

# IRPC PCL IRPC TB

## THAILAND / OIL & GAS

# REDUCE

FROM BUY

TARGET PRICE	THB3.00
CLOSE	THB3.38
UP/DOWNSIDE	-11.2%
PRIOR TP	THB5.80
CHANGE IN TP	-48.3%
TP vs CONSENSUS	-20.6%

## ปรับลดคำแนะนำจากแนวโน้มอัตรากำไรที่อ่อนแอ

- เราหันมามองแนวโน้มการเติบโตของกำไรสุทธิของ IRPC ในปี 2022-23 เป็นลบมากขึ้น ยิ่งขึ้นจากอัตรากำไรที่ต่ำเกินคาด
- IRPC รายงานผลขาดทุนปกติใน 1Q22 ที่ 1.1 พัน ลบ. ลดลงจากที่เคยมีกำไรปกติ 6 พัน ลบ. ใน 1Q21 และ 6.6 พัน ลบ. ใน 4Q21
- ปรับลดคำแนะนำเป็น REDUCE จากซื้อหลังปรับลดราคาเป้าหมายเป็น 3.0 บาท

ได้รับผลกระทบจากอัตรากำไรในธุรกิจเคมีที่อ่อนแอและโครงสร้างต้นทุนที่อยู่ในระดับสูง

เราหันมามองแนวโน้มการเติบโตของกำไรสุทธิของ IRPC ในปี 2022-23 เป็นลบมากขึ้น แม้ว่าเราจะมีแนวโน้มเกี่ยวกับแนวโน้มค่าการกลั่นของอุตสาหกรรมในปี 2022-23 มุมมองเชิงลบของเราเกิดจากอัตรากำไรที่ต่ำเกินคาดของผลิตภัณฑ์อะโรมาติกและโอเลฟินจากปัญหาอุปทานเกินดุลในอุตสาหกรรมและต้นทุน Naphtha ที่สูงอย่างต่อเนื่อง แนวโน้มอัตรากำไรที่ตกต่ำในธุรกิจน้ำมันหล่อลื่นอันเป็นผลจากอุปทานที่เพิ่มขึ้น และแนวโน้มค่าการกลั่นในระดับปานกลางจากต้นทุน Crude premium ที่อยู่ในระดับสูง แม้เราจะคาดว่า Product margin จะอยู่ในระดับสูงเมื่อเทียบกับราคาน้ำมันดิบดูไบ

### แนวโน้มอ่อนแอต่อเนื่องใน 2Q22

เราคาดว่าอัตรากำไรรวมขั้นต้น (GIM) ของ IRPC จะยังอยู่ในระดับต่ำที่ USD11-13/bbl ในปี 2022-23 ซึ่งสูงกว่าต้นทุนที่ USD11/bbl อยู่เพียงเล็กน้อย ราคาน้ำมันและ Crude premium ที่ทรงตัวอยู่ในระดับสูงน่าจะกดดันอัตรากำไรรวมขั้นต้นของ IRPC จากโครงสร้างต้นทุนและผลขาดทุนจากค่าเชื้อเพลิงที่อยู่ในระดับสูงถึง 8% เราคิดว่าค่าการกลั่นของ IRPC ไม่น่าจะสามารถชดเชยอัตรากำไรที่ลดลงในธุรกิจเคมี Crude premium ที่สูงขึ้น และผลขาดทุนค่าเชื้อเพลิงที่ปรับตัวสูงขึ้นได้ ในปี 2022 เราคาดว่าอัตรากำไรในธุรกิจน้ำมันหล่อลื่นของ IRPC จะยังอ่อนแอที่ USD1/bbl ลดลงจาก USD3-4/bbl ใน 2021

### Core loss shows weakness in 1Q22

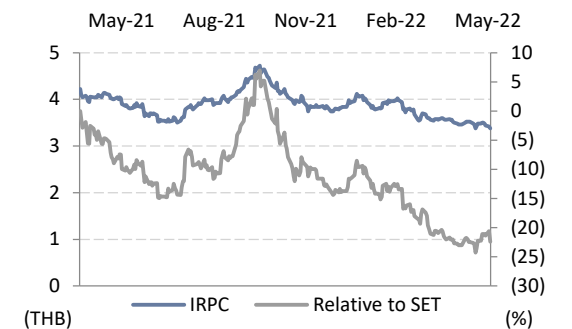
IRPC รายงานผลขาดทุนปกติใน 1Q22 ที่ 1.1 พัน ลบ. ลดลงจากที่เคยมีกำไรปกติ 6 พัน ลบ. ใน 1Q21 และ 6.6 พัน ลบ. ใน 4Q21 เมื่อรวมรายการพิเศษ กำไรสุทธิอยู่ที่ 1.5 พัน ลบ. (-32% q-q, -73% y-y) โดยมีประเด็นสำคัญประกอบด้วย 1) อัตรากำไรรวมขั้นต้นที่อ่อนแอที่ USD7.1/bbl (-35% q-q) จาก Product margin ที่ตกต่ำ เมื่อรวมกำไรพิเศษ อัตรากำไรรวมขั้นต้นทางบัญชีอยู่ที่ USD17.1/bbl (+50% q-q); 2) ค่าการกลั่นที่ลดลงเหลือ USD4.2/bbl (-17.7% q-q) จาก Crude premium ที่ปรับตัวสูงขึ้น; 3) อัตรากำไรรวมขั้นต้นในธุรกิจเคมีที่ลดลงจากอัตรากำไรรวมขั้นต้นในธุรกิจโอเลฟินและอะโรมาติกที่ลดลง 65% q-q และ 44% q-q; 4) อัตรากำไรรวมขั้นต้นที่ลดลงในธุรกิจน้ำมันหล่อลื่น (-82% q-q); และ 5) กำไรพิเศษจำนวน 2.6 พัน ลบ. ประกอบด้วยกำไรสินค้าคงคลัง 6.4 พัน ลบ. และกำไรจากตราสารอนุพันธ์จำนวน 0.2 พัน ลบ. ซึ่งหักลบไปบางส่วนโดยผลขาดทุนจากสัญญาป้องกันความเสี่ยงสำหรับน้ำมันที่ 0.7 พัน ลบ. และผลขาดทุนจากสัญญาป้องกันความเสี่ยงจำนวน 2.7 พัน ลบ.

### ปรับลดคำแนะนำเป็น REDUCE ที่ราคาเป้าหมาย 3.0 บาท

เราปรับลดคำแนะนำสำหรับ IRPC เป็น REDUCE จากซื้อหลังปรับลดราคาเป้าหมายจาก 5.8 (9.5x ของค่า 2022E EV/EBITDA) เป็น 3.0 บาท (8.9x ของค่า 2022E EV/EBITDA) เพื่อสะท้อนแนวโน้มอัตรากำไรรวมขั้นต้นของ IRPC ที่ลดลง ประเมินการกำไรต่อหุ้นของเราสะท้อนการเปลี่ยนแปลงในสมมติฐานค่าการกลั่นและอัตรากำไรรวมขั้นต้นในปี 2022-24

## KEY STOCK DATA

YE Dec (THB m)	2021	2022E	2023E	2024E
Revenue	255,115	314,834	294,743	294,269
Net profit	14,505	4,676	10,098	11,940
EPS (THB)	0.71	0.23	0.49	0.58
vs Consensus (%)	-	(13.2)	59.1	49.9
EBITDA	26,935	13,878	20,715	23,063
Core net profit	16,447	4,676	10,098	11,940
Core EPS (THB)	0.80	0.23	0.49	0.58
Chg. In EPS est. (%)	-	(63.6)	(34.9)	(28.6)
EPS growth (%)	nm	(71.6)	115.9	18.2
Core P/E (x)	4.2	14.8	6.8	5.8
Dividend yield (%)	9.8	3.4	7.3	8.6
EV/EBITDA (x)	4.4	9.5	6.1	5.4
Price/book (x)	0.8	0.8	0.8	0.7
Net debt/Equity (%)	56.8	73.8	64.1	57.3
ROE (%)	20.2	5.5	11.6	12.8



Share price performance	1 Month	3 Month	12 Month
Absolute (%)	(3.4)	(14.2)	(19.5)
Relative to country (%)	0.3	(10.0)	(21.2)
Mkt cap (USD m)	1,999		
3m avg. daily turnover (USD m)	12.2		
Free float (%)	52		
Major shareholder	PTT Plc. (48%)		
12m high/low (THB)	4.76/3.30		
Issued shares (m)	20,434.42		

Sources: Bloomberg consensus; FSSIA estimates



**Suwat Sinsadok, CFA, FRM, ERP**

suwat.sin@fssia.com  
+66 2611 3558

**Siriluck Pinthusoonthorn**

siriluck.pin@fssia.com  
+66 2611 3562

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 11 พฤษภาคม 2022

## Investment thesis

We are bearish on IRPC's net profit growth outlook in 2022-23. Our bearish convictions include the weaker-than-expected margins of its aromatics and olefins products due to the industry oversupply, the sustained high naphtha cost, the poor margin outlook for lube as a result of the rising supply, and its mediocre GRM outlook due to the high crude premium cost despite our projections for strong product margins over the Dubai crude oil price.

We project IRPC's GIM to remain weak at USD11-13/bbl in 2022-23, slightly above its cost of USD11/bbl. The sustained high oil price and crude premium should continue to pressure IRPC's GIM thanks to IRPC's high cost structure and fuel loss at 8%. In 2022, we project IRPC's lube margin to remain weak at USD1/bbl, down from USD3-4/bbl in 2021, due to the higher supply.

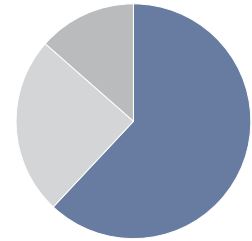
## Company profile

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](http://www.irpc.co.th)

## Principal activities (revenue, 2021)

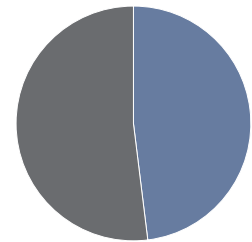
- Petroleum products - 84.9 %
- Petrochemical products - 33.6 %
- Other business - 18.5 %



Source: IRPC PCL

## Major shareholders

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



Source: IRPC PCL

## Catalysts

Weaker-than-expected oil product demand growth and lower-than-expected PP-naphtha and SM-benzene margins are key catalysts that could drive IRPC's share price toward our TP.

## Risks to our call

Key risks to our bearish view and EV/EBITDA-based target price are rising margins of PP-naphtha, SM and ABS-benzene, and a higher market GRM.

## Event calendar

Date	Event
Aug 2022	2Q22 results announcement

## Key assumptions

	2022E	2023E	2024E
Oil price (USD/bbl)	100	90	90
Olefin utilisation rate (%)	94	95	96
Refinery utilisation rate (%)	96	98	98
Market GRM (USD/bbl)	5.5	5.6	4.6
Market GIM (USD/bbl)	10.5	13.2	14.1
HDPE-naphtha (USD/t)	455	563	563
PP-naphtha (USD/t)	555	563	563

Source: FSSIA estimates

## Earnings sensitivity

- For every 1% increase in the average Dubai oil price, we project 2022 earnings to rise 1.4%, and vice versa, all else being equal.
- For every 1% increase in market GRM, we estimate 2022 earnings to rise 1.2%, and vice versa, all else being equal.
- Stability in crude oil prices, rising diesel cracks and low crude premiums are key for earnings growth.

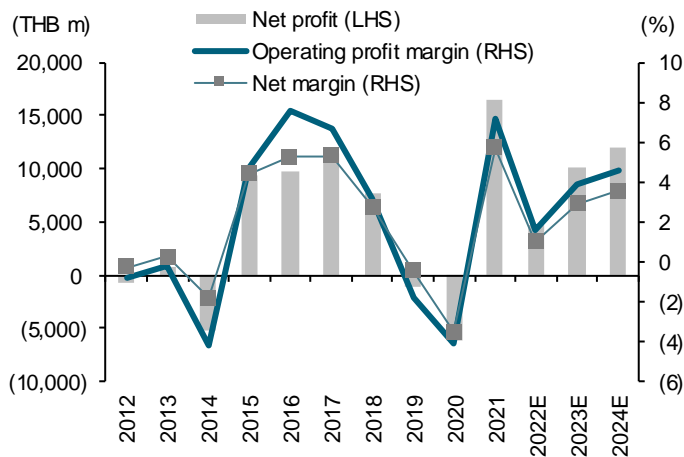
Source: FSSIA estimates



## Poor outlook in 2022

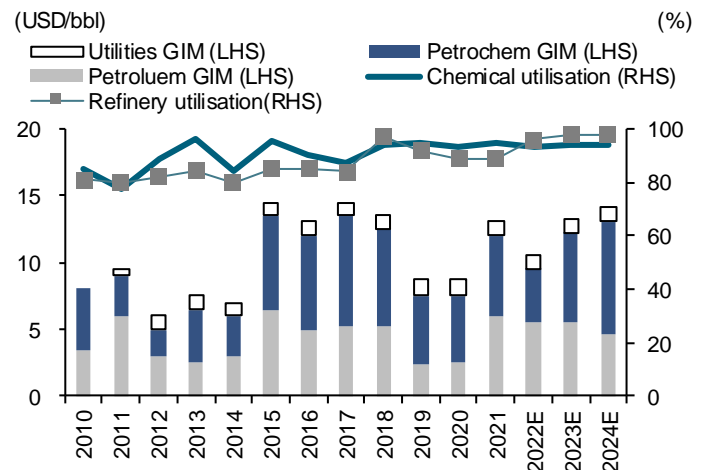
We now turn more bearish on IRPC's net profit growth outlook in 2022-23 even as we remain positive on the outlook for the industry's market gross refining margin (GRM) in 2022-23. Our bearish convictions are based on the weaker-than-expected margins of aromatics and olefins products due to industry oversupply and the sustained high naphtha cost, the poor margin outlook for lube as a result of the rising supply, and the mediocre GRM outlook due to the high crude premium cost despite our projections for strong product margins over the Dubai crude oil price.

**Exhibit 1: Net profit, operating profit margin, net margin**



Sources: IRPC; FSSIA estimates

**Exhibit 2: Market GIM breakdown vs chemical and refinery utilisation**

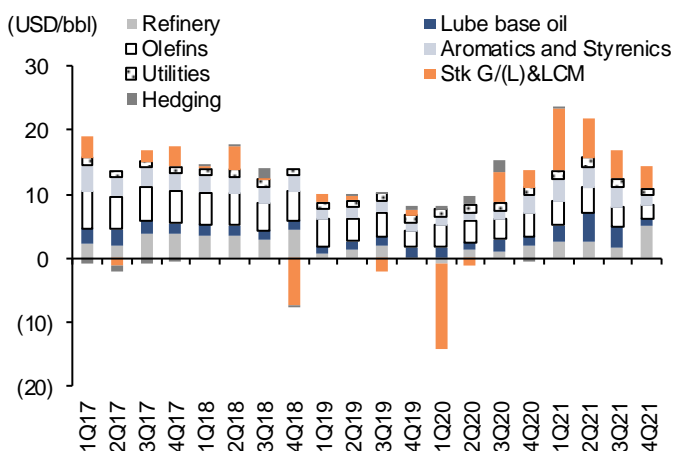


Sources: IRPC; FSSIA estimates

Given that IRPC is the Thai refiner with the highest cost structure of USD11-13/bbl and a high fuel loss of 8% thanks to its long value chain from the upstream refinery to downstream chemical products, IRPC has suffered from the industry's depressed GRM that was partly offset by the strong margins of olefins, styrene monomer (SM) products, and lube in 2019-21.

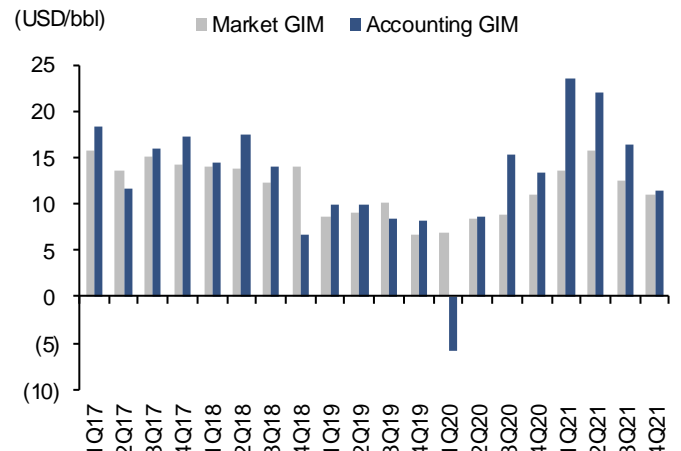
Hence, we project IRPC's GIM to remain weak at USD11-13/bbl in 2022-23, slightly above its cost of USD11/bbl. The sustained high oil price and crude premium should continue to pressure IRPC's GIM thanks to IRPC's high cost structure and fuel loss at 8% vs Thailand's refinery industry average of only 4%.

**Exhibit 3: Accounting GIM breakdown**



Source: IRPC; FSSIA estimates

**Exhibit 4: Market GIM vs accounting GIM**

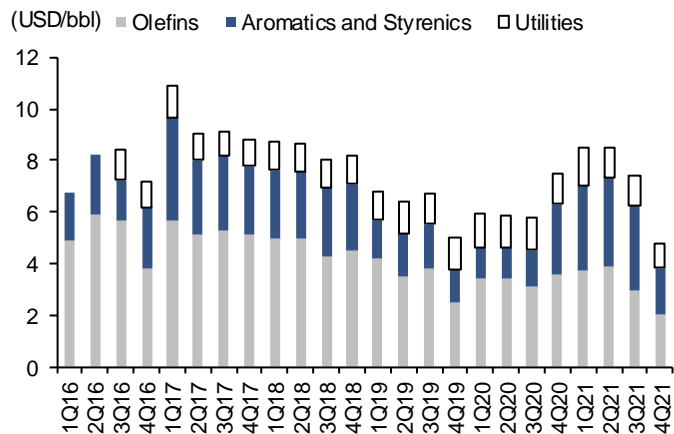


Source: IRPC

## Chemical margin weakness is now manifesting

In 1Q22, IRPC saw its chemical GIM plunge significantly to a mere USD1.7/bbl, dragged down by the weaker margins for both olefins and aromatics products due to the industry oversupply and the higher naphtha cost.

**Exhibit 5: Olefins, aromatics and utilities GIM**

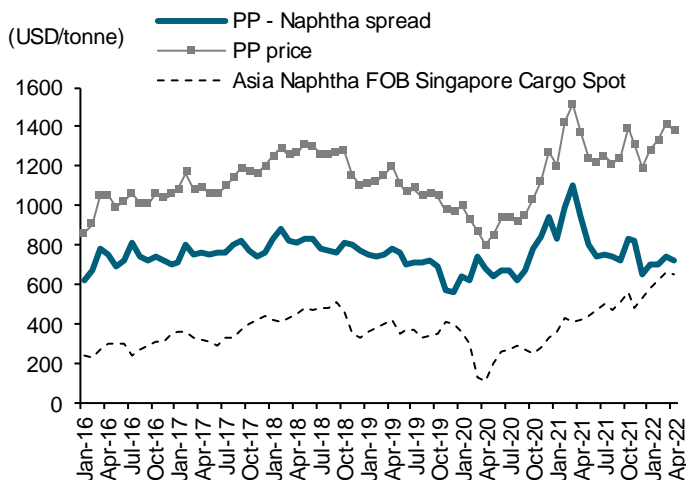


Sources: IRPC; FSSIA estimates

We believe the weak chemical margins are likely to continue throughout 2022, given the continued rising supplies of both PE and PP, and the high naphtha cost. The PP-naphtha margin is now dropping to USD600/t, slightly above IRPC's breakeven level of USD450/t, based on our estimate.

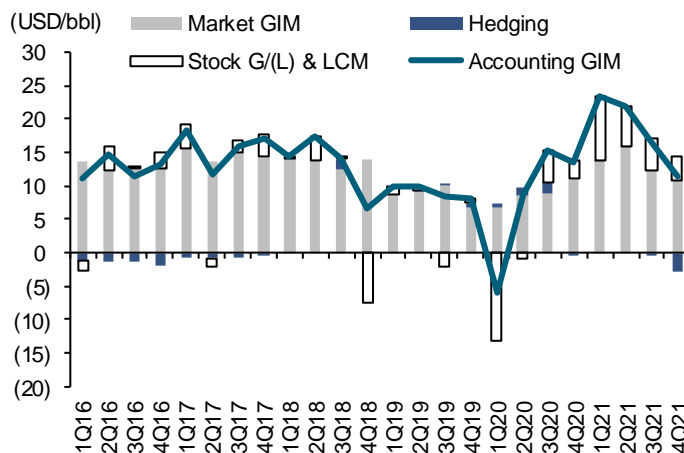
We think the margin of ABS, an aromatic downstream product, will now stay at USD1,000/t, down sharply from the USD1,400-1,600/t range in 2021, due to rising supply and weaker demand in China.

**Exhibit 7: Margin and price of PP vs naphtha price**



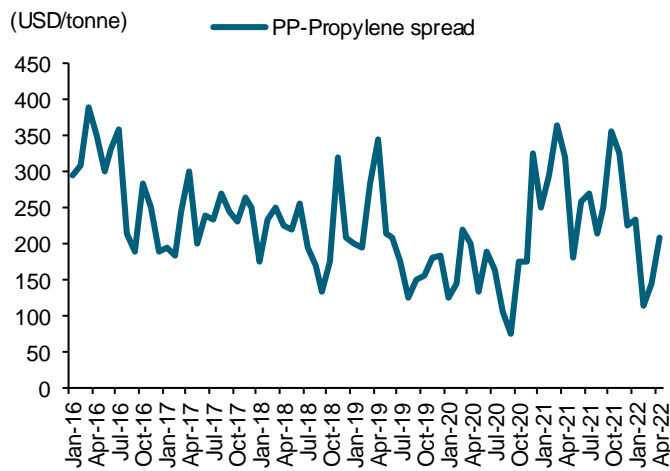
Source: Bloomberg

**Exhibit 6: Market GIM, accounting GIM, hedging GIM, and stock gain (loss)**

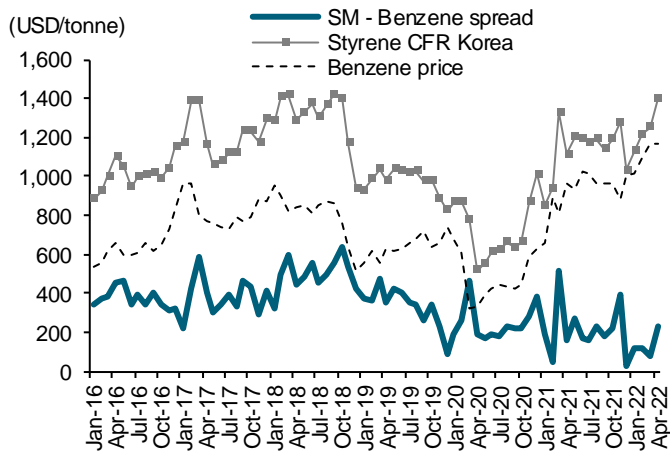


Sources: IRPC; FSSIA estimates

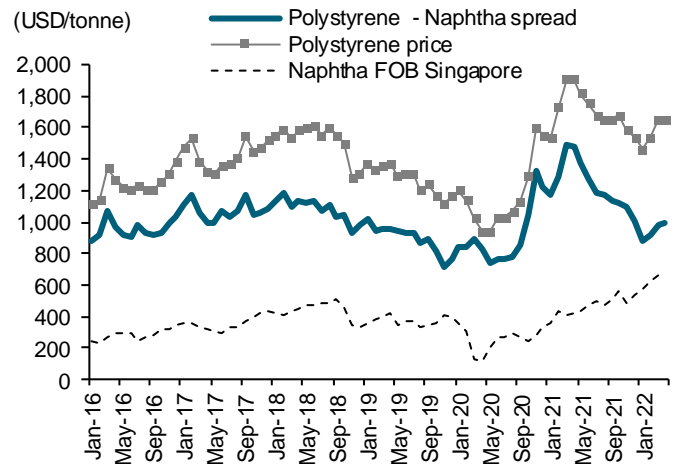
**Exhibit 8: PP-propylene margin**



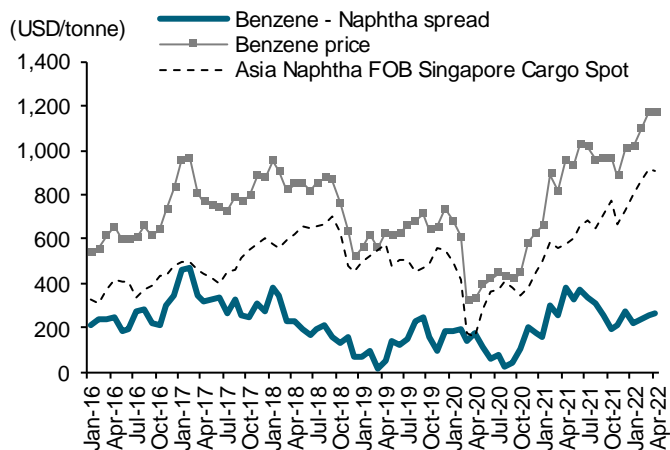
Source: Bloomberg

**Exhibit 9: Benzene spread – Styrene**

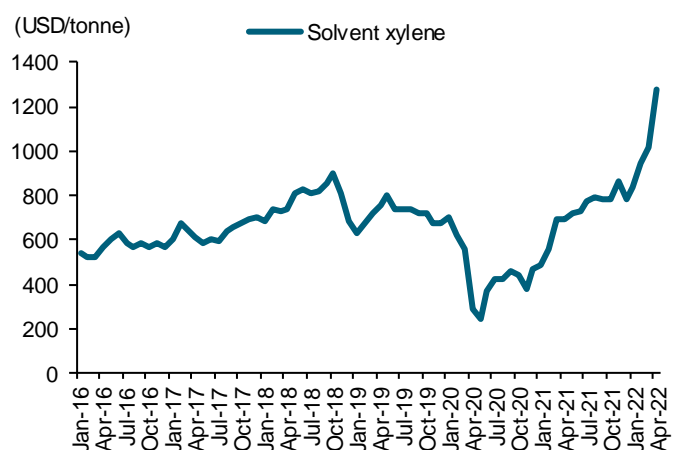
Source: Bloomberg

**Exhibit 10: Naphtha spread – Polystyrene**

Source: Bloomberg

**Exhibit 11: Naphtha spread – Benzene**

Source: Bloomberg

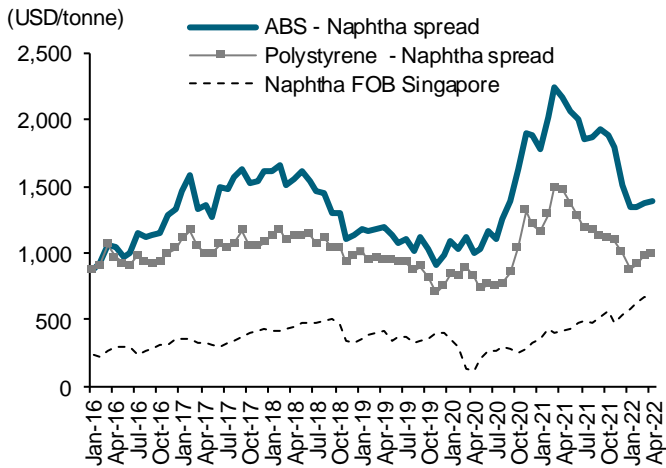
**Exhibit 12: Solvent xylene**

Source: Bloomberg

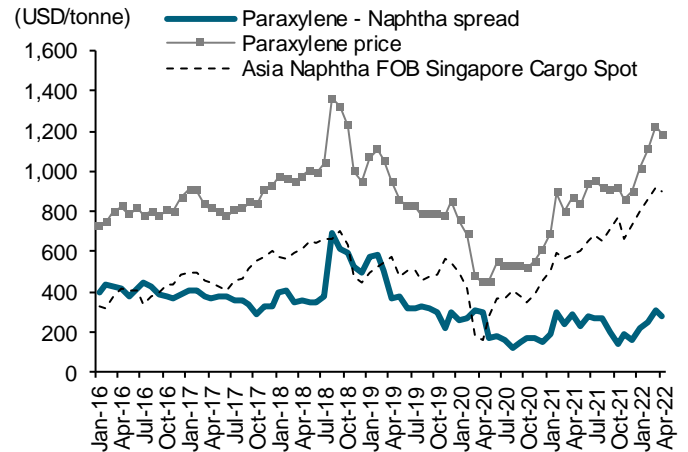
**Exhibit 13: Benzene production and consumption breakdown by company**

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
<b>Downstream capacity</b>				
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
<b>Financial impact analysis</b>				
Est. NP impact from USD150/t decline in benzene-naphtha margin	0.3	0.2	0.0	THB b
2Q22E core net profit	2.9	12.9	2.4	THB b
% of 2Q22E net profit estimate	10	2	0	%

Sources: Companies; FSSIA estimates

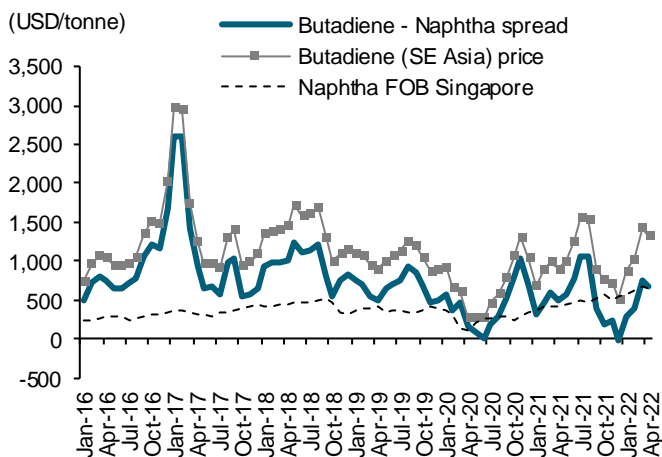
**Exhibit 14: Naphtha spread – ABS**

Source: Bloomberg

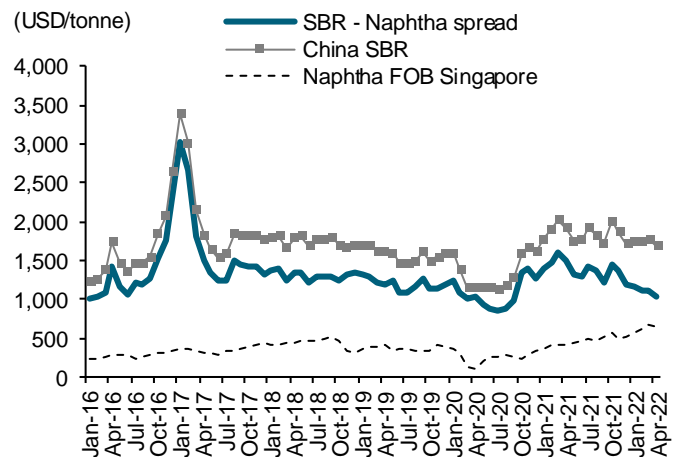
**Exhibit 15: Naphtha spread – Paraxylene**

Source: Bloomberg

The butadiene margin similarly weakened in 1Q22 and should remain weak in 2022 due to the higher supply in 2021 that will now pressure the margin for synthetic rubber, the largest application for the butadiene chain at over 60%, based on our estimate.

**Exhibit 16: Naphtha spread – Butadiene**

Source: Bloomberg

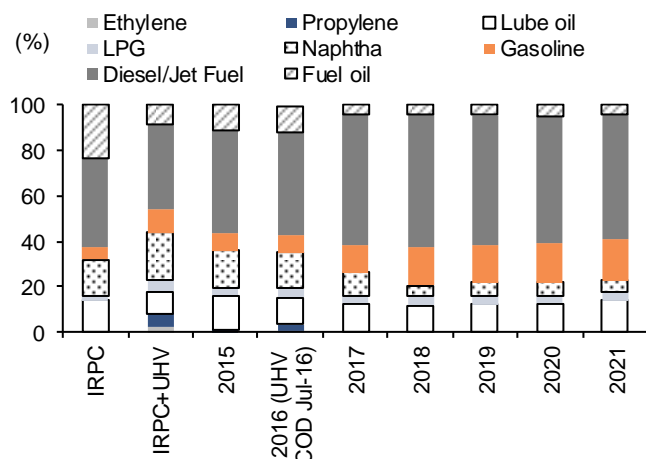
**Exhibit 17: Benzene spread – SBR**

Source: Bloomberg

## Refinery may not sufficiently offset the weak chemical margins in 2022

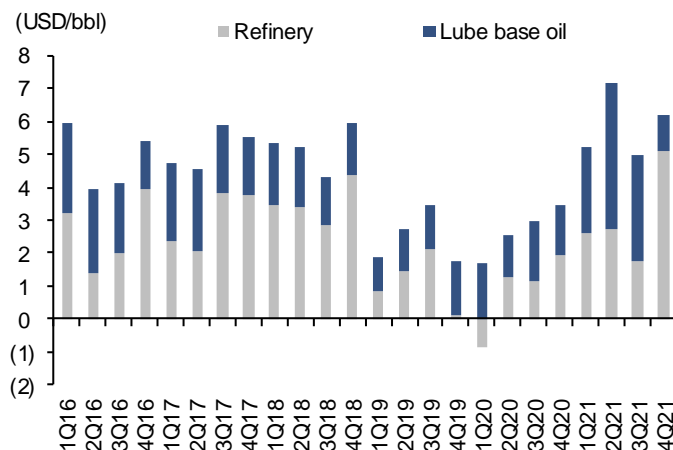
While we remain positive on the industry GRM outlook thanks to the tighter supply caused by the impact of sanctions by the US and its allies against Russia's invasion of Ukraine, and the higher demand particularly for jet fuel as global international flights are expected to return, we think IRPC's GRM is unlikely to offset the weaker chemical margins, the higher crude premium, and rising fuel loss. In 2022, we project IRPC's lube margin to remain weak at USD1/bbl, down from USD3-4/bbl in 2021, due to the higher supply.

**Exhibit 18: Refinery production breakdown by product**



Source: IRPC

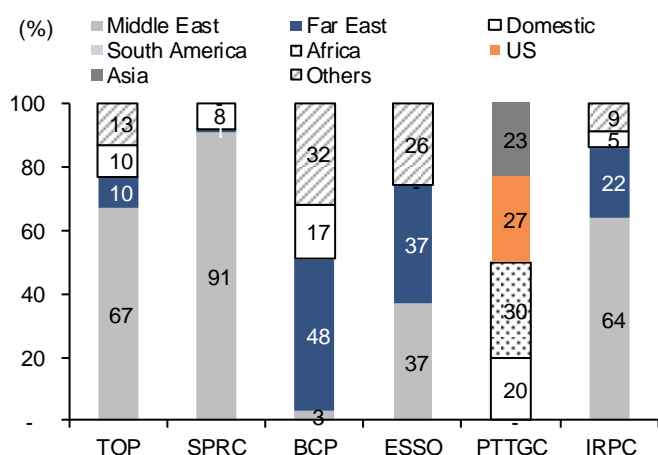
**Exhibit 19: Market GRM remained weak while lube margin spiked in 2021**



Source: IRPC

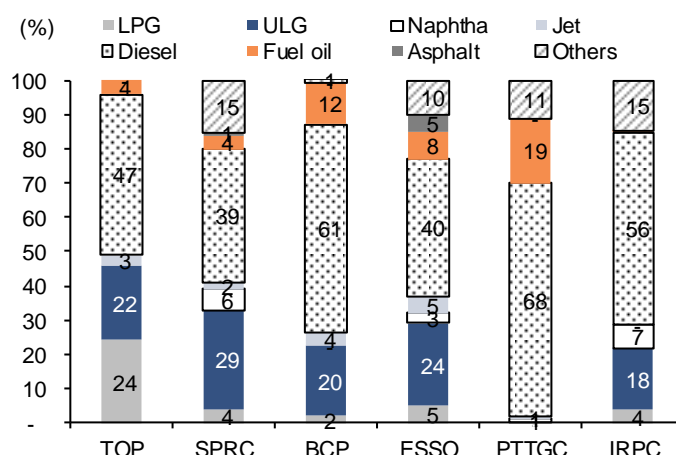
Unlike other Thai refiners, IRPC is expected to suffer from the higher crude premium of Middle East crude, which accounts for 64% of IRPC's crude intake. We believe the higher diesel-Dubai margin at over USD20/bbl vs the current USD30/bbl in May-22 should help offset the impacts of its higher crude premium and fuel loss, thanks to IRPC's high production yield of 56% for diesel.

**Exhibit 20: Crude mix breakdown as of 2021**



Source: Company data

**Exhibit 21: Product yield breakdown as of 2021**

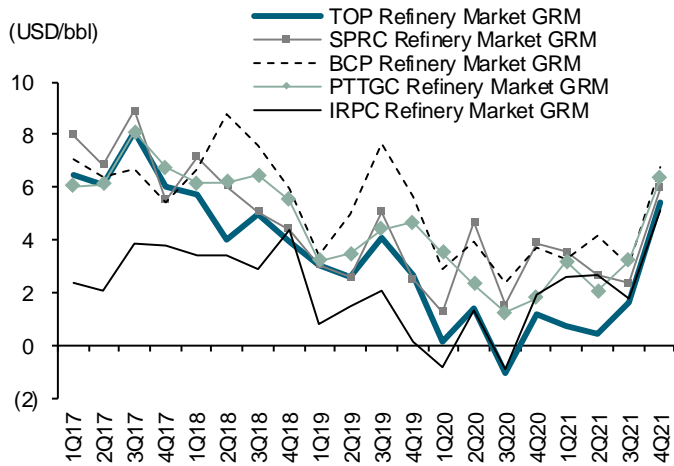


Source: Company data



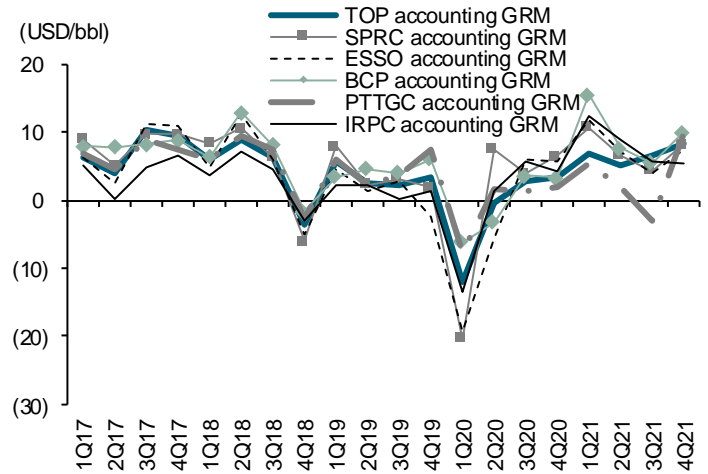
**IRPC vs Thai peers.** Compared to Thai refiners, we think IRPC stands as the weakest link in the Thai refinery sector in 2022, given 1) its high fuel loss at 8% vs the 4% average for its local peers; 2) the higher impact of the crude premium due to its required crude types of Arab Light and Arab Extra Light produced by Saudi Arabia; and 3) its higher lube production than its local peers.

**Exhibit 22: TOP, SPRC, BCP, PTTGC, IRPC – market GRM**



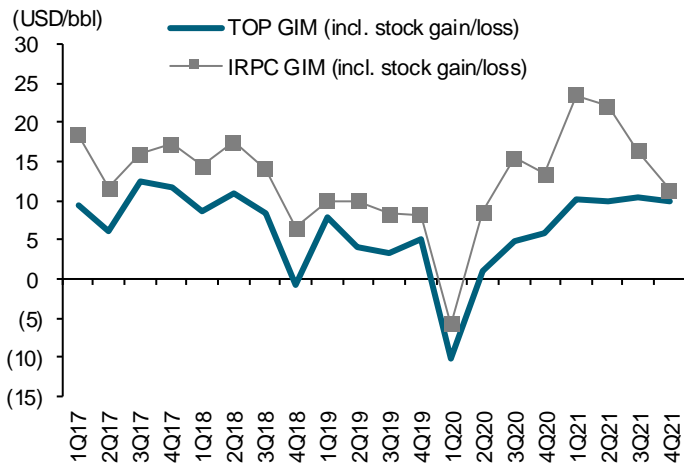
Source: Company data

**Exhibit 23: TOP, SPRC, ESSO, BCP, PTTGC, IRPC – accounting GRM**



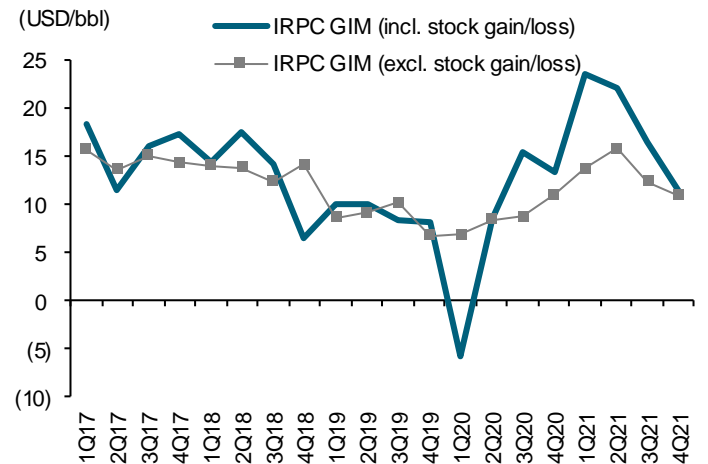
Source: Company data

**Exhibit 24: TOP, IRPC – GIM including stock gain/loss**



Source: Company data

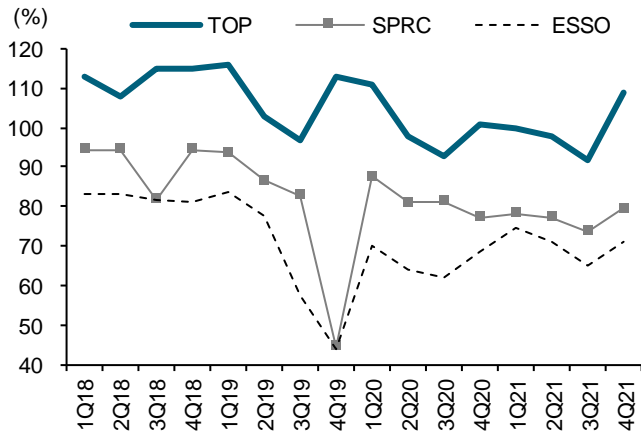
**Exhibit 25: IRPC - GIM including/excluding stock gain/loss**



Source: Company data

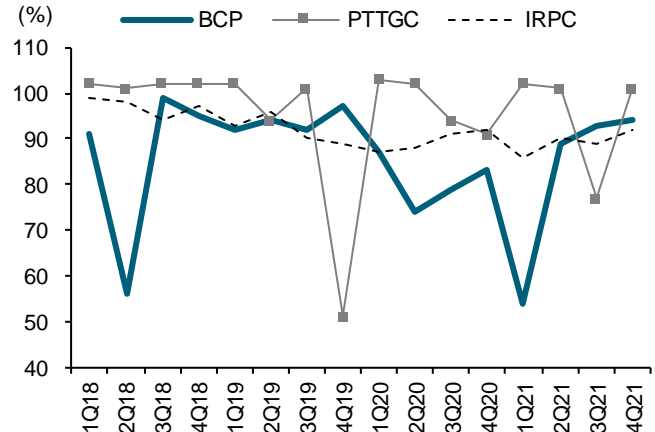
**Utilisation rate upside is limited for IRPC in 2022.** Unlike other local peers, we think IRPC will see a limited upside for its refinery plant, which we project to run at 96% given its lower competitiveness in terms of its high cost structure and fuel loss. In 2022, we expect Thai refiners to raise their refinery utilisation rates by 10-15 ppts y-y vs IRPC's mere 5 ppts y-y.

**Exhibit 26: TOP, SPRC, ESSO – refinery utilisation**



Source: Companies

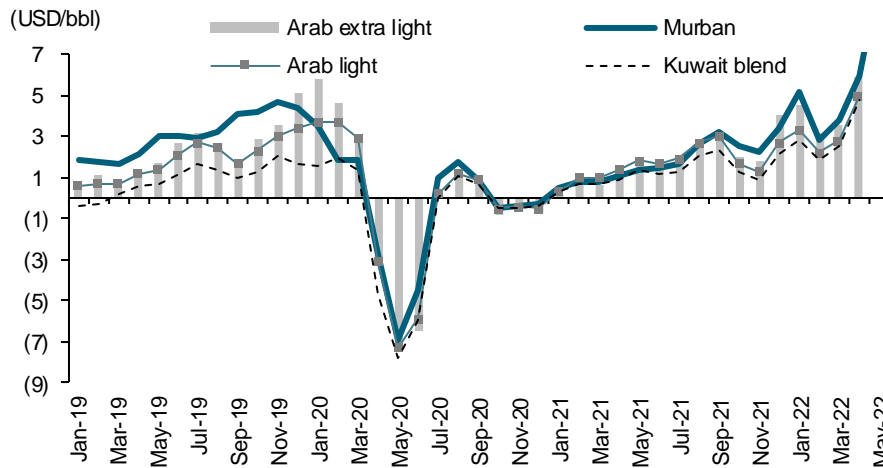
**Exhibit 27: BCP, PTTGC, IRPC – refinery utilisation**



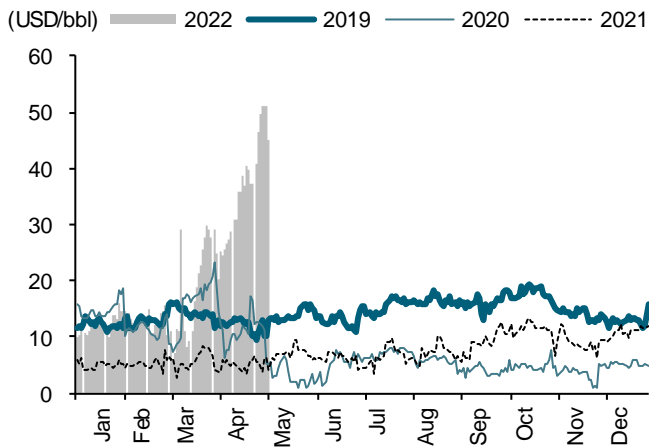
Source: Companies

As of May-22, the crude premiums of Arab Light, Arab Extra Light, and other medium sour and sweet crudes produced by Middle Eastern producers have jumped sharply by over USD4/bbl to USD6-7/bbl within the five months since Jan-22. This sharp rise in the crude premium was triggered by Saudi Arabia to take advantage of the sanctions by the US and its allies, which we think should continue in 2022.

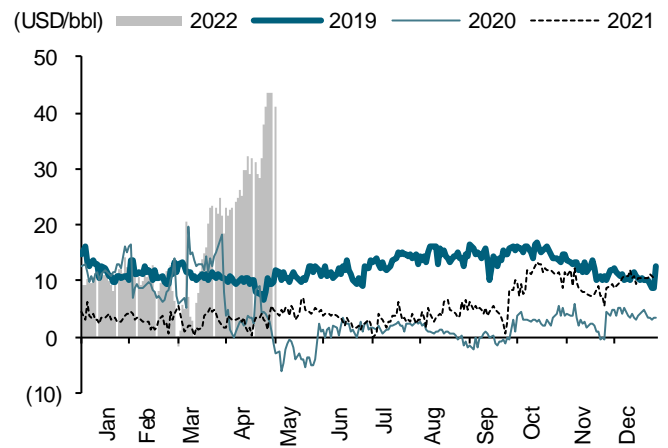
**Exhibit 28: Crude premiums of Middle Eastern producers**



Source: TOP

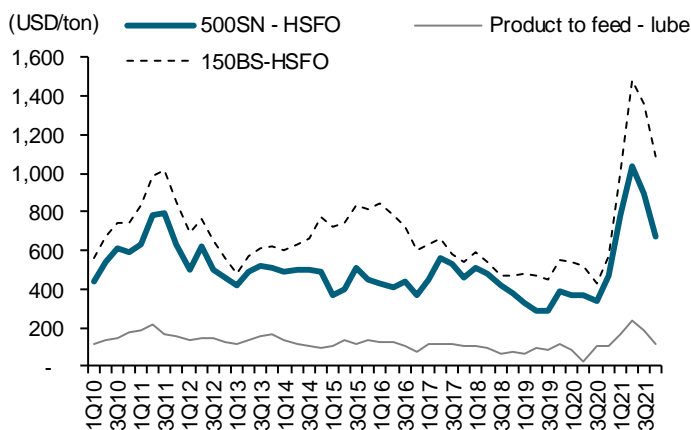
**Exhibit 29: Gasoil 0.5% Sulphur fob SG Spot Price - Dubai crude oil price**

Source: Bloomberg

**Exhibit 30: Jet Kerosene fob Spot Price - Dubai crude oil price**

Source: Bloomberg

IRPC is Thailand's largest producer of lube with a total capacity of 320ktpa vs Thai Oil (TOP TB, BUY, TP THB70)'s 267ktpa. In 2021, IRPC enjoyed a strong lube margin driven by rising demand and tight supply. However, in 2022, we think the fortunes of lube producers will reverse as new supplies are projected to swamp the market, based on IRPC's guidance.

**Exhibit 31: Lube base spread**

Sources: TOP; IRPC

**Exhibit 32: IRPC's lube margin rose from USD1.58/bbl in 2020 to USD2.8/bbl in 2021**

Source: TOP

**Exhibit 33: Lube capacity in Thailand**

Company	TOP	IRPC	Unit
Subsidiary name	Thai Lube Base Public Company (TLB)	IRPC Lube Base	
Stake owned	100	100	%
Lube Base Oil	267,015	320,000	tpa
Bitumen/Asphalt	350,000	600,000	tpa
Treated Distillate Aromatic Extract	67,520		tpa

Sources: TOP; IRPC

## A core net loss in 1Q22

IRPC posted a core net loss of THB1.1b in 1Q22, down from a core NP of THB6b in 1Q21 and THB6.6b in 4Q21. Including non-recurring items of THB2.6b, the reported NP in 1Q22 was THB1.5b, down 32% q-q and 73% y-y. Key points were:

- A weak market GIM of USD7.1/bbl, down 35% q-q and 48% y-y, due to significant drops in the margins for the chemical, refinery, and lube units. Including a large non-recurring gain, the accounting GIM was USD17.1/bbl, up 50% q-q but down 28% y-y.
- The market GRM was USD4.2/bbl, down 17.7% q-q but up 61% y-y, dragged down by the sharp rise in the crude premium to USD6.5/bbl, up USD3/bbl q-q, which more than offset the higher margins of its refined products.
- Chemical GIM plunged markedly to USD1.7/bbl, led by a sharp plunge in the olefins GIM to USD0.7/bbl (-65% q-q, -81% y-y) due to the rising naphtha cost and the industry oversupply. Its aromatics GIM also dropped to USD1/bbl (-44% q-q, -69% y-y), dragged down by the weaker margins of downstream products.
- Lube GIM plunged to USD0.2/bbl (-82% q-q, -92% y-y), due to the industry's depressed margins caused by the new supply.
- A non-recurring gain of THB2.6b, comprising an inventory gain of THB6.4b and a THB0.2b derivatives gain that was offset by a THB0.7b oil hedging loss and a THB2.7b hedging loss.
- Utilisation rates mostly dropped q-q in 1Q22, with refinery at 90% (-2 ppts q-q), lube at 81% (-11 ppts q-q), olefins at 93% (-3 ppts q-q), and electricity at 69% (-5 ppts q-q). Aromatics rose to 108% (+10 ppts q-q).

### Exhibit 34: Summary of 1Q22 operations

	1Q21	4Q21	1Q22			2021	2022E	Chg.
	(THB m)	(THB m)	(THB m)	(q-q %)	(y-y %)	(THB m)	(THB m)	(y-y %)
<b>Revenue</b>	<b>53,650</b>	<b>72,445</b>	<b>79,432</b>	<b>9.6</b>	<b>48.1</b>	<b>255,115</b>	<b>314,834</b>	<b>23.4</b>
Operating costs	(44,867)	(69,351)	(72,832)	5.0	62.3	(220,402)	(292,582)	32.7
<b>EBITDA</b>	<b>8,783</b>	<b>3,094</b>	<b>6,600</b>	<b>113.3</b>	<b>(24.9)</b>	<b>26,935</b>	<b>13,878</b>	<b>(48.5)</b>
<i>EBITDA margin (%)</i>	16.4	4.3	8.3	<i>nm</i>	<i>nm</i>	10.6	4.4	<i>nm</i>
Depreciation & amor	(2,180)	(2,067)	(2,008)	(2.9)	(7.9)	(8,587)	(8,839)	2.9
EBIT	6,603	1,027	4,592	347.3	(30.5)	18,348	5,039	(72.5)
Interest expense	(444)	(426)	(398)	(6.4)	(10.3)	(1,743)	(1,961)	12.5
Interest & invt inc	705	(205)	258	<i>nm</i>	(63.4)	0	0	<i>nm</i>
Associates' contr	156	214	129	(39.7)	(17.1)	713	713	-
Exceptional	(456)	1,906	(2,739)	<i>nm</i>	500.9	0	0	<i>nm</i>
<b>Pretax profit</b>	<b>6,564</b>	<b>2,515</b>	<b>1,842</b>	<b>(26.8)</b>	<b>(71.9)</b>	<b>16,884</b>	<b>5,300</b>	<b>(68.6)</b>
Tax	(972)	(319)	(338)	5.8	(65.3)	(2,351)	(595)	(74.7)
<i>Tax rate (%)</i>	14.8	12.7	18.3	<i>nm</i>	<i>nm</i>	13.9	11.2	<i>nm</i>
Minority interests	(10)	(2)	(3)	71.3	(68.9)	(28)	(28)	-
<b>Net profit</b>	<b>5,581</b>	<b>2,194</b>	<b>1,501</b>	<b>(31.6)</b>	<b>(73.1)</b>	<b>14,505</b>	<b>4,676</b>	<b>(67.8)</b>
Non-recurring	(388)	(4,440)	2,609	<i>nm</i>	<i>nm</i>	1,942	-	<i>nm</i>
<b>Core profit</b>	<b>5,970</b>	<b>6,634</b>	<b>(1,108)</b>	<b><i>nm</i></b>	<b><i>nm</i></b>	<b>16,447</b>	<b>4,676</b>	<b>(71.6)</b>
EPS (THB)	0.27	0.11	0.07	(31.6)	(73.1)	0.71	0.23	(67.8)
Core EPS (THB)	0.29	0.32	(0.05)	<i>nm</i>	<i>nm</i>	0.80	0.23	(71.6)

Sources: IRPC; FSSIA estimates

**Exhibit 35: 1Q22 quarterly performance**

	1Q21	4Q21	1Q22	----- Change -----	
	(%)	(%)	(%)	(q-q %)	(y-y %)
<b>Utilisation rate*</b>					
Refinery	86	92	90	(2.0)	4.0
RDCC	113	115	102	(13.0)	(11.0)
Lube-based oil	82	92	81	(11.0)	(1.0)
Olefins	90	96	93	(3.0)	3.0
Aromatics and Styrenics	102	98	108	10.0	6.0
Electricity	73	74	69	(5.0)	(4.0)
Steam	61	58	61	3.0	0.0
	(USD/bbl)	(USD/bbl)	(USD/bbl)	(q-q %)	(y-y %)
<b>Market GIM</b>	<b>13.7</b>	<b>10.9</b>	<b>7.1</b>	<b>(35.2)</b>	<b>(48.2)</b>
Refinery	2.6	5.1	4.2	(17.7)	60.5
Lube-based oil	2.6	1.1	0.2	(81.5)	(92.3)
Olefins	3.8	2.02	0.71	(64.9)	(81.1)
Aromatics and Styrenics	3.3	1.81	1.02	(43.6)	(69.0)
Utilities	1.4	0.92	0.96	4.3	(32.9)
<b>Stock Gain/(Loss) &amp; LCM</b>	<b>9.8</b>	<b>3.38</b>	<b>11.12</b>	<b>229.0</b>	<b>13.6</b>
<b>Hedging</b>	<b>0.0</b>	<b>(2.9)</b>	<b>(1.2)</b>	<b>(60.9)</b>	<b>(2,975.0)</b>
<b>Accounting GIM</b>	<b>23.5</b>	<b>11.36</b>	<b>17.05</b>	<b>50.1</b>	<b>(27.5)</b>

\*Note: Change in margin % is represented in ppt change

Sources: IRPC; FSSIA estimates

**Exhibit 36: 1Q22 quarterly information**

Quarterly information	1Q21	4Q21	1Q22	Chg. (q-q %)	Chg. (y-y %)
Crude intake (m bbl)	16.73	18.23	17.46	(4.2)	4.4
Sales volume (THB m)	53,650	72,445	79,432	9.6	48.1
Net sales (THB m)	48,388	67,840	76,608	12.9	58.3
Market GIM (THB m)	6,965	6,680	4,105	(38.5)	(41.1)
Market GIM (USD/bbl)	13.68	10.92	7.08	(35.2)	(48.2)
Accounting GIM (THB m)	11,967	6,947	9,891	42.4	(17.3)
Accounting GIM (USD/bbl)	23.51	11.36	17.05	50.1	(27.5)
EBITDA (THB m)	8,783	3,094	6,600	113.3	(24.9)
Net profit (THB m)	5,581	2,194	1,501	(31.6)	(73.1)

Sources: IRPC; FSSIA estimates

**EPS and target price revisions**

We downgrade IRPC to REDUCE from Buy and cut our target price from THB5.8, previously based on 9.5x 2022E EV/EBITDA, down to THB3.0, now based on 8.9x 2022E EV/EBITDA, to reflect IRPC's poorer GIM outlook that prompted our EPS revisions. We cut our EPS forecasts by 13-61% to reflect the changes in our assumptions for lower market GRMs and GIMs in 2022-24.

**Exhibit 37: Changes in key assumptions**

	----- Current -----			----- Previous -----			----- Change -----		
	2022E	2023E	2024E	2022E	2023E	2024E	2022E	2023E	2024E
	(THB m)	(THB m)	(THB m)	(THB m)	(THB m)	(THB m)	(%)	(%)	(%)
Revenue	314,834	294,743	294,269	317,222	294,743	294,269	(0.8)	(0.0)	(0.0)
Gross profit	22,253	28,968	31,302	31,816	33,957	33,797	(30.1)	(14.7)	(7.4)
Operating profit	5,039	11,462	13,482	13,306	15,717	15,244	(62.1)	(27.1)	(11.6)
Core net profit	4,676	10,098	11,940	11,993	14,049	13,722	(61.0)	(28.1)	(13.0)
EPS (THB/shr)	0.2	0.5	0.6	0.6	0.7	0.7	(61.0)	(28.1)	(13.0)
<b>Key assumptions</b>									
Oil price (USD/bbl)	100	90	90	100	90	90	0.0	0.0	0.0
Olefin utilisation rate (%)	94	95	96	94	95	96	0.0	0.0	0.0
Refinery utilisation rate (%)	96	98	98	96	98	98	0.0	0.0	0.0
Market GRM (USD/bbl)	5.5	5.6	4.6	6.5	6.0	5.0	(15.9)	(6.8)	(7.5)
Market GIM (USD/bbl)	10.5	13.2	14.1	12.5	13.8	14.9	(16.0)	(4.1)	(5.5)
HDPE-naphtha (USD/t)	455	563	563	455	563	563	0.0	0.0	0.0
PP-naphtha (USD/t)	555	563	563	655	563	563	(15.3)	0.0	0.0

Note: Change of items in percentage terms are represented in ppt change

Source: FSSIA estimates

## Exhibit 38: Peer comparisons

Company	BBG code	Rec	Share Price	Target price	Up side	Market Cap	3Y EPS CAGR	----- PE -----		---- ROE ----		--- PBV ---		EV / EBITDA	
								22E	23E	22E	23E	22E	23E	22E	23E
			(LCY)	(LCY)	(%)	(USD m)	(%)	(x)	(x)	(%)	(%)	(x)	(x)	(x)	(x)
<b>THAILAND</b>															
Indorama Ventures	IVL TB	BUY	43.75	70.00	60	7,110	8.4	10.4	9.5	13.7	13.3	1.3	1.2	6.9	6.0
Irpc Pcl	IRPC TB	REDUCE	3.38	3.00	(11)	1,999	(10.1)	14.8	6.8	5.5	11.6	0.8	0.8	9.5	6.1
Ptt Global Chem	PTTGC TB	HOLD	48.75	56.00	15	6,363	(3.2)	7.6	7.8	9.1	8.9	0.7	0.7	7.5	7.4
Siam Cement	SCC TB	BUY	368.00	483.00	31	12,783	20.0	7.4	6.9	15.4	15.0	1.1	1.0	8.4	7.8
Eastern Polymer	EPG TB	BUY	10.20	16.00	57	827	14.4	16.9	16.3	14.6	14.1	2.4	2.2	12.7	11.8
<b>THAILAND avg</b>						<b>29,081</b>	<b>17.9</b>	<b>9.0</b>	<b>8.0</b>	<b>12.9</b>	<b>13.0</b>	<b>1.1</b>	<b>1.0</b>	<b>8.0</b>	<b>7.3</b>
<b>INDIA</b>															
Reliance Industries	RIL IN	NA	2,474.65	NA	NA	215,065	26.3	35.5	27.0	8.6	8.0	2.7	2.1	23.4	17.2
<b>INDIA avg</b>						<b>215,065</b>	<b>26.3</b>	<b>35.5</b>	<b>27.0</b>	<b>8.6</b>	<b>8.0</b>	<b>2.7</b>	<b>2.1</b>	<b>23.4</b>	<b>17.2</b>
<b>TAIWAN</b>															
Formosa Plastics	1301 TT	NA	102.00	NA	NA	21,871	(5.8)	9.3	11.1	19.7	15.2	1.7	1.6	8.5	11.0
Nan Ya Plastics	1303 TT	NA	84.40	NA	NA	22,547	(5.5)	8.3	10.9	21.1	15.4	1.6	1.6	7.1	8.8
Formosa Chem&Fi	1326 TT	NA	78.20	NA	NA	15,439	(4.8)	11.3	15.9	10.8	7.4	1.2	1.2	8.4	13.7
Formosa Petro	6505 TT	NA	90.20	NA	NA	28,940	3.1	16.6	17.8	15.3	12.9	2.5	2.4	10.3	11.2
<b>TAIWAN avg</b>						<b>88,797</b>	<b>(3.6)</b>	<b>11.8</b>	<b>14.1</b>	<b>17.0</b>	<b>13.1</b>	<b>1.8</b>	<b>1.8</b>	<b>8.7</b>	<b>11.0</b>
<b>SOUTH KOREA</b>															
Hanwha Solutions	009830 KS	NA	31,000	NA	NA	4,642	5.2	6.7	11.3	12.6	6.4	0.8	0.7	7.0	7.4
Lotte Chemical	011170 KS	NA	189,500	NA	NA	5,133	(9.1)	4.4	8.4	11.2	5.4	0.5	0.4	2.5	3.6
Lg Chem	051910 KS	NA	501,000	NA	NA	28,617	(0.4)	10.1	15.3	19.5	11.8	1.8	1.5	6.1	6.7
Kumho Petro	011780 KS	NA	147,000	NA	NA	3,504	(25.9)	2.2	3.9	49.3	21.1	1.0	0.8	1.3	2.0
Oci	010060 KS	NA	105,500	NA	NA	1,973	(12.0)	4.8	4.8	19.9	16.0	0.9	0.7	4.3	3.8
<b>SOUTH KOREA avg</b>						<b>43,868</b>	<b>(4.3)</b>	<b>8.2</b>	<b>12.7</b>	<b>20.2</b>	<b>11.4</b>	<b>1.4</b>	<b>1.2</b>	<b>5.3</b>	<b>5.9</b>
<b>MALAYSIA</b>															
Petronas Chem	PCHEM MK	NA	9.89	NA	NA	18,007	(7.6)	12.1	11.3	20.5	18.3	2.4	2.1	8.0	7.4
Lotte Chemical Titan	TTNP MK	NA	2.12	NA	NA	1,096	(26.2)	4.5	17.3	9.4	2.2	0.4	0.4	1.1	2.6
<b>MALAYSIA avg</b>						<b>19,103</b>	<b>(8.0)</b>	<b>11.6</b>	<b>11.6</b>	<b>19.8</b>	<b>17.4</b>	<b>2.3</b>	<b>2.0</b>	<b>7.6</b>	<b>7.1</b>
<b>Average (Asia)</b>						<b>395,914</b>	<b>4.7</b>	<b>24.0</b>	<b>20.4</b>	<b>12.6</b>	<b>10.3</b>	<b>2.2</b>	<b>1.8</b>	<b>16.2</b>	<b>13.3</b>
<b>US</b>															
Eastman Chem	EMN US	NA	102.14	NA	NA	13,164	9.3	11.4	10.5	16.6	21.1	2.2	2.2	8.3	8.4
Dupont De Nem	DD US	NA	63.32	NA	NA	32,200	13.9	15.1	18.6	7.0	6.7	1.3	1.1	10.1	12.5
Celanese	CE US	NA	140.86	NA	NA	15,256	(1.6)	7.7	8.0	49.7	39.7	4.1	2.9	6.6	7.1
Westlake Chem	WLK US	NA	127.35	NA	NA	16,343	2.0	8.5	6.1	27.5	29.0	2.1	1.5	5.9	4.4
Ppg Industries	PPG US	NA	125.04	NA	NA	29,534	16.0	18.7	17.6	25.3	24.7	4.6	4.3	13.7	12.9
Alpek Sa De Cv	ALPEKA MM	NA	25.90	NA	NA	2,686	(14.0)	7.0	7.1	18.9	19.2	1.2	1.1	4.1	4.2
<b>Avg (US)</b>						<b>109,183</b>	<b>6.4</b>	<b>13.4</b>	<b>13.7</b>	<b>22.4</b>	<b>21.5</b>	<b>2.8</b>	<b>2.4</b>	<b>9.6</b>	<b>10.0</b>
<b>ME/Europe</b>															
Saudi Basic	SABIC AB	NA	126.20	NA	NA	100,930	(3.4)	16.2	17.7	13.4	11.3	2.1	2.0	8.8	9.5
Saudi Kayan	KAYAN AB	NA	17.86	NA	NA	7,142	3.1	11.7	18.7	15.7	9.0	1.6	1.5	7.5	10.4
Yanbu National	YANSAB AB	NA	58.20	NA	NA	8,727	4.6	19.2	22.0	10.9	10.7	2.2	2.2	9.8	10.6
Industries Qatar	IQCD QD	NA	17.69	NA	NA	29,282	(6.3)	12.8	9.1	22.7	25.8	2.9	2.4	14.2	8.8
Basf Se	BAS GR	NA	48.46	NA	NA	47,066	(0.0)	7.3	8.4	16.0	11.1	1.2	1.1	5.4	5.9
Arkema	AKE FP	NA	115.05	NA	NA	9,012	(4.6)	10.6	10.4	14.1	11.7	1.4	1.3	6.6	6.4
Lanxess Ag	LXS GR	NA	35.29	NA	NA	3,246	11.7	8.0	7.7	9.3	9.4	1.0	0.8	5.4	4.8
Solvay Sa	SOLB BB	NA	92.20	NA	NA	10,294	(4.3)	10.2	9.5	13.4	11.2	1.3	1.0	6.2	5.8
<b>Avg (ME/Europe)</b>						<b>215,700</b>	<b>(2.0)</b>	<b>13.1</b>	<b>13.8</b>	<b>15.1</b>	<b>13.1</b>	<b>1.9</b>	<b>1.8</b>	<b>8.5</b>	<b>8.3</b>
<b>Petrochem under coverage</b>						<b>29,081</b>	<b>17.9</b>	<b>9.0</b>	<b>8.0</b>	<b>12.9</b>	<b>13.0</b>	<b>1.1</b>	<b>1.0</b>	<b>8.0</b>	<b>7.3</b>
<b>Average (all)</b>						<b>720,796</b>	<b>3.8</b>	<b>19.1</b>	<b>17.4</b>	<b>14.9</b>	<b>12.9</b>	<b>2.2</b>	<b>1.9</b>	<b>12.9</b>	<b>11.3</b>

Share prices as of 10 May 2022

Sources: Bloomberg, FSSIA estimates



## Financial Statements

### IRPC PCL

Profit and Loss (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Revenue	174,463	255,115	314,834	294,743	294,269
Cost of goods sold	(165,539)	(220,402)	(292,582)	(265,775)	(262,967)
<b>Gross profit</b>	<b>8,924</b>	<b>34,712</b>	<b>22,253</b>	<b>28,968</b>	<b>31,302</b>
Other operating income	-	-	-	-	-
Operating costs	(7,093)	(7,778)	(8,375)	(8,253)	(8,240)
<b>Operating EBITDA</b>	<b>1,831</b>	<b>26,935</b>	<b>13,878</b>	<b>20,715</b>	<b>23,063</b>
Depreciation	(8,952)	(8,587)	(8,839)	(9,254)	(9,581)
Goodwill amortisation	0	0	0	0	0
<b>Operating EBIT</b>	<b>(7,121)</b>	<b>18,348</b>	<b>5,039</b>	<b>11,462</b>	<b>13,482</b>
Net financing costs	(1,902)	(1,743)	(1,961)	(2,152)	(2,055)
Associates	333	713	713	713	713
Recurring non-operating income	1,339	2,221	2,221	2,221	2,221
Non-recurring items	0	(1,942)	0	0	0
<b>Profit before tax</b>	<b>(7,684)</b>	<b>16,884</b>	<b>5,300</b>	<b>11,530</b>	<b>13,648</b>
Tax	1,554	(2,351)	(595)	(1,404)	(1,679)
<b>Profit after tax</b>	<b>(6,130)</b>	<b>14,533</b>	<b>4,704</b>	<b>10,126</b>	<b>11,969</b>
Minority interests	(22)	(28)	(28)	(28)	(28)
Preferred dividends	0	0	0	0	0
Other items	-	-	-	-	-
<b>Reported net profit</b>	<b>(6,152)</b>	<b>14,505</b>	<b>4,676</b>	<b>10,098</b>	<b>11,940</b>
<b>Non-recurring items &amp; goodwill (net)</b>	<b>0</b>	<b>1,942</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Recurring net profit</b>	<b>(6,152)</b>	<b>16,447</b>	<b>4,676</b>	<b>10,098</b>	<b>11,940</b>
<b>Per share (THB)</b>					
Recurring EPS *	(0.30)	0.80	0.23	0.49	0.58
Reported EPS	(0.30)	0.71	0.23	0.49	0.58
DPS	0.06	0.33	0.11	0.25	0.29
Diluted shares (used to calculate per share data)	20,434	20,434	20,434	20,434	20,434
<b>Growth</b>					
Revenue (%)	(27.1)	46.2	23.4	(6.4)	(0.2)
Operating EBITDA (%)	(56.7)	1,371.2	(48.5)	49.3	11.3
Operating EBIT (%)	nm	nm	(72.5)	127.4	17.6
Recurring EPS (%)	nm	nm	(71.6)	115.9	18.2
Reported EPS (%)	nm	nm	(67.8)	115.9	18.2
<b>Operating performance</b>					
Gross margin inc. depreciation (%)	0.0	10.2	4.3	6.7	7.4
Gross margin of key business (%)	0.0	10.2	4.3	6.7	7.4
Operating EBITDA margin (%)	1.0	10.6	4.4	7.0	7.8
Operating EBIT margin (%)	(4.1)	7.2	1.6	3.9	4.6
Net margin (%)	(3.5)	6.4	1.5	3.4	4.1
Effective tax rate (%)	19.4	13.0	13.0	13.0	13.0
Dividend payout on recurring profit (%)	(19.9)	41.0	50.0	50.0	50.0
Interest cover (X)	(3.0)	11.8	3.7	6.4	7.6
Inventory days	52.0	45.5	49.0	58.7	56.2
Debtor days	20.6	16.7	19.0	26.4	32.4
Creditor days	53.9	43.6	41.6	49.9	47.7
Operating ROIC (%)	(4.6)	11.9	3.0	6.6	7.7
ROIC (%)	(3.3)	11.9	4.0	7.2	8.1
ROE (%)	(7.7)	20.2	5.5	11.6	12.8
ROA (%)	(2.6)	9.8	3.2	5.9	6.7

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

Revenue by Division (THB m)	2020	2021	2022E	2023E	2024E
Petroleum products	145,248	216,711	287,598	268,792	265,936
Petrochemical products	47,726	85,695	89,747	84,350	86,153
Other business	(18,511)	(47,292)	(62,511)	(58,399)	(57,820)

Sources: IRPC PCL; FSSIA estimates



## Financial Statements

### IRPC PCL

Cash Flow (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Recurring net profit	(6,152)	16,447	4,676	10,098	11,940
Depreciation	8,952	8,587	8,839	9,254	9,581
Associates & minorities	333	713	713	713	713
Other non-cash items	-	-	-	-	-
Change in working capital	6,198	(15,210)	(6,831)	(4,176)	(4,733)
<b>Cash flow from operations</b>	<b>9,331</b>	<b>10,536</b>	<b>7,396</b>	<b>15,888</b>	<b>17,501</b>
Capex - maintenance	(4,672)	(4,697)	(4,835)	(5,062)	(5,241)
Capex - new investment	(2,994)	(2,350)	(5,602)	(1,695)	(1,520)
Net acquisitions & disposals	1,241	(610)	0	0	0
Other investments (net)	(2,920)	(1,721)	(1,475)	(1,523)	(1,523)
<b>Cash flow from investing</b>	<b>(9,345)</b>	<b>(9,378)</b>	<b>(11,912)</b>	<b>(8,280)</b>	<b>(8,284)</b>
Dividends paid	(2,043)	(1,226)	(6,743)	(2,338)	(5,049)
Equity finance	0	0	0	0	0
Debt finance	2,960	(852)	2,000	0	(5,000)
Other financing cash flows	4,913	3,305	(1,122)	(1,095)	(1,091)
<b>Cash flow from financing</b>	<b>5,829</b>	<b>1,227</b>	<b>(5,865)</b>	<b>(3,433)</b>	<b>(11,140)</b>
Non-recurring cash flows	-	-	-	-	-
Other adjustments	0	0	0	0	0
<b>Net other adjustments</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Movement in cash</b>	<b>5,815</b>	<b>2,384</b>	<b>(10,381)</b>	<b>4,176</b>	<b>(1,922)</b>
Free cash flow to firm (FCFF)	1,887.39	2,900.20	(2,555.22)	9,760.52	11,272.45
Free cash flow to equity (FCFE)	7,858.38	3,610.44	(3,637.69)	6,513.80	3,126.60

#### Per share (THB)

FCFF per share	0.09	0.14	(0.13)	0.48	0.55
FCFE per share	0.38	0.18	(0.18)	0.32	0.15
Recurring cash flow per share	0.15	1.26	0.70	0.98	1.09

Balance Sheet (THB m) Year Ending Dec	2020	2021	2022E	2023E	2024E
Tangible fixed assets (gross)	204,132	206,824	217,822	224,989	232,156
Less: Accumulated depreciation	(89,581)	(97,757)	(106,595)	(115,849)	(125,430)
<b>Tangible fixed assets (net)</b>	<b>114,551</b>	<b>109,067</b>	<b>111,227</b>	<b>109,140</b>	<b>106,726</b>
<b>Intangible fixed assets (net)</b>	<b>774</b>	<b>761</b>	<b>761</b>	<b>761</b>	<b>761</b>
Long-term financial assets	-	-	-	-	-
Invest. in associates & subsidiaries	8,684	9,294	9,294	9,294	9,294
Cash & equivalents	8,851	11,236	855	5,031	3,109
A/C receivable	9,626	13,785	18,919	23,724	28,522
Inventories	21,169	33,766	44,824	40,717	40,287
Other current assets	3,725	8,413	10,382	9,719	9,704
<b>Current assets</b>	<b>43,371</b>	<b>67,200</b>	<b>74,980</b>	<b>79,192</b>	<b>81,622</b>
Other assets	6,111	4,170	4,170	4,170	4,170
<b>Total assets</b>	<b>173,491</b>	<b>190,492</b>	<b>200,431</b>	<b>202,556</b>	<b>202,573</b>
Common equity	75,526	87,496	84,077	90,314	95,683
Minorities etc.	140	217	245	273	301
<b>Total shareholders' equity</b>	<b>75,666</b>	<b>87,712</b>	<b>84,322</b>	<b>90,587</b>	<b>95,984</b>
Long term debt	48,597	50,494	45,494	45,494	40,494
Other long-term liabilities	5,169	4,743	4,743	4,743	4,743
<b>Long-term liabilities</b>	<b>53,766</b>	<b>55,237</b>	<b>50,237</b>	<b>50,237</b>	<b>45,237</b>
A/C payable	23,983	28,671	38,061	34,573	34,208
Short term debt	13,335	10,585	17,585	17,585	17,585
Other current liabilities	6,741	8,287	10,227	9,574	9,559
<b>Current liabilities</b>	<b>44,059</b>	<b>47,543</b>	<b>65,872</b>	<b>61,732</b>	<b>61,352</b>
<b>Total liabilities and shareholders' equity</b>	<b>173,491</b>	<b>190,492</b>	<b>200,431</b>	<b>202,556</b>	<b>202,573</b>
Net working capital	3,796	19,006	25,838	30,014	34,747
Invested capital	133,916	142,298	151,289	153,378	155,697

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

#### Per share (THB)

Book value per share	3.70	4.28	4.11	4.42	4.68
Tangible book value per share	3.66	4.24	4.08	4.38	4.65

#### Financial strength

Net debt/equity (%)	70.2	56.8	73.8	64.1	57.3
Net debt/total assets (%)	30.6	26.2	31.0	28.7	27.1
Current ratio (x)	1.0	1.4	1.1	1.3	1.3
CF interest cover (x)	6.7	4.4	2.0	4.8	3.3

Valuation	2020	2021	2022E	2023E	2024E
<b>Recurring P/E (x) *</b>	<b>(11.2)</b>	<b>4.2</b>	<b>14.8</b>	<b>6.8</b>	<b>5.8</b>
<b>Recurring P/E @ target price (x) *</b>	<b>(10.0)</b>	<b>3.7</b>	<b>13.1</b>	<b>6.1</b>	<b>5.1</b>
Reported P/E (x)	(11.2)	4.8	14.8	6.8	5.8
Dividend yield (%)	1.8	9.8	3.4	7.3	8.6
Price/book (x)	0.9	0.8	0.8	0.8	0.7
Price/tangible book (x)	0.9	0.8	0.8	0.8	0.7
EV/EBITDA (x) **	66.8	4.4	9.5	6.1	5.4
EV/EBITDA @ target price (x) **	62.6	4.1	8.9	5.8	5.1
EV/invested capital (x)	0.9	0.8	0.9	0.8	0.8

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

Sources: IRPC PCL; FSSIA estimates

## Corporate Governance report of Thai listed companies 2020

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

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

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

## Description

## Score Range

Excellent

90-100

Very Good

80-89

Good

70-79

## Disclaimer:

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

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

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

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

## Anti-corruption Progress Indicator 2020

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

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

**Disclaimer:**

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

Note: Companies participating in Thailand's Private Sector Collective Action Coalition Against Corruption programme (Thai CAC) under Thai Institute of Directors (as of June 24, 2019) are categorised into: 1) companies that have declared their intention to join CAC, and; 2) companies certified by CAC.

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

## GENERAL DISCLAIMER

### ANALYST(S) CERTIFICATION

Suwat Sinsadok, CFA, FRM, ERP 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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Company	Ticker	Price	Rating	Valuation & Risks
IRPC PCL	IRPC TB	THB 3.38	REDUCE	Key risks to our bearish view and EV/EBITDA-based target price are rising margins of PP-naphtha, SM and ABS-benzene, and a higher market GRM.
Indorama Ventures	IVL TB	THB 43.75	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.
PTT Global Chemical	PTTGC TB	THB 48.75	HOLD	The key upside/downside risks to our EV/EBITDA-based TP are a stronger or weaker-than-expected HDPE price and HDPE-naphtha margin.
Siam Cement	SCC TB	THB 368.00	BUY	Downside risks to our SOTP based TP 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 10.20	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.
Thai Oil	TOP TB	THB 58.00	BUY	Downside risks to our EV/EBITDA-based TP are a sharp fall in oil price and weak demand for refined oil products.

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 10-May-2022 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.