Energy Sector – Overweight

News Update

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A slower week

- **Another week of US gasoline draw**
- **Spot LNG price decline**
- **Explosion at S. Korea's third largest refinery**
- **Saudi Aramco to begin diesel exports from Jizan in May**

Brent crude oil price marginally edged lower by 2% w-w to US$109/bbl as bullish from China economic reopen offset by concern inflation tapering. Singapore gross refinery margin (GRM) also trended lower w-w, but remain high at US$22/bbl. Spot JKM LNG price and Dutch TTF gas price also trended lower due to weak Asia demand.

Another week of US gasoline draw

- US commercial crude oil inventory decreased by 3.4m bbls w-w, against -1.4m bbls build expected by the market and 8.4m bbls build last week. Despite a 5m bbls release from the strategic petroleum reserve (SPR), higher production and stronger imports, stronger refining activity and crude exports have encouraged a draw to inventories
- Gasoline inventories decreased by another 4.8m bbls while middle distillate inventories also reverse from draw to build of 1.2m bbls. Gasoline inventory draw is larger than expected while middle distillate inventory draw is lower than expectation.
- US crude oil production was down 100k bpd w-w to 11.9mbd.

Spot LNG price decline

JKM spot LNG price declined by 10% w-w to US$21/mmbtu and 35% from peak of US$35/mmbtu in April. We believe this is due to lower demand in Asia while European country were able to fill up its storage to meet seasonal level.

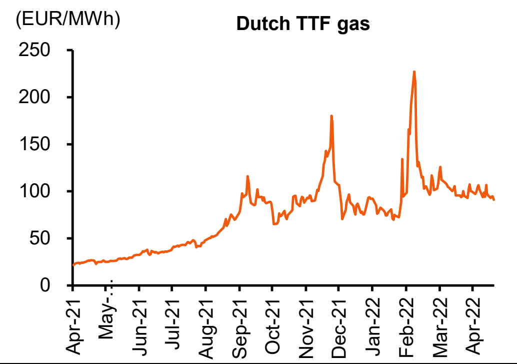
- **Europe gas inventory back to seasonal average.** Natural gas prices in Europe edged lower as high levels of liquefied natural gas imports are helping replenish stockpiles and easing concerns over supply. Europe's gas inventories have risen to near their seasonal levels after being depleted to dangerously low levels over the winter. Storages were almost 41% full on Tuesday, close to the 44% five-year average and up from 33% at the beginning of the month, according to Gas Infrastructure Europe. However, this is still far from its target of 80% by 1 November.
- **Thanks to lower Asia demand**. Liquefied natural gas imports in Japan and South Korea are forecast to decline in May, as mild temperatures set in during the shoulder season, according to Bloomberg. Meanwhile, China's gas demand will continue to be impacted by lockdowns to combat the latest wave of Covid-19. Global LNG imports in May could be marginally higher due to the rise in seasonal demand in Americas and improve demand from China.

Ex 1: US Weekly data

(m bbls)	Weekly change	Consensus	Last week
Crude Oil	(3.394)	+1.383	+8.487
Gasoline	(4.779)	(1.333)	(3.607)
Distillates	+1.235	(0.800)	(0.913)
(kbpd)	**Weekly change**	**% Change**	**Current number**
Production	+100	0.8%	11,900
Refinery Runs	+238	+1.5%	15,934

Source: EIA

Ex 2: Dutch TTF gas



Source: Bloomberg

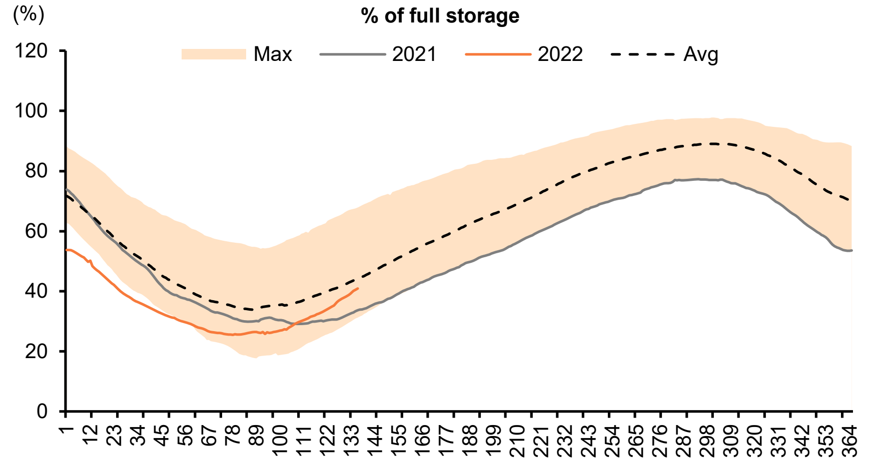
Ex 3: Global LNG demand forecast

(m tonnes)	forecast May	Change m-m	2Q vs. 1Q	May y-y
Japan	5.2	(0.5)	(4.3)	0.1
South Korea	3.1	(0.1)	(3.9)	(0.4)
China	4.9	0.4	(1.0)	(2.2)
NEW+Italy	6.7	(0.8)	2.1	2.0
Global Demand	**31.6**	**0.4**	**(7.1)**	**(0.2)**

Source: Bloomberg

- **Maxing out LNG importing capacity**. Europe is importing record volumes of liquefied natural gas (LNG) and importing terminal is now at full capacity. This means that there is limitation for Europe. European gas inventories could end the summer at tank top levels if Russia meets its minimum contractual obligations. Hence, Europe can withstand a partial drop in Russian gas flows. However, if pipeline flows from Russia were to completely stop, Europe will struggle to build sufficient inventories for next winter.
- **PTT and IVL see easing cost pressure**. The lower spot LNG price will help ease cost pressure on PTT. Meanwhile, IVL will see less energy cost pressure from Europe.

Ex 4: Europe gas inventory



Sources: Bloomberg

Mixed movement in refinery margin

GRM trended lower w-w to US$22/bbl from US$26.5/bbl. Gasoline trended higher while diesel and jet crack spread weaken.

- **Explosion at S. Korea's third largest refinery**. Argus Media reported that S-Oil's refinery in Ulsan, Onsan Industrial Park caught a fire on 19 May. The Onsan refinery houses three crude distillation units with a combined capacity of 580,000 b/d. This is the 5th largest refinery in the world. The extent of the impact is not known yet, but news reported that fire occurred at the residue fluid catalytic cracking unit (RFCC; 73kbd) which is a unit that is mainly used to produce gasoline. Media also reported that the full shutdown of the refinery is likely. This comes at a time when the global market is very tight with below average inventory and the US is now in driving season (May-Sep). Gasoline-Dubai reached US$40/bbl this week, up from US$35/bbl last week. ESSO, SPRC and BCP stand to have the best leverage to GRM spike, in our view. ESSO and SPRC have no hedging position.
- **Jizan refinery to ramp up diesel export in May**. State-controlled Saudi Aramco's trading arm ATC is set to start loading ultra-low sulphur diesel (ULSD) cargoes for May and June from Aramco's 400,000 b/d Jizan refinery in Saudi Arabia, according to Argus Media. The refinery began operations last year and has been operating at 50% of capacity since at least December. It is unclear what capacity it is operating at the moment. But at full capacity the facility will produce more than 200,000 b/d of ULSD. It can also produce more than 70,000 b/d of gasoline and more than 48,000 b/d of fuel oil at full capacity. It began

tests in January 2021 after an eight-year build, having been planned for start-up in 2018.

- **Still not enough to cover diesel supply loss from Russia**. According to Bloomberg, Europe's diesel import from Russia has dropped by c. 150k b/d m-m vs normal import level of 700k b/d. The ramp up output from Jizan refinery is unlikely cover all of Russia's diesel supply if Europe are completely cut import from Russia.

Ex 10: Prices And Spreads

(US$/bbl)	1Q21	2Q21	3Q21	4Q21	1Q22	QTD	31-Mar	30-Apr	MTD	Last week	This week
Oil prices											
Dubai	60	66	71	77	97	104	116	101	107	108	106
Brent	61	69	73	79	98	108	113	106	110	106	114
Crack spreads over Dubai											
Gasoline	7.0	9.9	11.6	15.5	17.8	29.5	20.2	24.1	34.8	35.3	34.5
Jet fuel	3.3	4.5	5.3	10.2	16.2	35.6	22.6	31.6	39.7	42.5	38.0
Diesel	(3.4)	(5.8)	(3.3)	(6.9)	(8.3)	12.5	26.6	36.7	42.5	47.1	39.7
High-sulfur fuel oil	0.8	(1.0)	1.6	3.2	(2.1)	(8.7)	(7.9)	8.3	1.7	7.8	(1.9)
Singapore complex GRM	**2.1**	**2.3**	**4.0**	**6.4**	**8.4**	**21.8**	**11.1**	**19.8**	**23.8**	**26.5**	**22.2**
(US$/tonne)											
Aromatics spreads											
PX-naphtha	190	241	240	134	192	276	193	257	302	273	356
BZ-naphtha	190	360	317	196	196	246	149	226	265	254	302
Olefin spreads											
HDPE-naphtha	577	575	462	509	413	482	377	504	454	458	421
LDPE-naphtha	962	915	740	890	731	817	707	834	794	788	771
PP-naphtha	748	694	548	558	419	460	364	484	427	428	391
Others											
Integrated PET	230	231	185	345	297	306	290	310	297	296	279
ABS-naphtha	1,811	1,932	1,712	1,565	1,108	1,114	1,002	1,129	1,094	1,078	1,061
Phenol-BZ	213	252	255	333	421	249	342	282	215	249	144
BPA -Phenol	1,565	2,008	2,074	1,198	843	733	736	736	730	705	755

Sources: TOP, Bloomberg

Ex 11: 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	12.20	17.00	*39.3*	2,409	132.1	(17.3)	3.9	4.7	3.1	3.0	8.8	7.5
BCP	BUY	34.25	34.00	*(0.7)*	1,376	38.2	(33.6)	7.4	11.2	4.6	7.2	5.3	3.5
ESSO	HOLD	9.65	8.20	*(15.0)*	974	na	320.8	49.4	11.7	10.1	7.5	0.0	0.0
IRPC	BUY	3.28	4.40	*34.1*	1,956	(70.7)	489.1	58.5	9.9	12.5	7.2	4.6	5.0
IVL	BUY	48.75	60.00	*23.1*	7,986	31.7	11.5	10.2	9.1	7.9	8.0	4.9	5.5
PTG	BUY	15.00	19.00	*26.7*	731	50.8	19.5	16.5	13.8	7.1	6.7	3.0	3.6
PTT	BUY	36.75	42.00	*14.3*	30,628	(5.0)	4.4	12.4	11.9	4.6	4.4	5.4	5.4
PTTEP	HOLD	156.50	148.00	*(5.4)*	18,129	42.9	(23.8)	9.9	13.0	3.2	3.7	3.8	4.5
PTTGC	BUY	46.50	58.00	*24.7*	6,118	(19.4)	5.4	9.2	8.7	7.3	6.9	5.4	5.2
SPRC	SELL	11.70	8.50	*(27.4)*	1,480	na	(23.1)	13.8	18.0	5.5	6.6	4.3	2.8
SUSCO	BUY	3.24	5.20	*60.5*	104	35.0	30.1	12.1	9.3	5.2	4.2	4.1	5.4
TOP	SELL	57.75	45.00	*(22.1)*	3,438	53.9	(24.2)	13.7	18.1	13.3	17.9	5.2	2.2

Sources: Company data, Thanachart estimates

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