Energy Tidbits

July 7, 2024

Produced by: Dan Tsubouchi

Supreme Leader Recommends New Iran President Pezeshkian Continue the Path of Former President, Hardliner Raeisi

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. My 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 the review of investor days, conferences and earnings calls focusing on sector developments that are relevant to the sector. My target is to write on 50 weekends per year and to post by noon MT on Sunday. The Sunday noon timing was because 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. Does Supreme Leader recommending new Iran President Pezeshkian continue the path from former President hardliner Raeisi mean Pezeshkian will have no real impact on key foreign policy areas like JCPOA, support for Hezbollah, Houthis, etc. [click here]

2. More indicators pointing to China reaching peak diesel demand sooner than most expect. [click here]

3. China stock prices and its house prices continue to go down. [click here]

4. Will Amazon be able to tie up all the 24/7 baseload electricity from a Constellation nuclear power plant so that the 24/7 nuclear power isn't available to grid? [click here]

5. FirstEnergy CEO warns that US can't do without 24/7 coal if it is to meet the increasing electricity demand. [click here]

6. I ran out of time on Friday and Saturday to get all the items written up for this weekend.

7. 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.

8. 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].

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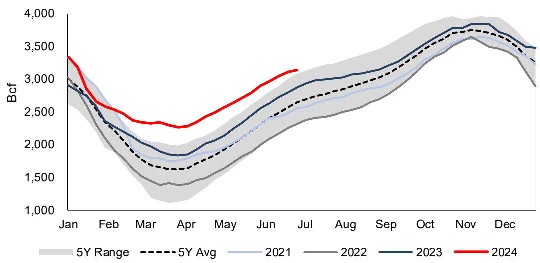
Table of Contents

Natural Gas: A really hot June means less risk US natural gas storage gets filled early

Less risk for US gas storage to be filled early?

It was a really hot June in the Lower 48, which helped to narrow the YoY gas storage surplus from looking like a strong probability to storage being filled early to a lesser but still potential probability to do so. The YoY gas storage surplus has dropped from +444 bcf YoY to +275 bcf over the past two months. There may very well be items such as hurricane interruptions, a big spike up in natural gas for data centers, etc. that can change the outlook either up or down but the really hot June has lessened the risk to storage being filled early. As noted below, US natural gas storage is now +275 bcf YoY, which is down WoW from +319 bcf YoY last week.

Figure 1: US Natural Gas Storage



Source: EIA

Natural Gas: +32 bcf build in US gas storage; now +275 bcf YoY

+32 bcf build in US gas storage

The hot weather in the Lower 48 continues to narrow the YoY storage surplus. For the week ending June 28, the EIA reported a +32 bcf build. Total storage is now 3.134 tcf, representing a surplus of +275 bcf YoY compared to a surplus of +319 bcf last week. Since February, total storage has remained well above the top end of the 5-yr range. Total storage is +496 bcf above the 5-year average, below last week's +533 bcf surplus. Below is the EIA's storage table from its Weekly Natural Gas Storage report [LINK].

Figure 2: US Natural Gas Storage

	Stocks billion cubic feet (Bcf)				Year ago (06/28/23)		5-year average (2019-23)	
Region	06/28/24	06/21/24	net change	implied flow	Bcf	% change	Bcf	% change
East	660	646	14	14	637	3.6	559	18.1
Midwest	779	758 R	21	21	699	11.4	639	21.9
Mountain	239	236 R	3	3	171	39.8	158	51.3
Pacific	282	283	-1	-1	213	32.4	251	12.4
South Central	1,174	1,178 R	-4	-4	1,139	3.1	1,031	13.9
Salt	326	334	-8	-8	329	-0.9	297	9.8
Nonsalt	848	845	3	3	811	4.6	735	15.4
Total	**3,134**	**3,102** R	**32**	**32**	**2,859**	**9.6**	**2,638**	**18.8**

R=Revised.
The reported revisions caused the stocks for June 21, 2024 to change from 3,097 Bcf to 3,102 Bcf. As a result, the implied net change between the weeks ending June 14 and June 21 changed from 52 Bcf to 57 Bcf.

Source: EIA

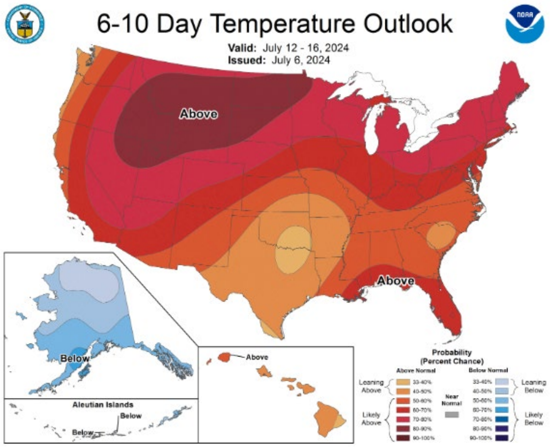
Natural Gas: NOAA forecasts hot temperatures in 6-10 & 8-14 day outlooks

Hot in Lower 48

Yesterday, we tweeted [LINK] "*Continued hot weather across the Lower 48 expected for next couple weeks per @NOAA's today 6-10 & 8-14 day temperature outlook covering July 12-20.*

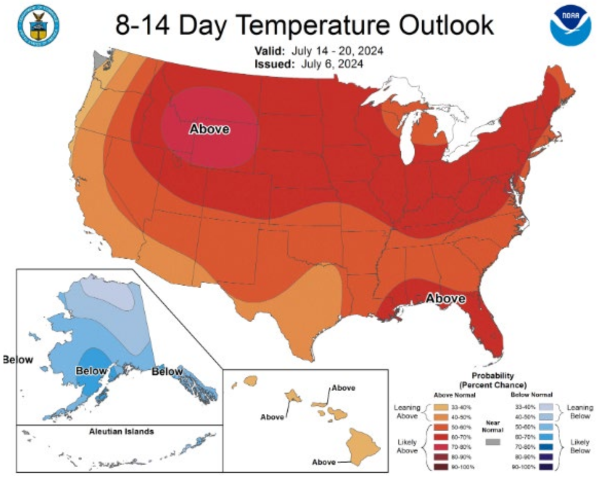
Imagine where HH would be if it wasn't hot! #OOTT." NOAA posts a daily update to its short term 6-10 day and 8-14 day temperature outlooks. Yesterday's update has NOAA forecasting much warmer than normal temperatures across all of the Lower 48 for July 12 thru 20, basically the middle part of July. Below are NOAA's updated, as of yesterday, 6-10 day and 8-14 day temperature outlook maps covering July 12-20.

Figure 3: NOAA 6-10 day temperature outlook for July12-16



Source: NOAA

Figure 4: NOAA 8-14 day temperature outlook for July 14-20

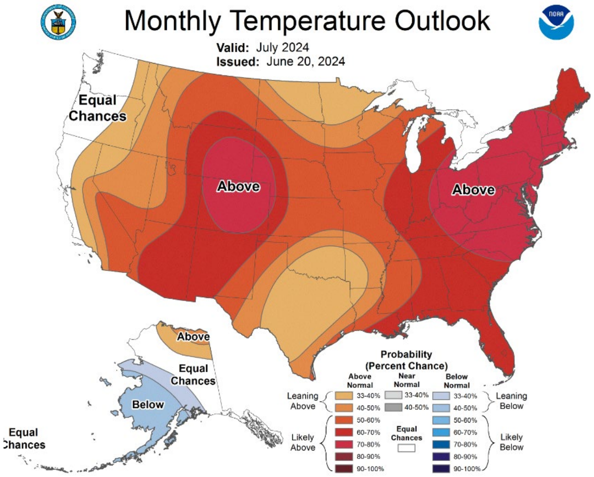


Source: NOAA

06/20/24: NOAA forecasts hot weather in July for all of the Lower 48

The above NOAA 6-10 and 8-14 day temperature outlooks are in line with NOAA's recent June 20, 2024 forecast for July. Here is what we wrote in last week's (July 23, 2024) Energy Tidbits memo. "*It looks like the hot weather in the US is going to* *continue for at least another month. On Thursday, NOAA posted its 30-day outlook, which is its Monthly Temperature Outlook for July [LINK]. NOAA's temperature forecast shows above average probability for much warmer than normal temperatures for all of the Lower 48. Below is NOAA's monthly temperature outlook for July."*

Figure 5: NOAA Monthly Temperature Outlook for July



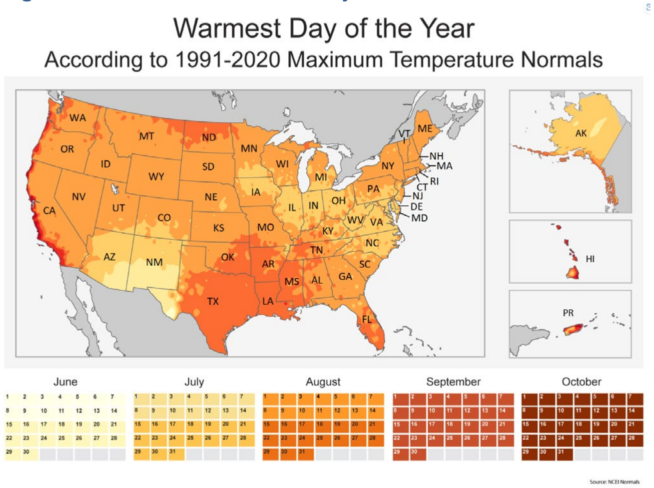
Source: NOAA

Natural Gas: NOAA's normal warmest day of the year across the US

Normal warmest day of the year across the US

It was a hot June. But we remind that the normal hottest day of the year is still to come for most of the US in August. Here is where we wrote in our July 2, 2023 Energy Tidbits memo. "*Yesterday, we tweeted [LINK] "Here's why temperature watch gets important in July ie. don't want below normal temps when it is supposed to be the hottest. @NOAA map when to expect Warmest Day of the Year. Mid July starts to see hottest day of the year in states like IL, IN, OH, WV, VA, NC. And current @NOAA 8-14 day expects below normal temps in some of these states. #OOTT #NatGas." On Thursday, NOAA posted "When to expect the Warmest Day of the Year" [LINK]. Our tweet included the NOAA map, which reminds that mid-July is when we start to see the hottest day of the year in many states. It's why the temperatures are important in July as we don't' want to see below normal temps when it is supposed to be peak heat and peak summer electricity/natural gas residential/commercial demand*." We checked the link and it still works.

Figure 6: NOAA Warmest Day of the Year



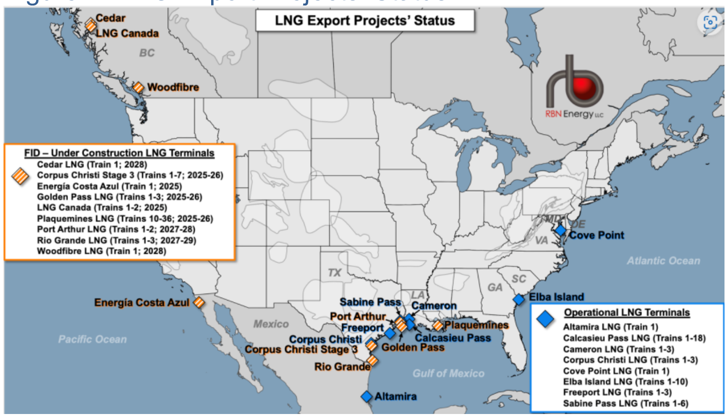
Source: NOAA

Natural Gas: RBN – Moving into big US LNG export capacity growth period

RBN – New LNG Export Capacity

On Wednesday, RBN reminded of the upcoming big increase in LNG Export capacity on the U.S. Gulf Coast [LINK]. This is the near-term supply rush that has been expected. RBN reported, "*The more than 13 Bcf/d of incremental natural gas demand from North American LNG projects starting up over the next five years will have significant effects on U.S. and Canadian gas producers, gas flows and (quite likely) gas prices, which have been deeply depressed for more than a year now……. First, higher LNG exports may reduce the spread between U.S. gas prices and international markers like the Title Transfer Facility (TTF), with the obvious caveat that there will always be the transport arb, so U.S. prices will remain below those in international markets due to shipping costs. Second, in the longer term, more U.S. LNG exports may require more production from gas-focused plays like the Haynesville, which may require higher gas prices.*" RBN provided an update on 10 LNG export projects in advanced stages of development in Mexico, the US, and Canada. Below is a map of the LNG Export Projects' Status from the report. Our Supplemental Documents package includes the RBN report.

Figure 7: LNG Export Projects' Status



Source: RBN

Aramco looking at LNG assets?

Natural Gas: Is Aramco looking at Santos LNG assets such as Papua New Guinea?
We haven't met or talked to anyone at Saudi Aramco for at least 15 years so have to give the better consideration to the OPEC followers who actually deal with Saudi Arabia's Energy Minister Abdulaziz and executives at Saudi Aramco. But, from the outside, it still feels like Saudi Aramco was, to some degree, looking at some of Santos LNG assets and we would think the obvious one would be the Papua New Guinea LNG asset. (i) On Wednesday night, Bloomberg reported that Saudi Aramco and Adnoc "*have been separately studying potential bid for Santos, which as LNG plants in Australia & PNG*"." We saw that tweet but didn't bother with it as we didn't think Saudi Aramco would do a corporate takeover such as on Santos. (ii) However on Thursday morning, we saw the Bloomberg report "*Aramco says reports on its bid to Santos are inaccurate," Saudi Asharq news reports, citing a response from the company on the reported offer."* We couldn't find the Asharq report on their English or Arabic sites. And we saw other reports noting the same "inaccurate" comment. We have been around long enough to know that big companies are particular in their use of key words. And it seemed like the Aramco denial seemed to be on a bid for Santos. We never thought they would bid for the company so seeing the use inaccurate seemed to suggest to us they had or were looking at some of the assets ie. Papua New Guinea. So we tweeted [LINK] "*Non-denial denial? Inaccurate" isn't the same as "incorrect". Aramco says @SStapczynski 👇 report is "inaccurate". Is it Aramco has interests in some of the LNG "assets" but doesn't want to do a takeover? or what isn't accurate? #OOTT #NatGas."* (iii) We were subsequently referred to Energy Intelligence's Amena Bakr tweet "*Aramco is not seeking to acquire LNG assets owned by Australia's Santos as some recent reports have pointed to. #OOTT #Aramco."* So we tweeted [LINK] "*Looks like it was a denial and not careful wording. seeing OPEC plugged in analyst @Amena__Bakr saying there is no Aramco interest in any of the Santos LNG assets. [LINK]..* (iv) On Friday morning, we saw Australia's Financial Review report with a full quote ""*With reference to recent media reports claiming that Aramco is considering an offer for Santos, the company can confirm that such claims are inaccurate," it said in an emailed statement."* (v) What does it all mean? We sill believe Aramco was looking at some of the Santos assets and was not looking at a takeover bid for Santos. The question is are they still or have they passed, at least for now. Don't forget, Aramco is doing LNG deals around the world such as as highlighted in in last week's (June 30, 2024) Energy Tidbits memo of their

20-year LNG deal with Sempra. Our Supplemental Documents includes the Bloomberg reports and Financial Review report.

06/26/24: Saudi Aramco and Sempra announced a 20-year Long-term LNG Deal
Here is what we wrote in last week's (June 30, 2024) Energy Tidbits memo on Saudi Aramco's latest LNG deal. *"On Wednesday, Sempra announced a non-binding HOA 20-year long deal with Saudi Arabia's Aramco for the delivery of 5.0 mmtpa or 0.66 bcf/d of LNG [LINK]. The delivery will be part of Phase 2 of the Port Arthur Expansion Project in Southeast Texas. Aramco and NextDecade are currently negotiating a binding agreement. The President of Aramco Upstream, Nasir K. Al-Naimi, said, "We are excited to take this next step into the LNG sector. As a potential strategic partner in the Port Arthur LNG Phase 2 project, Aramco is well placed to grow its gas portfolio with the aim of meeting the world's growing need for lower-carbon sources of energy. This agreement is a major step in Aramco's strategy to become a leading global LNG player." Jeffery W. Martin, Chairman and CEO of Sempra, said, "The planned expansion of Port Arthur LNG would help facilitate the broad distribution of U.S. natural gas across global energy markets. By expanding the global reach of the Port Arthur LNG facility, we have the opportunity to improve energy security, while providing a lower-carbon alternative to coal for electricity production." Our Supplemental Documents Package includes the press release from Sempra."*

Natural Gas: India LNG imports expected to decline over H2/24?

India LNG imports

It looks like India's LNG imports should decline in H2/24 absent some unusual event. We hadn't realized India had put an emergency order to force use of idling natural gas electricity generation for May and June. We missed seeing this emergency order from April 12. We have always noted how India's LNG imports will move with the price of LNG as India is a price-sensitive LNG buyers. This order meant that India had to run its natural gas generation and therefore would lead to strong LNG imports. Bloomberg wrote that this "*The shipments were driven by an emergency order to operate gas-fired plants, most of which typically remain under-utilized due to their high generation costs. That resulted in a 63% increase in output from the units during the three months through June..* However, Bloomberg also warned "*However, as the interim ruling came to an end on June 30, LNG imports are likely to see a decline for the remainder of the year, Agarwal said."* Our Supplemental Documents package includes the Bloomberg report.

06/14/24: India LNG imports were 3.02 bcf/d in May, up +18.94% YoY
The latest official India LNG import volumes is for May. Here is what we wrote in our June 23, 2024 Energy Tidbits memo. "*For the past several years, India has increased LNG imports whenever domestic natural gas production was flat or decreased. But the overriding factor for India tends to be price. If price is high, India pulls back on LNG imports and will normally turn to coal. If prices are low, like was seen this winter, then India tends to pick up spot cargoes. India is an opportunistic LNG spot buyer. On Friday, June 14th, India's Petroleum Planning and Analysis Cell released their monthly report for May's natural gas and oil statistics [LINK]. Over the past 3 years, India's LNG imports have declined from a 2020-2021 peak of 3.84 bcf/d in Oct 2020 to just 2.85 bcf/d in Jan 2021 and lower in 2022. Additionally, May's*

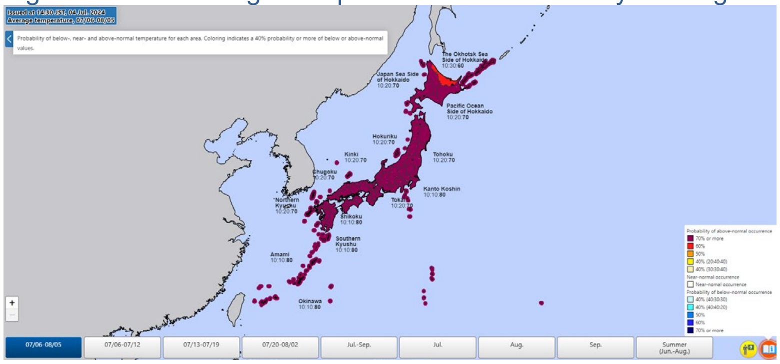
2024's LNG imports were 3.02 bcf/d, which is down -1.67% MoM from 3.07 bcf/d in April. LNG imports are now up +18.94% YoY from 2.54 bcf/d in May 2023."

Natural Gas: Japan expects warmer than normal temperatures thru July into early Aug

JMA temperature forecast for the next 30 days

On Thursday, the Japan Meteorological Agency updated its forecast for the next 30 days in Japan [LINK]. There is no JMA commentary on the forecast. JMA is calling for above normal temperatures for the month of July, with a +70% probability of above normal temperature occurrence. We checked AccuWeather and they are forecasting daily highs in of 29-32C for the next 30 days. Anyone who has been to Tokyo in July knows that it is humid so we should see temperature driven demand for electricity incl natural gas. Below is the JMA temperature forecast for the next 30 days.

Figure 8: JMA Average Temperature Outlook for July 6 – August 5

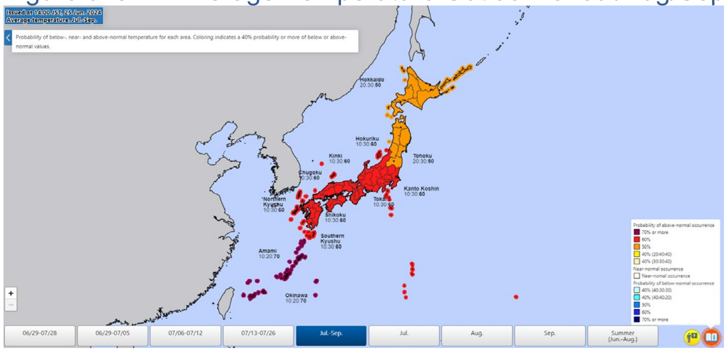


Source: Japan Meteorological Agency

Natural Gas: JMA forecasts above average temperatures for Jul/Aug/Sept

Last week's (June 30, 2024) Energy Tidbits memo highlighted the updated Japan Meteorological Agency's temperature forecast for Jul/Aug/Sept. Here is what we wrote "*On Thursday, the Japan Meteorological Agency posted its seasonal temperature outlook for Jul/Aug/Sept for Japan. We tweeted [LINK] "May not drive up #LNG prices but Japan Meteorological Agency forecasts a hot July and hot Jul/Aug/Sep so should provide near term support for prices. #OOTT #NatGas." There is no JMA commentary on the forecast but it is calling for above average temperatures throughout the summer and September. It looks to be in line with Jul/Aug/Sep 2023 that was above average temps. Below is the JMA temperature forecast for Jul/Aug/Sep."*

Figure 9: JMA Average Temperature Outlook for Jul/Aug/Sep



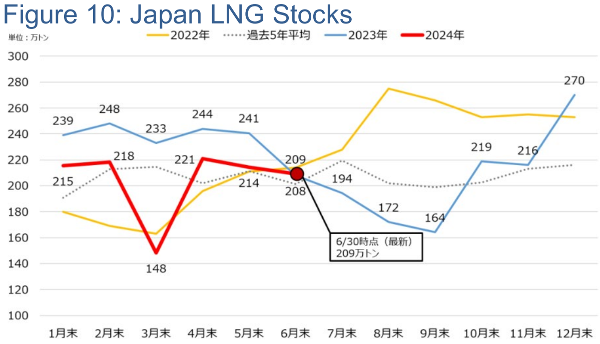
Source: Japan Meteorological Agency

Natural Gas: Japan LNG stocks up small WoW, flat YoY

Japan LNG stocks up small WoW

Japan's LNG stocks are up small WoW, are flat YoY, and are above the 5-year average. On Wednesdays, Japan's METI releases its weekly LNG stocks data [LINK]. LNG stocks on June 30 were 100.4 bcf, up +1.0% WoW from June 23 of 99.4 bcf, and flat from a year ago. Stocks are up +4.0% above the 5-year average of 96.5 bcf. Below is the Japanese LNG stocks graph from the METI weekly report.

Figure 10: Japan LNG Stocks



Source: METI

Natural Gas: Ukraine needs warm winter 24/25, 70% of its electricity generation is out

70% of Ukraine electricity plants are out

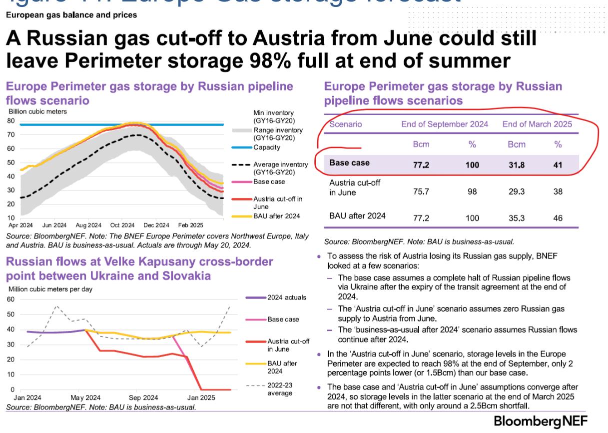
On Tuesday, we tweeted [LINK] "*Need a warm winter in Ukraine. "I worry ...energy sector in Ukraine. 70% of the electricity generating capacity has been destroyed. So here we are stepping in ...to rebuild distributed generation capacity so Ukraine can make it through the winter". @BJavorcik to @flacqua #OOTT.*" Europe has been lucky with the last winters being among the warmest in history. And it looks like, more than ever, they will need a warm winter 2024/25. The EBRD is the European Bank for Reconstruction and Development so will be playing one of the key financial roles in Ukraine infrastructure development. It's chief economist, Beata Javorciik, was on Bloomberg early Tuesday morning and we couldn't help notice her #1 worry is Ukraine's electricity situation going into winter 2024/25 given that 70% of its electricity generation has been destroyed. Note that IEA estimated Ukraine's electricity supply in 2021 was nuclear 55%, coal 23%, natural gas 9%, hydro 7% and Solar 4%. Our tweet included a video clip of Javorcik, where she said "*first I worry about Ukraine and, in particular, the energy sector in Ukraine. 70% of the electricity generating capacity has been destroyed. So here we are stepping in trying to finance help rebuild, in particular to rebuild distributed generation capacity so Ukraine can make it through the winter*".

Natural Gas: BloombergNEF forecast Europe gas storage full by end of Sept

EU gas storage forecast to be full

It looks like Europe gas storage is on track to be full before winter, although it is still too arly to tell if it will be full by Sept 30 as BloombergNEF forecast on May 31. As our 7am MT news cut off, we haven't seen an update to BloombergNEF's European Gas Monthly report. Here is what we wrote in our June 2, 2024 Energy Tidbits on the then new BloombergNEF forecast for Europe gas storage to be full by the end of Sept. "*On Friday, we tweeted [LINK] "ICYMI. @BloombergNEF base case forecasts Europe #NatGas storage full by Sept 30! If so, it won't just hurt Europe TTF prices but also push back on US #HH prices. #OOTT." BloombergNEF's European Gas Monthly also had its base case forecsat for Europe natural gas storage and they call for storage to be full by Sept 30. BloombergNEF also highlights that Eruope natural gas storage would still be 98% by Sept 30 if there is a cut off of any Russian natural gas to Austria in June. IF Europe natural ags storage is full by Sept 30, there should be some strong downward price pressure on Europe natural gas prices in Sept and Oct. And if so, there should also be some push back on US HH natural gas prices*. "

Figure 11: Europe Gas storage forecast



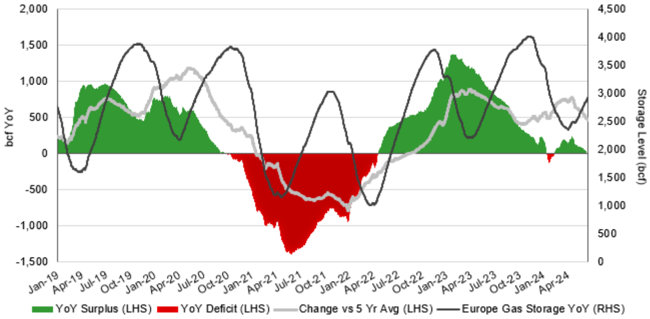
Source: BloombergNEF

Natural Gas: Europe storage builds WoW to 78.3%, down -0.1% YoY

Europe gas storage

This week, Europe storage increased by +1.8% Wow to 78.3% vs 76.5% on June 27. Storage is now -0.1% lower than last year's levels of 78.2% on July 4, 2023, and up huge vs the 5-year average of 64.33%. As noted above, it looks like Eruope gas storage is on track to be filled before winter but it is too early to know if it will be full as early as BloombergNEF's May 31 forecast was for Europe gas storage to be full by Sept 30. This would be very early and would bring low Europe gas prices in Sept/Oct. Below is our graph of European Gas Storage Level.

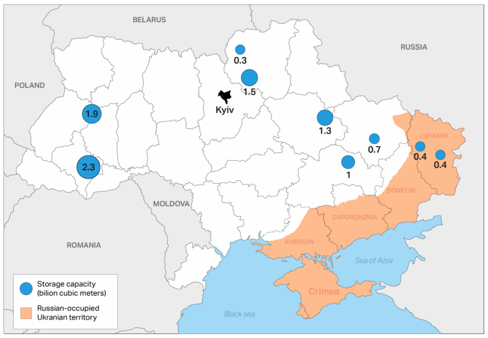
Figure 12: European Gas Storage Level



Source: Bloomberg, SAF

Ukraine storage is currently ~6% of total Europe gas storage volume
We have been breaking out Ukraine gas storage levels since the Mar/Apr Russian bombing of the Ukraine natural gas storage, which only impacted some above ground natural gas infrastructure. But it also reminded that of the risk to Europe gas storage from Russia attacks. We broke out the Ukraine storage data from the above Europe data we monitor weekly from the GIE AGSI website [LINK], and, on July 4th, natural gas in Ukraine storage was at 17.9% of its total capacity, up from 17.3% of its total capacity on June 27th. Last year, Ukraine storage started the winter on Nov 1, 2023 at 39.38%. Right now, Ukraine makes up ~6% of Europe's natural gas in storage and, at the beginning of winter 2023/24, it was ~10% of Europe's natural gas in storage. Below is a map of Ukraine's major gas storage facilities.

Figure 13: Ukraine Gas Storage Facilities as of July 2023



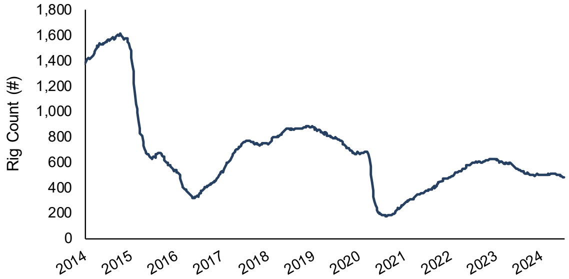
Source: Bruegel

Oil: US oil rigs flat WoW at 479 rigs, US gas rigs up +4 rigs WoW to 101 rigs

US oil rigs flat WoW

On Friday, Baker Hughes released its weekly North American drilling rig data. (i) Note Baker Hughes no longer breaks out the basin changes by oil vs gas rig type. (ii) Total US oil rigs were flat WoW at 479 oil rigs as of July 5. US oil rigs went below 520 rigs on Aug 25 and has been around 490-510 rigs for the past several months, however, last week's 479 rigs marks the lowest oil rig count since December 2021. (iii) Note we aren't able to see the basin changes but not by type of rig. The major basin change was Eagle Ford +2 rig WoW to 49 rigs. (iv) The overlooked US rig theme is the YoY declines. Total US rigs are -95 YoY to 585 rigs including US oil rigs -61 oil rigs YoY to 479 oil rigs. And for the key basins, the Permian is -37 rigs YoY, Haynesville is -10 rigs YoY and Marcellus -10 rigs YoY. (v) US gas rigs were up +4 rigs this week to 101 gas rigs.

Figure 14: Baker Hughes Total US Oil Rigs



Source: Baker Hughes, SAF

Oil: Permian oil drill rigs to be impacted by Waha natural gas prices staying negative

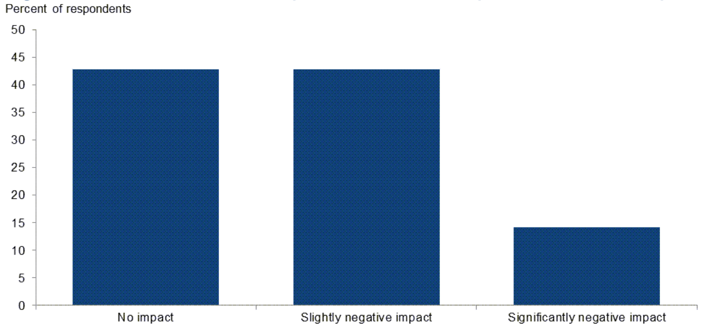
Waha gas prices stay negative

On Friday, we tweeted [LINK] "*Waha #NatGas prices continue negative. Remember Permian #Oil wells produce oil + associated NGLs + #NatGas. May not impact big Permian players oil drilling plans but expected to cause small Permian players to cut back on Permian oil drilling plans.* 👇 *@DallasFed #OOTT."* It was another week of Waha (Permian) natural gas prices being negative, closing at -$3.99 on July 5. It's been really hot in Texas in June and ERCOT, the grid operator, has been seeing record or near record demand for electricity. But, it looks like some natural gas infrastructure maintenance has led to Waha natural gas price in the Permian flip negative again this week in an already tight Permian natural gas infrastructure market. So Waha prices have flipped negative in April, May again last week to end June and continuing this week to close at -$3.99 on July 5. This volatility is also a reason why Permian oil rigs have been soft. The natural gas from the Permian is the associated natural gas that is produced from Permian oil wells. So if there is near term concerns on Waha natural gas prices, it will impact oil drilling from smaller Permian players. Our tweet included an excerpt from the Dallas Fed quarterly energy survey that was posted last week [LINK] One of their special questions was "*What impact will low Waha Hub natural gas prices likely have on your firm's drilling and completion plans in the Permian for the rest of 2024?* " Dallas Fed summarized the responses "*The Waha Hub is a gathering location for natural gas in the Permian Basin that connects to major pipelines. Of the executives surveyed, 43 percent said low Waha Hub natural gas prices won't likely affect their firm's drilling and completion plans in the Permian for the rest of 2024. Meanwhile, 43 percent expect a slightly negative impact, and an additional 14 percent said the low Waha Hub prices will have a significantly negative impact on drilling and completion plans for the rest of this year in the Permian. Small E&P firms were more likely to expect negative impacts."*

Figure 15: Waha Natural Gas Prices to July 5 close

Source: Bloomberg

Figure 16: Percent of responses what impact low Waha prices on rest of 2024 drilling plans



NOTES: Executives from 28 exploration and production firms answered this question during the survey collection period, June 12–20, 2024. This question was posed only to executives who said their firm drilled or completed a horizontal well in the Permian Basin in the past two years.
SOURCE: Federal Reserve Bank of Dallas.

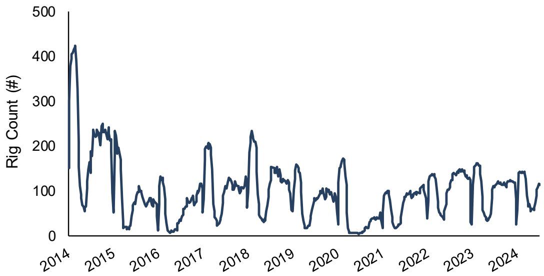
Source: Dallas Fed

Oil: Total Cdn rigs down -1 rig WoW, potentially due to wildfires

Cdn total rigs down WoW

As happens every year in Canada, the rig count drops dramatically from early March thru the end of April/beginning of May as winter drilling season ends and the industry moves into spring break up. Spring break up is the period when it warms up and the melting snow leads to road access being limited/restricted in many parts of Alberta and BC. Total Cdn rigs declined from 231 at the beginning of March to 114 one month ago. This week's rig count was down -1 rig WoW after last week's increase in rigs. This week looks to pause the ramp up we saw beginning last month that follows every spring break up. There may be wildfire issues holding back rigs this week as wildfires continue in Northern Alberta. Cdn oil rigs were down -1 rig WoW this week to 115 rigs and are up +4 rigs YoY. Gas rigs are up +1 rig WoW this week to 60 rigs and are down -4 rigs YoY, and miscellaneous rigs are down -1 rig WoW, and are flat YoY. Baker Hughes did not update their old format report, so we weren't able to see the provincial breakouts.

Figure 17: Baker Hughes Total Cdn Oil Rigs



Source: Baker Hughes, SAF

Oil: US weekly oil production flat WoW at 13.200 mmb/d for last four weeks

US oil production flat WoW

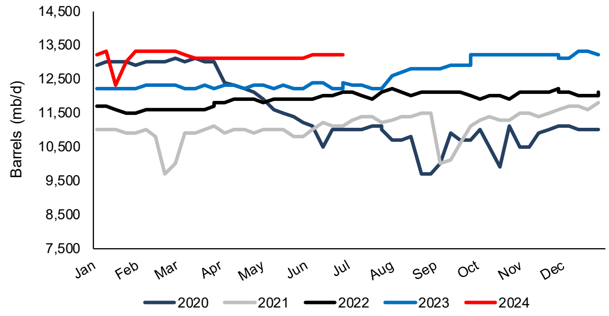
The EIA's weekly oil supply estimates have been essentially unchanged for he last nine months ranging from 13.1 to 13.3 mmb/d with the last four weeks at 13.2 mmb/d. We have to give the EIA credit for putting out weekly oil supply estimates for the prior week. That can't be easy so no one should be surprised that the EIA weekly oil supply estimates, based on the Form 914 actuals, will sometimes require re-benchmarking. And sometimes the re-benchmarking can be significant and other times, it is relatively small. Here's what the EIA wrote on their website back in April with the April STEO: "*When we release the Short-Term Energy Outlook (STEO) each month, the weekly estimates of domestic crude oil production are reviewed to identify any differences between recent trends in survey-based domestic production reported in the Petroleum Supply Monthly (PSM) and other current data. If we find a large difference between the two series, we may re-benchmark the weekly production estimate on weeks when we release STEO. This week's domestic crude oil production estimate incorporates a re-benchmarking that decreased estimated volumes by 177,000 barrels per day, which is about 1.3% of this week's estimated production total".* On June 11, the EIA released its June STEO. There was an immaterial downward revision to Q1/24 production estimates to 12.94 mmb/d from 12.96 mmb/d in May's STEO. This week, the EIA's production estimates were flat WoW at 13.200 mmb/d for the week ended June 28. Alaska was down -0.027 mmb/d WoW to 0.383 mmb/d from 0.410 mmb/d last week. Below is a table of the EIA's weekly oil production estimates.

Figure 18: EIA's Estimated Weekly US Field Oil Production (mb/d)

	Week 1		Week 2		Week 3		Week 4		Week 5	
Year-Month	End Date	Value	End Date	Value	End Date	Value	End Date	Value	End Date	Value
2023-Jan	01/06	12,200	01/13	12,200	01/20	12,200	01/27	12,200		
2023-Feb	02/03	12,300	02/10	12,300	02/17	12,300	02/24	12,300		
2023-Mar	03/03	12,200	03/10	12,200	03/17	12,300	03/24	12,200	03/31	12,200
2023-Apr	04/07	12,300	04/14	12,300	04/21	12,200	04/28	12,300		
2023-May	05/05	12,300	05/12	12,200	05/19	12,300	05/26	12,200		
2023-Jun	06/02	12,400	06/09	12,400	06/16	12,200	06/23	12,200	06/30	12,400
2023-Jul	07/07	12,300	07/14	12,300	07/21	12,200	07/28	12,200		
2023-Aug	08/04	12,600	08/11	12,700	08/18	12,800	08/25	12,800		
2023-Sep	09/01	12,800	09/08	12,900	09/15	12,900	09/22	12,900	09/29	12,900
2023-Oct	10/06	13,200	10/13	13,200	10/20	13,200	10/27	13,200		
2023-Nov	11/03	13,200	11/10	13,200	11/17	13,200	11/24	13,200		
2023-Dec	12/01	13,100	12/08	13,100	12/15	13,300	12/22	13,300	12/29	13,200
2024-Jan	01/05	13,200	01/12	13,300	01/19	12,300	01/26	13,000		
2024-Feb	02/02	13,300	02/09	13,300	02/16	13,300	02/23	13,300		
2024-Mar	03/01	13,200	03/08	13,100	03/15	13,100	03/22	13,100	03/29	13,100
2024-Apr	04/05	13,100	04/12	13,100	04/19	13,100	04/26	13,100		
2024-May	05/03	13,100	05/10	13,100	05/17	13,100	05/24	13,100	05/31	13,100
2024-Jun	06/07	13,200	06/14	13,200	06/21	13,200	06/28	13,200		

Source: EIA

Figure 19: EIA's Estimated Weekly US Oil Production



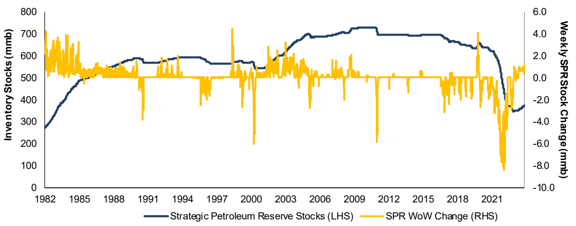
Source: EIA, SAF

Oil: US SPR less commercial reserve deficit narrows, now -75.944 mmb

The US Strategic Petroleum Reserves (SPR) continues to be much lower than total US commercial crude oil reserves. The SPR went back below commercial for the first time since 1983 in the Sep 16, 2022 week. This week, we saw a build on the SPR side and a draw on the commercial side. The EIA's weekly oil data for June 28 [LINK] saw the SPR reserves increase +0.398 mmb WoW to 372.595 mmb, while commercial crude oil reserves decreased -12.157 mmb to 448.539 mmb. There is now a -75.944 mmb difference between SPR reserves and commercial crude oil reserves. The below graphs highlight the difference between commercial and SPR stockpiles, along with the weekly changes to SPR stockpiles.

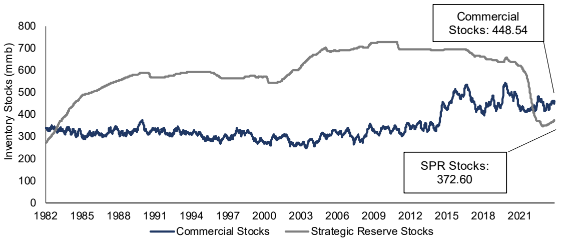
US SPR reserves

Figure 20: Strategic Petroleum Reserve Stocks and SPR WoW Change



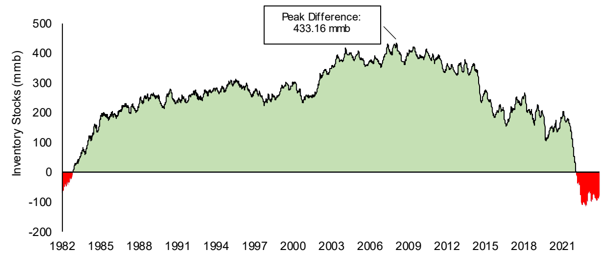
Source: EIA

Figure 21: US Oil Inventories: Commercial & SPR



Source: EIA

Figure 22: US Oil Inventories: SPR Less Commercial



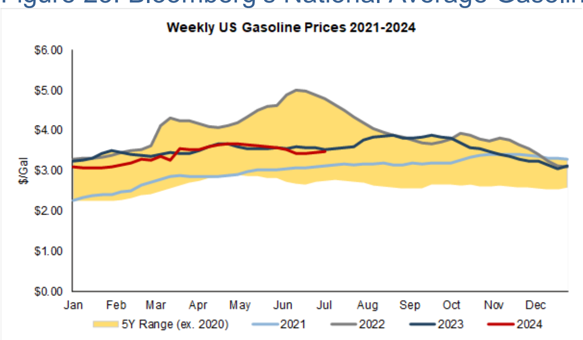
Source: EIA

Oil: US national average gasoline price +$0.01 WoW to $3.51

US gasoline prices

Yesterday, we tweeted [LINK] "*Basically flat US national average gasoline prices this week. AAA National average prices +$0.01 WoW to $3.51 on July 6, down $0.02 MoM and down $0.02YoY. California at $4.79 on July 6, down $0.01 WoW, down $0.19 MoM & down $0.05 YoY. Thx @AAAnews #OOTT.*" Yesterday, AAA reported that US national average prices were $3.51 on July 6, which was +$0.01 WoW, +$0.02 MoM and -$0.02 YoY. Yesterday, AAA reported California average gasoline prices were $4.79 on July 6, which was -$0.01 WoW, -$0.19 MoM, and -$0.05 YoY. Below is our graph of Bloomberg's National Average Gasoline prices.

Figure 23: Bloomberg's National Average Gasoline Prices



Source: Bloomberg

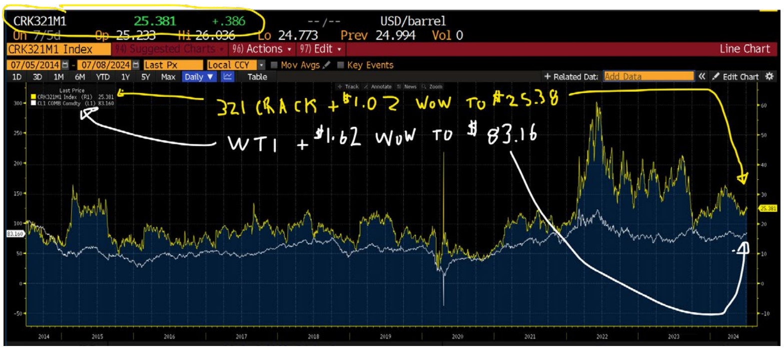
Oil: Crack spreads +$1.02 WoW to $25.38, WTI +$1.62 WoW to $83.16

Crack spreads closed at $25.38

On Friday, we tweeted [LINK] "*321 crack +$1.02 WoW to $25.38 on Jul 5. WTI was +$1.62 WoW to $83.16. Good week for #Oil with big EIA oil inventory draw & geopolitical risks ie. Israel/Hezbollah. 321 cracks at $25.38 should keep oil flowing to refineries with summer peak just started. Thx @business #OOTT.*" It was a good week for oil with the big EIA -12.2 mmb draw from US oil inventory and also increasing geopolitical risks from what seems to be an escalating Israel/Hezbollah conflict. We ave always said crack spreads around $30 are a big incentive for refiners to buy as much crude as possible. Conversely crack spreads in the low $20s won't necessarily incentivize refiners to crank up oil processing. Cracks are now just over $25 at $25.38 and this should keep refiners running refineries at strong levels given it is still early in the peak summer demand period. Crack spreads were +$1.02 WoW to close at $25.38 on July 5 and WETI was +$1.62 WoW to close at $83.16. Crack spreads of $25.38 on July 5 followed $24.36 on June 28, $24.36 on June 21, $23.45 on June 14, $24.31 on June 7, $24.04 on May 31, $25.65 on May 24, $27.04 on May 17, $25.89 on May 10, $27.59 on May 3, $28.96 on Apr 26, $28.30 on Apr 19, and $30.39 on Apr 12. Crack spreads at $25.38 are still above the high end of the more normal pre-Covid that was more like $15-$20.

Crack spreads point to near term oil price moves, explaining 321 crack spread
We have focused on crack spreads for since the 90s as they are an unchanged fundamental of refineries – big crack spreads provide incentives for refineries to buy more crude because there are big profit margins to be made. People often just say "cracks", which refers to the 321 crack spread. This is the spread or margin that refiners make from buying crude at a certain price and then selling the finished petroleum products at their respective prices. The 321 crack spread is meant to represent what a typical US refinery produces. It assumes that for every three barrels of crude oil, the refinery will produce two barrels of gasoline and one barrel of distillates. So the crack spread is based on that formula and worked back to a crack spread per barrel. Below is the current 321 crack spread vs WTI that we put in our tweet where we marked the gaps where the crack spread normally drags up oil prices. The crack spread was $25.38 as of the Friday July 5, 2024 close.

Figure 24: Cushing Oil 321 Crack Spread & WTI July 5, 2014 to July 5, 2024



Source: Bloomberg

Oil: Trans Mountain Oil Pipeline shipped 350,000 b/d in June

Trans Mountain shipped 350,000 b/d in June

On Monday, Reuters reported on the Trans Mountain Oil Pipeline's export volumes for the first month of operations [LINK] that 20 ships loaded crude oil from the port in Vancouver throughout the first full month of operations, which was just shy of their 22 ship target. Reuters reported "*Total crude exports from Vancouver were around 350,000 barrels per day with the last two vessels for June-loading at the Westridge Marine terminal, as of Sunday. "This first month is just shy of the 350,000-400,000 bpd we expected ahead of the startup. We are still in the discovery phase, with kinks being ironed out ... but in the grand scheme of things, this has been a solid start," said Matt Smith, lead analyst at Kpler.*". Reuters did not report on the split of 350,000 b/d by destination but the inference is that most of it is to the US West Coast. Reuters wrote ""*Chinese demand has been below expectations, and if not for*

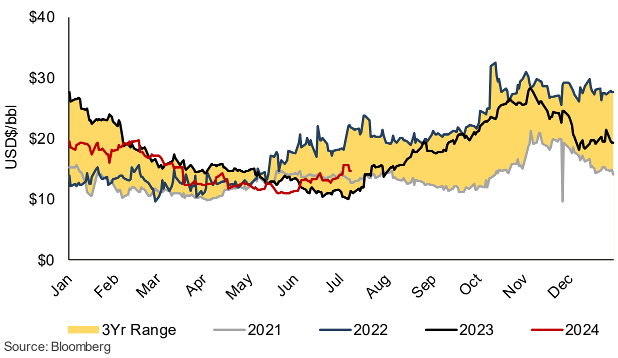
Reliance most of the barrels in June would have remained within the (West Coast) region," Rathod added." Our Supplemental Documents package includes the Reuters report.

Oil: Cdn heavy oil differentials widen $0.70 WoW to close at $14.70 on July 5

WCS differential widens

Note, we should see a positive for WCS less WTI differentials in the coming week with the reports that Suncor has shut-in its Firebag oil sands .We still believe the real test of how much the startup of the 590k,000 b/d TMX expansion will impact WCS less WTI differentials is still to come in the coming weeks. Aug is normally when we normally see a widening of the WCS less WTI differentials. But even with the TMX startup, we still expect to see WCS less WTI differentials moving up and down based on items like refineries up and downs, wildfires, etc. Below is graph showing WCS-WTI differentials that shows this normal seasonal trend of narrowing WCS-WTI differentials that normally start to widen in Aug. The WCS less WTI differential closed on July 5 at $14.70, which was a widening of $0.70/bbl WoW vs $14.00/bbl on June 28.

Figure 25: WCS less WTI oil differentials to July 5 close



Source: Bloomberg

Oil: Suncor shuts down 215,000 b/d Firebag oil sands due to nearby wildfire

Suncor's 215,000 b/d Firebag shut down

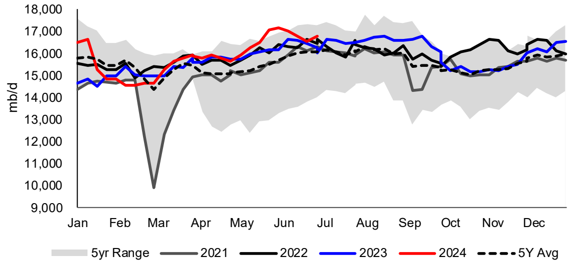
This Suncor shut down of Firebag should help WCS less WTI differentials as less oil on the market is positive to Cdn heavy/medium oil prices. On Thursday, Reuters reported Suncor shut down its 215,000 b/d Firebag oil sands site in Northern Alberta on Wednesday because of a nearby wildfire that was only five miles awsay [LINK]. Reuters wrote "*Suncor, Canada's second-largest oil producer, said the facility will be kept ready to resume full operations as soon as possible once it is safe to do so. The company added that it was keeping only essential workers at the facility, which lies roughly 100 kilometres northeast of the oil sands hub of Fort McMurray, and that there was no risk to its other operations or the Firebag airport."* Yesterday, we saw CTV News reports that the fire had grown in size but being held away from Firebag. As of our 7am MT news cut off, we have not seen any reports updating Firebag or the nearby wildfire.

Oil: Refinery Inputs up +0.260 mmb/d WoW to 16.792 mmb/d

Refinery inputs +0.260 mmb/d WoW

There are always unplanned refinery items that impact crude oil inputs into refineries. And there are always different timing for refinery turnarounds. But, as a general rule, this is the normal seasonal ramp up in refinery runs for the summer that normally peaks in August. On Wednesday, the EIA released its estimated crude oil input to refinery data for the week ended June 28 [LINK]. The EIA reported crude inputs to refineries were up +0.260 mmb/d this week to 16.792 mmb/d and are up +0.762 mmb/d YoY. Refinery utilization was up +1.3% WoW to 93.5%, and was up +2.4% YoY.

Figure 26: US Refinery Crude Oil Inputs



Source: EIA, SAF

US net oil imports

Oil: US net oil imports down -0.556 mmb/d WoW as oil exports up +0.491 mmb/d WoW
The EIA reported US "NET" imports were down -0.556 mmb/d to 2.146 mmb/d for the June 28 week. US imports were down -0.065 mmb/d to 6.547 mmb/d, while exports were up +0.491 mmb/d to 4.401 mmb/d. Top 10 was up +0.004 mmb/d. (i) Venezuela weekly imports. We know why the EIA doesn't have any data in the row for Venezuela weekly oil imports but we still don't know if the weekly oil imports are off or if Venezuela is included in the weekly oil imports in the Others number. But we do know the EIA monthly data shows Padd 3 imports from Venezuela >150,000 b/d. Give the EIA credit for putting out weekly oil import estimates, but it's a reminder that we have to be careful about using the weekly oil import estimates. Rather we need to make sure we go to the monthly data for oil imports. (i) Canada was up +0.028 mmb/d to 3.918 mmb/d. Weekly imports have been higher of late with reports of increased Cdn crude coming off TMX and hitting west coast US refineries. (ii) Saudi Arabia was down -0.016 mmb/d to 0.146 mmb/d. (iii) Mexico was down -0.040 mmb/d to 0.332 mmb/d. (iv) Colombia was up +0.193 mmb/d to 0.276 mmb/d. (v) Iraq was down -0.004 mmb/d to 0.191 mmb/d. (vi) Ecuador was down -0.058 mmb/d to 0.152 mmb/d. (vii) Nigeria was up +0.165 mmb/d to 0.222 mmb/d.

Figure 27: US Weekly Preliminary Imports by Major Country

	May 3/24	May 10/24	May 17/24	May 24/24	May 31/24	Jun 7/24	Jun 14/24	Jun 21/24	Jun 28/24	WoW
Canada	3,659	3,812	3,495	3,666	3,768	3,974	4,137	3,890	3,918	28
Saudi Arabia	355	196	486	422	375	278	372	162	146	-16
Venezuela	0	0	0	0	0	0	0	0	0	0
Mexico	805	507	184	551	538	987	563	372	332	-40
Colombia	183	211	215	32	496	75	306	83	276	193
Iraq	326	123	239	233	126	228	164	195	191	-4
Ecuador	129	207	163	103	200	149	199	210	152	-58
Nigeria	322	212	144	71	0	208	86	57	222	165
Brazil	217	293	315	127	254	134	201	341	74	-267
Libya	1	86	0	262	0	87	0	86	89	3
Top 10	5,997	5,647	5,241	5,467	5,757	6,120	6,028	5,396	5,400	4
Others	972	1,097	1,422	1,302	1,301	2,184	1,026	1,215	1,147	-68
Total US	**6,969**	**6,744**	**6,663**	**6,769**	**7,058**	**8,304**	**7,054**	**6,611**	**6,547**	**-64**

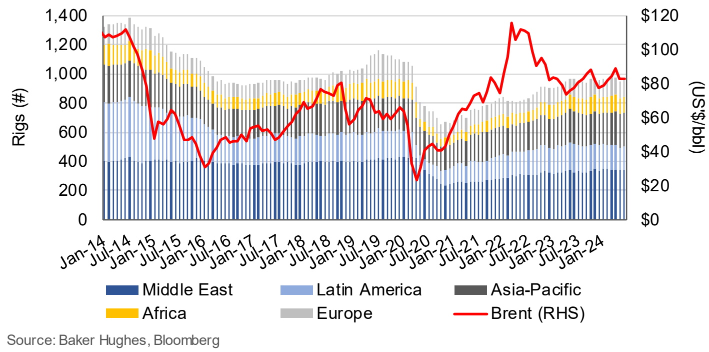
Source: EIA, SAF

150,000 b/d Cdn crude from TMX expansion is hitting US West Coast refineries
Last week's (June 30, 2024) Energy Tidbits memo highlighted that the latest EIA estimates of US oil imports by country by PADD was for April and the 590,000 b/d TMX expansion did not start up until May. So we don't have EIA data on how much Cdn oil is hitting US West Coast refineries including TMX. The EIA's weekly oil import splits does not provide imports from Canada by PADD. Last week's memo wrote "*But, on Monday, Bloomberg's report "Cheap Canadian Oil Displaces Iraqi Imports on US West Coast" referenced Vortexa data showing about 150,000 b/d of Cdn crude is expected to hit US West Coast refineries coming off TMX. Bloomberg wrote "US West Coast refiners are replacing their heavy Iraqi oil imports with cheaper crude from Canada as the newly expanded Trans Mountain pipeline reshuffles trade flows across the Pacific. California and Washington are set to import about 150,000 barrels a day of Canadian crude by tanker in June — a seven-fold increase from average volumes, according to preliminary Vortexa data. At the same time, imports of Iraq's Basrah Heavy crude are poised to plunge to just 3,587 barrels a day from 76,000 barrels in May." Our Supplemental Documents package includes the Bloomberg report."*

Oil: Baker Hughes International +4 rigs MoM to 957 rigs in June, down 1% YoY
On Friday, Baker Hughes posted its monthly update to international rigs, in total, that show rigs in June increased MoM. (i) Note that Baker Hughes has changed its report format which doesn't allow us to break out country-by-country information. (ii) Total international rigs increased by +4 rigs MoM to 957 rigs in June, and total rigs are now up +151 rigs from the recent low of 806 in April 2022. The MoM rig count is as follows: Africa -1 rig, Asia-Pacific +4 rigs, Europe -4 rigs, Latin America +4 rigs, and the Middle East +1 rig. The YoY rig count is Africa +4 rigs, Asia-Pacific +4 rigs, Europe -3 rigs, Latin America -28 rigs, and the Middle East +13 rigs. (iii) We weren't able to summarize the MoM data by country due to Baker-Hughes' new format. (iv) May's count of 957 rigs was -1% YoY from 967 in June 2023, and down -12% vs pre-Covid February 2020 of 1,085 rigs (March 2020 is when the pandemic kicked off). Below is our graph of international rigs by region and avg monthly Brent price.

International rigs +4 MoM in June

Figure 28: Baker Hughes International Rig Count and Brent Price



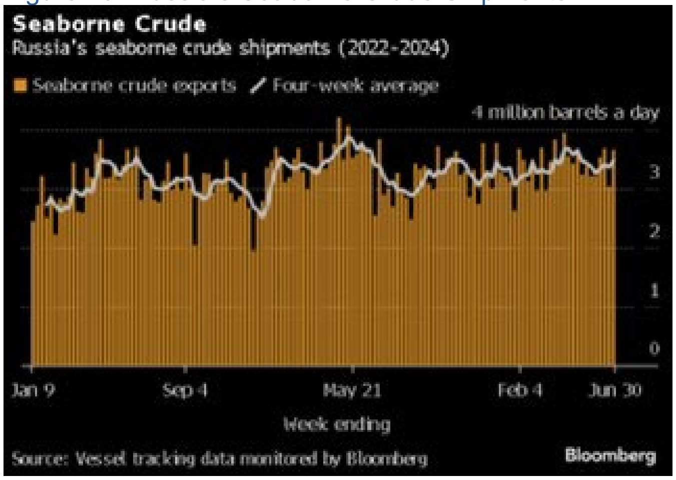
Source: Baker Hughes, Bloomberg, SAF

Oil: Russia's seaborne crude oil exports rebound after completion of port maintenance

Russia's seaborne crude exports

Information on the impacts on Russian oil infrastructure and its impact on moving crude is still a black hole. So it's far from clear how drone strikes have affected refinery capacity in Russia would free up crude for export assuming the crude oil volumes can be moved to export terminals. As noted previously, Russia has been moving more crude and products via rail, however, this week shows an increase in seaborne crude exports. On Tuesday, Bloomberg reported, "*Russia's weekly crude exports jumped by the most since March in the seven days to June 30 on completion of maintenance at major export terminals, with the less volatile four-week average rising to its highest in eight weeks….Russia's seaborne crude flows in the week to June 30 rose by about 620,000 barrels a day to 3.67 million, recovering virtually all of the previous week's loss. The less volatile four-week average was also up, rising by about 110,000 barrels a day to an eight-week high of 3.48 million. The previous week's slump in shipments from Primorsk and Kozmino — Russia's two most important crude export ports — was fully reversed, but partly offset by fewer ships leaving Novorossiysk and the Arctic terminals at Murmansk.*" Russia has pledged to compensate for overproduction against its April target, which was attributed to "technicalities of making significant output cuts". Russia made significant output cuts in May, however they were still above their promised target. Our Supplemental Documents package includes the Bloomberg report.

Figure 29: Russia's Seaborne Crude Shipments



Source: Bloomberg

Russia oil exports to China down vs two months ago with lesser discounts

Russia oil shipments to China averaged 1.36 mmb/d for the first half of April. But they have been down since then with the reports that Russia had cut its discounts to China and that meant China was taking less Russian oil. Bloomberg's above report this week highlighted Russia oil shipments to China were down to 1.11 mmb/d for the week ending June 30, up from last week's 1.03 mmb/d for the June 23 week but still down from 1.36 for the first half of April. The last six weeks average is now 1.20 mmb/d. We were warned that China oil imports from Russia were being hit on April 22 by one of our favorite commentators on the Gulf Intelligence Daily Energy Podcasts is Victor Yang, Senior Analyst JLC Network Technology. He is based in

China so we like hear his on-the-ground views on oil, natural gas and markets in China. Here is what we wrote in our April 28, 2024 Energy Tidbits memo referencing Yang's comments from our April 22, 2024 tweet [LINK] that included a transcript we made of Yang's comments. "*And for the second quarter, we see a lot of refinery maintenance, is imports will actually come down. And for now, the premium for Russian cargoes have strengthened this year, from -0.5 barrels to -0.3 barrels. And now it's flat to Brent, meaning 0 now. So this has dampened refiners, particularly independents, interest in Russian crude. Their margins for imported crude, including Russian crude, actually turned negative late last month and the beginning of this month. So it's now kind of [inaudible] slightly above the breakeven point. So the interest in this has been dampened too. So we are not expecting imports to grow much in the second quarter, yes.*" Below is the table from Bloomberg's Russia oil exports report this week.

Figure 30: Russian Crude Exports to Asia

Crude Shipments to Asia
Shipments of Russian crude to Asian buyers in million barrels a day

4 weeks ending	China	India	Other	Unknown Asia	Other Unknown	Total
May 26, 2024	1.26	1.62	0.00	0.10	0.00	2.99
June 2, 2024	1.17	1.66	0.00	0.10	0.00	2.93
June 9, 2024	1.34	1.53	0.00	0.10	0.00	2.97
June 16, 2024	1.25	1.72	0.00	0.03	0.00	3.00
June 23, 2024	1.06	1.80	0.00	0.09	0.00	2.95
June 30, 2024	1.11	1.61	0.00	0.26	0.05	3.04

Source: Vessel tracking data compiled by Bloomberg Bloomberg

Source: Bloomberg

Oil: Russian refineries coming back on means cuts to oil exports from Black Sea

Russian oil producers to cut exports

On Friday, we tweeted [LINK]: "*Less Russian #Oil for export as Russia restarts refineries hit by drones. Restarts at 240,000 bd Tuapse refinery on Black Sea & 340,000 b/d NORSI refinery in central Russia. Black Sea loadings expected down ~220,000 b/d in July vs June. Thx @Reuters #OOTT".* It's been a black box as to how much Russian oil refinery capacity is offline due to Ukraine drone attacks. But, on Thursday, Reuters reported Rosneft and Lukoil were cutting oil exports from the Novorossiisk export port on the Black Sea in July [LINK].". Reuters reported, "*Rosneft oil exports from Novorossiisk are set to fall to 0.62 million metric tons in July from 1.06 million tons in June, while its Tuapse refinery is set to resume crude runs this month. Lukoil's exports from the port will fall to 0.19 million tons in July from 0.58 million tons last month, sources said…...Russia's overall oil exports and transit from its western ports in July are expected to decline from June amid higher refinery runs and Moscow's pledge to stick to OPEC+ output cuts".* Our tweet added the detail that Tuapse refinery has a capacity of 240,000 b/d and the NORSI refinery located in central Russia has a capacity of 340,000 b/d. Our Supplemental Documents Package contains the Reuters report.

Oil: Bloomberg OPEC production -80,000 b/d MoM to 26.980 mmb/d in June

OPEC June production -80,000 b/d

On Monday, Bloomberg posted its monthly survey of OPEC production. (i) The Bloomberg survey estimates OPEC production was down -80,000 b/d MoM to 26.980 mmb. (ii) May's estimates were revised up from 26.960 mmb/d to 27.060 mmb/d, with Iran being revised up +40,000 b/d to 3.240 mmb/d from 3.200 mmb/d, Iraq being revised up +40,000 b/d to 4.280 mmb/d from 4.240 mmb/d, Saudi Arabia being revised down -20,000 b/d to 9.010 mmb/d from 9.030 mmb/d, and the U.A.E. being revised up +40,000 to 3.170 mmb/d from 3.130 mmb/d in May. (iii) The largest MoM changes in June vs May were: Iraq was down -30,000 b/d MoM to 4.250 mmb/d, Kuwait was down -20,000 b/d to 2.440 mmb/d, Nigeria saw a -30,000 b/d decrease to 1.430 mmb/d, Saudi Arabia was down -20,000 b/d to 8.990 mmb/d, and Venezuela was up +30,000 b/d MoM to 0.890 mmb/d. Below is the Bloomberg survey table.

Figure 31: Bloomberg Survey OPEC production in June (mmb/d)

Production ('000 b/d)	June	May	Chg	Capacity
Total OPEC	26,980	27,060	-80	33,490
Algeria	900	900	0	1,060
Congo, Republic	250	240	+10	300
Equatorial Guinea	50	60	-10	120
Gabon	210	220	-10	220
Iran	3,240	3,240	0	3,830
Iraq	4,250	4,280	-30	4,800
Kuwait	2,440	2,460	-20	2,820
Libya	1,160	1,160	0	1,200
Nigeria	1,430	1,460	-30	1,600
Saudi Arabia	8,990	9,010	-20	12,000
U.A.E.	3,170	3,170	0	4,650
Venezuela	890	860	+30	890

Source: Bloomberg

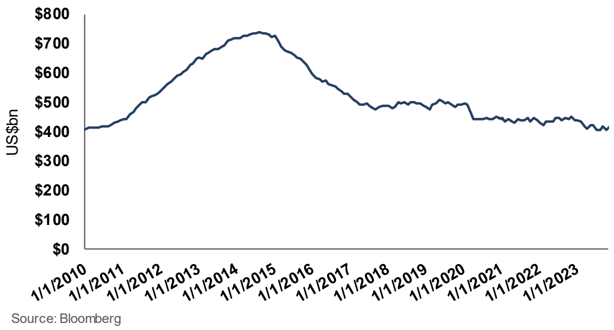
Oil: Saudi nest egg, its net foreign assets were up +$21.0b MoM in May

Saudi net foreign assets

There have been a number of major Saudi Arabia transactions raising outside capital so, no surprise, we are seeing some months with big increases in Saudi net foreign assets. Last Sunday, the Saudi Central Bank (SAMA) released its Monthly Statistical Bulletin for the month of May [LINK]. We continue to believe in our long-stated view that the #1 financial theme for Saudi Arabia in the 2020s will be their continued, and increasing, use of Other People's Money as they try to fund MBS's Vision 2030. We believe this has been obvious with how Saudi Arabia's net foreign assets dropped by ~34% or $227.5b over the last nine years (since March 2015). We are surprised that markets and oil watchers didn't seem to pay attention to the Saudi net foreign assets data i.e., what we call their nest egg to help them their push to MBS's Vision 2030. We are seeing much larger MoM changes, both up and down. There was a $21.0b MoM increase to Saudi Arabia's net foreign assets which are now $444.6 in May vs $423.6b in April. Last month's data reflected a decrease of -$10.6b MoM in April. But the thesis and big picture remains, Saudi net foreign assets as of May 31 of $444.6b is a decline of ~40% or $292.4b over the last 10 years from its peak of $737.0b on Aug 31, 2014. That is an average of $2.5b per month for the last 118 months since the peak. Saudi Arabia is far from going broke but there has been a huge decline in the last 10 years.

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. Below is our graph of Saudi Arabia net foreign assets updated for the May data. Our Supplemental Documents package includes an excerpt from the SAMA monthly bulletin.

Figure 32: Saudi Arabia Net Foreign Assets



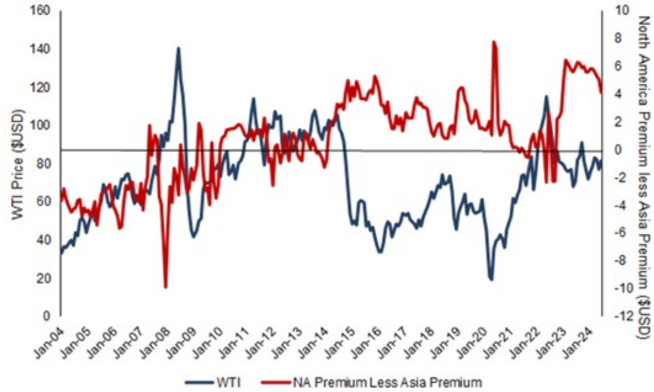
Source: Bloomberg

Oil: Saudi OSPs do more than reflect demand, they can also help support prices

Saudi Aramco OSP

Saudi Aramco posted its OSP (Official Selling Prices) this week and the general commentary was how the lowering of the premium for Asia reflects weaker demand. It's hard to disagree with that general comment but we continue to believe there is some strategy to how they set their differentials to the US vs Asia. And they use these relative price differentials to the US as way to help support oil prices by how they increase the premium to the US relative to the premium to Asia. By increasing the prices differentials to the US vs Asia, they try to reduce oil flows to the US and therefore try to have some near-term impact support for oil. Its because the US oil inventory data is weekly and well followed and looked at a global oil price signal. Any reduced flows to the US get reflected quickly in US oil inventories. Below si the graph we created that shows the relative price of Saudi Aramco OCP premium for North America (US) to benchmark LESS Saudi Aramco OSP premium for Asia to benchmark. Ie. the price spread. So when Saudi wants to give price support, they crank up the spread to try to support WTI oil price. Our Supplemental Documents package includes the Saudi Aramco OSP table for Aug.

Figure 33: Saudi Aramco Light Oil OSP Premium North America Less Asia vs WTI



Source: Bloomberg

Oil: Can reformist new Iran President effect change in foreign policy or just tone?

Iran elects a reformist

The west will be pleased that Iran elected a reformist as President and not another hardliner. However, our concern is that the Supreme Leader's recommendation to new President Pezeshkian points to Pezeshkian not having any real impact on key Iran policies and practices. As of our 7am MT news cut off, we haven't seen any formal White House release or tweet on the election of reformist Masoud Pezeshkian as Iran President. Our initial thoughts on oil were on the potential to return to JCPOA and Iran's unbridled oil production and exports, especially since Pezeshkian is in favor of the JCPOA. (i) Yesterday, we tweeted [LINK] "*#JCPOA. "we asked what is the alternative of JCPOA?" "we have to solve the sanctions problem", "they blocked the way, and the result is the pain that people suffered" Iran new President @drpezeshkian 👇06/24 posts. Will Biden see reformist Pezeshkian as an opportunity to resurrect JCPOA for a much needed foreign policy win? Can Pezeshkian effect foreign policy change or just change the tone? Even if only tone, hard to see Biden changing his approach on Iran ie. US letting Iran #Oil exports at max levels. #OOTT.*" (ii) JCPOA. Our tweet included four June 24 tweets by Pezeshkian during the election campaign. A few of the excerpts were "*We asked what is the alternative of JCPOA? Mr. Jalili said we don't have it. Israel and trump said they will tear up the JCPOA and they burned the JCPOA in the parliament!" 'We have to solve the sanctions." "The JCPOA is for the same government hat they say is bad, the fight is not in my name! For this reason, when the problem was about to be solved, they blocked the way, and the result is the pain that people suffered.*" (iii) The story the last week has all been about the debate and how Biden has been hurt badly in the polls. We have to believe someone in the Biden Administration will look at Pezeshkian as a hope, albeit small, for at least re-engaging Iran on the JCPOA. Why won't Biden try for some foreign policy victory. (iv) Iran oil exports. We can't see Biden moving back to enforce sanctions and cut Iran's oil exports given a reformist has been elected and presents the first chance to have someone who isn't a hardliner. Our Supplemental Documents package includes Pezeshkian June 24 tweets.

Will Pezeshkian change Iran support for its proxies ie. Hezbollah, Houthis, etc

The more immediate watch for new Iran President Pezeshkian will be if there is any impact on Iran's support for its proxies – Hamas, Hezbollah, Houthis, Iraq, etc. The one we will watch the most if Hezbollah because they are Iran's closest ties. But also the Houthis. If, as most believe, the Houthis don't have the drone/missile capability and get them all from Iran, then there should be an implied indication in the coming weeks if Houthis attacks start to significantly decrease for an extended period.

Supreme Leader recommends Pezeshkian continues path of Martyr Raeisi

We think the most significant news out of the election was the Supreme Leader's congratulations which we believe indicate the Supreme Leader reminding Pezeshkian to follow former President Raeisi, a hardliner, in his policies. Pezeshkian is viewed as a reformist or moderate and won a majority in the election with support of young people. The Supreme Leader congratulated Pezeshkian and made some recommendations to him on how he should serve. Yesterday, we tweeted [LINK] "*Supreme leader gives advice to new Iran President, reformist Pezeshkian. "recommend President-elect Pezeshkian trust in God the Most Merciful and look forward to long and bright horizons, and in the continuation of the path of Martyr Raeisi...." Raeisi was a hardliner! #OOTT."* Our tweet included the Mehr News Agency report on the Supreme Leader's comments. We thought the key recommendation was that Pezeshkian should continue the policies of the hardliner Raeisi. Mehr wrote "*I also recommend President-elect Pezeshkian trust in God the Most Merciful and look forward to long and bright horizons, and in the continuation of the path of Martyr Raeisi. He should employ the most of the ample capacities and potentials of the country, especially the young, revolutionary and faithful human resources, for the comfort of the people and the progress of the country."* The Supreme Leader recognizes the role young people played in Pezeshkian's election so also said ""*Now that the Iranian nation has elected its president, I congratulate the nation and the president-elect and all those working in this sensitive juncture, especially the enthusiastic youths at the election headquarters of the candidates, and recommend everyone to cooperate and think for the progress and increasing honor of the country*." Seems like the Supreme Leader remembers how it was young males that drove the original Iranian revolution. But he also is reminding Pezeshkian to follow the policies. Our Supplemental Documents package includes the Mehr report.

Oil: Iran says its oil price discounts to China are low single digits

Iran's oil discounts to China

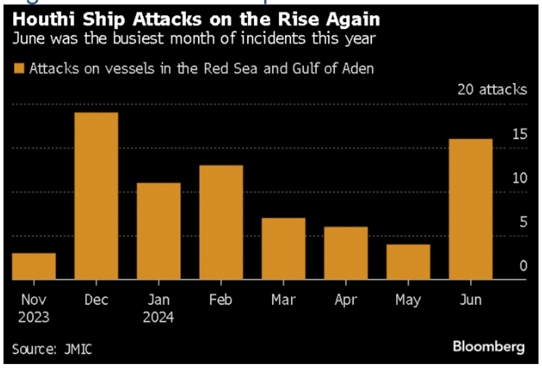
We have been highlighting that a key holdback to oil prices over the last two years has been that the Biden Administration hasn't enforced the sanctions on Iran and Iran has been ramping up their oil production and exports. There doesn't seem to be any holdbacks to Iran exporting as much oil as possible. As to hurting Iran oil revenue, if we are to believe Iran's oil minister, there is no big discounts even to China. On Tuesday, we tweeted [LINK] "*Think google translate meant to say Iran's oil minister says Iran doesn't give big discounts on oil price to China rather the discount is less than the fingers on one hand ie. low single digits. He also said they export to 17 countries incl in EU. #OOTT."* Tasnim News (considered semi state media) reported on comments by Iran oil minister Owji. It as only on their Farsi site so we have to hit the Google Translate. Owji reiterated that Iran's oil production was 3.57 mmb/d and also noted it was exporting oil to 17 countries around the world including to Europe. Owji also made a point of saying their discounts to China were low. Tasnim wrote "*Criticizing the statements made by some candidates about discounting the price of Iranian oil in the global markets during the presidential elections, Oji said: "They say that we give* *strange discounts to China, but this is not the case, the percentage of the discount on Iran's oil exports is less than the fingers of the fingers*." As noted in our tweet, we assume Owji was saying less than finers on one hand and not the fingers of the fingers. Our Supplemental Documents package includes the Google Translate version of the Tasnim report.

Oil: June saw most Houthis attacks in 2024

Houthi attacks in June

On Tuesday, we tweeted [LINK] "*June saw most Houthis attacks in 2024. 👇 @alexlongley1. Prior to, it was looking like the big increase in US/UK attacks on Houthis missile & radar sites was working ie. less missile sites = Houthi attacks down. Houthis aren't going away for now. #OOTT.*" Our tweet included the below Bloomberg graph that showed Houthis attacks have steadily decreased in Mar, April and May but jumped up in June to the most attacks this year. The monthly declines made sense given the US/UK have cranked up their attacks on Houthi missile and radar sites. So the June increase is a surprise. Bloomberg wrote "*Yemen's Houthi rebels conducted the largest number of attacks on commercial ships so far in 2024 in June, fresh proof that the group's threat to trade intensified in recent weeks. There were 16 confirmed attacks on ships in June, according to figures published by the naval forces operating in the region. That's the most for any single month in 2024, and was only eclipsed in December when more vessels were still sailing through the region. Separate figures published by the Washington Institute show a similar trend.*" The Houthis have somehow been able to add additional missile sites to offset the losses. And as we have been warning, we just don't see the Houthis giving up anytime soon. Our Supplemental Documents package includes the Bloomberg report.

Figure 34: Houthis ship attacks since Nov 2023



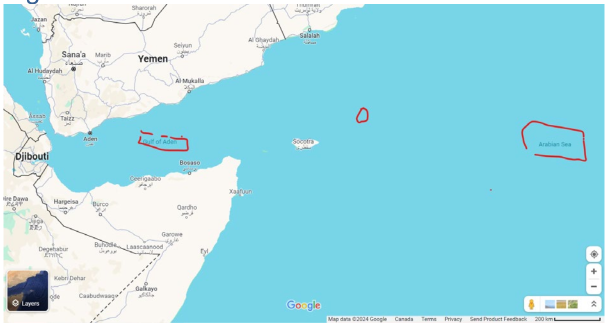
Source: Bloomberg

Oil: Seems like Houthis are advancing their drones/missile capabilities

Are Houthis advancing their capability

The above Bloomberg report on the most Houthis attacks in the Red Sea in 2024 woiuld fit with our wondering if the Houthis have been able to do what they say – advance their drone and missile capabilities. Here is what we wrote in last week's (June 30, 2024) Energy Tidbits memo on this subject. "*We recognize that the Houthis, even with Iran support, don't have drones and missiles with anywhere the capability as US drones and missiles. However, they have already disrupted global shipping markets and our concern is that people overlook they are advancing their drones/missiles capabilities. It was another week of Houthis attacking and also hitting multiple merchant ships as well as the US hitting Houthi launch sites. One of* *the takeaways this week is that the Houthis seem to be advancing their drone/missile capabilities. (i) The Houthis hit their first merchant ship with a sea drone in the Red Sea. (ii) Houthis claim to have advanced their sea drones. Yesterday, Al Masirah (Houthi news) reported [LINK] "On Friday, the war media disclosed that the drone boat used in the attack was a "Tufan-1" type, noting that it is an attack boat carrying a 150-kilogram warhead, featuring high speed and great maneuverability and stealth, reaching speeds of up to 35 nautical miles per hour. The war media confirmed that the boat is used against nearby marine targets, both stationary and moving." (iii) The Houthis claim that the latest missile, Hatem-2, is a solid fuel missile. This is the first time we have seen them claim solid fuel missiles that are typical cheaper and, more importantly, launch quicker. (iv) Houthis attacking ships farther away in the Gulf of Aden and Arabian Sea. On Monday, UK MTO reported a Houthi missile landed in close proximity to a merchant ship east of the island of Socotra."*

Figure 35: Houthis missile attack east of Socotra



Source: Google Maps

Oil: Hamas says reports inaccurate they dropped key demand in negotiations

Hamas says inaccurate reports

Earlier this morning, we tweeted [LINK] "*Note 👇 @CBSNews reports Hamas says inaccurate they dopped a key demand. Wasn't done on purpose, but already people were running with what Hamas says is inaccurate ie. earlier one of the Dem speakers on @DanaBashCNN @CNNSOTU #OOTT.*" We were just watching CNN State of the Union when one of the Democrat Biden defenders [can't recall if he was Dem senator or congressman] highlighted the reports of Hamas dropping a key demand in their negotiations as sign of Biden effectiveness in foreign policy. These were the reports last night but earlier this morning CBS News [LINK] reported "*Hamas rejects report that it dropped key demand in possible cease-fire deal. Hamas says that reports that the militant group has dropped a key demand during ongoing discussions for a cease-fire deal are inaccurate, a senior Hamas official told CBS on Sunday. The official said the militant group - which controlled Gaza before triggering the war with an Oct. 7 attack on Israel - has not dropped the demand that Israel give an up-front commitment for a complete end to the war.The Hamas official's remarks come a day after the Associated Press, citing a Hamas and an Egyptian official, reported about the apparent compromise. The AP said that while it could set the stage for further talks to end the devastating nine months of fighting, all sides cautioned that a deal is still not guaranteed. The two officials, who spoke on condition of anonymity to discuss ongoing negotiations, told the Associated Press that Washington's phased deal would first include a "full and complete" six-week cease-fire that would see the release of a number of hostages, including women, older people and the wounded, in exchange for the release of* *hundreds of Palestinian prisoners. During the 42 days, Israeli forces would withdraw from densely populated areas of Gaza and allow the return of displaced people to their homes in northern Gaza, the officials said."*

Oil: Israel Hezbollah is an increasing risk to regional stability

RBC Helima Croft on Hezbollah

It feels like more are realizing the big potential powder keg for Middle East regional stability is the escalating Israel/Hezbollah conflict. Israel still has far superior military capability but Hezbollah is multiples stronger than Hamas on its people and weapons capability. Plus Hezbollah is probably the closest of the surrogates to Iran. The concern is that Israel has proven track record that it responds with even greater force than used on them. And Hezbollah is not stopping in its rocket barrages on Israeli sites. For a good recap, we recommend reading RBC Helima Croft recent June 27 report "*MENA Watch List: Lebanon – Catching Fire?"* Here is one excerpt "*Since the start of the Israel-Hamas war, the prospect of Iranian intervention into the conflict has caused considerable anxiety for market participants given the potential of their security services to disrupt regional energy supplies. We have continually highlighted Lebanon as a potential expansion pathway of the 8-month conflict given Iran's steadfast support for its most important armed proxy Hezbollah. Unlike the other armed Axis of Resistance groups, Hezbollah was founded by the Islamic Revolutionary Guard Corps (IRGC) with a pledged allegiance to Iran's Supreme Leader. The IRGC and Hezbollah closely coordinate operations in the region and the other geographies where the Lebanese militia group has operations, notably in South America and West Africa, thereby giving Iran the ability to project power globally. Moreover, the global reach of Hezbollah is viewed as granting Iran a credible deterrent threat against potential attacks on its nuclear program."* Our Supplemental Documents package includes the summary of Helima Croft's comment

Oil: Maersk CEO has no "crystal ball" how long Red Sea diversion will last

Maersk CEO on Red Sea diversion

On Monday, we tweeted [LINK] "*Maersk CEO. No "crystal ball" how long Red Sea diversion will last. "The longer that this lasts, the more our costs will get deeply ingrained." In some regions like Europe, he said that governments need to understand the possibility that this will reignite inflation #OOTT."* (i) No idea how long the Red Sea diversion will last. Earlier Monday, Maersk reported on its CEO Vincent Clerc's comments at an online event with customers [LINK] including the headline "*With no 'crystal ball' to say how long the situation will last, Maersk is working to alleviate the impact of the disruptions."* (ii) Risk for increased costs to be embedded. Clerc also warned "*Another major challenge for carriers has been increased costs. With cargo journeys lengthened and capacity squeezed, the price per container has risen significantly. Maersk has taken on these costs knowing that many of them will remain beyond the Red Sea situation. For example, ships cannot be chartered for a few months to fill the current gaps. Instead, carriers are having to sign up to several years at the higher charter rates. Vincent Clerc said that this is one of the reasons freight rates are temporarily higher. "The longer that this lasts, the more our costs will get deeply ingrained."* (iii) Risk to reignite inflation. "*Maersk has asked governments internationally for a stronger presence in the Red Sea / Gulf of Aden. Vincent Clerc added that so far 'this has been unsuccessful'. He said that businesses around the world can help by ensuring their governments understand they are being crippled by increased costs. In some regions like Europe, he said that governments need to understand the possibility that this will reignite inflation."* Our Supplemental Documents package includes the Maersk report.

Oil: Looks like Libya Oil Minister Oun is Minister in name only

Libya oil minister

Who knows what is going on in the Libya oil ministry and it isn't clear if the uncertainty at the oil ministry is having any impact on the Libya National Oil Corporation. The issue for Oun is that Libya Prime Minister Dbeibeh has told Oil Minister Oun's deputy to keep doing Oun's job. So it looks like Oun is stating the obvious – he has a job in name only for now. On Thursday, Libya Observer (Tripoli news) reported "*Oun says he'll temporarily stop working as Minister of Oil*" [LINK]. And "*In a video statement, Oun called on the Prime Minister to correct the issue related to his duties, either by enabling him to carry out his assigned duties or issuing a decision to dismiss him in accordance with the applicable laws and legislation. "A letter from the Prime Minister on June 27 was sent to the Undersecretary of the Ministry of Oil to continue running the ministry's duties until further notice, despite my actual presence in the ministry's office as a full-time legitimate minister for the ministry's affairs in general." Oun said.*"

Oil: Last Libya oil production update was June 19 at 1.246 mmb/d

Libya oil production 1.246 mmb/d

As of our 7am MT news cut off, we have not seen any Libya National Oil Corporation oil production update since June 19. Here is what we wrote in our June 23, 2024 Energy Tidbits memo on the last oil production update. "*Last week's (June 16, 2024) Energy Tidbits memo highlighted how, on June 9, the Libya National Oil Corporation resumed posting Libya oil production updates on their Twitter/X and Facebook. Since then, they posted updates a few times each week. As of our 7am MT news cut off, the latest production was on Wednesday. And it was that Libya oil production was 1.246 mmb/d, which is basically unchanged over the past several months other than when there were brief interruptions at the Sharara oilfield*."

Oil: Chinese stocks on a seven-week losing streak, down 41% since post Covid high

Chinese stocks on 7-week losing streak

No wonder Chinese consumers are still sitting on the sidelines to the most part – they keep losing value in their homes and their stocks. On Friday, we tweeted [LINK] "*Stocks & home prices keep going down. Extended @business graph to pre-Covid & added CSI 300 price. CSI 300 stocks keep going lower, now -41% vs post Covid wkly peak Feb 12/21. 👇06/16/24 tweet home values keep going lower. #OOTT.*" BloombergTV had put up the first graph on 2024 and said "*Seven weeks of losses in China. CSI 300 poised for longest losing streak in 14 years*". Note that Bloomberg refers to the "longest" and not the "largest". We extended the graph to pre-Covid and also added in the CSI 300 closing price because it tells the full story of China stocks. Interestingly, China stocks only dropped 12% once Covid hit, but then gained 59% to its post Covid peak on Feb 12, 2021, and since then has been down 41%. Our tweet had a third graph that noted how the CSI 300 started to divert from the S&P 500 on May 28, 2021 and since then, the CSI 300 is down 37% whereas the S&P 500 is up 32%. The problem for Chinese investors in stocks is that the CSI 300 has just kept drifting down. Below are the graphs from our tweet.

Figure 36: CSI 300, weekly loss/gain for 2024

Source: Bloomberg,

Figure 37: CSI 300, weekly loss/gain and CSI 300 close since July 1, 2019

Source: Bloomberg

Figure 38 CSI 300, weekly loss/gain, CSI 300 and S&P 500 weekly close since July 1, 2019

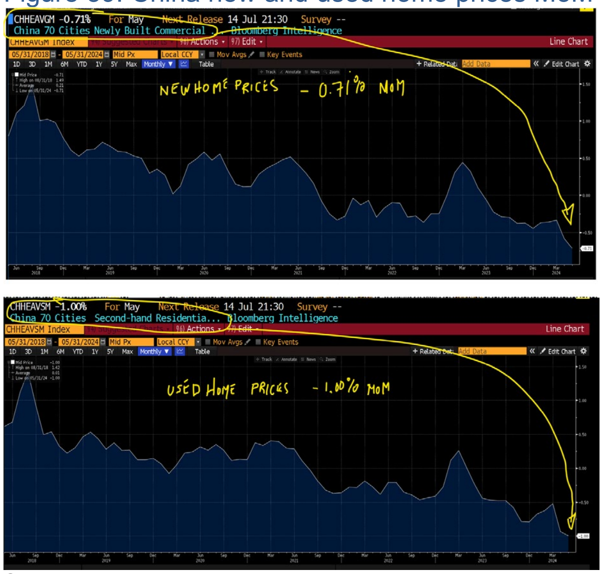
Source: Bloomberg

China new and used home prices losing value, worst MoM decline in 10 yrs

As weak as Chinese stocks have been, we believe the bigger issue for consumers is declining home prices. Our Friday tweet linked to our June 16, 2024 tweet on Chinas continued decline in home prices. Here is what we wrote in our June 23, 2024 Energy Tidbits memo. "*The big negative to the Chinese consumer is that they keep losing value in their homes. It was bad in April and the May prices are even worse. Last Sunday night we were watching Bloomberg The China Show when the breaking data came out on China new and used home prices for May. We tweeted [LINK] "Continued big negative to getting Chinese back to spending - their home values keep going down. May was worst month for China home owners for ~10 yrs. May*

New homes -0.71% MoM (Apr -0.58% MoM). May Used homes -1.00% MoM (Apr -0.94% MoM). Thx @business @DavidInglesTV @YvonneManTV #OOTT." China new home prices were down 0.71% MoM in May, even worse than down 0.58% MoM in April. China used home prices were down 1.00% MoM in May, even worse than down 0.94% MoM in April. Below are the Bloomberg graphs with the May data."

Figure 39: China new and used home prices MoM % change incl May 2024



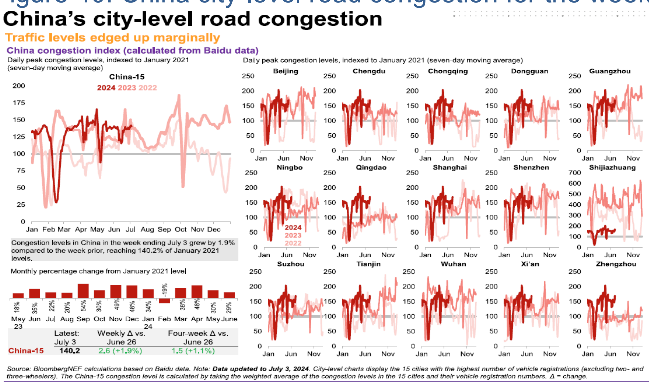
Source: Bloomberg

Oil: Baidu China city-level road congestion in June is 1st down YoY month

China city-level traffic congestion

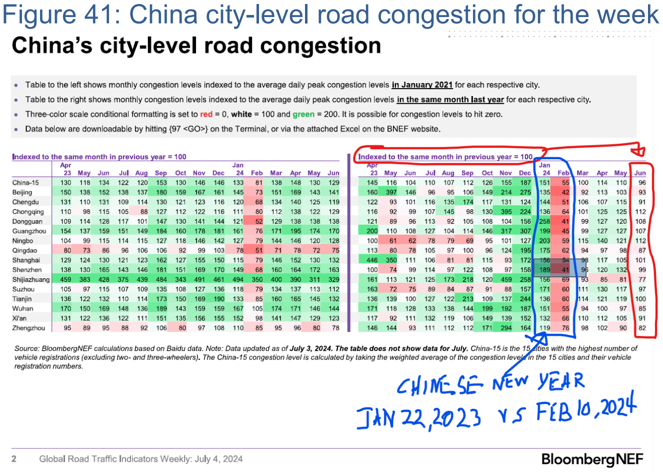
On Thursday, BloombergNEF posted its Global Road Traffic Indicators Weekly July 4 report, which includes the Baidu city-level road congestion for the week ended July 3. BloombergNEF's report was titled "*Traffic levels edged up marginally".* We recognize summer travel has now started but that ramp up tends to be in July and less so in June. So, what jumped out at us was that the month of June was the first month that was down YoY other than Feb 2024. But Feb 2024 being down big YoY was due to the different time of Chinese New Year that was Jan 22, 2023 vs Feb 10, 2024. Feb 2024 saw people leaving cities over Chinese New Year on Feb 10 whereas people were back to work in Feb 2023 as Chinese New Year was Jan 22, 2023. BloombergNEF reported Baidu city-level road congestion was up by +1.9% WoW to 140.2% of Jan 2021 levels. Compared to June 2023, June's average daily peak congestion levels were down -4% YoY. And BloombergNEF noted that June traffic for the top 15 cities were at 96% of June 2023 traffic levels. And that 9 of the top 15 cities are down YoY. Below are the BloombergNEF key graphs.

Figure 40: China city-level road congestion for the week ended July 3



Source: Bloomberg

Figure 41: China city-level road congestion for the week ended July 3



China's city-level road congestion

- Table to the left shows monthly congestion levels indexed to the average daily peak congestion levels **in January 2021** for each respective city.
- Table to the right shows monthly congestion levels indexed to the average daily peak congestion levels **in the same month last year** for each respective city.
- Three-color scale conditional formatting is set to red = 0, **white** = 100 and green = 200. It is possible for congestion levels to hit zero.
- Data below are downloadable by hitting {97 <GO>} on the Terminal, or via the attached Excel on the BNEF website.

Indexed to the same month in previous year = 100

	Apr 23	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 24	Feb	Mar	Apr	May	Jun
China-15	130	118	134	122	120	153	130	146	146	133	81	138	148	130	129
Beijing	150	138	152	138	137	180	159	167	161	145	73	151	169	143	141
Chengdu	131	110	131	109	114	130	121	123	116	120	68	134	140	125	119
Chongqing	110	98	115	105	88	127	112	122	116	111	80	112	138	122	129
Dongguan	109	114	128	117	101	147	130	141	144	121	52	129	138	138	138
Guangzhou	154	137	159	151	149	184	160	178	181	161	76	171	195	174	170
Ningbo	104	99	115	114	115	127	118	146	142	127	79	144	146	120	128
Qingdao	80	73	86	96	106	106	92	99	103	78	51	71	78	72	75
Shanghai	129	124	130	121	123	162	127	155	150	115	79	146	152	130	132
Shenzhen	138	130	165	143	146	181	151	169	170	149	68	160	164	172	163
Shijiazhuang	459	383	428	375	439	484	343	491	461	494	350	400	390	311	329
Suzhou	105	97	115	107	109	135	108	127	136	118	79	134	137	113	112
Tianjin	136	122	132	110	114	173	150	169	190	133	85	160	165	145	132
Wuhan	170	150	169	148	136	189	143	159	159	167	105	174	171	146	144
Xi'an	131	122	136	122	111	151	135	156	155	152	98	141	147	129	123
Zhengzhou	95	89	95	88	92	106	80	97	108	110	85	95	96	80	78

Indexed to the same month in previous year = 100

	Apr 23	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan 24	Feb	Mar	Apr	May	Jun
China-15	145	116	104	110	107	112	126	155	187	151	55	100	114	110	96
Beijing	160	397	146	96	95	106	149	214	275	135	42	92	113	103	93
Chengdu	122	93	101	116	135	174	117	131	124	144	51	106	107	115	91
Chongqing	116	92	99	107	145	98	130	395	224	136	64	101	125	125	112
Dongguan	121	89	96	113	92	105	108	104	156	258	41	99	127	120	108
Guangzhou	200	110	108	127	104	114	146	317	307	199	45	99	127	127	107
Ningbo	100	61	62	78	79	69	95	101	127	203	59	115	140	121	112
Qingdao	113	80	78	105	97	100	96	124	195	175	62	94	97	98	87
Shanghai	446	350	111	106	81	81	115	93	172	156	54	98	117	105	101
Shenzhen	100	74	99	114	97	122	108	97	156	189	41	96	120	132	99
Shijiazhuang	161	113	121	125	173	218	120	459	258	156	69	93	85	81	77
Suzhou	163	72	75	89	84	87	91	88	157	171	60	111	130	117	97
Tianjin	136	139	100	127	122	213	109	137	244	136	60	114	121	119	100
Wuhan	171	118	128	133	138	144	199	192	187	151	55	94	100	97	85
Xi'an	117	92	111	132	119	106	149	139	152	132	66	110	112	105	91
Zhengzhou	146	144	93	111	112	112	171	294	164	119	76	98	102	90	82

*Source: BloombergNEF calculations based on Baidu data. Note: Data updated as of **July 3, 2024. The table does not show data for July.** China-15 is the 15 cities with the highest number of vehicle registrations (excluding two- and three-wheelers). The China-15 congestion level is calculated by taking the weighted average of the congestion levels in the 15 cities and their vehicle registration numbers.*

CHINESE NEW YEAR
JAN 22, 2023 VS FEB 10, 2024

2 Global Road Traffic Indicators Weekly: July 4, 2024 BloombergNEF

Source: Bloomberg

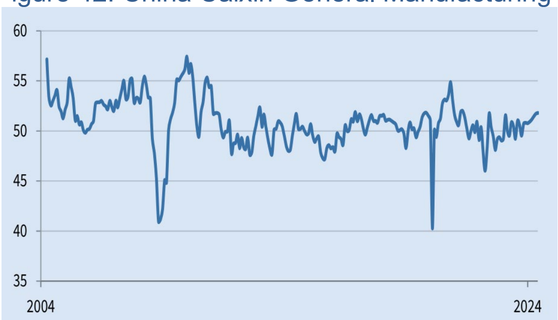
Oil: Caixin Manufacturing PMI at 51.8 in June, 8th straight month of expansion

Caixin Manufacturing June PMI 51.8

As a reminder, there are two China manufacturing PMI data reports that come out each month, the Official Manufacturing PMI that the National Bureau of Statistics publishes, and the Caixin Manufacturing PMI from S&P Global. The Caixin Manufacturing PMI is for more smaller, export-oriented companies. We have focused on the Caixin Manufacturing PMI as it is viewed as more of a leading indicator for how the China recovery is doing as it is a more of a smaller Chinese company who are export-oriented PMI and exports have been the big driver of China for the past 20 years. Commenting on the official manufacturing PMI on Sunday, we tweeted [LINK] "*8th straight mth of expansion for China smaller & export oriented firms. China Caixin Manufacturing PMI Jun 51.8 vs Est 51.58 May 51.7 Apr 51.4 Mar 51.1 Feb 50.9 Jan 50.8 Dec 50.8 Nov 50.7 "highest level since May 2021" Thx @SPGlobalPMI #OOTT".* The Caixin Manufacturing PMI for June was released at 7:45pm MT Sunday, June 30th [LINK]. The seasonally adjusted headline Caixin PMI was 51.8 in June, up from May's

51.7 and June was the 8th consecutive month of expansion. Our Supplemental Documents package includes the China Caixin Manufacturing PMI report.

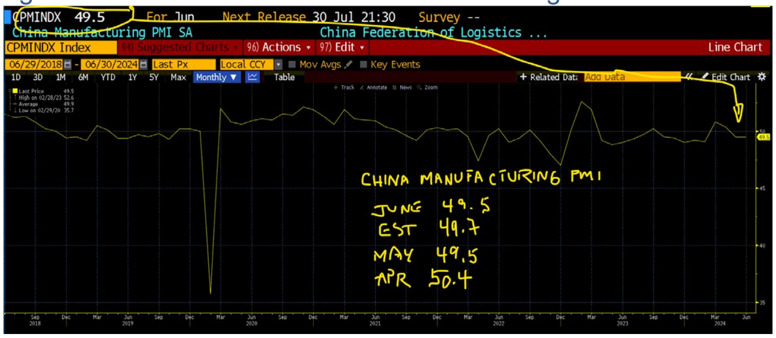
Figure 42: China Caixin General Manufacturing PMI



Source: S&P Global

China official Manufacturing PMI 2nd mth of contraction after 2 expansions
Last week's (July 7, 2024) Energy Tidbits memo highlighted the China official manufacturing PMI that was released on July 6. Here is what we wrote last week. "*As a reminder, there are two China manufacturing PMI data reports that come out each month, The Official Manufacturing PMI that the National Bureau of Statistics publishes, and the Caixin Manufacturing PMI from S&P Global. The Caixin Manufacturing PMI is for more smaller, export -oriented companies. The Official Manufacturing PMI normally comes out earlier the same day or the day before the Caixin Manufacturing PMI data that we track, however, only the Official Manufacturing PMI has come out this weekend, and the Caixin Manufacturing PMI will be released this evening at 7:30pm MT. Yesterday, we tweeted [LINK] "2nd mth of contraction after 2 mths of expansion. China official National Bureau of Statistics Manufacturing PMI out. Jun 49.5. Est 49.7. May 49.5. Apr 50.4. Mar 50.8. Feb 49.1. Jan 49.2. Export oriented smaller firms Caixin Manufacturing PMI is tomorrow night. #OOTT Thx @business." Note the Caixin Manufacturing PMI has been expansion since Nov."*

Figure 43: China Official General Manufacturing PMI



Source: Bloomberg

Oil: China's 4th largest heavy-duty truck maker sees big ramp up in LNG fueled trucks

LNG-fueled trucks in China

This week, we saw more reports on how there are more trucks in China being made to fueled by LNG instead of the traditional diesel and this is an increasing trend. Last week's (June 30, 2024) Energy Tidbits memo highlighted the insight we took away from Wood Mackenzie comments pointing to why China's diesel demand should peak sooner than expected and, if that happens, it also means China's overall oil demand should also peak sooner than expected. On Thursday, Bloomberg reported on this trend at China's 4th largest heavy-duty truck maker – Shaanxi Automobile Group. Bloomberg wrote "*China's transition to cleaner transport fuels could drive growth of heavy-duty trucks powered by liquefied natural gas in the next two decades, according the Shaanxi Automobile Group. The nation's fourth-biggest heavy-duty truck maker saw its LNG truck sales hit 15,000 in 1H, nearly three times the amount for all of 2022, Zhou Zilong, gas project manager at the company, said in an interview ** NOTE: The firm accounted for one sixth of the nation's total sales of 150k LNG heavy-duty truck last year, representing a 307% y/y increase; its sales reached a record in 2023 * Gas prices, the key to the fuel switch, have dropped below diesel and the spread enlarged since 2Q 2023; expected to remain at the level for a long period * Leading automakers are boosting investment into LNG trucks, Zhang said ** Expects market share to triple by 2060 from 2020 levels ** Nation's share of heavy-duty trucks powered by diesel is projected to fall by 50% in that period, based on studies by the China National Petroleum Corp. * Gas as a matured tech, which may be able to provide long-distance traveling as far as 4,000 kilometers (2,485 miles), can support China's decarbonization in the next two decades.*"

China to reach peak diesel demand sooner than expected

Here is what we wrote in last week's (June 30, 2024) Energy Tidbits memo on China reaching peak diesel demand sooner than expected. "*On Tuesday, we saw the rationale for why China should hit peak diesel demand sooner than expected. Wood Mackenzie said something we, and it seems many others, hadn't realized in that 25% of new heavy-duty trucks in China are now LNG fueled and not diesel fueled. We say others must be realizing because we saw comments later this week on this very subject of 25% of heavy-duty trucks being LNG fueled so we suspect they also saw the Wood Mackenzie comments. We assume that this didn't go from zero to 25% overnight so there has been some buildup of this LNG truck sales. Diesel is driven by trucks so this will have a direct impact on diesel demand. And if China reaches peak diesel demand, it also points to peak oil demand as diesel demand is roughly 25% of China's 16 mmb/d oil consumption. And on early Tuesday morning, we tweeted [LINK] "Good China insights from @WoodMackenzie Alan Gelder. Chinese distillate demand is not particularly great. so negative indicator for economy today. But decoupling of China diesel demand vs economy indicator is starting for mid-term as 25% of new heavy duty trucks are LNG fuel so "that decouples the manufacturing & movement of goods from diesel demand'" Would also be a factor to China oil demand peaking sooner than prior forecasts. #OOTT @gulf_intel." Our tweet included the transcript we made of comments by Alan Gelder (Downstream Global SME, VP Refining, Chemicals & Oil Markets, Commodities Research, Wood Mackenzie) on Gulf Intelligence's Daily Energy Markets June 25 podcast. [LINK] Items in "italics" are SAF Group created transcript. At 10:40 min mark, Gelder "The*

Chinese economy hasn't materially returned to growth. So there is a degree to which how you measure that. We look at Chinese distillate demand – it's not particularly great, not particularly strong. There is a challenge in that actually there is a akin to what China has done around electrification of the passenger car fleet. They are shifting trucks onto LNG. So something like 25% of new heavy duty truck purchases are LNG. So in a sense, we are having that move decouples the manufacturing and movement of goods from diesel demand. Just that activity of changing their fuel type."

Diesel consumption will become less of an economy indicator in China
Here is another item from last week's (June 30, 2024) Energy Tidbits memo on reducing diesel demand. "*Our tweet on diesel demand included the note that this mean diesel consumption will be less of an indicator for the economy. Many look at diesel consumption as an indicator for the China economy and increasing LNG heavy duty trucks will delink this relationship. Wood Mackenzie's Alan Gelder said "They are shifting trucks onto LNG. So something like 25% of new heavy duty truck purchases are LNG. So in a sense, we are having that move decouples the manufacturing and movement of goods from diesel demand. Just that activity of changing their fuel type."*

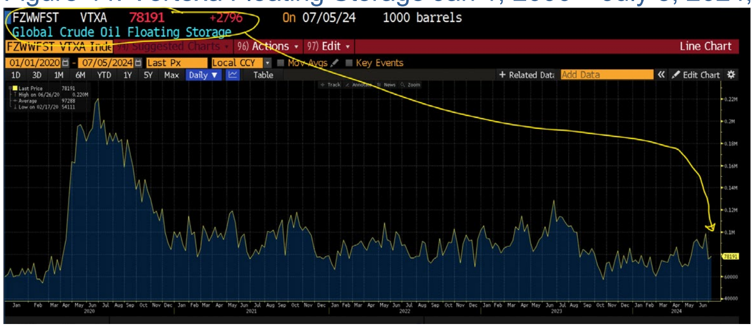
Oil: Vortexa crude oil floating storage est 78.19 mmb at July 5, +2.79 mmb WoW

Vortexa floating storage

We are referencing the Vortexa crude oil floating storage data posted on the Bloomberg terminal as of 9am 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 on the new estimates are compared to the prior week's Vortexa estimates posted on Bloomberg on June 29 at 9am MT. (i) Yesterday, we tweeted [LINK] "*Vortexa #oil floating storage est +2.79 mmb WoW to 78.19 mmb at Jul 5. Better that last 2 wks below 80 mmb. BUT last 7 wks ave 87.04 mmb and 3 +90 mmb recent wks, which were 1st such wks since Aug 2023 when Saudi Jul 2023 extra cuts kicked in. Thx @vortexa @business #OOTT."* (ii) Our tweet highlighted that the last two weeks are below 80 mmb but reminded that there were three recent +90 mmb weeks, which were the first such weeks since Aug 2023. And that the last 7-week average is still 87.04 mmb. So still not bullish. (iii) As of 9am MT yesterday, Bloomberg posted Vortexa crude oil floating storage estimate for July 5 at 78.19 mmb, which is +2.79 mmb WoW vs revised up June 28 of 75.40 mmb. Note June 28 was revised +1.57 mmb to 75.40 mmb vs 73.83 mmb originally posted at 9am MT on June 29. (iv) Revisions. There were no major revisions but most of the revisions were downward revisions. Here are the revisions for the past seven weeks compared to the estimates originally posted on Bloomberg at 9am MT on June 29. June 28 revised +1.57 mmb. June 21 revised +1.00 mmb. June 14 revised -0.62 mmb. June 7 revised -3.61 mmb. May 31 revised -2.89 mmb. May 24 revised -1.56 mmb. May 17 revised -2.42 mmb. (v) There is a wide range of floating storage estimates for the past seven weeks, but a simple average for the prior seven weeks is 87.04 mmb vs last week's then prior seven-week average of 88.33 mmb. (vi) Also remember Vortexa revises these weekly storage estimates on a regular basis. For example, when most report on the Vortexa data on Monday morning, they will be reporting on different estimates. We do not track the revisions through the week. Rather we try to compare the first posted storage estimates on a consistent week over week timing comparison. Normally we download the Vortexa data as of Saturday mornings around 9am

MT. (vii) Note the below graph goes back to Jan 1, 2020 to show the run up to Covid and then how Covid started to impact Covid in March/April 2020. (viii) July 5 estimate of 78.19 mmb is -50.59 mmb vs the 2023 peak on June 23, 2023 of 128.78 mmb. Recall Saudi Arabia stepped in on July 1, 2023 with its voluntary cuts. (ix) July 5 estimate of 78.19 mmb is -36.03 mmb YoY vs July 7 of 114.22 mmb. Below are the last several weeks of estimates posted on Bloomberg as of 9am MT July 6, June 29, and June 22.

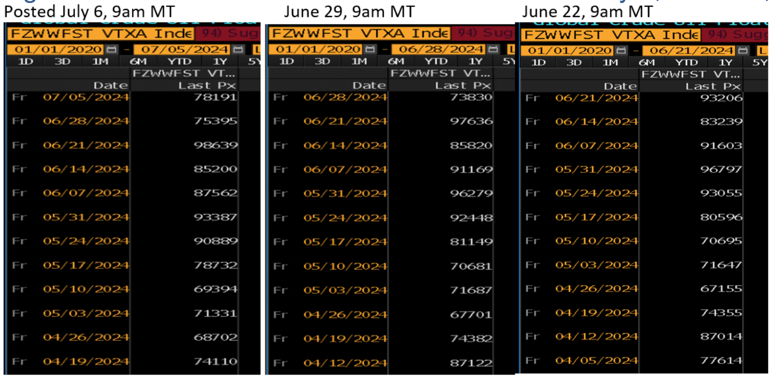
Figure 44: Vortexa Floating Storage Jan 1, 2000 – July 5, 2024, posted July 6 at 9am MT



Source: Bloomberg, Vortexa

Figure 45: Vortexa Estimates Posted 9am MT on July 6, June 29, and June 22.

Posted July 6, 9am MT | June 29, 9am MT | June 22, 9am MT



Posted July 6, 9am MT

Date	Last Px
Fr 07/05/2024	78191
Fr 06/28/2024	75395
Fr 06/21/2024	98639
Fr 06/14/2024	85200
Fr 06/07/2024	87562
Fr 05/31/2024	93387
Fr 05/24/2024	90889
Fr 05/17/2024	78732
Fr 05/10/2024	69394
Fr 05/03/2024	71331
Fr 04/26/2024	68702
Fr 04/19/2024	74110

June 29, 9am MT

Date	Last Px
Fr 06/28/2024	73830
Fr 06/21/2024	97636
Fr 06/14/2024	85820
Fr 06/07/2024	91169
Fr 05/31/2024	96279
Fr 05/24/2024	92448
Fr 05/17/2024	81149
Fr 05/10/2024	70681
Fr 05/03/2024	71687
Fr 04/26/2024	67701
Fr 04/19/2024	74382
Fr 04/12/2024	87122

June 22, 9am MT

Date	Last Px
Fr 06/21/2024	93206
Fr 06/14/2024	83239
Fr 06/07/2024	91603
Fr 05/31/2024	96797
Fr 05/24/2024	93055
Fr 05/17/2024	80596
Fr 05/10/2024	70695
Fr 05/03/2024	71647
Fr 04/26/2024	67155
Fr 04/19/2024	74355
Fr 04/12/2024	87014
Fr 04/05/2024	77614

Source: Bloomberg, Vortexa

Source: Bloomberg, Vortexa

Oil: Vortexa crude oil floating storage WoW changes by regions

Vortexa floating storage by region

Bloomberg also posts the Vortexa crude oil floating storage in key regions, but not all regions of the world. The regions covered are Asia, North Sea, Europe, Middle East, West Africa and US Gulf Coast. We then back into the "Other" or rest of world. (i) As noted above, last week's June 28, in total, was revised +1.57 mmb with the key revision being Other revised +2.86 mmb. (ii) Total floating storage was +2.79 mmb WoW vs the revised up June 28. The major WoW changes were Middle East +4.37 mmb WoW, West Africa +4.29 mmb WoW, Other -3.30 mmb WoW, US Gulf Coast -2.82 mmb WoW and Asia -2.57 mmb WoW. (iii) July 5 estimate of 78.19 mmb is -50.59 mmb vs the 2023 high on June 23, 2023 of 128.78 mmb. Recall Saudi Arabia started its voluntary 1 mmb/d production cuts on July 1, 2023. The major changes by region vs the last year June 23, 2023 peak are Asia -37.49 mmb and Other -

25.57 mmb. (v) Below is the table we created of the WoW changes by region posted on Bloomberg at of 9am MT yesterday. Our table also includes the "Original Posted" regional data for June 28 that was posted on Bloomberg at 9am MT on June 29.

Figure 46: Vortexa crude oil floating by region

				Original Posted	Recent Peak	
Region	Jul 5/24	Jun 28/24	WoW	Jun 28/24	Jun 23/23	Jul 5 vs Jun 23/23
Asia	35.75	38.32	-2.57	37.76	73.24	-37.49
North Sea	4.46	3.39	1.07	3.82	5.42	-0.96
Europe	10.48	8.73	1.75	9.79	5.80	4.68
Middle East	13.68	9.31	4.37	8.72	6.76	6.92
West Africa	8.95	4.66	4.29	4.66	7.62	1.33
US Gulf Coast	1.50	4.32	-2.82	5.27	1.00	0.50
Other	3.37	6.67	-3.30	3.81	28.94	-25.57
Global Total	78.19	75.40	2.79	73.83	128.78	-50.59
Vortexa crude oil floating storage posted on Bloomberg 9am MT on July 6						
Source: Vortexa, Bloomberg						

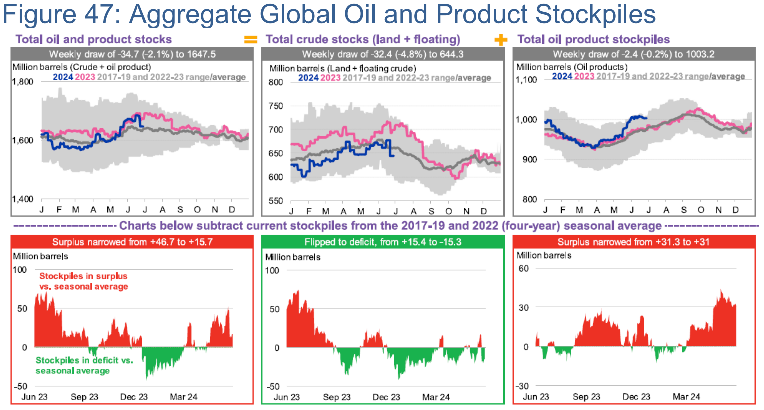
Source: Bloomberg, Vortexa

Oil: BNEF, global oil & product stocks surplus narrows to +15.7 mmb from +46.7 mmb

Global oil and products stocks

On Friday, BloombergNEF posted its "*Oil Price Indicators*" weekly, which provides good charts depicting near-term global oil demand and supply indicators. (i) Note BloombergNEF uses different periods to determine the surplus/deficit, sometimes using a four-year average for 2017-2019 + 2022-2023, and other times using a five-year average 2017-2019 + 2022-2023. In both cases they do not include 2020 and 2021 in the averages. (ii) The global stockpile for crude oil and products narrowed from a surplus of +46.7 mmb for the week ending June 21 to a surplus of +15.7 mmb for the week ended June 28. (iii) Total crude inventories (incl. floating) decreased -4.8% WoW to 644.3 mmb, while the stockpiles flipped from a surplus of +15.4 mmb to a deficit of -15.3 mmb. (iv) Land crude oil inventories fell -2.2% WoW to 564.8 mmb, widening their deficit from -7.8 mmb to -23.5 mmb against the five-year average (2017-2019 + 2022-23). (v) The gas, oil, and middle distillate stocks dropped -0.9% WoW to 223.4 mmb, with the surplus against the four-year average flipping to a deficit of -1.5 mmb from a surplus of 0.7 mmb. Jet fuel consumption by international departures in the week to July 8 is set to increase by +71,000 b/d WoW, while consumption by domestic passenger departures is forecast to increase by +54,400 b/d WoW. Below is a snapshot of aggregate global stockpiles.

Figure 47: Aggregate Global Oil and Product Stockpiles



Source: BloombergNEF

Oil: IATA May international air travel up YoY and continues surpass pre-Covid

May air travel up YoY

On Wednesday, the International Air Transport Association (IATA) released air passenger data for May 2024 [LINK]. (i) The key message from the data is that international air travel continues to surpass pre-Covid levels. And that all but one route have now reached or surpassed pre-Covid. The IATA wrote "*All routes but Europe - Asia have now surpassed or caught-up on pre-Covid levels of traffic. A notable route-pair is Europe - Middle East which not only has regained pre-Covid levels but also maintained a reverse in historical seasonal pattern first occurred in 2023, from a decrease to an increase of RPK from April to May, all the while accounting for a sizeable increase in RPK from the previous month but also the same month a year prior.*" (ii) The IATA also wrote "*Industry total Revenue Passenger-Kilometer (RPK) in May grew 10.7% year-on-year (YoY), slightly outpacing the 8.5% YoY growth in Available Seat-Kilometer (ASK). Passenger load factor (PLF) is still elevated against previous years, indicating stronger demand for air travel as industry-wide traffic continues to rise. In May, the total load factor reached 83.5%, 1.7 percentage points (ppt) higher than the same month in 2023.*" (iii) Total global traffic in May, measured in revenue passenger kilometers (RPK), rose +10.7% YoY. Please note the IATA splits out total market air travel into international travel vs domestic travel. (iv) The split was between International RPKs which were up +14.6% vs May 2023 and Domestic RPKs which were up +4.7% vs May 2023. (v) Willie Walsh, IATA's Director General, commented *"Airlines filled 83.4% of their seats, a record for the month. With May ticket sales for early peak-season travel up nearly 6%, the growth trend shows no signs of abating. Airlines are doing everything they can to ensure smooth journeys for all travelers over the peak northern summer period. But our expectations of air navigation service providers (ANSPs) are already being tested. With 5.2 million minutes of air traffic control delays racked up in Europe even before the peak season begins, it is clear that Europe's ANSPs have unresolved challenges. And the 32,000 flight delays over the Memorial Day weekend in May show that challenges persist in the US too. Airlines are accountable to their customers; ANSPs must be as well. ANSP performance matters to their airline customers and to millions of travelers. We all need them to do their job efficiently."* Our Supplemental Documents package includes the official IATA report.

Figure 48: May 2024 Air Passenger Market

	World share[1]	May 2024 (% year-on-year)				May 2024 (% year-to-date)			
		RPK	ASK	PLF (%-pt)	PLF (level)	RPK	ASK	PLF (%-pt)	PLF (level)
TOTAL MARKET	***100.0%***	**10.7%**	**8.5%**	**1.7%**	**83.4%**	**14.5%**	**12.4%**	**1.6%**	**81.8%**
International	*60.1%*	14.6%	14.1%	0.3%	82.8%	18.8%	18.4%	0.3%	81.3%
Domestic	*39.9%*	4.7%	0.1%	3.8%	84.5%	8.3%	3.8%	3.4%	82.8%

[1]% of industry RPKs in 2023

Source: IATA

Oil: Visitors to Japan continue to at or near all-time record highs in 2024

Weak yen drives record visitors to Japan

Japan continues to be major travel destination from all parts of the world driven by the low yen. For decades, Japan was viewed as an expensive travel destination but that has changed with the weak yen. As a result, visitors in Japan hit an new all-time record in March and are continuing just below that level in April and May. The record set in March was 3,081,600. April was 3,042,900. And this week, the Japan National Tourist Organization released May data [LINK] that there were 3,040,100 visitor arrivals in May, which is +9.6% vs May 2019, and 14,641,500 visitors to YTD May 31, which is +6.5% vs the same period in 2019. Our Supplemental Documents package includes the JNTO data.

Figure 49: Tourists flock to Japan amid weak yen

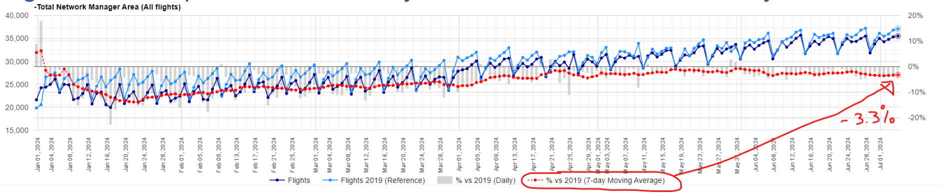
Source: Bloomberg

Oil: Europe airports daily traffic 7-day moving average is -3.3% below pre-Covid levels

Europe airports daily traffic

Yesterday, we tweeted [LINK] *Daily Europe air traffic -3.3% below pre-Covid. 7-day moving average as of: Jul 4: -3.3% below pre-Covid. Jun 27: -2.9%. Jun 20: -2.5%. Jun 13: -2.6%. Jun 6: -3.2%. May 30: -0.8%. May 23: -1.9%. May 16: -1.2%. May 9: -3.2%. May 2: -2.9%. Apr 25: -3.2%. Thx @eurocontrol #OOTT."* Other than over Christmas, European daily traffic at airports has been below pre-Covid. The 7-day moving average has got close a few times including five weeks ago at only 0.8% below pre-Covid as of May 30, but the 7-day moving average is now 3.3% below pre-Covid as of July 4, which followed 2.9% below as of June 27 and 2.5% below pre-Covid as of June 20. Please note that we try to pull the data around 8am MT on Saturdays for a consistent weekly comparison. Eurocontrol updates this data daily and it is found at [LINK].

Figure 50: Europe Air Traffic: Daily Traffic Variation to end of July 4



Source: Eurocontrol

Oil: IATA, global air cargo May was 6th consecutive month of double-digit YoY growth

May Air cargo +14.7% YoY

We look at international air cargo as the data that affirms the level of export orders and trade. On Tuesday, the International Air Transport Association (IATA) announced cargo data for the month of May [LINK]. The IATA wrote "*Industry-wide Cargo Tonne-Kilometers (CTKs) saw a 14.7% expansion year-on-year (YoY) in May. CTKs grew by 3.1% compared to the month before, after seasonal adjustment… The month of May delivered small improvements in global production and trade figures, which continued optimism for new export orders and manufacturing output among purchasing managers."* One other key factor for the increasing air cargo is increasing international passenger flights as the belly of air passenger planes will be used for air cargo in addition to passenger luggage. IATA wrote, "*Available Cargo Tonne-Kilometers (ACTKs) experienced a 6.7% annual increase industry-wide. This allowed the industry to set a record in global monthly capacity levels.*" Willie Walsh, IATA's Director General, commented, "*Air cargo demand moved sharply upwards in May across all regions. The sector benefitted from trade growth, booming e-commerce and capacity constraints on maritime shipping. The outlook remains largely positive with purchasing managers showing expectations for future growth. Some dampening, however, could come as the US imposes stricter conditions on e-commerce deliveries from China. Increased costs and transit times for shipments under $800 may deter US consumers and pose significant challenges for growth on the Asia-North America trade lane—the world's biggest.*" Our Supplemental Documents package includes the official IATA report.

Figure 51: May 2024 Air Cargo Market

	World share[1]	May 2024 (% year-on-year)				May 2024 (% year-to-date)			
		CTK	ACTK	CLF (%-pt)	CLF (level)	CTK	ACTK	CLF (%-pt)	CLF (level)
TOTAL MARKET	*100.0%*	**14.7%**	**6.7%**	**3.1%**	**44.6%**	**13.2%**	**9.4%**	**1.5%**	**45.4%**
International	*86.6%*	15.5%	10.2%	2.3%	50.3%	14.0%	12.6%	0.3%	51.1%

Note 1: % of industry CTKs in 2023

Source: IATA

Oil: Spain petroleum products consumption keeps going higher, +YoY & +MoM in May

Spain's Oil consumption

Looks like Spain is nowhere near hitting peak oil demand. On Wednesday, we tweeted [LINK]: *"No sign of Peak Oil Demand in Spain! Gasoline: highest seasonally since 2007 Road Diesel: highest for May since 009 Jet fuel: highest for time of since since at least 1996. Fuel oil: highest since 2019 Thx @Bill_Lehane #OOTT".* On Monday, Cores reported Spain's monthly oil and petroleum consumption for the month of May [LINK], showing consumption for oil was up +4.2% YoY and +3.9% MoM for vehicular petroleum use, and the report contains a breakdown of growth by type of fuel. Gasoline sales were up +8.5% YoY, road diesel increased +3.0% YoY, Jet fuel sales increased +14.2% YoY, and fuel oil increased 6.4% YoY. We expect to see gasoline and jet fuel increase from May through August. We checked the Cores historical data back to 2000 and it shows that Spain gasoline and jet fuel consumption typical pattern is for June to up slightly from May, up again in July and again in August. This would tie to the Spain holiday and tourist season. Below is a table showing the breakdown of demand by fuel type. Our Supplemental Documents package includes the Spain consumption data.

Figure 52: Spain's May Oil Demand Product Breakdown (thousand mt)

Productos Petrolíferos	Consumos Mayo 2024	Consumos Acumulado Anual	Consumos Año Móvil	Tasas Variación (%) Interanuales Mayo 2024	Tasas Variación (%) Interanuales Acumulado Anual	Tasas Variación (%) Interanuales Año Móvil
Gasolinas Automoción	556	2.537	6.281	8,5%	9,4%	6,9%
Gasóleos Automoción	1.941	9.114	21.975	3,0%	3,7%	0,2%
Combustibles de Automoción	**2.497**	**11.651**	**28.256**	**4,2%**	**4,9%**	**1,6%**
GLP	168	987	2.157	0,4%	6,4%	4,6%
Gasolinas*	557	2.538	6.286	8,6%	9,4%	6,9%
Querosenos	647	2.772	6.959	14,2%	12,9%	12,0%
Gasóleos*	2.550	12.529	29.871	2,1%	2,8%	-3,0%
Fuelóleos	736	3.650	8.344	6,4%	9,2%	5,9%

* Productos de automoción incluidos en el grupo de productos correspondiente

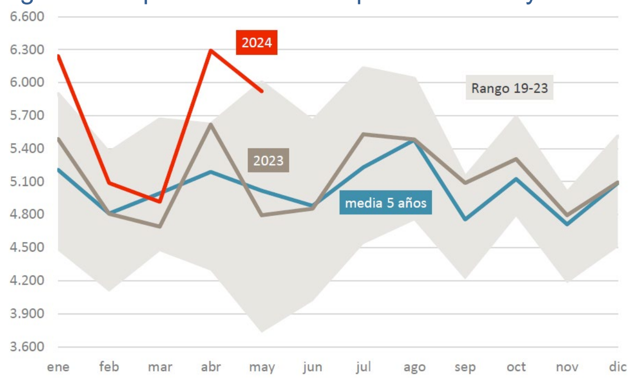
Source: Cores

Spain's Oil imports

Oil: Spain's Oil imports were up YoY and down MoM in May

On Wednesday, we tweeted [LINK]: *"Spain #Oil imports up big YoY May 2024: +23.5% YoY to 1.40 mmb/d YTD May 31 2024: +12.0% YoY to 1.38 mmb/d. #OOTT"* On Wednesday, Cores reported Spain's oil imports for the month of May [LINK], showing that oil imports increased +23.5% YoY. Cores reported that 39.7% of imports YTD have been from OPEC ("OPEP" here) suppliers. Below is a graph showing Spain's oil imports, and a table showing the breakdown of imports by OPEC or Non-OPEC countries. Our Supplemental Documents package contains the official report by Cores.

Figure 53: Spain's 2024 Oil Imports vs the 5-year Range and 5-year Average (thousand mt)



Source: Cores

Figure 54: Spain's 2024 oil imports OPEC breakdown (thousand mt)

	Mayo 2024			Acumulado anual		Año móvil		
	Importaciones	TV (%)*	Estructura (%)	Importaciones	TV (%)*	Importaciones	TV (%)*	Estructura (%)
Total	5.922	23,5	100,0	28.459	12,0	64.612	3,3	100,0
OPEP	2.349	1,8	39,7	10.343	-0,5	26.818	-5,9	41,5
No-OPEP	3.573	43,6	60,3	18.115	20,7	37.794	11,0	58,5
OCDE	1.867	12,0	31,5	9.894	8,1	22.499	11,8	34,8
No-OCDE	4.055	29,6	68,5	18.565	14,2	42.113	-0,7	65,2
UE	-	-100,0	-	269	89,5	491	4,7	0,8

Source: Cores

TSA could screen 3 million passengers today

Oil: TSA expected to hit 3 million passengers today for 1st time ever

We have a 7am MT news cut off so we don't have the TSA passenger numbers for yesterday and today. It seems like many are expecting to see TSA hit the 3 million passenger number today. Prior to today, there has been no change to the Top 10 TSA passenger screening days that we put in last week's (June 30) Energy Tidbits memo. Here is what we wrote las week. "*Yesterday, the TSA tweeted [LINK] "JUST IN: Friday, June 28th, was the 4th busiest day ever for TSA – our officers screened 2.93M individuals at airports nationwide. Please arrive at the airport early with plenty of time to get through security. Have travel questions? Ask the experts: @AskTSA." The TSA included the below table that shows the seven busiest air travel days have been since May 24. This fits what the TSA posted on Monday with their press release "TSA breaks record for most individuals screened on a single day, readies for record-breaking Independence Day weekend travel volumes." [LINK]. "As airline passengers prepare to take to the skies this Independence Day holiday, the Transportation Security Administration (TSA) is prepared for a sustained period of high passenger volumes. TSA expects to screen more than 32 million individuals from Thursday, June 27 through Monday,* *July 8, which is a 5.4% increase over 2023 Independence Day holiday travel volumes. On Sunday, June 23, TSA broke the record for most people screened on a single day, screening nearly 3 million (2.99 million) individuals."This summer's record-breaking travel volumes reflect the role TSA and the Department of Homeland Security (DHS) have in securing the nation's transportation systems, while ensuring freedom of movement for people and commerce, which is vital to our country's economic well-being."*

Figure 55: TSA Top 10 Busiest Travel Days

TOP 10 BUSIEST TRAVEL DAYS

Date	Total Passenger Volume	Date	Total Passenger Volume
1. 6/23/2024	2,996,495	6. 6/27/2024	2,921,862
2. 5/24/2024	2,951,859	7. 6/09/2024	2,915,830
3. 6/24/2024	2,944,001	8. 11/26/2023	2,908,785
4. 6/28/2024	2,935,065	9. 5/23/2024	2,897,421
5. 6/14/2024	2,929,467	10. 6/30/2023	2,884,783

TSA.gov

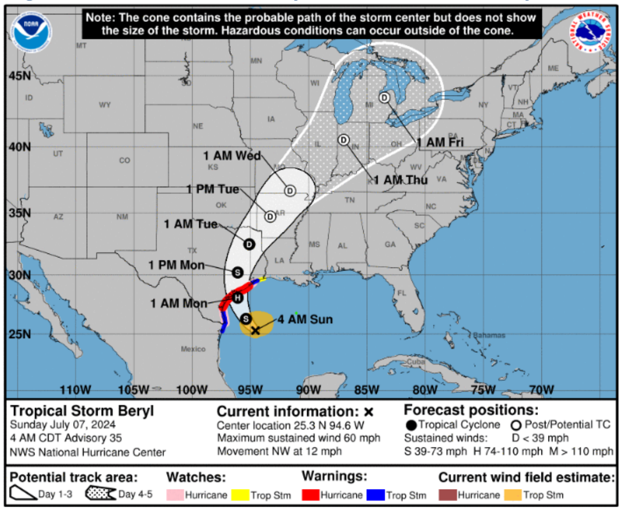
Source: TSA

Oil & Natural Gas: Hurricane Beryl expected to be Cat 1 hitting Texas Gulf Coast

Hurricane Beryl to be a Category 1

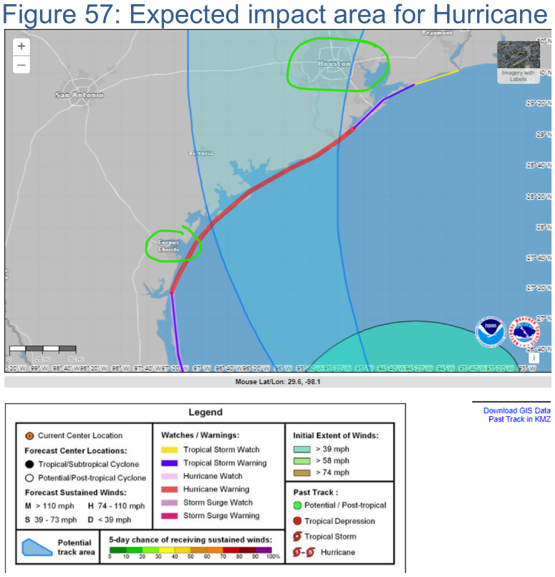
Earlier this morning, we tweeted [LINK] "*Beryl expected to be Category 1 hurricane when it hits Texas Gulf Coast with expected impact incl major #Oil #LNG refineries, loading terminals, etc from Corpus Christi to Houston. Hopefully it is fast moving at 12 mph so flooding will be minimized. Stay safe! #OOTT."* Beryl was down to tropical storm strength when it went by some of the major Pemex offshore oil and gas fields but there have been no reports of any issues. The National Hurricane Center expects Beryl to keep gaining strength today and reach hurricane category 1 strength when it hits the Texas Gulf Coast last tonight. Beryl has been a fast moving storm, which has been a bit of a saving grace as fast moving storms/hurricanes mean there is less time over an area to dump rain and flooding tends to be the biggest damage factor. Beryl is moving at 12 mph right now so hopefully reduces flooding. As of this morning, Beryl is expected to have hurricane strength winds hitting Corpus Christi but tropical storm strength when it hits around Houston. These are two major oil refinery, oil and LNG export terminals so any damage would impact prices. Below is the current NHC Beryl map, impact area map and the EIA's Texas Gulf Coast oil infrastructure map. Note the EIA map is a few years gold.

Figure 56: Hurricane Beryl as of 3am MT July 7



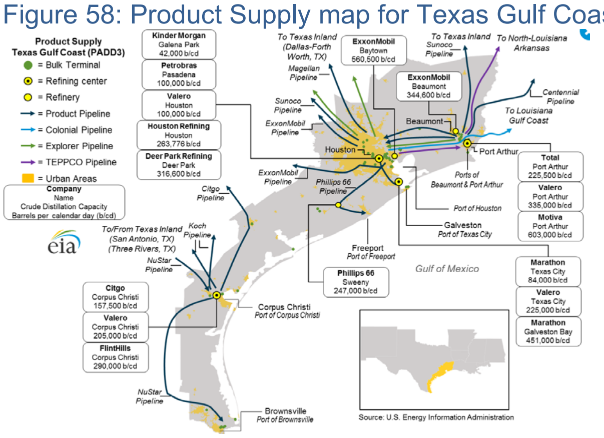
Source: National Hurricane Center

Figure 57: Expected impact area for Hurricane Beryl as of 3am MT July 7



Source: National Hurricane Center

Figure 58: Product Supply map for Texas Gulf Coast (PADD 3)



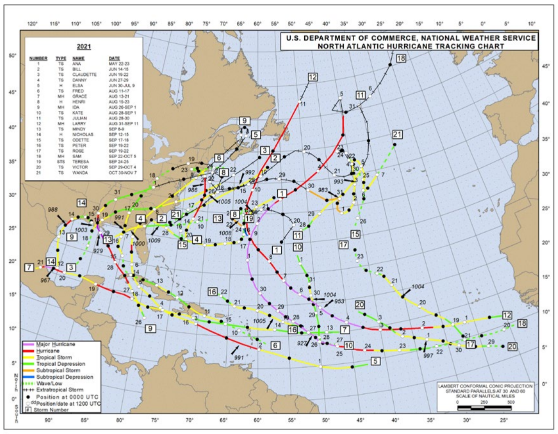
Source: EIA

Oil & Natural Gas: Hurricane track map rule of thumb – the Dominican Republic

Hurricane track map rule of thumb

Hurricanes and tropical storms are always unpredictable in terms of speed, wind strength and path. But, based on history, there are some rules of thumb. One pretty good rule of thumb is that tropical storms or hurricanes that move south of the Dominican Republic are likely to either hit the Yucatan Peninsula or come into the Gulf of Mexico and hit the Gulf Coast. Our tweet included the last four years of NHC track maps and we maintain the track maps since 2000 and they provide support for this rule of thumb On June 27, we tweeted [LINK] "*Hurricane Track Map Rule of Thumb. Hurricanes that move south of the Dominican Republic are the ones that are likely to hit Yucatan Peninsula or come into the GoM to hit Gulf Coast. Last 4 yrs of @NHC_Atlantic track maps 👇 are indicative of track maps since 2000. #OOTT #NatGas* "

Figure 59: Atlantic hurricane track map for 2021



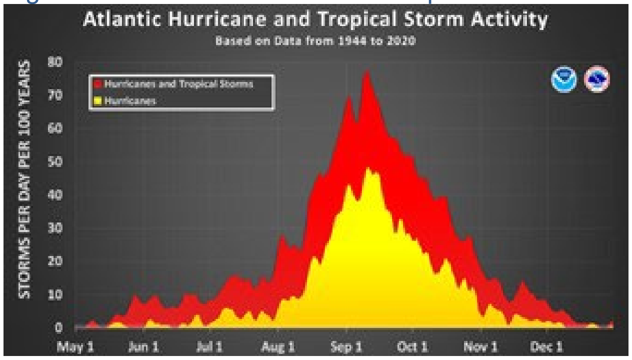
Source: National Hurricane Center

Oil & Natural Gas: 90% of Atlantic hurricanes come after Aug 1, peak is normally mid-Sept

90% of hurricanes are after Aug 1

Hurricane Beryl was the earliest Category 5 hurricane on record. It is important to remember that normally 90% of Atlantic hurricanes typically come after Aug 1. Here is what we wrote in our Aug 6, 2023 Energy Tidbits memo. "*90% of Atlantic hurricanes come after Aug 1, peak is normally mid-Sept It may already be the hottest time of the year, but we always remind that 90% of Atlantic hurricanes typically come after Aug 1. And August normally marks the start of the ramp up of hurricane season with high hurricane activity typically from mid-Aug thru mid-Oct with a normal peak in mid-Sept. Below is NOAA's graph showing the distribution of Atlantic hurricanes and tropical storms based on data from 1944 to 2020. [LINK].*"

Figure 60: Atlantic hurricane and tropical storm activity by month



Source: NOAA

Oil & Natural Gas: TIPRO Texas oil & gas jobs down MoM in Apr and now in May

TIPRO May jobs update

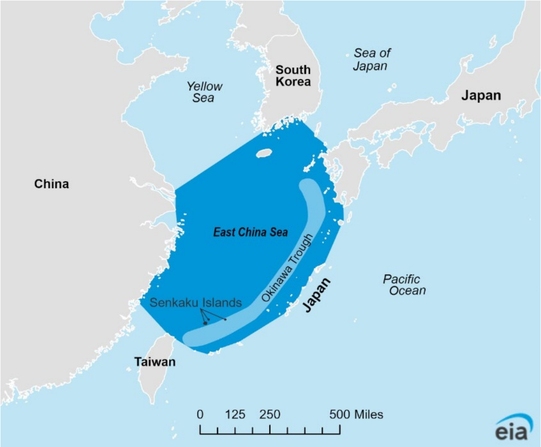
The Texas Independent Producers and Royalty Owners Association (TIPRO) posted its recap for the month of May on June 21st, which included their updated their employment figures for the Texas upstream sector [LINK]. It may not be a huge drop, but TIPRO reported MoM drop in jobs for the 2nd consecutive month in May. April jobs were -3,500 jobs MoM vs March and, now, May jobs are now -2,000 jobs MoM vs April. This is a cumulative 2.8% drop in jobs since March. Direct Texas upstream employment totaled 191,400 in May, down by -2,000 jobs from April. TIPRO wrote *"Though overall employment for the state's upstream sector was down in the month of May, TIPRO's new workforce data yet again indicated strong job postings for the Texas oil and natural gas industry. According to the association, there were 11,015 active unique jobs postings for the Texas oil and natural gas industry last month, including 4,170 new job postings added during the month by companies. In comparison, the state of California had 3,833 unique job postings last month, followed by Florida (1,973), New York (1,672), Louisiana (1,435) and Pennsylvania (1,335). TIPRO reported a total of 52,329 unique job postings nationwide last month within the oil and natural gas sector."* Our Supplemental Documents package includes excerpts from the TIPRO recap.

Oil & Natural Gas: EIA's Updated East China Sea Region brief

EIA's Updated East China Sea brief

For the indefinite future, the East China Sea and the South China Sea will continue to be the spotlight for China's view that it controls more of these areas than internationally recognized. We continue to recommend adding the EIA's country/region analysis briefs to reference libraries as good quick references, in this case its updated EIA executive summary on the region of China's East Sea [LINK]. The East China Sea is bordered by the Yellow Sea to the north, the South China Sea and Taiwan to the south, Japan to the east, and the China to the west. Approximately 35% of global oil shipments traveled through the East China Sea in 2023, with over 95% of those shipments destined for the Asia Pacific region, including China, South Korea, and Japan. The EIA reported, "*In 2023, 76 million b/d of petroleum and petroleum product was shipped globally via maritime transport. Approximately 27 million b/d (35%) of those shipments traversed the East China Sea. Most of the maritime trade through the East China Sea passes through the South China Sea and Sea of Japan….. In 2023, 6.0 Tcf of LNG passed through the East China Sea, which was over 31% of global LNG trade. China was the destination for most of the LNG (2.3 Tcf) that went through the East China Sea, followed closely by South Korea (2.1 Tcf) and Japan (1.2 Tcf). China, Japan, and South Korea were also the three top importers of LNG in the world in 2023.*" The report highlights how China, Japan, and South Korea are all interested in extracting hydrocarbon resources from the East China Sea to help meet domestic demand, however there are unresolved territorial and maritime claims which have prevented exploration and production in the region. Below is a map of the East China Sea. Our Supplemental Documents package contains the updated EIA brief.

Figure 61: East China Sea



Source: EIA

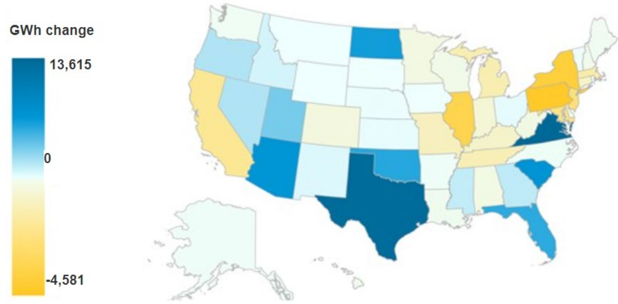
Energy Transition: AI data centers a key factor driving commercial electricity demand

Increasing Commercial Electricity Demand

The EIA increased their forecast for US commercial electricity demand driven by AI data centers in its recent June Short Term Energy Outlook. Last Friday, the EIA posted its *"Commercial electricity demand grew fastest in states with rapid computing facility growth"* [LINK] that gives context to that recent forecast increase. One thing that jumps out is the big growth areas are in Texas and Virgina, which matches to where the big AI data center growth is in the US. Note the EIA's below map shows Texas and Virginia as the two big growth aras with the dark blue color. The report discusses an ongoing trend we have focused on, which is the increasing growth and development of large scale data centres in the US and the electricity demand they bring. The EIA revised up their expectations for electricity demand through 2025 from their June STEO, reporting, "*We made our largest revisions to the forecast in the South Atlantic and West South Central census divisions, which together account for*

40% of U.S. commercial electricity demand. We now expect that commercial consumption in the South Atlantic will increase by 5% in 2024 and 2% in 2025 and in West South Central by 3% this year and 1% next year. Other regions with strong growth in sales of electricity to the commercial sector include the West North Central and Mountain census divisions (both with forecast annual growth averaging 3% in 2024 and 2025). Nationally, we expect U.S. sales of electricity to the commercial sector will grow by 3% in 2024 and by 1% in 2025. Data center developments are evolving rapidly, and we plan to re-evaluate our upcoming forecasts as we receive more information." Below is a map showing the change in electricity consumption by state. Our Supplemental Documents Package contains the report from the EIA.

Figure 62: Change in Commercial Sector Electricity Consumption (2019-2023)



Source: EIA

Need coal for reliable affordable 24/7 power

Energy Transition: FirstEnergy, can't have reliable, affordable electricity without coal

He called it just being honest but FirstEnergy CEO also could have said it was blunt comments on the reality that US power companies need to keep using coal generation if they are to provide reliable and affordable 24/7 power to meet the increasing electricity demand in the US. (i) On Thursday, we tweeted [LINK] ""*We're just honest" FirstEnergy CEO on why don't see a pathway to phaseout of coal generation. Can't meet "... people's growing demand and desire for reliability, what's affordable for most customers, AND then what's sustainable" if get rid of 24/7 coal. Thx @amandalanchu #OOTT [LINK]."* (ii) Can't stop coal generation. FT's report on its interview with FirstEnergy CEO Brian Tierney was titled "'*We don't see a pathway' to coal phaseout, says US utility*". [LINK]. Earlier this year, FirstEnergy withdrew its 2030 target to exit coal power generation. FT wrote "*When we were looking at emissions reduction, it was based on running our coal-fired power plants less at the end of the decade," Brian Tierney, chief executive of FirstEnergy, told Energy Source. "We don't see a pathway for that now.*" (iii) Electricity demand is increasing faster than previously expected in part driven by AI data centers. FT wrote "*FirstEnergy serves five states in the mid-Atlantic and is part of the PJM Interconnection, a power market that includes northern Virginia, the world's largest data centre hub. Electricity demand in the PJM region is one of the fastest-growing in the country, with the operator this year more than tripling its growth forecast for the next decade."* (iv) Need coal to meet this increasing demand for reliable and affordable power, but that means can't meet sustainable desire. This is the point we have been highlighting – more not less coal and more natural gas power generation is needed to produce 24/7 affordable power. And if more coal and natural gas, it means the emissions reduction aspirations can't be met. FT wrote "*The Ohio-based utility withdrew its 2030 target to exit coal earlier this year, keeping its two West Virginia plants running until 2035 and 2040, citing increasing power demand, reduced generation capacity and state politics. "The things that are bumping up against each other are people's growing demand and desire for reliability, what's affordable for most customers, and then what's sustainable. It's easier to make two of those three things congruent with one another. It's harder to get all three solved at the same time," Tierney said. "That's why we had to withdraw our interim goal. Some people think we were bad people for doing that. I think . . . we're just honest," he added."* Our Supplemental Documents package includes the FT report.

Energy Transition: AI data centers/bitcoin driving huge Texas electricity growth

Huge Texas electricity growth

On Tuesday, we tweeted [LINK] "*Huge task even in energy friendly Texas. Texas may need to increase power supply by 43% in only 5 years says @GovAbbott. @AdamBennettKVUE adds that ~60% of the growth is AI data centers + bitcoin mining. #NatGas #Coal is ~80% of Aug 2024 est resource. @ERCOT_ISO #OOTT."* (i) We hadn't seen the ERCOT June 12 presentation to the Texas Commerce and Business Committee. But, we did see Texas Gov Abbott's July 1 release [LINK] "*In recent testimony before the Senate Business and Commerce committee, ERCOT CEO Pablo Vegas testified that Texas may need 150,000 megawatts of power to power our grid by 2030. That is only six years away. Currently, Texas typically has approximately 85,000 megawatts of power available counting wind, solar, coal, nuclear, and natural gas. If the new estimate is correct, the updated numbers provided by Mr. Vegas call for an immediate review of all policies concerning the grid."* Abbott highlights ERCOT estimates Texas needs to increase its electricity supply by 43% in five years. (ii) But Abbott's short release did not give any detail on what was driving the increased demand. But we saw a KVUE report [LINK] that said 60% of the increase was due to bitcoin mining and data centers. KVUE wrote '*During a public hearing before the Texas Senate Business & Commerce committee, Lori Cobos with the Public Utility Commission of Texas (PUC) said ERCOT expects power demand to increase to 150 gigawatts by 2030, up from 85 gigawatts currently. That updated projection is 40 gigawatts higher than what was previously forecasted. Cobos said roughly 60% of the new demand is from Bitcoin mining and data centers, including those run by artificial intelligence (AI). Cobos attributed the rest to hydrogen production facilities, along with the expansion and electrification of existing industries, including oil and gas."* (iii) KVUE is saying the prior forecast was to need 25 gigawatts in five years and that is now a need of 65 gigawatts in five years. This a huge increase in five years and will require a massive immediate ramp up in new electricity generation. (iv) Our tweet also included ERCOT's Aug resource supply that notes ~80% of the current supply. Given the time frame, Texas needs every possible electron. And the reality is natural gas in particular. Our Supplemental Documents package includes the Abbott release and the KVUE report.

Energy Transition: Will Amazon tie up 100% of 24/7 power from CEG's nuclear plant

Amazon wants to tie up 100% of a nuclear plant

On Monday, we tweeted [LINK] "*Game Changer! Smart move by Amazon IF can directly get 100% of clean 24/7 power from Constellation's nuclear power plant for AI data center. ie. get the 24/7 power before it goes into grid baseload power. What else but #NatGas #Coal if grid needs to replace 24/7 baseload power. Thx @Jennifer_Hiller @SebasAHerrera #OOTT."* WSJ reported that Amazon was working to tie up 100% of the power generation from a Constellation nuclear power plant, which would mean that nuclear power generation won't be going into the grid for all customers, including Amazon. This fits with our views that the most profitable companies in the world, big tech players like Amazon, Microsoft, etc, will pay a premium to tie up clean energy and the result being higher costs to regular consumers and increasing grid stability risks. We continue to believe that they will push for mini nukes whenever they can come on for their AI data centers. That is assuming mini nukes can get over NIMBY resistance because they can be placed relatively close to where the tech companies want to put AI data centers. But that is a decade or more away. However, we hadn't played out this type of scenario that Amazon will go pay a premium to tie up existing nuclear power instead of the nuclear power going to the gid. What a smart move for Amazon. Get all the existing 24/7 nuclear power for themselves by paying a premium. The concern for the grid is that this would take away 24/7 power from the grid and leave the grid with a big hole in the grid's baseload 24/7 power, let alone 24/7 clean power. And this also fits our view that big winners for needing to replace 24/7 power for the grid will be natural gas and coal as 24/7 power can't be done with wind and solar. The question will be if big tech players will be allowed to cut out existing base load power generation from the grid by paying a premium. We still believe big tech will be looking to tie up or even possibly buy 24/7 power supply with the preference being tie-up instead of buy the fuel source. Our Supplemental Documents package includes the WSJ report.

Energy Transition: Ford CEO, will society accept Amazon type deals on 24/7 power

Ford CEO on AI data centers

Ford CEO Jim Farley had some great comments and key questions on the huge and rapid growth in AI data center electricity consumption in the US. (i) On Monday, we tweeted [LINK] *"Lot to unpack here. "Our grid can't handle what we have today. Are we going to build 20% more power plants to handle all these AI data centers? Or are the companies going to start to create their own power centers? What do we feel as a society when a private company operates a private power plant?" Ford CEO Farley to @JBoorstin. Bottom line: 24/7 power becomes a critical resource, especially if its nuclear or hydro, that big tech will pay up to control/acquire ie. Amazon below. Big need for 24/7 also means more #NatGas #Coal #OOTT."* (ii) "*Are we going to build 20% more power plants to handle all these AI data centers?"* Farley started with the big picture concern on AI data centers – the growth is huge. We don't think 20% more power plants is the number but his point is valid, the US will need way more power plants than expected if its to handle the growth in consumption. (iii) What happens if there are Amazon type deals that take 24/7 power off the grid? Farley didn't note Amazon's name as his comments were on Friday and the WSJ Amazon report was on Sunday. But his comments address the similar situation on how will society react if big tech companies create their own power centers and take power away from going into the grid. If we use the above Amazon example, how will people feel if Amazon takes 24/7 nuclear power from the grid for its AI data centers and that means the grid operators have to find replacement 24/7 power to maintain grid stability? This is why we think this Amazon situation is a big test. (iv) Our tweet included the transcript we made of comments by Ford CEO Jim Farley with CNBC's Julia Boorstin at the Aspen Ideas Festival on June 28, 2024. [LINK]. Items in "*italics*" are SAF Group created transcript. At 26:14 min mark, Farley "*The other part of AI that we have to think about as a society is what are we going to do with all the data centers that process all this data. Our grid can't handle what we have today. Are we going to build 20% more power plants to handle all these AI data centers? Or are the companies going to start to create their own power centers? What do we feel as a society when a private company operates a private power plant? Can the electrons in the batteries of these vehicles* *be used to offset some of the future power train, power plant build-out requirements. I think so. Normally our customers charge at night, late at night. And I think the grid will hopefully get more intelligent where they will charge at 2 or 3 in the morning where the electrons are cheapest. And then they're going to have a lot of electrons when there's peak. And will we be able to sell those electrons back to the grid to reduce the requirement. I think we're going to have to struggle with problems like that with this AI explosion*."

Energy Transition: Ford CEO, regulators are misguided to only focus on EVs

Ford CEO on EVs focus

There were some direct comments from Ford CEO on how regulators need to realize the reality of the world of automobiles that the public isn't prepared to accept being pushed to an EV only focus. And that regulators need to know it's about choice, whether it be EV, HEV or ICE. On Monday, we tweeted [LINK] ""*Do you think it's misguided to really focus so much just on a total #EV model?" asks CNBC Julia Boorstin. "Yes. Yes" replies Ford CEO Farley. "Right now, it's all about choice. And regulators need to get their hear around that" Great @JBoorstin @jimfarley98 discussion. #OOTT."* Our tweet included the transcript we made on Farley's comments. SAF Group created transcript of comments by Ford CEO Jim Farley with CNBC's Julia Boorstin at the Aspen Ideas Festival on June 28, 2024. [LINK] Items in *"italics"* are SAF Group created transcript.At 8:50 min mark, Farley "*I guess my point is that we are in the 1st or 2nd inning of a 9-inning game. And right now, it's about choice. And regulators need to get their head around that. They can't just be betting on all electric. They need to understand the customers will make this transition based on their duty cycle, based on the way they drive, based on the number of vehicles they have in their household. And, the transition is going to happen*." Boorstin "*But do you think it's misguided to really focus so much just on a total EV model?*" Farley "*Yes. Yes. But I think it's equally misguided to portray EVs as something a total solution or the wrong solution*."

Energy Transition: Japan looks to more natura gas generation for grid stability

Japan looks to more natural gas

More renewables = more natural gas power generation. On Friday, we tweeted [LINK] "*More Renewables = More #NatGas Electricity generation. Japan is latest to look at more #NatGas power generation to ensure stable power supplies & capacity to meet increasing peak demand with data centers. See 👇Jun 7 for Germany's move. Thx @ArgusMedia Motoko Hasegawa #OOTT."* Japan has been like many western countries and pushing aggressively on its Net Zero plans but it looks like Japan is going to go after more natural gas generation ostensibly because of the rapid adoption of AI. But at the same time, the Argus report notes that it is to "*ensure stable power supplies*". This is more than adding natural gas for the added capacity to meet increasing demand, it is to have grid stability. They didn't specifically say the reason for the risk of grid instability is intermittent renewable power but it has to be as Japan's largest clean energy source is nuclear power. Japan is not the first to realize they need more natural gas for grid stability, it is just the latest. Our June 9, 2024 Energy Tidbits memo highlighted Germany's similar move. Argus Media reported [LINK] *"Japan is considering further adding to gas-fired power generation capacity through its long-term zero emissions power capacity auction, given forecasts of rising electricity demand with the rapid adoption of artificial intelligence. A working group under the trade and industry ministry Meti has proposed to look for an additional 4GW of gas-fired capacity over two fiscal years from April 2024-March 2026 via a clean power auction. This came after awarded gas-fired capacity reached 5.76GW in the first auction held in January, with the auction seeking about 6GW over three years. The second auction — which Tokyo plans to hold in January 2025 — could*

seek 2.24GW, including the remaining 0.24GW in the first auction, for 2024-25 and another 2GW for 2025-26 in a third auction, the working group suggested. It has also proposed to extend the period within which awarded gas-fired projects have to start operations to eight years from the previous six years, given current resource shortages at plant manufacturers. Japan has launched the auction system to spur investment in clean power sources by securing funding in advance to drive the country's decarbonisation towards 2050. This generally targets clean power sources — such as renewables, nuclear, storage battery, biomass, hydrogen and ammonia. But the scheme also applies to new power plants burning regasified LNG as an immediate measure to ensure stable power supplies, subject to a gradual switch from gas to cleaner energy sources. These measures will not necessarily lead to increased demand for LNG, as Japanese import demand for the fuel would further come under pressure from expanded use of renewables and nuclear power. But the power sector will have to secure enough capacity to meet peak demand, especially with power consumption by data centres and semiconductor producers expected to continue to increase." Our Supplemental Documents package includes the full Argus report.
June 9

06/07/24: Germany wants ~1.7 bcf/d new natural gas generation
Here is what we wrote in our June 9, 2024 Energy Tidbits memo on Germany's big push to add more natural gas power generation. "More renewables = more natural gas power generation. On Friday, we tweeted [LINK] "More Renewables = More Natural Gas Electricity Generation. Germany to support utilities to add #NatGas powered generation to stabilize the grid when renewables fall short reports @Reuters Markus Wacket. More #NatGas is needed for more intermittent power generation. #OOTT." On Friday, Reuters reported that Germany is going to pay billions to support utilities to add 10 GW of new natural gas generation. Using a heat rate of 7,000 btu/kWh gets to ~1.7 bcf/d. Reuters said the new natural gas generation "to be able to stabilise the grid when unsteady renewable energy supplies fall short, people familiar with the negotiations told Reuters on Friday." And "Germany is transitioning to renewables, having switched off nuclear power and seeking to phase out coal-powered electricity, but wants to give state support for natural-gas powered plants that underpin the grid during demand peaks and lows in unsteady supply from wind and solar power." It looks like Germany is having another reality check it needs more natural gas. Although they are couching in that the natural gas will be able to be converted to hydrogen power with Reuters expecting in 2035 to 2040. Our Supplemental Documents package includes the Reuters report. "

Energy Transition: EBRD "*Driven by politics, not economic considerations*"
EBRD is the European Bank for Reconstruction and Development so will be playing one of the key financial roles in Ukraine infrastructure development. It's chief economist, Beata Javorciik, was on Bloomberg early Tuesday morning. Javorcik was describing the reality of trade barriers and how that was going to do things like lead to inflation and she might as well have been describing how the politicians decided on Net Zero plans and are now finding out that the Net Zero plans isn't leading to cheaper energy costs but are leading to higher for longer and more volatile energy prices. The reason is that trade barriers or tariffs are set by the foreign affairs people without the input from the economic and trade people. And then the economic and trade people have to deal with the economic realities (in this case

Politics, not economic consideratons

inflationary impact) of what the foreign affairs people decided. She could have said the same thing about Net Zero. If we use the US as an example, it was led by John Kerry, who was officially under the State Department. It's why, on Tuesday, we tweeted [LINK] ""*driven by politics not economic considerations" Same concept applies to why Net Zero aspirations weren't executable plans so are leading to higher for longer energy costs. "let's not forget geopolitics .... We see more and more trade barriers because policies on trade are not made by ministries of trade or ministries of economy, but rather ministries of foreign affairs. So they are driven by politics, not economic considerations" @BJavorcik to @flacqua. #NatGas #Oil will be needed for longer. #OOTT."* We find it hard for anyone to be against wanting cleaner air, great water and not leaving the planet better, not worse, for future generations. Our comments on the Energy Transition have never been against the desire but negative on how the politicians set aspirations that would never come true and would cause more negative than positive to society on the way to a world of significantly reduced emissions. We don't think politicians had bad intentions but that they should have worked with more than themselves to get a plan that can be more effective in more quickly reducing global emissions. Until then, just keep in mind that the aspirations weren't an executable plan so we should expect the Energy Transition to take way longer, cost way more and be a bumpy/rocky road.

Capital Markets: WSJ "hedge funds are piling into power" driven by electricity boon

Hedge funds piling into power

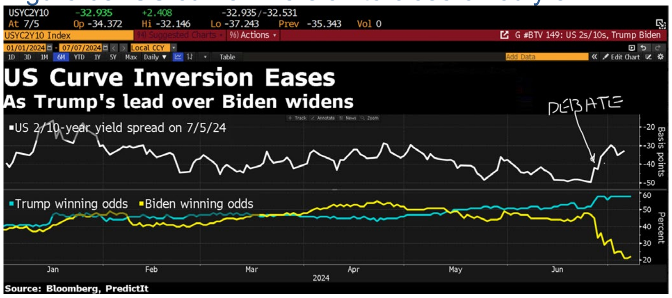
I have dealt with hedge funds for over 25 years so was reminded of one of their key strengths when I saw the WSJ report this morning "*The Next Big Power Play on Wall Street. Hedge funds are fighting hard to win top traders of electricity and natural gas. But some question whether outsize profits of recent years can be repeated."* [LINK] I have always found that the hedge funds are the most interested in and have the most questions when I see the early stages of energy trends as they are less focused on what might move stocks this week. They like to focus to see if they can still be early in a sea change. The majority of calls I have had over the past year have been on AI data centers for this reason. And the WSJ report notes the hedge funds are seeing a sea change in electricity that is moving from a very low growth sector to a very high growth sector. And the beauty of electricity and natural gas for hedge funds is that there is volatility with a day, a week, a month, a season so it creates trading opportunities every day. And most of all, the key is that they see the sector going up and to the right so the look ahead is there will be liquidity opportunities in the days/years to come. WSJ noted "B*ehind the boom are two trends: the rise of energy-intensive artificial intelligence and of electrification due to the energy transition. The International Energy Agency projects that AI's energy usage will rise 10-fold over the next two years."* The WSJ report is a good read. Our Supplemental Documents package includes the WSJ report.

Capital Markets: Interest rates moved post Trump/Biden debate

Interest rates post debate

Early Tuesday morning, we tweeted out the below graph from Bloomberg TV that morning, We tweeted [LINK] *"Interest rates response to Thurs debate. US 2/10 year yield spread - "US curve inversion eases as Trump's lead over Biden widens" graph just now on @daniburgz @ManusCranny #OOTT."* We pulled the graph again this morning to include the data update to the close on Friday.

Figure 63: US curve inversion to close on July 5



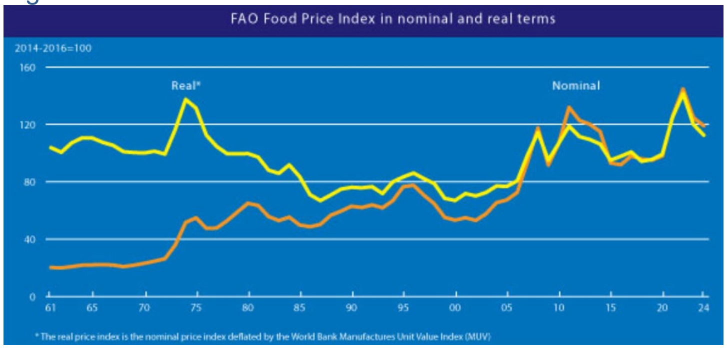
Source: Bloomberg

Capital Markets: UN FAO Food Price Index flat MoM in June, -3.4% YoY

UN food price index flat MoM

The UN Food Price Index is a monthly food commodities measure and not an index of consumer food prices or food prices in grocery stores. However, increases or decreases in food commodity prices should, in theory, eventually work their way into grocery prices. The UN Food Price index has been gradually decreasing since the middle of 2023, but was up in May 2024 and is flat MoM in June. On Friday, the UN posted its monthly update of its FAO Food Price Index [LINK] titled "*FAO Food Price Index firm in June: higher vegetable oil, sugar and dairy prices offset lower cereal quotations".* Note that the index is calculated on a Real Price basis. The FFPI averaged 120.6 points in June, unchanged from May (revised), and is down -2.1% YoY. The FFPI reported categories were mixed in their index movements over June. The Vegetable Oil Index was up +3.1% MoM from May, up +13.8% YoY, and marks the highest level since March 2023. The increase was driven by increasing quotations for palm, soy, and sunflower oils. The Dairy Price Index was up +1.2% MoM and up +6.6% YoY. The Cereal Price Index was down -3.0% MoM which is -9.0% YoY. The Meat Price Index was flat MoM and -1.8% YoY. The Sugar Price Index was up +1.9% MoM and down -21.6% YoY. The monthly increase was driven by lower than expected harvest results during May in Brazil, which heightened concerns over dry weather conditions on production in the coming months.

Figure 64: UN FAO Food Price Index



Source: UN Food and Agricultural Organization

AFB estimates cost of July 4th cookout +5% YoY, +30% vs pre-Covid
We always remind there is a big difference between what UN estimates in their commodity food price index and the reality of buying food at the grocery store. For example, the UN meat price index is -1.8% YoY. Yet no one we know would think meat prices are down YoY. Last week, the American Farm Bureau posted its "*Record-High July 4th Cookout Costs: Inflation Hits the BackYard*". [LINK]. On an overall cost of cookout, the AFB estimates the cost of the cookout is +5% YoY and +30% vs pre-Covid. To compare to the UN meat price index -1.8% YoY, the AFB estimates hamburger +11% YoY, pork chops +8 YoY but chicken breasts -4% YoY. Our Supplemental Documents package includes the AFB July 4th Cookout Costs blog.

Demographics: Tel Aviv will fine drivers for honking when they shouldn't

Tel Aviv to fine honking

This is not meant to be some sort of conspiracy item. Rather we just don't think most realize that surveillance on regular everyday life is growing faster and more expansive. The genie is out of the bottle and people should just be aware that it is growing. There was a good example this week on the addition of microphones to link an audio component to the video surveillance. So of course, we couldn't help think about George Orwell's 1984 and how "Big Brother is Watching You" but with the addition of Big Brother is Listening to You" when we saw the Times of Israel report "*Tel Aviv to fine hurry-up honking*". We look at Times of Israel and Jerusalem Post multiple times each week for war updates but saw this headline. The interesting aspect of this story is that Tel Aviv is using microphones to work in conjunction with the cameras to identify illegal honking and subject to a ~$125 fine. It reminded that there are probably a lot more microphones or audio devices picking up conversations than most realize. Times of Israel wrote [LINK] "*The NIS 475 ($126) fine for drivers of vehicles caught honking when they shouldn't is mostly aimed at ending the cacophony at traffic lights, where testy motorists often noisily nudge those in front of them to get a move on, sometimes even before the lights have turned green, Mayor Ron Huldai explained. On Sunday the municipality's finance committee approved the measure, which now requires further approval from the city council, relevant government ministries, and the Knesset Constitution, Law and Justice Committee. "Although the law states that one must honk only when there is real danger, many drivers still honk to encourage the driver in front of them to start driving, even before the traffic light changes to green," Huldai said in a statement. "This bad habit is about to disappear from our urban lives, with the help of a unique identification technology that was developed especially for this purpose." Cameras connected to dozens of microphones will be set up on troublesome Tel Aviv streets to automatically detect outlaw honking and the particular car the discordant sound came from. The owner of the vehicle will then be fined."*

Twitter: Thank you for getting me to 10,000 followers

@Energy_Tidbits on Twitter

Earlier this year, I went over 10,000 followers on Twitter/X. I really appreciate the support and, more importantly, some excellent insights and items to look at from Twitter followers. It helps me do a better job. 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.

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.

Canada's men soccer team in Copa America semi-final vs Argentina
It's been a great week for Cdn men's soccer who made it to the knockout round for the first time at Copa America and then beat Venezuela on Friday night on penalty kicks to now make it to the semi-final against Argentina on Tuesday night. If you didn't get a chance to see the Venezuela match, it's a good but tense match to watch. Canada was in the original group with Argentina and lost its first match 0-2 at Copa America to Argentina. We have watched all the Canadian matches and Canada had some early chances that cold have had a big momentum impact. Hopefully they can do like they did against Venezuela and score an early goal to relax the nerves and build the confidence. It's been a great tournament so far for Canada whereas all the pundits picked the US and Mexico as the most likely to advance from the CONCACF group of teams.

July 4 also celebrated the 100th anniversary of the Caesar Salad
One other item that received general media coverage was that July 4 was the 100th anniversary of the Caesar Salad. One of the TV reports we saw said it was the salad that was on more menus in America than any other salad and is on 55% of US restaurant menus. We will stick with the most accepted story that it was created by Cesare Cardini. Britannica wrote "*In 1924, during the Prohibition era (1920–33), an Italian-born restaurateur named Cesare Cardini (1896–1956) moved his restaurant from San Diego, California, to Tijuana, Mexico, so that he could consume and serve alcohol without fear of legal retribution. His restaurant, known as Caesar's, lay just across the U.S.-Mexican border and was popular with bibulous Americans as well as Mexicans, so much so that Cardini frequently ran out of food. As Cardini told it, on a busy holiday weekend in 1924, he found that he was out of some of the usual ingredients for his insalata mista. He assembled what he could from nearby shops and his cupboards: romaine lettuce, Parmesan cheese, lemons, bread cubes, olive oil, eggs, and Worcestershire sauce. He then instructed his chefs to mix and toss these ingredients at the table, an enjoyable bit of showmanship.*"

July 1 was Bobby Bonilla Day
We forgot to put this in last week's (June 30, 2024) Energy Tidbits as it is one of the most well-known MLB baseball days – Bobby Bonilla Day . Former baseball star, Bobby Bonilla, last played for the New York Mets in 1999 and retired after playing for

the St. Louis Cardinals in 2001 but July 1 is known in MLB as Bobby Bonilla Day. It's because every July 1 thru 2035, Bonilla receives a check for $1.193 million as a result of the Mets negotiated buyout of the remaining $5.9 million on his contract in 2000. The Fed Funds rate reached 6.5% in May 2000. But the Mets negotiated buy-out was to pay Bonilla $1.193 million every July 1 starting on July 1, 2011 thru July 1, 2035. The buyout also included a negotiated 8% interest rate. One aside for the New York Mets is that the New York Mets ownership was reported invested in a Bernie Madoff that was promising double digit returns.

Granit Xhaka is in a "Purple patch" of his football [soccer] career
It's been a great week to have football, or what North Americans call soccer, on the background when working. And it's always fun to hear the different terminology used to describe the play or the players. By now, most North Americans know what that being on the "front foot" or "back foot" means in terms of who has the advantage. In listening to the TSN pre-match coverage of England vs Switzerland, TSN analyst Kevin Kilbane used a term we hadn't heard in awhile while discussing Switzerland's, best known player, Granit Xhaka is 31 years old, which isn't young for a football player and is best known for his 7-year career at Arsenal but has carried over to a great career with Bayer Leverkusen in the German Bundesliga where he was a key element to them winning their first ever Bundesliga title this year. Kilbane said Xhaka was in the purple patch of his career. The purple patch reference means when a player is in great form or playing very well.

National Fried Chicken Day
Yesterday was National Fried Chicken Day. We missed going out as Saturday is the big crunch day for the Energy Tidbits memo but gong to have some fried chicken at lunch today, the Nashville style crispy fried chicken. Baby boomers will remember that fried chicken took off in the 60s because of Colonel Sanders brought Kentucky Fried Chicken (now KFC) to Canada in 1953. KFC Canada has posted their story [LINK] "*COLONEL. It all began in a Kentucky gas station way back in 1930 when Harland Sanders first started cooking for hungry travelers. Six years later, he became a Colonel and, by 1940, he had perfected his now famous 11-herbs-and-spices recipe. He spent the rest of his long and storied life taking his chicken to the world, bringing it to Canada back in 1953 and even living here from 1965 until 1980."*