Energy Sector – Overweight

News Update

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Another volatiles week

- **A bearish U.S. inventory report**
- **Oil dropped below US$100/bbl again**
- **Refinery margin corrected**
- **Extreme heat hitting several areas**

Brent crude oil priced tumbled below US$100/bbl again to as low as US$94.5/bbl amid recession fear and a bearish US inventory report. A strong U.S. dollar has also weighed on oil prices this week. However, the price was able to rebound back to above US$100/bbl at the end of the week.

A bearish U.S. inventory report

- US commercial crude oil inventory build by another 3.252m bbls w-w, against -0.15m bbls draw expected by the market and 8.2m bbls build last week.
- Gasoline and distillate inventories both saw a large build by of 5.8m bbl and 2.7m w-w, respectively, which is more than market expectation.
- US crude oil production decreased 100k bpd w-w to 12.0m bd

Refinery margin corrected

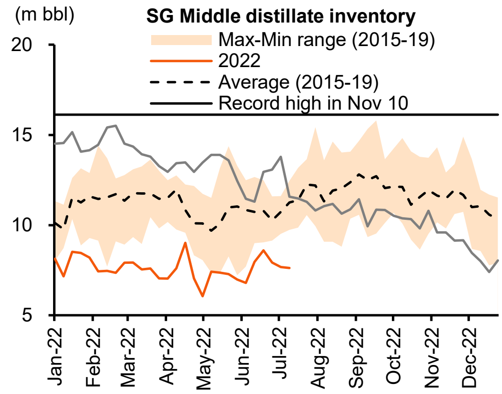
- **Thai refinery margin does not drop as much as benchmark**. Singapore refinery margin dropped to US$8.4/bbl at the end of the week from US$13.8/bbl at the beginning of the week and US$25/bbl in June. The sharp drop is mainly led by collapsed in gasoline and high sulfur fuel oil spreads. However, our estimated margin for Thai refiners is at US$16/bbl vs US$19/bbl at the beginning of the weak. This is given the fact that Thai refiners are less exposed to high sulfur fuel oil and gasoline.
- **Middle distillate margins are expected to remain strong.** We expect diesel and Jet crack spreads to remain strong and they are key product for Thai refineries, representing 40-70% of total yields. Diesel crack fell significantly recently to US$37/bbl this week from peak of US$64/bbl in June 2022. However, it is still well above historical average of US$13/bbl. The drop is attributable to ease in supply tightness in the region because refineries maximize run rate and diesel yield. New supply from Malaysia also adds more length into the market, with RAPID startup plants. Despite incremental supply, inventory remains low. Singapore middle distillate stock dropped by 680,000 barrels to a four-week low of 7.6m bbl in the week ended 7 Jul. We also see support from potential gas to oil switching. JKM spot LNG price is now trading at near US$40/mmbtu while diesel is now at only US$25/mmbtu, we see potential oil switching demand ahead.
- **Remain positive on refinery.** Thai refineries share price have also already dropped substantially over the past weeks which we think already reflect concern on recession. We remain constructive on refinery market outlook given limited supply over the next five years. On a flip side, a lower oil price and margin will help ease pressure on Thai refiners to help oil fund, in our view. ESSO remains our top refinery pick.

Ex 1: US Weekly data

(m bbls)	Weekly change	Consensus	Last week
Crude Oil	+3.252	-0.154	+8.235
Gasoline	+5.825	-0.357	-2.497
Distillates	+2.667	+1.591	-1.266
(kbpd)	**Weekly change**	**% Change**	**Current number**
Production	-100	-0.8%	12,000
Refinery Runs	+201	+1.2%	16,639

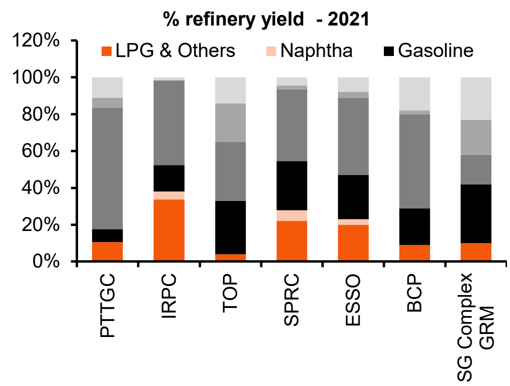
Source: EIA, as of 13th July 2022

Ex 2: Singapore Middle Distillate Inventory



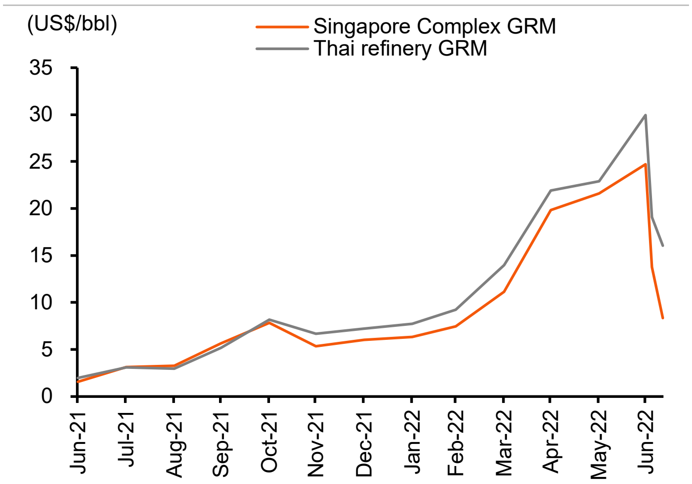
Source: Bloomberg

Ex 3: Thai Refinery Yield vs. Benchmark



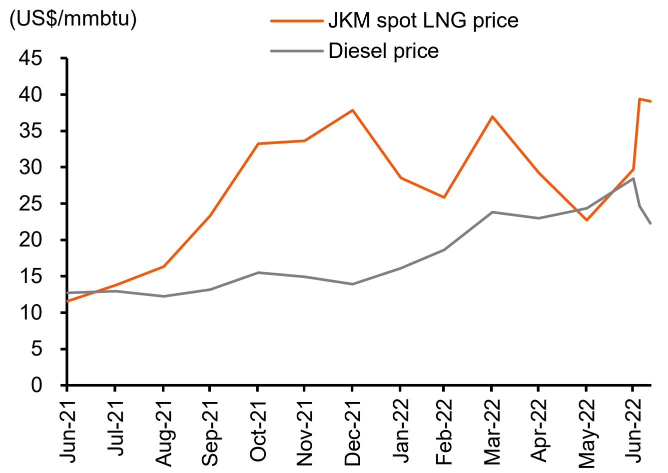
Source: Company data

Ex 4: Thai Refinery Margin Hold Up Better



Source: Bloomberg

Ex 5: We See Potential Support From Gas To Oil Switching



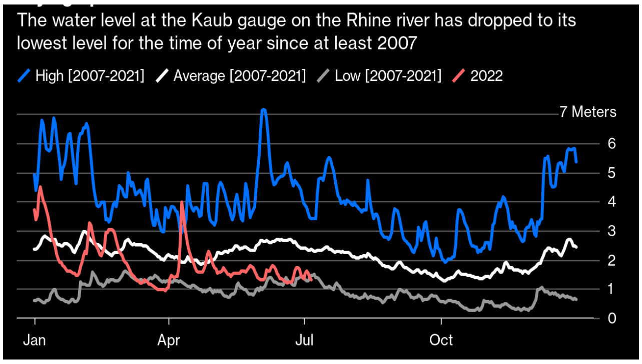
Source: Bloomberg

Extreme heat hitting several areas

Europe heat wave is hitting at the same time as record hot temperatures are affecting China and triple-digit temperatures are testing the reliability of the Texas electrical grid. This should be positive for heating fuel demands like jet and diesel.

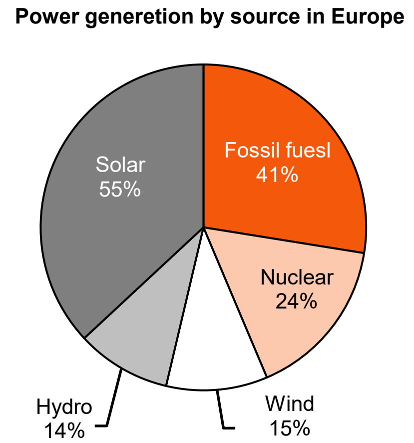
- **Heatwave leads to drought in EU**. Europe's ongoing heat wave could last a total of several weeks and is expected to break a number of all-time records across the continent. Record-high temperatures had brought the earliest-ever heat wave across large sections of France, as well as to Spain and parts of Italy. The heatwave also leads to low water level in Rhine River which dropped to lowest level since at least 2007 for the same time period. This will impact hydropower generation, the fourth-biggest source of electricity across the European Union or 14% of total power generation.
- **China's power supply strained under record heat**. Peak power loads in several Chinese regions (Zhejiang, Jiangxi, Jiangsu etc.) have hit all-time highs this week, with temperatures above 40 degrees Celsius, leading to 5-6% year-on-year increases in average electricity consumption rates. Extreme heat put pressure on the grid as well as raising concerns about the supply of power generation fuels, such as coal, natural gas and LNG.
- **Texas is also suffering a major heat wave**. Three-digit temperatures are straining the state's grid and earlier this month prompted ERCOT, the Lone Star State's grid operator, to ask Texans to conserve energy. It also severely affected wind power generation which should leads to more demand for other source of power generation, in our view.

Ex 6: Rhine water level Lowest Since 2007



Source: Bloomberg

Ex 7: This Will Likely Impact Hydropower Generation



Source: Bloomberg

Ex 8: Prices And Spreads

(US$/bbl)	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	May-22	Jun-22	MTD	Last week	This week
Upstream											
Dubai	66	71	77	97	108	112	109	115	112	115	108
Brent	69	73	79	98	112	107	112	117	107	114	107
Henry hub (US$/mmbtu)	2.7	3.4	3.9	4.5	7.6	6.6	8.2	7.6	6.6	6.6	6.6
NEX coal price (US$/t)	106	165	185	266	364	404	391	396	404	396	419
Crack spreads over Dubai											
Gasoline	9.9	11.6	15.5	17.8	35.0	31.6	38.8	41.9	31.6	41.0	30.1
Jet fuel	4.5	5.3	10.2	16.2	39.2	35.9	34.5	51.1	35.9	44.8	33.9
Diesel	(5.8)	(3.3)	(6.9)	(8.3)	12.5	12.5	37.4	55.3	34.4	50.2	39.8
High-sulfur fuel oil	(1.0)	1.6	3.2	(2.1)	(8.7)	(8.7)	(3.7)	(13.7)	(20.9)	(16.6)	(21.6)
Singapore complex GRM	**2.3**	**4.0**	**6.4**	**8.4**	**18.6**	**15.0**	**21.6**	**24.7**	**13.8**	**21.6**	**13.8**
(US$/tonne)											
Aromatics spreads											
PX-naphtha	241	240	134	192	364	379	341	499	379	376	382
BZ-naphtha	360	317	196	196	353	365	317	523	365	407	318
Olefin spreads											
HDPE-naphtha	575	462	509	413	444	404	430	403	404	406	402
LDPE-naphtha	915	740	890	731	781	694	776	735	694	686	702
PP-naphtha	694	548	558	419	431	404	408	408	404	396	412
Others											
Integrated PET	231	185	345	297	302	242	284	270	265	328	277
ABS-naphtha	1,932	1,712	1,565	1,108	1,088	989	1,080	1,058	989	1,016	962
Phenol-BZ	252	255	333	421	193	167	180	117	167	144	194
BPA -Phenol	2,008	2,074	1,198	843	625	352	693	446	352	475	280

Sources: TOP, Bloomberg

Ex 9: Valuation

	Rating	Current price (Bt)	Target price (Bt)	*Upside/ (Downside) (%)*	Market cap (US$ m)	Norm EPS growth 2022F (%)	Norm EPS growth 2023F (%)	— Norm PE — 2022F (x)	— Norm PE — 2023F (x)	EV/EBITDA 2022F (x)	EV/EBITDA 2023F (x)	— Yield — 2022F (%)	— Yield — 2023F (%)
BANPU	BUY	12.50	17.00	*36.0*	2,310	132.1	(17.3)	4.0	4.8	3.1	3.0	8.6	7.3
BCP	BUY	29.00	39.00	*34.5*	1,091	116.4	(34.9)	4.0	6.2	3.0	4.5	6.2	4.1
ESSO	BUY	10.20	16.00	*56.9*	964	na	(9.9)	5.6	6.2	4.0	4.9	9.8	4.8
IRPC	BUY	3.12	4.40	*41.0*	1,742	(70.7)	489.1	55.6	9.4	12.1	7.0	4.9	5.3
IVL	BUY	43.75	62.00	*41.7*	6,710	96.4	(18.9)	6.1	7.5	6.3	6.9	4.6	3.4
PTG	BUY	14.00	20.00	*42.9*	639	50.7	19.3	15.4	12.9	7.1	6.1	3.2	3.9
PTT	BUY	33.50	42.00	*25.4*	26,139	(5.0)	4.4	11.3	10.9	4.4	4.1	6.0	6.0
PTTEP	HOLD	154.00	161.00	*4.5*	16,701	79.9	(9.8)	7.7	8.6	2.9	2.9	3.9	4.5
PTTGC	BUY	43.50	58.00	*33.3*	5,358	(19.4)	5.4	8.6	8.2	7.1	6.6	5.7	5.5
SPRC	BUY	10.90	15.50	*42.2*	1,291	na	(39.5)	4.2	6.9	2.5	3.6	11.0	4.3
SUSCO	BUY	3.40	6.20	*82.4*	102	46.5	11.9	10.2	9.1	5.5	4.7	5.9	6.6
TOP	HOLD	49.25	57.00	*15.7*	2,745	194.9	(25.7)	6.1	8.2	8.7	12.0	6.1	3.9

Sources: Company data, Thanachart estimates

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