Nov-2020	BUY	36.00

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)



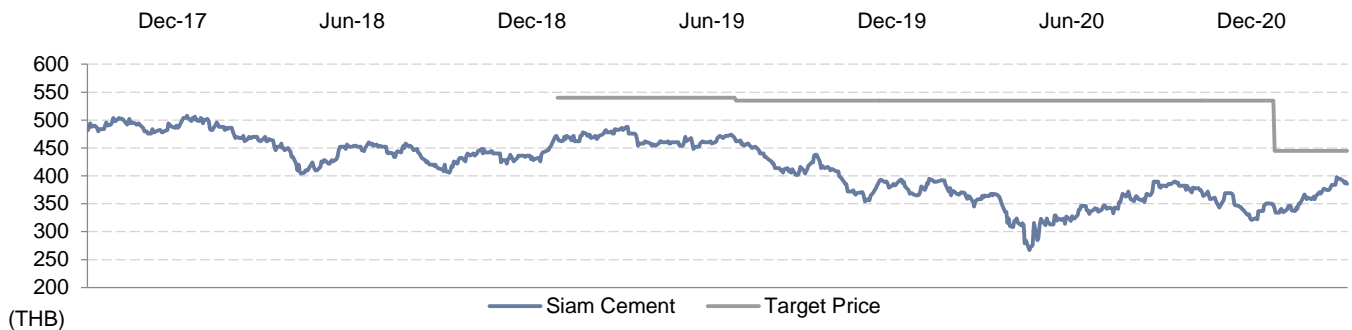
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
09-Oct-2018	BUY	96.00	08-May-2020	BUY	50.00	-	-	-
09-Apr-2020	BUY	50.00	27-Nov-2020	BUY	69.00	-	-	-

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

Price and TP are in local currency

Source: FSSIA estimates

Siam Cement (SCC TB)



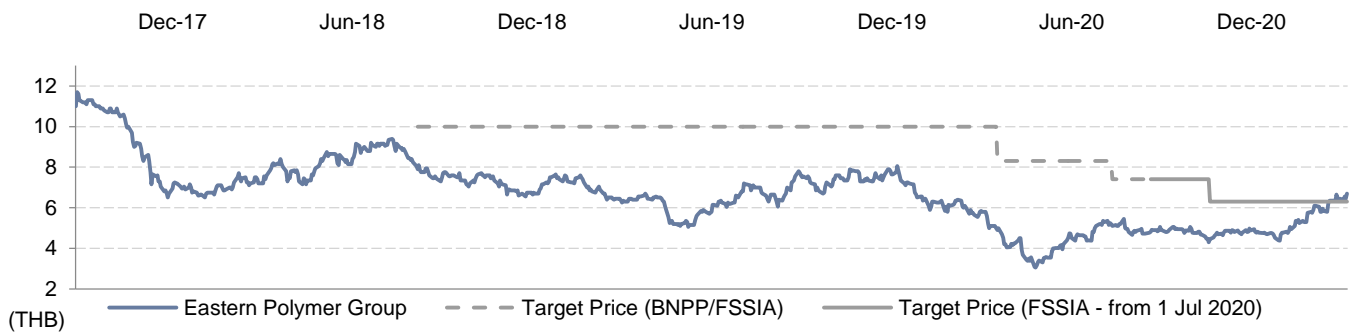
Date	Rating	Target price	Date	Rating	Target price	Date	Rating	Target price
31-Jan-2019	BUY	540.00	02-Apr-2020	BUY	535.00	-	-	-
05-Jul-2019	BUY	535.00	14-Oct-2020	BUY	445.00	-	-	-

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
IRPC PCL	IRPC TB	THB 3.62	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.
Indorama Ventures	IVL TB	THB 35.25	BUY	The key downside risks to our EV/EBITDA-based TP are weaker-than-expected margins for PX-PTA and PET-PTA, lower demand for polyester, and delays in IVL's projects.
PTT Global Chemical	PTTGC TB	THB 56.00	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 370.00	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 6.15	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 21-Dec-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.