Cornerstone Analytics

Report Highlights - Deck 2

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Oliver - Client Note
Mar 4, 2021

Oliver Parsons

From: Oliver Parsons <Oliver@cornerstoneanalytics.com>
Date: Thursday, Mar 04, 2021 at 9:25 AM
Subject: * Mike Rothman Energy Update: Still Early Innings...

With Brent cruising towards $66 this morning, oil prices continue their march higher as comments emerge from today's OPEC+ JMMC meeting. Although Saudi Arabia Energy Minister Prince Abdulaziz understands the oil market has "improved", he urges "caution and vigilance" and therefore says OPEC+ must keep its "powder dry" and "have contingencies in reserve to insure against any unforeseen outcomes." Mike has been very early communicating the proper message to our clients – global oil inventories are still well above normal levels so OPEC+ will err on the side of caution and closely monitor any production unwind. With Saudi at the helm, OPEC+ does not intend to derail the progress made thus far.

And page 1 of today's report indicates just how far they've come – Mike's very early estimates suggests that oil inventories during March fell by 4.5x the normal rate in North America and the Pacific regions. Wow. Investors are finally starting to understand the deficit facing the oil markets, the long-awaited rotation trade is fully underway as the S&P energy sector relative to the S&P tech sector is about to post a "golden cross" with the 50 DMA breaking through the 200 DMA.

While the rally in oil prices and related equities has been nothing short of impressive, Mike's call from early October still stands – we're in the early innings of a structural bull oil market.

Mike is hosting client calls tomorrow and next week – please let me know if you'd like to chat!

Kind regards,
Oliver

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Client Report
Mar 4, 2021

CORNERSTONE ANALYTICS
THE MORNING ENERGY UPDATE

MARCH 4, 2021

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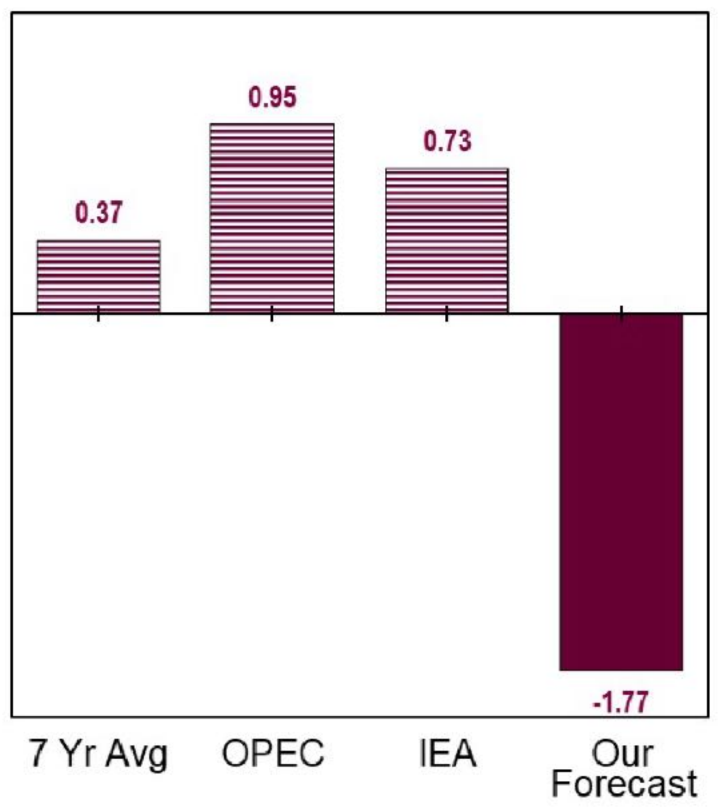
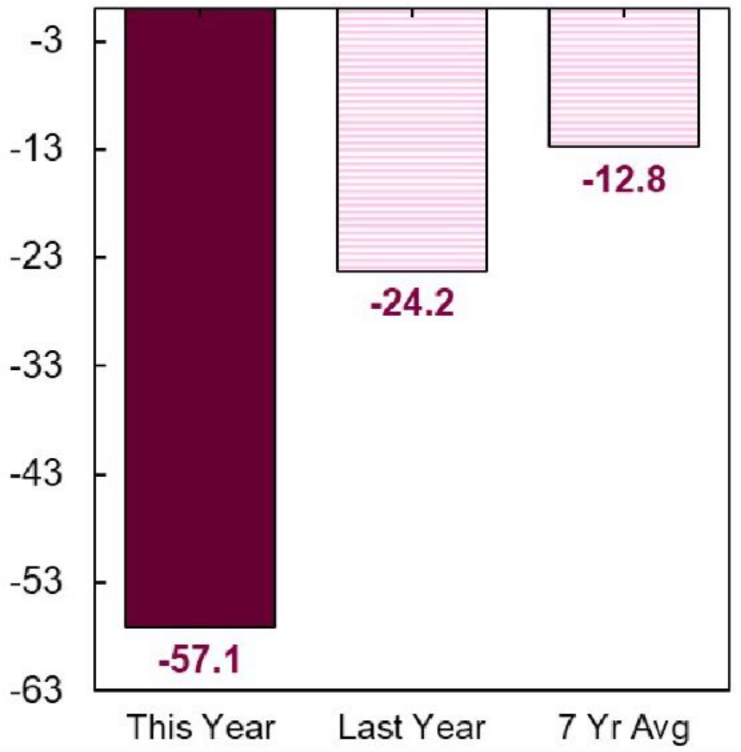
TRACKING, AND WHAT IT MEANS FOR OPEC?

1Q 2021 Inventory Forecast
Quarterly change, Million b/d

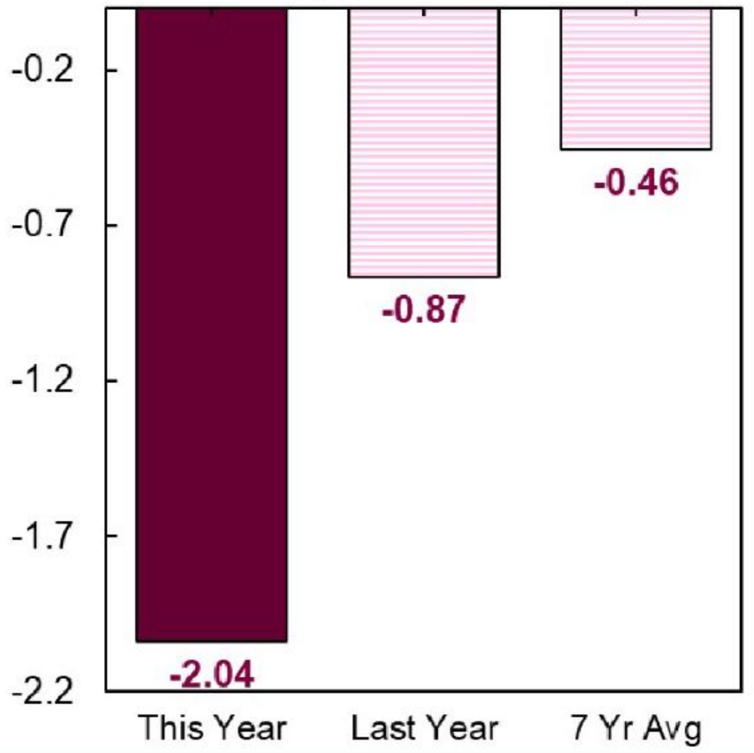


Our individual estimates for February's inventory change in the OECD North America and Pacific regions are detailed on the following page. The collective change for the month was -57.1 million barrels. The draw is about 5-times larger than normal and more than double the respective year-ago change. On a per day basis, stocks fell by 2.04 million barrels/day which follows a draw of a million barrel/day in January. We've got a week to wait on data for European storage but expect figures to post a contra-seasonal draw for last month. Our forecast for global oil stocks to draw for the 1st quarter as a whole stands sharply at odds with the IEA projection (which is the consensus forecast) as well as OPEC's internal projection. Because storage is still sitting well above normal, we still get the sense that the OPEC+ group will err on the side of caution and limit the amount of any further unwind on Phase 3 quotas.

NA & Pacific Stock Change
February, Million barrels

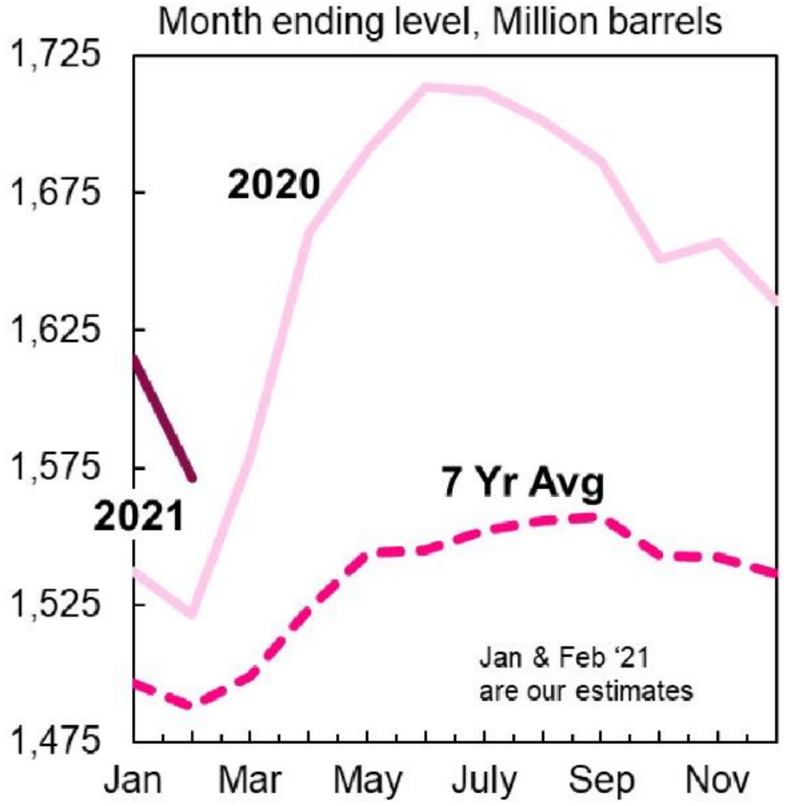


NA & Pacific Stock Change
February, Million barrels/day

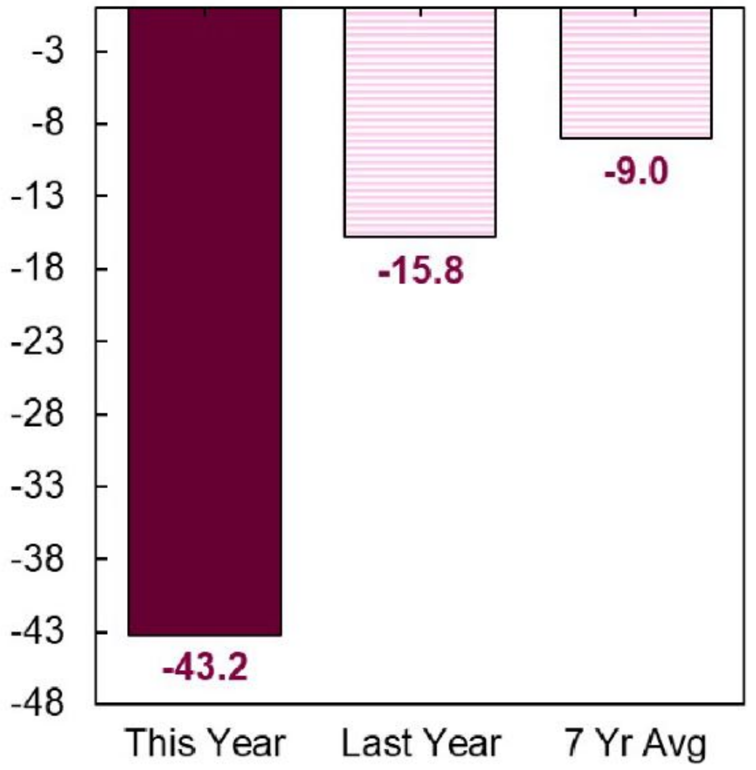


The OECD North America region is estimated by is to have seen a much larger than normal stockdraw last month. The roughly 43 million pull on inventories compares with a typical draw of 9 million and last year's near-16 million decline. The region still has storage sitting above normal and above year-ago levels. North America represents the largest portion of oil storage globally and given levels are still high relative to the historical average (and that it's the most visible data), it offers another reason for OPEC to be careful about taking it's proverbial foot off the brake on output quotas.

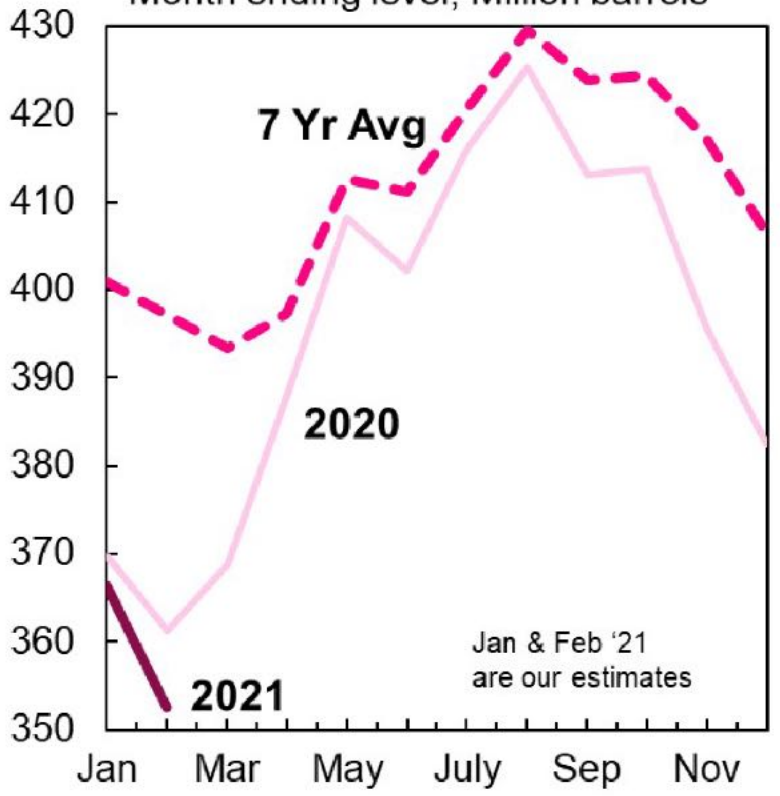
OECD N America Oil Stocks
Month ending level, Million barrels



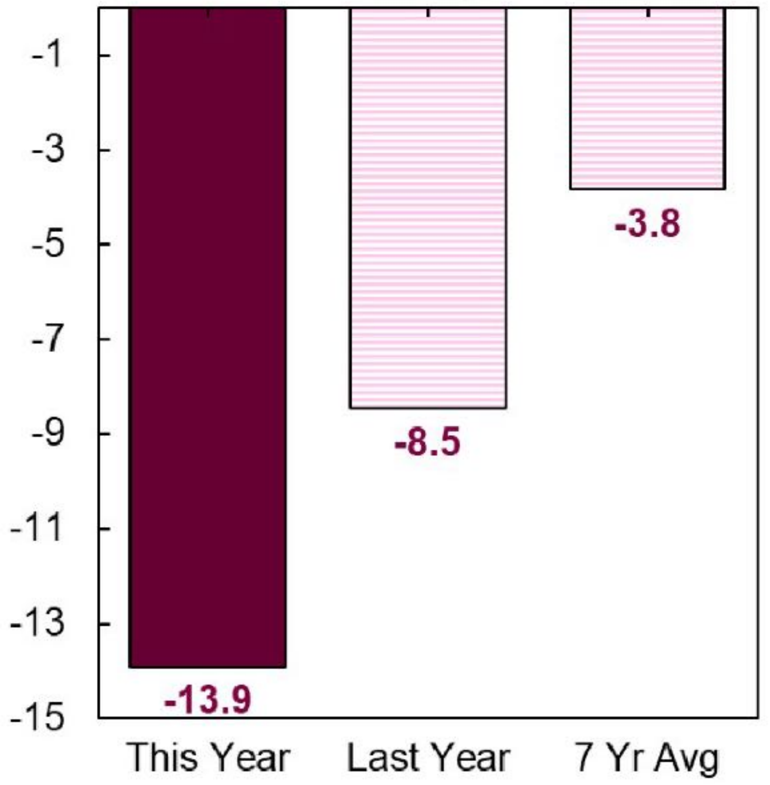
N.A. Stock Change - Feb
Month/month delta, Million barrels



OECD Pacific Oil Stocks
Month ending level, Million barrels

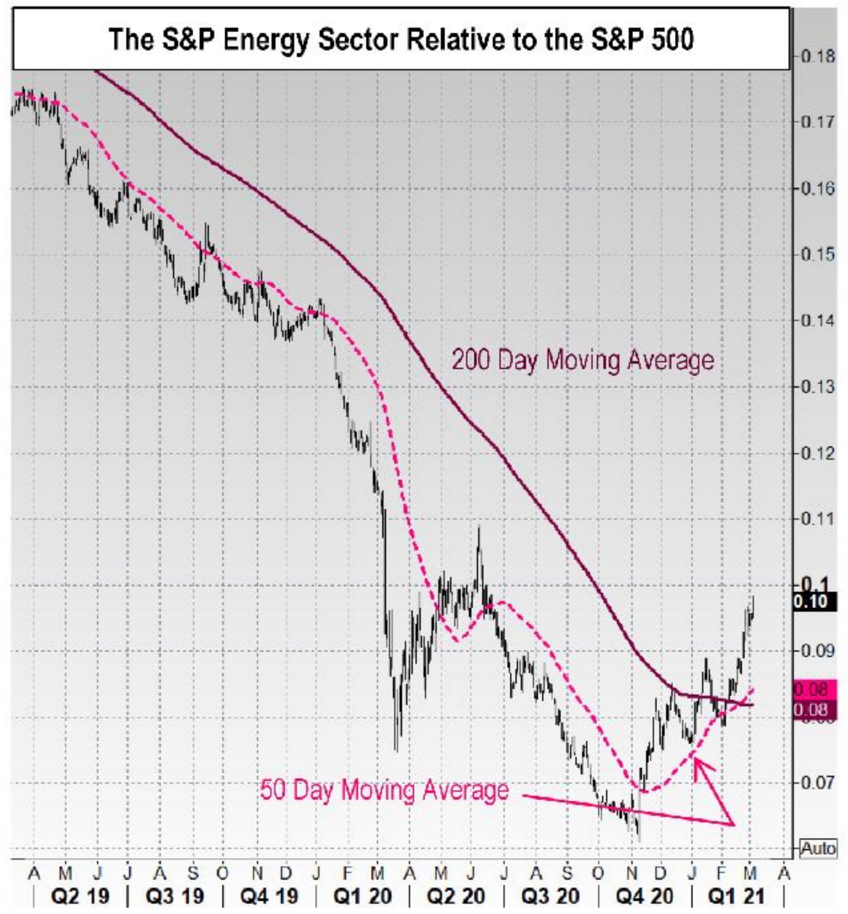


Pacific Stock Change - Feb
Month/month delta, Million barrels

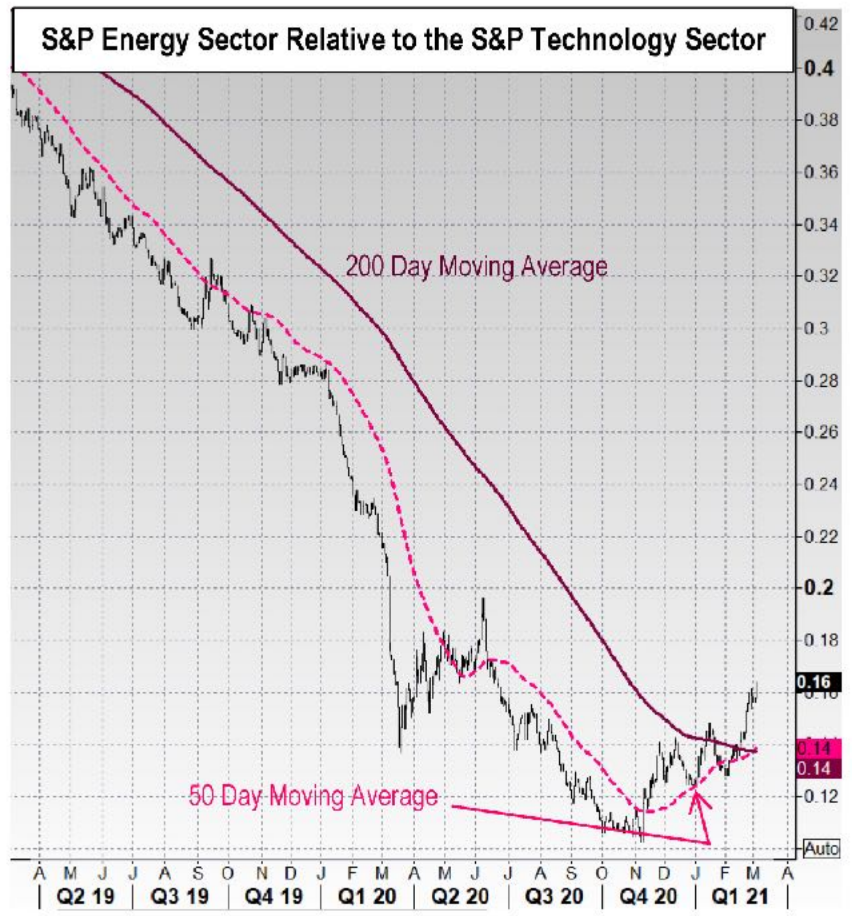


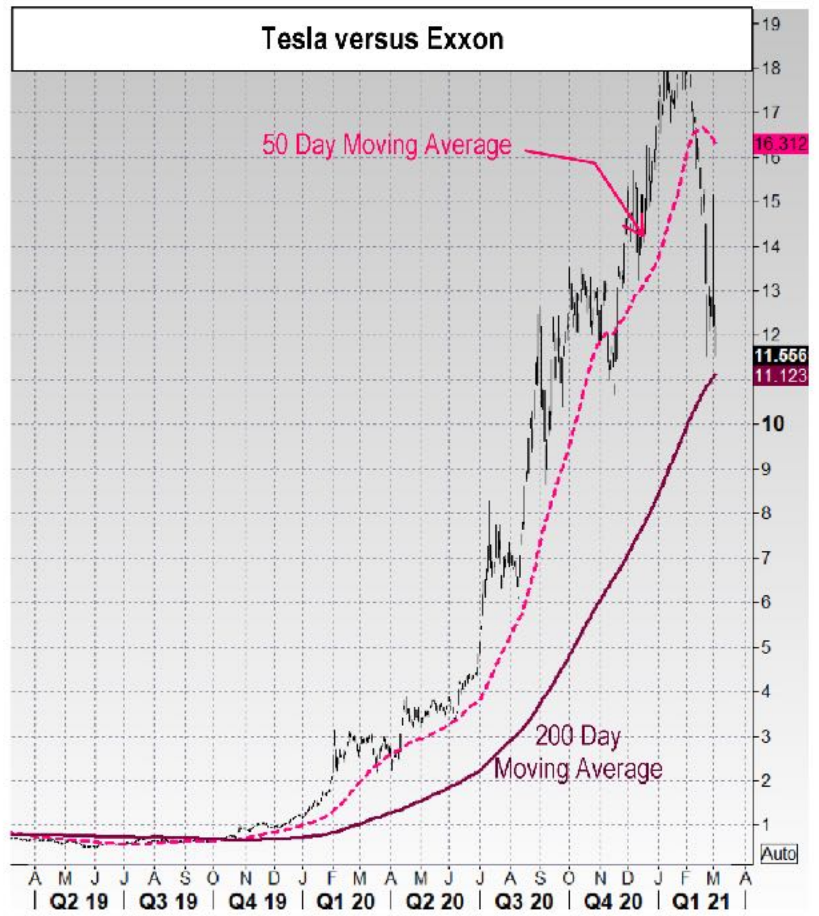
Client Report
Mar 4, 2021

THE GREAT ROTATION

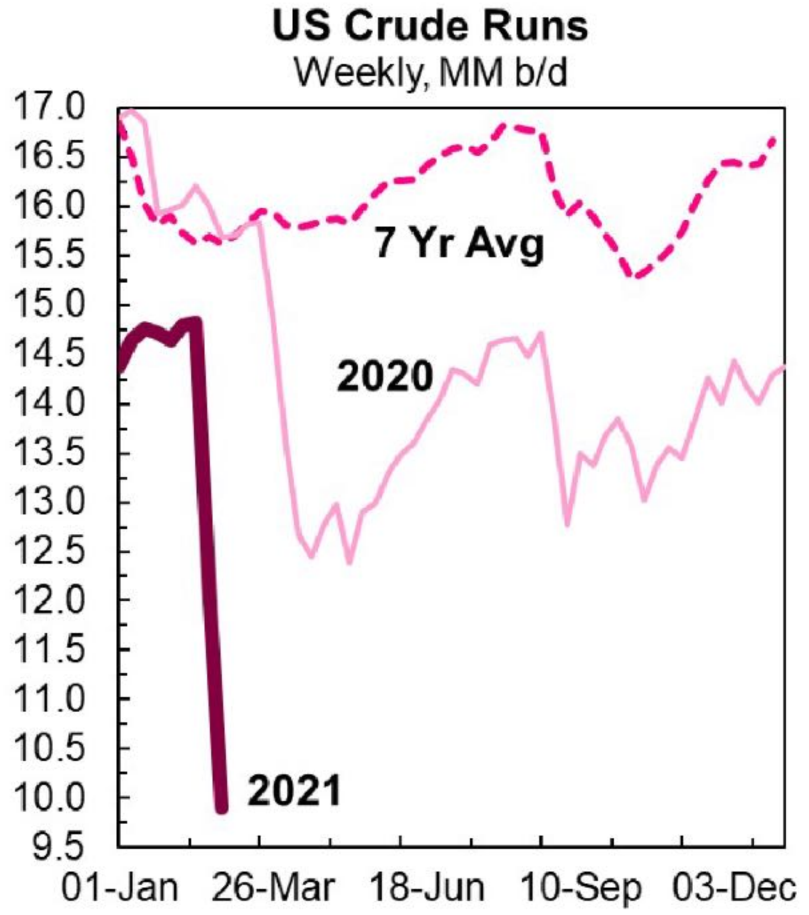


The rotation into energy names continues to unfold taking a cue from our unfolding bullish outlook for the oil market. As seen in the lower lefthand corner, the S&P energy sector relative to the S&P technology sector is about to post a “golden cross,” a bullish momentum signal that tends to be self-reinforcing. A very narrow slice of that pair trade can be seen by the behavior of Tesla relative to Exxon below. As we noted most recently a week ago, as impressive as energy share price gains have been since our October call, we’re still in the early innings of the game.

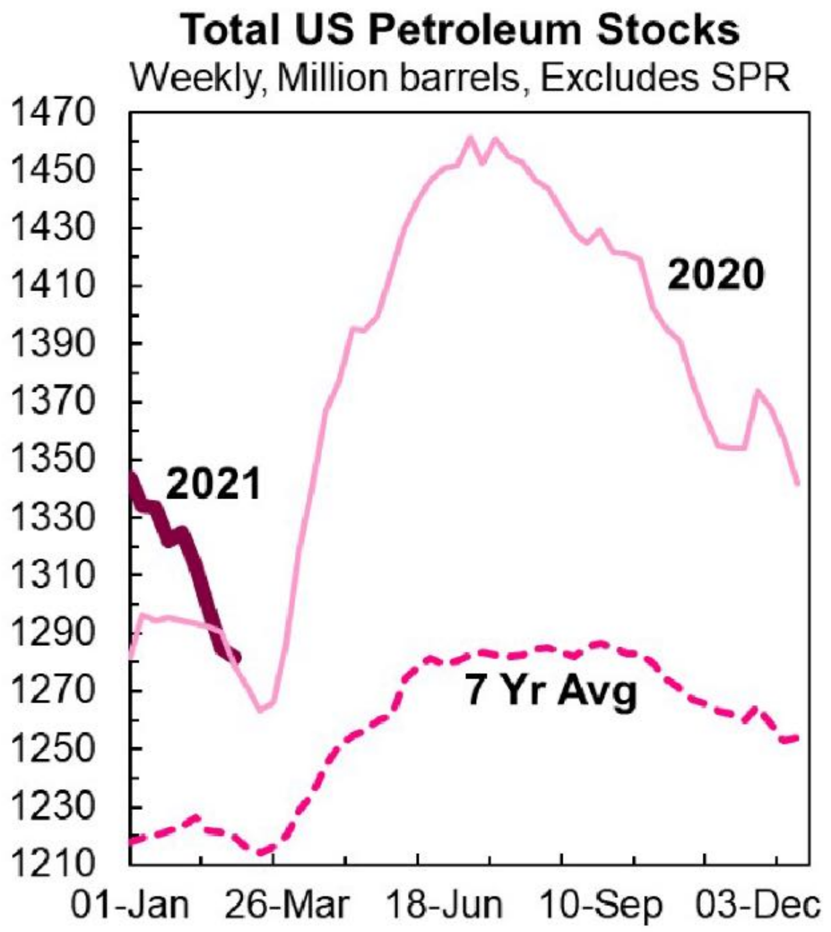


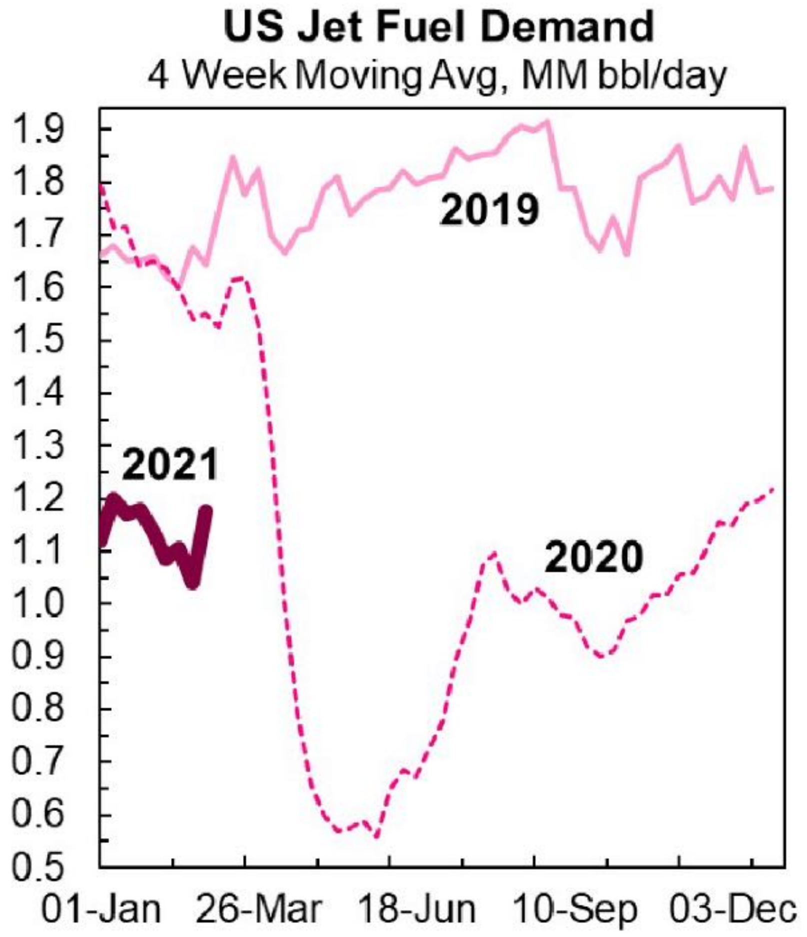


BABY IT REALLY WAS COLD OUTSIDE!



The two week drop we’ve seen in US crude oil runs is the largest on record, eclipsing shut-ins that occurred on the back of Hurricane Katrina and Rita in 2005. The bout of aberrant cold weather in the greater Texas area has produced a number of impacts which most market watchers are aware of. A disruption of product deliveries from refineries caused demand readings to fall off. Crude oil imports, exports and production were all affected. Weather impacts are transitory, though, and we believe most market players are aware of this. On the back of our analysis published yesterday about a pick-up in global air traffic, it is notable to see the up-tick in US jet fuel demand.





Oliver - Client Note
Aug 17, 2021

Oliver Parsons

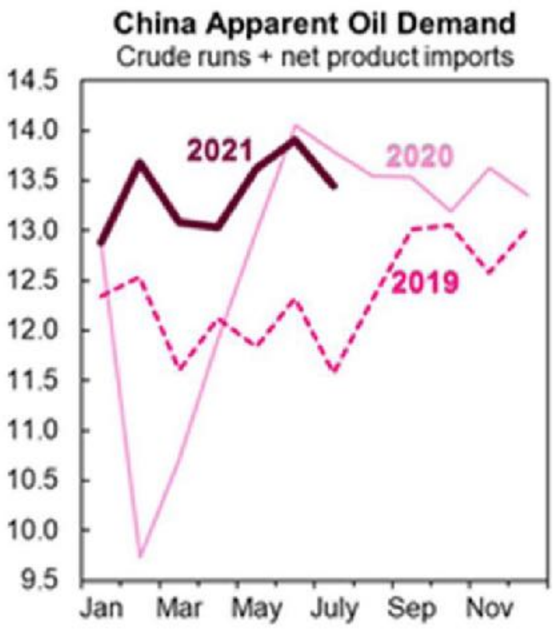
From: Oliver Parsons
Sent: Tuesday, August 17, 2021 8:35 AM
Subject: * Mike Rothman Energy Update: Uh oh, the Harbinger of Doom…!!

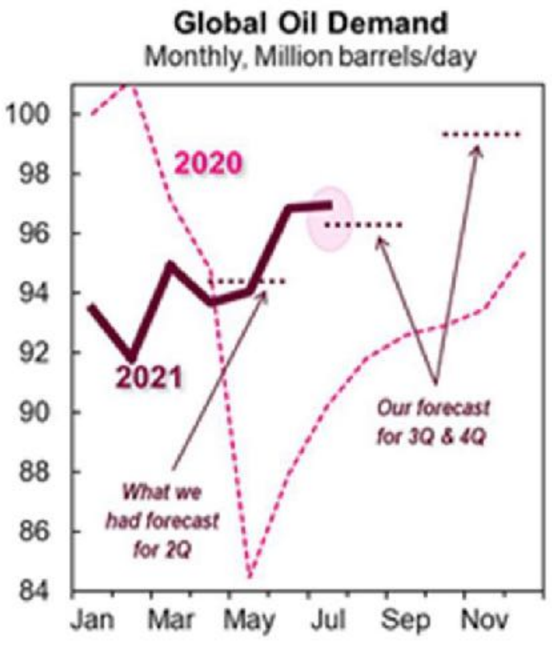
While we agree that fundamental oil data and economic readings will see wiggles and shakes along the way, especially as the world continues to contend with the impact of COVID-19, **we take exception with the press and media hyping up fears of a collapse in global oil demand**.

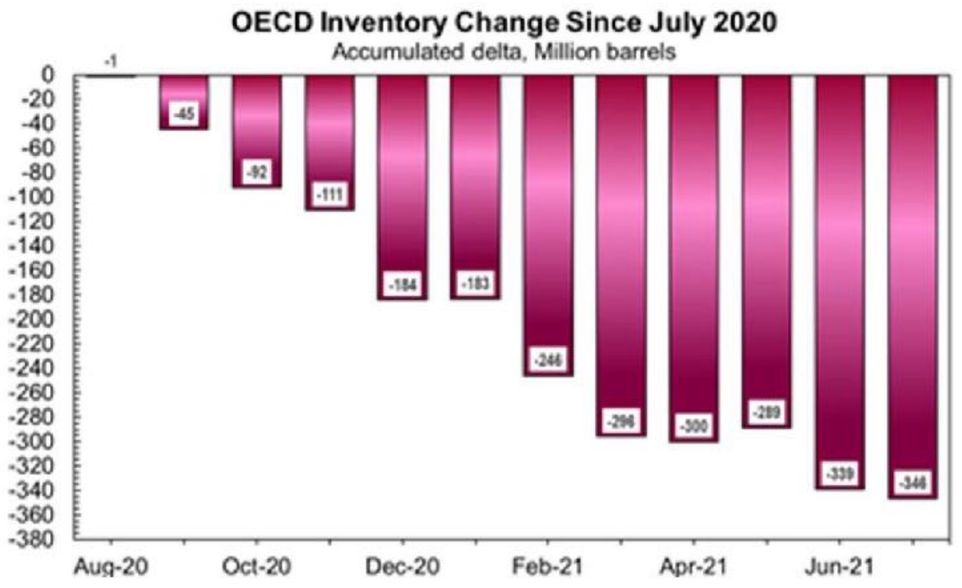
During a conversation with a client earlier today, he asked me if China's oil demand was collapsing. Well, his tone actually made the question very rhetorical because he **KNEW** China's oil consumption had gone bust. So, I simply pointed him to the graph on page 1 of today's report (below) and told him that whoever is pushing that story might just be his personal harbinger of doom trying to sell headlines.

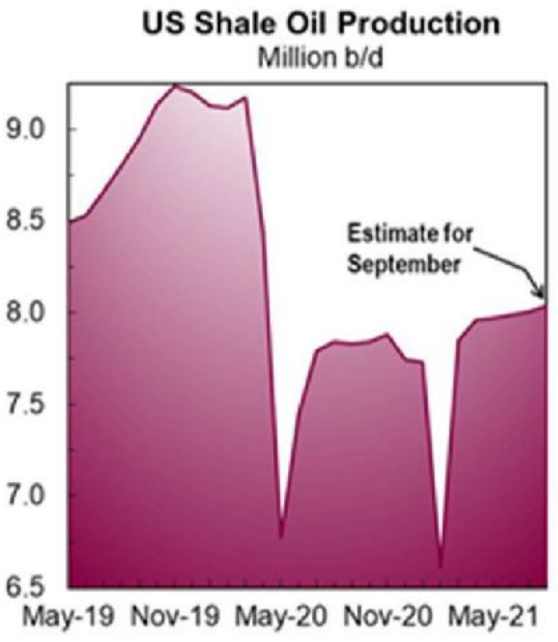
In all seriousness, China's oil demand readings are coming in-line with Mike's forecast and global oil demand is running ahead of our forecast (chart 2 below). At the end of my conversation with this client, I jokingly asked him if his Harbinger of Doom had conveniently withheld the fact that global oil inventories over the past year had fallen by the **MOST** on record (chart 3 below). And I then asked if the Harbinger of Doom had failed to highlight the massive struggle being witnessed by US shale, the life preserver that everyone **KNEW** would indefinitely keep the oil balances flooded and prices suffering (chart 4 below).

All sarcasm aside, we don't intend to downplay the volatility of oil prices….we just want to keep your Harbinger of Doom in check because we all know ***that guy***.









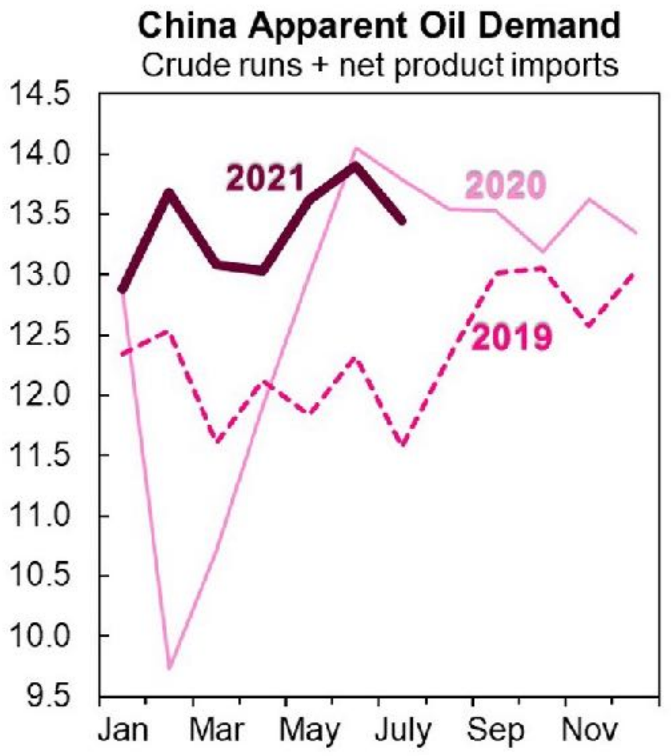
Client Report

Aug 17, 2021

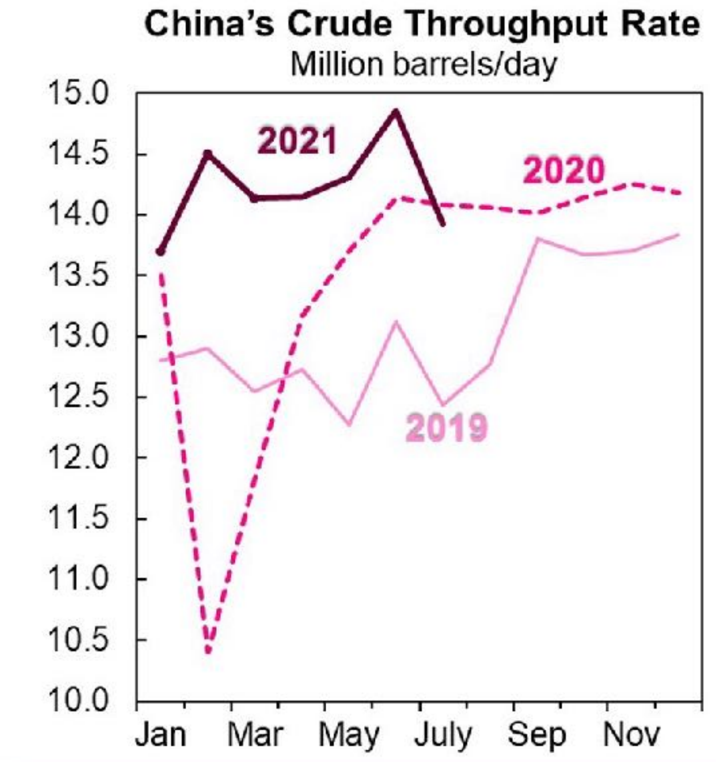
CORNERSTONE ANALYTICS
THE MORNING ENERGY UPDATE
AUGUST 17, 2021

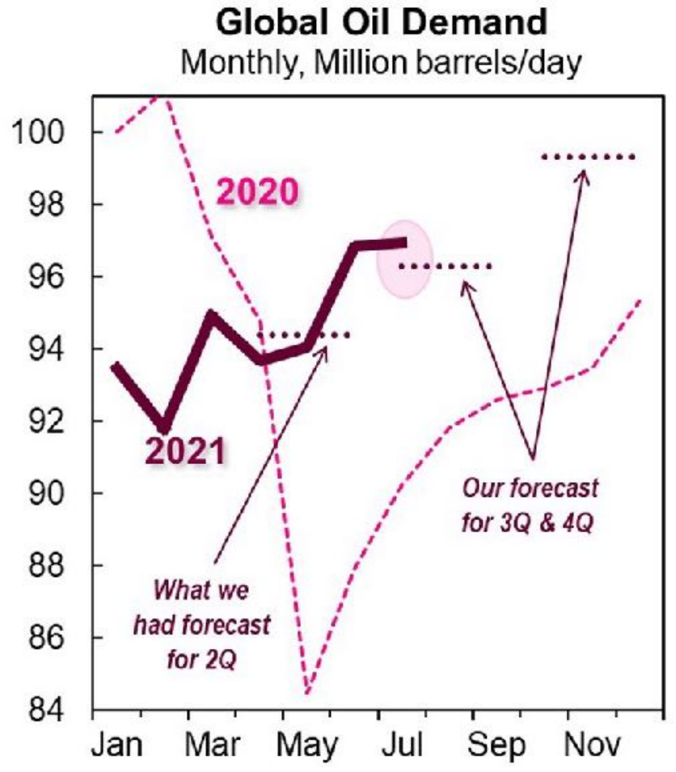
MICHAEL ROTHMAN +1 908-573-5870 MIKE@CORNERSTONEANALYTICS.COM

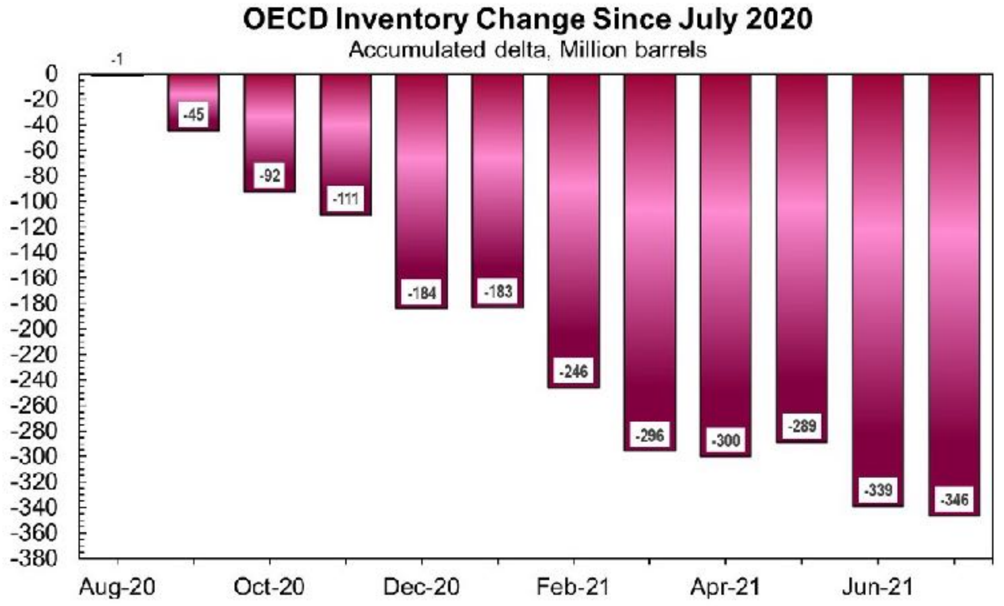
A "BUMP IN THE ROAD" DOESN'T MEAN "THE BRIDGE IS OUT"

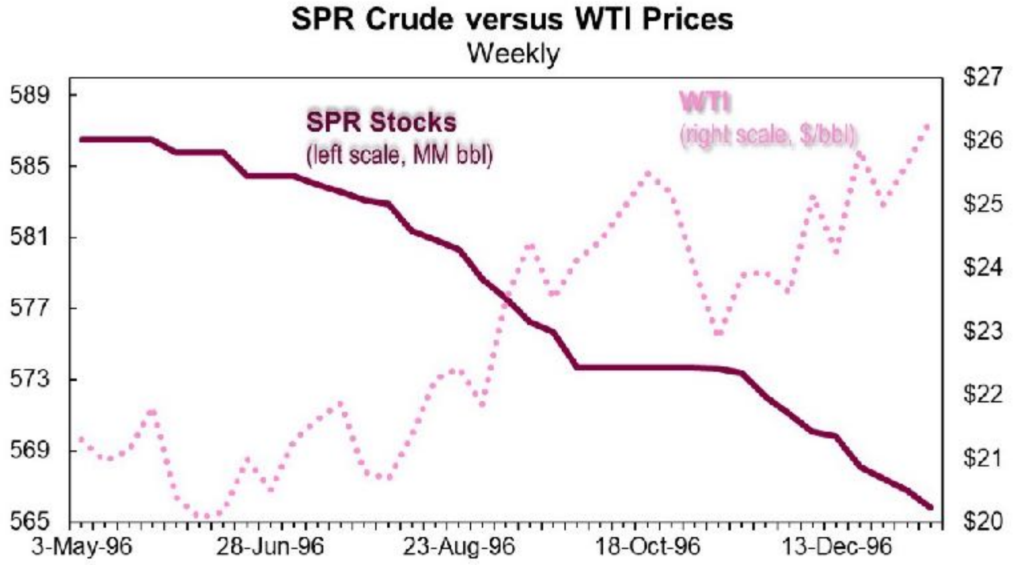


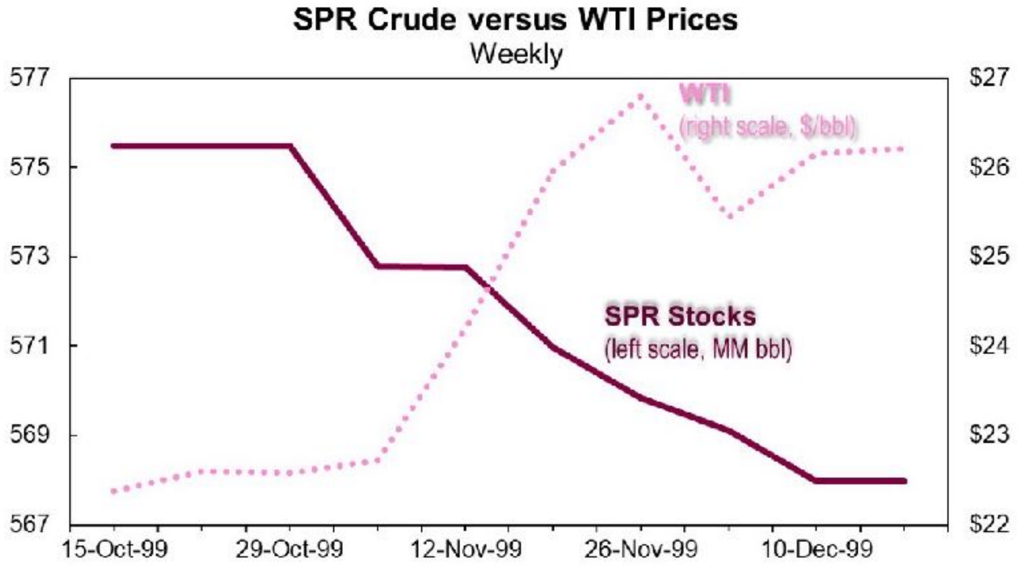
It seems notable that the past three Mondays have all seen the oil market sell down in reaction to data out of China. Yesterday's reaction came from readings about factory orders and retail sales and, to a smaller extent, a reported drop in crude run rates. Given nervousness about the pandemic variants, limbic responses to data with even a hint of hurting economic prospects is to be expected. When all is said and done, however, does the data for the oil balance justify these fears? Our answer is "*nay nay.*" China-specific demand readings have come in as expected and more importantly global demand figures have come in stronger than forecast (which includes the July level). We also note that the physical oil balance keeps tightening, part of which relates to non-OPEC supply gains lacking robustness (as we forecast) and OPEC's supply restraint which is specifically oriented around the goal of working down global inventories. As detailed on the next page, OECD stocks (the proxy for global storage) saw levels drop by 346 million barrels since July 2020.









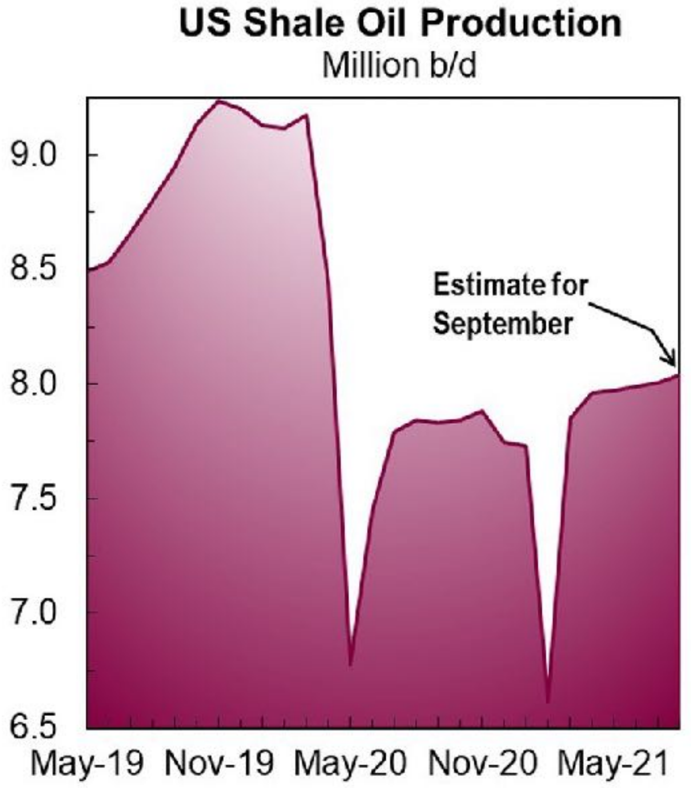


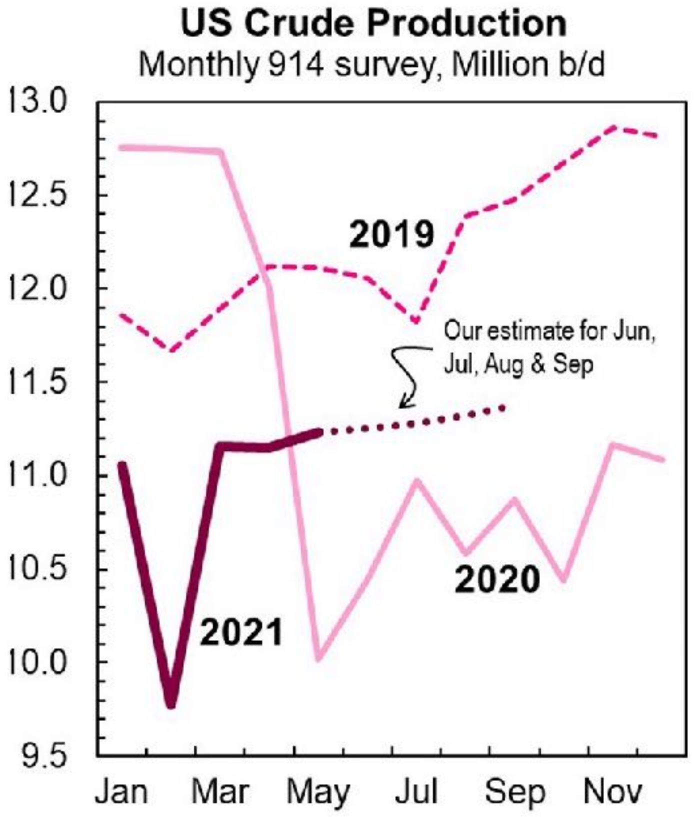
The draw on stocks since last July is the largest since the IEA began issuing inventory data in 1984. The next largest pull on inventories took place in 2000 and it was 55 million barrels smaller.

The hoo-hah last week related to the Biden administration's plea for OPEC to help lower gasoline prices was given a "hard pass" yesterday, which was what we expected.

Because prices "at the pump" and the US president's public approval rating have a strong inverse correlation, we would not be surprised to see other attempts made at manipulating prices lower ahead of the mid-term elections. Whether this ends up being SPR sales like what we saw during the Clinton presidency remains to be seen, but we'll note again that those schemes backfired miserably – oil prices actually rose as the emergency stocks were sold, as we detail to the left.

THIS IS NOT THE REBOUND THE CONSENSUS EXPECTED





The DOE released its *Drilling Productivity Report* yesterday with estimated figures for next month's shale oil production. The roughly 0.05 million b/d production gain from August is smaller than what we expected, but that's not the issue. What is an issue is that since the end of last year, shale oil production gains through the end of next month would total 336,000 b/d. While in line with our forecast, the gain is 650,000 b/d less than what the consensus expected. Our out-of-consensus view that US oil supply is in its "twilight" phase has significant market implications since gains over the past 10 years accounted for nearly 100% of total non-OPEC supply growth. We see this twilight of shale as one of the bullish oil outlook constructs for the medium term.

Oliver - Client Note
Aug 23, 2021

Oliver Parsons

From: Oliver Parsons <Oliver@cornerstoneanalytics.com>
Sent: Monday, August 23, 2021 9:32 AM
Subject: * Mike Rothman Energy Update: the Tail Wagging the Dog?

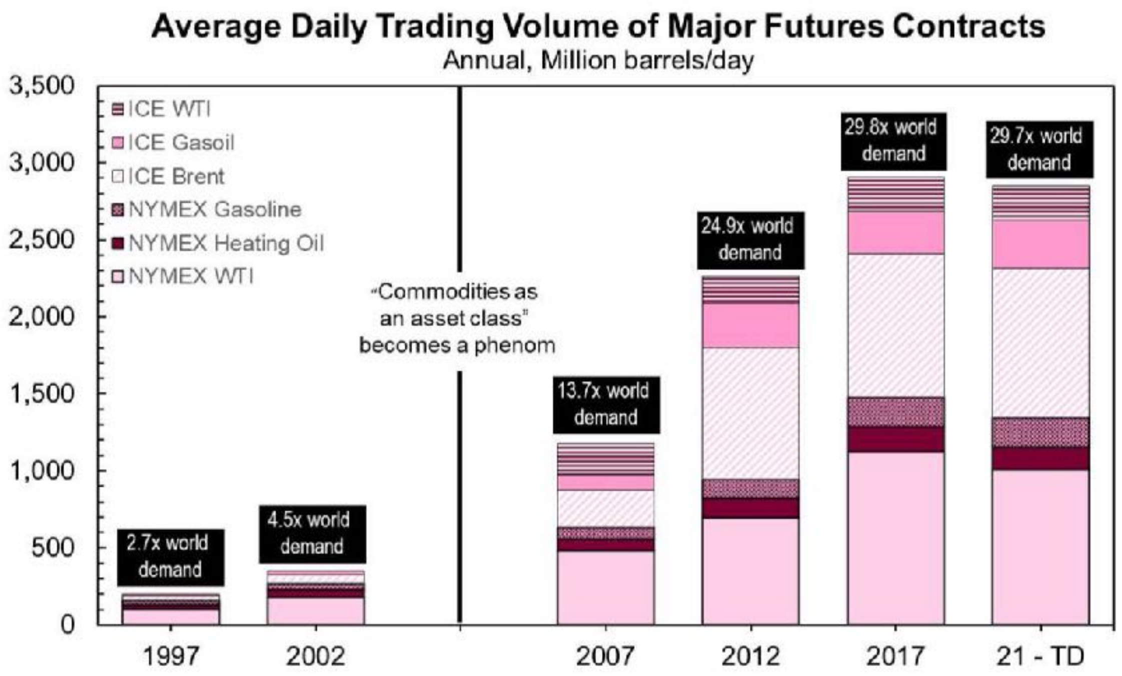
Equity markets and commodities opened in the green this morning and kept surging higher as traders digested the news of the FDA's full approval of Pfizer's COVID-19 vaccine and look ahead to the Fed's Jackson Hole meeting later this week. Oil prices have led the broad commodity complex higher with Brent rallying roughly 6% today, an almost $4 gain.

While numerous macroeconomic concerns spooked traders last week and sent oil prices tumbling lower, Mike reminds us that a drop in the financial demand for oil is much different than a drop in the physical demand for oil. Recall that in 2011 we saw crude sell-off by $39/barrel on fears that Spain was going to default on its debt, which had little impact on actual oil consumption. In fact, many years ago Mike began using the term "financialization" to describe commodities being broadly used as an asset class – beginning in the early 2000s, the paper market for oil expanded sharply compared to global demand.

Today, the daily trading volume for energy is almost 30x global demand, compared to just 3x in the late 90s. What does this mean? Well, it's a case of the tail wagging the dog – the massive amount of paper flow in the oil markets means oil prices can swing wildly in both directions. However, as Mike has reminded us many times in the past, we should not confuse the "financialization" of crude with fundamentals such as supply/demand dynamics.

Mike wraps up today's report with important comments about next week's OPEC+ meeting and the recent movement in crude oil time spreads, **all which look to keep the bullish story quickly unfolding.**

Please see attached for details and let me know if you have any questions!



Kind regards,
Oliver

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CORNERSTONE ANALYTICS
THE MORNING ENERGY UPDATE
AUGUST 23, 2021

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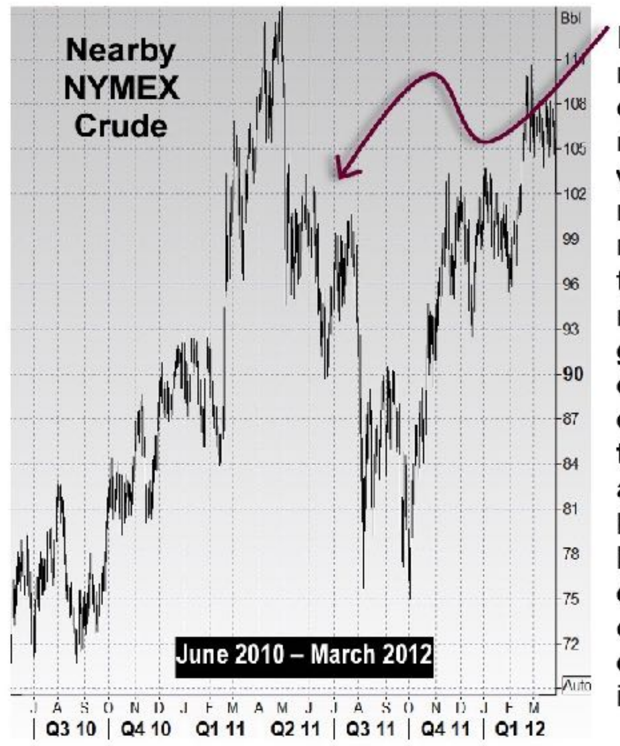
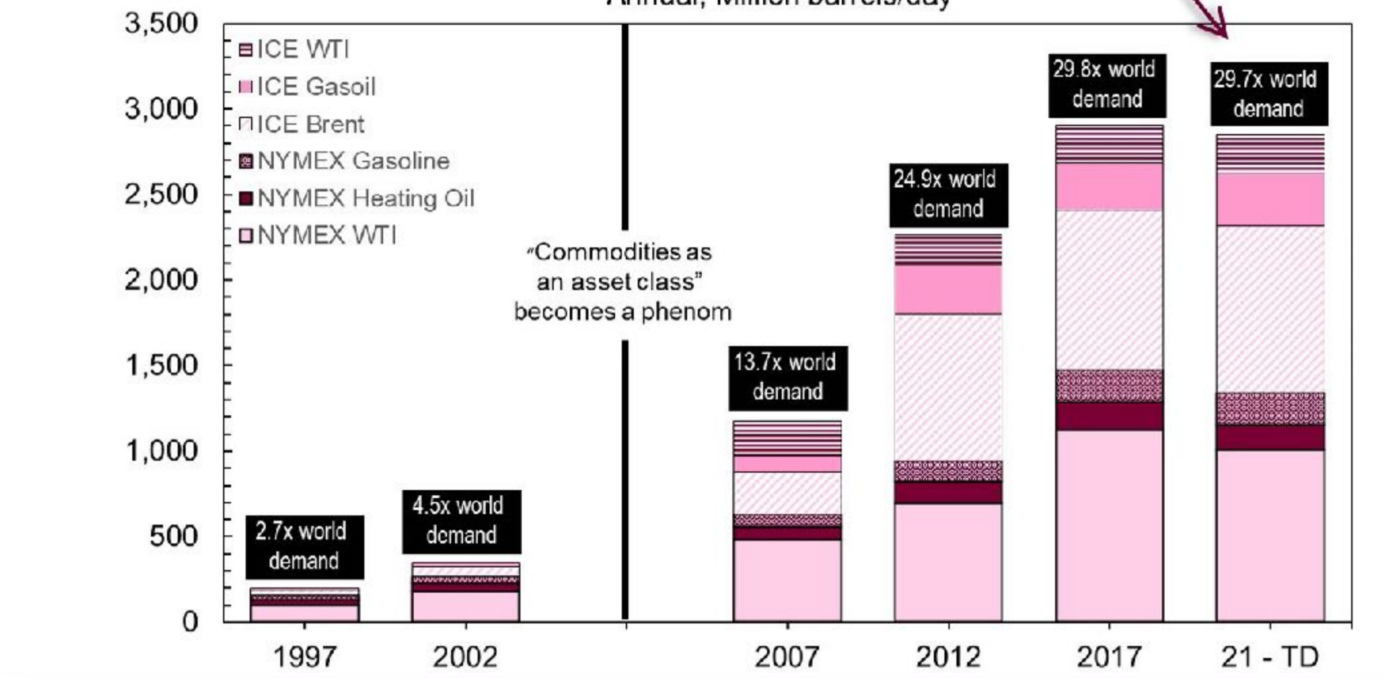
DON'T CONFUSE AN OIL DEMAND COLLAPSE WITH A COLLAPSE IN THE FINANCIAL DEMAND FOR OIL…



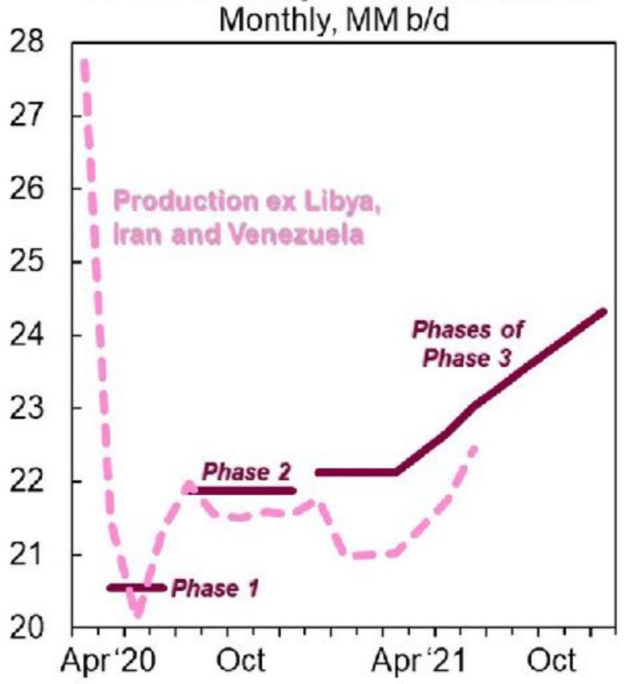
In 2011, oil prices fell $39 on fears Spain would default on its debt resulting in an economic collapse likening the '08/'09 global credit crisis. It never materialized, but that's not the point. The point is most all pundits blamed the oil price rout on a demand collapse, which wasn't the case (global demand was, in fact, growing >1 million b/d year/year). How such fears caused a 35% drop in price relates to the size of oil's "paper market." Conventional wisdom is that the daily trading volume of a mature commodity futures market tops out at 3-5 times its world demand. An analysis we first generated 14 years ago showed average daily volume of key energy futures contracts being almost 14-times the size of global demand. While the 2021-to-date trading multiple is about 30-times the size of our '21 forecast, the actual multiple is closer to 50 when accounting for options on futures, other energy contracts and the large, unregulated over-the-counter market (yes, more than 5 billion "paper barrels" of oil trade each day compared with actual demand of less than 0.1 billion barrels/day). As such, we see the current sell-off in crude as being another collapse in the "financial demand" for oil given separate analyses indicating global demand is running ahead of our forecast.

Average Daily Trading Volume of Major Futures Contracts
Annual, Million barrels/day



WHAT'S IN STORE FOR OPEC'S SEPTEMBER 1ST MEETING?

OPEC-10 Output versus Quota
Monthly, MM b/d



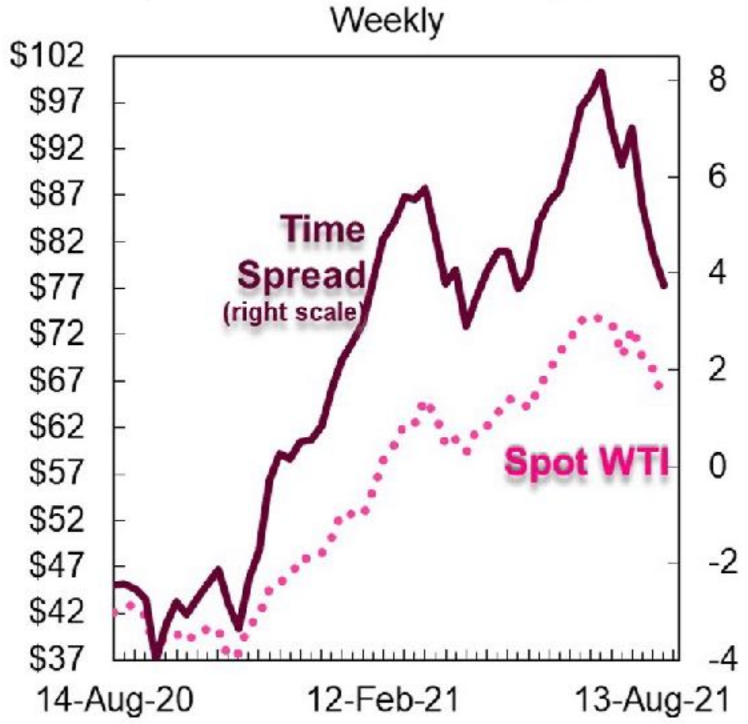
Evident angst about global oil demand prospects have stirred up conversation about delaying scheduled OPEC+ quota unwinds which we detail below. To be blunt, we have not yet heard an indication about what will come to pass, but the sense we get is that Saudi Arabia remains adamant about not "pushing" extra crude into the oil market – the goal remains having fixed on extra supply being "pulled" into the market from demand pressure. Working down oil inventories further is still at the forefront of OPEC+'s thinking which, put another way, means not having oil stocks build. Many of the producers have a two-month look-ahead from buyers scheduling tanker loadings – for example, today there are refiners already lining up their purchases for late October. Though our analyses still suggest oil demand is running ahead of forecast, we have to consider the possibility that OPEC will err on the side of caution about relaxing output restraints.

OPEC+ Quota Deal with Modifications, Million b/d

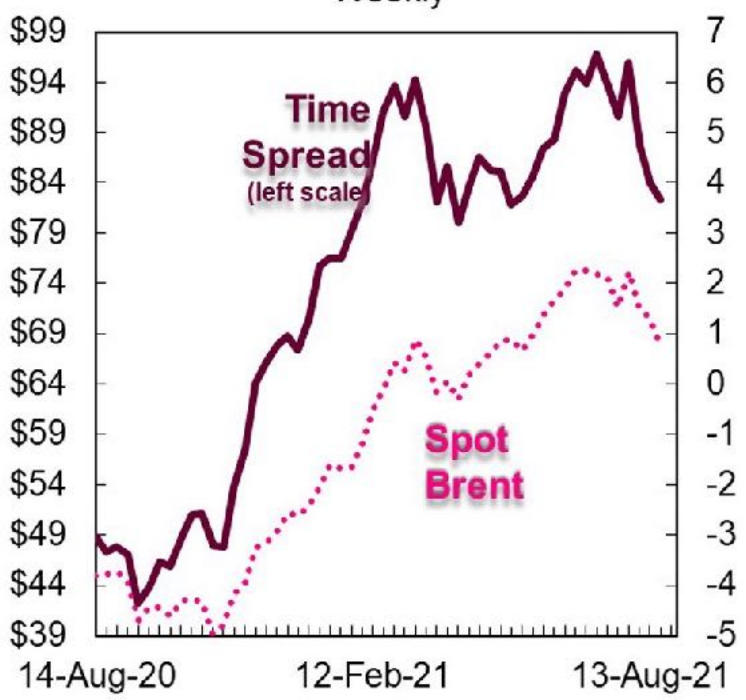
	Output	Mar '21	Apr '21	May '21	Jun '21	Jul '21	Aug '21	Sep '21	Oct '21	Nov '21	Dec '21
							Our estimates				
OPEC 10	Base	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota	Quota
Algeria	1.057	0.876	0.876	0.887	0.898	0.912	0.922	0.932	0.942	0.953	0.963
Angola	1.528	1.267	1.267	1.283	1.298	1.319	1.333	1.348	1.363	1.378	1.393
Congo	0.325	0.269	0.269	0.273	0.276	0.281	0.284	0.287	0.290	0.294	0.297
E. Guinea	0.127	0.105	0.105	0.107	0.108	0.110	0.111	0.112	0.114	0.115	0.116
Gabon	0.187	0.155	0.155	0.157	0.159	0.161	0.163	0.165	0.166	0.168	0.170
Iraq	4.653	3.857	3.857	3.905	3.954	4.016	4.060	4.105	4.150	4.195	4.241
Kuwait	2.809	2.329	2.329	2.358	2.387	2.425	2.452	2.479	2.506	2.533	2.561
Nigeria	1.829	1.516	1.516	1.535	1.554	1.579	1.596	1.614	1.632	1.650	1.668
Saudi Arabia	11.000	9.119	9.119	9.232	9.347	9.495	9.599	9.705	9.811	9.919	10.028
UAE	3.168	2.626	2.626	2.659	2.692	2.735	2.765	2.795	2.826	2.857	2.889
OPEC 10	**26.683**	**22.119**	**22.119**	**22.396**	**22.673**	**23.033**	**23.286**	**23.542**	**23.800**	**24.062**	**24.326**
NOPEC'ers											
Azerbaijan	0.718	0.595	0.595	0.603	0.610	0.620	0.626	0.632	0.638	0.645	0.651
Bahrain	0.205	0.170	0.170	0.172	0.174	0.177	0.179	0.180	0.182	0.184	0.186
Brunei	0.102	0.085	0.085	0.086	0.087	0.087	0.088	0.089	0.090	0.090	0.091
Kazakhstan	1.709	1.437	1.457	1.463	1.469	1.475	1.489	1.504	1.519	1.533	1.548
Malaysia	0.595	0.493	0.493	0.499	0.506	0.514	0.519	0.524	0.529	0.534	0.540
Mexico	1.753	1.753	1.753	1.753	1.753	1.753	1.770	1.787	1.805	1.822	1.840
Oman	0.883	0.732	0.732	0.741	0.750	0.762	0.769	0.777	0.785	0.792	0.800
Russia	11.000	9.249	9.379	9.418	9.457	9.495	9.588	9.681	9.776	9.871	9.968
Sudan	0.075	0.062	0.062	0.063	0.064	0.065	0.066	0.066	0.067	0.068	0.068
South Sudan	0.130	0.108	0.108	0.109	0.110	0.112	0.113	0.114	0.115	0.116	0.118
NOPEC'ers	**17.170**	**14.684**	**14.834**	**14.907**	**14.980**	**15.060**	**15.207**	**15.355**	**15.505**	**15.657**	**15.809**
TOTAL	**43.853**	**36.803**	**36.953**	**37.303**	**37.653**	**38.093**	**38.493**	**38.897**	**39.306**	**39.718**	**40.136**

UNDERLYING SENTIMENT STILL APPEARS BIASED BULLISHLY

Spot WTI vs WTI Time Spread
Weekly



Spot Brent vs Brent Time Spread
Weekly



The time spread for both Brent and WTI did see a retrenchment with the recent pullback in crude prices, but that is the expected pattern. We did not see disproportionate weakness develop in the term structure which is notable. *Were that to have happened*, it would have suggested underlying oil market sentiment was shifting away from what has been a bullish disposition (again, this isn't what the pattern suggests). Fears about variants of the original Wuhan virus are understandably disquieting. The consideration that remains offsetting is the on-going vaccine program, the effects of which has a time-variable. In our oil balance forecast, we overtly allowed for a 9 month lag between the start of the program and a material pick-up in underlying oil demand (i.e. the 4th quarter of '21). Even with that in mind, we employed a set of demand figures that erred on the side of caution. If we were to lop off an additional million b/d from our 4Q demand forecast, we would still see a global oil inventory draw that is larger than normal.

Oliver - Client Note
Dec 6, 2021

Oliver Parsons

From: Oliver Parsons
Sent: Monday, December 6, 2021 3:53 PM
Subject: *IMPORTANT – Report + REPLAY: Rothman/Rosenberg Webcast

As we asserted many times last week, Mike's bullish oil price outlook remains **VERY MUCH** intact and this recent drop in oil prices is a **buying opportunity** – an early holiday gift provided to us by the irrational and emotional investing herd.

In fact, Brent prices have already jumped 11% off the lows from last Thurs Dec 2, and we don't see much stopping this rally over the medium-term.

IMPORTANT: TWO replays below:
* Mike and Dave Rosenberg on his widely popular ***Webcast with Dave*** – the feedback has been tremendous.
* Our ***Post-OPEC Client Webcast*** from this afternoon – Mike discusses OPEC's strategy and key takeaways from today's meeting.

And, as Dave Rosenberg put it last week:

> ***What made this webcast so fascinating was that Mike brought a barrel-full of charts and facts to support his bullish thesis on the oil market. Despite the recent price pullback, what takes WTI to $125 per barrel is the supply backdrop and enduring ultra-thin inventory situation, along with demand moving back to pre-Covid levels next year. The EV and clean energy arguments against crude are based on false presumptions, and he had a long list of counterpoints. Mike and I go back over twenty years, and I know when he has tremendous conviction. This is one of those times.***

Also, attached is our **KEY READ** from this morning – Mike comments on:

- **WTI VIX** -- crude prices typically bottom after spikes above 44%
- **Our NA & Pacific inventory estimate for November** -- looks to be drawing **650k b/d ABOVE** the 7-year avg
- **Global air traffic** -- recently hooked up, surpassing the respective 2019 level (a **FIRST** since the pandemic began)
- **A *What If* scenario should global oil demand get smacked next year** -- global inventories should **STILL** keep slip slidin' away

LINK: **Webcast with Dave Rosenberg + Guest Mike Rothman - Nov 30, 2021**

LINK: **Post-OPEC Discussion with Mike - Dec 6, 2021**
Passcode: **OPEC85**

Let me know if you have any questions – Mike and I would be pleased to chat!

Best, Oliver

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Managing Director
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Client Report

Dec 6, 2021

CORNERSTONE ANALYTICS
THE MORNING ENERGY UPDATE

DECEMBER 6, 2021

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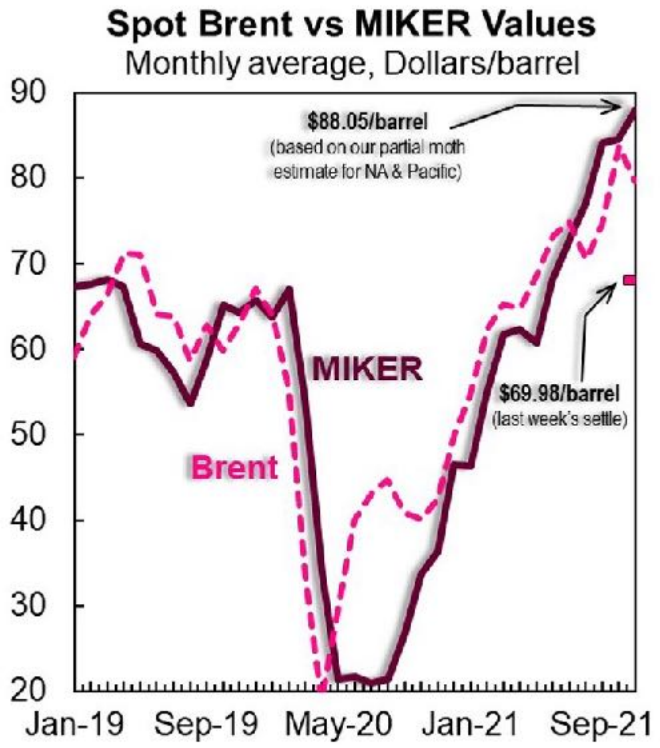
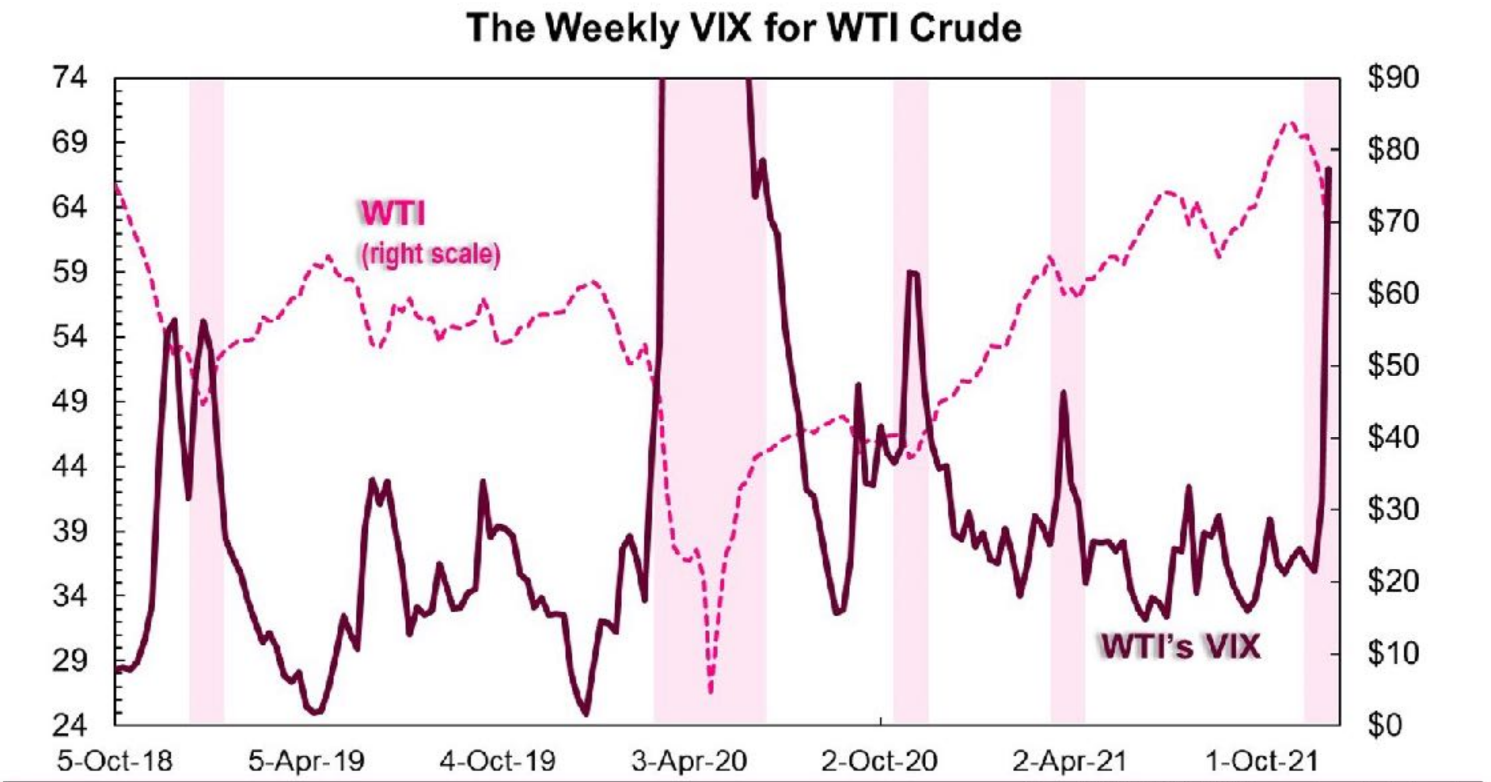
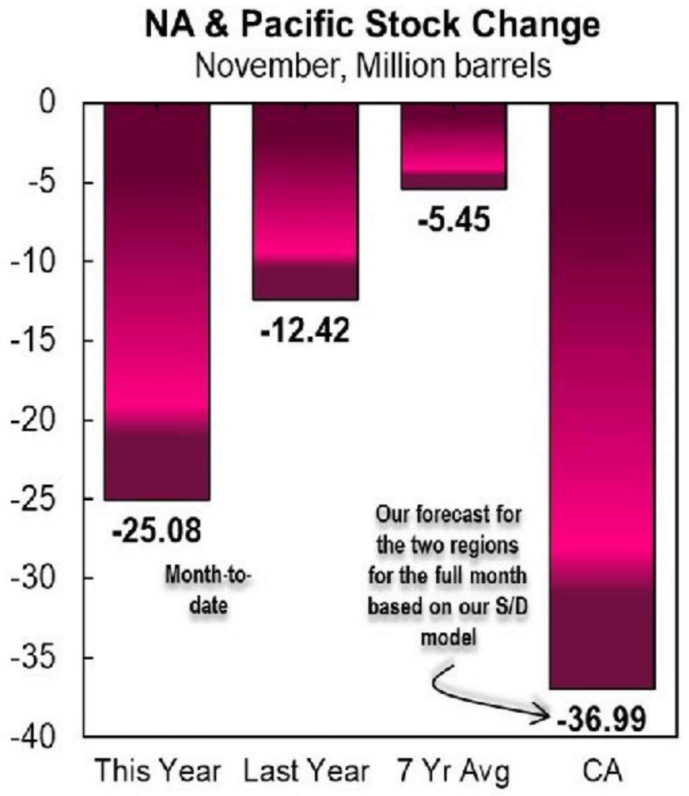
BUY THE SPIKE



Based on our most recent estimate of inventories in the OECD, crude oil's "fair value" is just over $88/barrel. The $18 gap from last week's settlement price reflects a collapse in the "financial demand" for oil catalyzed by fears of the economic and oil demand recovery being impacted from omicron. This dynamic is hardly new and we understand fear riding roughshod in a market, but from our perspective the pullback in oil prices will likely prove to be another buying opportunity. A data set we analyze but only infrequently address in our work is oil price volatility as measured by WTI's VIX. Our analysis below, updated through the end of last week, indicates that when the VIX spikes above the 44% mark, the price of crude typically forms a bottom. We identified these spikes by the shaded bars in the graph and would draw your attention to the most recent week. Timing wise, the bottom tends to form over a one to two week period and the reversal affects oil prices and related investment vehicles.

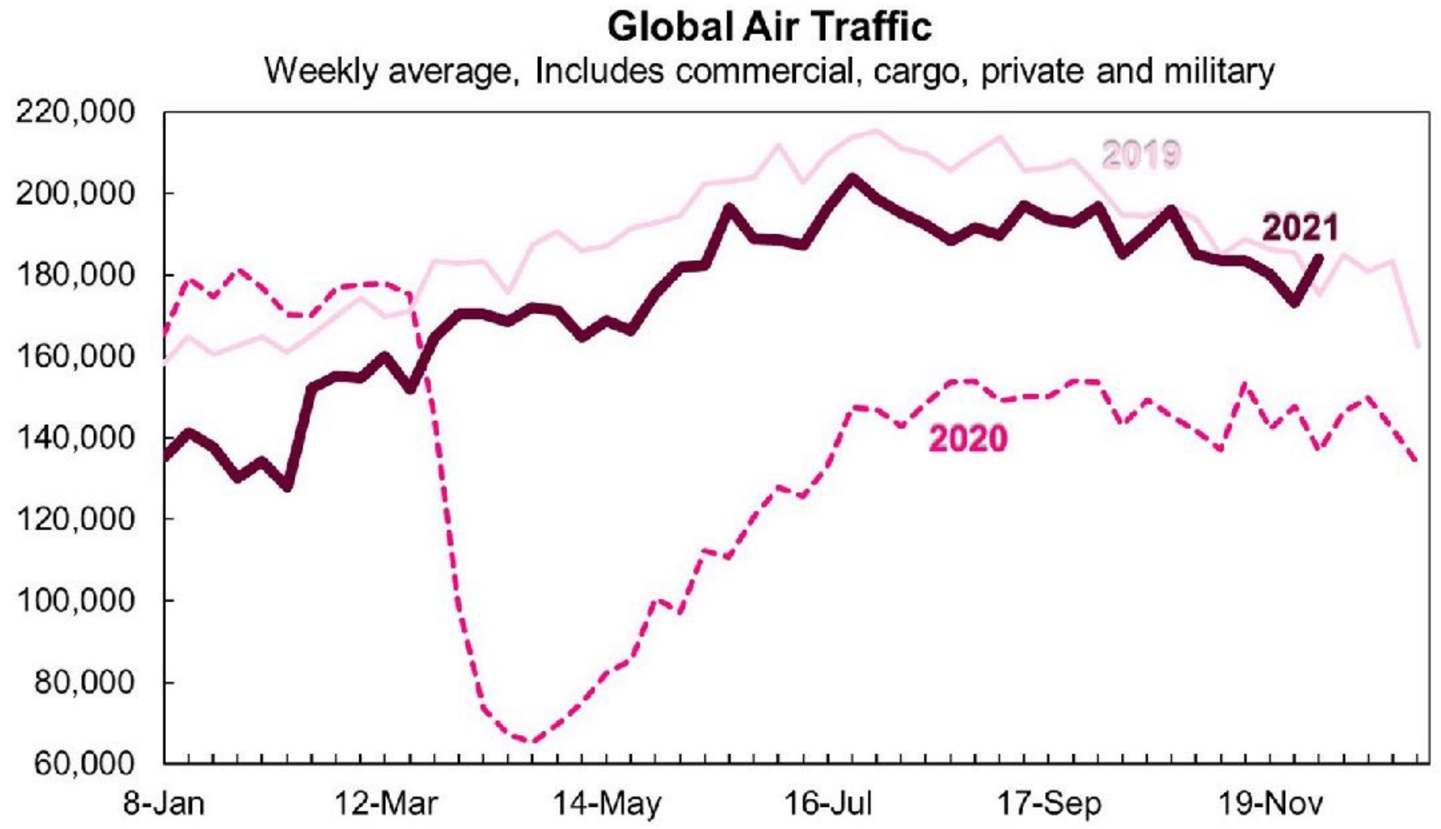


FORRGET WHAT YOU BELIEVE AND BELIEVE WHAT YOU SEE



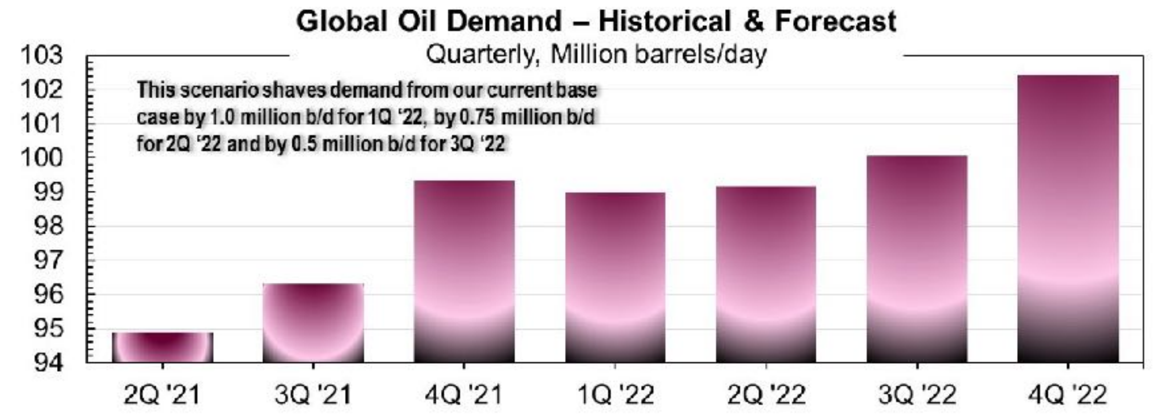
Petroleum inventories in the Pacific and the North America regions account for 2/3rds of global stocks. With one reporting week to go, the month-to-date change for November detailed left shows a draw that is much larger than year-ago and normal levels and one that's approaching our forecast rate from the oil balance model.

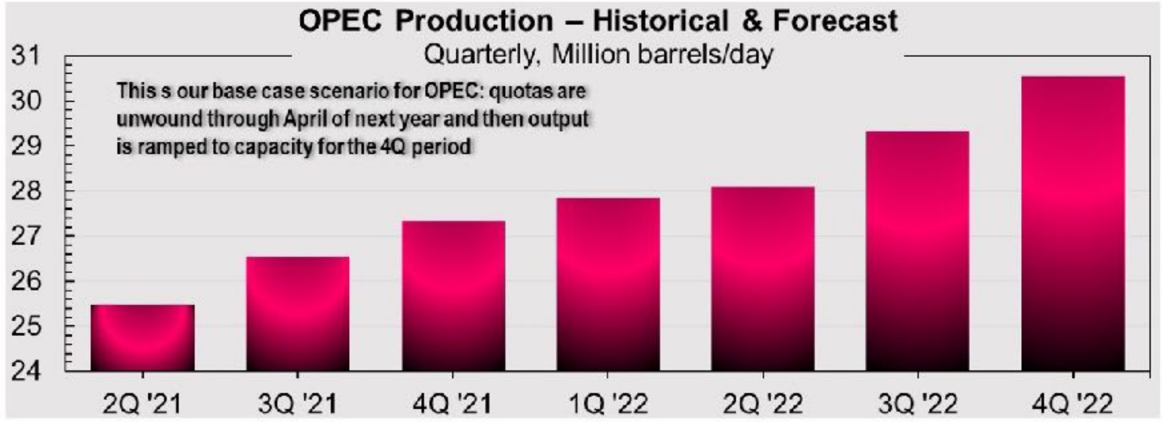
As to another close-to-real-time data set, global air traffic (which includes commercial, cargo, private and military activity) accounts for about 7% of the world's oil demand. In March of 2020, when the isolating and containment measures related to COVID were first imposed, we saw traffic fall 70% in the course of 6 weeks. It took several months to climb out of that proverbial hole, but it wasn't until after the worldwide vaccination program rolled out that we saw global air traffic move up towards '19 levels (i.e., pre-pandemic activity). To us, it's notable that the recent week's traffic shows total flight activity running above the respective 2019 rate – a first in 19 months. This and our inventory analysis above suggest global demand is not taking a hit in reaction to the newest variant (rather demand still appears to be in recovery mode).

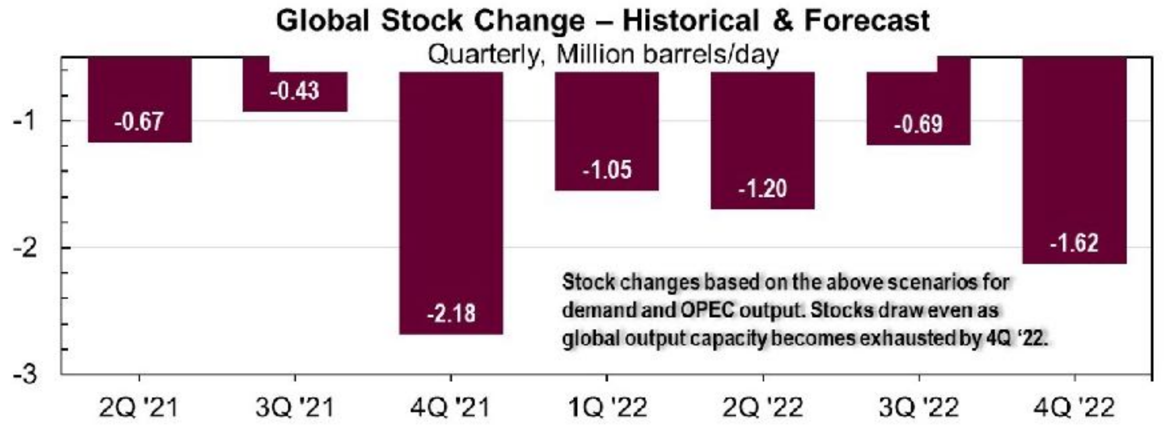


OMICRON AND THE OLD "WHAT IF" SCENARIO THING

We have not made any adjustment to our oil balance model, but it seemed prudent to address a question that we expect will rear its head, namely, how will the supply/demand balance fare if we see some impact on demand in reaction to the latest COVID variant. What we did was to shave demand lower in the first three periods of '22 (as noted in the analysis immediately below). We note the adjustments are arbitrary, but nevertheless capture prospects for an effect that causes more time for demand to reach pre-pandemic rates. Our forecast for OPEC production was left unchanged. The resulting inventory impact (bottom analysis) may not be quite as bullish as our base case, but it's bullish nonetheless given the forecasted draw on stocks atop the current year's draw. Yes, our figures look different than most everything you are seeing (as was the case this year) reflecting a lower than consensus non-OPEC supply forecast (as discussed in our work of late) and a higher than consensus demand forecast which relates back to the "missing barrel" issue.







Oliver - Client Note
Dec 13, 2021

Oliver Parsons

From: Oliver Parsons
Sent: Monday, December 13, 2021 9:37 AM
Subject: * Mike Rothman Energy Update: what's all the hoopla about?

We don't like to overuse the "must read" label so let's just say that today's report is a "pretty damn important read" considering all the hoopla around omicron – fire and brimstone free of charge, of course.

Things are looking **VERY** constructive for the oil bulls – we'll cut to the chase:

* Mike estimates Nov OECD oil inventories sunk by 9x normal, very close to his oil balance model forecast, and quickly closing in on the 600 million barrel drawdown mark since Jul 2020. Wow.
* Global air traffic continues to track very closely to the 2019 (pre-covid) rate, having actually surpassed it earlier this month…
* Jet fuel cracks have ticked higher the past few weeks and remain in a clear uptrend since Oct 2020…
* The White House's super-hyped SPR emergency release looks to be quite the flawed façade…

When Mike's end-Nov inventory figure is thrown into our MIKER model, we get a Brent fair value price of a whopping **$93 bucks per barrel**, which means more than **an $18 DISCOUNT** to today's price, and reminds us of the massive gap witnessed over the summer as the "China collapsing" story was pushed by the talking heads on TV (and, yes, let's not forget our fan-favorite Harbinger of Doom who had everyone running for the hills). Well, we should recall Mike's Aug 19, 2021 report – there was also an $18/barrel gap, Brent bottomed the next day and rallied over 12% in 10 days.

Also, we'd be remiss not to mention the headlines being made today by Saudi Energy Minister Prince Abdulaziz regarding his comments about the recent oil price drop over the past few weeks, "*Thanksgiving was a Thanksgiving Day for the speculators…but let them dare to do another Thanksgiving. They will be ouching like hell*."

With the fundamental supply/demand picture on-target with Mike's bullish outlook and a huge price discount from our MIKER model, Mike doesn't suggest our clients challenge Abdulaziz's stance. And, we vividly recall the Minister's similar comments from Sep 2020 about "ouching like hell" and from June 2021 regarding the IEA's call for net-zero emissions as the sequel of the "La La Land movie." Give those a quick Google search for a chuckle.

Please see attached for details and let me know if you'd like to chat with me/Mike before the upcoming holidays! Feel free to shoot over any convenient days/times.

Best,
Oliver

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Client Report

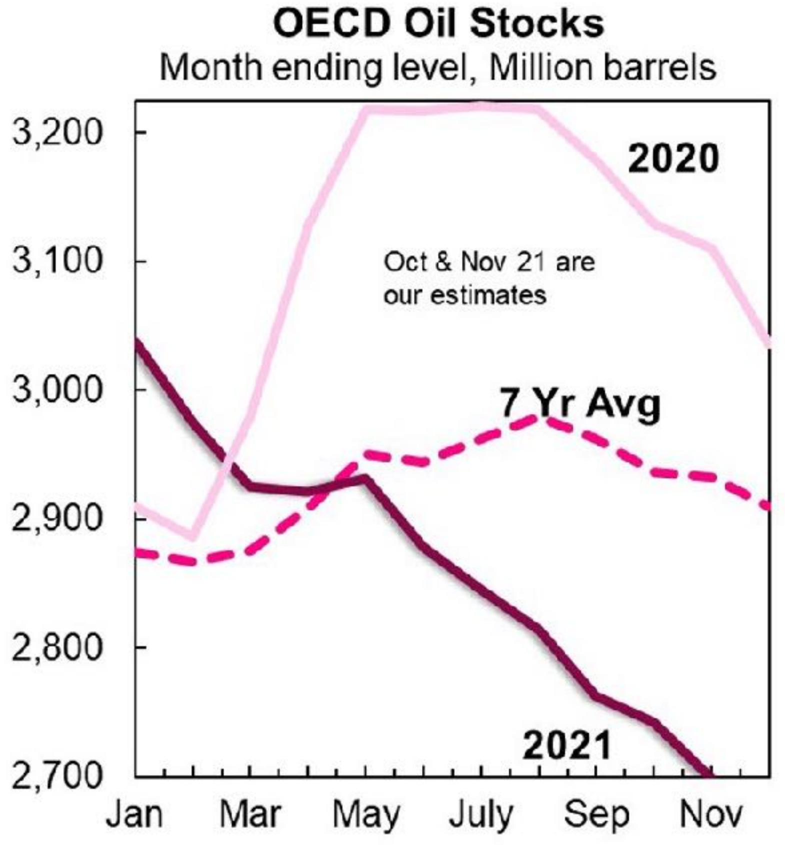
Dec 13, 2021

CORNERSTONE ANALYTICS
THE MORNING ENERGY UPDATE

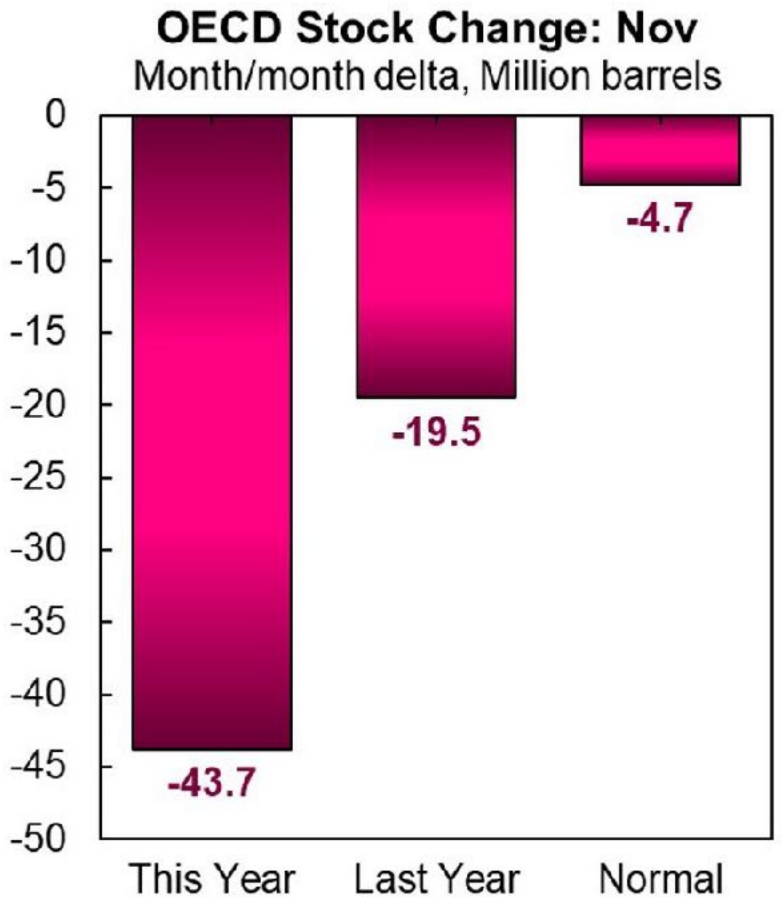
DECEMBER 13, 2021

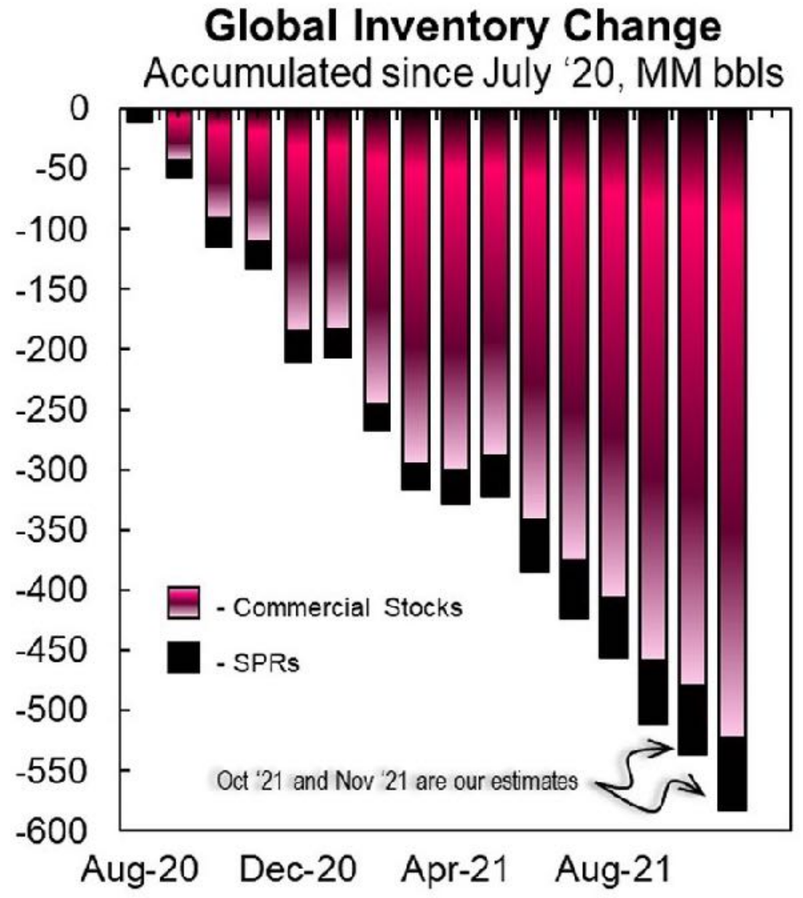
MICHAEL ROTHMAN +1 908-573-5870 MIKE@CORNERSTONEANALYTICS.COM

THIS IS NOT A HOUDINI…



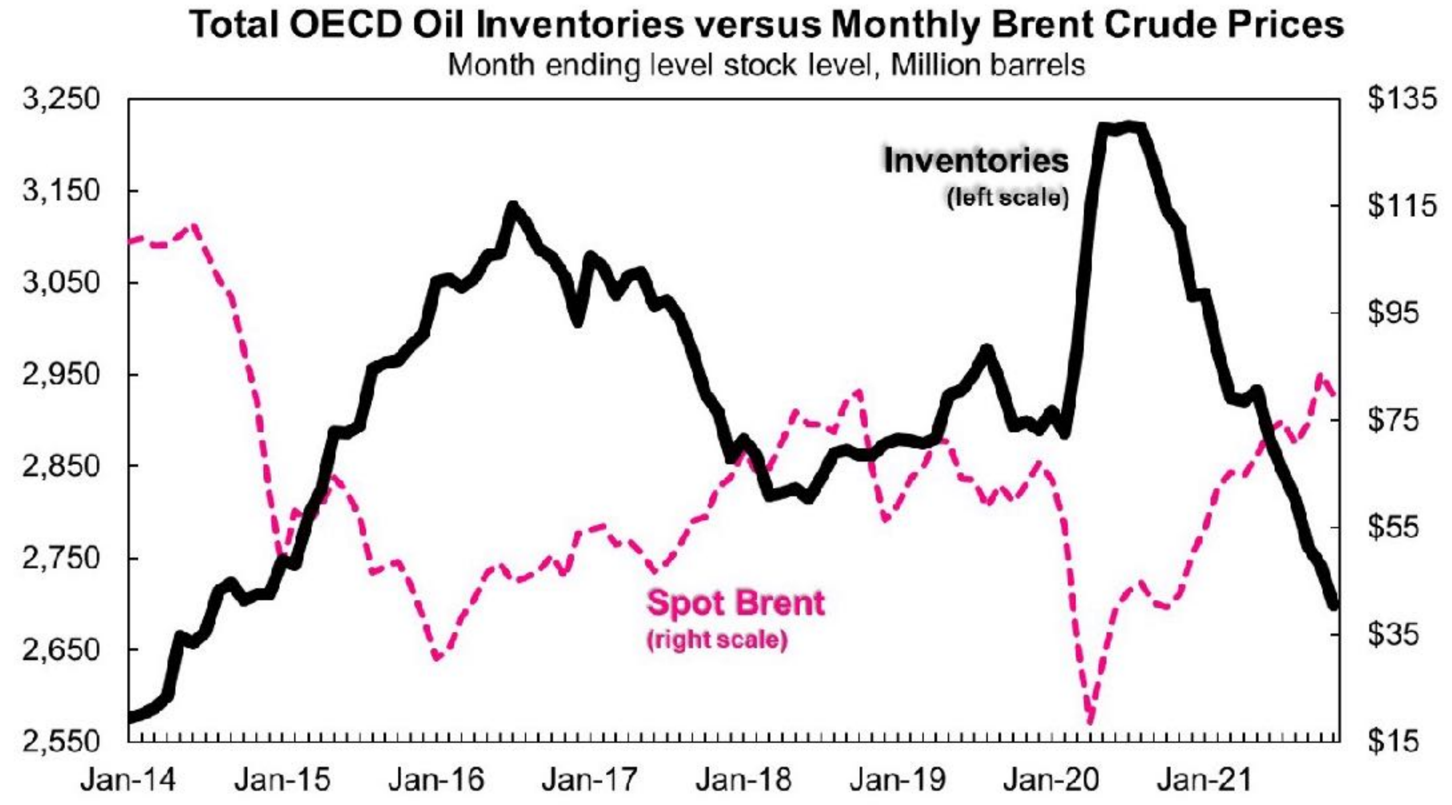
While preliminary, we estimate petroleum stocks in the OECD (this includes crude, refined products, bio-fuels and petrochemicals) drew by about 44 million barrels last month. The pull is 9-times larger than normal and more than double the year-ago figure, and it's close to the rate our oil balance model forecasted. We analyze a number of close-to-real-time data sets to assess demand trends, a practice that is a wee more pressing of late given the angst about the newest covid variant. Inventories get the top spot in that hierarchy because they directly reflect back on demand pressures. We'll get a tranche of OPEC and non-OPEC production data tomorrow that we'll use to calculate global oil demand, but the inventory change suggests to us that demand saw a month-over-month pickup and likely averaged close to our forecast. The inventory draw since July of last year is working its way up to the 600 million barrel mark (after accounting for draws on SPRs) dwarfing any stockdraw of record back to 1971.

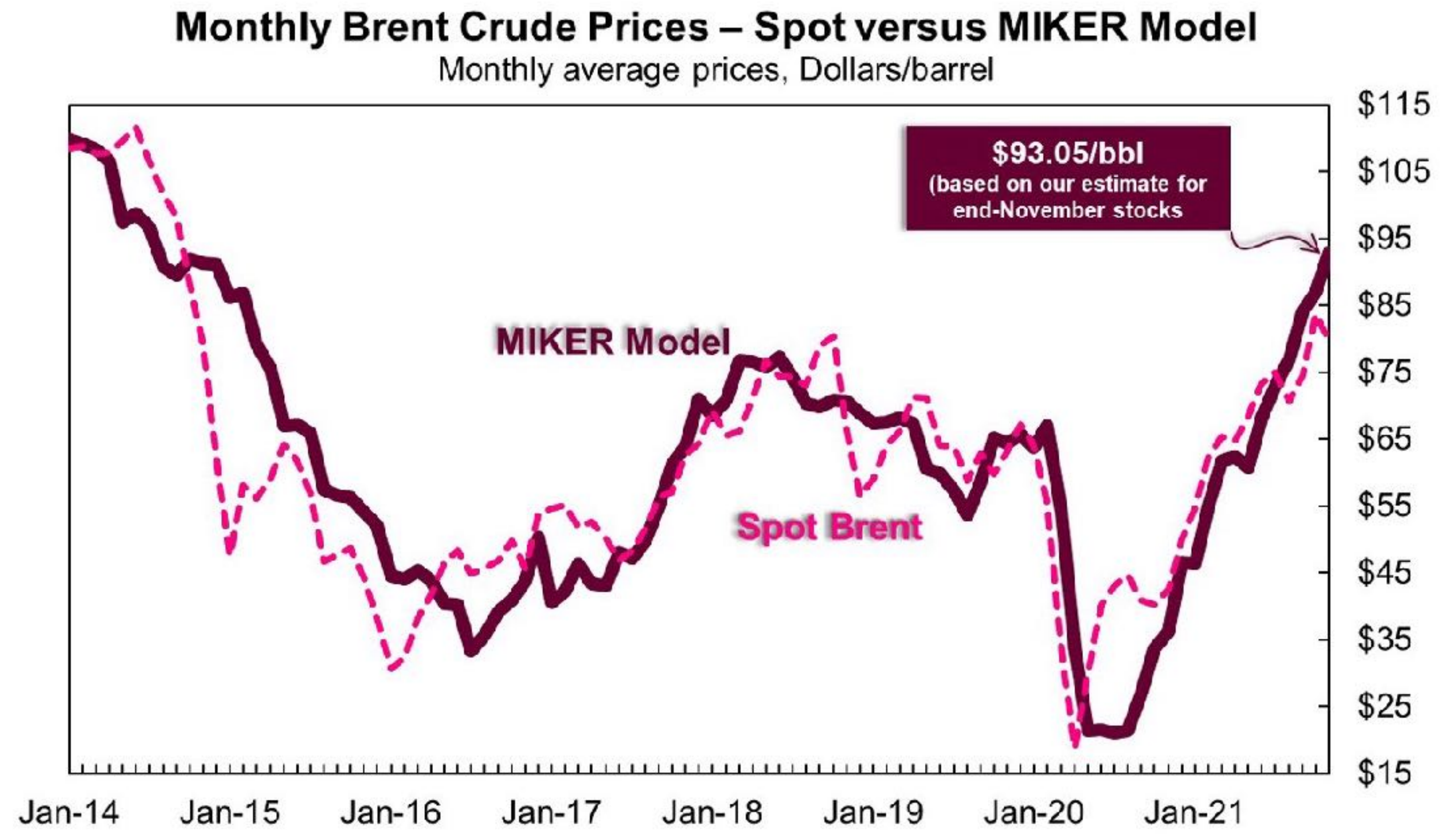




CURRENT CRUDE PRICES ARE WELL UNDER "FAIR VALUE"

Based on our end-November estimate for OECD inventories (the proxy for global stores), our proprietary MIKER Model kicks out a current "fair value" for Brent crude of about $93 per barrel. The model value is $18 per barrel higher than last week's settlement price. Discounts (and at times premiums) to fair value are not a unique occurrence. The current spread speaks to the impact of angst about omicron and, we wonder, some "X" factor like the interest rate climate causing some concern about economic growth (and oil demand) prospects.



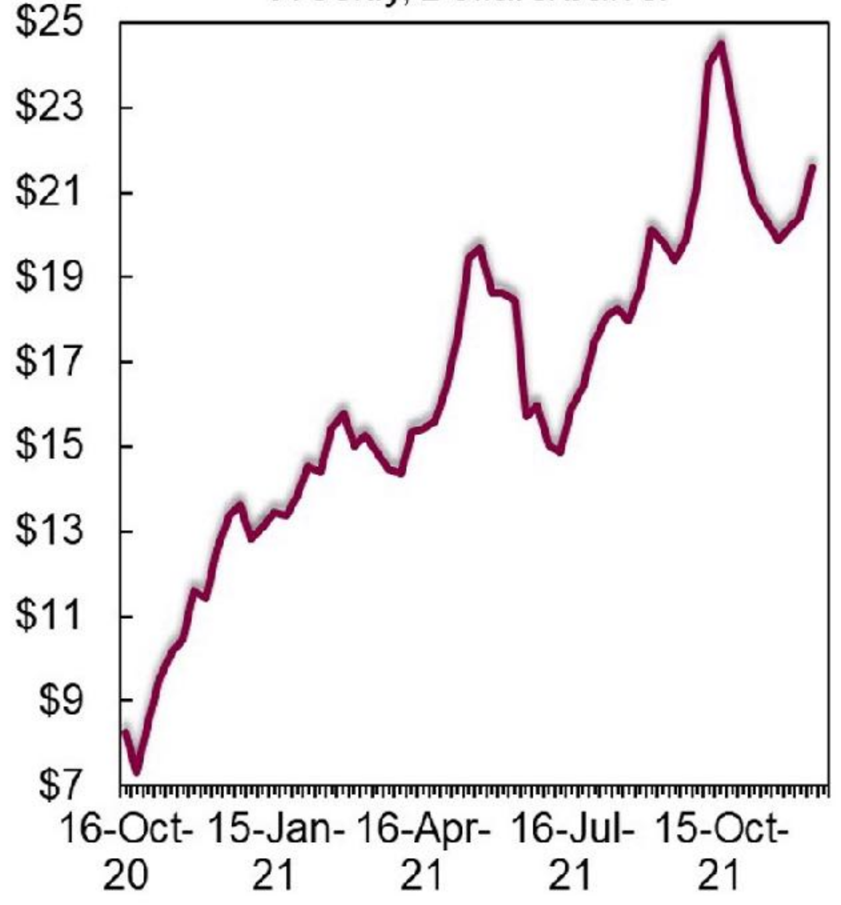


Client Report

Dec 13, 2021

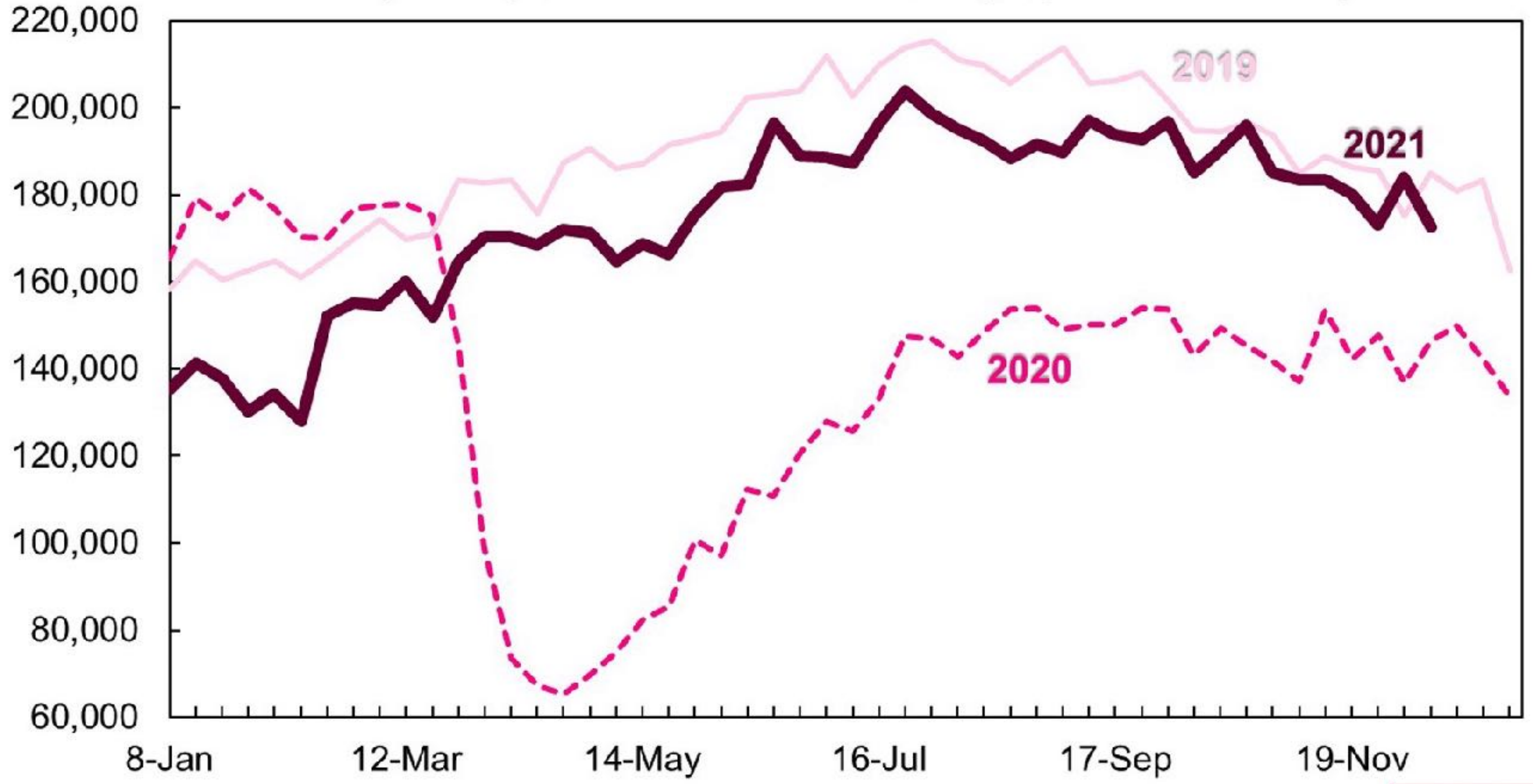
BODIES IN MOTION

The US Gulf Coast Jet Crack
Weekly, Dollars/barrel



While not an end-all, we've focused on global air traffic (commercial, cargo, military and private) as one of the close-to-real-time indicators about demand. Jet fuel accounts for about 7.5% of total petroleum consumption, but changes in traffic seem vulnerable to isolation/containment measures effected because of the pandemic. The downtick in the recent week was not unexpected with the overall trend still being indicative of a recovery – flight activity is exhibiting a normal pattern and tracking the 2019 rates. The cash market jet fuel crack spread has ticked up over the past 2 weeks and it is still in the pronounced uptrend seen since last October. As cursory as this may seem, the data here does not suggest we are seeing the emergence of any negative demand manifestations.

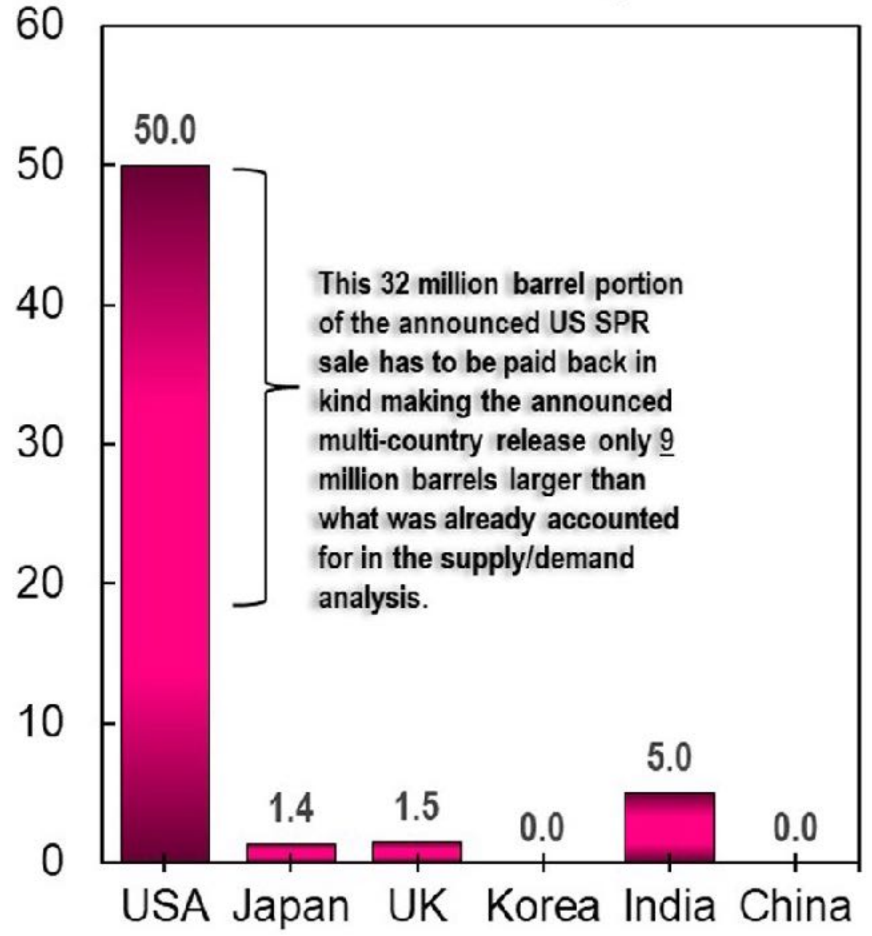
Global Air Traffic
Weekly average, Includes commercial, cargo, private and military



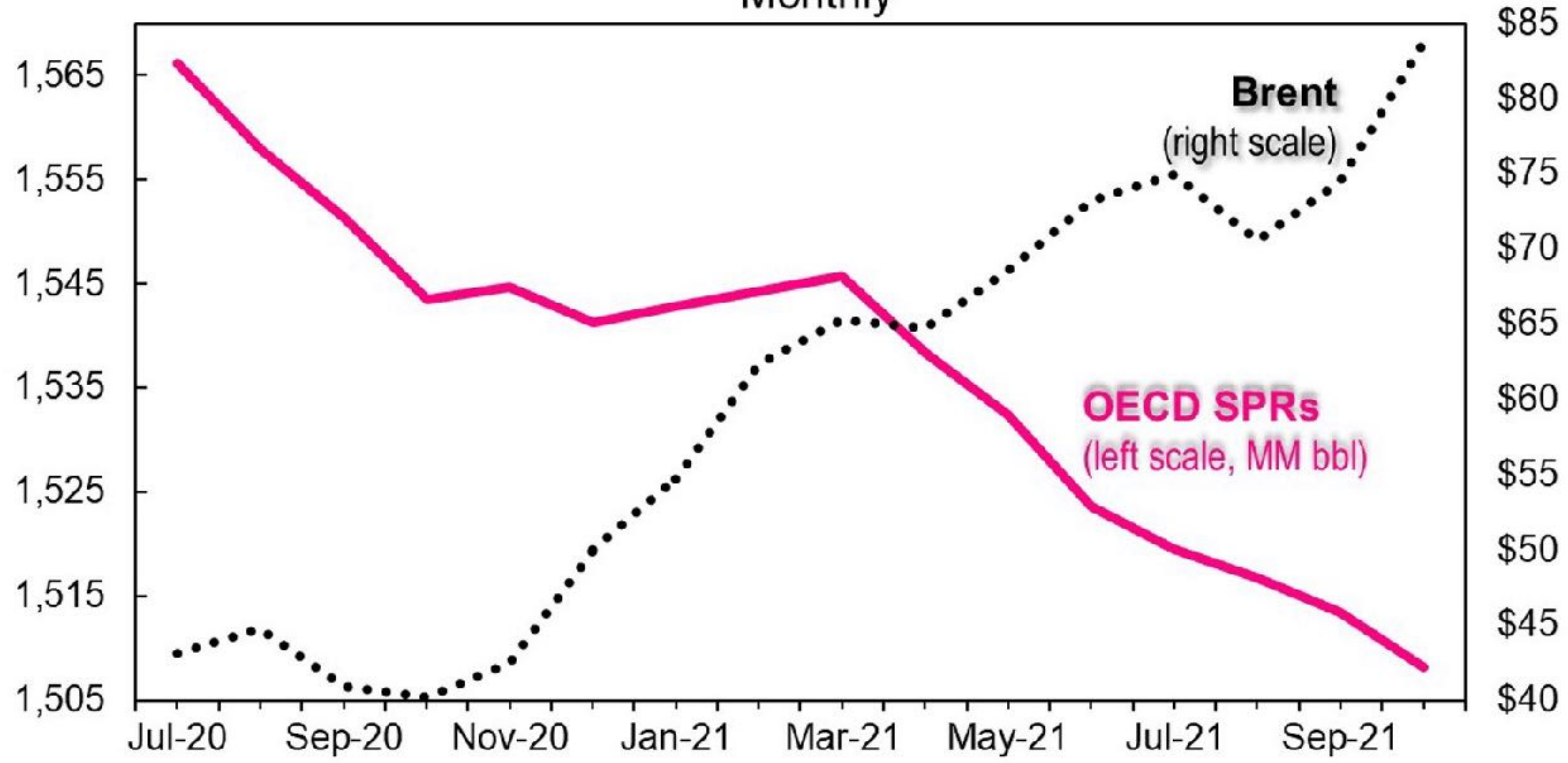
WE WILL SEE IF HISTORY REPEATS ITSELF

This Friday, 18 million barrels of US SPR crude will be tendered for sale. The volume reflects a scheduled use of crude to fund congressional programs set to persist through at least 2031. There is an additional 32 million barrels of US emergency oil that will be available to be "loaned" to refiners as part of the White House's attempt to lever down gasoline prices "at the pump." Other nations pulled into this plan offered inconsequential volumes as detailed to the right and the market's reaction to the announcement about "joint action" came in the form of a $3 rally which was fitting (China and Korea have yet to offer volumes). When emergency inventories have been sold for non-emergencies, we have seen crude prices rally through the release. Given current crude prices are about $18/barrel below current "fair value", we expect the newest SPR sales are likely to see the same fate.

Emergency Oil Releases
Planned as of 12/12/21, MM bbls



OECD Emergency Stocks versus Brent Crude Prices
Monthly



Oliver - Client Note
Feb 22, 2022

Oliver Parsons

From: Oliver Parsons
Sent: Wednesday, February 2, 2022 9:50 AM
Subject: ** OPEC UPDATE: Mike Rothman Energy Update

As Mike has been asserting (**since 2020**), OPEC insists on staying the course to drive global oil inventories lower and lower.

Despite the many skeptics over the past 1.5+ years arguing ***"it's OPEC, of course they'll cheat"*** that was clearly the wrong call – our bullish outlook continues playing out.

Please see attached – let me know if any questions!

Best, Oliver

Oliver Parsons
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(646) 825-5308
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Client Report
Feb 2, 2022

CORNERSTONE ANALYTICS
OPEC UPDATE

FEBRUARY 2, 2022

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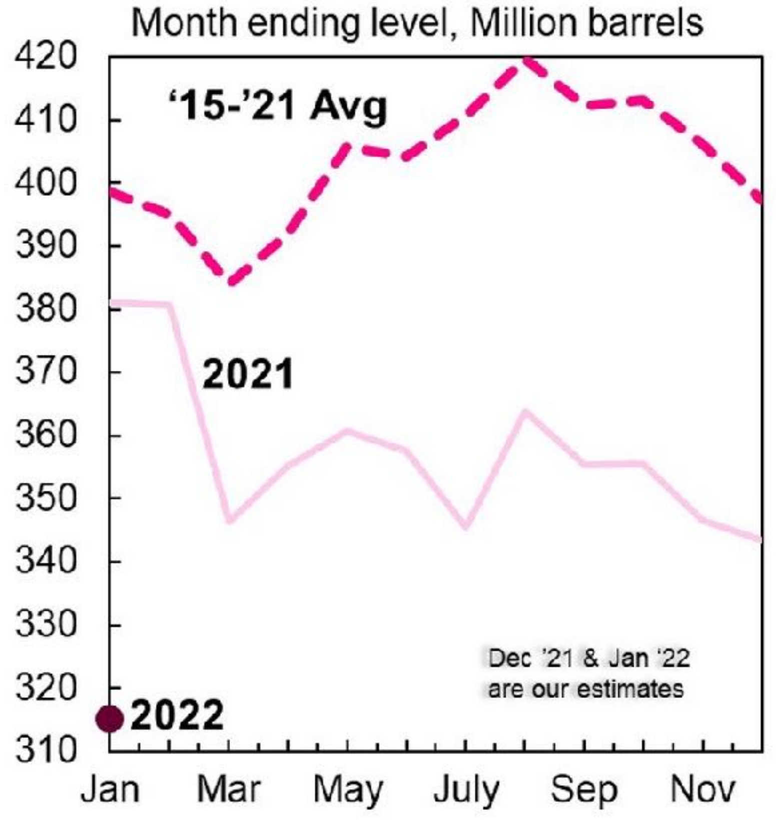
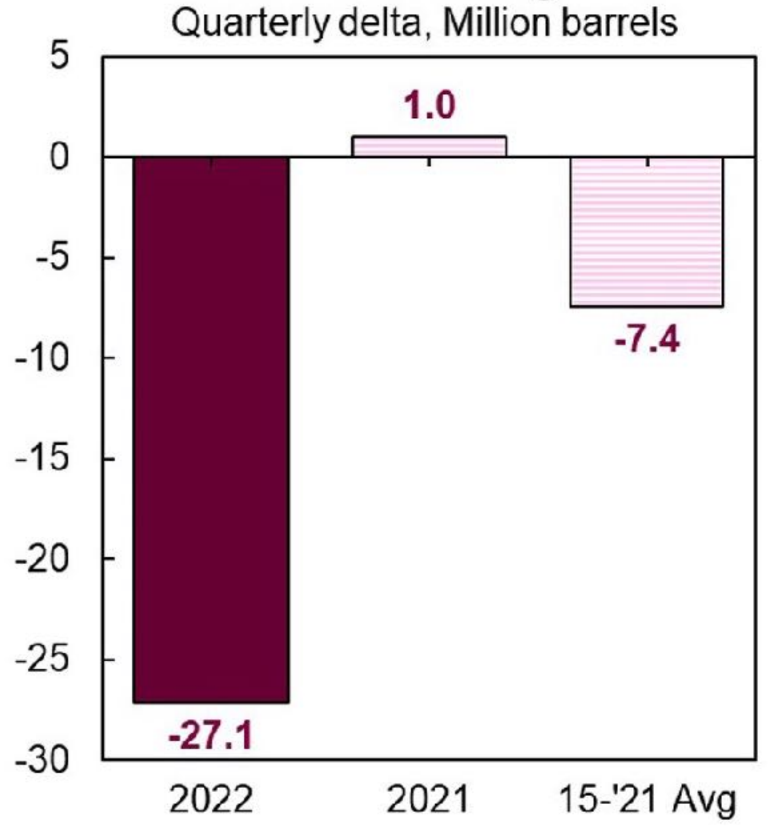
BARRELS PULLED, VERSUS BARRELS PUSHED

OECD Pacific Oil Stocks
Month ending level, Million barrels



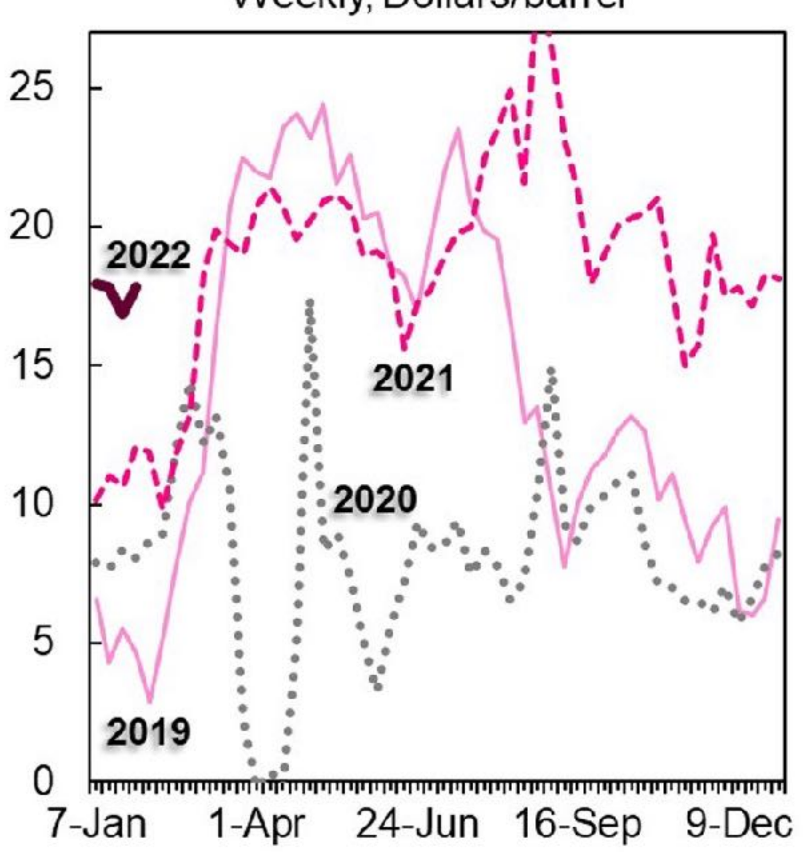
Pacific Stock Change – Jan
Quarterly delta, Million barrels



OPEC is scheduled to convene its joint market monitoring committee meeting at 7AM EST with ministers then starting their conference at 8AM. It is our sense that the over-riding consideration about the expected quota unwind (260,000 b/d for OPEC, 140,000 b/d for non-OPEC members) remains centered on inventories in the OECD. By our reckoning, stocks are still higher than the 2010-2014 average. While there was some hoo-hah yesterday about the unwind perhaps being a bit larger than the already agreed to 400,000 b/d level, the group's supply/demand figures are still slanted towards the notion of an over-supply developing this year. Keep in mind that OPEC's public oil balance model is a shadow version of the IEA's (it's done to avoid having a discourse about differences). It is ironic that IEA member countries clamoring about prices and pleading with OPEC to jack-up supply are the same ones that keep perpetuating the *"glut is coming"* story which affords OPEC the political cover to stay on its preferred path. Please keep in mind our view that OPEC's goal about getting oil stocks worked down aims to have incremental barrels "pulled" into the oil market. This has very different effects than a situation where extra supply is "pushed" into the market – the former is bullish for crude prices and the latter is bearish. We don't want to sound like a busted record, but most all market watchers have missed or ignored this intention since the November 2016 meeting.

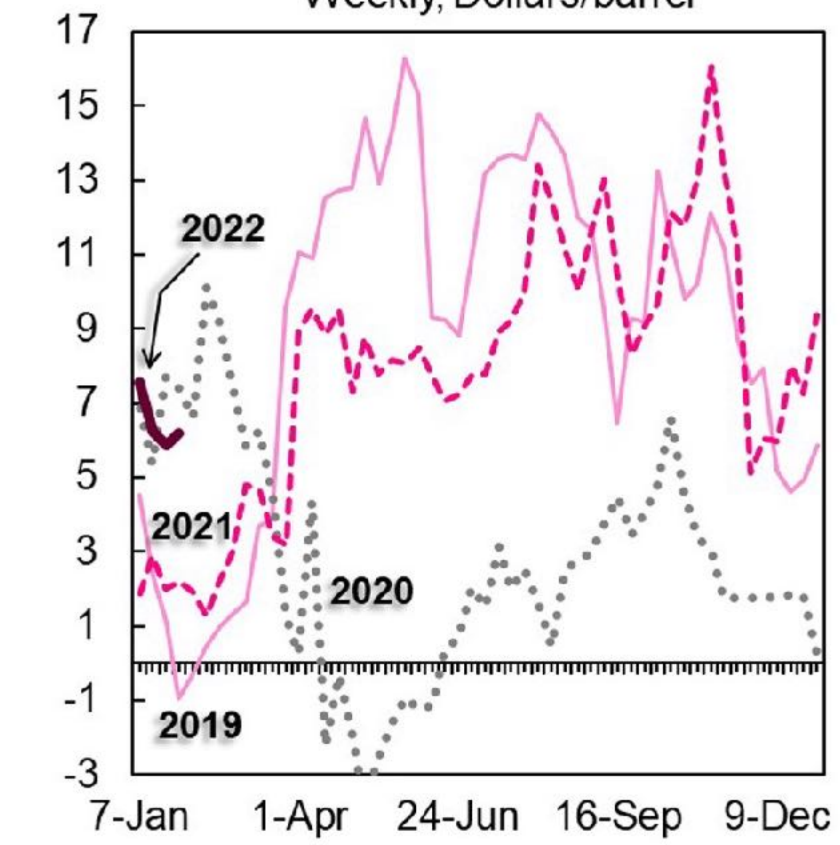
As to the oil balance, to the left is our preliminary estimate for inventories in the OECD Pacific region. By our reckoning, stocks fell by a wee more than 27 million barrels during January or about 4x more than normal – and compared with last year's contra-seasonal build. We'll publish our estimate for North America tomorrow, but so far this month stocks have drawn contra-seasonally. While subject to revision. the inventory changes suggest demand is running close to our forecast and notably above consensus projections – the IEA is calling for inventories to build.

US Gulf Coast Gas Crack
Weekly, Dollars/barrel

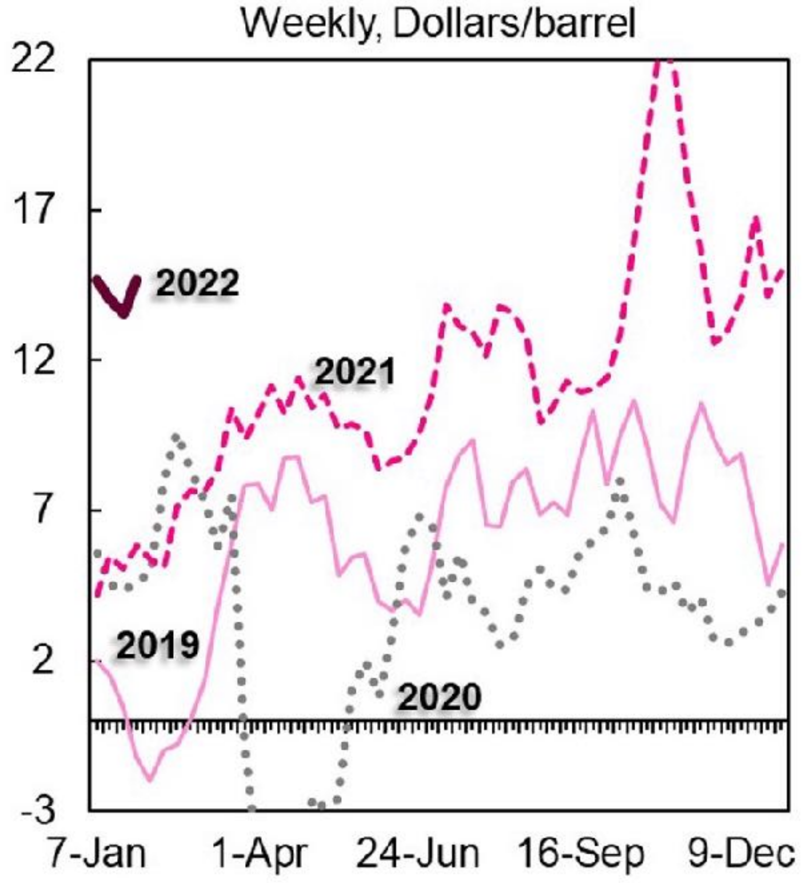


While we've written and discussed the strength of cash market diesel spreads and the related implication for industrial demand being stronger than generally believed, the cash market spreads for gasoline in key refining centers suggest that demand for transportation is also likely stronger than forecast. There are weekly readings for US gasoline demand (which account for 9% of total world oil consumption), but no such data are available for the rest of the world – identical to the situation faced for diesel/gasoil use which is 1/5th of global demand. That leaves to use cash market spreads to gauge supply pressures. As seen left and below, the cracks (think refining margins) are running well above levels seen at this time of year, generally. Make no mistake, while there is controversy about the non-OPEC supply picture, there's a much, much bigger issue afoot about demand which is related to the background topic of "missing oil" – and to some extent, the pace of the global economy normalizing versus seasonal tendencies for 1Q versus 4Q demand that we've written about recently.

Europe Gas Crack
Weekly, Dollars/barrel



Far East Gas Crack
Weekly, Dollars/barrel



Oliver - Client Note
Feb 7, 2022

Oliver Parsons

From: Oliver Parsons
Sent: Monday, February 7, 2022 7:55 AM
Subject: ** Mike Rothman Energy Update: MUST READ **

Mike called today's report a **MUST READ** – while our discussion might seem like a bit of déjà vu, Mike has indeed been very focused on these various non-consensus topics since COVID slammed the global economy almost two years ago – time spreads, OPEC supply dynamics, air traffic indicators, energy equity mispricing, and Iran's nuke deal…

While the quotes below are from some of our 2020 reports, the bullish constructs Mike has been banging the table about still ring true today…

Constructive crude time spreads - May 26, 2020 / Jun 29, 2020

"Over the past couple weeks, the time spread strengthened disproportionately as compared with the spot price. This bullish divergence belies the consensus view…"
"The crude oil time spread has shown relative strength… this bullish divergence suggests the oil market is looking past the inventory build that's taken place…and shifted to one of anticipating a tightening of the global oil balance."

Constructive OPEC discipline - Jun 6, 2020
"We don't feel anyone should sugar coat today's OPEC meeting, but even so will reiterate our view that the group's action speaks to a bigger goal of managing the oil balance to see MUCH higher prices…"

Constructive demand indicators - Jul 29, 2020
"In the case of monitoring close-to-real-time figures to keep a handle on demand… air traffic being down about 17% from the start of the year is a far improved situation than the -65% readings we measured back in April. As to the US jet fuel demand picture, we expect a marked improvement…"

Constructive energy equities – Sep 8, 2020 / Dec 7, 2020
"While it's difficult for most to see through many present-day concerns, the fact is energy shares look very cheap given our market outlook…"
"While energy equities in the S&P 500 group have rallies 39.7% in the past 5 weeks (and 24% more than the broad market index), our outlook for the global energy balance and the implications for oil prices suggest we're still in the early stages of a rally…"

Skeptical Iran nuke deal – Dec 21, 2020
"With prospects for a change in helm at the White House, we've had a number of queries about sanctions on Iran perhaps coming to an end… we see sanctions as being more sticky than not… the JCPOA will likely need to be renegotiated.. and the exchange of hostilities a year-ago between the US and Iran appear to have made prospects for any good faith discussions trickier than would otherwise have been the case…"

Let me know if you have any questions or would like to chat!

Best, Oliver

Oliver Parsons
Cornerstone Analytics
(646) 825-5308

Client Report

Feb 7, 2022

CORNERSTONE ANALYTICS
THE MORNING ENERGY UPDATE
FEBRUARY 7, 2022

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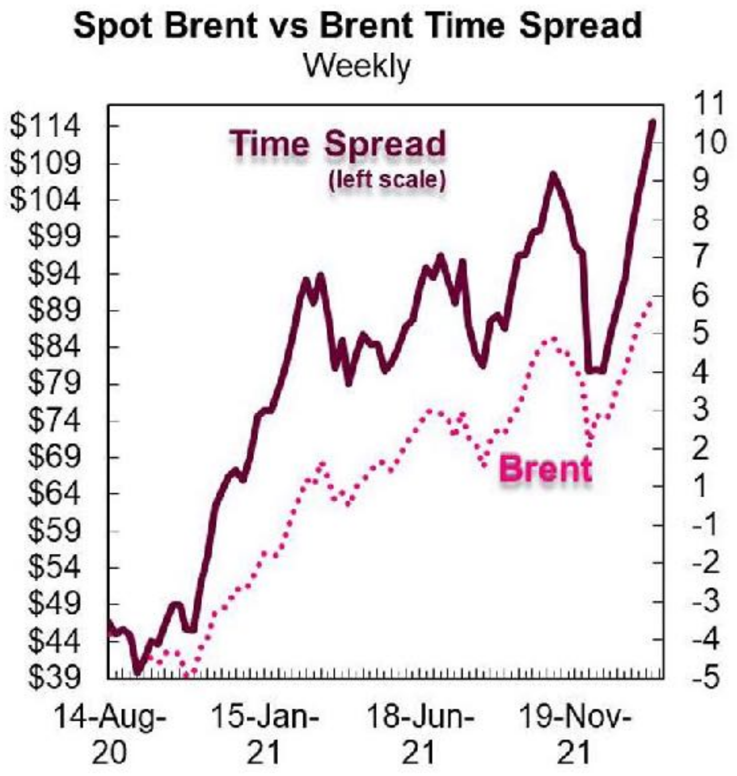
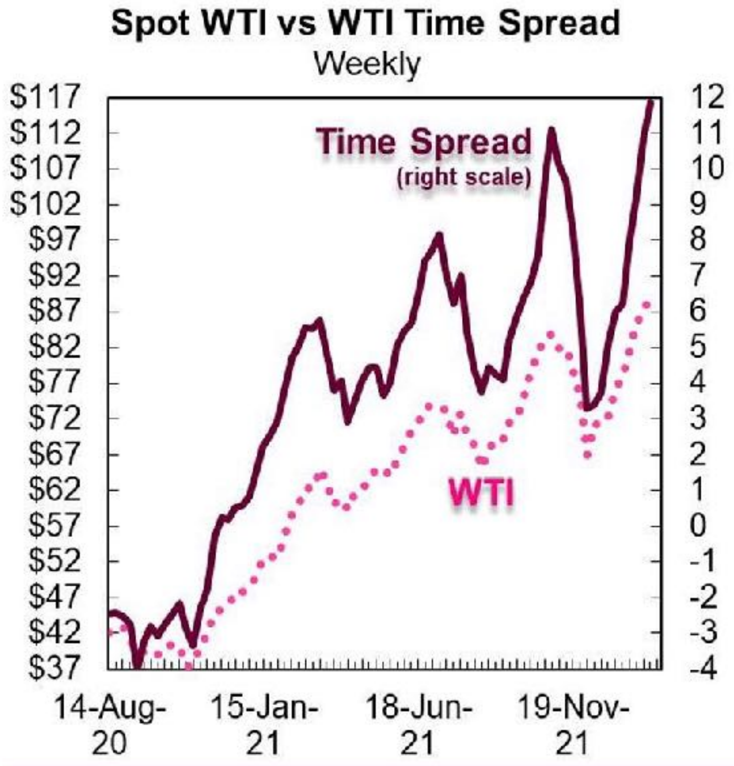
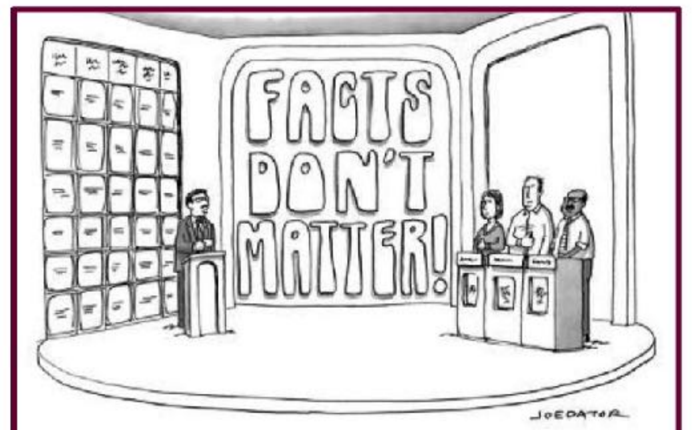
NINE-HANDLE OIL PRICES HAVEN'T ENGENDERED WARINESS





Spot and long-dated crude oil prices generally move in a highly correlated manner. We've written about the time spreads for nearly four decades and they warrant a comprehensive discussion at certain times, but for brevity's sake we'll simply note there are periods when the front and back of the curve don't move proportionally which provide insights about underlying market sentiment. About eighteen months ago we highlighted in our work a bullish divergence pattern which, to us, signaled a build-up of underlying constructive sentiment. Historically the pattern presages a market bottom which jibed with our view for the oil balance to materially tighten and lift prices sharply higher. Despite the $50+ gain in crude since that time, the pattern hasn't shifted into a "neutral" gear which is what normally would occur. The time spreads have, in fact, continued to pattern in a bullish manner. We made note of this two weeks ago, but with crude having breached $90 it seemed the discussion merited visit given histrionics that are surfacing about crude wrecking the global economic recovery. From our vantage point, the sentiment of those that're clamoring are not shared more broadly per the time spreads and certainly not by us as per our oil burden analysis which indicates crude prices aren't "too high" until they start averaging north of $130 per barrel.



"Sorry Jenny! Your answer is correct but Kevin shouted his incorrect answer over you, so he gets the point. And Bob also gets a point for being indignant..."

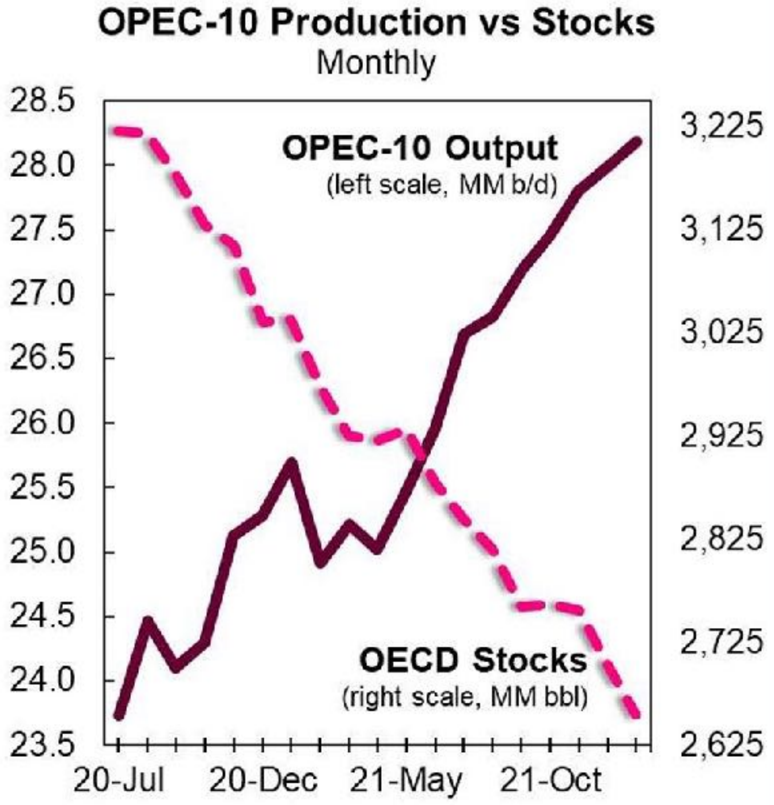
IT'S NOT THE MAGIC 8 BALL...

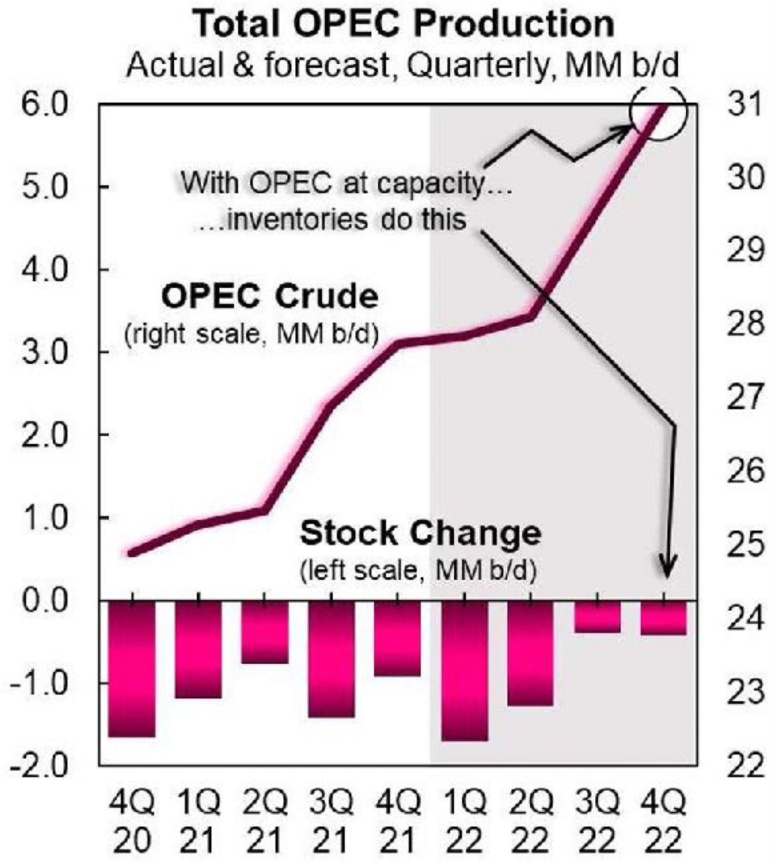
When we receive a few questions about a particular issue, odds are that there're more with that same question. Last week we were asked about the notion of OPEC letting barrels get *pulled* into the market as opposed to OPEC *pushing* supply into it.

An easy way to frame out the idea of supply being pushed is if a country, say Nigeria, sends unsold cargoes of crude to a hub like the US Gulf Coast or Caribbean or Singapore or northwest Europe and asks refiners to *"make me a price"* (this actually happened during the '80s). The very bearish effect on oil prices would persist from these fire-sale type events until OPEC stepped up to defend prices. Price wars are a more common example of a supply push (like Saudis Arabia's actions in March '20 to force a quota deal – which succeeded).

OPEC positioning itself to let demand "pull" its extra supply into the market is what we have all been living with since the summer of 2020. It raised output as global oil demand recovered but by less than the volume of that recovery. This is what manifest into the pattern of stock draws we detail in the analysis at the top right of this page.

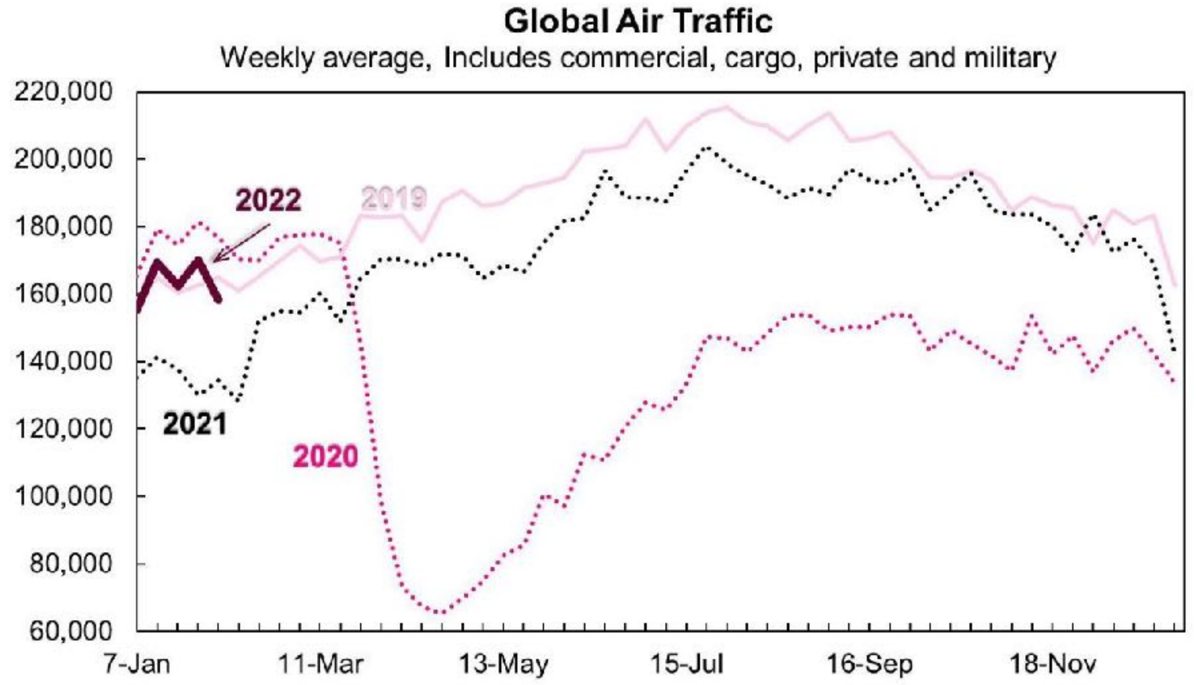
In 4Q of this year when global oil demand is forecast by us to make its seasonal peak (and at around 2019 levels), the market looks like it will still be "pulling" barrels out of OPEC. Inventories are forecast by us to draw even with the group at its maximum output capacity. Though we address the latest development about Iran on P5, we'll note here that for 4Q '22 OPEC output, we already assumed Iran being about 350,000 b/d above its current level.

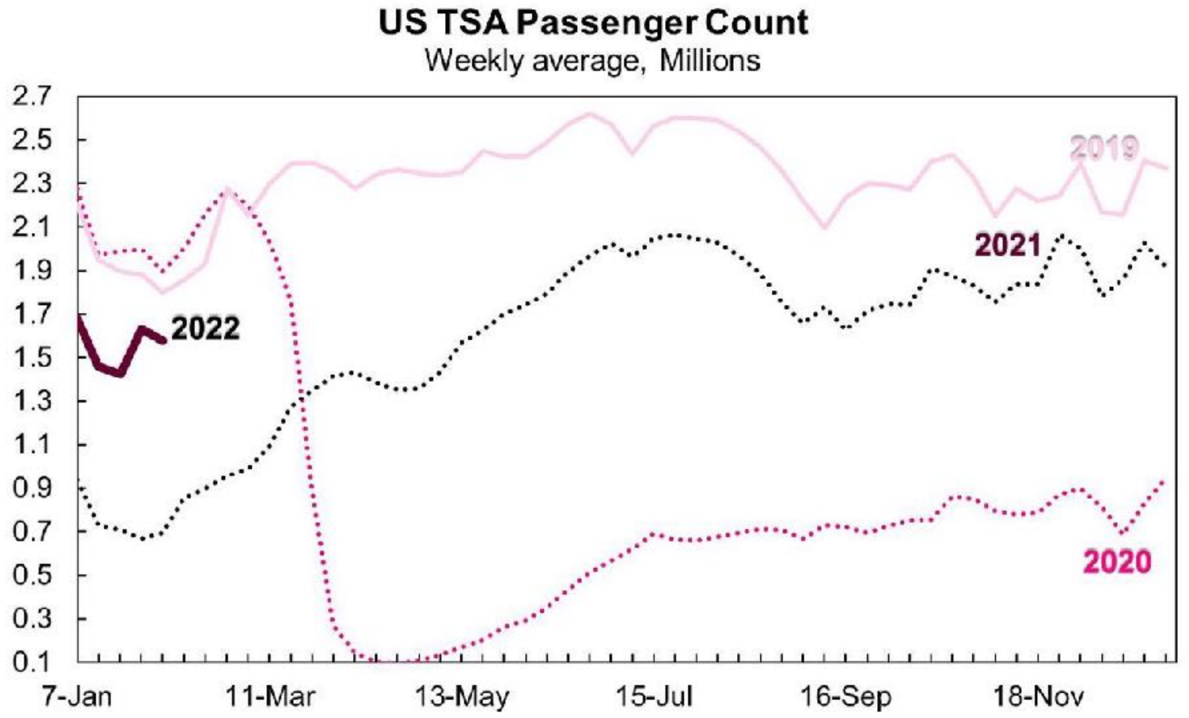




STILL KEEPING TABS

The very-preliminary estimate for global demand in January we published last week (and discussed further in the Friday webcast) suggests usage ran ahead of our forecast last month and about 2.7 million b/d higher than what the IEA (aka, the consensus) projects. That said, we're in a new monthly cycle and there is the same pressure to assess close-to-real-time data for demand. Figures for global air traffic indicate activity is still moving in a seasonally normal manner with levels close to where they were pre-covid '20 and in 2019. As concerns shift between the pandemic situation and the interest rate outlook, it seems critical to say (once again) that it's important to keep an eye on the actual data for petroleum usage.

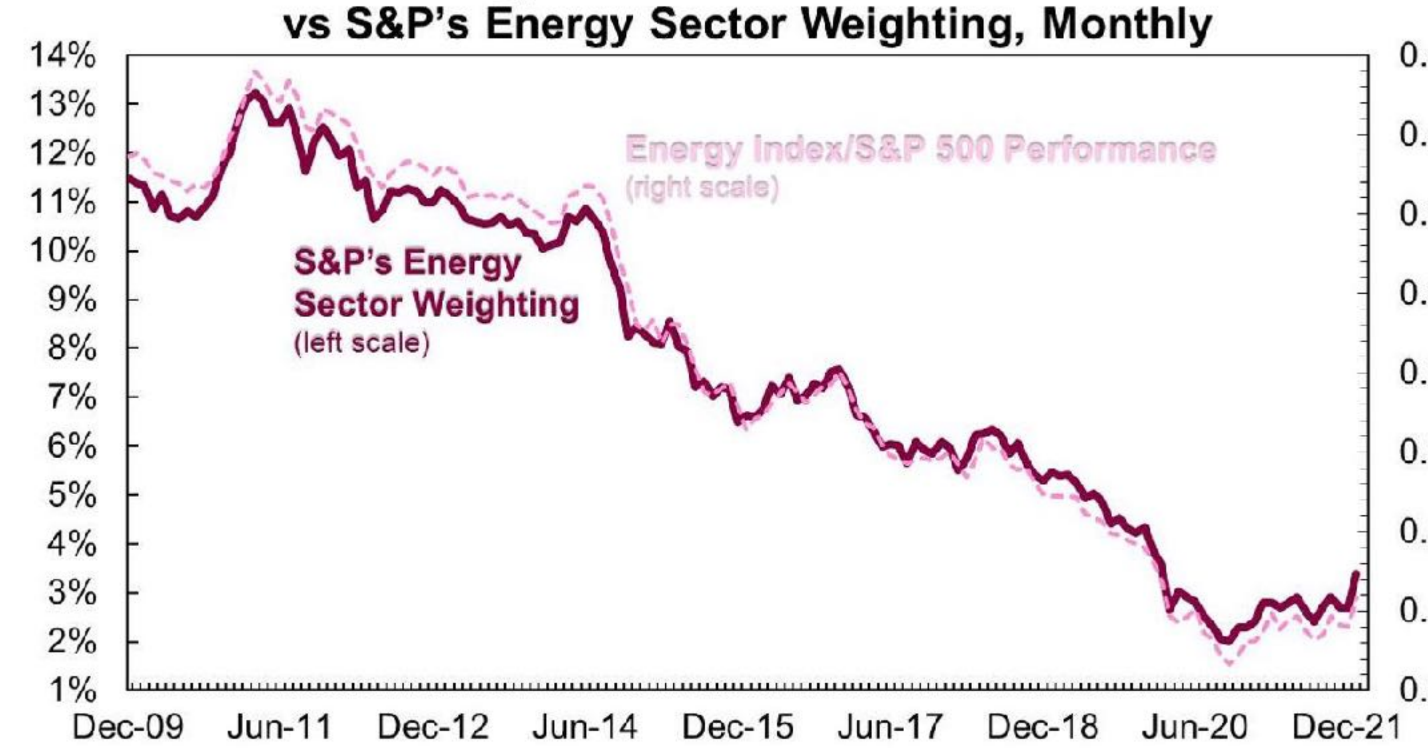




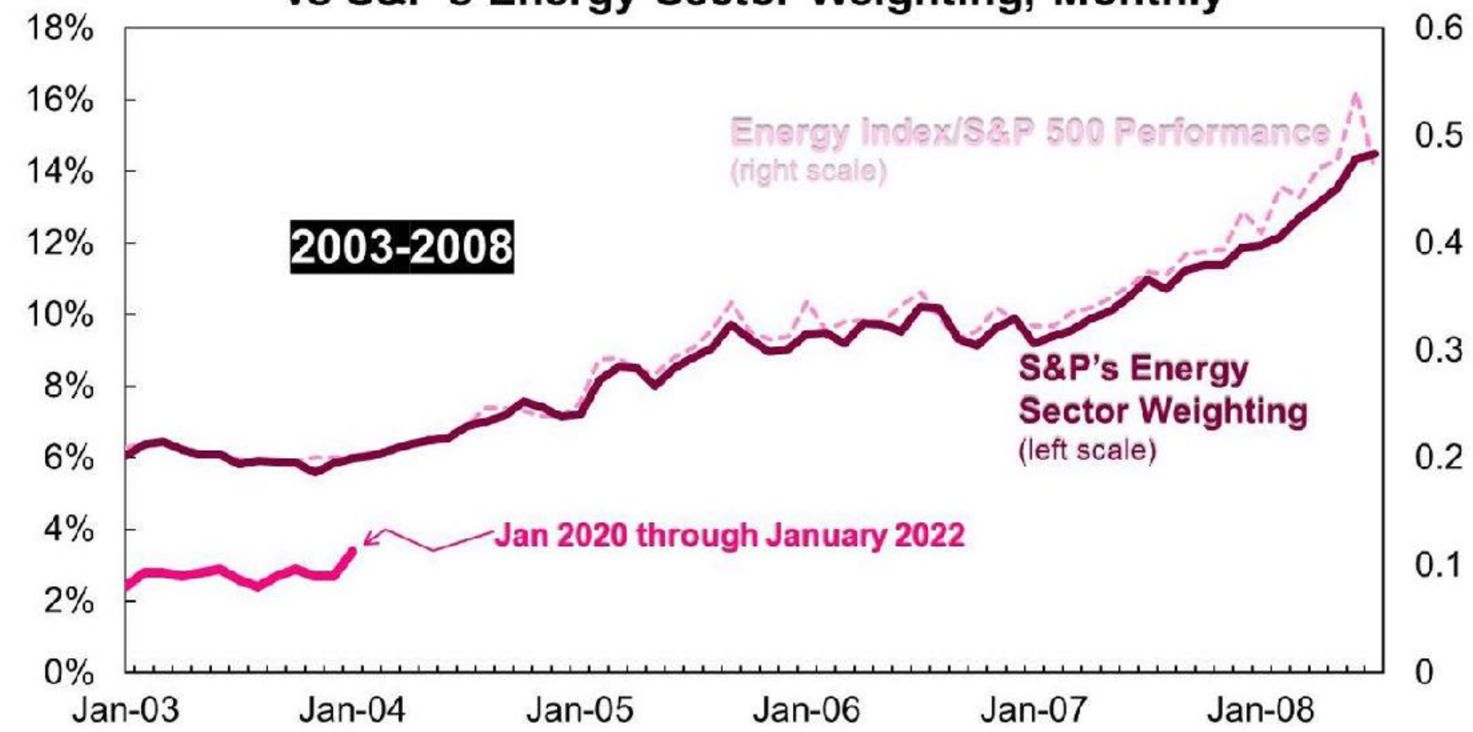
EARLY INNINGS

While energy equities have been having one of their best runs since the S&P began publishing sector data in 1989, shares are still too low based on current oil prices. S&P's weighting and sector performance are almost perfectly positively correlated. On that note, the S&P weighting for energy in the broad market index was raised to 3.4%, its highest monthly level figure since January 2020. Frankly, we believe we are in the early stages of a multi-year up-cycle that will liken the 2003-2008 period.

S&P Energy Sector's Relative Performance vs S&P's Energy Sector Weighting, Monthly



S&P Energy Sector's Relative Performance vs S&P's Energy Sector Weighting, Monthly



IRAN BEING EASED OUT OF THE PEANLTY BOX???

The US late Friday afternoon waived off sanctions on Russia and China for nuclear work in Iran that doesn't link back to any weapons program. It raised a few eyebrows and fostered some questions about whether the softening presaged a possible new nuke deal. Our short answer about that prospect is that *"we're not optimistic."*

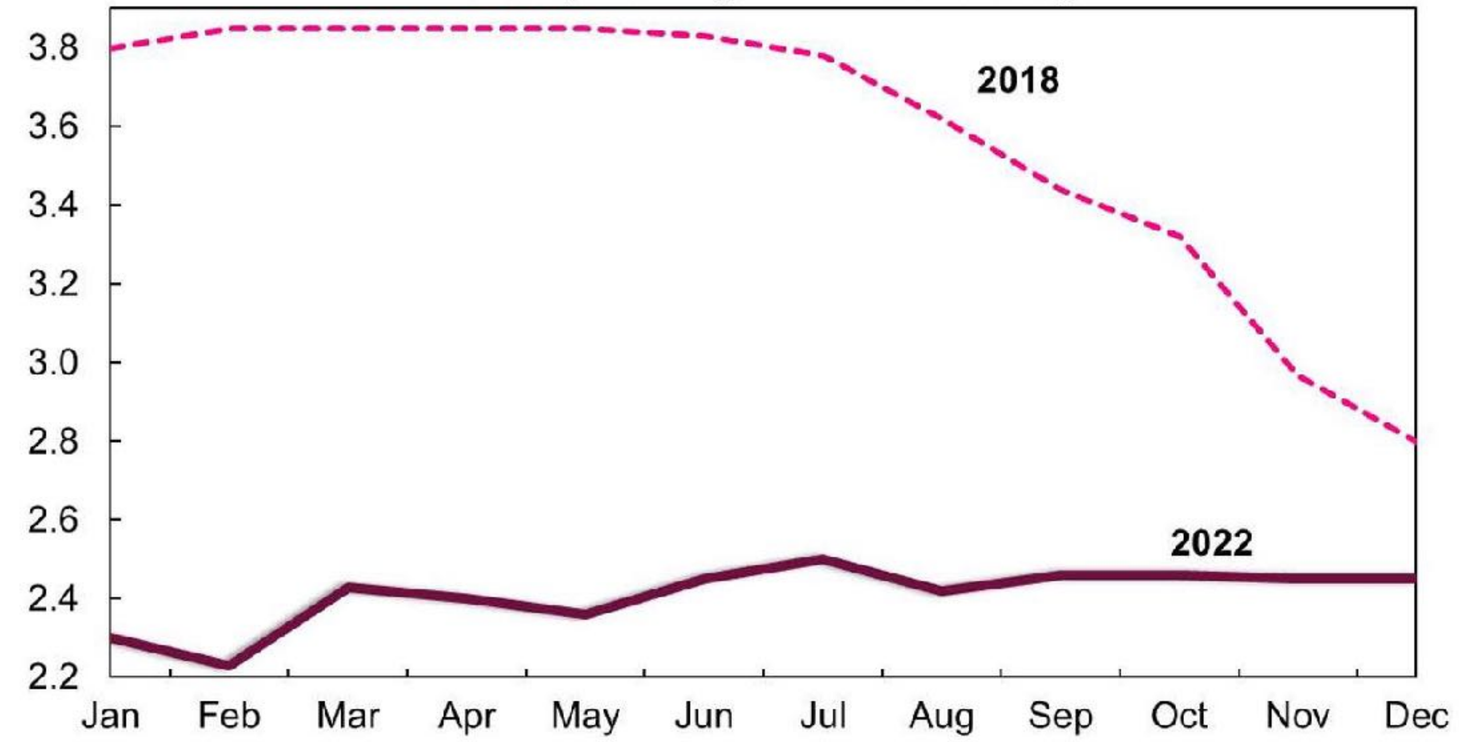
Let's start by agreeing to call a banana a banana. Most market watchers were very bearish about the oil market outlook looking not so far back (like late 2020 and early 2021). Part of that was a belief that the Biden Administration would soften its position on Iran's nuclear programs paving the way for an imminent re-do of the JCPOA that would, in turn, allow Iran's oil exports to recover.

Yes, we were on the other side of that call recognizing (correctly) that the positions on both side of the table had hardened, part of which was due to the assassination of Iran's top general nearly two years ago.

At some point, Iran may capitulate and agree to fully implement tenets of the JCPOA but our sense of late is that Tehran knows the US is hard pressed to try and short-circuit the oil market rally and is using that to garner better terms. We'll see if that gambit pays off.

If a deal is somehow agreed to, we would note that it would take Iran 6-9 months to raise production by about 700,000 b/d from current levels, based on indications from sources we consider reliable. Furthermore, we would note OPEC would likely act to accommodate any such new supply to meet its bigger goal of keeping inventories lean (to achieve targeted oil price levels).

Iran's Oil Production
Crude, Monthly, Million barrels/day



Oliver - Client Note
Mar 9, 2022

Oliver Parsons

From: Oliver Parsons
Sent: Wednesday, March 9, 2022 9:03 AM
Subject: * Mike Rothman Energy Update: KEY READ

Perhaps needless to say at this point, but it's another wild day in the energy markets. Mike tackles some critical points in today's report:

* OECD inventories continue tumbling with **ANOTHER** downward revision in Euro inventory data – tsk tsk – games of fuzzy math continue.
* How does today's oil supply/demand picture compares to the 1970s? Which saw the Arab Oil Embargo, the Iranian Oil Worker's Strike, and a displacement in oil demand
* Venezuela to the rescue?

Please see attached and let me know if you have any questions!

Kind regards,
Oliver

Oliver Parsons
Managing Director
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m: +1 (914) 924-3674

Client Report

Mar 9, 2022

CORNERSTONE ANALYTICS
THE MORNING ENERGY UPDATE
MARCH 9, 2022

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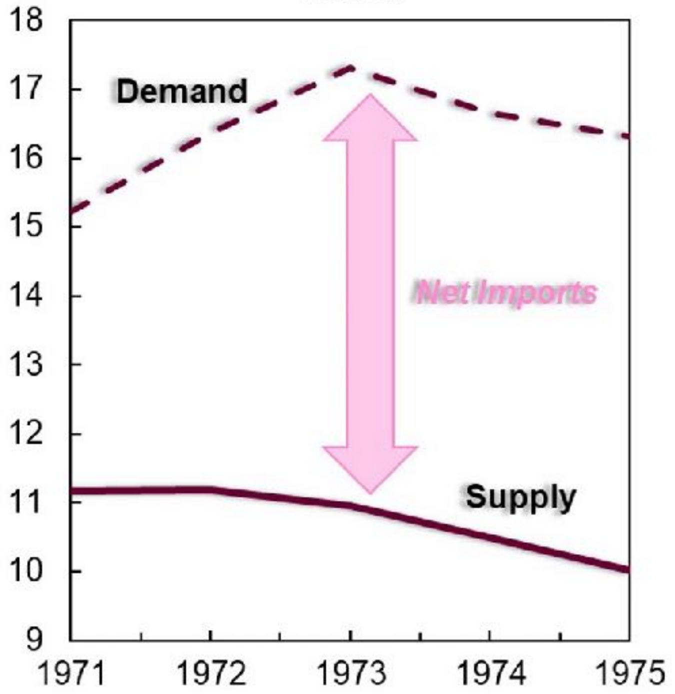
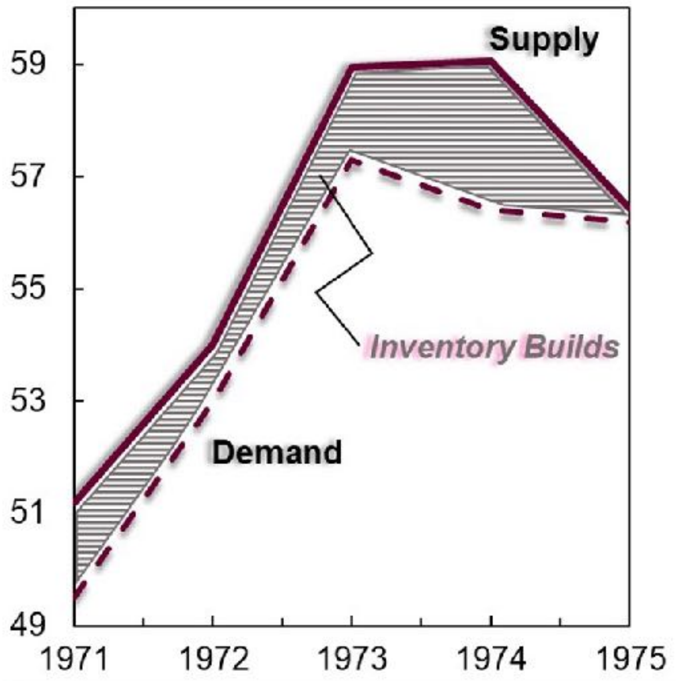
DISRUPTIONS, DISLOCATIONS & DISEMBOWELMENTS

US Oil Supply vs Demand
Annual



Global Oil Supply vs Demand
Annual



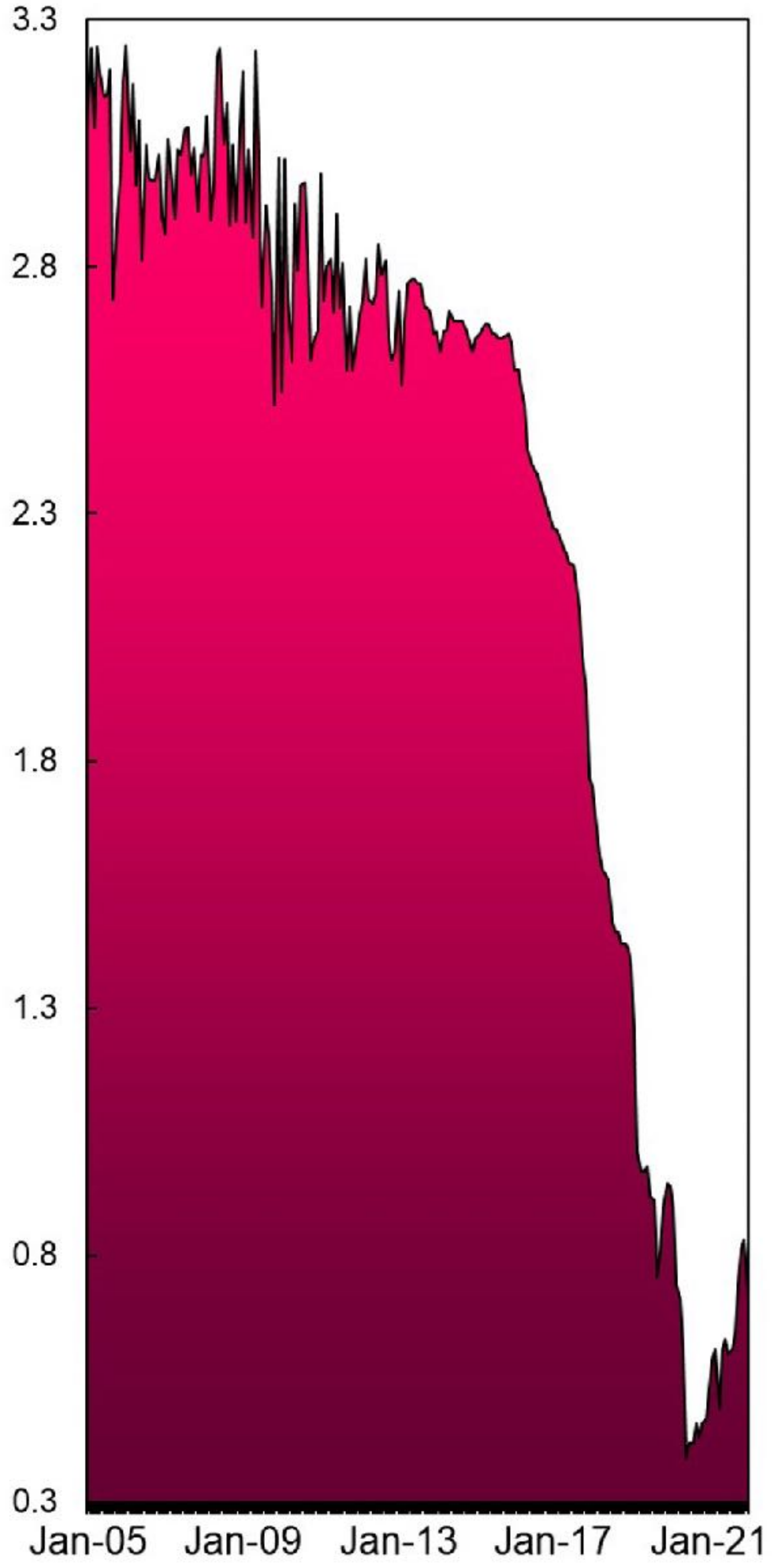
The more things change, the more they stay the same, *sometimes*. An assessment of various impacts from covid, OPEC and fundamentals resulted in our forecast in 2020 for a record high inventory draw that would cause significant upward oil price pressure. Yes, it played out, but the forecast also saw the oil balance tightening further. All of that stood in contrast to consensus projections which were (and still is) for the oil balance to loosen materially. Our forecast for '22's balance tightening did *not* allow for any unplanned outages. Enter the invasion of Ukraine…

Tactics to pressure the Putin regime now include the US embargoing its oil – we laid out those volumes yesterday. The issue for us isn't about supply being diverted to other buyers that can refine the oil (be it India or China or Korea or France) but a broader concern if sanctioning (generally) negatively affects Russia's total oil flow and export levels.

The analyses to the left relate to the '73 Arab Oil Embargo. OPEC cutting exports to the US for its support of Israel did not result in an actual oil shortage. The US was indeed a large net importer – it still is today -- but the embargo caused what we call a dislocation (think musical chairs, *but* with seats for everyone when the tune stops). Inventories were actually still building at the time, yet, oil prices rallied 500% and then continued to move higher until the next spike from the 1979's Iranian Oil Workers' Strike. The oil price behavior was from *fears* about a possible shortage which fed on itself to cause massive hoarding. Unlike a normal inverse correlation with stocks and prices, we saw what we call a "scarcity model" develop – prices rise *and* stocks also rise. Well, unlike then we are not looking at prospects for severe growth in non-OPEC supply. Unlike then, we are not looking at prospects for a dramatic cut in oil demand (it fell 10% between '79-'83) from coal, natural gas or nuclear power displacing oil. An also unlike then , we are not facing a massive swell OPEC spare output capacity (which plagued the cartel for the better part of two decades). None of that applies today. What does apply is the analyses we've been generated about oil prices having to reach levels that will create slack in the system, an analysis most want to embrace like a flatulent worker in an elevator.

VENEZUELA TO THE RESCUE?

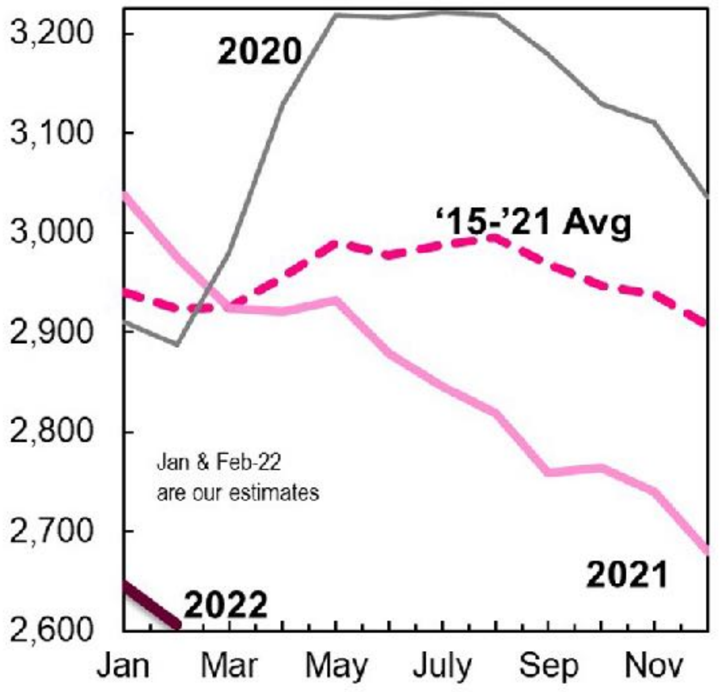
Venezuela's Oil Production
Crude & liquids, MM b/d



We get it. Crude prices have had a $35 run since mid-February and the indication that the US may grant some sanction relief to Venezuela in exchange for its oil exports is as good a reason as any for some profit-taking. But, we can only hope that nobody is actually pinning their hopes on Caracas curing structural oil balance issues…

CONTRARY TO THE CONSENSUS' PROJECTION, GLOBAL OIL INVENTORIES ARE STILL DRAWING

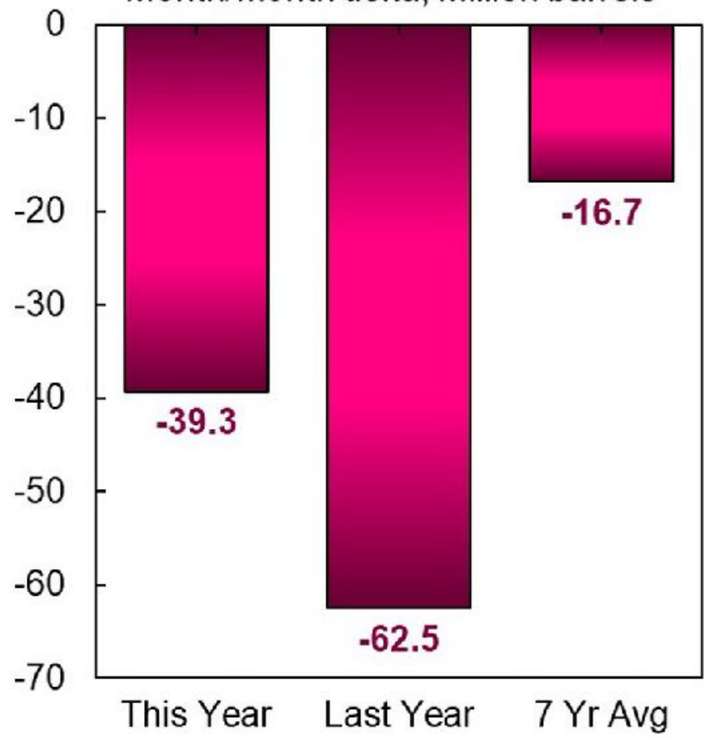
OECD Oil Stocks
Month ending level, Million barrels



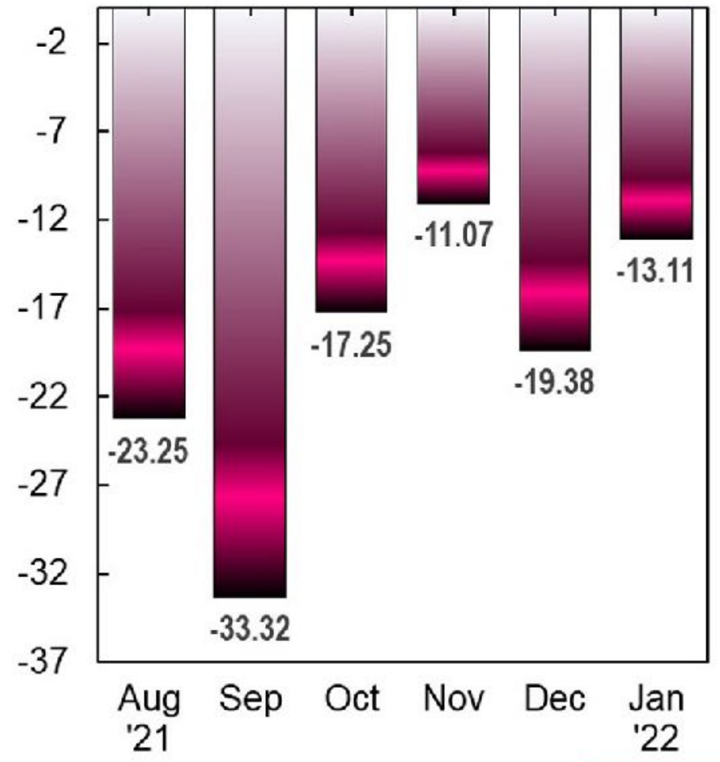
While preliminary, we estimate total OECD stocks drew 39.3 million barrels last month, or more than double the typical February change. Stocks have fallen more than 73 million barrels since the end of '21 which, while in line with our forecast, stands dramatically at odds with the consensus projection for a build.

We'll detail regional estimates tomorrow, but the last piece of the storage picture came into focus today – that being for Europe. There was a contra-seasonal draw last month, and preliminary data suggests a 6th consecutive downward revision in the preceding month's stocks (which we detail below). All in, these downward revisions total 117 million barrels putting it at odds with the series from the IEA -- who actually cites this exact set of data but has yet to revise down the OECD Europe figure despite the finding below. Total OECD oil inventories have fallen by about 700 million since the summer of '20 when OPEC's quota plan kicked in, a draw most fail to recognize.

OECD Stock Change: Feb
Month/month delta, Million barrels



Preliminary Europe Stock Data
Revision from initial figure, MM bbl



Oliver - Client Note
Mar 20, 2022

Oliver Parsons

From: Oliver Parsons
Sent: Sunday, March 20, 2022 1:26 PM
Subject: * What's What - Mike Rothman Energy Update - Key Points *

Oil prices are on the move higher this evening – it's been a wild ride so just highlighting our MUST watch ***5 Minutes with Mike*** (ok, a bit more than 5 mins) and our MUST read reports from Wed/Thurs discussing (and hotly disputing) last week's monthly IEA update.

Very critically – still flying under the radar of many investors is the fact that the oil balances have been in a **HUGE** supply deficit well **BEFORE** the prospects of losing Russian barrels.

So, short of a massive economic recession, Russia's war has turned up the bullish thermostat quite a few degrees, and a halt in Russian output could not possibly be covered by global spare capacity. Wishful thinking's wishful thinking couldn't somehow save us from that scenario.

Since mid-2020, Mike has maintained perhaps the most bullish oil price forecast on the Street – on Dec 8, 2020 he called for $115 Brent by end-2021 – and he argues higher oil prices are still in the cards, while our ***Great Rotation*** call (swapping from those hyped tech names into hated energy names) continues playing out correctly, and dips in oil prices are still to be bought.

* Brent prices are currently below our MIKER model fair value
* OECD oil inventories keep tumbling sharply – now at the lowest level since Jan '14
* Total OPEC production (once again) is coming in below quota allocations
* The IEA (once again) made a very quiet (yet huge) downward revision to its previous inventory figure, sneaky sneaky
* The IEA's remarks regarding Russian oil output are very worrisome
* Despite the IEA coming clean (well, partially) last month, ***Missing Oil*** remains a big issue

LINK: **5 Mins with Mike - Mar 18, 2022**

Please see attached – any questions about the research/outlook, just give me a shout! And I'm always happy to get Mike on the line.

Kind regards,
Oliver

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CORNERSTONE ANALYTICS
THE MORNING ENERGY UPDATE
MARCH 16, 2022
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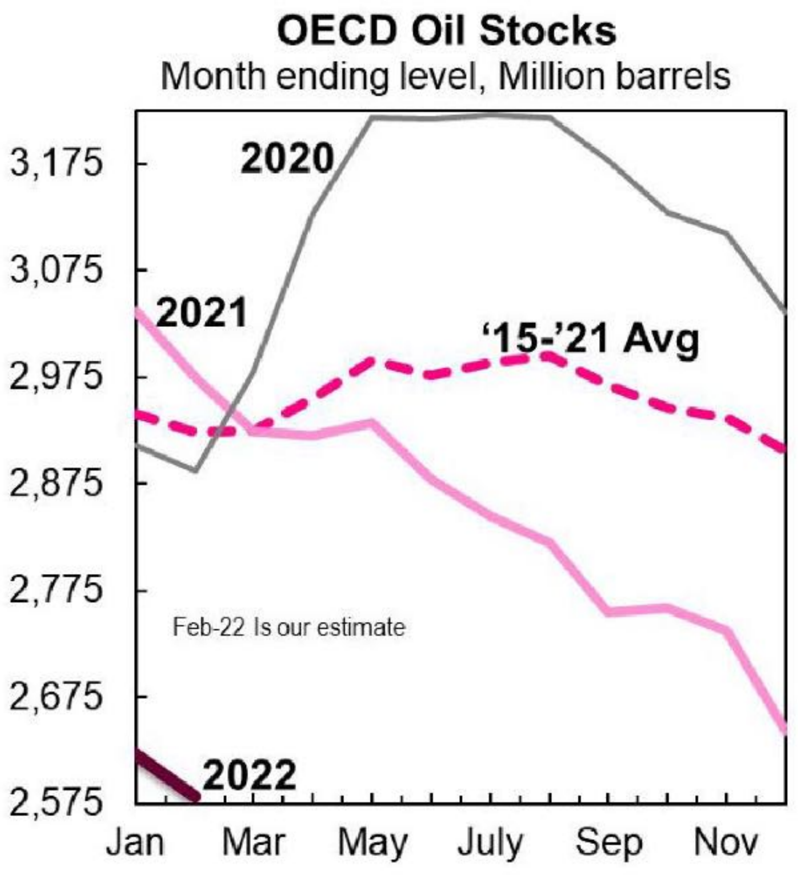
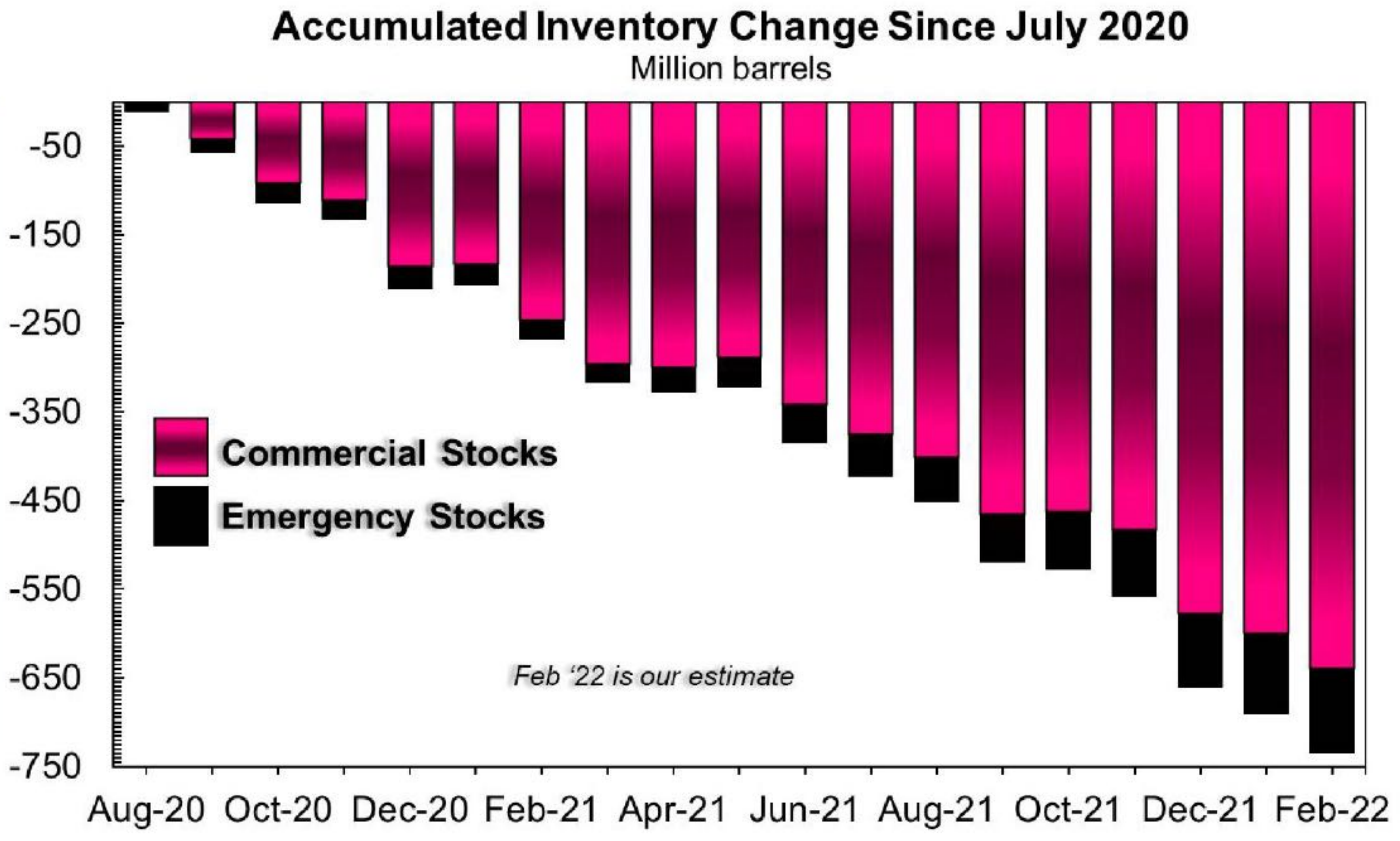
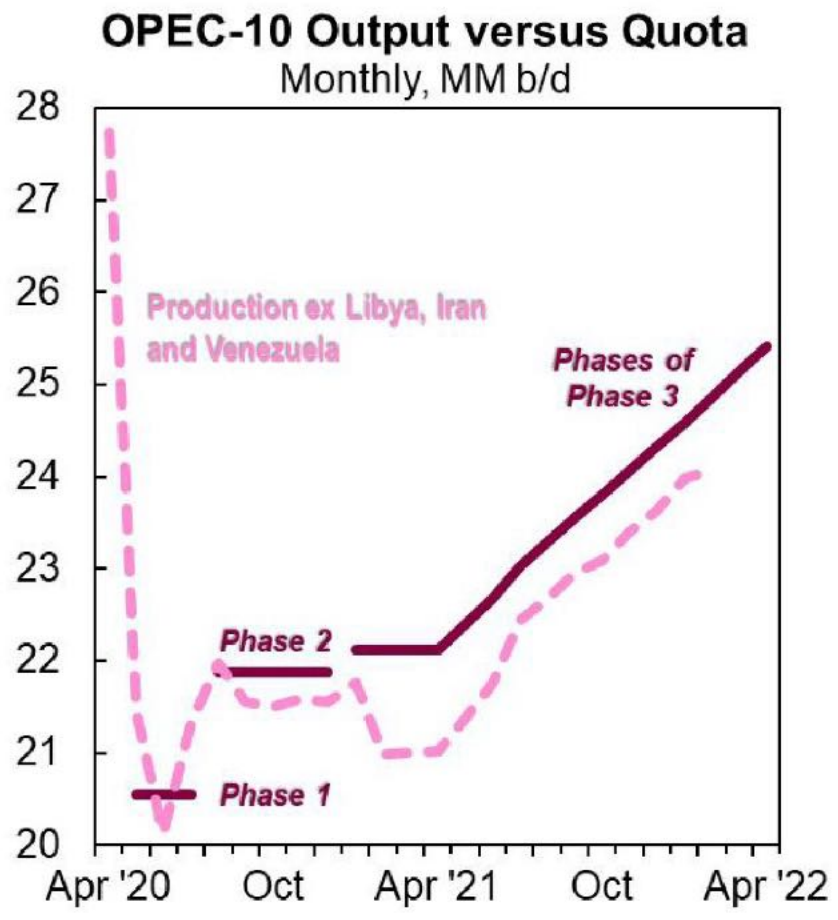
FOCUS ON THE DATA AND EMBRACE THE IMPLICATIONS



Our cursory assessment of data from the IEA report this morning indicates the global oil balance was even tighter than our analyses had been suggesting. OECD inventories (the proxy for global stocks) were revised down 36 million barrels for December which was largely from an overdue downward revision to the European series we have been writing about. The January draw and our estimate for February put the OECD total down at 2.58 billion barrels – the lowest monthly reading since January '14. Based on the MIKER Model, the "fair value" for Brent based on end-February stocks is $109.25/barrel or $10 above where we're trading at this morning. Separately, there was an indication about '22 non-OPEC supply that we found unsettling which was the IEA's expectation for Russia's oil production to be cut 3 million b/d for the 2Q-4Q '22 period. Based on our oil balance forecast, that is a catastrophically bullish hit, expanding the global deficit we already forecast for the year. Such a supply loss more than offsets a demand dent that might manifest from the Russian invasion.

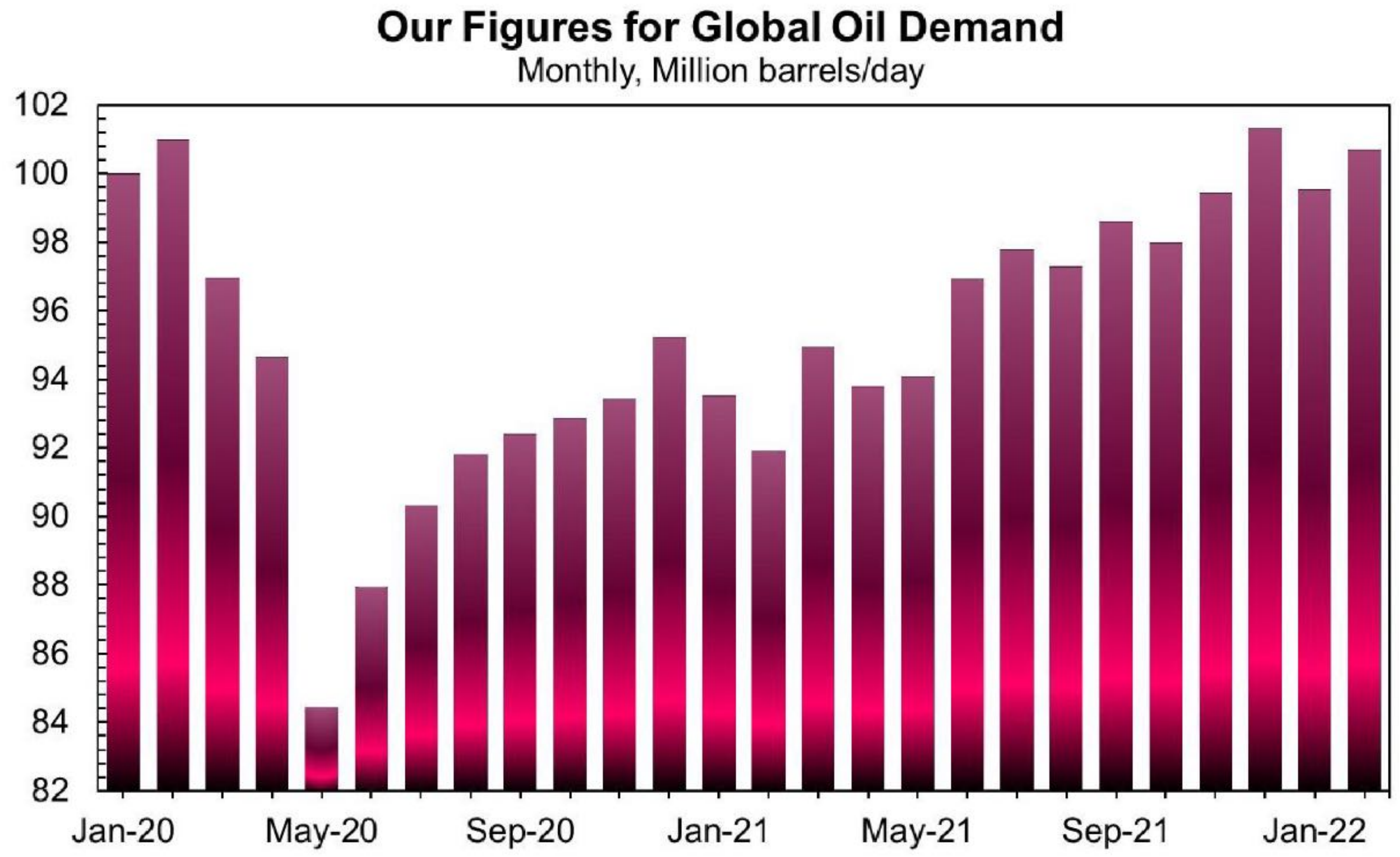
The draw on global inventories since the OPEC+ deal was effected in April of '20 has resulted in a draw on stocks that stands as the largest in history. We've seen 640 million barrels drawn from OECD commercial stocks and another 96 million drawn from SPRs. That we forecast it to occur is not the point. That the consensus expected stocks to, instead build, is.





OPEC quota compliance for February again came in over the 100% mark reflecting the capacity issue that we've been writing about for some time. OPEC's level of spare output capacity is forecast by us to become a market factor of consequence later in the year if our oil balance forecast proves close to the mark.

While we will have a more detailed update in our report tomorrow, global oil demand so far this year does indeed to be running above our forecast (and we're higher than what the consensus projects). We do not appear to be experiencing the typical 1Q fall-off from the 4Q rate, but we anticipated such a pattern on prospects demand would stay in a recovery mode as effects of the pandemic continue to wane. The IEA scaled back demand figures for the rest of this year on expectations global economic activity will be dinged from effects of Ukraine being invaded, an effect that's disproportionately small compared with the aforementioned cut now being projected for Russia's oil production.



Client Report

Mar 17, 2022

CORNERSTONE ANALYTICS

THE MORNING ENERGY UPDATE

MARCH 17, 2022

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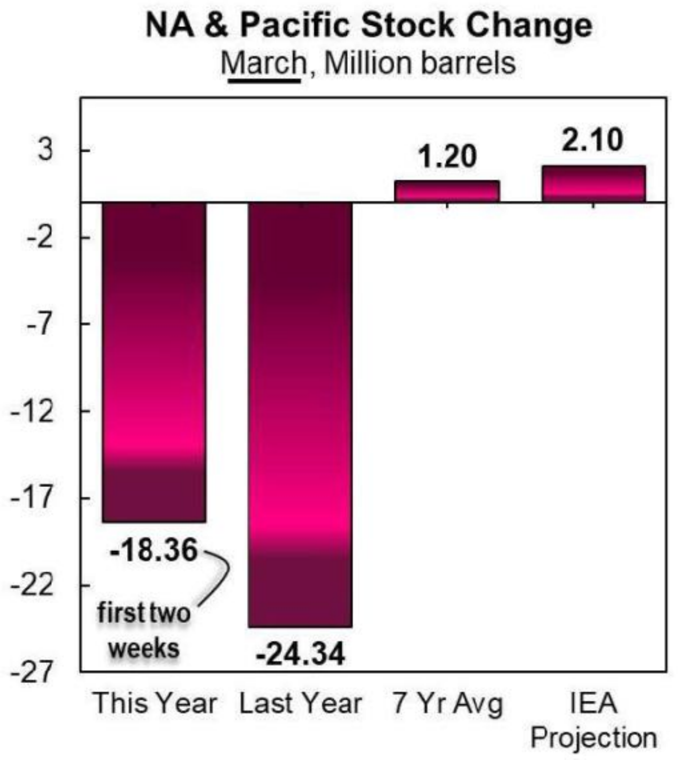
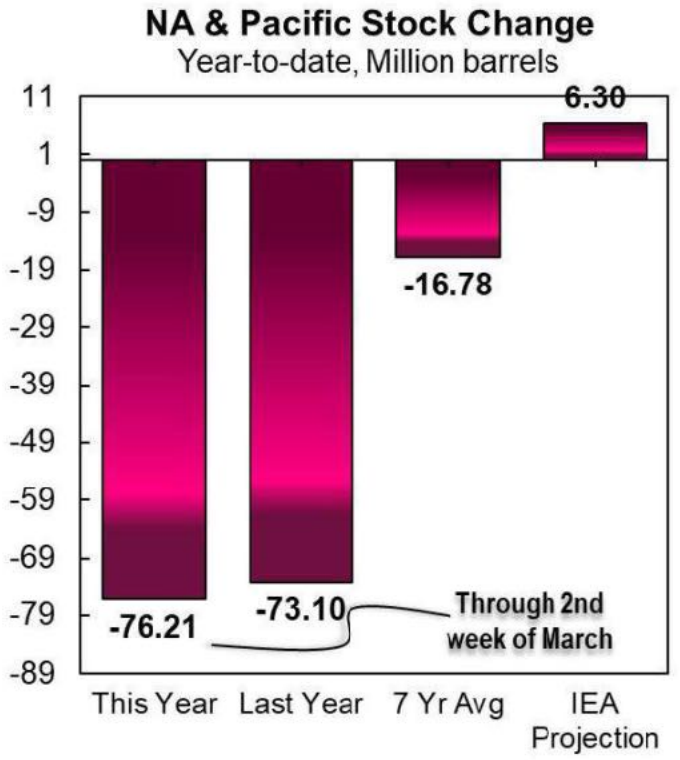
THE LINE BETWEEN CONFIRMATION BIAS AND DELUSION





We estimate the OECD North America and Pacific regions saw a collective draw of 18.4 million barrels in the first two reporting weeks of March. This contra-seasonal inventory draw compares with the consensus' projection for stocks to build.

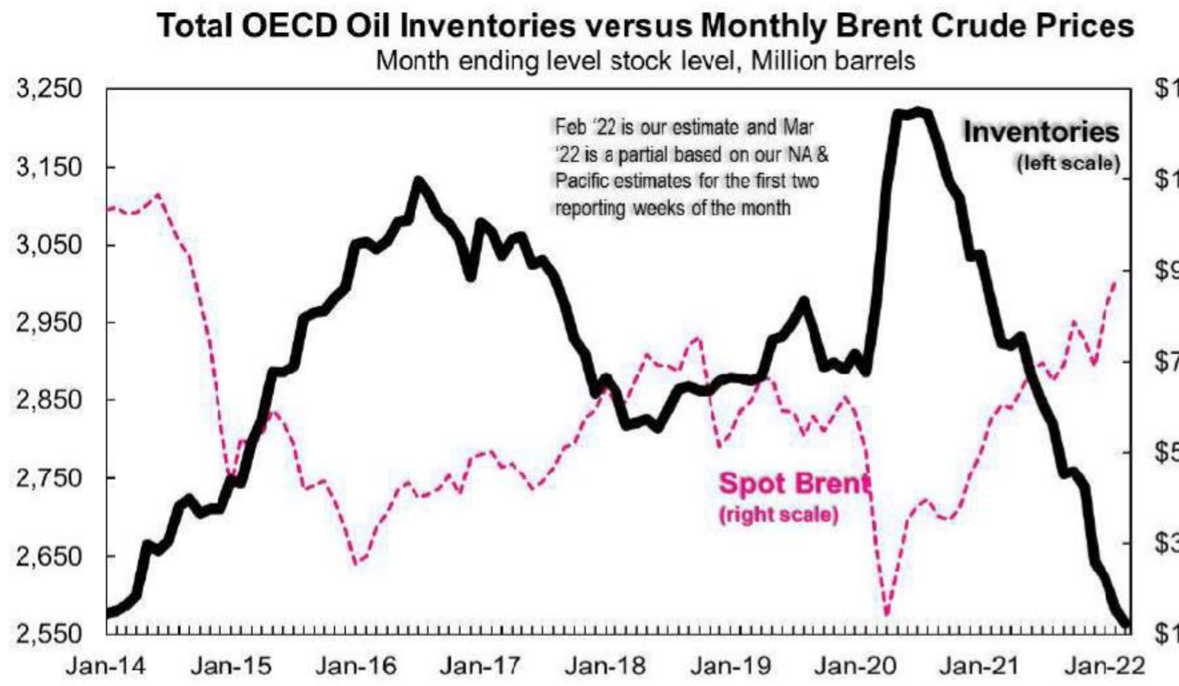
For the quarter-to-date, the two regions saw a draw totaling a wee over 76 million barrels as compared with the build most all projected. These two regions account for just over 2/3rds of global inventories and the combined changes for them show a nearly perfect positive correlation with the change in total OECD stocks – the proxy for global stores.

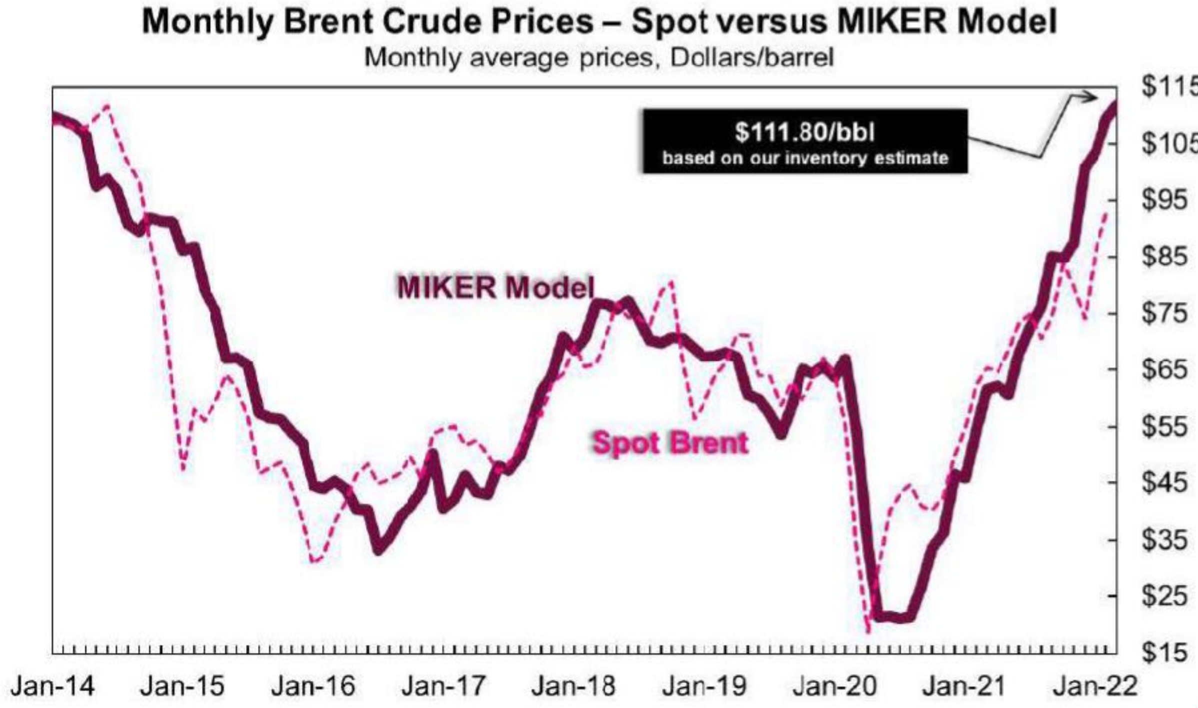
It's easy to get distracted by the abundance of headlines that appear to carry macro-economic implications. These end up taking one's eyes off the key data that needs to stay in focus. Yesterday was a case in point. The IEA projected Russia's oil output to drop 3 million b/d after March. This didn't even appear to register to most market watchers. We've yet to forecast a change for Russia's oil production partly because we still lack sufficient data to generate a figure. Even so, that the IEA put that 3 million b/d loss into play being so widely ignored speaks to the many distractions afoot or a severely bad case of confirmation bias.

Last week we assessed a scenario for a 0.5 million b/d loss of Russian oil output in the 2Q-4Q periods. That loss (which is modest when compared to the IEA's figure) would still exacerbate the inventory draw that we've already been forecasting. Were we to actually experience a 3 million b/d drop in non-OPEC production (from Russia or anywhere else) the impact on inventories and related effect on oil prices would be cataclysmically bullish.

WHAT CAN HAPPEN WHEN THE PAPER MARKET FOR A COMMODITY IS 50-TIMES BIGGER THAN ITS WORLD DEMAND

All supply and demand fundamentals intersect at storage (specifically storage in the OECD), which is why oil prices and stock levels exhibit a strong, inverse relationship. There have been rare occasions when inventories rise and oil prices also rise – this is called a "scarcity model" which we discussed last week, and there is a risk that we morph into such a model should OPEC output capacity becomes a market factor later this year as we forecast. For now, though, based on the inventory data we discussed yesterday, our February inventory estimate and the partial March inventory figure from P1, the current "fair value" for Brent crude is almost $112/barrel or about $14/barrel above yesterday's settle.





AND NOW, BACK TO OUR REGULAR PROGRAMMING…

While the IEA cut its demand projection for the rest of '22, it did not revise up-pre'22 demand figures to resolve the still beefy tally of "missing barrels." The IEA's report published a month ago carried the largest ever multi-year upward demand revisions since the Agency was created in 1974. Even with that and based on the quarter-to-date inventory changes, the "missing barrel" sum stands at 614 million. This issue basically gets resolved only when the IEA revises up its demand series. We hope we are not going to have to wait another 7 years to get this squared up…