

Energy Tidbits

June 5, 2022

Produced by: Dan Tsubouchi

Vitol's Muller "Smart Money is of the View that the Saudi Current Sustainable Production Limit is Somewhere 11 Point Something"

Welcome to new Energy Tidbits memo readers. We are continuing to add new readers to our Energy Tidbits memo, energy blogs and tweets. The focus and concept for the memo was set in 1999 with input from PMs, who were looking for research (both positive and negative items) that helped them shape their investment thesis to the energy space, and not just focusing on daily trading. Our priority was and still is to not just report on events, but also try to interpret and point out implications therefrom. The best example is our review of investor days, conferences and earnings calls focusing on sector developments that are relevant to the sector. Our target is to write on 48 to 50 weekends per year and to post by noon MT on Sunday. The Sunday timing was deliberate as PMs said they didn't have research to read on Sundays and Sundays are a day when they start to think about the investing week ahead.

This week's memo highlights:

1. Vitol Asia Head Muller says smart money is Saudi current "sustainable" production limit is 11 point something, not its surge capacity in the high 12's [\[LINK\]](#)
2. Lukoil's Fedu's op-ed points to lower Russia oil exports in the future one way or another [\[LINK\]](#)
3. White House driving up praise for MBS and expectations for Biden to meet with MBS in Saudi Arabia, but now looking like July and not in June [\[LINK\]](#)
4. Continued rush for LNG buyers to lock up long term LNG supply, now 8.77 bcf/d locked up since July 1, 2021 [\[LINK\]](#)
5. UAL CEO very bullish air travel demand and "*Not a hint of evidence of weakness or any pricing resistance*"
6. Please follow us on Twitter at [\[LINK\]](#) for breaking news that ultimately ends up in the weekly Energy Tidbits memo that doesn't get posted until Sunday noon MT.
7. For new readers to our Energy Tidbits and our blogs, you will need to sign up at our blog sign up to receive future Energy Tidbits memos. The sign up is available at [\[LINK\]](#).

Dan Tsubouchi
Principal, Chief Market Strategist
dtsubouchi@safgroup.ca

Ryan Dunfield
Principal, CEO
rdunfield@safgroup.ca

Aaron Bunting
Principal, COO, CFO
abunting@safgroup.ca

Ryan Haughn
Principal, Energy
rhaughn@safgroup.ca

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Table of Contents

Natural Gas – Natural gas injection of +90 bcf, storage now -397 bcf YoY deficit.....	6
Figure 1: US Natural Gas Storage.....	6
Figure 2: Air Conditioning Demand Forecast	6
Natural Gas – US March gas production 95.0 bcf/d, still well below Nov/Dec 97.0 bcf/d	6
Figure 3: US Dry Natural Gas Production	7
Natural Gas – US LNG exports +1.4 bcf/d YoY in March to 11.7 bcf/d.....	7
Figure 4: US LNG Exports (bcf/d).....	7
Natural Gas – US pipeline exports to Mexico flat MoM at 5.5 bcf/d in March	7
Figure 5: US Pipeline Gas Exports To Mexico (bcf/d).....	8
Natural Gas – Another long-term LNG deal, Cheniere 20-yr supply to Korea's POSCO	8
Figure 6: Long Term LNG Supply Deals since July 1, 2021	10
Natural Gas – Platts “several more” Asian LNG purchases have not been made public	10
Natural Gas – Shell FIDs Crux to backfill natural gas supply to Prelude 0.47 bcf/d FLNG.....	11
Figure 7: Shell Crux Project Overview.....	11
Natural Gas – Good reminder Qatar is a disciplined, experienced LNG operator	11
Figure 8: Qatar LNG production 2021 and 2022	12
Natural Gas – Feels like Pakistan wants a long, but not too long LNG deal from Russia	12
Natural Gas – Japan’s LNG stocks up +1% from last week.....	12
Figure 9: Japan’s LNG Stocks.....	13
Natural Gas – No real near-term weather-related demand in Japan	13
Figure 10: JMA Temperature Probability June 4-June 10.....	13
Natural Gas – UK/Centrica talking about reopening its Rough UK natural gas storage	13
Natural Gas – Europe storage is now +9.54% YoY ie. 47.60% full vs 38.06%.....	15
Figure 11: Europe Gas Storage Level	15
Oil – US oil rigs flat WoW at 574 oil rigs at June 3.....	16
Figure 12: Baker Hughes Total US Oil Rigs.....	16
Oil – US frac spreads -4 to 279 for the week ending June 3.....	16
Oil – Total Cdn rigs +14 WoW at 107 total rigs, +40 rigs YoY	16

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Figure 13: Baker Hughes Total Canadian Oil Rigs	17
Oil – US weekly oil production flat at 11.9 mmb/d	17
Figure 14: EIA’s Estimated Weekly US Oil Production	17
Figure 15: US Weekly Oil Production	18
Oil – EIA Form 914 March actuals only back to Dec levels, still below Nov 2021	18
Figure 16: EIA Form 914 US Oil Production.....	18
Figure 17: EIA Form 914 US Oil Production vs Weekly Estimate	18
Oil – Trans Mountain apportioned by 11% for June	19
Figure 18: Trans Mountain Pipeline Apportionment	19
Oil – Cenovus to restart 80,000 b/d West White Rose project in H1/26	19
Oil – Cdn crude by rail imports to Gulf Coast down -50% YoY in March to 43,000 b/d	20
Figure 19: Canada CBR Exports to US Gulf Coast vs WCS Differential	20
Oil – Refinery inputs -0.236 mmb/d WoW at 16.033 mmb/d	20
Figure 20: US Refinery Crude Oil Inputs (thousands b/d).....	21
Oil – Chevron CEO doesn’t expect another US refinery to ever be built	21
Oil – US “net” oil imports up 0.083 mmb/d WoW at 2.228 mmb/d	21
Figure 21: US Weekly Preliminary Oil Imports by Major Countries	22
Oil – Baker Hughes International rigs +11 MoM to 817 rigs in May	22
Figure 22: Baker Hughes International Rig Count and Brent Price.....	22
Oil – Will Brazil (Petrobras) oil growth be impacted by Bolsonaro’s mgmt change.....	22
Oil – Kazakhstan’s crude production down 220,000 b/d for 45 day maintenance	23
Oil – Lukoil Fedun points to lower Russian oil exports in the future one way or another.....	23
Figure 23: Russia Urals vs Brent oil prices.....	24
Oil – Chevron CEO expects Russia productive capacity to degrade over time	24
Oil – OPEC+ increases July production +648,000 b/d	24
Figure 24: OPEC+ Cut Schedule.....	25
Figure 25: OPEC+ July and June 2022 Required Production	25
Oil – Next OPEC and non-OPEC ministerial meeting (ONOMM) is Thurs June 30.....	26
Oil – Biden setting the stage to go to Saudi Arabia to meet MBS in June	26
Oil – Vitol, smart money is Saudi sustainable capacity is 11 point something	26

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Oil – Saudi nest egg, its net foreign assets up MoM, but down \$16.8b since Nov 2020	27
Figure 26: Saudi Arabia Net Foreign Assets	28
Oil – Would Saudi or Iran be better for Biden lowering oil/gasoline prices?	28
Oil – Will Biden let more Iran hit market if no JCPOA? What will Israel then do?	28
Oil – Will sanctions on Russia oil be what forces Iran to give in on JCPOA?	29
Figure 27: East Siberia-Pacific Ocean Oil Pipeline	30
Figure 28: Platts Specifications Guide Europe and Africa Crude Oil	31
Oil – Libya plans to export 633,000 b/d of crude in June	31
Oil – Libya’s oil leak hit 22,000 b/d, not 220,000 b/d, for a few days	31
Figure 29: Libya Ports, Major oilfields and Terminals map	32
Oil – China is the big winner from EU’s ban on RUS oil & sanctions on Iran, VEN oil.....	32
Oil – Beijing enters mop-up phase of latest Covid, Shanghai port reopening	32
Oil – JP Morgan CEO Dimon kind of thinks \$150 or \$175 oil is in the cards	33
Oil – Pakistan is a reminder of developing country financial risk & therefore oil.....	33
Figure 30: World Oil Demand 2022 Split by non-OECD vs OECD	34
Oil – A products squeeze, 4.4 mmb/d of refinery capacity shut down since Jan 1/2020	34
Figure 31: Scheduled global refinery closures	35
Oil – BNEF, mobility falls as drivers feel impact of high gasoline prices	35
Figure 32: BloombergNEF Mobility Indicators	36
Oil – Mobility indicators suggest high prices are impacting gasoline and jet fuel.....	36
Figure 33: Implied gasoline demand, TSA checkpoint traffic	37
Oil – Vortexa crude oil floating storage 87.72 mmb as of June 3, -12.8 mm WoW	37
Figure 34: Vortexa Floating Storage as of June 3 Posted on Bloomberg noon MT yesterday	38
Figure 35: Vortexa Estimates June 4 noon MT, May 29 6am MT, and May 21 1pm MT Source: Bloomberg, Vortexa.....	38
Oil – Caixin PMI for May is up at 48.1, after last month at 46.0	38
Oil – United Airlines CEO sees no hint of demand destruction from high prices	39
Oil – New York State announces gas and diesel tax suspension	40
Oil & Natural Gas – TIPRO Texas oil natural and gas jobs up for 12 th straight month	41
Oil & Natural Gas – Dalio “resource allocation is political and ideological” not economic	41

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Oil & Natural Gas – NOAA forecasts above average Atlantic hurricane season	42
Figure 36: NOAA 2022 Atlantic Hurricane Season Outlook	43
Capital Markets – S&P TSX Composite Index changes effective Monday June 20	45
Figure 37: Changes to S&P/TSX Composite Index prior to open Mon June 20	46
Capital Markets – UN FAO Food Price Index falls for second consecutive month in May	46
Figure 38: UN FAO Food Price Index.....	46
Capital Markets – USDA consumer price index for food +9.4% YoY	47
Demographics – Busy tourist season in Cdn Rockies & shortage of workers	47
Demographics – 1/3 of consumers earning \$250,000 are living paycheck to paycheck	47
Figure 39: US demographics living paycheck to paycheck	48
Twitter – Look for our first comments on energy items on Twitter every day	48
LinkedIn – Look for quick energy items from me on LinkedIn	48
Misc Facts and Figures.....	48

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Natural Gas – Natural gas injection of +90 bcf, storage now -397 bcf YoY deficit

The YoY storage deficit started the winter at -282 bcf YoY at Oct 31 and is now -397 bcf YoY. The EIA reported a 90 bcf build (with 87 bcf build expectations) for the May 27 week, which was below the 5-yr average build of +100 bcf, and below last year's injection of +98 bcf. Storage is 1.903 tcf as of May 27, increasing the YoY deficit to -397 bcf, from -387 bcf last week and storage is 337 bcf below the 5-year average vs 327 bcf below last week. Below is the EIA's storage table from its Weekly Natural Gas Storage Report [\[LINK\]](#).

YoY storage at -397 bcf YoY deficit

Figure 1: US Natural Gas Storage

Region	Stocks billion cubic feet (Bcf)				Historical Comparisons			
	05/27/22	05/20/22	net change	implied flow	Year ago (05/27/21)		5-year average (2017-21)	
					Bcf	% change	Bcf	% change
East	357	325	32	32	409	-12.7	418	-14.6
Midwest	420	391	29	29	519	-19.1	494	-15.0
Mountain	113	109	4	4	150	-24.7	133	-15.0
Pacific	195	190	5	5	266	-26.7	245	-20.4
South Central	817	797	20	20	955	-14.5	948	-13.8
Salt	248	251	-3	-3	299	-17.1	297	-16.5
Nonsalt	569	546	23	23	656	-13.3	651	-12.6
Total	1,902	1,812	90	90	2,299	-17.3	2,239	-15.1

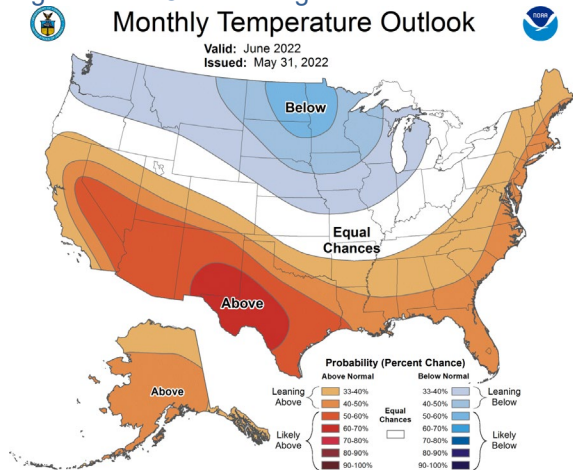
Source: EIA

Natural Gas – NOAA's temperature outlook for June

On Tuesday, NOAA posted its monthly temperature outlook for June [\[LINK\]](#), which calls for warmer than normal temperatures in California, across the southern US and up the entire east coast. It is generally in line with the expectations for a warmer than normal summer.

NOAA's June temperature outlook

Figure 2: Air Conditioning Demand Forecast



Source: AccuWeather

Natural Gas – US March gas production 95.0 bcf/d, still well below Nov/Dec 97.0 bcf/d

There is no change to the US natural gas story that US natural gas supply from both dry shale gas and association gas from shale/tight oil continues to be up strongly YoY. The EIA

US March gas production +2.7 bcf/d YoY

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

released its Natural Gas Monthly on Friday, [\[LINK\]](#), which includes its estimates for “actuals” for March gas production. The key takeaway from the March actuals is that March (+1.0 bcf/d MoM to 95.0 bcf/d) is still well below the recent Nov/Dec 2021 peak of 97.0 bcf/d. March 2022 is 2.7 bcf/d YoY. Our Supplemental Documents package includes excerpts from the EIA Natural Gas Monthly.

Figure 3: US Dry Natural Gas Production

bcf/d	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Jan	56.0	60.0	66.0	65.3	66.8	73.4	73.6	70.6	78.7	89.4	95.1	92.8	94.8
Feb	57.2	58.8	67.0	65.4	68.4	73.8	77.3	71.5	80.4	90.0	98.1	86.2	94.0
March	57.3	61.5	65.0	65.3	68.9	74.1	73.8	73.2	81.3	90.6	94.6	92.3	95.0
Apr	57.6	62.3	64.8	66.1	70.5	75.2	73.7	73.3	81.2	91.0	92.9	93.2	
May	58.0	62.4	65.0	65.9	70.2	74.1	72.9	73.3	82.1	91.7	87.8	93.0	
June	57.2	62.1	64.6	65.8	70.5	74.0	72.2	74.0	82.5	92.0	88.4	93.2	
July	58.2	62.5	66.3	67.1	72.0	74.2	72.8	74.7	84.2	92.5	89.8	93.7	
Aug	58.9	63.2	66.0	66.9	72.4	74.3	72.2	74.7	85.9	94.8	90.2	94.3	
Sept	59.1	63.1	66.4	66.8	72.4	74.7	71.7	76.0	87.3	94.7	89.5	93.6	
Oct	60.1	65.1	66.5	67.0	73.1	74.2	71.4	77.3	88.4	96.0	88.9	95.6	
Nov	60.1	65.9	66.6	67.7	72.6	73.9	72.0	79.8	89.9	96.7	92.0	97.0	
Dec	61.0	65.6	66.0	66.5	73.2	73.9	71.2	80.4	89.5	97.0	92.5	97.0	
Average	58.4	62.7	65.9	66.3	70.9	74.2	72.9	74.9	84.3	93.0	91.6	93.5	94.6

Source: EIA

Natural Gas – US LNG exports +1.4 bcf/d YoY in March to 11.7 bcf/d

The story for US natural gas markets continues to be the increasing US LNG exports, which was up to a new monthly record of 11.7 bcf/d in March from 11.3 bcf/d in Feb, and was +1.4 bcf/d YoY. The big driver to stronger (and higher downside support) US natural gas prices has been the ramp up in US LNG exports, which are up ~8 bcf/d over the past 3 years. This is over 2.5 tcf a year of added gas demand for US natural gas supply. On Tuesday, the EIA Natural Gas Monthly reported “actuals” for US LNG exports were 11.7 bcf/d in March, which is up +1.4 bcf/d YoY and up +0.4 bcf/d from Feb of 11.3 bcf/d. The EIA expects exports will remain “at high levels” through 2022 as prices are expected to remain elevated and the US looks to supply Europe who has an increased demand for US LNG as sanctions hit Russia in March. Note our table rounds to one decimal and the actual is 11.746 bcf/d for February. Below is our table of EIA’s monthly LNG exports.

**US March LNG
+1.4 bcf/d YoY**

Figure 4: US LNG Exports (bcf/d)

(bcf/d)	2016	2017	2018	2019	2020	2021	2022
Jan	0.0	1.7	2.3	4.1	8.1	9.8	11.4
Feb	0.1	1.9	2.6	3.7	8.1	7.4	11.3
March	0.3	1.4	3.0	4.2	7.9	10.4	11.7
Apr	0.3	1.7	2.9	4.2	7.0	10.2	
May	0.3	2.0	3.1	4.7	5.9	10.2	
June	0.5	1.7	2.5	4.7	3.6	9.0	
July	0.5	1.7	3.2	5.1	3.1	9.7	
Aug	0.9	1.5	3.0	4.5	3.6	9.6	
Sept	0.6	1.8	2.7	5.3	5.0	9.5	
Oct	0.1	2.6	2.9	5.7	7.2	9.6	
Nov	1.1	2.7	3.6	6.4	9.4	10.2	
Dec	1.3	2.7	4.0	7.1	9.8	11.1	
Full Year	0.5	1.9	3.0	5.0	6.6	9.7	11.5
Full Year bcf	186.8	707.5	1,083.1	1,819.4	2,390.0	3,560.8	1,034.7

Source: EIA

Natural Gas – US pipeline exports to Mexico flat MoM at 5.5 bcf/d in March

The EIA Natural Gas Monthly also provides its “actuals” for gas pipeline exports to Mexico, which were 5.5 bcf/d in March, which was down 0.4 bcf/d YoY and flat from February. There

**US pipeline
exports to Mexico
flat MoM**

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

were no material revisions to this month's data. Mexico natural gas production remains stuck below 5 bcf/d and the completion of new pipeline infrastructure such as the Wahalajara system [\[LINK\]](#) should increase US penetration further into Mexico. Below is our table of the EIA's monthly gas exports to Mexico.

Figure 5: US Pipeline Gas Exports To Mexico (bcf/d)

bcf/d	2014	2015	2016	2017	2018	2019	2020	2021	2022
Jan	1.7	2.2	3.2	3.9	4.4	4.9	5.2	5.6	5.6
Feb	1.8	2.3	3.5	4.0	4.5	4.8	5.4	4.9	5.5
March	1.9	2.4	3.3	4.2	4.3	4.8	5.4	5.9	5.5
Apr	1.9	2.6	3.5	3.7	4.4	4.7	4.6	6.1	
May	2.0	2.8	3.7	4.0	4.4	5.0	4.7	6.2	
June	2.2	3.0	3.9	4.5	4.6	5.2	5.4	6.6	
July	2.2	3.3	4.0	4.4	4.9	5.4	5.8	6.4	
Aug	2.1	3.3	4.3	4.4	5.0	5.4	6.0	6.2	
Sept	2.2	3.3	4.1	4.2	5.0	5.4	6.1	6.0	
Oct	1.9	3.2	4.2	4.2	4.9	5.5	6.0	6.0	
Nov	1.9	3.0	4.0	4.5	4.7	5.3	5.5	5.5	
Dec	2.1	3.2	3.6	4.4	4.5	4.9	5.3	5.4	
Full Year	2.0	2.9	3.8	4.2	4.6	5.1	5.5	5.9	5.5

Source: EIA

Natural Gas – Another long-term LNG deal, Cheniere 20-yr supply to Korea's POSCO

Our March 13, 2022 Energy Tidbits memo noted Europe's plan to move away from Russian pipeline natural gas and LNG is a global game changer for energy for at least the 2020s. We were already seeing clear signals of the bullish LNG for 2020s call since the end of June 2021 with the abrupt shift of Asian LNG buyers to long term contracts. Now, with Russia, the rush continues and from more than Asian LNG buyers. There continues to be a consistent news flow of more long-term LNG supply deals, especially for the quickest to market LNG from the US Gulf Coast. Last Wednesday, Cheniere Energy announced [\[LINK\]](#) that it has entered into a LNG sale and purchase agreement with POSCO International Corporation, South Korea's largest steelmaker and owner of South Korea's first private LNG terminal. Under the SPA, POSCO has agreed to purchase approximately 0.05 bcf/d of LNG from Cheniere for a term of 20 years beginning in late 2026. The CEO of Cheniere stated *"The signing of this SPA further evidences the growing demand for long-term LNG supply and highlights Cheniere's leadership in providing flexible, cleaner burning energy supply to meet both the energy security needs and environmental goals of our customers. The SPA is expected to provide additional support to the Corpus Christi Stage III Project, on which we expect to reach FID this summer."* Our Supplemental Documents package includes the Cheniere release.

One more long term LNG deal

Asia is still well in front of Europe in securing long term LNG supply

Our March 13, 2022 Energy Tidbits memo noted that Europe LNG buyers were starting 9 months behind the wave of Asian LNG buyers who started to lock up long term LNG supply starting in July 2021. It was clear to many that there was a major sea change in LNG outlook. We turned very bullish on LNG outlook for the 2020s once TotalEnergies went force majeure on its Mozambique LNG in April 2021. We posted our April 28, 2021 blog *"Multiple Brownfield LNG FIDs Now Needed To Fill New LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2?"* as we thought the market had overlooked that this force majeure backed up 5.0 bcf/d of Mozambique LNG that was originally planned to start in phases in 2024. And

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

that this would create an earlier and larger LNG supply gap in the mid 2020s. Then we started to see validation of this view when Asian LNG buyers in July made an abrupt change to their LNG contracting and pivoted to trying to lock in long term LNG supply. On July 14, 2021 we posted our 8-pg “*Asian LNG Buyers Abruptly Change and Lock in Long Term Supply – Validates Supply Gap, Provides Support For Brownfield LNG FIDs*”. Here is an excerpt from the blog “*The last 7 days has shown there is a sea change as Asian LNG buyers have made an abrupt change in their LNG contracting and are moving to lock in long term LNG supply. This is the complete opposite of what they were doing pre-Covid when they were trying to renegotiate Qatar LNG long term deals lower and moving away from long term deals to spot/short term sales. Why? We think they did the same math we did in our April 28 blog “Multiple Brownfield LNG FIDs Now Needed To Fill New LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2?” and saw a much bigger and sooner LNG supply gap driven by the delay of 5 bcf/d of Mozambique LNG that was built into most, if not all LNG supply forecasts. Asian LNG buyers are committing real dollars to long term LNG deals, which we believe is the best validation for the LNG supply gap. Another validation, Shell, Total and others are aggressively competing to invest long term capital to partner in Qatar Petroleum’s massive 4.3 bcf/d LNG expansion despite plans to reduce fossil fuels production in the 2020s. And even more importantly to LNG suppliers, the return to long term LNG contracts provides the financing capacity to commit to brownfield LNG FIDs. The abrupt change by Asian LNG buyers to long term contracts is a game changer for LNG markets and sets the stage for brownfield LNG FIDs likely as soon as before year end 2021. It has to be brownfield LNG FIDs if the gap is coming bigger and sooner. And we return to our April 28 blog point, if brownfield LNG is needed, what about Shell looking at 1.8 bcf/d brownfield LNG Canada Phase 2? LNG Canada Phase 1 at 1.8 bcf/d capacity is already a material positive for Cdn natural gas producers. A FID on LNG Canada Phase 2 would be huge, meaning 3.6 bcf/d of Cdn natural gas will be tied to Asian LNG markets and not competing in the US against Henry Hub. And with a much shorter distance to Asian LNG markets. This is why we focus on global LNG markets for our views on the future value of Canadian natural gas.*” Our Supplemental Documents package includes our April and July blogs.

There have been 8.77 bcf/d of long term LNG supply deals since July 1, 2021

We first highlighted this abrupt shift to long term LNG supply deals in our July 14, 2021 8-pg “*Asian LNG Buyers Abruptly Change and Lock in Long Term Supply – Validates Supply Gap, Provides Support For Brownfield LNG FIDs*”. We included a table of the deals done in that short two week period. We continue to update that table, which now shows 8.77 bcf/d of long term LNG deals since July 1, 2021. 75% of the deals have been by Asian LNG buyers, but we are now seeing rest of world long term deals post Russia/Ukraine. Below is our updated table of Asian and Europe LNG buyers new long term supply deals since July 1, 2021.

Figure 6: Long Term LNG Supply Deals since July 1, 2021

Long-Term LNG Buyer Deals Since July 1, 2021							
Date	Buyer	Seller	Country	Volume	Duration	Start	End
			Buyer / Seller	(bcf/d)	Years		
Asian LNG Deals							
Jul 7, 2021	CNOOC	Petronas	China / Canada	0.30	10.0	2022	2032
Jul 9, 2021	CPC	QatarEnergy	Taiwan / Qatar	0.16	15.0	2022	2037
Jul 9, 2021	Guangzhou Gas	BP	China / US	0.13	12.0	2022	2034
Jul 12, 2021	Korea Gas	QatarEnergy	Korea / Qatar	0.25	20.0	2025	2045
Sept 29, 2021	CNOOC	QatarEnergy	China / Qatar	0.50	15.0	2022	2037
Oct 7, 2021	Shenzhen	BP	China / US	0.04	10.0	2023	2032
Oct 11, 2021	ENN	Cheniere	China / US	0.12	13.0	2022	2035
Nov 4, 2021	Unipec	Venture Global LNG	China / US	0.46	20.0	2023	2043
Nov 4, 2021	Sinopec	Venture Global LNG	China / US	0.53	20.0	2023	2043
Nov 5, 2021	Sinochem	Cheniere	China / US	0.12	17.5	2022	2040
Nov 22, 2021	Foran	Cheniere	China / US	0.04	20.0	2023	2043
Dec 6, 2021	Guangdong Energy	QatarEnergy	China / Qatar	0.13	10.0	2024	2034
Dec 8, 2021	S&T International	QatarEnergy	China / Qatar	0.13	15.0	2022	2037
Dec 10, 2021	Suntien Green Energy	QatarEnergy	China / Qatar	0.13	15.0	2022	2037
Dec 15, 2021	SPIC Guangdong	BP	China / US	0.03	10.0	2023	2033
Dec 20, 2021	CNOOC Gas & Power	Venture Global LNG	China / US	0.26	20.0	2023	2043
Dec 29, 2021	Foran	BP	China / US	0.01	10.0	2023	2032
Jan 11, 2022	ENN	Novatek	China / Russia	0.08	11.0	2024	2035
Jan 11, 2022	Zhejiang Energy	Novatek	China / Russia	0.13	15.0	2024	2039
Feb 4, 2022	CNPC	Gazprom	China / Russia	0.98	30.0	2023	2053
Mar 24, 2022	Guangdong Energy	NextDecade	China / US	0.20	20.0	2026	2046
Mar 29, 2022	ENN	Energy Transfer	China / US	0.36	20.0	2026	2046
Apr 1, 2022	Guangzhou Gas	Mexico Pacific Ltd	China / Mexico	0.26	20.0	n.a.	n.a.
Apr 6, 2022	ENN	NextDecade	China / US	0.20	20.0	2026	2026
Apr 22, 2022	Kogas	BP	Korea / US	0.20	18.0	2025	2043
May 2, 2022	Gurvor Singapore Pte	Energy Transfer LNG	Singapore / US	0.26	20.0	2026	2046
May 3, 2022	SK Gas Trading LLC	Energy Transfer LNG	Korea / US	0.05	18.0	2026	2042
May 10, 2022	Exxon Asia Pacific	Venture Global LNG	Singapore / US	0.26	n.a.	n.a.	n.a.
May 11, 2022	Petronas LNG	Venture Global LNG	Malaysia / US	0.13	20.0	n.a.	n.a.
May 24, 2020	Hanwha Energy	TotalEnergies	Korea / France	0.08	15.0	2024	2039
May 25, 2022	POSCO International	Cheniere	Korea / US	0.05	20.0	2026	2036
Total Asian LNG Buyers New Long Term Contracts Since Jul/21				6.58			
Non-Asian LNG Deals							
Jul 28, 2021	PGNiG	Venture Global LNG	Poland / US	0.26	20.0	2023	2043
Nov 12, 2021	Engie	Cheniere	France / US	0.11	20.0	2021	2041
March 7, 2022	Shell	Venture Global LNG	US / US	0.26	20.0	2024	2044
March 16, 2022	NFE	Venture Global LNG	US / US	0.13	20.0	2023	2043
March 16, 2022	NFE	Venture Global LNG	US / US	0.13	20.0	2023	2043
May 2, 2022	Engie	NextDecade	France / US	0.23	15.0	2026	2041
May 17, 2022	PGNiG	Sempra Infrastructure	Poland / US	0.40	20.0	n.a.	n.a.
May 25, 2022	RWE Supply & Trading	Sempra Infrastructure	Germany / US	0.67	15.00	n.a.	n.a.
Total Non-Asian LNG Buyers New Long Term Contracts Since Jul/21				2.19			
Total New Long Term LNG Contracts since Jul/21				8.77			
*Excludes Asian short term/spot deals							
*on Dec 20, CNOOC also agreed to buy an additional 0.13 bcf/d from Venture Global for an undisclosed shorter period							

Source: Company reports, SAF Group

Natural Gas – Platts “several more” Asian LNG purchases have not been made public

There was great insight from Platts on Wednesday that points to a tight LNG market getting even tighter. We do our best to try to read reports and not just read the headlines to see if there are any different insights, either positive or negative. There was a good example of such a report on Wednesday in the Platts report “Global LNG contracting rush leaves Asian importers in tight spot” [\[LINK\]](#). The theme of the report is much like many others in that there is a tight LNG market. But there was also a very interesting positive in the report. Yesterday we tweeted [\[LINK\]](#) “Race to lock up long term LNG supply. Sounds like more Asian #LNG buyer deals are coming. Note @SPGCILNG @ericyp comment “several more purchases by Asian firms have not been made public” “likely to materialize in the coming months”. #NatGas #LNG looks good for 2020s. #OOTT.” Platt is saying there are several more Asian LNG long term buys that are likely to materialize in the coming months. Platts wrote “The market has

More Asian LNG buyer deals are not yet public

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

decidedly moved in favor of LNG sellers. The narrative being pushed by LNG producers, both US LNG exporters and oil-linked producers like the Middle East, is that if Asian buyers do not lock in volumes in the next few months for post-2025 supply, they will lose out to Europe. Some deals between South Korean importers and US LNG suppliers were announced at the World Gas Conference 2022 in Daegu last month, but several more purchases by Asian firms have not been made public. Counterparties are in various stages of negotiating more sale and purchase agreements, both new deals as well as old ones that are being finalized and which are likely to materialize in the coming months.” Our Supplemental Documents package includes the Platts report.

Natural Gas – Shell FIDs Crux to backfill natural gas supply to Prelude 0.47 bcf/d FLNG

On Monday, Shell announced [\[LINK\]](#) it took FID “to approve the development of the Crux natural gas field, off the coast of Western Australia. Crux will provide further supplies of natural gas to the existing Prelude floating liquefied natural gas (FLNG) facility.” For those that don’t know it, providing “further supplies of natural gas” means backfilling natural gas supply for when the existing natural gas supply starts to decline. It also means that this does not add any new LNG capacity, but it does allow Shell to maintain Prelude at 0.47 bcf/d for longer. Shell said they expect construction to start in 2022 and “first gas is expected in 2027.” It’s why we tweeted [\[LINK\]](#) “#Shell FIDs Crux project, it’s not new #LNG export capacity, rather it’s #NatGas supply to backfill for existing Prelude 0.47 bcf/d capacity. With AGM done, will we see FID for #LNGCanada Phase 2 expansion that would add 0.72 bcf/d for Shell share? #OOTT [\[LINK\]](#)”. Our Supplemental Documents package includes the Shell release and its posted background on Crux.

**Shell to backfill
gas supply to
Prelude**

Figure 7: Shell Crux Project Overview



Source: Shell

Natural Gas – Good reminder Qatar is a disciplined, experienced LNG operator

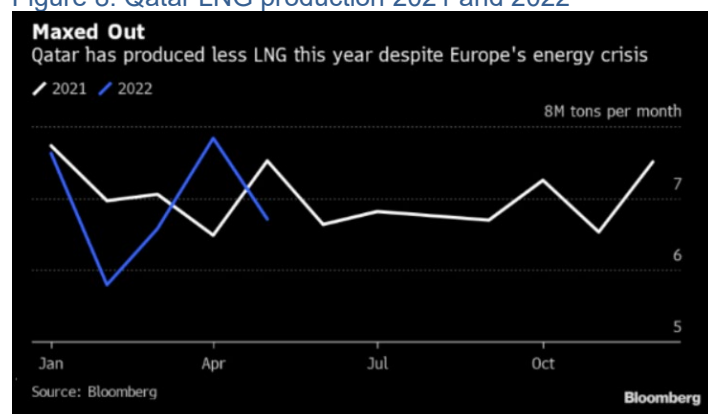
We thought there was a good reminder this week that Qatar is a disciplined, experienced LNG operator with the Bloomberg report “*Qatar LNG Output Falls Despite Surging Demand Amid Energy Crisis*”. It reminded that Qatar hasn’t chased the very high LNG prices by delaying maintenance. Rather, it has been sticking to its planned maintenance schedule ie. showing it is a disciplined, experienced operator of LNG supply. Bloomberg wrote “*Qatar’s liquefied natural gas production dropped this year, despite requests from European countries*”

**Qatar is a quality
LNG operator**

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

hungry for bigger deliveries to replace Russian fuel. European utilities are scrambling to secure the commodity from producers around the world to reduce dependence on their top supplier after the invasion of Ukraine. The drop in output is partly due to several liquefaction trains being unavailable due to scheduled maintenance.” There was one other big data point for Qatar being a quality LNG operator – Bloomberg wrote “Its liquefaction plants have a rated capacity of 77 million tons per year, but the country exported almost 84 million tons in 2021.” Our Supplemental Documents package includes the Bloomberg report.

Figure 8: Qatar LNG production 2021 and 2022



Source: Bloomberg

Natural Gas – Feels like Pakistan wants a long, but not too long LNG deal from Russia

It feels like Pakistan is trying to entice Russia to sell them discounted LNG on what Pakistan calls a “long-term” supply deal. On Wednesday, Bloomberg reported “Pakistan aims to sign a long-term liquefied natural gas purchase deal in a bid to secure future supply and ease crippling blackouts. The South Asian nation intends to float a tender to purchase one LNG cargo per month for 10 to 15 years, said Shahid Khaqan Abbasi who is overseeing the energy sector for Prime Minister Shehbaz Sharif. The government is still deciding the timeline for when to issue the tender”. The key reason why think they are trying to attract Russia is that Pakistan is calling long-term as 10-15 years and not 15-20 years. Pakistan is considered to be a very cost conscious LNG buyer, which is another reason why think they are trying to get some sort of discounted LNG price deal with Russia. It’s why we tweeted [\[LINK\]](#) “Sounds like Pakistan wants a long term, but not too long, discounted #LNG supply deal from Russia? in LNG supply short outlook for 2020s, only want 10-15 yr terms so effectively eliminating supply like Qatar, maybe others. Thx @FaseehMangi. #NatGas #OOTT”. The other potential is US LNG but clearly Pakistan isn’t prepared to go to Qatar’s preferred 20-year term. Our Supplemental Documents package includes the Bloomberg report.

Pakistan wants 10-15 yr LNG supply deal

Natural Gas – Japan’s LNG stocks up +1% from last week

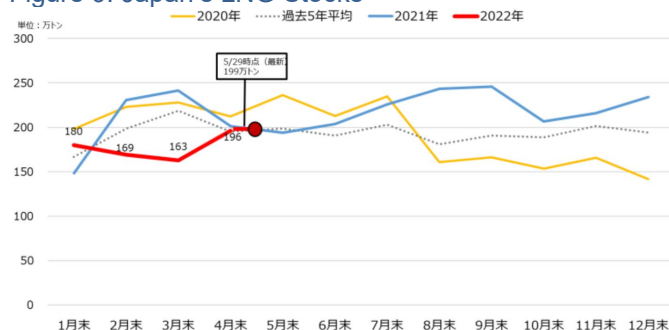
As a reminder, Japan’s LNG stockpiles are not huge relative to LNG imports that have ranged from 7 to 14 bcf/d since Jan 1, 2021. LNG stockpiles held by Japanese power producers have exceeded both last year’s level and the 4-year average. Japan’s METI weekly LNG stocks data was released on Wednesday [\[LINK\]](#). LNG stocks at May 15 were

Japan LNG stocks +1% WoW

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

~96 bcf, +1% WoW from 95 bcf and up a bit from the 5-yr average of 95 bcf. Below is the LNG stocks graph from the METI weekly report.

Figure 9: Japan's LNG Stocks



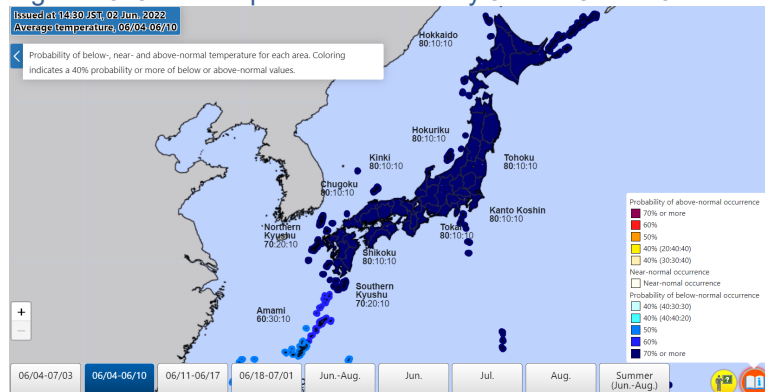
Source: METI

Natural Gas – No real near-term weather-related demand in Japan

Japan is forecasting cooler than normal temperatures for the start of June, which means that there will be no real weather-related demand for natural gas. On Thursday, the Japan Meteorological Agency posted its June weather forecast [LINK] calling for a little cooler than normal near-term temperatures. This type of weather will not drive any significant weather-related natural gas demand for air conditioning. For example, AccuWeather is forecasting daily highs of 17 to 24c for Tokyo this week.

Cooler near-term forecast in Japan

Figure 10: JMA Temperature Probability June 4-June 10



Source: Japan Meteorology Agency

Natural Gas – UK/Centrica talking about reopening its Rough UK natural gas storage

There was another good example of how Russia is being used as the excuse for a reversal of a natural gas supply issue that was already in works long before Russia invaded Ukraine. The UK government and Centrica are reportedly in talks to reopen the Rough natural gas storage site because of Russia/Ukraine. The reality is that last October, Centrica was already at reopening Rough because of the massive natural gas price spike (energy crisis) in Europe last year, well before Russia invaded Ukraine. And it's also a reminder example of

Rough gas storage shut in 2017

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

why natural gas will cost more under the energy transition. No one should have been surprised to see Bloomberg's Tuesday report *"Britain is in talks to reopen its biggest natural gas storage site as the war in Ukraine threatens to deepen the nation's energy crisis this winter, according to people familiar with the matter. The UK government and Centrica Plc are considering stashing the fuel away at the Rough depot before the facility can be converted to store hydrogen in the future, said the people, who asked not to be identified because the information is private. Britain's top energy supplier said in 2017 that it would close Rough, which accounted for about 70% of the country's gas storage capacity." And "In light of Russia's criminal invasion of Ukraine, it is sensible that all possible options are considered to maintain security of gas supply, and that includes the future of gas storage if required," a government spokesperson said by email.* Our Supplemental Documents package includes the Bloomberg report.

In Oct, Centrica was talking about reopening its Rough UK natural gas storage

On Tuesday, we tweeted [\[LINK\]](#) *"Reminder #Centrica was already looking to reopen Rough #NatGas storage in Oct. The #EnergyTransition was already going to take longer, be bumpy & cost a lot more. RUS has just made it worse. Positive for #Oil #NatGas for the 2020s. #OOTT."* Here is what we wrote in the Oct 31, 2021 Energy Tidbits *"There was another good example of why energy, in this case natural gas, will cost a lot more under the Energy Transition. Reportedly, there are discussions to look to restart Centrica's Rough gas storage site that shut down four years ago. So 4 years ago, it wasn't worth spending the capex to fix the problems, but now it may now be worth spending the capex. It's a good example that illustrates why natural gas prices and energy should be higher in the 2020s. On Wednesday, Bloomberg reported "Rough Gas Storage Site May Be Reopened to Bolster Strategic Reserves. Britain's biggest energy supplier is in talks with the Government about reopening a mothballed gas storage facility in a bid to protect the industry from surging power costs. Centrica, the owner of British Gas, is seeking to restore the defunct Rough site off the Yorkshire Coast to boost the country's energy reserves. It comes after gas prices spiked to as much as 11 times normal levels in the wake of surging demand." Centrica reportedly talking about going back in to fix Rough storage so it can be restarted first as the major UK gas storage facility and then over time to hydrogen. And Centrica reportedly says don't need govt subsidies to do so, just can charge out to customers. This was abandoned because the cost to fix it wasn't worth it in 2017. The reality check is that the costs to fix it today have to be way higher than before. Yet Centrica can now make the math work by charging customers. ie. the costs of using storage are going much higher. Our Supplemental Documents package includes the Bloomberg report."*

Centrica shut down UK largest gas storage, Rough, in 2017

Our October 10, 2021 Energy Tidbits also included a recap of Centrica shutting down its Rough UK gas storage in 2017. At that time, we wrote *"One of the big criticism on the UK natural gas system is that there is a lack of gas storage. In September, Energy UK estimated there was 141 bcf in UK natural gas storage and wrote [\[LINK\]](#) "Britain has over 4bcm of storage capacity that can be called upon to deliver over one quarter of national gas demand on a cold winter's day. Gas is sent to storage facilities throughout the summer and at other times of the year to make sure we have*

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

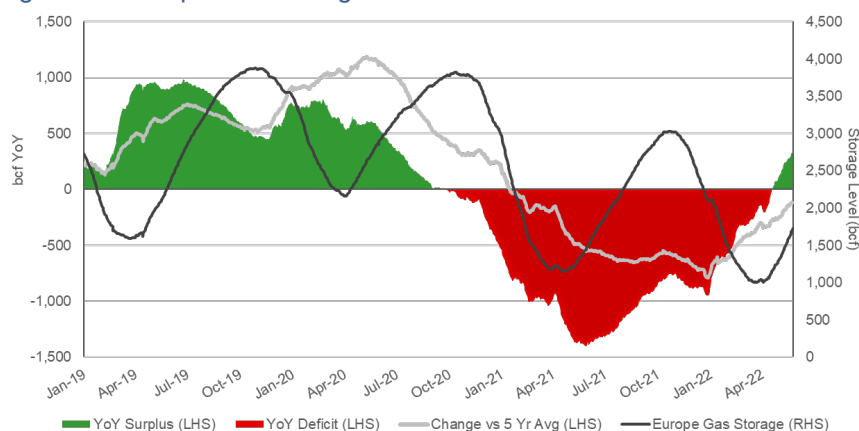
gas supplies available when we need them.” UK natural gas storage was much higher in 2017. In 2017, Centrica ceased operations at the largest UK gas storage facility, Rough. Our July 2, 2017 Energy Tidbits noted that, at the time of its cessation, Centrica estimated there was 183 bcf of recoverable cushion gas. They had massive problems with the storage that led to pre tax charge of £176 in 2016 results. Made the decision to shut it down in early 2017. We went back and couldn’t see what the “working gas” level was prior to the problems. But Rough was the largest UK storage and believed to have represented something like 70% of the storage send out capacity. Rough was a depleted reservoir being used for storage. As a rule of thumb, we would use 50/50 split between cushion gas and working gas. So its probably reasonable to roughly assume working gas was about the same at 183 bcf. The closing of Rough is why UK has relatively low natural gas storage.”

Natural Gas – Europe storage is now +9.54% YoY ie. 47.60% full vs 38.06%

The urgency to refill Europe storage post Russia has worked. As a result, the YoY Europe storage gap has changed to a YoY storage surplus. Europe gas storage started down 18.52% YoY and is now a YoY surplus of 9.54%. Inventories are rising all across Europe, as is normal during spring and early summer. Europe gas storage started last winter (Nov 1/20) at basically full levels at 94.66% and had dropped by 65.77% to be 28.89% at Apr 1/21. Europe storage levels bottomed in late Apr at 29%, which was the lowest level since Apr 2018. This winter began (Nov 1/21) with gas storage at 77.14% capacity, down 18.52% YoY. The YoY deficit has turned to surplus after months of the deficit tightening this week. Thanks to the warm weather and US LNG, storage as of June 1 is at 47.60%, which is +9.54% greater than last year levels of 38.06% and are -2.38% below the 5-year average of 49.98%. As spring injections continue, we expect to see a decline in demand for LNG as less is used to heat homes. Below is our graph of Europe Gas Storage Level.

Europe storage now 47.60% full

Figure 11: Europe Gas Storage Level



Source: Bloomberg

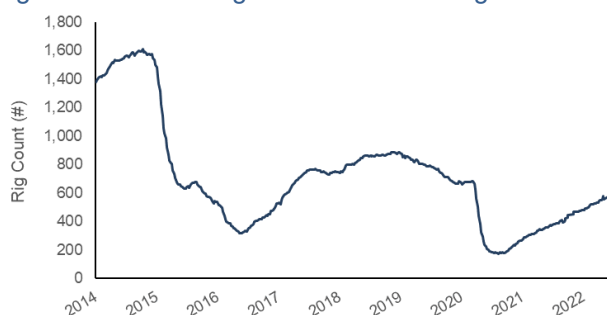
The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Oil – US oil rigs flat WoW at 574 oil rigs at June 3

Baker Hughes released its weekly North American drilling activity data on Friday. There are still extremely strong oil, NGLs and natural gas prices and industry has fresh (and many modestly increasing) 2022 capex budgets and the reality is that industry needs to crank up drilling to increase the depleted inventory of DUCs. This week US oil rigs were flat WoW at 574 oil rigs, as the US Memorial Day holiday often leads to a temporary decline in activity. Oil rigs are +402 off the bottom of 172 in Aug14/2020 week. Permian was flat at 341 rigs this week and the Bakken was flat at 37 rigs after no change last week. US oil rigs hit their 2020 peak at 683 on March 13 and have since fallen by -109 (-16%) to 574 oil rigs. US gas rigs were flat at 151. Below is our graph of US oil rigs since January 1, 2014.

**US oil rigs -flat
WoW**

Figure 12: Baker Hughes Total US Oil Rigs



Source: Baker Hughes

Oil – US frac spreads -4 to 279 for the week ending June 3

Mark Rossano (C6 Capital Holdings) held his weekly US frac spread recap for the week ending June 3 on the Primary Vision network. YouTube video is at [\[LINK\]](#). For the week ending June 3, US frac spreads at the high point in the week were -4 to 279. Small drop, no surprise, typically get a small drop in the holiday week. Normally there is a bump post the holiday week will see spreads go back higher than the level prior to the holiday. The drops have been as typically happens in the small basins, where there are 1 to 3 spreads. Permian was fairly flat, not too much to say with the other bigger basins he has been talking about “staying fairly cohesive”. Rossano expects to see an acceleration on the rigs side as well as the spreads. He still sees spreads on track to exit June on our way from 290 on our way to 300, with the peak of 325. However, realistically don't see getting to 325 but rather something in the 300 to 315 range as progress thru the remainder of the summer. Rossano did not say this, but his views this week seem to point to a slightly lower of frac spares than previously expected ie. he was expecting 290 at end of May, and the peak was “probably about 315 that are likely”.

**Frac spreads -4 to
279**

Oil – Total Cdn rigs +14 WoW at 107 total rigs, +40 rigs YoY

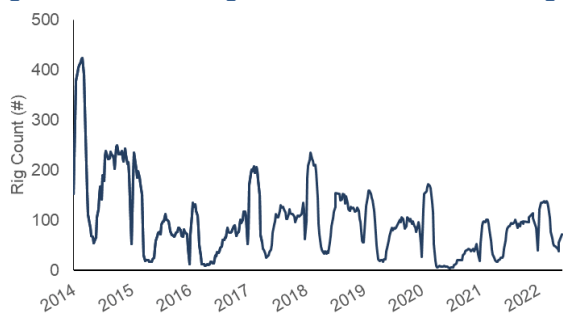
Total Cdn rigs were +14 total rigs this week at 107 total rigs. Cdn oil rigs were +17 at 72 rigs. Cdn gas rigs were -3 at 45 gas rigs. Canada is in the post spring breakup period, so expect to see increasing rig counts throughout the summer. Total rigs are now +104 since the June 26, 2020 all-time low. Cdn drilling has recovered YoY, a year ago Cdn oil rigs were 43 and

**Cdn rigs +15
WoW**

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Cdn gas rigs were 34 for a total Cdn rigs of 77, meaning total Cdn oil rigs are +29 YoY and total rigs are +40 vs 2021.

Figure 13: Baker Hughes Total Canadian Oil Rigs



Source: Baker Hughes

Oil – US weekly oil production flat at 11.9 mmb/d

US oil production was flat at 11.9 mmb/d for the week ended May 27 after decreasing last week. Lower 48 production drove total production and was up from last weeks level at 11.5 mmb/d this week, with Alaska having immaterial change. US oil production is up YoY at +1.1 mmb/d and is still down significantly at -1.2 mmb/d since the 2020 peak of 13.1 mmb/d on March 13. With WTI >\$100 and HH over \$8, we expect producers to maximize near term production adds, albeit under the continued capital discipline capex plans. Plus there has been a big drawdown in DUCs, which should be supporting some near term growth in production.

US oil production flat WoW

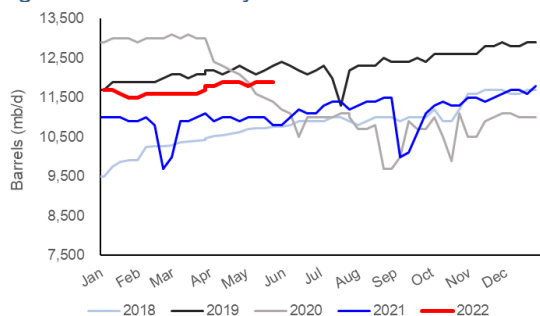
Figure 14: EIA’s Estimated Weekly US Oil Production

Year-Month	Week 1		Week 2		Week 3		Week 4		Week 5	
	End Date	Value	End Date	Value	End Date	Value	End Date	Value	End Date	Value
2020-Mar	03/06	13,000	03/13	13,100	03/20	13,000	03/27	13,000		
2020-Apr	04/03	12,400	04/10	12,300	04/17	12,200	04/24	12,100		
2020-May	05/01	11,900	05/08	11,600	05/15	11,500	05/22	11,400	05/29	11,200
2020-Jun	06/05	11,100	06/12	10,500	06/19	11,000	06/26	11,000		
2020-Jul	07/03	11,000	07/10	11,000	07/17	11,100	07/24	11,100	07/31	11,000
2020-Aug	08/07	10,700	08/14	10,700	08/21	10,800	08/28	9,700		
2020-Sep	09/04	10,000	09/11	10,900	09/18	10,700	09/25	10,700		
2020-Oct	10/02	11,000	10/09	10,500	10/16	9,900	10/23	11,100	10/30	10,500
2020-Nov	11/06	10,500	11/13	10,900	11/20	11,000	11/27	11,100		
2020-Dec	12/04	11,100	12/11	11,000	12/18	11,000	12/25	11,000		
2021-Jan	01/01	11,000	01/08	11,000	01/15	11,000	01/22	10,900	01/29	10,900
2021-Feb	02/05	11,000	02/12	10,800	02/19	9,700	02/26	10,000		
2021-Mar	03/05	10,900	03/12	10,900	03/19	11,000	03/26	11,100		
2021-Apr	04/02	10,900	04/09	11,000	04/16	11,000	04/23	10,900	04/30	10,900
2021-May	05/07	11,000	05/14	11,000	05/21	11,000	05/28	10,800		
2021-Jun	06/04	11,000	06/11	11,200	06/18	11,100	06/25	11,100		
2021-Jul	07/02	11,300	07/09	11,400	07/16	11,400	07/23	11,200	07/30	11,200
2021-Aug	08/06	11,300	08/13	11,400	08/20	11,400	08/27	11,500		
2021-Sep	09/03	10,000	09/10	10,100	09/17	10,600	09/24	11,100		
2021-Oct	10/01	11,300	10/08	11,400	10/15	11,300	10/22	11,300	10/29	11,500
2021-Nov	11/05	11,500	11/12	11,400	11/19	11,500	11/26	11,600		
2021-Dec	12/03	11,700	12/10	11,700	12/17	11,600	12/24	11,800	12/31	11,800
2022-Jan	01/07	11,700	01/14	11,700	01/21	11,600	01/28	11,500		
2022-Feb	02/04	11,600	02/11	11,600	02/18	11,600	02/25	11,600		
2022-Mar	03/04	11,600	03/11	11,600	03/18	11,600	03/25	11,700		
2022-Apr	04/01	11,800	04/08	11,800	04/15	11,900	04/22	11,900	04/29	11,900
2022-May	05/06	11,800	05/13	11,900	05/20	11,900				

Source: EIA

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Figure 15: US Weekly Oil Production



Source: EIA, SAF

Oil – EIA Form 914 March actuals only back to Dec levels, still below Nov 2021

The EIA released its Form 914 data [\[LINK\]](#) on Tuesday, which is the EIA’s “actuals” for March US oil and natural gas production. (i) Form 914 estimates total US oil production is up 0.349 mmb/d MoM to 11.655 mmb/d in March. However, March is only back to Dec 2021 levels of 11.604 mmb/d and still below Nov 2021 of 11.769 mmb/d. March 2022 is still down -1.161 mmb/d from March 2020 (pre-covid) and +0.495 mmb/d YoY. (ii) The actuals for March were slightly above the EIA weekly estimates, as well as the EIA STEO April had for March. (iii) Texas had the largest MoM change with an increase of +147,000 b/d; New Mexico and North Dakota were both up big at +66,000 b/d and +34,000 b/d this week. The March actuals were +0.030 mmb/d above the weekly estimates average of 11.625 mmb/d.

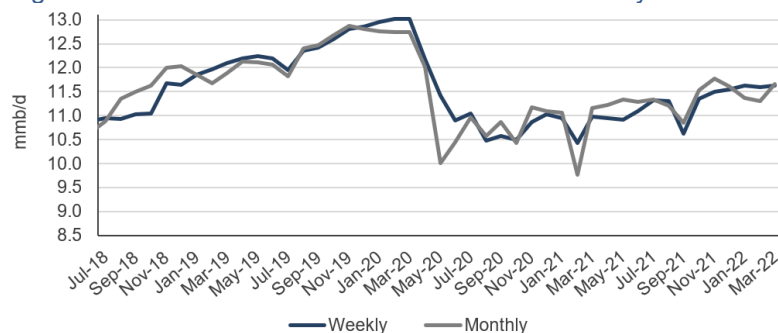
**EIA Form 914
March**

Figure 16: EIA Form 914 US Oil Production

State	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2022	11,369	11,306	11,655									
2021	11,056	9,773	11,160	11,230	11,334	11,288	11,330	11,206	10,851	11,526	11,769	11,604
2020	12,785	12,826	12,816	11,911	9,711	10,420	10,956	10,558	10,868	10,413	11,121	11,084
2019	11,848	11,653	11,899	12,125	12,141	12,179	11,896	12,475	12,572	12,771	12,966	12,910
2018	9,996	10,276	10,461	10,493	10,424	10,628	10,888	11,373	11,422	11,488	11,868	11,924
2017	8,873	9,109	9,168	9,103	9,184	9,110	9,246	9,245	9,516	9,659	10,077	9,979
2016	9,201	9,063	9,088	8,871	8,832	8,672	8,660	8,688	8,542	8,802	8,901	8,814

Source: EIA

Figure 17: EIA Form 914 US Oil Production vs Weekly Estimate



Source: EIA

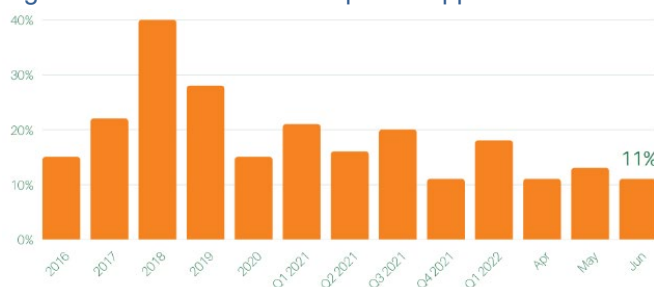
The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Oil – Trans Mountain apportioned by 11% for June

On Thursday [LINK](#), Trans Mountain released an update on its capacity for the month of June. Total system nominations are apportioned by 11% for June (May was 13%), meaning 11% of demand for the pipeline exceeds its capacity. Trans Mountain reminds that it has been running at full capacity and has seen regular monthly apportionment for over a decade ie, the clear sign for a need for expansion. The Trans Mountain apportionment update also includes a bit of an apportionment 101. Trans Mountain wrote *“When a pipeline experiences significant and prolonged apportionment like in the case of the existing Trans Mountain Pipeline, it’s one signal that more capacity is needed. Apportionment can bring with it a discounting of prices as producers compete to sell what they can through the pipeline before having to use another pipeline or other modes of transport to another, less profitable market. It can also mean the buyers at the end of the pipeline are forced to source their shortfall of supply from alternate, less desirable sources.”* Below is a chart which shows the average apportionment since 2016. Our Supplemental Documents package includes the Trans Mountain release.

Trans Mountain apportionment

Figure 18: Trans Mountain Pipeline Apportionment



Source: Trans Mountain Pipeline

Oil – Cenovus to restart 80,000 b/d West White Rose project in H1/26

No one was surprised that in a world of \$100 oil, on Tuesday, Cenovus announced [LINK](#) it will restart the West White Rose Project offshore Newfoundland and Labrador. First oil from the platform is anticipated in the first half of 2026, with peak production anticipated to reach approximately 80,000 b/d by year-end 2029. Cenovus CEO stated, *“With the project about 65% complete, combined with the work done over the past 16 months to firm up cost estimates and rework the project plan, we are confident in our decision to restart this project in 2023”*. Contributing to the decision to restart the project is an amended royalty structure with the Government of Newfoundland and Labrador which provides safeguards to the project’s economics in periods of low commodity prices. This also builds on Cenovus’ restructuring of interests in the White Rose field, whereby Cenovus will decrease its working interest while Suncor will take a larger stake. Under the new arrangement, Cenovus has reduced its stake in the original field to 60% from 72.5%. The remaining capital required to achieve first oil is expected to be approximately \$2.0 billion to \$2.3 billion net to Cenovus, which is largely offset by deferral of planned decommissioning costs of \$1.6 billion to \$1.8 billion. Our Supplemental Documents package includes the Cenovus release.

Cenovus to restart West White Rose

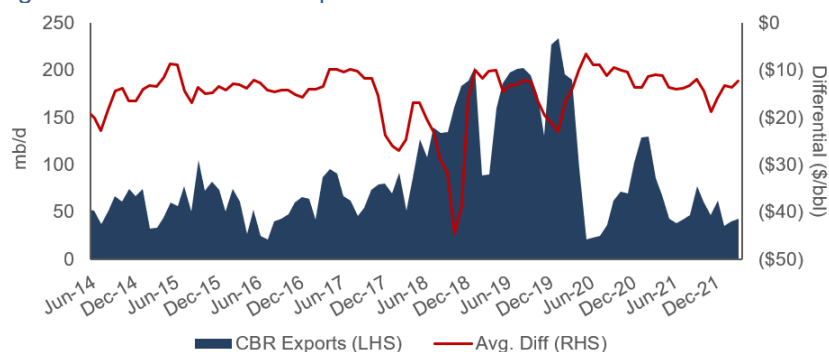
The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Oil – Cdn crude by rail imports to Gulf Coast down -50% YoY in March to 43,000 b/d

The EIA posted its monthly “U.S. Movements of Crude Oil by Rail” [LINK](#) on Tuesday, which also had good insights on Cdn crude by rail. Canadian CBR volumes to PADD 3 (Gulf Coast) were 43,000 b/d in March, which is up 3,000 b/d MoM from February, and down 43,000 b/d YoY vs March 2021. There were no revisions to last months data. The slight increase in exports is attributed to strong demand for heavy/medium sour crude from the removal of Russian crude from global markets. We expect to see continued strong demand for Cdn crude to export south once oil sands maintenance is finished. Below is our graph of Cdn CBR exports to the Gulf Coast.

Cdn CBR imports to Gulf Coast down 43,000 b/d YoY

Figure 19: Canada CBR Exports to US Gulf Coast vs WCS Differential



Source: EIA, Bloomberg

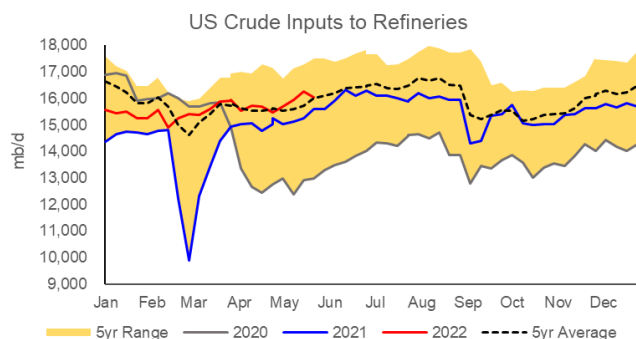
Oil – Refinery inputs -0.236 mmb/d WoW at 16.033 mmb/d

US refineries continue to run at higher YoY rates and this is the season that normally sees increasing processing volumes in Q2 every year. The EIA crude oil input to refinery data is for the week ended May 27. The EIA reported crude oil inputs to refineries down -0.236 mmb/d to 16.033 mmb/d for the week ended May 27 and are +0.436 mmb/d YoY. Refinery utilization was down to 92.6%, which is +3.9% YoY though is still below 5-year average utilization levels; refineries are exiting the planned maintenance season as summer demand ramps up. Note that hurricane season in the US is here, with the official start of the season on June 1. Total products supplied (i.e., demand) decreased slightly WoW, down mmb/d to 19.512 mmb/d, and Motor gasoline was up 0.179 mmb/d at 8.977 mmb/d from 8.798 mmb/d last week. The 4-week average for Motor Gasoline was down -0.286 mmb/d YoY to 8.876 mmb/d. The 4-week average of Total demand was up 0.559 mmb/d YoY to 19.522 mmb/d.

Refinery inputs down WoW

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Figure 20: US Refinery Crude Oil Inputs (thousands b/d)



Source: EIA

Oil – Chevron CEO doesn't expect another US refinery to ever be built

Chevron CEO on refineries

The headlines from Chevron CEO Mike Wirth's interview on Bloomberg on Friday [\[LINK\]](#) were "My personal view is there will never be another refinery built in the United States." Wirth was asked about the problem of the lack of petroleum products and not crude oil. We created a transcript of his reply. At 5:45 min mark, Wirth "... you're right about these bottlenecks in refining. We've seen refineries close. When I began my career, there were more than 250 refineries in the US, today there's half of that number. And we've seen refineries close around the world. We've seen China stop exporting products. Obviously, Russia exports have diminished as well. And so many of the sources of product that normally flow into markets have been constrained and we're seeing very strong demand as I mentioned earlier and that's resulting in a lot of upward pressure on prices". Bloomberg's Alix Steel asks "Steel "so if you go and talk to President Biden or the White House next week, what would you want to tell them because, in essence, no matter what price signals you are getting from the market, the world is moving to phase out the products those refiners would use. That's places you in a tough spot". CEO Wirth replies "it puts the industry in a difficult spot because building a refinery is a multi billion dollar process. It may take a decade. We haven't had a refinery built in the United States since the 1970s. My personal view is there will never be another refinery built in the United States. You're looking at committing capital 10 years out, that will need decades in which to offer a return to our shareholders, in a policy environment where governments around the world are saying we don't want these products to be used in the future. And so there really is a dilemma. We receive mixed signals in these policy discussions"

Oil – US "net" oil imports up 0.083 mmb/d WoW at 2.228 mmb/d

US "net" oil imports up WoW

US "NET" imports were up 0.083 mmb/d to 2.228 mmb/d for the May 27 week. US imports were down -0.268 mmb/d to 6.218 mmb/d. US exports were down -0.351 mmb/d to 3.990 mmb/d. The WoW decrease in US oil imports was driven by US's Top 10 imports by country were down by -0.429 mmb/d from Top 10. Some items to note on the by country data. (i) Canada was down this week by -0.054 mmb/d to 3.444 mmb/d. (ii) Saudi Arabia was down -0.243 mmb/d to 0.345 mmb/d this week. (iii) Colombia was down -0.003 mmb/d to 0.215 mmb/d. (iv) Ecuador was down -0.202 mmb/d at 0.048 mmb/d. (v) Iraq was up 0.044 mmb/d to 0.326 mmb/d. (vi) Mexico was down -0.125 mmb/d to 0.747 mmb/d.

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Figure 21: US Weekly Preliminary Oil Imports by Major Countries

(thousand b/d)	Mar 4/22	Mar 11/22	Mar 18/22	Mar 25/22	Apr 1/22	Apr 8/22	Apr 15/22	Apr 22/22	Apr 29/22	May 6/22	May 13/22	May 20/22	May 27/22	WoW
Canada	3,731	3,398	3,806	3,612	3,923	3,153	3,465	3,510	3,492	3,284	3,588	3,498	3,444	-54
Saudi Arabia	701	562	534	333	573	328	255	438	554	306	420	588	345	-243
Venezuela	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mexico	412	645	641	731	619	763	488	391	553	693	832	872	747	-125
Colombia	71	279	72	284	216	49	332	364	313	276	365	218	215	-3
Iraq	188	161	489	82	71	155	266	242	181	326	242	282	326	44
Ecuador	160	205	103	96	76	145	211	108	66	351	43	250	48	-202
Nigeria	96	0	2	148	148	89	191	0	43	136	127	39	193	154
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Angola	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Top 10	5,359	5,250	5,647	5,286	5,626	4,682	5,208	5,053	5,202	5,372	5,617	5,747	5,318	-429
Others	960	1,145	839	973	674	1,313	629	881	1,130	897	951	739	900	161
Total US	6,319	6,395	6,486	6,259	6,300	5,995	5,837	5,934	6,332	6,269	6,568	6,486	6,218	-268

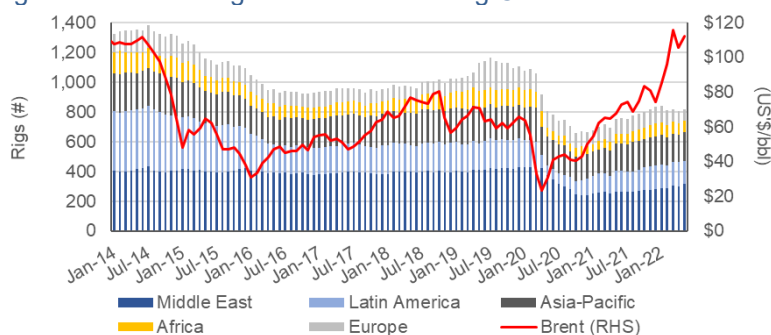
Source: EIA, SAF

Oil – Baker Hughes International rigs +11 MoM to 817 rigs in May

Baker Hughes posted its monthly update to international rigs on Friday. There was a increase in international rig counts after a decrease over April. May is up 9% YoY from 750, but still down 23% vs March 2020 at 1,058. Total international rigs increased by 11 MoM to 817 in May. The YoY rig count is as followed: Asia-Pacific +9, Africa -2, Europe -2, Latin America -8, and the Middle East +14. Libya’s rig activity has been hit by internal conflict and uncertainty, with rigs down from 15 in March, to 7 in April, and to 2 in May. Russia has been hit in the major project area, Sakhalin, with rigs dropping to zero in May after maintaining a steady 5 rigs for the past 17 months. Ukraine continues to have almost no activity with rigs down from 39 in Jan, to 31 in Feb, to 8 in March, and to 5 in both April and May. Saudi Arabia Increased by 8 rigs MoM and are up +12 YoY, driving growth while Iraq and Egypt were up +13 and +6 rigs YoY respectively. Indonesia was +5 MoM and up +6 YoY from May 2021. Below is our graph of international rigs by region and avg monthly Brent price.

International rigs +11 MoM

Figure 22: Baker Hughes International Rig Count and Brent Price



Source: Baker Hughes, Bloomberg

Oil – Will Brazil (Petrobras) oil growth be impacted by Bolsonaro’s mgmt change

Brazil (Petrobras) is one of the key non-OPEC oil growth areas for 2022 and 2023 and we have to believe there is risk to their growth based on the Bolsonaro’s move to make another change to the CEO and other senior management. We recognize that Petrobras generally has supermajors as it’s partners on its major operations but chaos or uncertainty at the senior management level has to impact Petrobras plan execution. On Tuesday, Reuters reported [\[LINK\]](#) “Brazil’s Bolsonaro may need months to replace Petrobras management -sources” “Brazilian President Jair Bolsonaro, seething about fuel prices as his poll standings slip

More Petrobras mgmt. changes

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

ahead of October's presidential election, has intensified his calls to shake up the board and management of state-run oil company Petrobras. But it will take at least 45 to 60 days to complete the necessary procedural and bureaucratic steps to install a new board and management, according to four people close to the current executive board. That would leave him just two months before the election to pressure the company to decouple its fuel prices from international market gyrations." Last week, Bolsonaro announced he was replacing current Petrobras CEO Coelho after just a month in the role, and then Reuters reported "On Thursday, the president said any senior executives at the company for more than six months may also have to go." When we saw this report, we thought how can this uncertainty at the senior management level not have an impact on plan execution. We tweeted [\[LINK\]](#) "Positive for #Oil. Brazil is a key non-OPEC+ supply growth areas for 2022/23. #Bolsonaro's shake up of board & mgmt has to have some impact on plan execution. Maybe +0.27 mmbd YoY or 2022 is being executed? But should be risk for +0.13 mmbd for 2023. #OOTT." Our Supplemental Documents package includes the Reuters report.

Oil – Kazakhstan's crude production down 220,000 b/d for 45 day maintenance

On Wednesday, the NCOC reported [\[LINK\]](#) that the production facilities at the offshore and onshore complex of the Kashagan field are shut down beginning June 1 for scheduled preventative maintenance. This maintenance is scheduled to run until the middle of July. According to Bloomberg [\[LINK\]](#) Kazakhstan's daily crude production dropped by -220,000 b/d to 1.73 mm/d from 1.95 mmb/d on Sunday and Monday. Continued Work will lead to a complete stoppage in production at the project, which was running at about 400,000 b/d. Our Supplemental Documents package includes the NCOC and Bloomberg reports.

**Kashagan oil
output down**

Oil – Lukoil Fedun points to lower Russian oil exports in the future one way or another

On Monday, there was an excellent op-ed by Leonid Fedun, who is Vice President & Director at Lukoil and a reported billionaire as he led the privatization of Lukoil years ago and reportedly owns 11% of the company. (i) We tweeted [\[LINK\]](#) "1/2 #Lukoil Fedun "Should we try to maintain pre-crisis export volumes by agreeing to 30% and sometimes even 40% discounts? At the same time, buyers, under the talk of an oil embargo, will try to institutionalize these discounts with the help of tariff regulation tools" #OOTT" and [\[LINK\]](#) "2/2. #Lukoil Fedun "But this flexibility comes at a price: high costs for shutting down and restarting wells and maintaining infrastructure systems." How much is RUS #Oil capacity being hit? One way or another, looks like less RUS exports, a big positive for #Oil in 2020s. #OOTT." (ii) The headlines on the reporting was Fedun saying Russia should produce less and sell at a higher price. "Therefore, why should Russia provide production of 10 million barrels. oil per day, if we can effectively consume and export 7-8 million without losses for the state budget, domestic consumption and imports. Let's return to the discussion that took place on the eve of the OPEC+ agreement. What is better - to sell 10 barrels. raw for \$50 or seven, but for \$80? So now. Should we try to maintain pre-crisis export volumes by agreeing to 30% and sometimes even 40% discounts?" (iii) He seems to reaffirm the market view that Russia is selling their oil at 30% or even a 40% discount. (iv) He also seems to reinforce our concern that Russia is losing some oil productive capacity at the margin by the start and stop of production. Fedun says "But this flexibility comes at a price: high costs for shutting down and restarting wells and maintaining infrastructure systems." (v) And our key takeaway is

**Lower Russian
oil exports**

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

that, one way or another, Fedun is pointing to lower Russia oil exports ie. a positive for oil prices in the 2020s. Our Supplemental Documents package includes the Fedun op-ed.

Russia Urals blend was 32% discount to Brent for mid-Apr to mid-May

On Tuesday, we tweeted [\[LINK\]](#) “RUS Urals blend \$73.24/b mid-Apr to mid-May, 32% discount to Brent reports @ja_herron. This is #Lukoil Fedun's concern, see [May 30 thread on his op-ed](#). It's why one way or another, expect RUS #Oil exports lower. Oil looks good for 2020s.” Our tweet included the below Bloomberg graph that is the Urals vs Brent prices that fits Fedun's statement that Russia is selling its crude at a 30-40% discount.

Figure 23: Russia Urals vs Brent oil prices



Oil – Chevron CEO expects Russia productive capacity to degrade over time

Yesterday, the WSJ posted its report “Chevron CEO Sees Russian Oil Output Falling After Exit of Western Firms” [\[LINK\]](#). Chevron CEO Mike Wirth stated what all oil people know – being cut off from western services and technologies has to lead to lower future Russia oil capacity. A producer Russia's size can't do it all by itself. The WSJ wrote “In a meeting with Wall Street Journal reporters and editors this week, Mr. Wirth noted that many countries continued to buy crude from Russia, one of the world's top oil producers along with the U.S. and Saudi Arabia. But he said that it would be difficult for Russia to overcome the loss of western technology and capital, noting that other once-large oil producers have seen output fall after sanctions and the pullout of international oil companies. “If you look at Iran and Venezuela, two other examples of large producers that have come under sanctions and have been pretty well cut off from the same kinds of investments and technology, their productive capacity degrades over time,” Mr. Wirth said.” Our Supplemental Documents package includes the WSJ report.

Chevron CEO on sanctions impact on Russia

Oil – OPEC+ increases July production +648,000 b/d

OPEC+ had its 29th ministerial meeting on Thursday and revised July production to +648,000 b/d to make up for Russian oil output loss. OPEC+ basically took the scheduled September quota increase and divided it over July and August. We tweeted [\[LINK\]](#) “Who besides Saudi, UAE, Kuwait, maybe Iraq can deliver higher production? I pasted the #OPEC+ June quota besides new July quota so you can see by country changes for new +0.648 mmb/d increase

OPEC+ increases July production

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

for July ie. Russia is +170,000 b/d to 10.833 mmb/d for July #OOTT” (i) Noting the most recent reopening from lockdowns in major global economic centers, OPEC+ increased their planned production for July to +648,000 b/d from previous revised adjustment of +432,000 [LINK]. OPEC stated, “Advance the planned overall production adjustment for the month of September and redistribute equally the 0.432 mb/d production increase over the months of July and August 2022. Therefore, July production will be adjusted upward by 0.648 mb/d as per the attached schedule”. The meeting further noted that global refinery intake is expected to increase after the seasonal maintenance, and highlighted the importance of stable and balanced markets for both crude oil and refined products. (ii) In addition, OPEC+ reiterated “the critical importance of adhering to full conformity and to the compensation mechanism”. Our Supplemental Documents package includes the OPEC+ release.

Figure 24: OPEC+ Cut Schedule

OPEC (mmb/d)	Reference Level Production	July 2021	Aug 2021	Sept 2021	Oct 2021	Nov 2021	Dec 2021	Jan 2022	Feb 2022	Mar 2022	Apr 2022	May 2022	Jun 2022	Jul 22	Jun/22 per Agreement	Change in Ref. Level Post May/22	EIA STEO 2022E Production Aug
Algeria	1,527	922	932	942	942	952	962	972	982	992	1,002	1,012	1,023	1,039	1,057	-	n.a.
Angola	1,528	1,319	1,334	1,348	1,363	1,377	1,392	1,406	1,421	1,435	1,450	1,465	1,480	1,502	1,528	-	n.a.
Congo	325	281	284	287	290	293	296	300	303	306	309	312	315	320	325	-	n.a.
Equatorial G.	127	110	111	112	114	115	116	117	118	120	121	122	123	125	127	-	n.a.
Gabon	187	161	163	165	166	168	170	172	173	175	177	179	181	183	187	-	n.a.
Iran	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	4,370	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Iraq	4,653	4,016	4,060	4,104	4,149	4,193	4,237	4,281	4,325	2,639	4,414	4,461	4,509	4,560	4,603	150	n.a.
Kuwait	2,809	2,425	2,452	2,478	2,505	2,532	2,558	2,585	2,612	1,718	2,665	2,694	2,724	2,768	2,959	150	n.a.
Libya	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Nigeria	1,829	1,579	1,596	1,614	1,631	1,649	1,666	1,683	1,701	1,718	1,735	1,753	1,773	1,796	1,829	-	n.a.
Saudi Arabia*	11,000	9,495	9,600	9,704	9,809	9,913	10,018	10,122	10,227	10,331	10,436	10,549	10,663	10,833	11,500	n.a.	n.a.
UAE	3,168	2,735	2,765	2,795	2,825	2,855	2,885	2,915	2,946	2,976	3,006	3,040	3,075	3,127	3,500	332	n.a.
Venezuela	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Total OPEC	26,883	23,033	23,287	23,539	23,794	24,047	24,300	24,554	24,808	26,780	25,315	25,548	25,885	26,276	27,815	1,132	24,390
OPEC vs. ref.	0	-3,850	-3,396	-3,144	-2,889	-2,636	-2,383	-2,129	-1,875	87	-1,368	-1,135	-818	-407	0	0	-2,393

Non-OPEC	Reference Level Production	July 2021	August 2021	Sept 2021	Oct 2021	Nov 2021	Dec 2021	January 2022	February 2022	March 2022	April 2022	May 2022	Jun 2022	Jul 22	May/22 per Agreement	Change in Ref. Level Post May/22	EIA STEO 2022E Production Aug
Russia	11,000	9,495	9,495	9,495	9,495	9,913	10,018	10,122	10,227	10,331	10,436	10,549	10,663	10,833	11,500	500	n.a.
Kazakhstan	1,709	1,475	1,475	1,475	1,475	1,540	1,556	1,572	1,589	1,605	1,621	1,638	1,655	1,680	1,709	-	n.a.
Oman	883	762	762	762	762	796	804	812	821	829	838	846	855	868	883	-	n.a.
Azerbaijan	718	620	620	620	620	647	654	661	668	675	681	688	696	706	718	-	n.a.
Malaysia	595	514	514	514	514	537	542	548	554	559	565	571	577	585	595	-	n.a.
Bahrain	205	177	177	177	177	185	187	189	191	193	195	197	199	202	205	-	n.a.
Sudan	75	65	65	65	65	68	69	69	70	71	71	72	73	74	75	-	n.a.
South Sudan	130	112	112	112	112	117	118	119	121	122	123	124	126	128	130	-	n.a.
Brunei	102	88	88	88	88	92	93	94	95	96	97	98	99	100	102	-	n.a.
Total Non-OPEC	15,417	13,308	13,308	13,308	13,308	13,895	14,041	14,186	14,336	14,481	14,627	14,783	14,943	15,176	15,917	500	n.a.
Non-OPEC vs. ref.	0	-2,109	-2,109	-2,109	-2,109	-1,522	-1,376	-1,231	-1,081	-936	-790	-634	-474	-341	0	0	n.a.
Total OPEC+	42,100	36,341	36,595	36,847	37,102	37,942	38,341	38,740	39,144	41,261	39,942	40,331	40,828	41,552	43,732	1,632	n.a.
OPEC+ vs. ref.	0	-5,759	-5,695	-5,653	-4,988	-4,158	-3,759	-3,360	-2,956	-839	-2,158	-1,769	-1,292	-846	0	0	n.a.

Source: OPEC

Figure 25: OPEC+ July and June 2022 Required Production

Country	June 2022 Required Production
Algeria	1023
Angola	1480
Congo	315
Eq. Guinea	123
Gabon	181
Saudi Arabia	4509
Iraq	2724
Nigeria	1772
Saudi Arabia	10663
UAE	3075
Azerbaijan	696
Bahrain	199
Brunei	99
South Sudan	126
Kazakhstan	1655
Malaysia	577
Mexico	1753
Oman	855
Russia	10663
Sudan	73
South Sudan	126
OPEC 10	25864
Non-OPEC	16694
OPEC+	42558

Source: OPEC

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Oil – Next OPEC and non-OPEC ministerial meeting (ONOMM) is Thurs June 30

The short press release on the 29th OPEC and non-OPEC Ministerial Meeting (ONOMM) noted that the next ONOMM meeting will be held on Thursday June 30, 2022. We assume it will be via videoconference again. And also a short one given the reports that OPEC+ is planning a similar MoM increase for August.

**OPEC+ meeting
June 2**

Oil – Biden setting the stage to go to Saudi Arabia to meet MBS in June

We have a 7am MT news cut off so we are writing ahead of the Sunday cable news shows. But as of our cut off, it seems like Biden's potential trip to Saudi Arabia to meet with MBS will not happen in June, but will be postponed until sometime in July. The US messaging over the past week has accelerated in their praise for Saudi Arabia and specifically MBS, which we saw as a prelude to a firm trip announcement. (i) We should note that we haven't see any direct Saudi reports of this meeting to happen, only, at least so far, Saudi media posting a western media story. We don't know if the postponement is linked to that. if so, we wonder if Saudi needs to see more or want more from the US before formally noting a meeting. (ii) But from the White House/Biden side, we have seen steadily increasing praise of Saudi and now specifically MBS. They are certainly setting high expectations for the White House to soon confirm the leaks that Biden will be travelling to Saudi Arabia to meet Crown Prince MBS. We suspect that for appearance sake, Biden will meet with the King and MBS, but then move into a meeting with MBS. On Thursday, we tweeted [\[LINK\]](#) "Looks like #WhiteHouse is in setup phase for #Biden to meet #MBS. Note 🗨️ difference how #WhiteHouse describes Saudi role in Yemen truce today vs Apr 1. MBS must be chuckling. But can Saudi really do much to force #Oil lower if China reopens & RUS oil keeps going lower? #OOTT." We are big believers in trying to monitor what the White House says to see if there are changes in messaging that point to a change in policy or change in direction. And the White House's June 2 press release on the 2-month extension to the Yemen truce had a clear difference, a much more complimentary view of Saudi Arabia's role in the truce when we compared it to their April 1 press release on the Yemen truce. The new Biden statement elevates Saudi Arabia to a more significant role than Oman and more. Portraying Saudi in a much better manner will make it easier for Biden to justify a trip to Saudi Arabia. On April 1, Biden's statement said "I am grateful for the leadership role of Saudi Arabia and Oman in bringing this initiative to fruition". Biden's June 2 statement said "Saudi Arabia demonstrated courageous leadership by taking initiatives early on to endorse and implement terms of the UN-led truce. Oman played a central role in hosting and facilitating dialogue." Our tweet noted that we don't see Saudi Arabia being able to force down oil prices if China reopens and Russia's oil production keeps getting worse. Then on Friday, we tweeted [\[LINK\]](#) "US compliments keep getting better & now specifically praise #MBS. "We specifically recognize the leadership of King Salman and the Crown Prince of Saudi Arabia in helping to consolidate the truce". Wonder what KSA will get in this trade besides Biden's mea culpa? #OOTT." That was the quote from White House Press Secretary Jean-Pierre. Our Supplemental Documents package includes the Biden April 1 and June 2 statements and the White House June 5 statement.

**Biden setting
stage for MBS
meeting**

Oil – Vitol, smart money is Saudi sustainable capacity is 11 point something

As usual, there was some excellent food for thought on oil from Mike Muller (Head, Vitol Asia) on his monthly appearance on the Gulf Intelligence PODCAST: Daily Energy Markets earlier

**What is Saudi
"sustainable"
spare capacity?**

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

this morning. [\[LINK\]](#). Earlier this morning, we tweeted [\[LINK\]](#) “Buckle up! #Vitol Asia head @michaelwmuller “smart money is of the view that the Saudi current sustainable production limit is somewhere 11 point something”, a huge gap vs “surge” KSA #Oil of high 12’s mmbd. Very bullish for oil as demand keeps going up. Thx @gulf_intel. #OOTT.” Everyone knows Saudi Arabia has spare capacity, but Muller reminds there is a big difference between what Saudi can produce on a surge basis, vs what they can or want to produce on a sustainable basis. That becomes even more critical in a still recovering oil demand market. If Saudi’s “sustainable” oil capacity is 1 mmb/d less than what most expect, it is a big plus to oil for the 2020s. We created a transcript of Muller’s comments. At 3:30 min mark, Muller “.. what actually happens to OPEC+ output of course is a different matter. There is a commonly held view that really only the UAE and Saudi have spare capacity. And the debate now focuses on what exactly is that number, what can those two countries produce, sustainably. Because no one really knows, it’s subsurface and it’s not been tested other than a couple of surge production, high watermarks set by the Saudis to much fanfare, of course, just before Covid struck and those were in the high 12’s. But the smart money is of the view that the Saudi current sustainable production limit is somewhere 11 point something and that’s a pretty wide range. And yes, the quota gets them to 10.8 and above. And we must remind ourselves that most OPEC+ members are already at their limits and therefore this provides an open door for Saudi and UAE to make up the shortfall. Notably also, some may recall there was a month, which I believe was March, just a few months back, when the Saudi OSPs went very because of the formula and a lot of people felt that was too much at once and there was an undenomination. So I think there is a little up their sleeves as well.”

Oil – Saudi nest egg, its net foreign assets up MoM, but down \$16.8b since Nov 2020

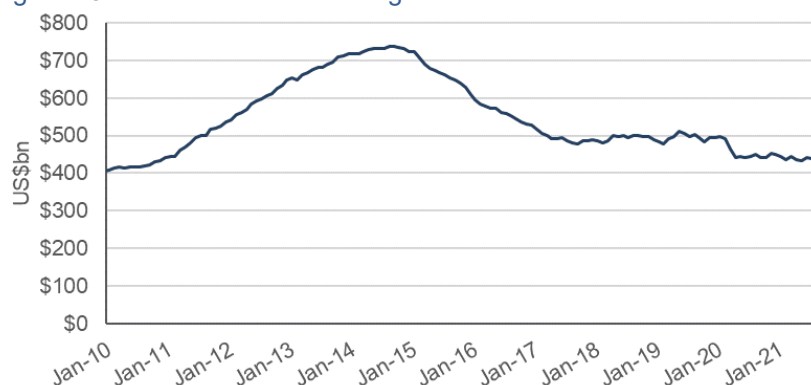
We continue to see key financial reasons why Saudi Arabia is going to do all it can to maintain high oil prices (ie. say >\$80) for the foreseeable future. And we continue to believe the #1 financial theme for Saudi Arabia in the 2020s will be their continued, and likely increasing, use of Other People’s Money as they try to transition their country to MBS’s Vision 2030. We are surprised that markets and oil watchers don’t seem to pay much attention to the Saudi net foreign assets data ie. what we call their nest egg to help them thru the Energy Transition. As a reminder, Brent oil averaged >\$100 in April, yet Saudi Arabia’s net foreign assets at April 30 were only up \$1.1b MoM to \$435.3b vs \$434.2b in March, but down \$16.8b from \$452.1b in Nov 2020. Oil prices have been \$100 since Russia/Ukraine, but they were still basically still over \$70 in Dec and over \$80 in Dec. With the decline in net foreign assets, it reinforces that there is a lot more on the cost side to Saudi Arabia. Saudi Arabia is far from going broke but there has been a huge decline in the last 7 years, but it is still a very big nest egg. This net foreign asset depletion is why we have been highlighting that the primary financial theme for Saudi Arabia in the 2020s is getting Other People’s Money (OPM) to fund as much of their Vision 2030 as possible. And no question, accessing OPM has helped to slow down and temporarily pause the decline in net foreign assets, at least up until the past few months. Saudi Arabia’s central bank (SAMA) doesn’t provide explanations for the monthly swings. But it looks like it is trending back towards November levels as oil prices remain elevated. Saudi net foreign assets on April 30 of \$435.3b are down \$0.96b YoY from \$436.4b at April 30, 2021. The peak in Saudi net foreign assets was \$737.0b on Aug 31, 2014, which means there has been a decline of >\$300.0b, or approx. \$3.5b per month for that period. We believe this is why there has been such a big push in the last few use to get OPM so Saudi doesn’t keep depleting its nest egg. And why we call this

Saudi net foreign assets down \$16.8b since Nov 2020

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

the #1 financial theme for Saudi Arabia in the 2020s – the increasing use of Other People’s Money. And not just in Saudi Aramco, although we do expect to see more equity and bond sales from Aramco. Below is our graph of Saudi Arabia net foreign assets updated for the April 30 data.

Figure 26: Saudi Arabia Net Foreign Assets



Source: Bloomberg

Oil – Would Saudi or Iran be better for Biden lowering oil/gasoline prices?

There is no question the US is clearly messaging the expectation for Biden to go to Saudi Arabia to meet with MBS. And we have noted that if he does do so, it would point to the US not going back into the JCPOA. We can’t believe Biden would go back in the JCPOA and then go meet MBS, nor go meet MBS and then sign JCPOA. Imagine how that would kill any Saudi relationship. The key reason for Biden’s expected trip to MBS is to get their support for getting more oil on the market and lower gasoline prices. We had Twitter replies to our Biden MBS tweets and then we replied [\[LINK\]](#) “agreed, but he needs to ticks some boxes before it gets too close to the election. given his pariah comments, i am surprised he didn’t move on JCPOA, he is big on campaign promises. and it would add more oil on a sustainable basis.” We would have thought that letting Iran oil back on the market would add more barrels on a sustainable basis than Saudi upping production. Most use a number of around another 1 mmb/d of Iran oil (plus some condensate) would come back quickly for a sustained period. We think that is more likely than Saudi Arabia increasing and maintain an additional 1 mmb/d.

Iran vs Saudi for more sustained production

Oil – Will Biden let more Iran hit market if no JCPOA? What will Israel then do?

There was another great food for thought comment from Mike Muller (Head, Vitol Asia) this morning – his comments on likely more Iran barrels hitting the market in the run up to the US mid-terms even without a JCPOA. Earlier this morning, we tweeted [\[LINK\]](#) “What will will Israel do vs Iran if no #JCPOA & advancing nuke capability. #Biden letting some (maybe a little more) Iran #Oil hit market was okay at \$55, but \$120 is big help to Iran finances. 1 mmbd @\$65 delta = \$1b more every 15 days. Thx @michaelwmuller @sean_evers #OOTT.” Muller noted the increasing likelihood for no JCPOA prior to the mid-terms, but also that the US would allow a little bit more of Iran sanctioned oil to hit global markets. He said “And the US intervention in these flows has always been pretty sparse anyway. So whilst I

Will Biden let more Iran oil hit market?

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

don't think there is going to be a deal, I think the clamping down and arresting of ships even though there was some going on in the Aegean Sea and Mediterranean just recently and then a reciprocal arrest of ships in the Hormuz area. I think there is a chance that Uncle Sam might allow just allow a little bit more of that oil to flow, which is not good for markets because it creates a three-tier market if you like." When Biden took office, Brent was \$55, Iran was hurting as were many countries due to Covid and letting Iran sanctioned oil hit the market wasn't a huge financial deal. However, Brent is over \$120 and our tweet reminded that the difference in revenue to Iran on 1 mmb/d vs \$55 is an incremental \$1 billion in revenues every 15 days. So no JCPOA means Iran keeps advancing its nuclear program and the big difference vs Biden becoming President is that Iran's sanctioned oil barrels is producing big cash flow. And if Muller is right (we think he is) on Biden perhaps letting a little bit more Iran sanctioned barrels out, then it seems like Israel will soon have to make a decision on what to do with Iran getting closer to nuclear capability while also getting stronger financially. It certainly seems like increasing risk to Middle East stability and therefore oil and also LNG. Our Supplemental Documents package includes the transcript we made of Muller's comments.

Oil – Will sanctions on Russia oil be what forces Iran to give in on JCPOA?

We have to wonder if the lever that will force Iran to give in and try to get JCPOA done will be Europe's move to ban Russia oil imports. Last week's (May 29, 2022) Energy Tidbits memo highlighted the Bloomberg report on the big ramp up in China tankers taking ESPO oil. ESPO is the East Siberia-Pacific Ocean oil pipeline. China already has just under half of the ESPO capacity pipeline connected and now they are taking more of the tanker delivered oil that would go to Japan, Korea and other markets. Clearly China is the key target market for Russia oil. This is a key factor for Iran's sanctioned oil. Russia is being forced to go after Iran's key market in China. Plus there is Venezuela trying to get more oil into China, which will be helped by more Iran diluent to Venezuela increasing sanctioned Venezuelan oil. Plus China is Saudi Arabia's key Asian market. If Iran sees Russia's impact being longer (as it now looks), won't they almost be forced into giving in on JCPOA to get sanctions removed on its oil so it can compete in places like Europe as a good substitute for Russia's Urals oil? Sanctions on Iran mean they can only go after markets like China that will take sanctioned oil.

Will Iran give on JCPOA?

Iran should worry China will try to take most of Russia's 1.6 mmb/d ESPO oil?

This is why we think Iran has to be worried about Russia's taking more market share in China – the transportation costs are less for China to take Russia as it is either pipeline connected or a quick approx. 5 day tanker trip. Here is what we wrote in our May 29, 2022 Energy Tidbits. *"After seeing the above Bloomberg report on tankers to take Russian ESPO oil, we couldn't help think of the big picture – will China be able to take all of the 1.6 mmb/d of ESPO oil capacity. If so, it will help Japan and Korea reduce Russia oil imports because there won't be any of the close by ESPO pipeline grade crude oil. ESPO stands for the East Siberia-Pacific Ocean oil pipeline. ESPO pipeline is ~1.6 mmb/d capacity, but splits off into a China leg that has capacity of approx. 0.7 mmb/d with the balance going on to Russia refineries consumption of approx. 0.3 mmb/d and the balance approx. 0.6 mmb/d for tanker exports via its export terminal that is basically adjacent to China and Japan. Note these are*

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

approximates. It led to our tweet [\[LINK\]](#) “JPN KOR being forced to find alternative to RUS ESPO crude. @iamsharoncho reports big ramp up in China tankers taking ESPO oil. ESPO pipeline ~1.6 mmb/d capacity. Can China take it all, not just pipeline connected portion? Great map from @IHSMakit Carol Zu. #OOTT.” This would be significant. Clearly, China is increasing its share of ESPO oil via tankers, We weren’t able to find any precise export splits, but we saw a number of reports from earlier this year that point to approximately 2/3 of ESPO to China, the balance to Japan, Korea and others. That makes sense as it would suggest China only got ESPO via its pipeline leg and not via tanker. This would be significant to Japan and Korea as they will have to find ESPO equivalent oil and from some much longer tanker voyage ie. landed cost of oil will be more expensive. Below is a good IHSMakit map that we put in our tweet.”

Figure 27: East Siberia-Pacific Ocean Oil Pipeline



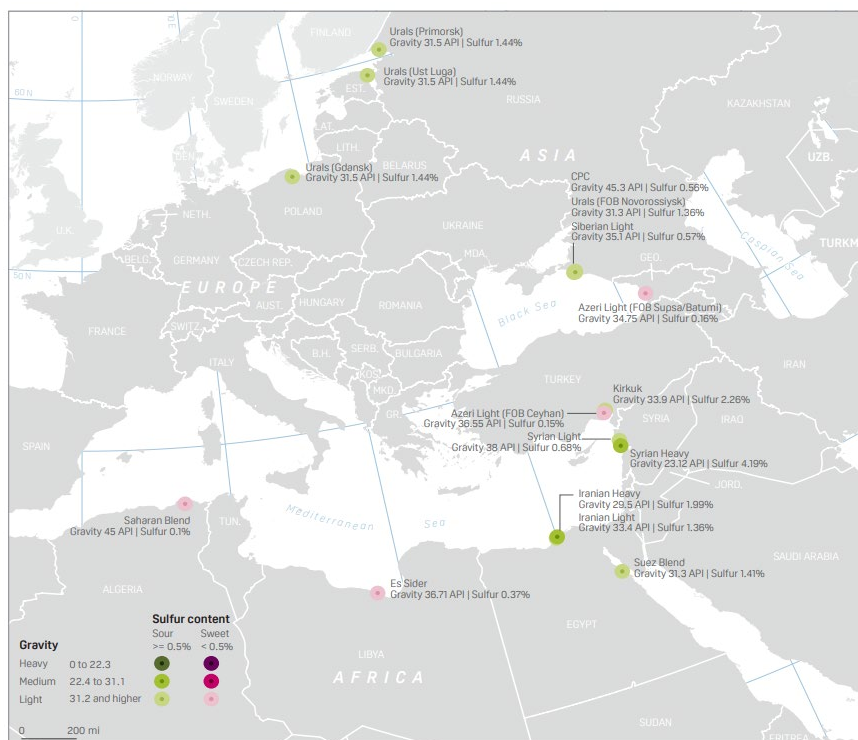
Iran’s oil would be a good crude quality replacement for Urals crude to Europe

Our concern for Iran is that Russia will squeeze it out of its get China market. And, if so, it will run out of major markets that will take sanctioned oil. But if Iran returns to the JCPOA and sanctions on oil are removed, they have a ready market in Europe replacing Russia’s Urals blend. Post Russia’s invasion, our March 13, 2022 Energy Tidbits wrote “Iran’s oil would be a good crude quality replacement for Urals crude in Europe. On Wednesday, we tweeted [\[LINK\]](#) on a good reminder from the Gulf Intelligence daily Podcast [\[LINK\]](#) that Iran’s crude oil quality would be a good replacement for Russian Urals crude oil to Europe. We tweeted “#JCPOA. Good reminder from @gulf_intel podcast. Matt Stanley @starfuels reminds Iran light matches API and H2S very well and is a good substitute RUS Urals. See below @SPGlobalPlatts crude specs map. #OOTT”. Our tweet included the below Platts map that noted crude qualities for Russia were Urals (Primorsk) 31.5 API 1.44%

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

H2S, Urals (Ust Luga) 31.5 API 1.44% H2S, and Urals Gdansk 31.5 API 1.44% H2S, which compares to Iranian Light 33.4 API 1.36% H2S.”

Figure 28: Platts Specifications Guide Europe and Africa Crude Oil



Source: S&P Global Platts

Source: Platts

Oil – Libya plans to export 633,000 b/d of crude in June

Last week’s (May 29, 2022) Energy Tidbits memo highlighted Libya’s oil minister Oun’s comment that Libya oil production had risen to around 750,000 b/d after being down to 600,000 b/d due to a blockade amid political protests in the country. On Monday, Bloomberg reported on Libya’s loading schedule for June, which estimates exports of 633,000 b/d of crude in June, compared with 652,000 b/d in May. This level of exports would seem to be consistent with Oun’s comment that Libya is producing around 750,000 b/d. Our Supplemental Documents package includes the Bloomberg report.

Libya plans to export 633,000 b/d

Oil – Libya’s oil leak hit 22,000 b/d, not 220,000 b/d, for a few days

There was some initial confusion about the Tuesday report of the pipeline leak in the Sarir field line from the Arabian Gulf Oil Company (part of the Libya National Oil Corporation). The initial reports were that it caused a shut down of 220,000 b/d. Seeing media reports of 220,000 b/d caught our attention, but we went to the AGOC Facebook page and then tweeted [\[LINK\]](#) “If Saudi gives in & cranks up #Oil, it means less surplus capacity & any major

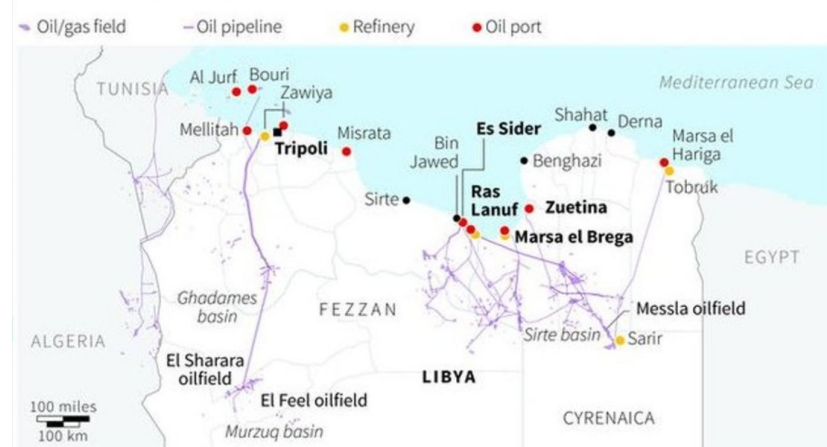
Minor Libya oil leak

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

interruption means big price spike. Then remember key concept - any near term oil supply surprise is almost always to the downside. It may be small but Libya oil leak leads to loss of 22,000 bpd #OOTT “. Our tweet included the AGOC Facebook posting and the Google Translate that said “A leak in the Sarir field line, Tobruk, leads to a loss of 22,000 barrels per day. Due to the delay in budgets and the inability of the company’s management to maintain the oil transmission lines in all the company’s fields, as well as its affiliated facilities, which led to a leak in the fire bed line near the poster station 10 km and a loss of 22000 thousand barrels per day.” The AGOC noted that the leak was fixed by Friday. Our Supplemental Documents package includes the AGOC Facebook posting and the Google Translation.

Figure 29: Libya Ports, Major oilfields and Terminals map

SAF Group Compiled Libya Ports & Terminals Status



Source: Bloomberg, HFI Research, SAF
<https://safgroup.ca/news-insights/>

Source: SAF Group

Oil – China is the big winner from EU’s ban on RUS oil & sanctions on Iran, VEN oil

Earlier we noted why we think Russia’s push to increase oil to China is a big threat to Iran. But it reminds that the big winner in Europe’s ban on Russian oil is China. China is the major oil market for the major oil exporters and now has discounted Russian oil in addition to discounted sanctioned Iran and Venezuela barrels. It’s why we believe the big winner in the US leading the sanctions on Russia is China. On Friday, we tweeted [LINK](#) “no question, China is big winner (India also) with three sanctioned major #Oil producers (Russia, Iran, Venezuela) competing to get sanctioned oil into China. And Saudi wanting to defend its big market. Looks like several years of China getting discounted oil barrels. #OOTT” in response to one of Twitter followers replying “China has Biden over the barrel, so to speak!”.

China is the big winner in EU ban on Russia oil

Oil – Beijing enters mop-up phase of latest Covid, Shanghai port reopening

We continue to see reports of China reopening after the latest Covid in Beijing and Shanghai. (i) Last night, we tweeted [LINK](#) “Positive for #Oil. “Beijing has entered the mop-up phase after the latest outbreak of COVID-19, Beijing government spokesperson said at a news conference on Saturday” “number of daily infections in Beijing has continued to decline”. Our

Beijing and Shanghai reopening

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

tweet referenced the Global Times report. [\[LINK\]](#). (ii) On Friday, South China Morning Post reported “China’s shipping industry readies for surge in demand as Shanghai restarts its export machine” [\[LINK\]](#). And “• Export volumes are predicted to jump at Shanghai Port, the world’s busiest in terms of container throughput, as the city reopens after a two-month lockdown. • Demand for ocean freight services and container shipping costs are expected to tick up as firms from Shanghai and surrounding areas rush to get goods out.” Our Supplemental Documents package includes the Global Times and South China Morning Post reports. .

Oil – JP Morgan CEO Dimon kind of thinks \$150 or \$175 oil is in the cards

JP Morgan CEO Jamie Dimon got a lot of coverage for his June 1 comments at a US sellside conference. (i) The headlines were all on his hurricane is coming fear for the near term outlook for the world’s economy. Dimon said “So, those three things; fiscally induced growth, QT, Ukraine war, so I’m going to change the storm clouds out there because I -- look, I’m an optimist. I said there’s storm clouds, they’re big storm clouds, they’re -- it’s a hurricane. It’s, we -- right now it’s kind of sunny, things are doing fine, everyone thinks the Fed can handle this. That hurricane is right out there down the road coming our way. We just don’t know if it’s a minor one or Superstorm Sandy or -- yes, Sandy or Andrew, or something like that. And it’s -- see, you better brace yourself.” (ii) The overlooked comment was Dimon thinks \$150 or \$175 oil is in the cards. We tweeted [\[LINK\]](#) “Overshadowed by his hurricane, better brace yourself comment, #JamieDimon “We’re not investing enough money to keep oil -- remember, and for all those who love climate change, if oil prices go to \$175 or \$150, which I kind of think is in the cards, to tell you the truth” #OOTT”. Our Supplemental Documents package includes excerpts from Dimon’s June 1 comments.

**Jamie Dimon
sees \$150 or
\$175 oil**

Oil – Pakistan is a reminder of developing country financial risk & therefore oil

Last week’s (May 29, 2022) Energy Tidbits memo highlighted the reminder from Gita Gopinath (IMF, First Deputy Managing Director) on the fear that rapid increases in food prices are likely to develop balance of payment problems. We were reminded of that this week with the rapidly worsening financial problems in Pakistan, who are burning thru their foreign reserves . On Friday, Bloomberg reported “Pakistan’s foreign exchange reserves fell below \$10 billion, threatening to spill over into a fullblown economic crisis unless policy makers secure a loan from the International Monetary Fund. The stockpile decreased by \$366 million in the week ended May 27 to stand at \$9.72 billion, the central bank said in a statement on its website Thursday. That’s roughly a 50% drop from August and enough to pay for less than two months of imports. The shortage of dollars could worsen as the nation forecasts its trade deficit will widen to a record \$45 billion in the year ending June. Authorities have raised fuel and electricity prices, a key condition to unlock the remaining \$3 billion of an existing loan by the multilateral lender. In addition to raising fuel prices, Pakistan will need to make further fiscal adjustments to narrow the budget deficit for fiscal year 2023 to secure the IMF loan, said Raphael Mok, head of Asia country risk at Fitch Solutions in Singapore. This will likely entail measures to boost tax collection and to reduce subsidies and capital expenditure, he said.”

**Pakistan burning
thru foreign
reserves**

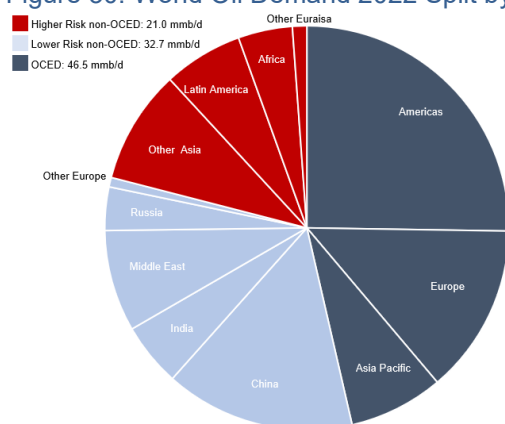
Higher risk non-OECD countries represent 21.0 mmb/d of oil demand

Here is what we included in last week’s (May 29, 2022) Energy Tidbits memo as part of the IMF’s Gopinath’s comments. We then wrote “It is impossible to define exactly

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

how much of the world's 2022 oil demand is at high risk and the follow on impact as poorer countries try to deal with the increasing Food Crisis. We tried to take OPEC's current forecast for 2022 oil demand of 100.3 mmb/d and do an approximate split of non-OECD into higher risk for food crisis to impact oil demand ie. those regions that are more likely to have a direct impact on oil demand. Then that raises the question of how this Food Crisis in poor developing countries spills over to impact oil demand in lower risk non-OECD countries and in OECD countries. Unfortunately, we don't have by country demand so had to included broad group. Our rough split is higher risk non-OECD with 21.0 mmb/d demand vs lower risk non-OECD with 32.7 mmb/d and OECD at 46.5 mmb/d."

Figure 30: World Oil Demand 2022 Split by non-OECD vs OECD



Source: OPEC, SAF Group

Oil – A products squeeze, 4.4 mmb/d of refinery capacity shut down since Jan 1/2020

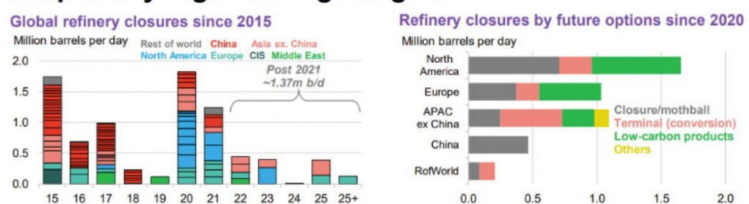
The lack of surplus refining capacity has moved up to be the focus for markets and the oil industry. Last week's (May 29, 2022) Energy Tidbits wrote "Sooner or later, the world is going to focus on refinery capacity to produce gasoline, jet fuel, diesel, etc. The amount of these finished products in the market is limited by the refinery capacity. It's too bad the media only goes where they are led by the politicians because instead of only hammering home why doesn't OPEC release more or US drill more oil wells, they would be asking why don't the US, EU and other countries move to restart recently closed oil refineries to produce more diesel, gasoline and jet fuel for future years. We understand why Biden and others don't talk about the key reason for gasoline, diesel and jet fuel prices going way higher than what should be expected with the oil price rise as they know they can't do anything about that. And also that it was the push they led to have reduced emissions among integrated oil companies led to this issue – the shutdown of global refinery capacity. On Tuesday, we tweeted [\[LINK\]](#) "Focus by #Biden @fbirol is on short term oil supply (want more #OPEC, shale), but don't have answer for big 2022 problem - refining capacity to produce #Diesel #Gasoline #JetFuel. 4.4 mmbd shut down since Jan 1/2020 driven by #ESG pressures. Thx @BloombergNEF Sisi Tang. #OOTT". BloombergNEF posted a Refinery Closure Tracker that noted there has been 4.4 mmb/d of refinery capacity shut down since Jan 1, 2020. They

Refinery closures

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

included the blow graph that notes there is another 750,000 b/d of refinery capacity to shut down by the end of 2023.”

Figure 31: Scheduled global refinery closures
Another 750k b/d capacity set to close by end 2023, despite sky-high refining margins



Source: BloombergNEF, CNPC ETRI, company announcements. Note: Includes plans to close, convert and mothball. See attached database for more details.

- In the next few years, nearly 1.4 million barrels per day (b/d) of oil refining capacity has been earmarked for closure, of which over 750,000 b/d will occur in the next 18 months. This is in addition to the 3.1 million b/d of refinery closures in 2020 and 2021, when Covid-19 wreaked havoc on global oil demand.
- Closures in the past two years have contributed to the recent record-high refining margins. As oil demand rebounds to pre-pandemic levels in Europe and the US, supply has fallen short due to some permanent capacity closure in the downstream sector as well as disruption to oil and product flows from Russia.
- However, sky-high refining margins in the short term have not slowed down refiners in rationalizing their assets. The most recent example is LyondellBasell's 268,000 b/d Houston refinery in the US, which will cease operations by 2023. The decision comes after years of futile searching for a potential buyer, which has become increasingly difficult amid the recent global green push.
- More refining assets are up for sale as oil companies seek to optimize portfolios to achieve their net-zero targets. Shell and BP are now looking to sell their joint venture Sapref, South Africa's biggest refinery. Marathon Petroleum is also in discussions to sell its Kenai refinery in Alaska as the company shifts away from fossil fuels and focuses on renewable fuels.

1 May 24, 2022 Source: BloombergNEF BloombergNEF

Oil – BNEF, mobility falls as drivers feel impact of high gasoline prices

It looks like two key driving mobility theme are playing out – drives are responding to very high gasoline prices and people want to get out when an area, in this case China, relaxes Covid restrictions. On Friday, BloombergNEF posted its Global Road Traffic Indicators and highlighted that Europe mobility metrics fell 3.5% WoW. Meanwhile, May congestion levels in China posted gains with news of lockdown restrictions easing. On Friday, we tweeted [\[LINK\]](#) “Global mobility metrics fall as drivers feel impact of high #Gasoline prices at the same time as high food prices. Exception is China where overriding factor is relaxation of some Covid restrictions. Thx @BloombergNEF Claudio Lubis, @WayneTanMing, @DavidDo26949144. #OOTT”. Our Supplemental Documents package includes excerpts from the BNEF Global Road Traffic Indicators report.

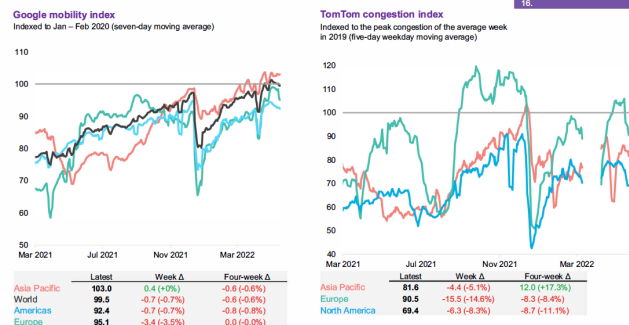
Most driving is needed

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Figure 32: BloombergNEF Mobility Indicators

Comparing the three mobility indicators
High fuel prices deter EU drivers, as mobility metrics fell

The Apple Mobility reports were discontinued on April 14, 2022. We will resume reporting TomTom congestion data, which was previously updated to March 16.



Source: BloombergNEF

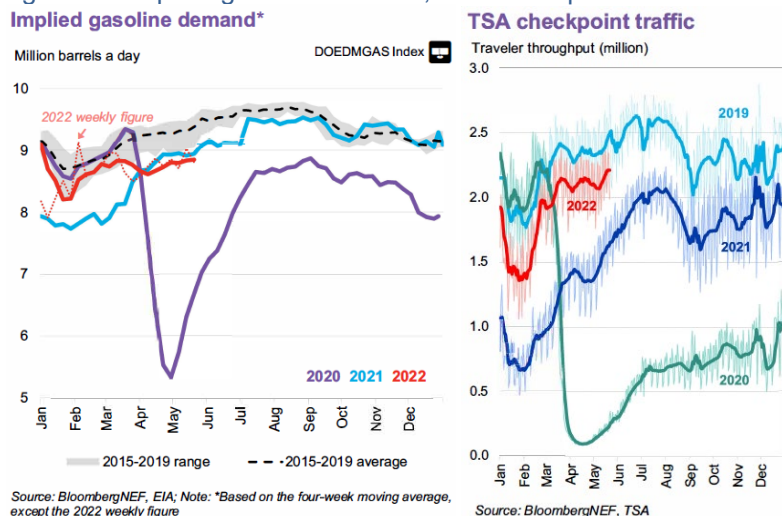
Oil – Mobility indicators suggest high prices are impacting gasoline and jet fuel

Later, we note the comments from the CEOs from American Airlines, Delta Airlines and United Airlines and how they are only seeing great near term air travel demand. From the non-industry perspective, this week’s BloombergNEF U.S. Oil Indicators Weekly report showed that high gasoline prices and higher airfares are starting to influence people. On Monday, we tweeted [\[LINK\]](#) “Price response. US #Gasoline #JetFuel consumption “implied demand figures for both fuels sliding this week” writes @BloombergNEF. Thx BNEF Danny Adkins. #OOTT”. Jet Fuel demand continues to hover around 90% of 2019 levels, while weekly gasoline products supplied slipped below 9 mmb/d with demand falling further behind the seasonal average. One of BNEF’s key messages was “Mobility metrics fell across the Americas last week while flatlining around the rest of the world”. Bloomberg also highlighted that US refiners are boosting run rates, with Gulf refiners up to 97.4% last week, which is the highest since 2020. Our Supplemental Documents package includes excerpts from the BloombergNEF report.

US oil demand indicators

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Figure 33: Implied gasoline demand, TSA checkpoint traffic



Source: BloombergNEF

Oil – Vortexa crude oil floating storage 87.72 mmb as of June 3, -12.8 mm WoW

We are referencing the Vortexa global crude oil floating storage data posted on the Bloomberg terminal as of noon MT yesterday. Note that these estimates get revised over the course of the week and the revisions can go back months. We do not check daily for the revisions, so our comments today are compared to the prior weeks Vortexa estimates posted on Bloomberg on May 29 at 6am MT. (i) As of noon MT yesterday, Bloomberg posted Vortexa crude oil floating storage estimate as of June 3 was 87.72 mmb, which is -12.8 mmb WoW vs upwardly revised May 27 of 100.52 mmb. Note May 27 was revised +1.73 mmb from the 98.79 mmb posted on Bloomberg as of 6am MT on May 29. (ii) Other than the new June 3 estimate of 87.72 mmb, there weren't any material or significant revisions to the last several weeks of estimates compared to those posted on the Bloomberg terminal as of 6am MT on May 29. (iii) Other than the 87.72 mmb as of June 3, crude oil floating storage has generally been in the 100-105 mmb range. (iv) June 3 estimate of 87.72 mmb is -133.63 mmb vs June 26, 2020 peak of 221.35 mmb. (v) Note that the below graph goes back 3 years and not just 2 years as floating oil storage was in the big ramp up period in late March/April/May 2020 as Covid started to have a huge impact. June 3 estimate of 87.72mmb is +40.95 mmb vs pre-Covid of 46.77 mmb on June 3, 2019. Note June 3 estimate of 87.72 mmb vs post-Covid of 188.41 mmb on June 5, 2020. (vi) Below are the last several weeks of estimates made as of noon MT yesterday, May 29 at 6am MT today, and May 21 at 1pm MT.

Vortexa crude oil floating storage

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Figure 34: Vortexa Floating Storage as of June 3 Posted on Bloomberg noon MT yesterday



Source: Bloomberg, Vortexa

Figure 35: Vortexa Estimates June 4 noon MT, May 29 6am MT, and May 21 1pm MT

Est as of June 4, noon MT					Est as of May 29, 6am MT					Est as of May 21, 1pm MT				
FZWWFST VTXA Inde					FZWWFST VTXA Inde					FZWWFST VTXA Inde				
ID	3D	1M	6M	YTD	ID	3D	1M	6M	YTD	ID	3D	1M	6M	YTD
06/02/2019				06/03/2022	05/26/2019				05/27/2022	05/19/2019				05/20/2022
Date Last Px					Date Last Px					Date Last Px				
Fr	06/03/2022			877.19	Fr	05/27/2022			987.94	Fr	05/20/2022			936.90
Fr	05/27/2022			100.524k	Fr	05/20/2022			99.945	Fr	05/13/2022			111.179k
Fr	05/20/2022			99.092	Fr	05/13/2022			107.943k	Fr	05/06/2022			101.029k
Fr	05/13/2022			106.368k	Fr	05/06/2022			96.610	Fr	04/29/2022			104.849k
Fr	05/06/2022			96.040	Fr	04/29/2022			101.589k	Fr	04/22/2022			106.645k
Fr	04/29/2022			100.888k	Fr	04/22/2022			102.899k	Fr	04/15/2022			108.614k
Fr	04/22/2022			101.224k	Fr	04/15/2022			106.256k	Fr	04/08/2022			105.863k
Fr	04/15/2022			106.867k	Fr	04/08/2022			102.156k	Fr	04/01/2022			93.843
Fr	04/08/2022			101.242k	Fr	04/01/2022			91.461	Fr	03/25/2022			94.703
Fr	04/01/2022			91.669	Fr	03/25/2022			91.549	Fr	03/18/2022			97.726
Fr	03/25/2022			90.456	Fr	03/18/2022			95.244	Fr	03/11/2022			95.861

Source: Bloomberg, Vortexa

Oil – Caixin PMI for May is up at 48.1, after last month at 46.0

The China story is less about looking back but looking forward given the reopening of Shanghai and the relaxation of some restrictions in Beijing. On Tuesday evening, we tweeted [LINK](#) on the just released Caixin China Manufacturing PMI data for May. We tweeted “China Caixin PMI for May 48.1 vs Est 49.0 & April 46.0. “May survey data signalled a move towards more stable operating conditions across China’s manufacturing sector, as firms signalled notably softer falls in both production and new orders.” Thx @IHSMARKITPMI #OOTT”. Better than April but still not as good as expected. But the story in China is about the Shanghai reopening. IHS highlighted “May survey data signalled a move towards more stable operating conditions across China’s manufacturing sector, as firms signalled notably softer falls in both production and new orders. Firms also registered a slower reduction in purchasing activity, though supply chain delays remained severe overall. Prices data meanwhile showed that the rate of input price inflation moderated but remained strong, but efforts to attract new business led to a renewed fall in selling prices. Companies were more

Caixin PMI up in May

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

cautious around the 12-month outlook for output in May, with overall optimism slipping to a five-month low amid concerns over the longevity of COVID-19 restrictions and the war in Ukraine.” Our Supplement Documents package includes the Caixin release. [LINK](#)

Oil – United Airlines CEO sees no hint of demand destruction from high prices

At a US sellside conference on Wednesday, United Airlines CEO Scott Kirby made it very clear what he thinks of the assumption that airline bookings are going to go down with the recent increases in jet fuel prices. On Thursday morning, we tweeted [LINK](#) “Support for #Oil. \$UAL CEO asked if pricing will destroy demand. “not a hint of evidence of weakness or any pricing resistance” “we just got 5 things that are more likely to get better and we're almost back to 2019 levels. That's why we're so bullish”. Thx @SeekingAlpha. #OOTT”. We are glad we weren't the analyst asking the question a couple times as we would have asked the same question if the recent jump in airfares was showing demand destruction. Kirby gave a clear No. And added multiple support reasons that included “But the chart would have shown you more about what -- it would have been actual data for June, July, August, September. Like -- we don't have great data further out you get, but I can tell you for sure, there is not a hint of evidence of weakness or any pricing resistance in our data. That doesn't mean it won't show up, something could change and happen. But there's not even a hint of that in the micro data.” And another key point was “That is despite of the fact that business travel is still ramping. That is despite the fact that long-haul international to Europe, is not going to reach 100% until the testing requirement is removed. And in spite of the fact that Asia is still mostly shut down. We just got five things that are more than likely to get better, and we're almost back to 2019 levels. That's why we're so bullish.” And “So if you're worried about pricing as destroying demand, you're betting against history as being the reason. There's plenty of other things that can go wrong. I'm not saying there aren't, but that's like that's not the one that's going to cause this to be a problem.” There was much more in Kirby's responses to the multiple questions on demand destruction. Our Supplemental Documents package includes the excerpt of Kirby's comments.

**United Airlines
CEO bullish on
air travel**

American Airlines also had bullish near term outlook

On Friday, American Airlines CEO Robert Isom also spoke at the same US sellside conference. Similar to UAL CEO, he isn't worried about the demand outlook. He made multiple positive comments, but one to highlight was the analyst asking about the durability of demand in the face of higher fares. The analyst asked “Question was “wow, things are great now. Unit revenues are up 20%, 30%, whatever they are. But how durable is that? How do you think about, not only like just the impact of higher fares on demand and potentially someday demand destruction, how do you see your fare increases increasing the cost of the average traveler and the average part of your network?” CEO Isom replied “ “Well I just start with -- I'll start with this. I believe, and I think history will show that travel is still an incredible bargain. I think people want to get out there. I think that there is a change in consumer behavior and definitely moving from kind of cocooning in a house and spending on home improvement and moving out to life experiences. So I think that, that is a phenomenon that is out there and that we're seeing take place. I don't think that, that's going to change. I think people are going to really react to the pandemic in a fashion I want to get out there. But going beyond that, look, the economy has grown for the last three years. While there may be some concern about leveling off of

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

growth rates right now, the airlines have not participated for the last three years in any of that growth, obviously right? We're now just getting back to as an industry within 10% of where we were in 2019. So when you ask about, hey, are you concerned? At this point, absolutely not. Again I see a demand for travel. I see an industry that has been more or less constrained and now trying to size back up and still facing those kind of constraints. In terms of pricing, we're now just getting back to where we were in 2019, and barely there. That's all said, again with the backdrop of, hey, there are other pieces of the puzzle that are still coming we have not returned to where we need to be from an international perspective, and I know we're going to talk about that. While small- and medium-sized businesses have been off to the races for months and months, we're still not all the way back from a corporate perspective. I see in international and larger corporates, I see that there is also a pent-up demand that we're still going to have the opportunity to take advantage of. So my perspective is, is that there's a lot of runway. And from where I sit, I've got to make sure I deliver".

Delta Airlines also had very bullish near term outlook

On Wednesday, Delta Airlines CEO Ed Bastian spoke at the same US sellside conference and also had very bullish airline outlook comments. Bastian is very much like the UAL CEO, very bullish on near term airline demand and not seeing signs of a demand hit. Here are a couple of his multiple bullish comments. *"Yes. I think demand is coming in every constituent. It's coming with leisure, it's coming with premium consumer. It's coming with businesses, coming with international. It doesn't matter what the category is. The demand is off the charts. The only thing we can do in this environment in order to protect seats and protect inventory is pricing. It's the only lever you have, candidly, in this market, or else we'd sell everything out. Pricing is also very, very healthy. We expect pricing this summer to be up probably somewhere between 25% and 30% on average. That's -- we've never seen anything of that scale. The markets that we're seeing that are opening internationally, we're seeing the same experience that we're seeing domestically." "All fares are increasing. The premiums are increasing more than the base fares, and that's due to the fact that the product is -- the demand for the product is at an all-time high. One of the interesting things we saw through the pandemic is that the premium products led the way. They were anywhere between 5 to 10 points stronger on a comparative scale than our other products that we sell. And again this is not like a -- unlike other industry. I mean you've got that going in premium categories across various sectors. Those people, once you go into the premium category, they're not leaving, they don't go back in our business. While a lot of businesses may not have been traveling a lot during the pandemic, their employees were traveling, and they were traveling. And businesses now are having to fight their way back onto the airplanes because of the premium consumers that we have. All of that is creating a lot of pricing momentum in our business."*

Oil – New York State announces gas and diesel tax suspension

The US elections are now only five months away so, no surprise, politicians are rolling out the goodies as they try to show they are focused on the issues affecting Americans. New York Gov Hochul is up for election on Nov 8, she took over after Gov Cuomo was forced to leave

New York State gas and diesel tax holiday

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

the office. On Wednesday, we tweeted [\[LINK\]](#) *"Time for election goodies. US elections on Nov 8 also incl races for governor incl New York." Gov Hochul announces start of statewide gas and #Diesel tax holiday "will provide a reduction of at least \$0.16 per gallon statewide". #OOTT #Gasoline"*. In governor Hochul's statement [\[LINK\]](#), she announced the suspension of certain taxes on motor fuel and diesel takes affect on Wednesday and will extend through December. She said, *"By suspending certain fuel taxes for the next seven months, New York is providing some \$609 million in direct relief to New Yorkers -- a critical lifeline for those who need it most."* Our Supplemental Documents package includes the statement from the NY state government.

Oil & Natural Gas – TIPRO Texas oil natural and gas jobs up for 12th straight month

No one should be surprised that the expectation for continued high oil and natural gas prices is driving increasing Texas oil and gas employment. The Texas Independent Producers and Royalty Owners Association (TIPRO) updated their employment figures for the Texas upstream sector for April [\[LINK\]](#). The release noted that employment for April totalled 190,400 marking an increase of 5,200 jobs from the revised March numbers. It was the 12th consecutive month of job growth in the industry since April. The release stated, *"Texas upstream employment for April 2022 totaled 190,400, an increase of 5,200 jobs from March numbers, subject to revisions. Texas upstream employment in April 2022 represented an increase of 26,700 positions compared to April 2021, including an increase of 4,300 positions in oil and natural gas extraction and 22,400 jobs in the services sector."* There has been strong job posting data for April in upstream, midstream, and downstream sectors, showing a continued demand for talent in the Texas oil and natural gas industry. From the release *"TIPRO once again noted strong job posting data for upstream, midstream and downstream sectors for the month of April in line with rising employment, showing a continued demand for talent and increasing exploration and production activities in the Texas oil and natural gas industry. According to the association, there were 11,313 active unique job postings for the Texas oil and natural gas industry in April of 2022. TIPRO also highlighted that the Railroad Commission of Texas issued a total of 946 original drilling permits in April 2022, which compared to a total of 1,176 original drilling permits in March 2022 and 732 in April 2021. According to the U.S. Energy Information Administration (EIA), oil output in the Permian Basin in Texas and New Mexico is due to rise 88,000 barrels per day (bpd) to a record 5.219 million bpd in June as producers respond to higher commodity prices and the call to increase domestic production to address supply shortages."* Our Supplemental Documents package includes the TIPRO release.

TIPRO April jobs update

Oil & Natural Gas – Dalio "resource allocation is political and ideological" not economic

The former Canada finance minister Bill Morneau well reported comments this week included *"That might help you sell a few more memberships, it might even help you win an election. But when you put exciting the base ahead of crafting good policy, when you cynically pander to conspiracy theorists, you're doing incalculable harm to the country you claim to love."* His comments reminded us of Ray Dalio's comments at the World Economic Forum. Last week's (May 29, 2022) Energy Tidbits wrote *"One of our favorite commentaries from the World Economic Forum was Ray Dalio (Founder, Co-Chief Investment Officer, and Member of the Bridgewater Board) on World Economic Forum panel "An Economic Iron Curtain: Scenarios and Their Implications" on May 25, 2022 [\[LINK\]](#). There were multiple good insights. (i) Resource allocation is no longer economic, it's ideological and political. This isn't a surprise,*

Ray Dalio at WEF

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

rather it was a reminder of what we have seen in capital allocation to resources – it isn't about economics anymore. We are seeing this play out in the energy transition. And we are seeing this play out in oil and gas. We have seen huge ideological themes drive resource allocation that is not based on economics. Dalio sets the thesis for that. And we remind that ideology doesn't get changed quickly. It takes time and a lot of pain. After Covid hit, we said if Covid didn't at least throw a big delay push on clean energy, nothing would at least for the near term. Fortunately, Russia has come up to blame for the energy crisis. But what they are doing on fossil fuels is to try to patch it up for a year or two or three, while accelerating climate change items. And they can blame the short term need for oil and gas on Russia even though there was an European energy crisis in 2021. Dalio's comments reinforce this. And any true reality check moment on fossil fuels is still years away and will require more pain. Not just at the pump. It is also important to note ideological risk doesn't have to be in response a war. It's the creating a war ie. the war against fossil fuels. Or it can be creating a war against the wealthy. It's why we tweeted [\[LINK\]](#) "Great @RayDalio insights ie. "the resource allocation system is no longer economic. The resource allocation is political & ideological""those ideologies become the dominant consideration ""the unimaginable is becoming increasingly probably". #Oil #NatGas look good for 2020s #OOTT." (ii) Redefines geopolitical risk. Dalio's comments on how this ideological/political move is to forcing the world to take sides and that adds geopolitical risk. Dalio said "So we see the world, if you read history and you see this happen over and over again. You see the world is now breaking up into sides. It's like there are allied powers and there are axis powers, and there are neutral powers. And those ideologies become the dominant consideration. So it's entirely possible, for example that we could see in China and so on that it's no longer desirable, or politically acceptable to do business in China. It may not be. Now you think about how intertwined the world economy is. 22% of American manufactured goods import come from China. So now just imagine the implications for inflation and inefficiencies. That's just mechanistically what's going on." Our Supplementals Documents package includes the transcript we made of the Dalio comments. "

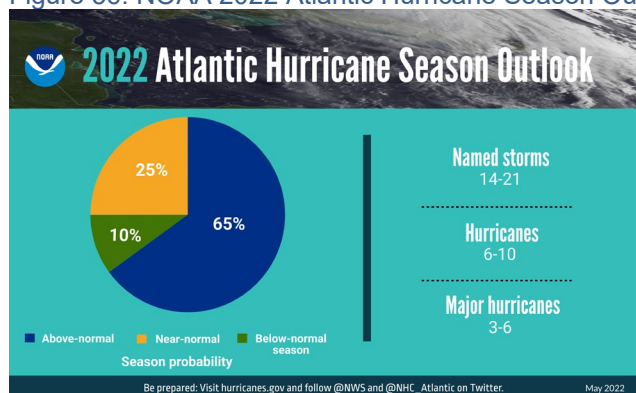
Oil & Natural Gas – NOAA forecasts above average Atlantic hurricane season

The nominal start to Atlantic hurricane season is June 1 and the forecasts have all been for above average hurricane activity. On Wednesday, the NOAA released its forecast for the 2022 hurricane season running June 1 – Nov 30 [\[LINK\]](#). NOAA is expecting a 65% chance of an above-normal hurricane season, 25% chance on near normal, and 10% chance of below normal. Forecasts for an above average hurricane season is a reminder to be prepared for supply interruptions in the Gulf Coast. The NOAA wrote "For the 2022 hurricane season, NOAA is forecasting a likely range of 14 to 21 named storms (winds of 39 mph or higher), of which 6 to 10 could become hurricanes (winds of 74 mph or higher), including 3 to 6 major hurricanes (category 3, 4 or 5; with winds of 111 mph or higher)". The NOAA also reminded of correlation between active hurricane seasons and La Nina/Neutral conditions, the NOAA wrote ""The increased activity anticipated this hurricane season is attributed to several climate factors, including the ongoing La Niña that is likely to persist throughout the hurricane season, warmer-than-average sea surface temperatures in the Atlantic Ocean and Caribbean Sea, weaker tropical Atlantic trade winds and an enhanced west African monsoon". Our Supplemental Documents package includes the NOAA forecast.

NOAA's hurricane forecast

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Figure 36: NOAA 2022 Atlantic Hurricane Season Outlook



Source: NOAA

Energy Transition – Chevron CEO’s wishful thinking on energy transition

Earlier, we noted the headlines from Chevron CEO Mike Wirth’s Bloomberg interview were on his refinery comments. But there was an overlooked reminder concept from his comments that caught our attention. We said he is dreaming if he thinks there can be a common sense approach to the energy transition because that would require leaders like Biden acknowledge that the energy transition wasn’t working and needs changes. We tweeted [\[LINK\]](#) “1/2. Buckle up! #Oil #NatGas to be strong for 2020s. Until #Biden EU etc admit #EnergyTransition wasn't working pre RUS, \$CHV CEO is dreaming for "an honest conversation, a pragmatic and balanced conversation about the relationship between energy and economic prosperity .. #OOTT” and [\[LINK\]](#) “2/2. "... national security and environmental protection. We need to recognize that all of those matter and we can't over index on just one." Assuming EVs etc will lead to reliable, affordable, available energy isn't actually a plan. Thx @adsteel @Chevron CEO Wirth.”

Chevron CEO on energy transition

Chevron CEO reminds us of Emerson’s famous mousetrap saying

One of the replies to our 2/2 Chevron tweet was “So you can see the impact of politicians when interfering into markets...it will become “disruptive” but not to the advantage of customers”. We think there is nothing wrong with politicians being disruptive to the world as long as they have a workable replacement plan. We were reminded of the famous Ralph Waldo Emerson saying “build a better mousetrap, and the world will beat a path to your door.” So we tweeted a response [\[LINK\]](#) “agreed. can be disruptive IF you have a workable better idea. they got the emerson quote out of order. instead of “build a better mousetrap and the world will beat a path to your door”, they got the world to beat a path to they door and now trying to build a better mousetrap.” We believe this is the shortfall with the Energy Transition, there wasn’t an workable plan for this aspiration and that is why oil and natural gas are so strong.

Energy Transition – Sustainable Aviation Fuel is 3-4x the cost of regular jet fuel

Delta Airlines CEO Ed Bastian spoke at a US sellside conference and reminded of the challenge for sustainable aviation fuel (SAF) – it is too expensive and multiple the cost of record high jet fuel prices. Bastian noted that jet fuel prices are at historic highs saying “And fuel prices today are at, again historic highs. So even though we're seeing historic level of fuel

SAF is 3-4x the cost of jet fuel

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

price increase, I think they're up 70-some-odd percent versus 2019 today. We're still only a couple of margin points, a few margin points off of our performance in 2019. So we're covering through pricing". And then later, Bastian noted his reality check why SAF doesn't work for them – its way too expensive, it costs 3-4x more than the current high jet fuel price. Bastian said "Because as energy providers, if you're Chevron or if you're a BP or you're Exxon, we talk to them all the time, they want to be helpful in this. They want to invest themselves because they see the opportunity. But they ask the airlines, how are you going to pay when the cost of this is 3x higher than what you're already paying, which is an elevated price? And we say we can't. We've got to find ways to kind of bring the price down. So there's a lot of people that need to come to the table. The administration is very interested in this. There's -- there's blender tax credits and other forms of subsidies that are available for the energy producers to start to go into to create sustainable aviation".

Last month, Chevron highlighted sustainable aviation fuel is too expensive

Bastian noted Chevron, BP and Exxon in his comments on the cost of SAF. Here is what we wrote in our May 8, 2022 Energy Tidbits on Chevron's comments on the high cost of sustainable aviation fuel. We then wrote "No one should be surprised by Chevron's comments on sustainable aviation fuel (SAF) as they are much like we saw last year by TotalEnergies – SAF isn't cost competitive to regular jet fuel and will need more government incentives to try to make it competitive. Chevron held its Q1 call on Fri April 29. We tweeted [\[LINK\]](#) ""The last thing I'll say is one of this stuff is inexpensive, and sustainable aviation fuel today is not competitive with traditional aviation fuel from a cost standpoint" @Chevron CEO Wirth. #SAF needs more govt incentives. #EnergyTransition will cost big \$\$\$ #OOTT." We created the below transcript of Chevron CEO Wirth's comments as there were too many typos in the Bloomberg transcript. At 46:40 min mark, Mgmt was asked "Another area you were generally bullish on was sustainable aviation fuel. You indicated that long-term you believe this is a big growth market. So can you help us understand since then and going forward, how does Chevron plan to build on its sustainable aviation fuel business?" CEO Wirth replied "obviously aviation demand is going to grow as we go forward and finding a solution is one of the hardest to decarbonize segments of the economy because you need to have high energy density for aviation fuel or planes can't carry much in terms of their cargo. So, it's an area of focus. In a traditional refinery, the distillate portion of the barrel you can move molecules from diesel to kerosene to jet fuel. And in the renewable diesel investments that we're making there's a certain flexibility that you have there as well. And so, we will have the ability to produce. In fact, we've already produced sustainably aviation fuel at El Segundo and we'll see more of that coming through some of our renewable diesel facilities. We have also began negotiations underway with some other companies that have different technologies, that wouldn't necessarily, be the same as what we would do in a refinery and so we're looking at alternate pathways, feedstock partnerships and pathways. You know this is all going to take time to come together, quality control is really important in aviation fuels, reliability of supply is really important. And as we introduce new feedstocks, new technology pathways you have to be really diligent in ensuring that the fuel that you ultimately produce and sell is going to perform in the engines that it's going to be consumed into. The last thing I'll say is none of this stuff is inexpensive, and sustainable aviation fuel today is not competitive with traditional

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

aviation fuel from a cost standpoint. There has been some talk in Washington about various policy incentives that could be put into place to encourage more sustainable aviation fuel. There's a letter that was published by a whole host of people, airlines and others just in the last week or so calling for action. And I think, to see this scale we got to keep working on technology and feedstocks, but it's likely that some sort of policy incentives will be part of the equation in order to see more capital drawn into sustainable aviation fuel."

Energy Transition – Macron's 10/30/21 warning on energy costs long before Russia

Politics 101 includes Churchill's famous line "never let a good crisis go to waste" and western politicians and spokespeople are using Putin as the blame for inflation, high gasoline prices, high natural gas prices, etc, etc. No one can disagree that the economic moves against Russia have driven high energy costs higher. But our concern remains that just blaming Putin is a distraction from the fact that there was already an energy crisis in Europe in 2021. This tends to be overlooked, which is why, on Tuesday, we tweeted [\[LINK\]](#) "Buckle up! Oct 30, 2021 was the #MacronMoment when just before #COP26m, the 🇫🇷 went on and #Macron realized & warned the #EnergyTransition was setting the stage for high medium/long term #Oil #NatGas prices. This was before Russia! #Oil #NatGas looks good for 2020s. #OOTT". Our tweet included our Oct 30, 2021 tweet [\[LINK\]](#) "Oops, #Macron on #EnergyTransition "ironic, because we are building a system where in the medium & long term fossil energy will cost more & more, that's what we want to [to fight climate change]". 2020s will be very good for #Oil #NatGas prices. Great report @labboudles." Macron spoke to the FT just before COP26 with the warning that the energy transition being built is leading to higher oil and natural gas prices for the medium long term. Again, this is four months before Russia invaded Ukraine. Our Supplemental Documents package includes the FT Macron report from Oct 30.

Energy crisis was long before Russia

Capital Markets – S&P TSX Composite Index changes effective Monday June 20

On Friday, we tweeted [\[LINK\]](#) "More #Oil #NatGas companies added to S&P TSX Composite Index effective open of trading on Mon June 20. \$ATH Athabasca Oil, \$PD Precision Drilling, \$PSI Pason Systems, and \$SDE Spartan Delta. #OOTT". We had just seen the after the market close S&P announcement [\[LINK\]](#) "as a result of the quarterly review, S&P Dow Jones Indices will make the following changes in the S&P/TSX Composite Index prior to the open of trading on Monday, June 20, 2022.

TSX Index changes effective June 20

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Figure 37: Changes to S&P/TSX Composite Index prior to open Mon June 20

S&P/TSX COMPOSITE INDEX – June 20, 2022			
	COMPANY	GICS SECTOR	GICS SUB-INDUSTRY
ADDED	Athabasca Oil Corporation (TSX:ATH)	Energy	Oil & Gas Exploration & Production
ADDED	Definity Financial Corporation (TSX:DFV)	Financials	Property & Casualty Insurance
ADDED	Filo Mining Corp. (TSX:FIL)	Materials	Diversified Metals & Mining
ADDED	Precision Drilling Corporation (TSX:PD)	Energy	Oil & Gas Drilling
ADDED	Pason Systems Inc (TSX:PSI)	Energy	Oil & Gas Equipment & Services
ADDED	Spartan Delta Corp. (TSX:SDE)	Energy	Oil & Gas Equipment & Services
DELETED	Cascades Inc (TSX:CAS)	Materials	Paper Packaging
DELETED	Docebo Inc. (TSX:DCBO)	Information Technology	Application Software
DELETED	Hut 8 Mining Corp. (TSX:HUT)	Information Technology	Application Software
DELETED	Lion Electric Company (TSX:LEV)	Industrials	Construction Machinery & Heavy Trucks
DELETED	Martinrea International Inc (TSX:MRE)	Consumer Discretionary	Auto Parts & Equipment
DELETED	WELL Health Technologies Corp. (TSX:WELL)	Health Care	Health Care Services

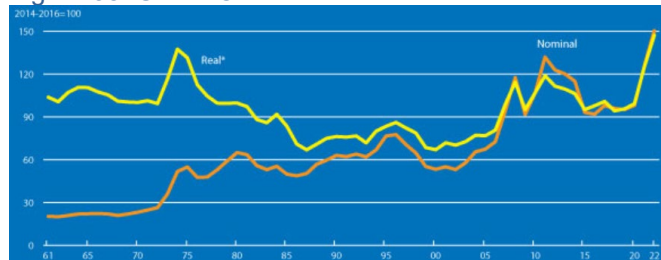
Source: S&P Dow Jones Indices

Capital Markets – UN FAO Food Price Index falls for second consecutive month in May

UN global food price index has retreated again in May 2022 from the all-time record highs of +33.6% YoY seen in March, though still +29.8% YoY from last May. As we highlighted previously in our April 10, 2022 Energy Tidbits memo, global food prices had been going up at multiples higher than is being indicated in the US food price index. The small MoM decrease is being viewed more as a pause and there are continuing global concerns that are going to keep getting higher in 2022 in part of how high natural gas prices are leading to a massive escalation in fertilizer prices that have to flow thru to food prices or lesser harvests. On Friday, the UN posted its monthly update of its FAO Food Price Index [\[LINK\]](#) titled “*The FAO Food Price Index fell for the second consecutive month in May*”. Note this is on a Real price basis. The FFPI averaged 157.4 points for May 2022, which was -0.9% MoM and +29.2% YoY. The drop in the FFPI in May was led by a significant decrease in the vegetable oil price index, along with a slight decline in the dairy price index and the sugar price index. Meanwhile, cereal and meat price indices registered slight increases. The Vegetable oil index was down -3.7% MoM, marking a retreat from last month’s all time high. The Sugar Price Index was down -1.1% MoM and the Dairy Price Index was down +3.5% MoM and +16.9% YoY. The Meat Price Index was up 0.5% MoM, driven by poultry meat prices amidst tight global supplies, reflecting export disruptions from Ukraine and rising avian influenza outbreaks in the Northern hemisphere. Below is the all time FFPI graph. Our Supplemental Documents package includes the UN FAO Food Price Index update.

UN food price index +29.2% YoY

Figure 38: UN FAO Food Price Index



Source: UN

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Capital Markets – USDA consumer price index for food +9.4% YoY

The USDA's official food price data keeps going up, but it is nowhere as much as what we continue to hear from Americans as to what they feel when they go to the grocery stores in the US. When we ask American friends, how much higher YoY is your grocery bill, we haven't for months heard anyone say less than 10%. The USDA posted its consumer price index for food data for April last Wednesday [\[LINK\]](#), which is +1.0% MoM and +9.4% YoY, compared to March at +8.8% ; while this is an increase MoM, it still seems low given the rapidly increasing grocery bills being reported. This is for the overall food price index, which weights various changes like beef/veal +14.3% YoY, pork +13.7%, eggs +22.6% with changes like fresh vegetables +6.2% YoY, dairy products +9.1% YoY and cereals & bakery products +10.3% YoY. We also just don't see how the USDA won't be low in their 2022 forecast which predicts price escalation between 5.0-6.0% throughout the year.

USDA consumer price index for food

Demographics – Busy tourist season in Cdn Rockies & shortage of workers

No surprise, the first real post Covid travel season is going it is looking like a busy tourist season in the Cdn Rockies. And also no surprise, there is a shortage of workers to support the tourism industry in Banff and Canmore (Alberta). So, let's hope the tourists are patient with the support staff and the locals are patient with the tourists. On Friday, the Calgary Herald report "*A staff drought: Tourists returning to Banff, but workers aren't, say employers*" [\[LINK\]](#) reported on comments from the director of the Job Resource Centre in Banff and Canmore. "*There's always a shortage of workers, but now what we see is a staff drought,*" said Dufresne. "*I've been in this business a long time and I've never seen anything like it.*" *With a limited local labour pool, the Bow Valley tourist area has traditionally depended on workers from Australia, Europe and Eastern Canada. But when COVID-19 throttled international tourism, those workers moved on and have been slow to return, said Dufresne. "We lost those people at the beginning of the pandemic but that was OK. That 50 per cent reduction in the workforce reflected the 50 per cent reduction in business," he said, adding it's a problem across the country. "But now two years later, restrictions have lifted and those workers are not coming back."* Our Supplemental Documents package includes the Calgary Herald report.

Shortage of workers in Banff

Demographics – 1/3 of consumers earning \$250,000 are living paycheck to paycheck

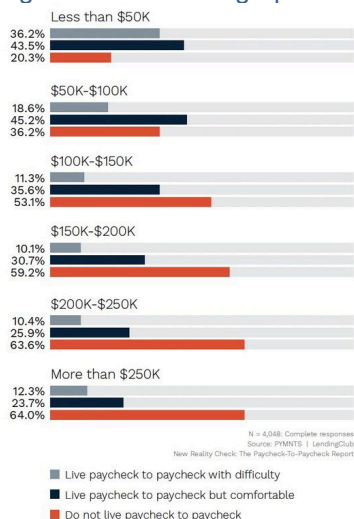
There is no question that people have different spending priorities and reliance on credit than they did in prior decades. And even going back to the early 80s when first mortgage rates were ~15%. The effects of inflation are reflecting on the discretionary spending of Americans and their reliance on credit products. On Wednesday, LendingClub Corporation released research findings [\[LINK\]](#) that concluded one-third of consumers earning \$250,000 or more annually currently live paycheck to paycheck. In addition, between 10% and 12% of consumers in these higher income brackets were living paycheck to paycheck with issues paying their bills in April 2022. LendingClub's Financial Health Officer stated "*These high-income earners have an average FICO score of 758. They are creditworthy but they have higher financial obligations and are more likely to leverage their capital to finance their lives*". This research also found that consumers who earn more than \$250,000 a year are more likely to engage with credit cards and personal loans than consumers who earn less than \$50,000. Actual utilization of credit cards ranges from 47% among lower-income consumers to 73% among the highest-income consumers. LendingClub's FHO added that "*The ongoing effects of once in a generation inflation are eating into the discretionary spending of*

1/3 consumers earning \$250k are relying on credit cards

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Americans across all incomes and they are increasingly relying on credit products to cover the cashflow gaps. As credit card interest rates continue to rise, consider looking at your variable interest rate credit cards."

Figure 39: US demographics living paycheck to paycheck



Source: LendingClub

Twitter – Look for our first comments on energy items on Twitter every day

For new followers to our Twitter, we are trying to tweet on breaking news or early views on energy items, most of which are followed up in detail in the Energy Tidbits memo or in separate blogs. Our Twitter handle is @Energy_Tidbits and can be followed at [LINK]. We wanted to use Energy Tidbits in our name since I have been writing Energy Tidbits memos for over 20 consecutive years. Please take a look thru our tweets and you can see we aren't just retweeting other tweets. Rather we are trying to use Twitter for early views on energy items. Our Supplemental Documents package includes our tweets this week.

@Energy_Tidbits on Twitter

LinkedIn – Look for quick energy items from me on LinkedIn

I can also be reached on LinkedIn and plan to use it as another forum to pass on energy items in addition to our weekly Energy Tidbits memo and our blogs that are posted on the SAF Energy website [LINK].

Look for energy items on LinkedIn

Misc Facts and Figures.

During our weekly review of items for Energy Tidbits, we come across a number of miscellaneous facts and figures that are more general in nature and often comment on sports.

June 5, 1989, unknown Tank Man faced off vs tanks in Tiananmen Square

One of the all time great stories happened on June 5, 1989. On June 4, 1989, there was a violent crackdown by authorities of protestors in Beijing's Tiananmen Square.

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

It was brutal. But then the next day, the story that caught the world's attention was the still unknown Tank Man. Wikipedia writes "*Tank Man (also known as the Unknown Protester or Unknown Rebel) is the nickname of an unidentified Chinese man who stood in front of a column of tanks leaving Tiananmen Square in Beijing on June 5, 1989, the day after the Chinese government's violent crackdown on the Tiananmen protests. As the lead tank maneuvered to pass by the man, he repeatedly shifted his position in order to obstruct the tank's attempted path around him. The incident was filmed and shared to a worldwide audience. Internationally, it is considered one of the most iconic images of all time.[1][2][3] Inside China, the image and the accompanying events are subject to censorship.[4] There is no reliable information about the identity or fate of the man; the story of what happened to the tank crew is also unknown.[5]*". We've always wondered what happened to the tank commander who wouldn't run over the Tank Man. For those who haven't seen it, a 3-minuted CNN clip is at [LINK](#).

Figure 40: Tank Man Stops Tanks in Tiananmen Square on June 5, 1989



Source: CNN

Not impossible but very long odds for Oilers to advance to Stanley Cup finals

It looks like we will have to wait another year for a Canadian NHL team to win the Stanley Cup. The Edmonton Oilers are not out, but are now down 3-0 to the Colorado Avalanche in the Western Division finals. In NHL history, there have been 190 times that a team is down 3-0 in the playoffs and only 4 times has that team won four in a row to win a playoffs 4-3 and advance. These were 1942, the Toronto Maple Leafs beat Detroit Red Wings in the finals, 1975 the New York Islanders beat the Pittsburgh Penguins in the quarter finals, 2010 the Philadelphia Flyers beat the Boston Bruins in a quarterfinal series, and 2014 the Los Angeles Kings beat San Jose Sharks in the first round.

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

Couldn't help think of Richard Gere classic line in *Pretty Woman* (1990)

It may not be entirely fair, but the change in US messaging on Saudi Arabia reminded of the classic Richard Gere/Julia Roberts scene in the 1990 movie *Pretty Woman*. We have to believe the recent Saudi/US administration meetings have left the clear message from Saudi that they need to see some public positive statements before there is any Biden/MBS meeting. We think of these meetings that are for people just below MBS like his brother the Foreign Minister and their message is much like Richard Gere when he takes Julia Roberts into the Beverly Hills store that wouldn't serve her earlier. Richard Gere tells the Beverly Hills store manager we need some major sucking up. the Store manager starts sucking up to Gere and he points to Julia Roberts saying her. The Saudi's are sophisticated in their diplomacy, but the message to US administration must have been they need some public sucking up. Here is the *Pretty Woman* clip [LINK](#)

Figure 41: Richard Gere in *Pretty Woman*

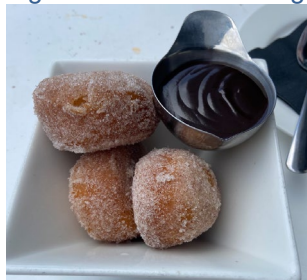


Source: Pinterest

National Donut Day was Friday June 3

It was hard to not realize Friday was National Donut Day given most shows including business shows noted it in the morning with many showing off a donut. After seeing so many donuts, we tweeted [LINK](#) our participation was cinnamon sugar donuts with chocolate sauce at Double Zero Pizza in Calgary. We were surprised as they were each over half the size of a regular donut, when we were expecting something the size of a Timbit.

Figure 42: Cinnamon sugar donuts with chocolate sauces



Source: SAF Group

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

1st LIV invitational golf tournament this week, did you see the prize money?

The LIV Invitational Series golf tournament is a 54-hole event at the Centurion Club just north of London. There are only 48 players in this invitational field, with no cuts. As of our 7am MT news cut off, the biggest star in the field is Dustin Johnson. It's not hard to see why players tried to get releases from the PGA to compete. The prize money is huge and everyone gets a payday. I wrote [LINK](#). *"The LIV Golf events will have \$25 million purses, with \$20 million going to individuals and \$5 million paid out to a team portion. Each event will have 48 players, with 12 four-man teams. The winner will receive \$4 million and last place gets \$120,000. There is no cut and the events are just 54 holes. The first seven of these tournaments will operate in this manner, with the final tournament a team competition and a \$5 million purse with the last place team guaranteed \$1 million, or \$250,000 each."*

Maybe Canada should pay more, like Los Angeles, to get more lifeguards

Was watching CBC News channel on Friday and saw their report "*Lifeguard shortage to start summer*" [LINK](#) and it is much a story like the story of truck drivers on how Covid caused a gap in training in 2020 and 2021 and that meant there aren't the normal cycle of new lifeguards ready for this summer. So maybe Canada has to pay more for young people to become lifeguards like the US. Earlier this week, we saw the numerous US media reports like the NY Post's "*LA lifeguards raked in up to \$500,000 last year, watchdog report finds*" [LINK](#) that referenced an OpenTheBooks Substack report "*Top-Paid LA Lifeguards Earned up to \$510,283 in 2021*" [LINK](#), who wrote "*Who knew that LA lifeguards—who work in the sun, ocean surf, and golden sands of California— could reap such unbelievable financial reward? It's time we put Baywatch on pay watch. In 2019, we found top-paid lifeguards made up to \$392,000. Unfortunately, today, the pay and benefits are even more lucrative. Daniel Douglas was the most highly paid and earned \$510,283, an increase from \$442,712 in 2020. As the "lifeguard captain," he out-earned 1,000 of his peers: salary (\$150,054), perks (\$28,661), benefits (\$85,508), and a whopping \$246,060 in overtime pay. The second highest paid, lifeguard chief Fernando Boiteux, pulled down \$463,517 – up from \$393,137 last year."*

FC Barcelona's Camp Nou stadium can be rented for matches

We didn't realize FC Barcelona did this last year, but they are making their just under 100,000 capacity stadium, Camp Nou, available for fans to plan a match. [LINK](#) "*The chance to play a match at Camp Nou is probably a dream for many FC Barcelona fans. Now that dream can become a reality as the Club is providing the chance to play on the pitch at Europe's biggest stadium during June. This is the second year the Club has made this unique experience available to Barça fans, giving them the chance to grace the same stage as the men and women's first team players. The experience costs 300 euro per person and requires booking via the Club website, selecting whether you want to come alone or with friends. Once all the applications are in, the Club will organise matches for everyone taking part. In this case, the conditions will be somewhat more relaxed than for professional games. Each team will comprise up to 18 players and each game will last 60 minutes. However, the full pitch will be used as normal.*" And "*The group of players will enter the pitch like professionals and will have 15 minutes to warm up on the pitch itself.*" We tweeted

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**

[\[LINK\]](#) “Wouldn’t it be great to see pictures of some youth teams playing at Camp Nou next week and then see some of them 10 years later playing in Camp Nou for @FCBarcelona or one of the other @LaLigaEN teams?” We really hope some youth teams get a chance to play at Camp Nou and not just a bunch of business guys. The Catalan people look at Camp Nou’s “Mes que un club” as having much, much more significance than the English translation “more than a club”.

Figure 43: FC Barcelona’s Camp Nou



Source: Wikipedia

The Disclaimer: Energy Tidbits is intended to provide general information only and is written for an institutional or sophisticated investor audience. It is not a recommendation of, or solicitation for the purchase of securities, an offer of securities, or intended as investment research or advice. The information presented, while obtained from sources we believe reliable as of the publishing date, is not guaranteed against errors or omissions and no representation or warranty, express or implied, is made as to their accuracy, completeness or correctness. This publication is proprietary and intended for the sole use of direct recipients from Dan Tsubouchi and SAF Group. Energy Tidbits are not to be copied, transmitted, or forwarded without the prior written permission Dan Tsubouchi and SAF Group. **Please advise if you have received Energy Tidbits from a source other than Dan Tsubouchi and SAF Group.**