Energy Sector – Overweight

News Update

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Gas supply crunch

- **Huge US inventory draw**
- **Record high Europe gas price again…**
- **…triggering higher diesel margin**
- **China jet and diesel export below expectation**

Brent crude oil prices hit the lowest in six months earlier this week but recovered after the EIA report as it suggested demand for oil remained stable despite the challenging economic situation. Refinery margin recovered following global gas price spike.

Huge US inventory draw

- US commercial crude oil inventory shows another large draw of 7m bbls w-w against 0.3m bbls draw expected by the market and 5.4m bbls build last week.
- Gasoline inventories show larger than expected draw for another week, dropping by 4.6m bbls w-w while distillate inventories show a build of 0.77m bbls which surprise market expectation.
- US crude oil production drop marginally by 100K b/d w-w to 12.1k bd

Record high Europe gas price again

Gas market in Europe is getting worst due to extremely low water level at the middle of Rhine River which leads to record high gas price in Germany. The Asian spot LNG benchmark also rallied to nearly $60/mmbtu, the highest level since early March when Russia's invasion of Ukraine. Prices are roughly six times more expensive than normal for this time of year.

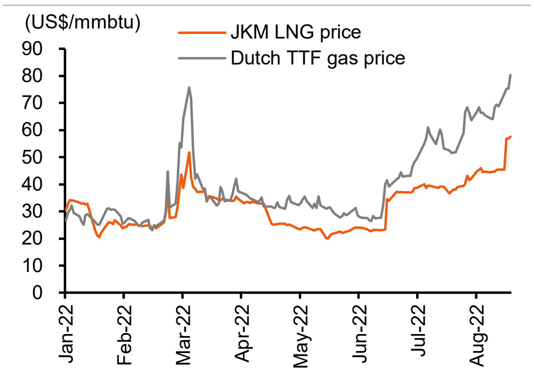
- **Extremely low water level at the middle of Rhine River**. Water along Germany's Rhine have fallen below critical levels. The marker at Kaub, a particularly shallow point west of Frankfurt, briefly dropped to 30 centimeters (11.8 inches) earlier Monday before edging back up. It is forecast to fluctuate around 31-33 centimeters as the week progresses. The measured water-level at Kaub has not been this low at this time of year since at least 1990, according to Bloomberg.
- **Gas price soar to new record**. Low River Rhine levels are causing issues in transporting fuel to German power stations resulting in further stress on pipeline transported gas.
- **Supporting diesel margin to re-rate.** With soaring gas price, diesel spread is now back to above US$40/bbl from low of U$27/bbl. Additionally, Rhine River is a key waterway for moving barges carrying fuel from the massive oil refineries and tank farms in Amsterdam-Rotterdam-Antwerp (ARA) hub to Germany, France and Switzerland. Logistical challenges are complex with moving to rail and road to first alternative adding further costs and potential production challenges. In fact, Shell has had to cut output at its German Rhineland refining facility with refining capacity of 345k b/d.

Ex 1: US Weekly data

(m bbls)	Weekly change	Consensus	Last week
Crude Oil	-7.056	-0.275	5.458
Gasoline	-4.642	-1.096	-4.978
Distillates	0.766	0.440	2.166
(kbpd)	**Weekly change**	**% Change**	**Current number**
Production	-100	-0.8%	12,100
Refinery Runs	-158	-0.8%	16,423

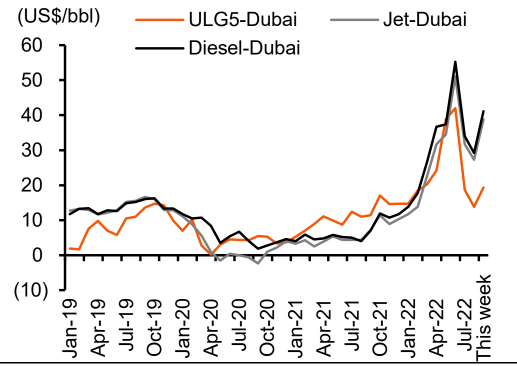
Source: EIA

Ex 2: Global Gas Price



Source: Bloomberg

Ex 3: Refined Product Spreads



Source: Bloomberg

China jet and diesel export below expectation

- **Middle distillate export shows a big collapse**. Despite higher quota, exports of diesel and aviation fuel, however, collapsing in July. Exports of jet fuel fell, by 27% y-y to 480,000 tonnes, the lowest monthly volume since January 2021. YTD exports stood 8.6% higher than a year before. For diesel, export dropped by 74% y-y and 83% YTD.
- **Gasoline export rose y-y in July**. China's July gasoline exports rose 19% y-y to a three-month high as refiners took advantage of new quotas to send more fuel abroad and ease domestic stocks. However, year-to-date volumes remained 37% below the same year-ago period
- **Likely limited export for the rest of 2022**. China's fuel product exports will likely rebound in August after Beijing issued more quotas in June and July. Still, China's annual exports of diesel, gasoline and aviation fuel are forecast to drop 30%-40% from 2021 to between 23 – 27mt, according to consultancies Energy Aspects and JLC. That would be the lowest since 2015. This suggests monthly exports will hold near the recent pace over the rest of 2022. China has already exported 13.6mt of products during Jan-July 22. Note that total export quota announced this year so far is at 22.5mt.

Ex 4: China Export Data In July

(m tonnes)	July	*(y-y%)*	Jan-July	*(y-y%)*
Gasoline	0.88	*19.0*	6.44	*(37.4)*
Diesel	0.36	*(74.2)*	2.42	*(83.2)*
Jet fuel	0.48	*(27.1)*	4.76	*8.6*
Total	**1.72**	***(38.6)***	**13.62**	***(53.2)***

Sources: SP Platts

Ex 5: Prices And Spreads

(US$/bbl)	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	Jun-22	Jul-22	MTD	Last week	This week
Upstream											
Dubai	66	71	77	97	108	104	115	108	99	100	93
Brent	69	73	79	98	112	103	117	106	97	98	96
Henry hub (US$/mmbtu)	2.7	3.4	3.9	4.5	7.5	7.6	7.6	7.0	8.5	8.8	9.2
NEX coal price (US$/t)	106	165	185	266	364	403	396	407	395	408	414
Crack spreads over Dubai											
Gasoline	9.9	11.6	15.5	17.8	35.0	18.6	41.9	18.6	13.8	14.1	19.3
Jet fuel	4.5	5.3	10.2	16.2	39.2	31.8	51.1	31.8	27.2	27.4	38.8
Diesel	(5.8)	(3.3)	(6.9)	(8.3)	12.5	12.5	55.3	34.0	29.2	29.0	41.2
High-sulfur fuel oil	(1.0)	1.6	3.2	(2.1)	(8.7)	(8.7)	(13.7)	(23.7)	(17.1)	(15.5)	(18.0)
Singapore complex GRM	**2.3**	**4.0**	**6.4**	**8.4**	**18.6**	**8.1**	**24.7**	**8.1**	**6.6**	**7.1**	**12.3**
(US$/tonne)											
Aromatics spreads											
PX-naphtha	241	240	134	192	364	348	499	327	376	352	414
BZ-naphtha	360	317	196	196	353	283	523	305	272	269	271
Olefin spreads											
HDPE-naphtha	575	462	509	413	444	383	403	409	348	362	344
LDPE-naphtha	915	740	890	731	781	664	735	709	604	602	534
PP-naphtha	694	548	558	419	431	345	408	386	291	302	294
Others											
Integrated PET	231	185	345	297	302	314	270	314	327	346	305
ABS-naphtha	1,932	1,712	1,565	1,108	1,088	918	1,058	949	878	872	874
Phenol-BZ	252	255	333	421	193	165	117	153	177	173	223
BPA -Phenol	2,008	2,074	1,198	843	625	345	446	356	334	360	308

Sources: TOP, Bloomberg

Ex 6: 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	13.90	19.00	*36.7*	2,636	245.3	(15.2)	3.0	3.5	2.2	2.0	11.5	10.1
BCP	BUY	33.25	39.00	*17.3*	1,283	116.4	(34.9)	4.6	7.1	3.2	4.8	5.4	3.6
ESSO	BUY	12.30	16.00	*30.1*	1,193	na	(9.9)	6.8	7.5	4.6	5.6	8.1	4.0
IRPC	BUY	3.46	4.40	*27.2*	1,982	(70.7)	489.1	61.7	10.5	12.9	7.4	4.4	4.8
IVL	HOLD	43.75	46.00	*5.1*	6,885	93.1	(26.6)	6.2	8.5	6.4	7.4	4.6	3.4
OR	SELL	26.50	21.00	*(20.8)*	8,914	19.1	7.0	24.3	22.7	13.2	12.1	1.2	1.2
PTG	BUY	15.40	20.00	*29.9*	721	50.7	19.3	17.0	14.2	7.5	6.4	2.9	3.5
PTT	BUY	37.00	42.00	*13.5*	29,624	(5.0)	4.4	12.5	12.0	4.6	4.4	5.4	5.4
PTTEP	HOLD	157.50	161.00	*2.2*	17,527	79.9	(9.8)	7.9	8.8	2.9	3.0	3.8	4.4
PTTGC	BUY	46.75	58.00	*24.1*	5,909	(19.4)	5.4	9.2	8.8	7.3	6.9	5.3	5.1
SPRC	BUY	12.80	15.50	*21.1*	1,556	na	(39.5)	4.9	8.1	3.0	4.4	9.4	3.7
SUSCO	BUY	3.66	6.20	*69.4*	113	46.5	11.9	11.0	9.8	5.8	5.0	5.5	6.1
TOP	HOLD	57.50	57.00	*(0.9)*	3,288	194.9	(25.7)	7.1	9.6	9.3	12.6	5.2	3.3

Sources: Company data, Thanachart estimates

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