

Thailand Energy Sector

Geopolitical risks drive up oil prices

Large US crude inventory build due to sharp export decline

- US crude oil inventories increased by 10.2m bbls WoW. The very large inventory increase was driven by a sharp decline in exports (-1.9mbd compared to the previous week). On the other hand, product inventories declined further with gasoline inventories falling 1.3m bbls WoW and distillate inventories falling by 1.8m bbls WoW. Distillate stocks remain 11% below their 5-year average and this could provide support for diesel/jet fuel crack spreads as we head into the winter months.
- US oil output: Jumped by 300kbd WoW to 13.2mbd. Production is now on par with the pre-Covid high.
- Rig count: US oil rig count increased by 4 rigs WoW to 501 as of last Friday. This was offset by 1 natural gas rig count decline; total rig count grew by 3 to stand at 622 rigs.

Bullish demand growth outlook despite economic uncertainties

- IEA: The International Energy Agency (IEA) nudged up its 2023 global oil demand forecast to 2.3mbd, +0.1mbd from its previous monthly update. It cites strong demand in China, India and Brazil as key growth drivers even as signs of demand destruction started to appear (US gasoline demand falling to two-decade lows in September). For 2024E, it forecasts 900kbd demand growth, unchanged from its previous forecast.
- OPEC: OPEC is still the most bullish forecaster and keeps its 2023E demand growth forecast at 2.4mbd. For 2024E, it forecasts robust 2.2mbd demand growth, also unchanged from the previous forecast.
- EIA: The US Energy Information Administration (EIA) remains the most bearish of all major forecasters. It lowered its oil demand growth estimate for 2023E by 50kbd to 1.76mbd. This was mainly due to lower demand growth forecast for developed countries. For 2024E, it forecasts growth of 1.32mbd, 40kbd lower than its previous forecast.

Israel-Gaza conflict and potential impact on oil prices

- Limited direct impact: The war that broke out in Israel and Gaza strip does not have a significant direct impact on the oil and gas market. Israel itself is not a major oil and gas producer and if the conflict is contained, we see limited spillover effect.
- Hezbollah participation key risk to watch: The key risk to watch is the potential participation of Hezbollah (in Lebanon) in the conflict. Hezbollah is seen as an ally of Iran, so if it were to become involved in the conflict, we would expect western countries to significantly tighten sanctions on Iran. This year, Iran has emerged as one of the biggest oil supply growth drivers with production likely to increase by as much as 700kbd YoY.
- Other Middle Eastern countries unlikely to get involved: Most Middle Eastern countries (especially major oil producers) have largely stayed away from commenting on the conflict and we do not expect them to get involved. This means there is little risk to oil supply other than that from Iran.
- Oil prices likely to stay elevated for rest of year: We expect oil prices to stay elevated for the rest of this year, supported by tight supply and resilient demand growth. The prolonged conflict could add risk premium to oil prices.

WoW price movements of petrochemical products (% and USD)

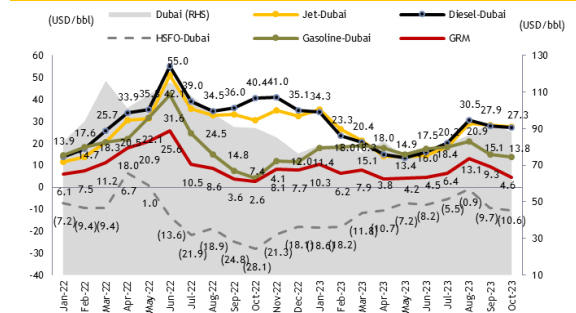
	Dubai crude	Jet-DB	Diesel-DB	FO-DB	Gasoline -DB	Naphtha-DB	GRM	HDPE-Naphtha	PP-Naphtha
This week	90.2	20.6	19.7	(13.3)	7.6	(19.2)	4.5	390	330
Last week	86.3	25.9	26.8	(13.0)	7.5	(16.6)	4.6	403	343
% Chg	4.5	(20.3)	(26.5)	(2.2)	1.1	(15.2)	(1.1)	(3.2)	(3.8)
USD chg	3.9	(5.3)	(7.1)	(0.3)	0.1	(2.5)	(0.0)	(12.9)	(12.9)

Sources: Bloomberg, MST

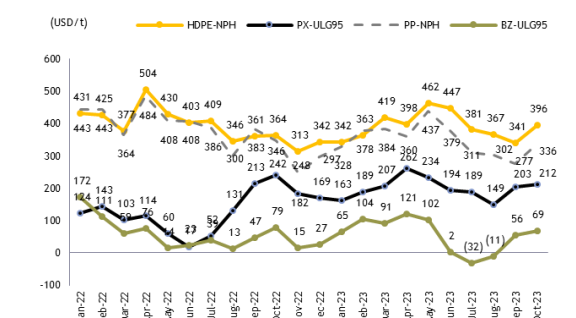
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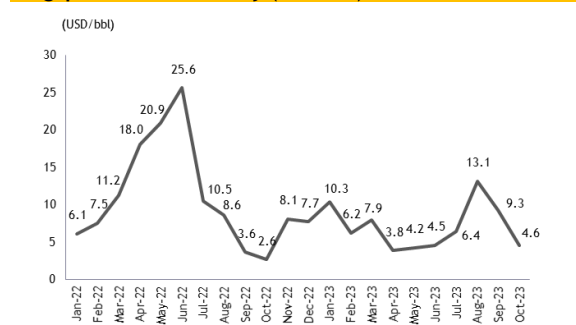
Refined crack spreads - average monthly (USD/bbl)



Key petrochemical spreads - monthly (USD/t)



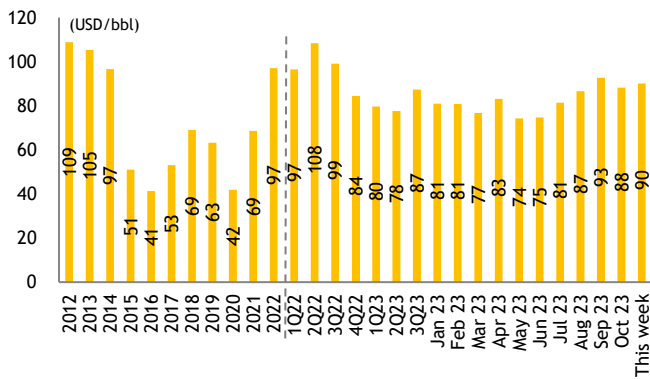
Singapore GRM - monthly (USD/bbl)



Note: Last data entries are the running averages for the current month Source: Bloomberg

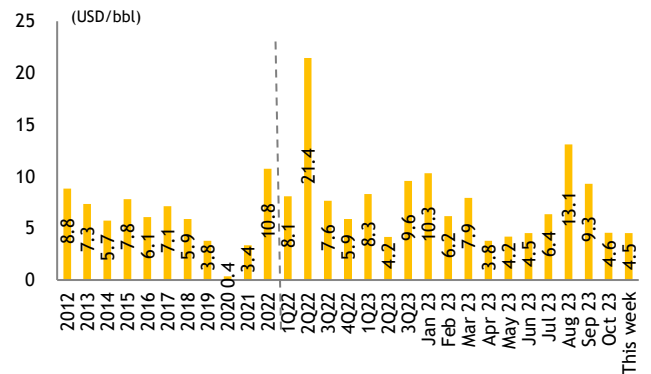
Key spreads in charts

Dubai crude oil price (average)



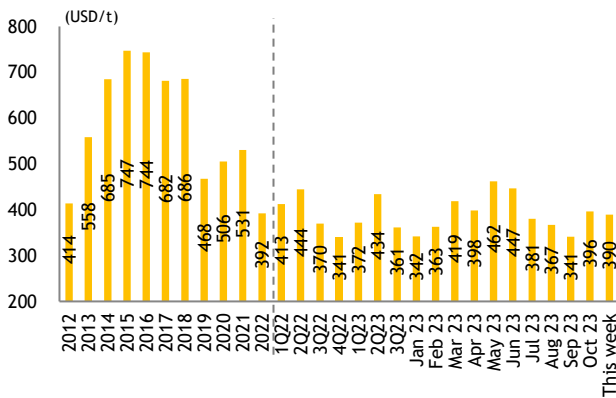
Source: Companies, Bloomberg, MST

Singapore complex GRM (average)



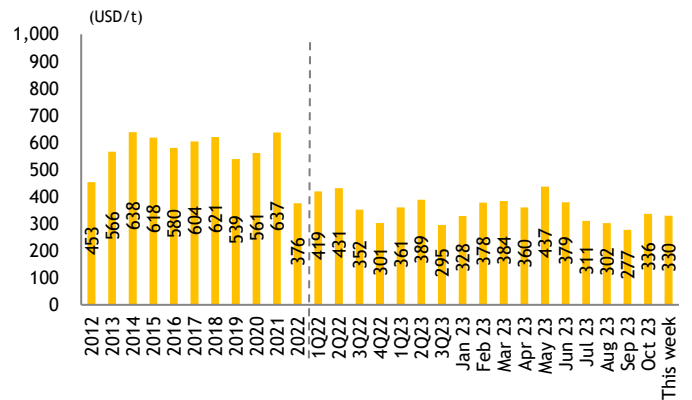
Source: Companies, Bloomberg, MST

HDPE-naphtha (average)



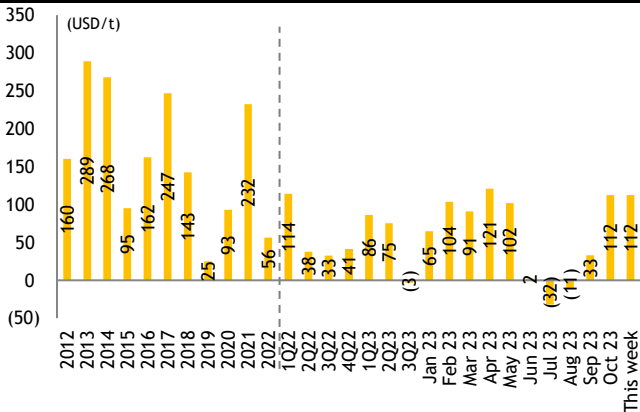
Source: Companies, Bloomberg, MST

PP-naphtha (average)



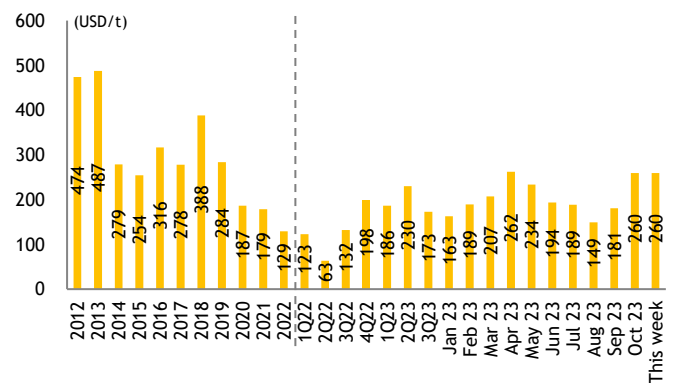
Source: Companies, Bloomberg, MST

Benzene-ULG95 (average)



Source: Companies, Bloomberg, MST

Parxylene-ULG95 (average)



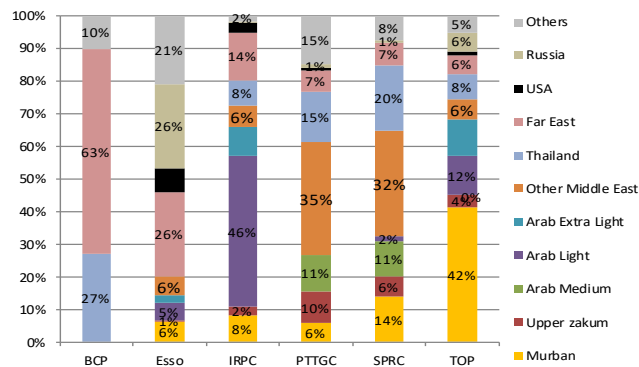
Source: Companies, Bloomberg, MST

Thai downstream capacity breakdown and comparison

	SCC	PTTGC	IRPC	TOP	BCP	ESSO	SPRC	IVL	Total
Key product									
Capacity breakdown									
Refining capacity (kbpd)	-	280	215	275	120	174	175	-	1,239
Production yield (%)									
LPG		-	11	5	2	5	4		27
Jet		17	9	21	5	3	2		57
Gasoline			20	27	20	24	29		120
Naphtha		16	3	-	-	3	6		28
Diesel		46	38	37	53	42	39		255
Fuel oil		12	10	10	8	8	4		52
Others		9	9		12	15	16		61
Lube base (ktpa)	-	-	320	267					587
Aromatics (ktpa)	540	2,419	367	838		500			4,664
Paraxylene		1,310		527		500			2,337
Benzene	360	697	114	259					1,430
Toluene		50	132						182
Mixed Xylene	180	76	121	52					429
Others		286							286
Olefins (ktpa)	3,400	2,988	1,221						7,609
Ethylene	2,100	2,376	433						4,909
Propylene	1,300	512	732						2,544
Others		100	56						156
Other downstream (ktpa)	4,590	6,298	1,225	75	-	-	-	13,695	25,883
HDPE	980	850	140						1,970
LDPE	152	300							452
LLDPE	665	800							1,465
PP	860	810	775						2,445
PS	70	90	125						285
ABS/SAN			185						185
PVC	886								886
EO-based		473						550	1,023
Green chemical		904							904
Pheno/BPA		954							954
Propylene oxide	390								390
Specialty Elastomer	220								220
SM	340								340
PTA		970						5,297	6,267
PET	27	147						5,666	5,840
Fiber and yarn								2,182	2,182
LABIX				75					75
Power (MW)			343	497	477				1,317
Petrol station					1,253	721			1,974

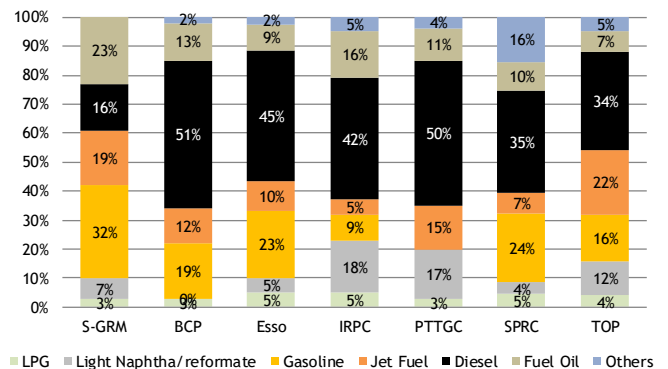
Source: Companies, Maybank

Thai refiners and their crude slates...



Source: Companies

...and their product slates



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