

23 SEPTEMBER 2021

Thailand Oil & Gas

Finding winners amidst oil & gas price uptrend

Limited oil price upside expected in 2022 on higher supply

According to the US Energy Information Administration (EIA), the high global oil price uptrend above USD70/bbl is likely to continue into 4Q21, considering 1) the limited impact of US shale oil exports on the global oil market; and 2) the post-economic reopening demand growth in the US and Europe is likely to outpace the supply growth from OPEC+. Meanwhile, OPEC expects the oil supply to outpace the oil demand in 1Q22 then reverse to an undersupply market in 2Q22 due to the projected strong demand at 102mbpd.

OPEC+ to remain a dominant oil producer into 2022

According to OPEC, the global oil demand is projected to surpass the supply by 1-2m barrels per day (mbpd) in 2H22, potentially driving the oil price higher or at least sustaining it at a high level above USD70/bbl in 4Q21. In contrast, the EIA forecasts that the global oil market will turn from an undersupply into an oversupply market starting in 1Q22 as it expects the oil supply growth to accelerate in 2022, mainly from US shale oil producers and rising oil production levels from the OPEC+ group.

Subpar US shale oil and gas production underscores high global oil & gas prices

As of 3 September 2021, according to the EIA, although the US active oil rig count has risen to 394 rigs, up from 181 rigs in 2020, the rig count number is historically low compared with other periods when crude oil futures prices were near similar levels (or at even lower prices). We think US shale oil production growth will remain low in 2H21 but should rebound meaningfully in 2022, thereby curbing the oil price upside in 2022. We think the gas price should decline and normalise in 2022 onward, with the spot LNG price in the range of USD6-8/mmbtu, closer to the LNG contract price. The strong demand growth for gas in the upcoming winter season as a heating oil should be partly offset by diesel and HSFO-based power plants, thanks to their relatively cheaper costs than LNG-based power plants.

Oil plays – PTTEP and TOP vs gas plays – BANPU and IVL

PTTEP and TOP are our top oil plays, given their high earnings exposures to the oil & gas prices (PTTEP as a producer of oil & gas) and as potential winners of the expected rebound in the demand for refined oil after the global reopening (TOP). For gas price plays, our top picks are BANPU and IVL as the winners of the current gas price uptrend. BANPU has 0.8bscfd of gas production capacity in the US and IVL has a large exposure to shale gas as a key feedstock for its 4mtpa IOD product group in the US. Additionally, the higher HH gas price should directly benefit BANPU's shale gas unit, while the high HH price should indirectly widen the margin of IVL's PET and PTA sold in North America. As one of three major producers of PET and PTA, IVL has high bargaining power to raise the contract and spot selling prices of its PET, PTA and IOD products produced from gas-based ethylene.

**Suwat Sinsadok**suwat.sin@fssia.com
+66 2611 3558**Siriluck Pinthusoonthorn**siriluck.pin@fssia.com
+66 2611 3562

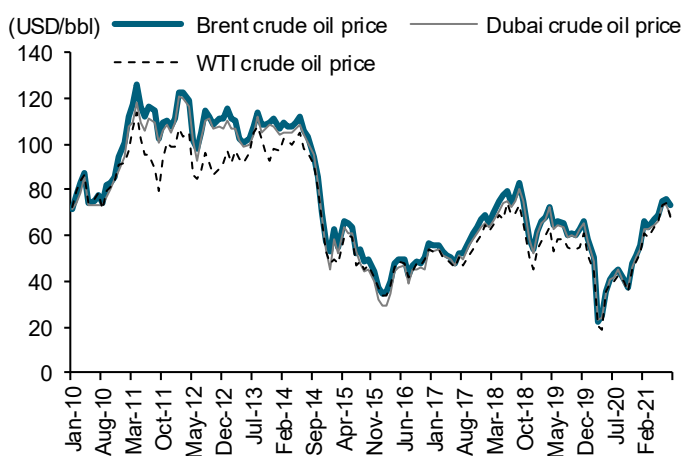
Oil price uptrend to begin by end-2021

According to the EIA, the high global oil price uptrend above USD70/bbl is likely to continue into 4Q21, considering 1) the limited impact of US shale oil exports on the global oil market; and 2) the post-economic reopening demand growth in the US and Europe is likely to outpace the supply growth from OPEC+.

The three global benchmark oil prices have moved closely in tandem with one another since 2H20 thanks to the supply cuts by OPEC+ and the structural oil production decline for shale oil produced in the US due to the limited resumption of oil rig operations, despite the rising West Texas Intermediate (WTI) benchmark oil price.

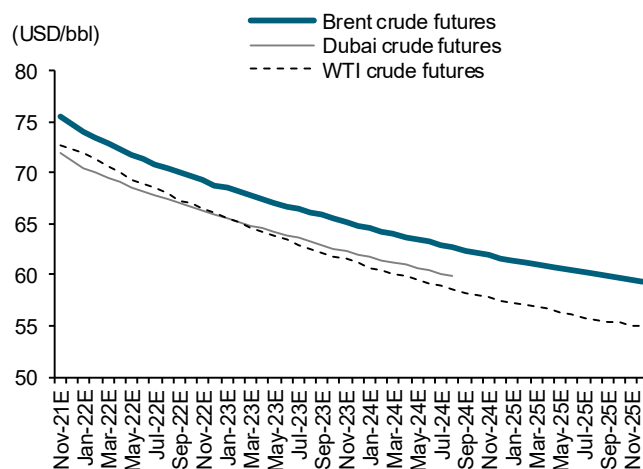
The oil futures of WTI, Brent, and Dubai have all remained in contango, dropping from the current USD72-76/bbl range for the November 2021 delivery down to USD60-65/bbl for the August 2024 delivery. This indicates that the market remains bearish on the oil price outlook in 2022-24 as a result of the projected higher supply from OPEC+ and increasing US shale oil production, in our view.

Exhibit 1: Crude oil price – Brent, Dubai, WTI



Source: Bloomberg

Exhibit 2: Futures – Brent, Dubai, WTI



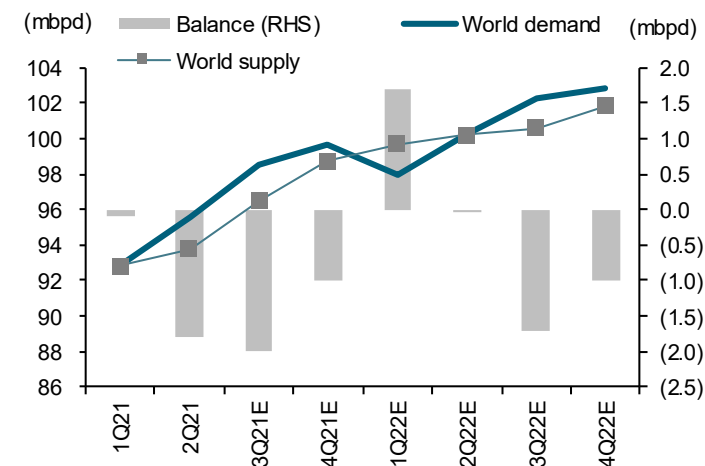
Prices as of 16 September 2021
Source: Bloomberg

OPEC is more bullish on oil price than the EIA

OPEC expects the oil supply to outpace the oil demand in 1Q22 then reverse to an undersupply market in 2Q22 due to the projected strong demand at 102mbpd, even higher than the pre-Covid-19 level of 101mbpd in 2019.

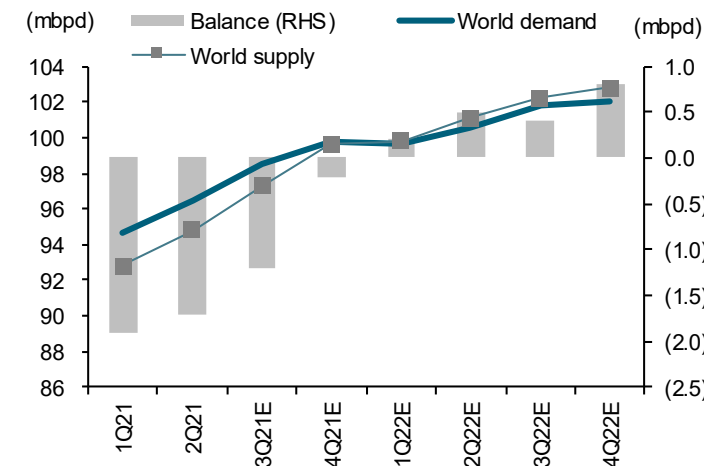
In contrast, the EIA forecasts that the global oil market will turn from an undersupply into an oversupply market starting in 1Q22 as it expects the oil supply growth to accelerate in 2022, mainly from US shale oil producers and rising oil production levels from the OPEC+ group.

Exhibit 3: World crude oil demand and supply forecast by OPEC



Source: OPEC

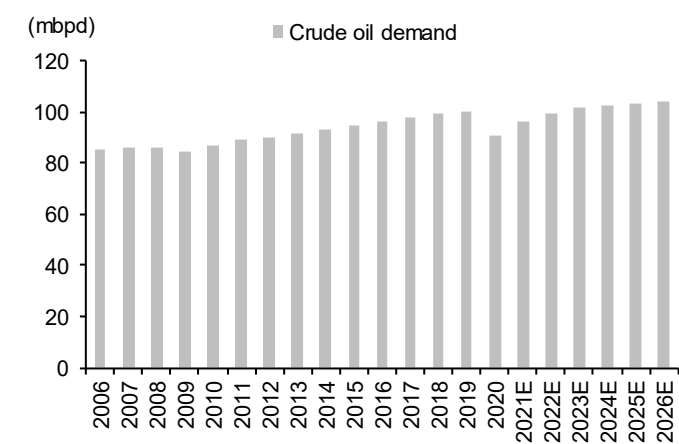
Exhibit 4: World crude oil demand and supply forecast by EIA



Source: EIA

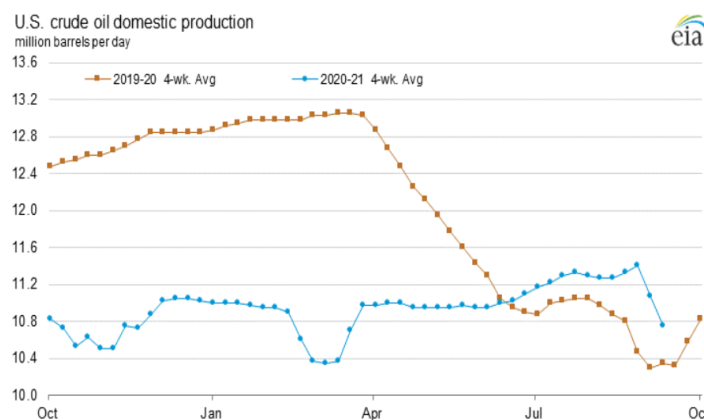
Our oil price view is much less positive than that of OPEC and the EIA, since we project the demand growth to be mostly and timely matched by the supply growth from both US shale oil producers and OPEC+. We maintain our oil price projection of USD65/60/60 per bbl for 2021-23 for Dubai and USD68/63/63 per bbl for Brent oil. We think the supply growth from US shale oil producers and OPEC+ will rise at a faster rate than OPEC+ and the EIA project.

Exhibit 5: World crude oil demand by Statista



Source: EIA

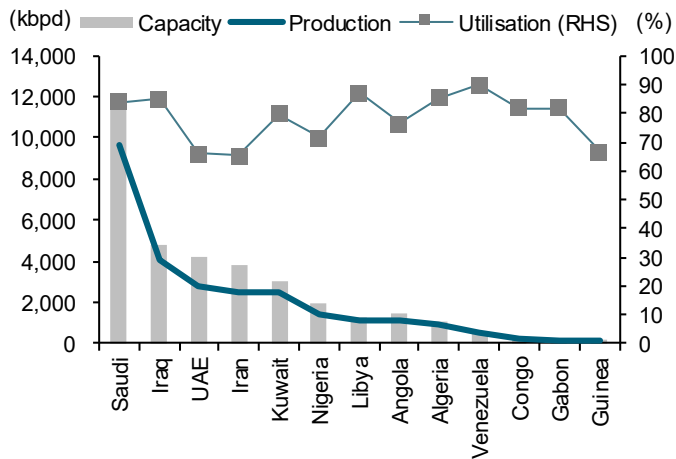
Exhibit 6: US crude oil production



Source: EIA

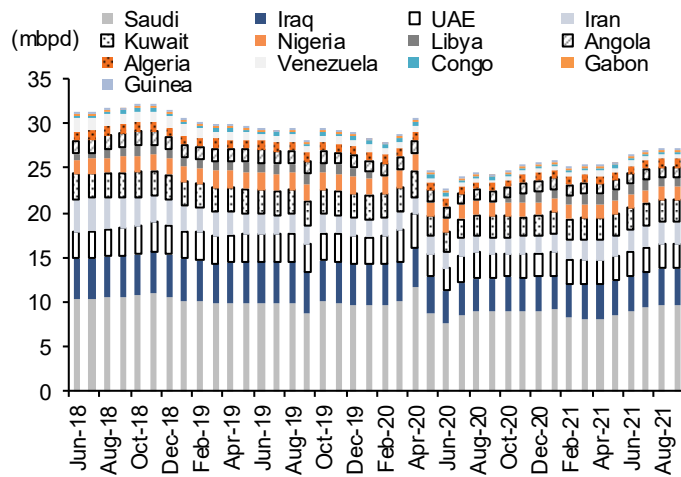
According to OPEC, the global oil demand is projected to surpass the supply by 1-2mbpd in 2H22, potentially driving the oil price higher or at least sustaining it at a high level above USD70/bbl in 4Q21. OPEC's oil production has been cut significantly since May 2020, dropping from 30-31mbpd down to 23-26mbpd during May 2020 to September 2021, leading the oil price to rise and stay above USD70/bbl since June 2020.

Exhibit 7: OPEC crude oil capacity, production, and utilisation



Source: EIA

Exhibit: OPEC crude oil production

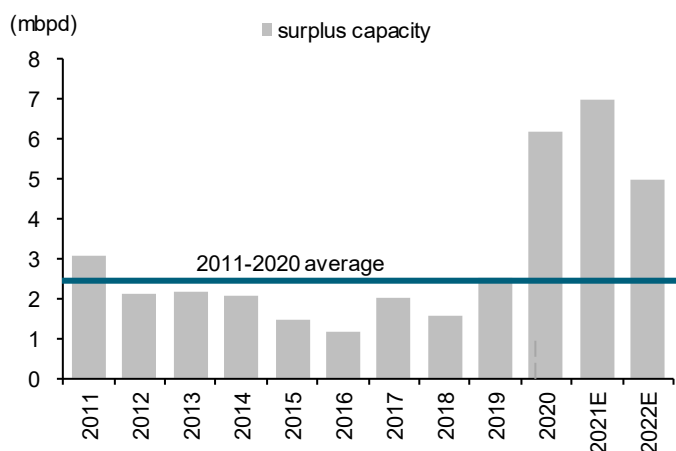


Source: EIA

However, starting from August 2021 and lasting until May 2022, according to OPEC+, the group has decided to gradually raise its oil production level by 0.4mbpd monthly. This, in our view, will effectively put the cap on the global oil price upside at below USD80/bbl, even though we project the demand to recover back to the pre-Covid-19 level at over 100mbpd by mid-2022.

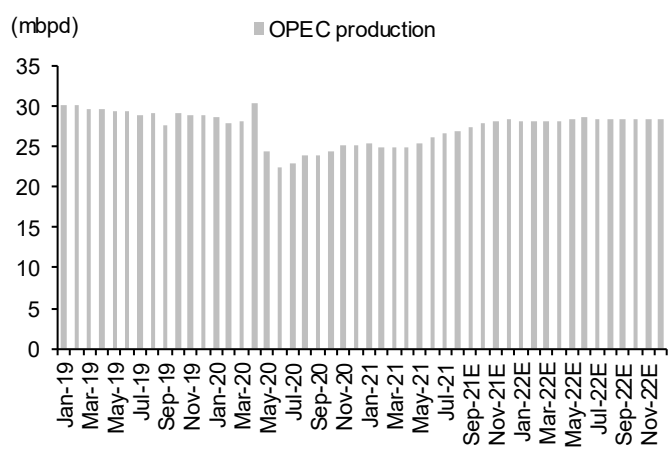
We also believe that if the global oil demand is stronger than expected and exceeds the supply increase in 2022, OPEC would still have a sufficient capacity surplus of over 6mbpd to fill any demand-supply gap left by other oil producers. As a result, we see a limited oil price upside in 2022-23 and expect a contango oil price curve during the same period, declining from the current USD70-75/bbl down to the USD55-65/bbl level in the next 24 months.

Exhibit 8: OPEC surplus crude oil production capacity



Note: Black line represents 2011-2020 average (2.4 million barrels per day).
Source: EIA

Exhibit 9: OPEC production

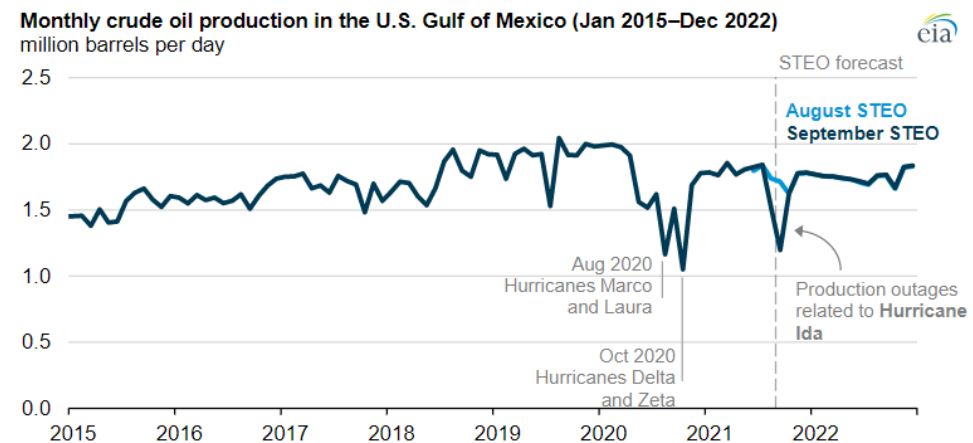


Source: EIA

US shale oil supply to remain subdued in 4Q21

US oil production remained low in 1H21. Despite the rising WTI oil price to USD70/bbl in 2H21, gross US crude oil exports in 1H21 averaged 3.0mbpd, down from 3.2mbpd 1H20. This was the first time exports had decreased since the end of the export ban in 2015, and was likely driven by the lower crude oil production, which decreased substantially in 2020 due to the economic response to the Covid-19 pandemic. Gross US crude oil imports also fell, decreasing from 6.2mbpd in 1H20 to 5.9mbpd in 1H21.

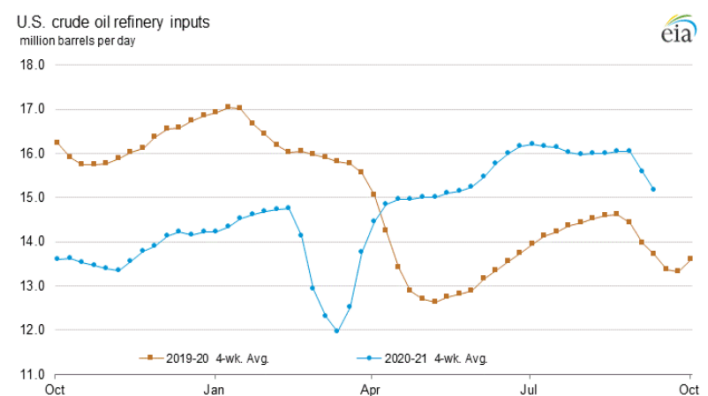
Exhibit 10: Hurricane Ida disrupted crude oil production and refining activity



Source: EIA

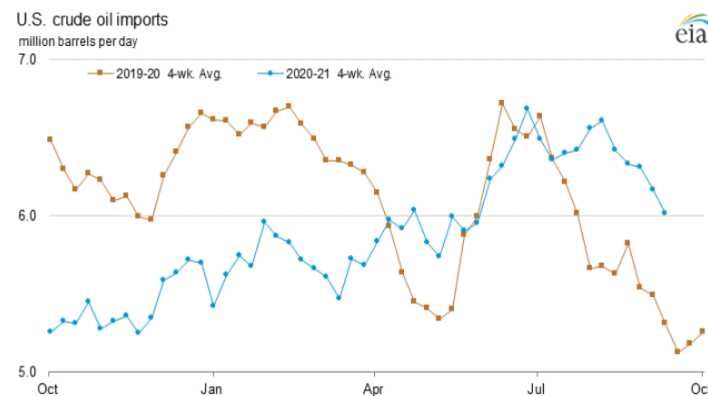
Hurricane Ida, which landed on southern Louisiana as a Category 4 hurricane on 29 August 2021, has disrupted US oil & gas production, with up to 96% of crude oil production and 94% of natural gas production in US federally administered areas of the Gulf of Mexico shutting down, according to estimates by the US Department of the Interior’s Bureau of Safety and Environmental Enforcement. At least nine refineries shut down or reduced production levels, leading the EIA to cut its forecast for crude oil production and refinery runs in September 2021, according to the EIA’s report, “Short-Term Energy Outlook”. We, however, think that oil & gas production in the Gulf of Mexico will return to normal by October 2021, and will likely offset the slowdown in US oil production.

Exhibit 11: US refinery utilisation rate



Source: EIA

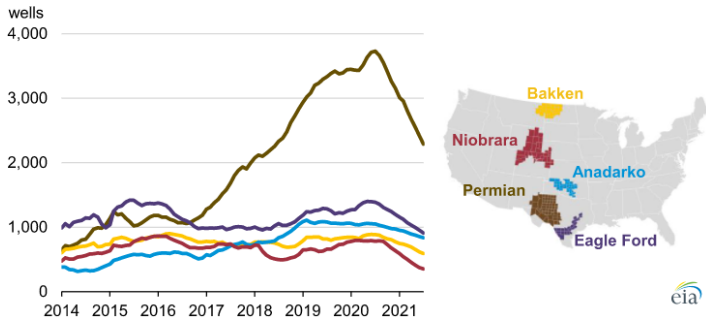
Exhibit 12: US crude oil imports



Source: EIA

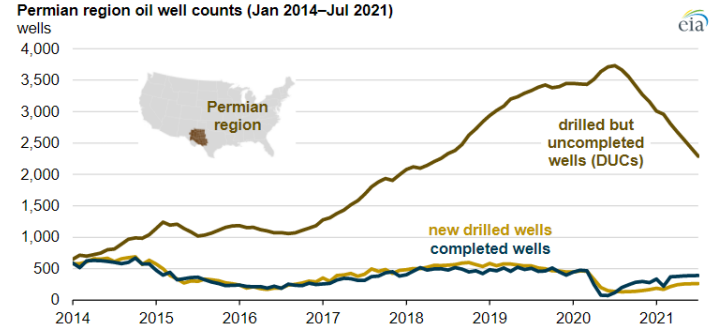
Declining number of DUCs could limit future oil production. Based on the EIA’s “Drilling Productivity Report (DPR)”, dated August 2021, 5,957 drilled but uncompleted wells (DUCs) were in the US in July 2021, the lowest for any month since November 2017. The decline in DUCs in most major US onshore oil-producing regions, especially in the Permian region, reflects more well completions and, at the same time, less new well drilling activity. The completion of more wells is increasing oil production in the Permian region, but the completions are reducing the DUC inventories, which could limit oil production growth in the US in the coming months.

Exhibit 13: Drilled but uncompleted wells by region (Jan-14 to Jul-21)



Source: EIA

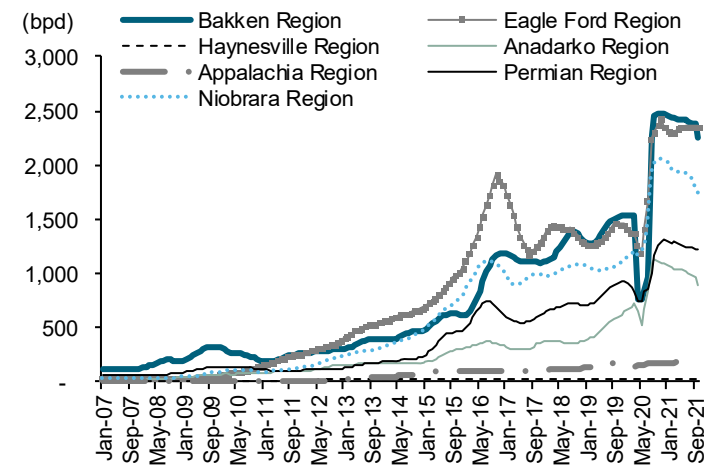
Exhibit 14: Number of drilled but uncompleted wells declining in the US



Source: EIA

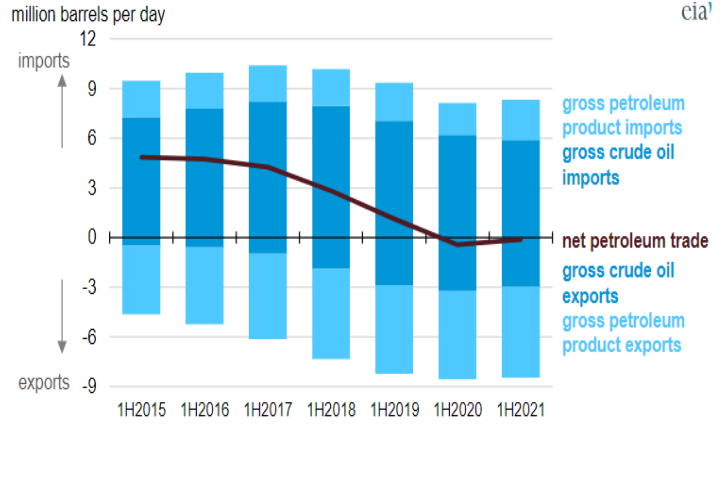
The two main stages in bringing a horizontally drilled, hydraulically fractured well online are drilling and completion. The drilling phase involves dispatching a drilling rig and crew, who then drill one or more wells on a pad site. The next phase, well completion, is typically performed by a separate crew and involves casing, cementing, perforating, and hydraulically fracturing the well for production. In general, the time between the drilling and completion stages is several months, leading to a significant inventory of DUCs that producers can maintain as working inventory to manage oil production.

Exhibit 15: Shale oil production per rig



Source: EIA

Exhibit 16: The US exported slightly more petroleum than it imported in the first half of 2021

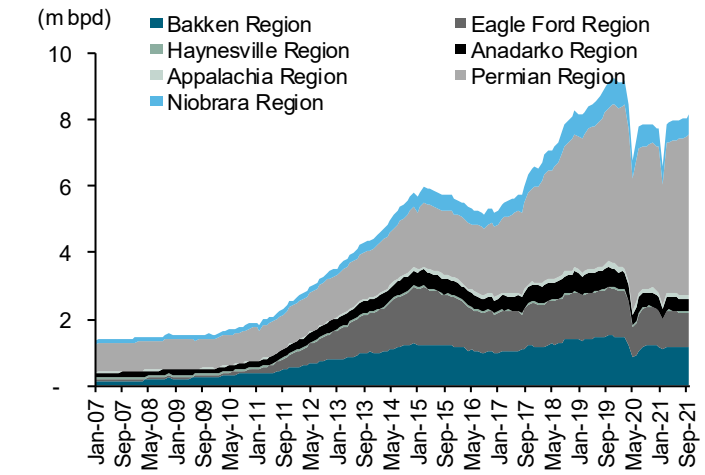


Source: EIA

Indicators of new well drilling in the US remain subdued. As of 3 September 2021, according to the EIA, although the US active oil rig count has risen to 394 rigs, up from 181 rigs in 2020, the rig count number is historically low compared with other periods when crude oil futures prices were near similar levels (or at even lower prices). Rising rig counts typically lag four to six months behind a crude oil price increase. If drilling activity does not increase, then well completions and production may be limited because the inventory of DUCs continues to fall.

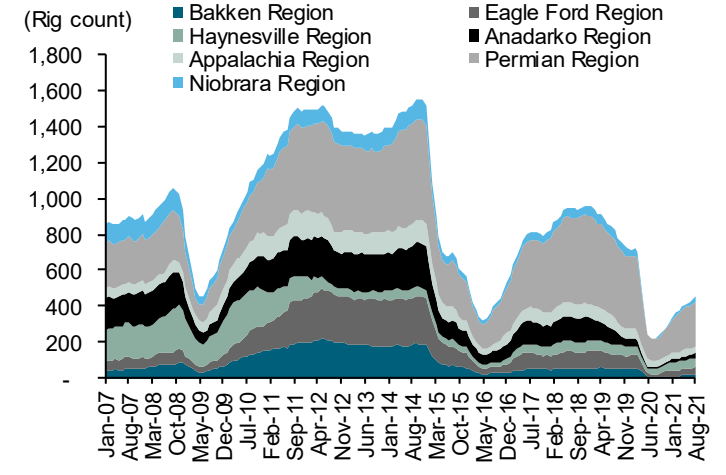
Hence, we think US shale oil production growth will remain low in 2H21 but should rebound meaningfully in 2022, thereby curbing the oil price upside in 2022. The EIA expects that the shale oil production will increase from 7.8mbpd in 2021 to 8.2-8.6mbpd in 2022.

Exhibit 17: US shale oil production by region



Source: EIA

Exhibit 18: US shale oil rig count

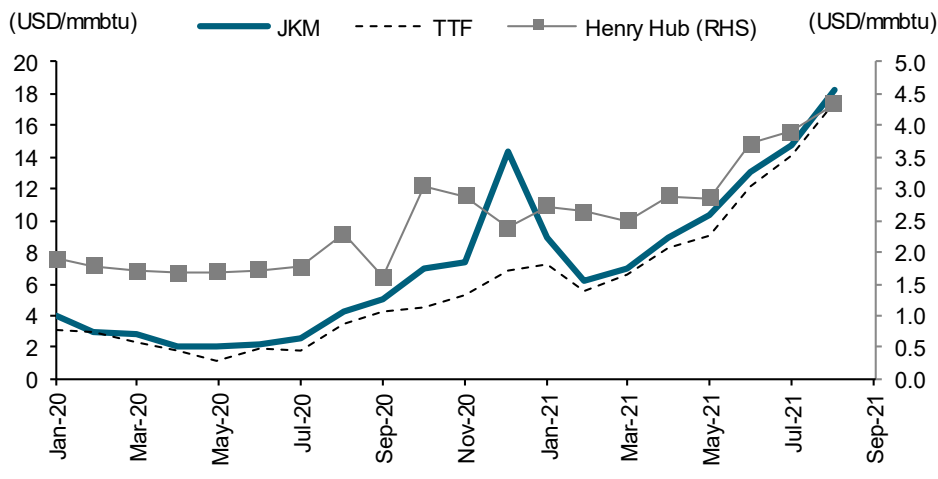


Source: EIA

Global gas market price spike likely to continue into 2022

The global LNG spot price recently spiked to over USD10/mmbtu, driven by the high freight cost and supply disruptions in the US and Russia. Meanwhile, the demand for gas has continued to strengthen as many power plants worldwide now consume gas as a major transitional fuel during the transition period from coal-fired power plants to renewable energy.

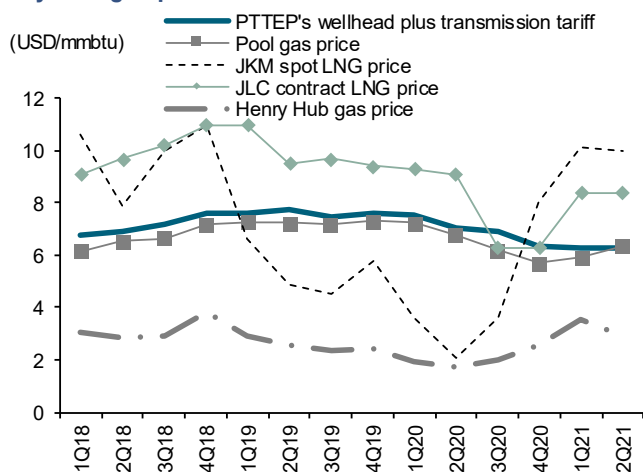
Exhibit 19: Three major benchmark gas prices



Source: Bloomberg

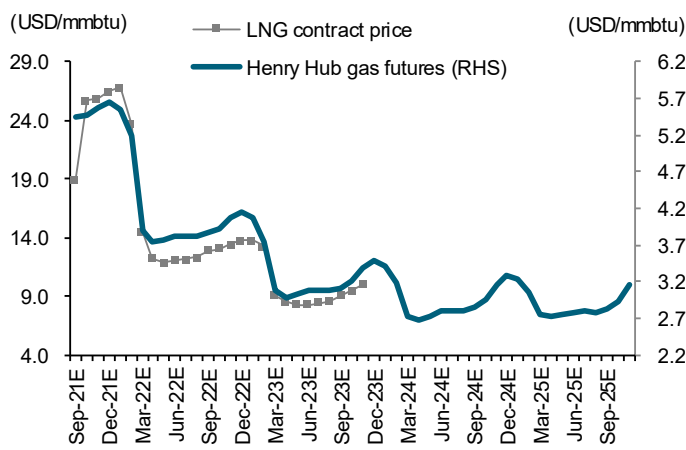
However, we expect the spot LNG price to decline and normalise to USD6-8/mmbtu, closer to the LNG contract price. The strong demand growth for gas in the upcoming winter season as a heating oil should be partly offset by diesel and high sulphur fuel oil (HSFO)-based power plants, thanks to their relatively cheaper costs than LNG-based power plants.

Exhibit 20: PTTEP gas price, pool gas price, LNG price, Henry Hub gas price



Sources: PTT, Bloomberg, EIA

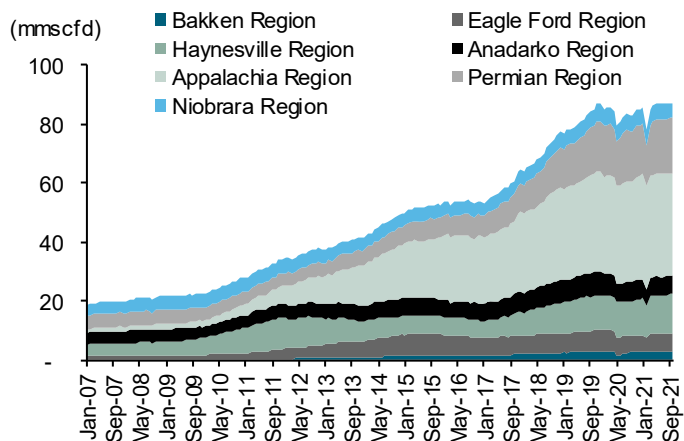
Exhibit 21: Futures – LNG contract price, Henry Hub gas price



Price as of 16 September 2021
Sources: Bloomberg

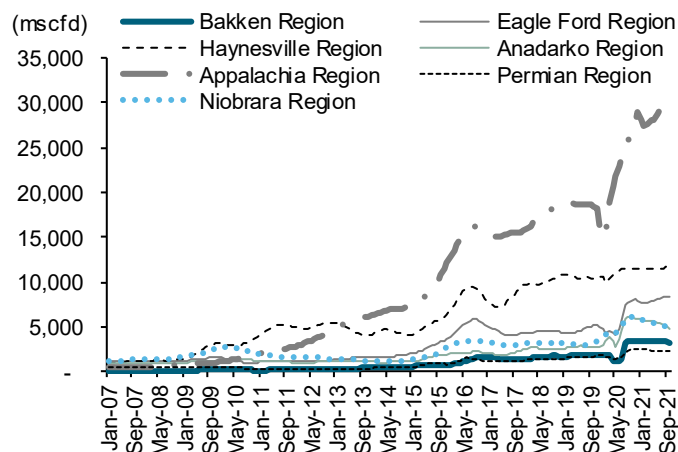
Meanwhile, the LNG supply from US exports should rise in 2022, given the strong LNG spot price and supply growth. Shale gas production in the US has stayed elevated at 83-85 billion standard cubic feet per day (bscf), thanks to the rising gas production per rig across all gas producing areas. The currently high Henry Hub (HH) gas price in the US due to the transportation and production hiccups caused by hurricanes should decline by 1H22 when we project that the higher gas supply will improve the demand-supply balance of the gas market in the US.

Exhibit 22: US shale gas production by region



Source: EIA

Exhibit 23: Shale gas production per rig



Source: EIA

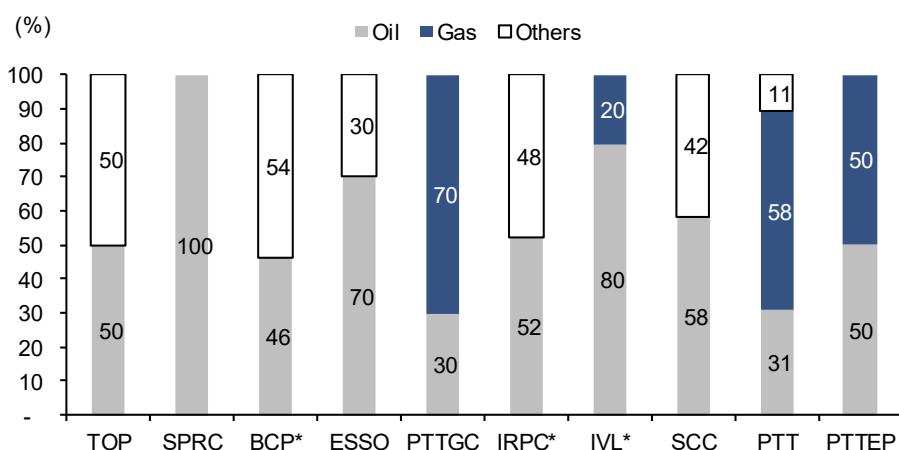
Valuations remain attractive

We prefer companies with high earnings exposures to the oil and gas prices, both directly and indirectly.

PTTEP and TOP are our top oil plays, given their high earnings exposures to the oil & gas prices (PTTEP as a producer of oil & gas) and as potential winners of the expected rebound in the demand for refined oil after the global reopening (TOP).

For gas price plays, our top picks are BANPU and IVL as the winners of the current gas price uptrend. BANPU has 0.8bscfd of gas production capacity in the US, and IVL has a large exposure to shale gas as a key feedstock for its 4mtpa integrated oxide and derivatives (IOD) product group in the US. Additionally, the higher HH gas price should directly benefit BANPU's shale gas unit, while the high HH price should indirectly widen the margin of IVL's PET and PTA sold in North America. As one of three major producers of PET and PTA, IVL has high bargaining power to raise the contract and spot selling prices of its PET, PTA and IOD products produced from gas-based ethylene.

Exhibit 24: Net profit breakdown by oil, gas, and others



*EBITDA breakdown for BCP, IRPC, and IVL
Sources: Companies; FSSIA estimates

Exhibit 25: Peer comparisons

Company	BBG code	Rec	Share Price (LCY)	Target price (LCY)	Upside (%)	Market Cap (USD m)	3Y EPS CAGR (%)	----- PE ----		----- ROE ---		---- PBV ----		EV / EBITDA	
								21E (x)	22E (x)	21E (%)	22E (%)	21E (x)	22E (x)	21E (x)	22E (x)
THAILAND															
Ptt	PTT TB	BUY	39.5	60	52	33,812	38.1	9.3	8.7	13.0	12.9	1.2	1.1	4.8	4.1
Ptt Explor & Prod	PTTEP TB	BUY	112.5	158	40	13,385	24.6	10.0	9.7	12.3	12.1	1.2	1.1	4.5	4.9
Thai Oil	TOP TB	BUY	49.5	67	36	3,011	nm	7.9	8.5	10.6	9.3	0.8	0.8	7.3	7.8
Bangkok Aviation	BAFS TB	BUY	30.5	40	31	583	nm	(181.5)	17.6	(2.1)	20.0	3.9	3.2	42.9	11.2
Star Petroleum Refin	SPRC TB	BUY	9	11	22	1,169	43.7	8.0	6.6	17.5	19.4	1.3	1.2	6.4	3.9
Bangchak Corp	BCP TB	BUY	26.25	38	46	1,058	nm	13.6	6.2	5.6	11.5	0.7	0.7	9.4	7.2
Esso Thailand	ESSO TB	BUY	8.0	14.3	81	819	59.2	6.3	6.0	26.3	22.2	1.5	1.2	4.8	4.2
Ptt Global Chemical	PTTGC TB	BUY	60.0	75	26	8,024	nm	8.3	10.6	11.2	8.7	0.9	0.9	10.5	9.8
IRPC	IRPC TB	BUY	4	5	25	2,450	nm	7.5	6.6	14.0	14.8	1.0	1.0	5.7	5.1
Indorama Ventures	IVL TB	BUY	43.75	62	44	7,235	71.3	10.6	9.3	16.5	16.4	1.6	1.5	6.5	5.8
BANPU	BANPU TB	BUY	12.5	14.6	17	2,281	nm	7.7	11.2	12.7	9.4	0.9	1.0	6.9	8.0
Tipco Asphalt	TASCO TB	BUY	18	22.5	25	851	(5.7)	12.7	9.3	14.8	19.1	1.9	1.7	9.9	7.0
Thailand avg						74,679	33.5	7.8	9.1	13.0	12.7	1.2	1.1	6.2	5.4
PAKISTAN															
Oil & Gas Develop	OGDC PA	NA	85.09	NA	NA	2,178	0.0	4.0	3.6	12.2	12.0	0.5	0.4	nm	nm
Pakistan Petroleum	PPL PA	NA	75.45	NA	NA	1,221	nm	4.1	3.8	13.8	13.2	nm	nm	nm	nm
Pakistan avg						3,399	(12.1)	4.0	3.7	12.8	12.4	0.3	0.3	-	-
HONGKONG															
Cnooc	883 HK	NA	7.80	NA	NA	46,396	38.5	4.3	4.2	15.1	14.0	0.6	0.6	1.8	1.7
China Petro&Chem	386 HK	NA	3.85	NA	NA	81,244	nm	5.6	5.9	9.0	7.9	0.5	0.5	3.8	3.7
Petrochina	857 HK	NA	3.72	NA	NA	159,508	28.4	6.9	7.9	6.6	5.6	0.5	0.4	3.9	4.1
China Oilfield Sers	2883 HK	NA	6.60	NA	NA	8,437	7.5	9.4	7.2	7.1	9.1	0.7	0.6	9.4	7.9
Hongkong avg						295,585	31.4	6.2	6.8	8.6	7.7	0.5	0.5	3.7	3.7
INDONESIA															
Medco Energi Inter	MEDC IJ	NA	486.00	NA	NA	861	nm	1.1	0.7	8.5	12.1	0.1	0.0	4.3	4.1
Energi Mega Pers	ENRG IJ	NA	122.00	NA	NA	216	nm	nm	nm	nm	nm	nm	nm	nm	nm
Indonesia avg						1,078	nm	0.9	0.5	6.8	9.7	0.0	0.0	3.5	3.3
INDIA															
Reliance Industries	RIL IN	NA	2,430.50	NA	NA	218,393	20.6	35.4	28.6	8.6	7.8	2.7	2.1	22.1	16.5
Oil & Natural Gas	ONGC IN	NA	133.65	NA	NA	23,243	88.5	13.8	6.4	6.1	11.8	0.8	0.7	5.8	4.2
Oil India	OINL IN	NA	217.00	NA	NA	3,227	(2.4)	11.6	5.3	7.3	17.5	0.8	0.9	21.1	5.5
Indian Oil	IOCL IN	NA	116.45	NA	NA	14,930	nm	7.2	6.6	14.6	13.9	1.0	0.9	6.8	6.1
Bharat Petroleum	BPCL IN	NA	420.15	NA	NA	12,344	36.1	9.0	10.0	24.7	16.3	2.0	1.6	7.3	8.4
Hindustan Petrole	HPCL IN	NA	276.60	NA	NA	5,387	34.9	5.3	6.1	24.1	17.0	1.2	1.0	5.6	7.0
Gail India	GAIL IN	NA	150.00	NA	NA	9,266	(4.0)	13.6	8.6	10.7	14.4	1.4	1.2	11.1	6.8
Petronet Lng	PLNG IN	NA	233.15	NA	NA	4,786	6.4	13.1	12.3	23.9	22.0	3.0	nm	7.7	7.3
India avg						291,577	21.1	29.3	23.3	9.9	9.5	2.3	1.8	18.5	13.9
JAPAN															
Inpex Corp	1605 JP	NA	791.00	NA	NA	10,534	80.5	6.7	6.2	6.2	6.5	0.4	0.4	3.4	3.3
Japan avg						10,534	80.5	6.7	6.2	6.2	6.5	0.4	0.4	3.4	3.3
TAIWAN															
Formosa Petroch	6505 TT	NA	92.80	NA	NA	32,514	84.7	18.3	20.1	14.9	13.1	2.6	2.5	11.2	12.2
Taiwan avg						32,514	84.7	18.3	20.1	14.9	13.1	2.6	2.5	11.2	12.2
SOUTH KOREA															
S-Oil Corp	010950 KS	NA	101,500.00	NA	NA	10,033	nm	8.8	9.9	21.7	17.6	1.8	1.6	6.2	6.8
South Korea avg						10,033	nm	8.8	9.9	21.7	17.6	1.8	1.6	6.2	6.8
AUSTRALIA															
Woodside Petroleum	WPL AU	NA	21.43	NA	NA	15,239	nm	13.1	10.7	9.5	10.6	1.2	1.1	5.4	4.9
Santos	STO AU	NA	6.31	NA	NA	9,799	44.3	11.3	9.4	11.8	12.8	1.3	1.1	4.8	4.3
Oil Search	OSH AU	NA	3.85	NA	NA	5,982	nm	14.3	11.3	7.2	8.0	1.0	1.0	7.4	6.6
Australia avg						31,021	44.3	12.8	10.4	9.8	10.8	1.2	1.1	5.6	5.0
Oil & Gas under coverage						74,679	33.5	7.8	9.1	13.0	12.7	1.2	1.1	6.2	5.4
Average (all)						750,419	27.72	16.0	14.1	10.1	9.5	1.4	1.2	9.9	8.2

Share prices as of 22 September 2021
Sources: Bloomberg, 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	ICI	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	PAP	PCSGH	PDJ	PG	PHOL	PLANB
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	SEAOIL	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	MITSIB	MK	MODERN	MTI	MVP
NETBAY	NEX	NINE	NTV	NWR	OCC	OGC	OSP	PATO	PB	PDG
PDI	PICO	PIMO	PJW	PL	PM	PPP	PRIN	PRINC	PSTC	PT
QLT	RCL	RICHY	RML	RPC	RWI	S11	SALEE	SAMCO	SANKO	SAPPE
SAWAD	SCI	SCP	SE	SEG	SFP	SGF	SHR	SIAM	SINGER	SKE
SKR	SKY	SMIT	SMT	SNP	SPA	SPC	SPCG	SR	SRICHA	SSC
SSF	STANLY	STI	STPI	SUC	SUN	SYNEX	T	TAE	TAKUNI	TBSP
TCC	TCMC	TEAM	TEAMG	TFG	TIGER	TITLE	TKN	TKS	TM	TMC
TMD	TMI	TMT	TNITY	TNP	TNR	TOG	TPA	TPAC	TPCORP	TPOLY
TPS	TRITN	TRT	TRU	TSE	TVT	TWP	UEC	UMI	UOBKH	UP
UPF	UPOIC	UT	UTP	UWC	VL	VNT	VPO	WIJK	WP	XO
YUASA	ZEN	ZIGA	ZMICO							

GOOD LEVEL										
7UP	A	ABICO	AJ	ALL	ALUCON	AMC	APP	ARIN	AS	AU
B52	BC	BCH	BEAUTY	BGT	BH	BIG	BKD	BLAND	BM	BR
BROCK	BSBM	BSM	BTNC	CAZ	CCP	CGD	CITY	CMAN	CMO	CMR
CPT	CPW	CRANE	CSR	D	EKH	EP	ESSO	FMT	GIFT	GREEN
GSC	GTB	HTECH	HUMAN	IHL	INOX	INSET	IP	JTS	JUBILE	KASET
KCM	KKC	KUMWEL	KUN	KWG	KYE	LEE	MATCH	MATI	M-CHAI	MCS
MDX	MJD	MM	MORE	NC	NDR	NER	NFC	NNCL	NPK	NUSA
OCEAN	PAF	PF	PK	PLE	PMTA	POST	PPM	PRAKIT	PRECHA	PRIME
PROUD	PTL	RBF	RCI	RJH	ROJNA	RP	RPH	RSP	SF	SFLEX
SGP	SISB	SKN	SLP	SMART	SOLAR	SPG	SQ	SSP	STARK	STC
SUPER	SVOA	TC	TCCC	THMUI	TIW	TNH	TOPP	TPCH	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	AMANAHA	AP	AQUA	ARROW
ASK	ASP	AYUD	B	BAFS	BANPU	BAY	BBL	BCH	BCP	BCPG
BGC	BGRIM	BJCHI	BKI	BLA	BPP	BROOK	BRR	BSBM	BTS	BWG
CEN	CENTEL	CFRESH	CGH	CHEWA	CHOTI	CHOW	CIG	CIMBT	CM	CMC
COL	COM7	CPALL	CPF	CPI	CPN	CSC	DCC	DELTA	DEMCO	DIMET
DRT	DTAC	DTC	EASTW	ECL	EGCO	FE	FNS	FPI	FPT	FSS
FTE	GBX	GC	GCAP	GEL	GFPT	GGC	GJS	GPSC	GSTEEL	GUNKUL
HANA	HARN	HMPRO	HTC	ICC	ICHI	IFS	INET	INSURE	INTUCH	IRPC
ITEL	IVL	K	KASET	KBANK	KBS	KCAR	KCE	KGI	KKP	KSL
KTB	KTC	KWC	L&E	LANNA	LHFG	LHK	LPN	LRH	M	MAKRO
MALEE	MBAX	MBK	MBKET	MC	MCOT	MFC	MFEC	MINT	MONO	MOONG
MPG	MSC	MTC	MTI	NBC	NEP	NINE	NKI	NMG	NNCL	NSI
NWR	OCC	OCEAN	OGC	ORI	PAP	PATO	PB	PCSGH	PDG	PDI
PDJ	PE	PG	PHOL	PL	PLANB	PLANET	PLAT	PM	PPP	PPPM
PPS	PREB	PRG	PRINC	PRM	PSH	PSL	PSTC	PT	PTG	PTT
PTTEP	PTTGC	PYLON	Q-CON	QH	QLT	QTC	RATCH	RML	RWI	S & J
SABINA	SAT	SC	SCB	SCC	SCCC	SCG	SCN	SEAOIL	SE-ED	SELIC
SENA	SGP	SIRI	SITHAI	SMIT	SMK	SMPC	SNC	SNP	SORKON	SPACK
SPC	SPI	SPRC	SRICHA	SSF	SSSC	SST	STA	SUSCO	SVI	SYNTEC
TAE	TAKUNI	TASCO	TBSP	TCAP	TCMC	TFG	TFI	TFMAMA	THANI	THCOM
THIP	THRE	THREL	TIP	TIPCO	TISCO	TKT	TTB	TMD	TMILL	TMT
TNITY	TNL	TNP	TNR	TOG	TOP	TPA	TPCORP	TPP	TRU	TSC
TSTH	TTCL	TU	TVD	TVI	TVO	TWPC	U	UBIS	UEC	UKEM
UOBKH	UWC	VGI	VIH	VNT	WACOAL	WHA	WHAUP	WICE	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 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
PTT PCL	PTT TB	THB 39.50	BUY	Risks to our SoTP-based valuation are the oil price and potential earnings downside from government intervention.
PTT Explor & Prod	PTTEP TB	THB 112.50	BUY	Risks our TP, which is based on EV/EBITDA, are a sharp decline in oil price and a potential earnings downside from government intervention.
Thai Oil	TOP TB	THB 49.50	BUY	Downside risks to our EV/EBITDA-based TP are a sharp rise in oil price and weak demand for refined oil products.
Bangkok Aviation Fuel Services	BAFS TB	THB 30.50	BUY	Downside risk to our SoTP target price includes the slower than expected vaccination rate, which will lead to slower demand in tourism activities. Plus, the uncertainty in the fuel volume demand in the north, which can lead to volatility in income of FPT.
Star Petroleum Refining	SPRC TB	THB 9.00	BUY	TP is based on EV/EBITDA. Downside risks are a sharp rise in oil price and weak demand for refined oil products.
Bangchak Corp	BCP TB	THB 26.25	BUY	The downside risks to our SoTP-based TP include: 1) lower-than-expected demand for petroleum products; 2) higher crude premiums; and 3) unplanned shutdowns of the company's refinery plants.
Esso Thailand	ESSO TB	THB 8.00	BUY	The downside risks to our SoTP-based TP on ESSO include 1) lower-than-expected demand for petroleum products, 2) a higher crude premium, and 3) unplanned shutdowns of its refinery and petrochemical plants.
PTT Global Chemical	PTTGC TB	THB 60.00	BUY	The key downside risks to our EV/EBITDA-based TP are the weaker-than-expected HDPE price and HDPE-naphtha margin.
IRPC PCL	IRPC TB	THB 4.00	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.
Tipco Asphalt	TASCO TB	THB 18.00	BUY	Downside risks to our EV/EBITDA multiple based TP include 1) a lower asphalt margin due to a oversupply in Asia on the back of faster recovery of utilisation rate for global refiners; and 2) a lower-than-expected supply of alternative crudes and asphalt.
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.
Banpu	BANPU TB	THB 12.50	BUY	We see downside risks to our SoTP-based TP from lower coal prices, higher diesel costs and any unplanned shutdowns of its power plants. We see upside risks from higher coal prices, higher gas prices and lower costs.

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 22-Sep-2021 unless otherwise stated.

RECOMMENDATION STRUCTURE

Stock ratings

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

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

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

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

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

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

Industry Recommendations

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

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

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

Country (Strategy) Recommendations

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

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

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