SAF GROUP

Energy Tidbits

G7 "*We Recognize the Importance of Accelerating Investment in Upstream Developments, Including in Liquefied Natural Gas*"

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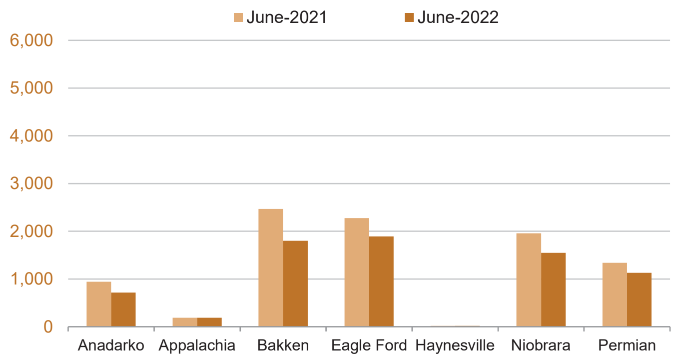
Year-over-year summary

May 2022

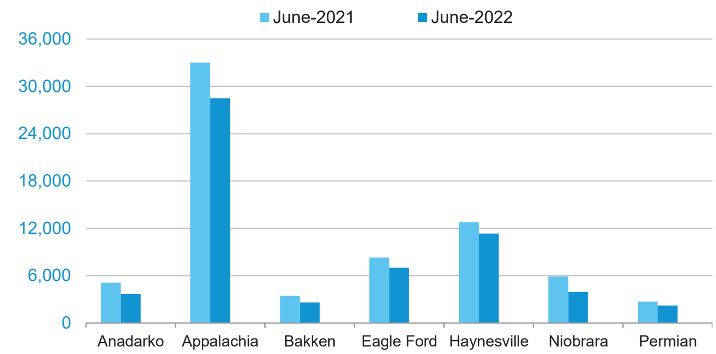
Drilling Productivity Report

drilling data through April
projected production through June

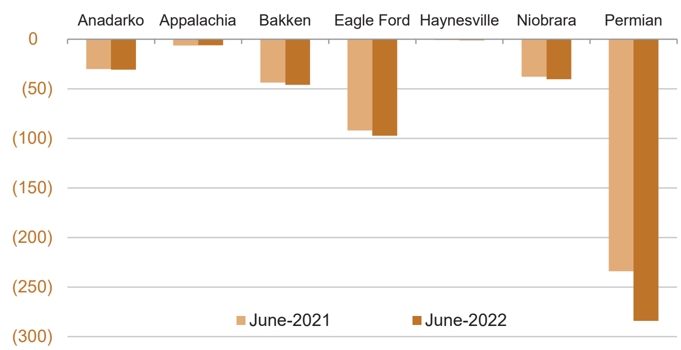
New-well oil production per rig
barrels/day



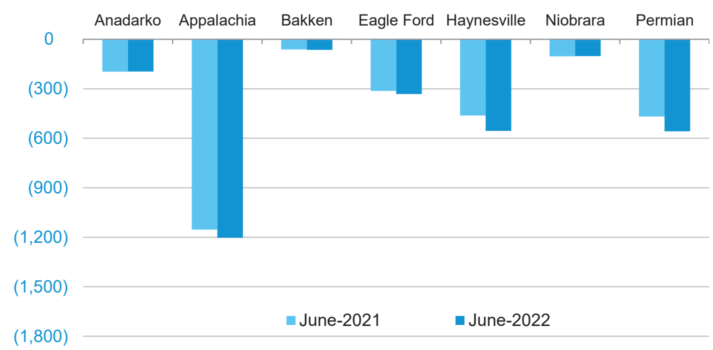
New-well gas production per rig
thousand cubic feet/day



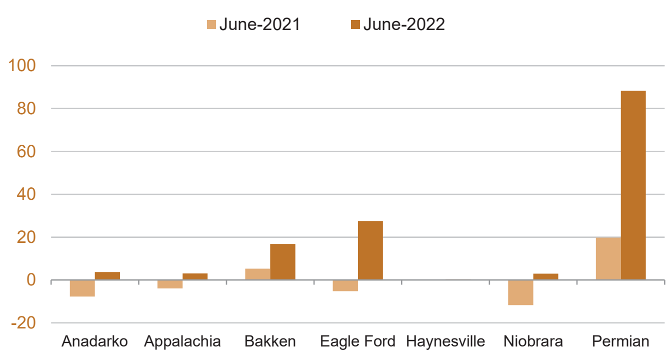
Legacy oil production change
thousand barrels/day



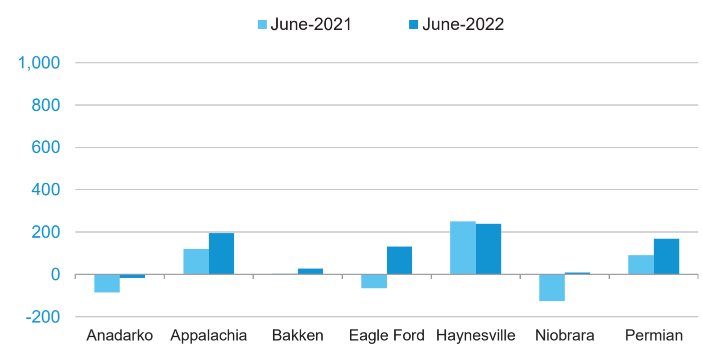
Legacy gas production change
million cubic feet/day



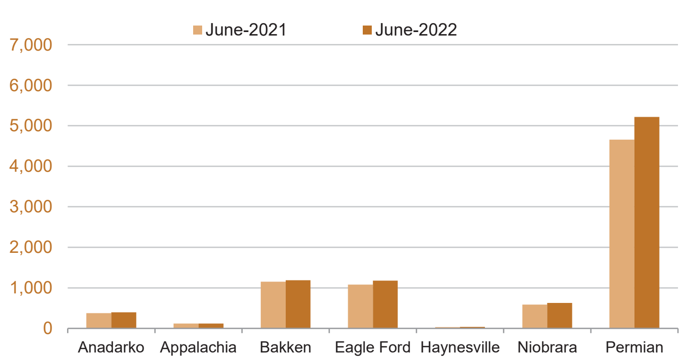
Indicated monthly change in oil production (Jun vs. May)
thousand barrels/day



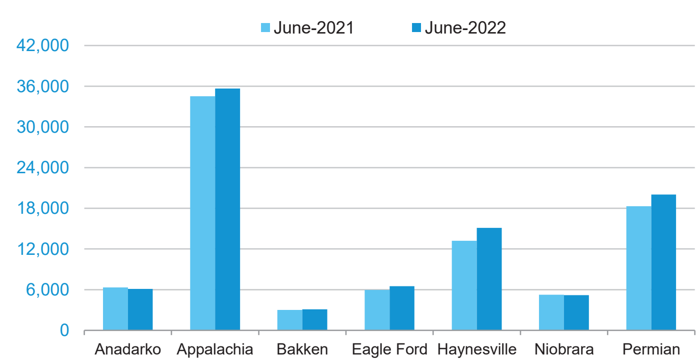
Indicated monthly change in gas production (Jun vs. May)
million cubic feet/day



Oil production
thousand barrels/day



Natural gas production
million cubic feet/day



Anadarko Region

Drilling Productivity Report

May 2022

drilling data through April
projected production through June

Oil
-5
barrels/day
month over month

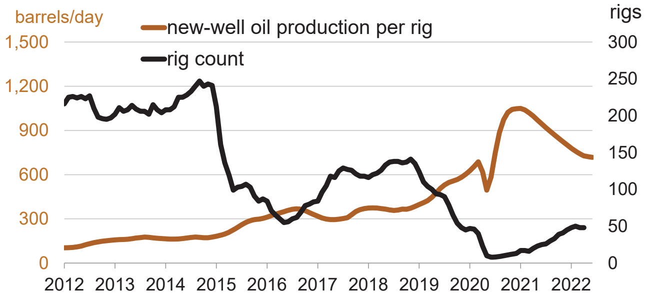
717 *June*
722 *May*
barrels/day

Monthly additions from one average rig

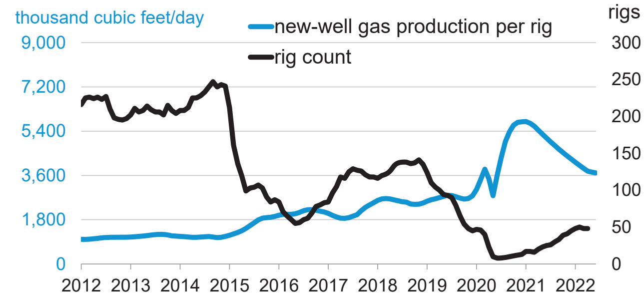
June **3,699**
May **3,736**
thousand cubic feet/day

Gas
-37
thousand cubic feet/day
month over month

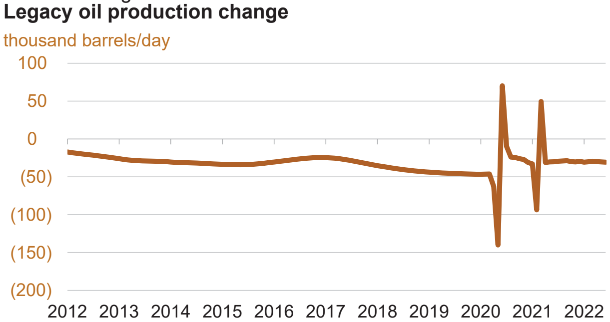
Anadarko Region
New-well oil production per rig



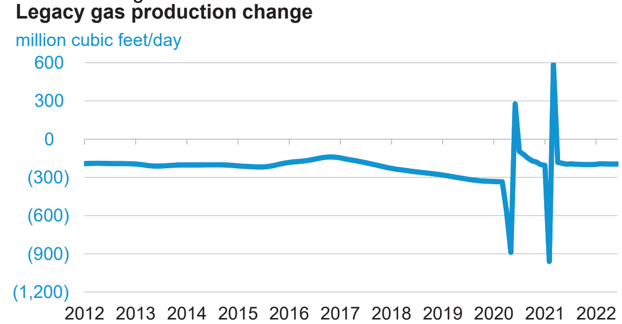
Anadarko Region
New-well gas production per rig



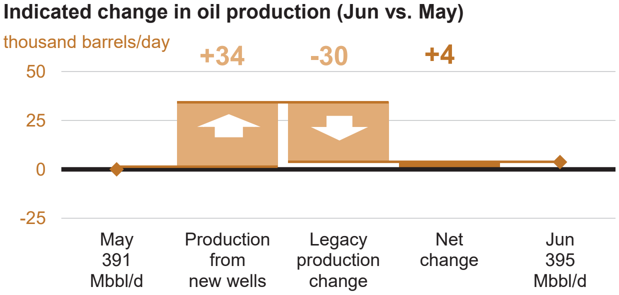
Anadarko Region
Legacy oil production change



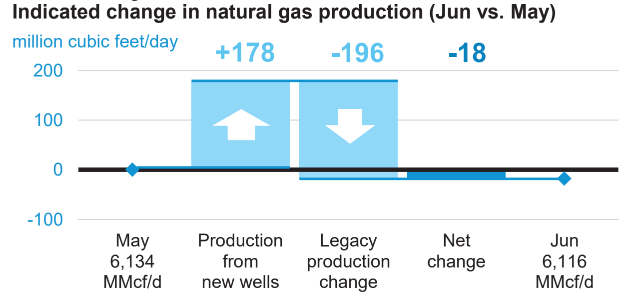
Anadarko Region
Legacy gas production change



Anadarko Region
Indicated change in oil production (Jun vs. May)

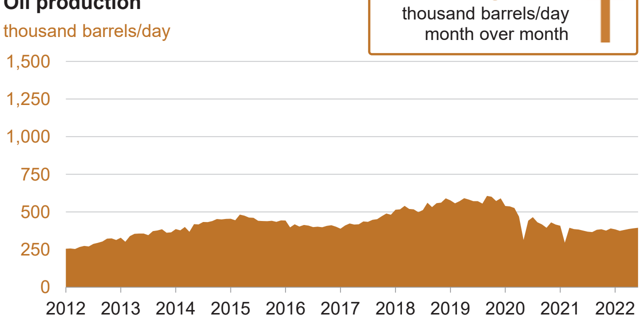


Anadarko Region
Indicated change in natural gas production (Jun vs. May)



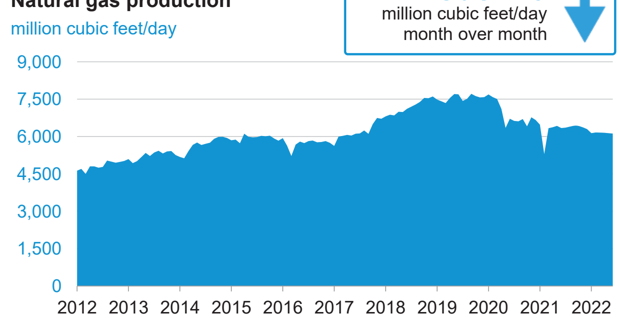
Anadarko Region
Oil production

Oil +4
thousand barrels/day
month over month



Anadarko Region
Natural gas production

Gas -18
million cubic feet/day
month over month



Appalachia Region

Drilling Productivity Report

May 2022

drilling data through April
projected production through June

Oil +1
barrels/day
month over month

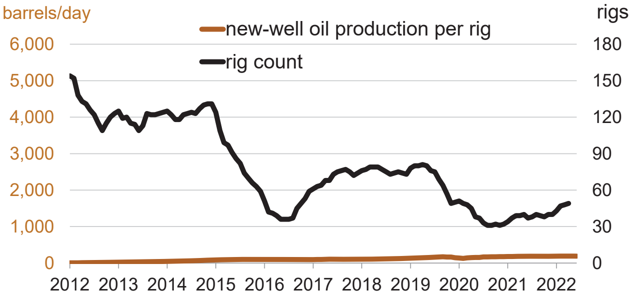
190 *June*
189 *May*
barrels/day

Monthly additions from one average rig

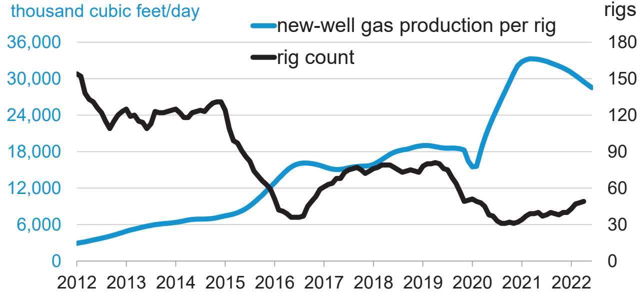
June **28,506**
May **28,999**
thousand cubic feet/day

Gas -493
thousand cubic feet/day
month over month

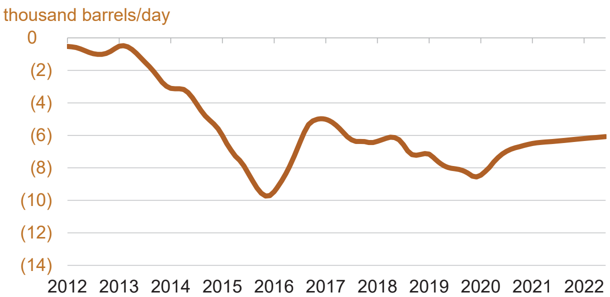
Appalachia Region
New-well oil production per rig



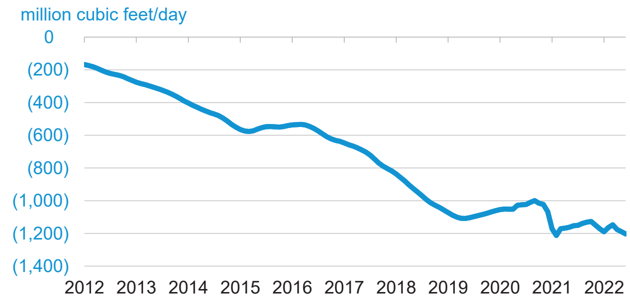
Appalachia Region
New-well gas production per rig



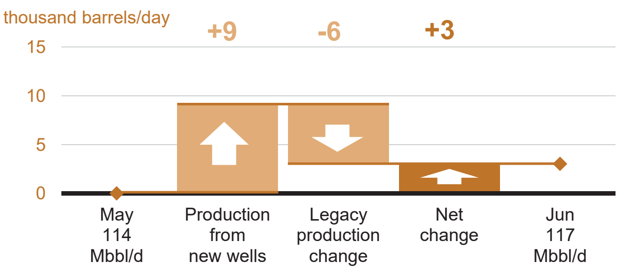
Appalachia Region
Legacy oil production change



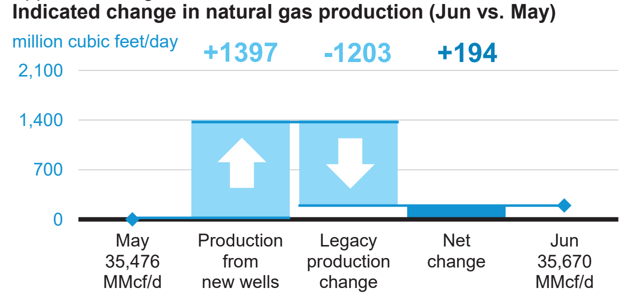
Appalachia Region
Legacy gas production change



Appalachia Region
Indicated change in oil production (Jun vs. May)

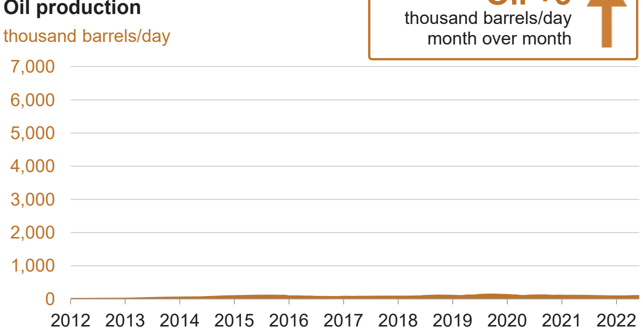


Appalachia Region
Indicated change in natural gas production (Jun vs. May)



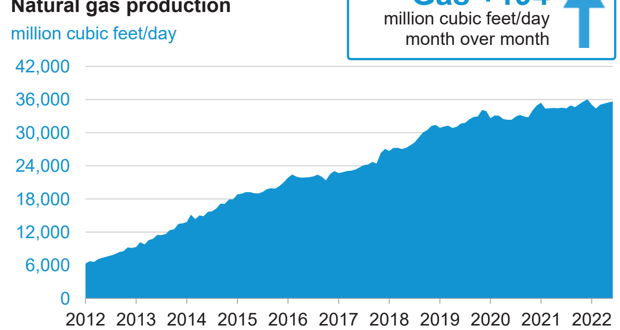
Appalachia Region
Oil production

Oil +3
thousand barrels/day
month over month



Appalachia Region
Natural gas production

Gas +194
million cubic feet/day
month over month



Bakken Region

Drilling Productivity Report

May 2022

drilling data through April
projected production through June

Oil -47
barrels/day
month over month

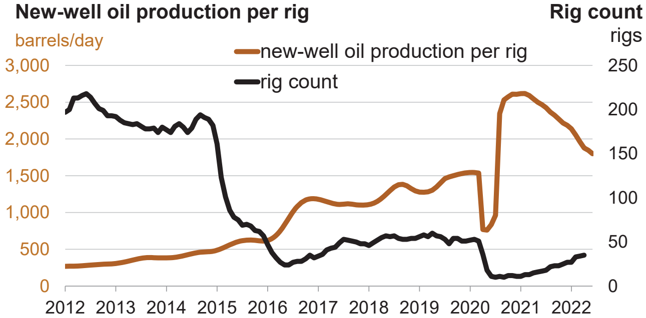
1,800 *June*
1,847 *May*
barrels/day

Monthly additions from one average rig

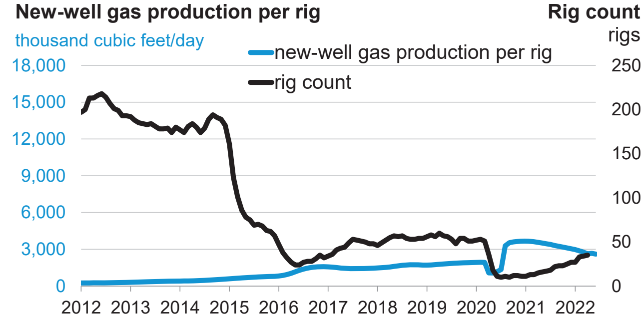
June **2,610**
May **2,678**
thousand cubic feet/day

Gas -68
thousand cubic feet/day
month over month

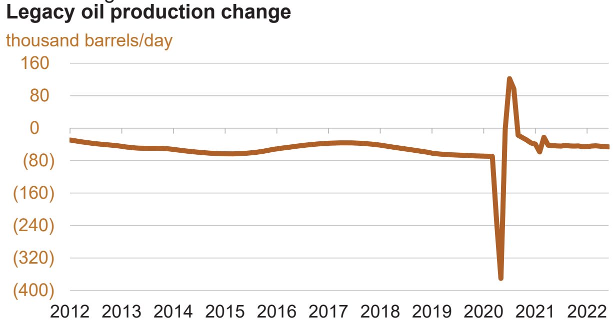
Bakken Region
New-well oil production per rig **Rig count**



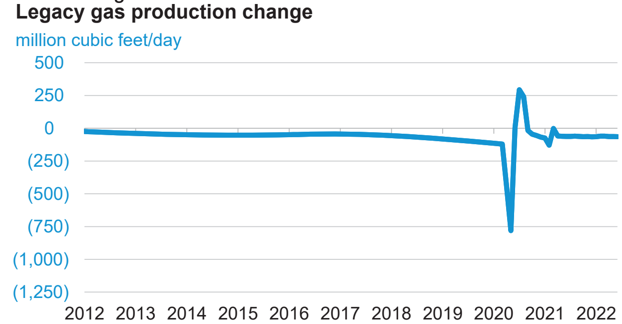
Bakken Region
New-well gas production per rig **Rig count**



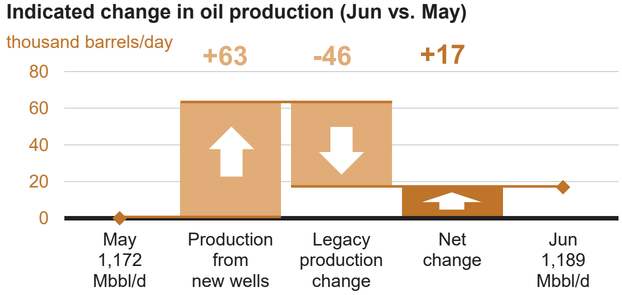
Bakken Region
Legacy oil production change



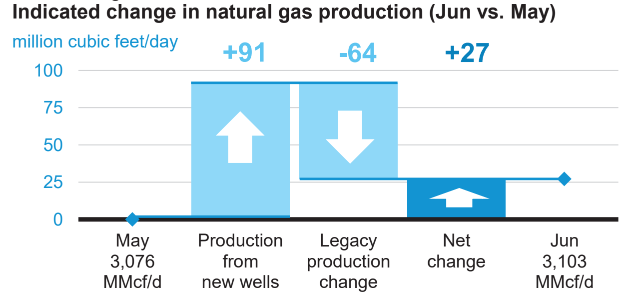
Bakken Region
Legacy gas production change



Bakken Region
Indicated change in oil production (Jun vs. May)

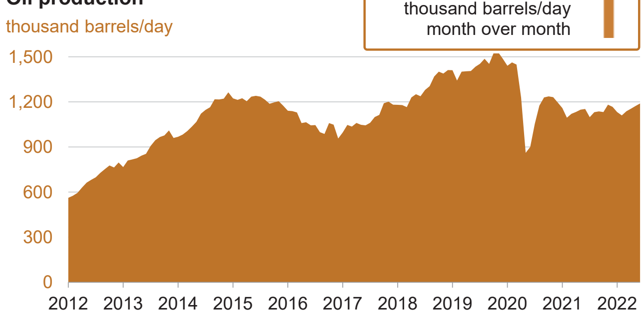


Bakken Region
Indicated change in natural gas production (Jun vs. May)



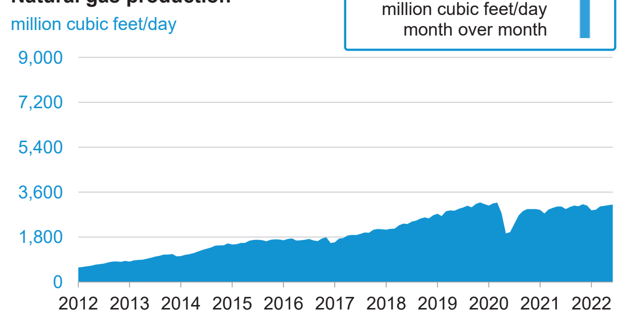
Bakken Region
Oil production

Oil +17
thousand barrels/day
month over month



Bakken Region
Natural gas production

Gas +27
million cubic feet/day
month over month



Eagle Ford Region

Drilling Productivity Report

May 2022

drilling data through April
projected production through June

Oil -79 barrels/day month over month

1,891 June
1,970 May
barrels/day

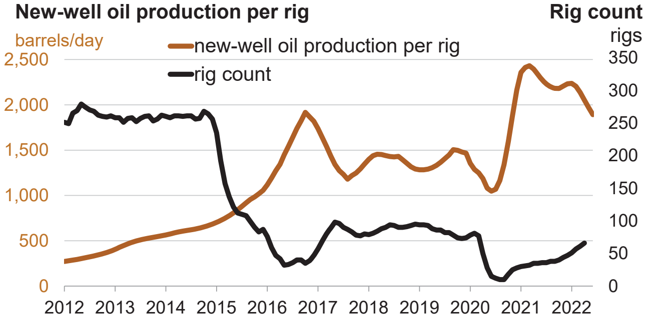
Monthly additions from one average rig

June **7,012**
May **7,229**
thousand cubic feet/day

Gas -217 thousand cubic feet/day month over month

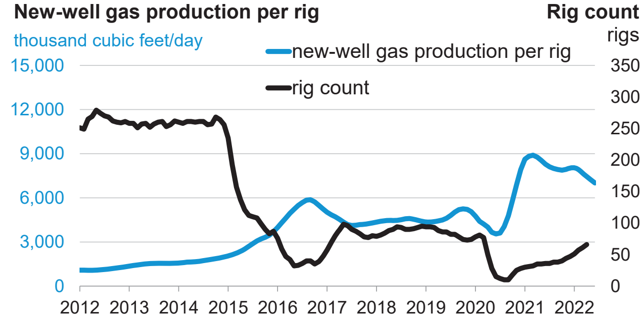
Eagle Ford Region
New-well oil production per rig

Rig count

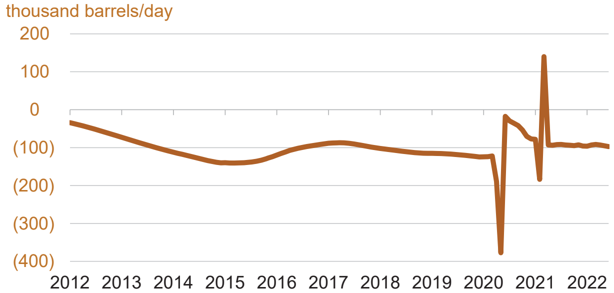


Eagle Ford Region
New-well gas production per rig

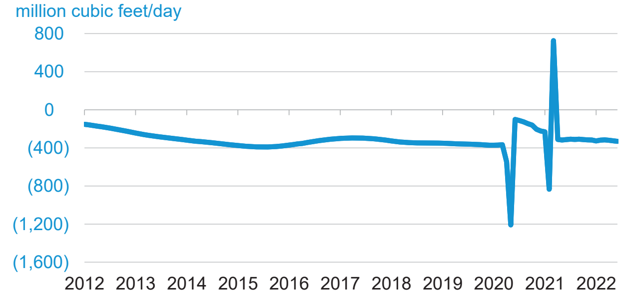
Rig count



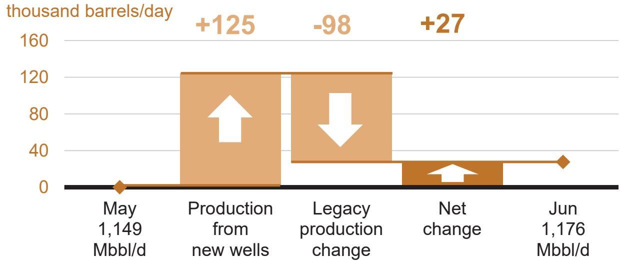
Eagle Ford Region
Legacy oil production change



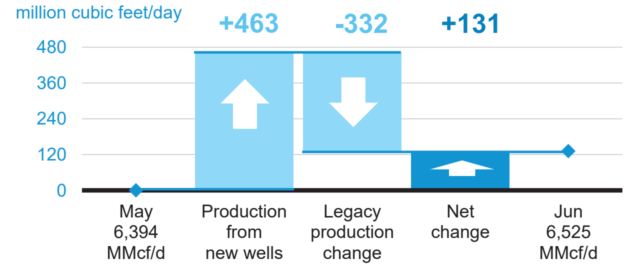
Eagle Ford Region
Legacy gas production change



Eagle Ford Region
Indicated change in oil production (Jun vs. May)



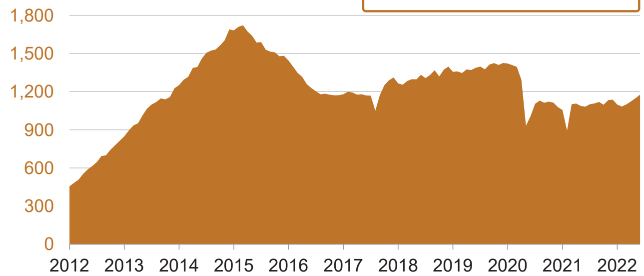
Eagle Ford Region
Indicated change in natural gas production (Jun vs. May)



Eagle Ford Region
Oil production

thousand barrels/day

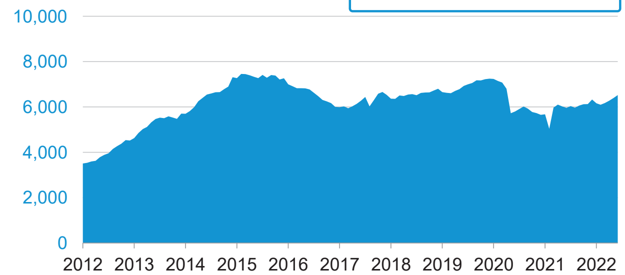
Oil +27 thousand barrels/day month over month



Eagle Ford Region
Natural gas production

million cubic feet/day

Gas +131 million cubic feet/day month over month



Haynesville Region
Drilling Productivity Report

May 2022
drilling data through April
projected production through June

Oil
0
barrels/day
month over month

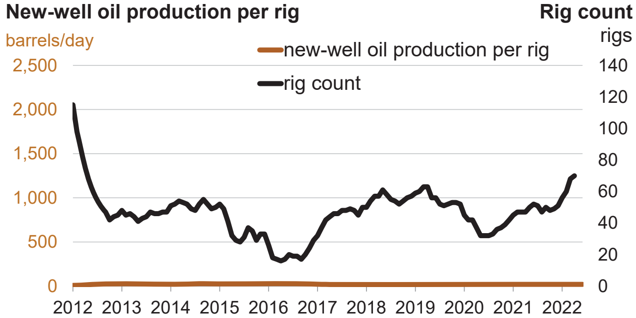
20 *June*
20 *May*
barrels/day

Monthly additions from one average rig

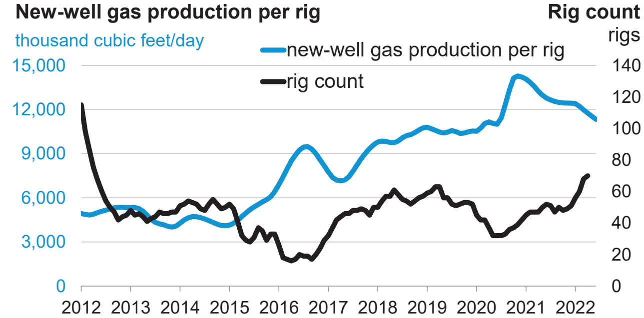
June **11,338**
May **11,546**
thousand cubic feet/day

Gas
-208
thousand cubic feet/day
month over month

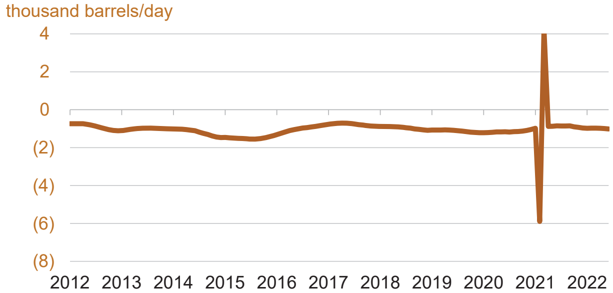
Haynesville Region
New-well oil production per rig **Rig count**



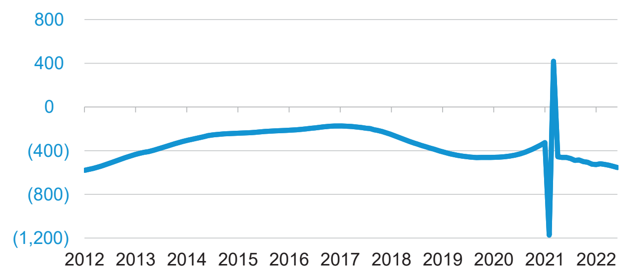
Haynesville Region
New-well gas production per rig **Rig count**



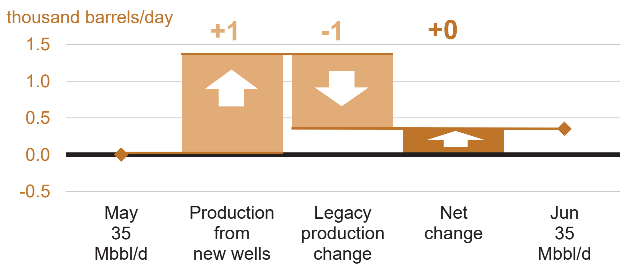
Haynesville Region
Legacy oil production change



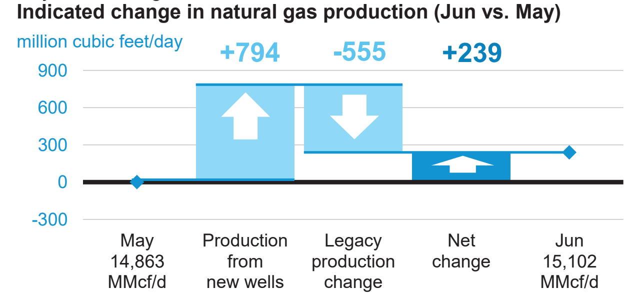
Haynesville Region
Legacy gas production change



Haynesville Region
Indicated change in oil production (Jun vs. May)

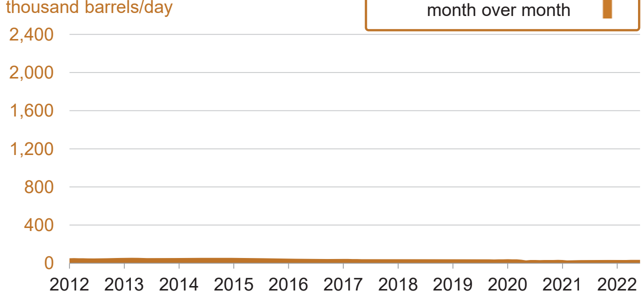


Haynesville Region
Indicated change in natural gas production (Jun vs. May)



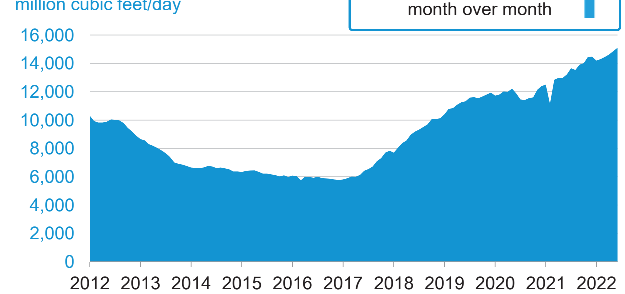
Haynesville Region
Oil production

Oil +0
thousand barrels/day
month over month



Haynesville Region
Natural gas production

Gas +239
million cubic feet/day
month over month



Niobrara Region

Drilling Productivity Report

May 2022

drilling data through April
projected production through June

Oil -16
barrels/day
month over month

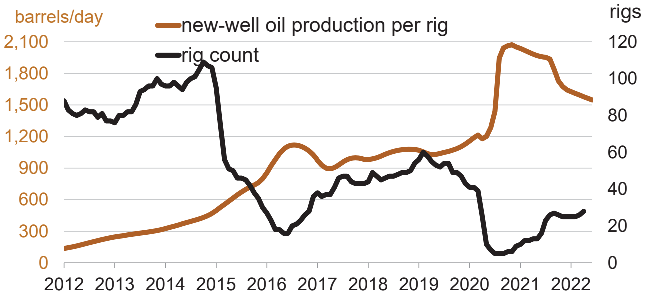
1,546 *June*
1,562 *May*
barrels/day

Monthly additions from one average rig

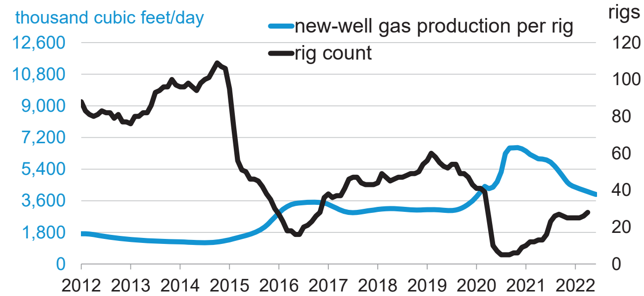
June **3,954**
May **4,035**
thousand cubic feet/day

Gas -81
thousand cubic feet/day
month over month

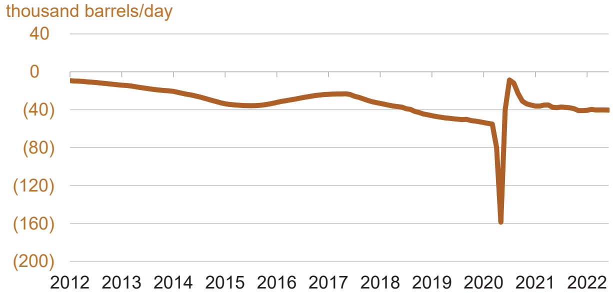
Niobrara Region
New-well oil production per rig



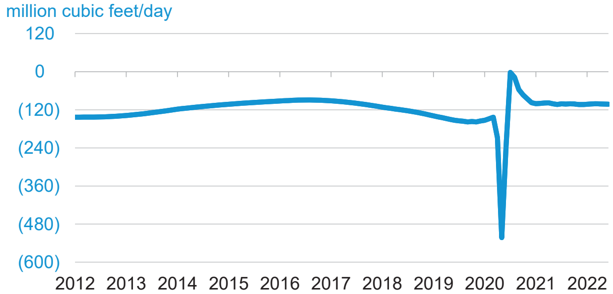
Niobrara Region
New-well gas production per rig



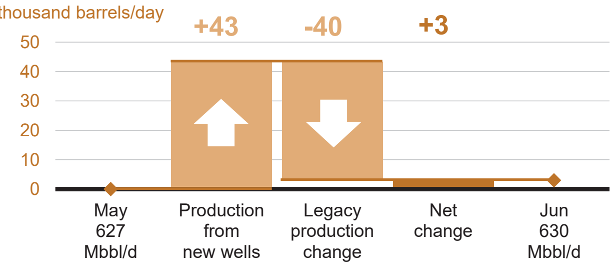
Niobrara Region
Legacy oil production change



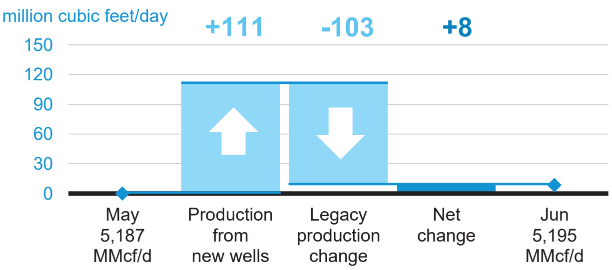
Niobrara Region
Legacy gas production change



Niobrara Region
Indicated change in oil production (Jun vs. May)

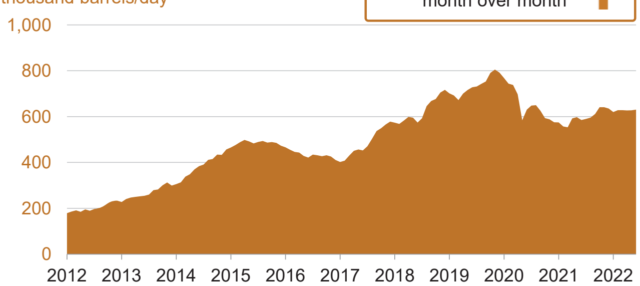


Niobrara Region
Indicated change in natural gas production (Jun vs. May)



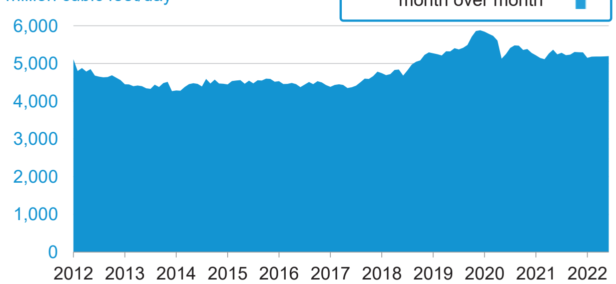
Niobrara Region
Oil production

Oil +3
thousand barrels/day
month over month



Niobrara Region
Natural gas production

Gas +8
million cubic feet/day
month over month



Permian Region

Drilling Productivity Report

May 2022

drilling data through April
projected production through June

Oil
-13
barrels/day
month over month

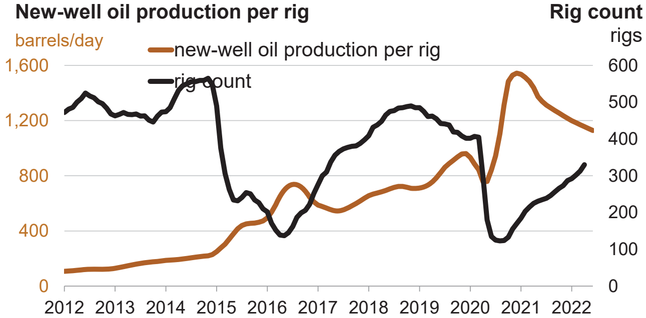
1,129 *June*
1,142 *May*
barrels/day

Monthly additions from one average rig

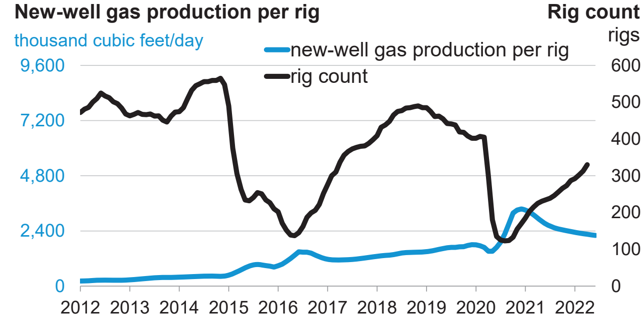
June **2,202**
May **2,229**
thousand cubic feet/day

Gas
-27
thousand cubic feet/day
month over month

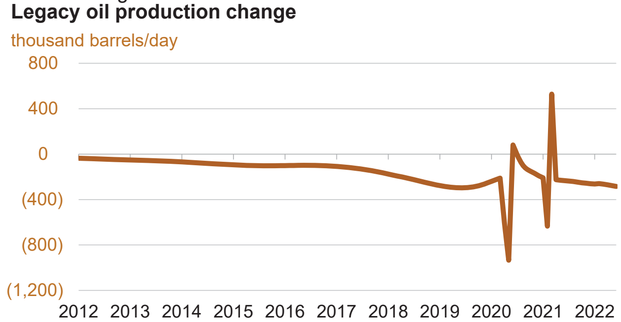
Permian Region
New-well oil production per rig



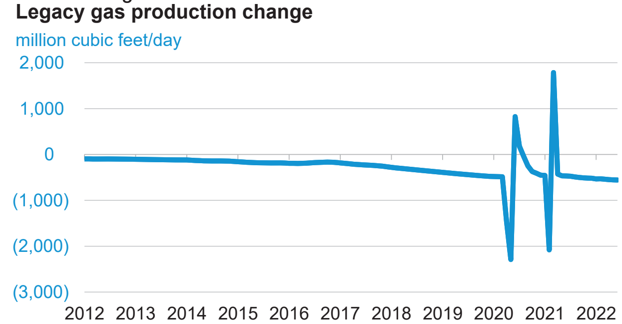
Permian Region
New-well gas production per rig



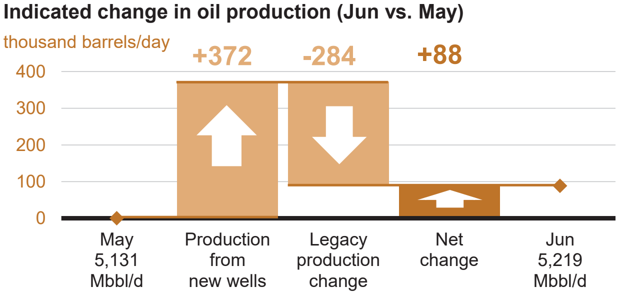
Permian Region
Legacy oil production change



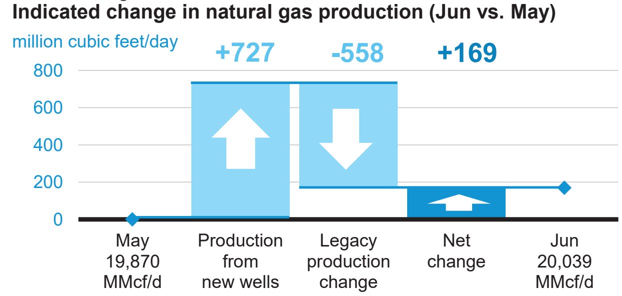
Permian Region
Legacy gas production change



Permian Region
Indicated change in oil production (Jun vs. May)

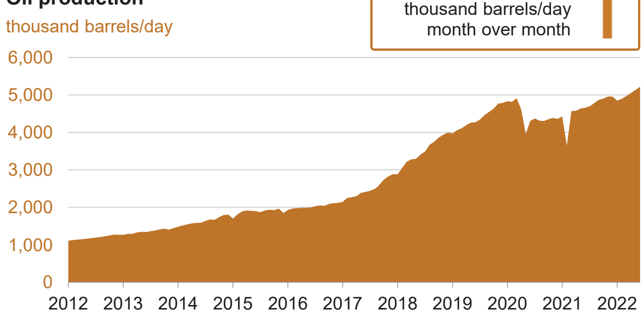


Permian Region
Indicated change in natural gas production (Jun vs. May)



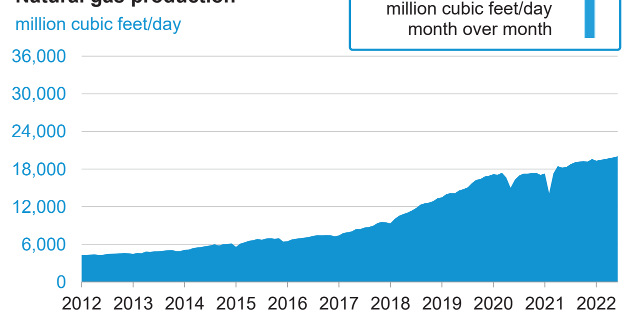
Permian Region
Oil production

Oil +88
thousand barrels/day
month over month



Permian Region
Natural gas production

Gas +169
million cubic feet/day
month over month



Explanatory notes

Drilling Productivity Report

May 2022

The Drilling Productivity Report uses recent data on the total number of drilling rigs in operation along with estimates of drilling productivity and estimated changes in production from existing oil and natural gas wells to provide estimated changes in oil[1] and natural gas[2] production for seven key regions. EIA's approach does not distinguish between oil-directed rigs and gas-directed rigs because once a well is completed it may produce both oil and gas; more than half of the wells do that.

Monthly additions from one average rig

Monthly additions from one average rig represent EIA's estimate of an average rig's[3] contribution to production of oil and natural gas from new wells.[4] The estimation of new-well production per rig uses several months of recent historical data on total production from new wells for each field divided by the region's monthly rig count, lagged by two months.[5] Current- and next-month values are listed on the top header. The month-over-month change is listed alongside, with +/- signs and color-coded arrows to highlight the growth or decline in oil (brown) or natural gas (blue).

New-well oil/gas production per rig

Charts present historical estimated monthly additions from one average rig coupled with the number of total drilling rigs as reported by Baker Hughes.

Legacy oil and natural gas production change

Charts present EIA's estimates of total oil and gas production changes from all the wells other than the new wells. The trend is dominated by the well depletion rates, but other circumstances can influence the direction of the change. For example, well freeze-offs or hurricanes can cause production to significantly decline in any given month, resulting in a production increase the next month when production simply returns to normal levels.

Projected change in monthly oil/gas production

Charts present the combined effects of new-well production and changes to legacy production. Total new-well production is offset by the anticipated change in legacy production to derive the net change in production. The estimated change in production does not reflect external circumstances that can affect the actual rates, such as infrastructure constraints, bad weather, or shut-ins based on environmental or economic issues.

Oil/gas production

Charts present all oil and natural gas production from both new and legacy wells since 2007. This production is based on all wells reported to the state oil and gas agencies. Where state data are not immediately available, EIA estimates the production based on estimated changes in new-well oil/gas production and the corresponding legacy change.

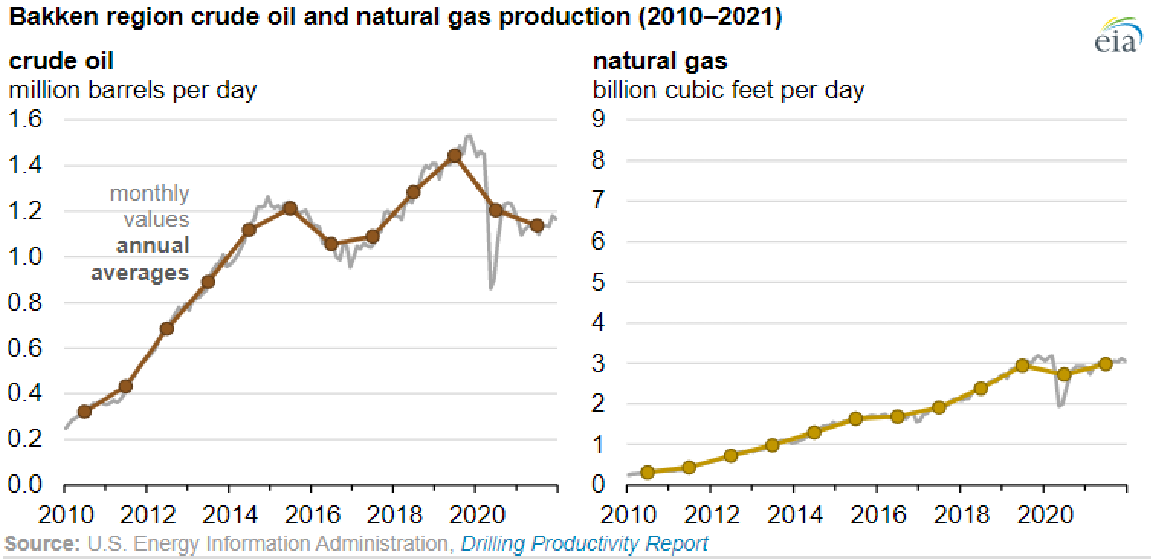
Footnotes:

1. Oil production represents both crude and condensate production from all formations in the region. Production is not limited to tight formations. The regions are defined by all selected counties, which include areas outside of tight oil formations.
2. Gas production represents gross (before processing) gas production from all formations in the region. Production is not limited to shale formations. The regions are defined by all selected counties, which include areas outside of shale formations.
3. The monthly average rig count used in this report is calculated from weekly data on total oil and gas rigs reported by Baker Hughes.
4. A new well is defined as one that began producing for the first time in the previous month. Each well belongs to the new-well category for only one month. Reworked and recompleted wells are excluded from the calculation.
5. Rig count data lag production data because EIA has observed that the best predictor of the number of new wells beginning production in a given month is the count of rigs in operation two months earlier.

https://www.eia.gov/todayinenergy/detail.php?id=52398

MAY 16, 2022

Natural gas production in the Bakken region grew while crude oil fell in 2021



Annual natural gas production (measured as gross withdrawals) in North Dakota's Bakken region increased by 9% in 2021, even as the region's crude oil production declined by 6%, according to our *Drilling Productivity Report*.

In 2021, natural gas production reached an annual high of 2.97 billion cubic feet per day (Bcf/d), surpassing the previous high of 2.95 Bcf/d set in 2019 and reversing an 8% decline in 2020 amid demand decline and production shut-ins related to the COVID-19 pandemic. In contrast, the Bakken region's average annual crude oil production peaked at 1.45 million barrels per day in 2019 and then declined by 17% in 2020 and by 6% in 2021. The region's ratio of natural gas to crude oil production has been increasing since 2008 and continues to accelerate.

North Dakota state regulators and operators continue to reduce natural gas flaring at the wellhead that has accompanied natural gas production. The North Dakota Industrial Commission (NDIC) raised natural gas capture targets, or the percentage of natural gas captured at the wellhead rather than flared, from 74% in October 2014 to 91% in the beginning of November 2020. As of December 2021, North Dakota's natural gas flaring rate averaged 7.5%, which means that 92.5% of the natural gas was captured.

To meet the capture targets, midstream companies operating in North Dakota expanded natural gas processing capacity from 1.0 Bcf/d in 2013 to 4.0 Bcf/d in 2021, according to the NDIC. The NDIC expects processing capacity to increase to 4.2 Bcf/d in 2023 because more pipeline takeaway capacity has been added. In February 2022, WBI Energy placed into service the 100-mile North Bakken Expansion pipeline, which can transport 0.25 Bcf/d of natural gas from production centers in Tioga, North Dakota, to demand centers in McKenzie County, North Dakota.

Principal contributor: Naser Ameen

Tags: production/supply, natural gas, Bakken, liquid fuels, crude oil, oil/petroleum https://www.handelsblatt.com/politik/international/scheich-mohammed-bin-abdulrahman-al-thani-katars-vizepremier-als-kleines-land-koennen-wir-uns-feindschaften-zwischen-grossen-machtbloecken-nicht-leisten/28358170.html

SHEIKH MOHAMMED BIN ABDULRAHMAN AL-THANI

Qatar's Deputy Prime Minister: "As a small country, we cannot afford hostilities between large power blocs"

The sovereign wealth fund from Qatar is planning further investments in German companies. But he also wants to expand his commitments in Asia. The fund does not want to withdraw from Russia.

Mathias Brueggmann 05/20/2022 - 04:00 am Leave a Comment

Jetzt teilen

Mohammed bin Abdulrahman Al Thani

Qatar's deputy prime minister is also the head of the QIA sovereign wealth fund.

(Photo: Reuters)

Berlin Given his wealth of power as Deputy Prime Minister, Foreign Minister and Head of the Qatar Investment Authority (QIA) sovereign wealth fund, Sheikh Mohammed bin Abdulrahman Al-Thani is de facto the second man in the state. By investing billions, especially in Europe and the USA, but now also increasingly in Russia and China, Qatar wants to become economically more important than it already is as the world's largest LNG exporter.

The sovereign wealth fund does not want to part with its investments in Russia, for example in the Rosneft oil company and VTB Bank, the deputy head of government says in an interview. He hopes for a quick end to the Ukraine war. "In the end, world history shows that war never ends on the battlefield, but rather at the negotiating tables." Qatar does not want to spoil it with any power bloc in the world.

He announced new investments in German companies. These would be completed soon, said the deputy prime minister, without giving details. The sovereign wealth fund is particularly interested in the renewable energy, technology, pharmaceutical, financial services and real estate sectors.

Read the entire interview here:

What can Qatar do to curb the soaring gas prices in Europe?

We are currently doing everything possible to help our European partners. We leave whatever volume we could deliver to Europe and do not divert LNG tankers, although under our contracts we could do so if we could get a higher price elsewhere. In addition, we are currently significantly expanding our gas production. This creates capacities for more liquid gas for Europe.

When can Germany get more LNG from Qatar - not until 2026, when your country wants to increase its liquefied gas production from the current 77 to 126 million tons a year? Or earlier?

The expansion of production in our North Dome gas field will not be completed until 2026, maybe even as early as 2025. But we want our US liquid gas plant Golden Pass in Texas, in which Qatar Energy holds 70 percent, to be ready by 2024 so that we can go to Germany can deliver.

You are chairman of the sovereign wealth fund QIA. How satisfied are you so far with the Qatari investments in Germany, for example at Solarworld, Curevac , Volkswagen and Deutsche Bank ?

Even if some of these companies are going through challenging times, we have great confidence in the German economy. That's why we want to continue investing in German companies. We still have a lot to do. Qatar is already the largest investor from the Middle East in the German economy and we are looking for other good opportunities, especially in the German Mittelstand. We have a lot in the pipeline.

What then?

We will announce that shortly. But only after the deals are closed.

Which sectors are you particularly interested in?

First and foremost we see the area of renewable energies, solar, wind power, hydrogen economy. In addition, we focus on technology companies, the pharmaceutical sector, financial services, real estate and, in particular, small and medium-sized companies, which are the backbone of the German economy. Battery technology and storage technologies in the field of renewable energies are also in focus. There are great opportunities there.

Does QIA see itself only as a financial investor, or is it also about integrating Qatar more into global industrial value creation?

We are in an active dialogue with Volkswagen to further intensify the cooperation between VW and Qatar. The main focus here is on the development of autonomous driving.

So you want the practical tests for autonomous driving of VW vehicles to take place in Qatar cities?

That's what we hope for, and we're talking to VW about it. However, QIA is a long-term investor that aims to create income for future generations through our global investments. It is about the diversification of our state revenues in the future. With our state fund, we ensure our prosperity as a state in the long term. That is why we diversify our investments geographically and by economic sector.

So far, QIA has primarily invested in Germany, France, Great Britain and the USA. Are you now directing more money to Asia?

We have great confidence in the European and US economies, but also in Asian economies. And that's why we're continuing to diversify, also in the direction of Asia.

Looking at China, are you afraid of decoupling, a big East-West bloc formation?

As an Asian country, Qatar wants a balanced investment strategy and good business with everyone. Especially in the current world situation, we need great coherence, much more diplomatic engagement instead of decoupling.

But if there were another split - what would be the role of the Middle East, which traditionally receives military security guarantees from the USA, but now mainly sells oil and gas to Asia?

As countries of the Gulf Cooperation Council (GCC), we want to maintain our relations with the US and Europe, but at the same time have a balanced relationship with China, Russia and others. We want to see how we can help hold everything together and not become a factor of division. We are a small country and cannot afford hostilities between large power blocs.

Qatar is known as a mediator. Do you have any idea how a peace agreement with Russia can be reached in Ukraine ?

Qatar rejects any attack on the sovereignty of a country and the use of force against another state. Negotiations between Russia and Ukraine have been going on for some time...

...but they just got stopped.

But there will have to be negotiations to end this war and this suffering. We speak to both sides. Because in the end, world history shows that war never ends on the battlefield, but at the negotiating tables. And the faster, the better.

Shouldn't Qatar also leave the Russian market, like other foreign companies have already done? However, QIA is still invested in the Russian oil company Rosneft, in the VTB Bank, in retail chains. Are you discussing a withdrawal?

In any case, we are not looking for new opportunities and commitments in Russia. QIA is a long-term investor and we invest on a commercial basis, not a political one.

So no withdrawal from Russia?

We hope that the situation will change as soon as possible.

But Rosneft and VTB are on Western sanctions lists.

We ensure that QIA adheres to all sanctions and does not break any.

Another country is under tough sanctions: Iran. When do you expect a breakthrough in the nuclear agreement that has now been renegotiated with your neighbor?

The Emir was recently in Tehran and met both the President and the spiritual leader of Iran. He will report this to Chancellor Scholz, since Germany is negotiating very intensively for a solution. A breakthrough is in the interests of all of us, including those of us in the region. And the Iranian leadership told us they were ready for a compromise.

Does the West need Iran's oil, which would return to world markets with a nuclear deal, as a substitute for Russian oil ?

This is certainly also a factor why the nuclear agreement should come into force again quickly. But for us it's about something else: more stability in the Gulf. Germany and Qatar are pulling together on this issue. But of course, all the extra oil in the markets helps stabilize oil prices and lower inflation.

The looming hunger crisis in the world is even more dangerous than inflation. Qatar started its own food security program many years ago. What can be done to protect large parts of the world from a hunger crisis caused by the war in Ukraine?
The most important thing is to stop the war in Ukraine quickly. In addition, more must be invested in food production in other parts of the world. Qatar has already invested in agribusiness in other countries for its food security and will now expand it. And we must do everything to ensure that Russia ends the blockade of Ukrainian ports so that Ukraine can export the food it has stored.
You describe German-Qatarian relations as very good. What if the Bundestag called for a boycott of the World Cup in November and December in your country?
I hope it doesn't come to that. We want to welcome the German fans to the World Cup in Qatar. We have done a lot for it.

What exactly? Human rights organizations accuse Qatar of serious violations of the rights of guest workers in your country .
We have tackled far-reaching reforms, fundamentally changed labor law, introduced a minimum wage, abolished the so-called kafala system, which tied workers to one employer and did not allow them to change jobs. We made sure the workers got paid on time, got better housing. Declaring a boycott now would be completely counterproductive. Instead of criticizing from afar, one should come here and see what we have changed in recent years. Many should be impressed by this.
Mr. Deputy Prime Minister, thank you very much for the interview.
Mathias Brüggmann asked the questions.
More : Liquid gas for Germany: Emir of Qatar

https://clubofmozambique.com/news/mozambique-cabo-delgado-gas-projects-may-be-able-to-restart-within-months-eu-217067/

Mozambique: Cabo Delgado gas projects may be able to restart within months – EU

3:15 CAT | 18 May 2022

The European Union (EU) ambassador to Mozambique believes that within "months" there will be security in Cabo Delgado for the return of large investments associated to natural gas, he said in an interview with Lusa on Tuesday.

Asked whether Mozambique risks losing the opportunity to make a profit from the gas reserves in the Rovuma basin, if it takes years to resolve the armed insurgency in the region, António Gaspar said he preferred to talk "in months rather than years," until the "normalisation" of life in Cabo Delgado begins.

Cabo Delgado "is much safer, no doubt," he said, since troops from Rwanda and the Southern African Development Community (SADC) began supporting Mozambican forces in 2021.

The EU is monitoring the situation and maintaining contacts, in coordination with SAMIM (the SADC military mission) and the Rwandan military, which now point to "more sporadic attacks" by the rebels who have been plaguing the region for four and a half years.

"It doesn't mean that the situation is completely under control. We cannot lower our guard, but it has already improved a lot and the work that is being done by these forces, with Mozambique, is already giving results."

Be that as it may, "there is a lot of long-term work" because "there may be mixing of insurgents with local residents, the borders [with Tanzania] are still porous", among "many other reasons".

"But I am optimistic," António Gaspar emphasises.

The return of oil company Totalenergies, leader of the gas investing consortium, is not in doubt, he said, "it's a question of [knowing] when. I personally have no doubt" about the return of projects to the Afungi peninsula, suspended a year ago after an attack on the town of Palma.

"It is those investors and above all Total that has to decide, with all the guarantees. It is true that last time, the attacks near Afungi were a shock" and companies "had to suspend" operations, António Gaspar said.

"Now, they want to return with all the guarantees," he adds. "I think Mozambique gas, in the current context, with the EU's strategic need to drastically reduce and end dependence on hydrocarbons from Russia" gets a new opportunity.

While he foresees life beginning to return to normal within months, António Gaspar believes that this will happen safely throughout the region.

The EU ambassador believes that “there will be no risk of double security”, tighter in the area of the gas projects (Palma district and Mocímboa da Praia) and less demanding in the rest of the province.

“Cabo Delgado is big, but it is not the Sahel, it is not that space of millions of kilometres where there is no State administration. In Mozambique, the State administration reaches all parts of the country”, he concludes.

Cabo Delgado province is rich in natural gas, but has been terrorised since 2017 by armed rebels, with some attacks claimed by the extremist group Islamic State.

There are 784,000 internally displaced people due to the conflict, according to the International Organization for Migration (IOM), and around 4,000 deaths, according to the ACLED conflict registration project.

Since July 2021, an offensive by government troops with Rwandan support, later joined by SADC, has allowed areas where rebels were present to recover, but their flight has provoked new attacks in other districts used as passage or temporary refuge.

Source: Lusa

https://www.sempra.com/sempra-infrastructure-and-pgnig-advance-north-american-lng-alliance

May 16, 2022

Sempra Infrastructure and PGNiG Advance North American LNG Alliance

- Companies announce heads of agreement for off-take capacity from Cameron LNG Phase 2 and Port Arthur LNG
- Agreement contemplates continued development of a framework for greenhouse gas reduction, mitigation, and reporting

MIĘDZYZDROJE, Poland, May 16, 2022 /PRNewswire/ -- Sempra Infrastructure, a subsidiary of Sempra (NYSE: SRE) (BMV: SRE), and the Polish Oil & Gas Company (PGNiG) today announced they have entered into a heads of agreement (HOA) for the purchase of approximately 3 million tonnes per annum (Mtpa) of liquefied natural gas (LNG) delivered free-on-board from Sempra Infrastructure's portfolio of LNG projects in North America.

"Today's agreement underscores our commitment to help provide greater energy security to Poland and our global partners through long-term LNG sales," said Dan Brouillette, president of Sempra Infrastructure. "Our relationship with PGNiG is core to this commitment, and we are excited to continue working closely with them to advance more reliable, secure and increasingly clean energy solutions."

"The agreement signed today paves the way for negotiations of detailed terms that would provide PGNiG with LNG from a reliable and highly valued infrastructure partner. Here in Poland, LNG is already one of the cornerstones of our diversified strategy to enhance Polish energy security, as well as to strengthen the commercial potential of the PGNiG Group. We are determined to further expand our operations in this direction and are therefore taking steps to secure access to adequate natural gas volumes in the future," said Iwona Waksmundzka-Olejniczak, PGNiG SA president.

The referenced HOA contemplates the negotiation and finalization of definitive 20-year LNG sale-and-purchase agreements for 2 Mtpa from the Cameron LNG Phase 2 project under development in Louisiana, and 1 Mtpa from the Port Arthur LNG project under development in Texas. The HOA also provides PGNiG the opportunity in 2022 to reallocate volumes from the Cameron LNG Phase 2 project to the Port Arthur LNG project. Additionally, Sempra Infrastructure and PGNiG expect to continue working toward a framework for the reduction, mitigation and reporting of greenhouse gas emissions across the LNG value chain.

Sempra Infrastructure is developing the Cameron LNG Phase 2 project, which is expected to include a single LNG train with a maximum production capacity of approximately 6.75 Mtpa of LNG as well as debottlenecking of the existing three LNG trains at the facility in Hackberry, Louisiana. Last month, Sempra Infrastructure signed an HOA with the Cameron LNG partners for the development of the Cameron LNG Phase 2 project. In addition, Sempra Infrastructure is also developing the proposed Port Arthur LNG project, an approximately 13.5 Mtpa, fully permitted facility on a 3,000-acre site in Jefferson County, Texas.

The HOA is a preliminary, non-binding arrangement, and the development of the Cameron LNG Phase 2 and Port Arthur LNG projects remains subject to a number of risks and uncertainties, including reaching definitive agreements, securing all necessary permits, signing engineering and construction contracts, obtaining financing and incentives and reaching a final investment decision for each project.

About Sempra Infrastructure

Sempra Infrastructure delivers energy for a better world. Through the combined strength of its assets in North America, the company is dedicated to enabling the energy transition and beyond. With a continued focus on sustainability, innovation, world-class safety, championing people, resilient operations and social responsibility, its more than 2,000 employees develop, build and operate clean power, energy networks and LNG and net-zero solutions, that are expected to play a crucial role in the energy systems of the future. For more information about Sempra Infrastructure, please visit www.SempraInfrastructure.com and Twitter.

About PGNiG

The PGNiG Group is the leader in the Polish gas market. It operates in exploration and production of natural gas and crude oil, international gas trading, sale and distribution of gas and liquid fuels, as well as heat and electricity generation. The PGNiG Group consists of over 30 companies with a total of 25,000 employees. It operates, among others, in Poland, Lithuania, Norway, Pakistan and the United Arab Emirates. The Group's parent company, PGNiG SA, is one of the largest companies listed at the Warsaw Stock Exchange.

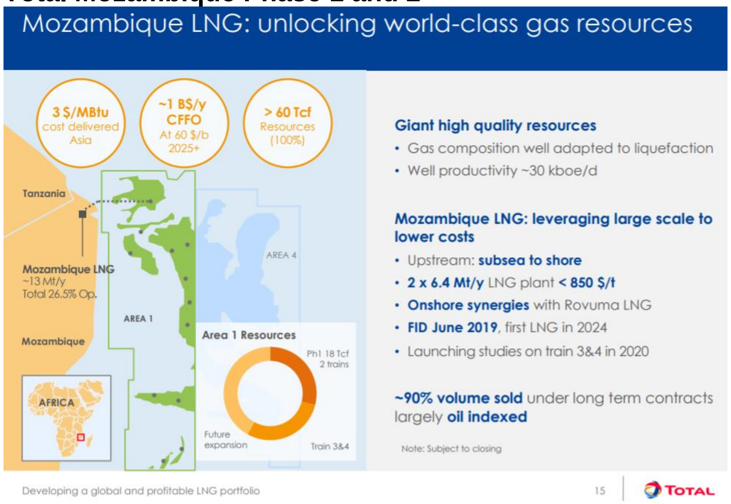
Multiple Brownfield LNG FIDs Now Needed To Fill New LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2?

Posted Wednesday April 28, 2021. 9:00 MT

The next six months will determine the size and length of the new LNG supply gap that is hitting harder and faster than anyone expected six months ago. Optimists will say the Mozambique government will bring sustainable security and safety to the northern Cabo Delgado province and provide the confidence to Total to quickly get back to LNG development such that its LNG in-service delay is a matter of months and not years. We hope so for Mozambique's domestic situation, but will it be that easy for Total's board to quickly look thru what just happened? Total suspended LNG development for 3 months, restarted development on March 25, but then 3 days of violence led it to suspend development again on March 28, and announce force majeure on Monday April 26. Even if the optimists are right, Mozambique LNG is counted on for LNG supply and the major LNG supply project that are in LNG supply forecasts are now all delayed – Total Phase 1 of 1.7 bcf/d and its follow on Phase 2 of 1.3 bcf/d, and Exxon's Rozuma Phase 1 of 2.0 bcf/d. It is important to remember this 5.0 bcf/d of major LNG supply is being counted in LNG supply forecasts and starting in 2024. At a minimum, we think the more likely scenario is a delay of at least 2 years in this 5.0 bcf/d from the pre-Covid timelines. And this creates a much bigger and sooner LNG supply gap starting ~2025 and stronger outlook for LNG prices. Thermal coal in Asia will play a role in keeping a lid on LNG prices. But there will be the opportunity for LNG suppliers to at least review the potential for brownfield LNG projects to fill the growing supply gap. The thought of increasing capex was a non-starter six months ago, but there is a much stronger outlook for global oil and gas prices. Oil and gas companies are pivoting from cutting capex to small increases in 2021 capex and expecting for higher capex in 2022. We believe this sets the stage for looking at potential FID of brownfield LNG projects before the end of 2021 to be included in 2022 capex budgets. Mozambique is causing an LNG supply gap that someone will try to fill. And if brownfield LNG is needed, what about Shell looking at 1.8 bcf/d brownfield LNG Canada Phase 2? Cdn natural gas producers hope so as this would mean more Cdn natural gas will be tied to Asian LNG markets and not competing in the US against Henry Hub.

Total declares force majeure on Mozambique LNG, Yesterday, Total announced [LINK] "*Considering the evolution of the security situation in the north of the Cabo Delgado province in Mozambique, Total confirms the withdrawal of all Mozambique LNG project personnel from the Afungi site. This situation leads Total, as operator of Mozambique LNG project, to declare force majeure. Total expresses its solidarity with the government and people of Mozambique and wishes that the actions carried out by the government of Mozambique and its regional and international partners will enable the restoration of security and stability in Cabo Delgado province in a sustained manner".* Total is working Phase 1 is ~1.7 bcf/d (Train 1 + 2, 6.45 mtpa/train) and was originally expected to being LNG deliveries in 2024. There was no specific timeline for Phase 2 of 1.3 bcf/d (Train 3 + 4, 5.0 mtpa/train), but was expected to follow Phase 1 in short order to keep capital costs under control with a continuous construction process with a potential onstream shortly after 2026.

Total Mozambique Phase 1 and 2



Source: Total Investor Day September 24, 2019

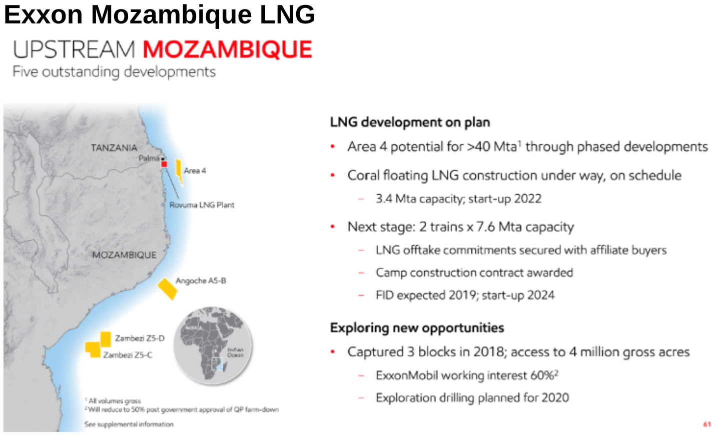
<u>Total's Mozambique force majeure is no surprise, especially the need to the restoration of security and stability "in a sustained manner"</u>. Yesterday, Total announced [LINK] "*Considering the evolution of the security".* No one should be surprised by the force majeure or the sustained manner caveat. SAF Group posts a weekly Energy Tidbits research memo [LINK], wherein we have, in multiple weekly memos, that Total had shut down development in December for 3 months due to the violent and security risks. It restarted development on Wed March 24, violence/attacks immediately resumed for 3 consecutive days, and then Total suspended development on Sat March 27. Local violence/attacks shut development down in Dec, the situation gets settled enough for Total to restart in March, only to be shut down 3 days thereafter. No one should be surprised especially with Total's need to see security and stability "in a sustained manner".

<u>Does anyone really think Total will risk another quick 2-3 month restart or even in 2021?</u> The Mozambique government will be working hard to convince Total to restart soon. We just find it hard to believe Total board will risk a replay of March 24-27 in 2021. Unfortunately, Mozambique has had internal conflict for years. It reached a milestone to the positive in August 2019. Our SAF Group August 11, 2019 Energy Tidbits memo [LINK] highlighted the signing of a peace pact between Mozambique President Nyusi and leader of the Renamo opposition Momade. This was the official end to a 2013 thru 2016 conflict following a failure to hold up the prior peace pact. At that time, FT reported [LINK] "Mr Nyusi has said that "*the government and Renamo will come together and hunt" rebels who fail to disarm. The government has struggled to stem the separate insurgency in the north, which has killed or displaced hundreds near the gas-rich areas during the past two years. While the roots of the conflict remain murky, it is linked to a local Islamist group and appears to be drawing on disaffection over sharing gas investment benefits, say analysts*." This is just a reminder this is not a new issue. LNG is a game changer to Mozambique's economic future. It is, but also has been, a government priority to have the security and safety for Total and Exxon to move on their LNG developments. Its hard to believe the Mozambique government will be able to quickly convince Total and Exxon boards that they can be comfortable there is a sustained security/safety situation and they can send their people back in to develop the LNG. Total's board would allow any resumption of development before year end 2021. The last thing Total wants is a replay of March 24-27. The first question is how long will it take before the Total board is convinced its safe to restart. Could you imagine them doing a replay of what just happened? Wait three months, restart development and have to stop again right away? We have to believe that could lead the Total board to believe it is unfixable for years. We just don't think they are to prepared to risk that decision in 3 months. Its why we have to think there isn't a restart approval until at least in 2022 at the earliest ie. why we think the likely scenario is a delay of 2-3 years, and not a matter of months.

<u>Mozambique's security issues pushes back 5.0 bcf/d of new LNG supply at least a couple years.</u> The global LNG issue is that 5 bcf/d of new Mozambique LNG supply (apart from the Eni Coral FLNG of 0.45 bcf/d) won't start up in 2024 and

continuing thru the 2020s. And we believe all LNG forecasts included this 5.0 bcf/d to be in service in the 2020s as Mozambique had been considered the best positioned LNG supply to access Asia after Australia and Papua New Guinea. (i) Eni Coral Sul (Rovuma Basin) FLNG of 0.45 bcf/d planned in service in 2022. [LINK] This is an offshore floating LNG vessel that is still expected to be in service in 2022. (ii) Total Phase 1 to add 1.7 bcf/d with an in service originally planned for 2024. We expect the in service data to be pushed back to at least 2026 assuming Total gives a development restart approval in Dec 2021. In theory, this would only be a 1 year loss of time. However, Total has let services go, the project will be idle for 9 months, it isn't clear if the need to get people out quickly let them do a complete put the project on hold, and how many people will be on site maintaining the status of the development during the force majeure. Also what new procedures and safety will be put in place for a restart. These all mean there will be added time needed to get the project back to where it was when force majeure was declared ie. why we think a 12 month time delay will be more like an 18 month project delay. (iii) Exxon's Rozuma Phase 1 LNG will add 2.0 bcf/d and, pre-Covid, was expected to be in service in 2025. We believe the delays related to security and safety at Total are also going to impact Exxon. We find it highly unlikely the Exxon board would take a different security and safety decision than Total. Pre-pandemic, Exxon's March 6, 2019 Investor Day noted their operated Mozambique Rovuma LNG Phase 1 was to be 2 trains each with 1.0 bcf/d capacity for total initial capacity of 2.0 bf/d with FID expected in 2019 and first LNG deliveries in 2024. The 2019 FID expectation was later pushed to be expected just before the March 2020 investor day. But the pandemic hit, and on March 21, 2020, we tweeted [LINK] on the Reuters story "*Exclusive: Coronavirus, gas slump put brakes on Exxon's giant Mozambique LNG plan"* [LINK] that noted Exxon was expected to delay the Rovuma FID. There was no timeline, but the expectation was that FID would now be in 2022 (3 years later than original timeline0 and that would push first LNG likely to 2027. (iv) Total Phase 2 was to add 1.3 bcf/d. There was no firm in service date but it was expected to follow closely behind Phase 1 to maintain services. That would have put it originally in the 2026/2027 period. But if Phase 1 is pushed back 2 years, so will Phase 2 so more likely 2028/2029.. (v) Total Phase 1 + 2 and Exxon Rozuma Phase 1 total 5.0 bcf/d and would have been (and still are) in all LNG supply forecasts for the 2020s. (vi) We aren't certain if the LNG supply forecasts include Exxon Rozuma Phase 2 ,which would be an additional 2.0 bcf/d on top of the 5.0 bcf/d noted above. Exxon Rozuma has always been expected to be at least 2 Phases. This has been the plan since the Anadarko days given the 85 tcf size of the resource on Exxon's Area 4. There was no firm in service data for Phase 2, but it was expected they would also closely follow Phase 1 to maintain services. We expect that original timeline would have been 2026/2027 and that would not be pushed back to 2029/2030. (vii) It doesn't matter if its only 5 bcf/ of Mozambique that is delayed 2 to 3 years, it will cause a bigger LNG supply gap and sooner. The issue for LNG markets is this is taking projects that are in development effectively out of the queue for some period.

Exxon Mozambique LNG



Source: Exxon Investor Day March 6, 2019

Won't LNG and natural gas get hit by Biden's push for carbon free electricity? Yes, in the US. For the last 9 months, we have warned on Biden's climate change plan that were his election platform and now form his administration's energy transition map. We posted our July 28, 2020 blog "*Biden To Put US On "Irreversible Path to Achieve Net-Zero Emissions, Economy-Wide" Is a Major Negative To US Natural Gas in 2020s* "[LINK] on Biden's platform "*The Biden Plan to Build a Modern, Sustainable Infrastructure and an Equitable Clean Energy Future*" [LINK]. Biden's new American Jobs Plan

[LINK] lines up with his campaign platform including to put the US "*on the path to achieving 100 percent carbon-free electricity by 2035*.". Our July 28, 2020 blog noted that it would require replacing ~60% of US electricity generation with more renewable and it could eliminate ~40% (33.5 bcf/d) of 2019 US natural gas consumption. If Biden is 25% successful by 2030, it would replace ~6.3 bcf/d of natural gas demand. It would be a negative to US natural gas and force more US natural gas to export markets. The wildcard when does US natural gas start to decline if producers are faced with the reality of natural gas being phased out for electricity. The other hope is that when Biden says "carbon-free", its not what ends up in the details of any formal policy statement ie. carbon electricity will be allowed with Biden's push for CCS.

Will Cdn natural gas be similarly hit by if Trudeau move to "emissions free" and not "net zero emissions" electricity? Yes and No. Our SAF Group April 25, 2021 Energy Tidbits memo [LINK] was titled ""*Bad News For Natural Gas, Trudeau's Electricity Goal is Now 100% "Emissions Free" And Not "Net Zero Emissions*". On Thursday, PM Trudeau spoke at Biden's global climate summit [LINK] and looks like he slipped in a new view on electricity than was in last Monday's budget and his Dec climate plan. Trudeau said "*In Canada, we've worked hard to get to over 80% emissions-free electricity, and we're not going to stop until we get to 100%."* Speeches, especially ones made on a global stage are checked carefully so this had to be deliberate. Trudeau said "*emissions free*" and not net zero emissions electricity. It seems like this language is carefully written to exclude any fossil fuels as they are not emissions free even if they are linked to CCS. Recall in Liberals big Dec 2020 climate announcement [LINK], Liberals said ""*Work with provinces, utilities and other partners to ensure that Canada's electricity generation achieves net-zero emissions before 2050*." There is no way Trudeau changed the language unless he meant to do so. And this is a major change as it would seem to indicate his plan to eliminate all fossil fuels used for electricity. If so this would be a negative to Cdn natural gas that would be stuck within Western Canada and/or continuing to push into the US when Biden is trying to switch to carbon free electricity. We recognize that there is still some ambiguity in what will be the details of policy and the Liberals aren't changing to no carbon sourced electricity at all. Let's hope so. But let's also be careful that politicians don't change language without a reason or at least with a view to setting up for some future hit. Plus Trudeau had a big warning in that same speech saying "*we will make it law to respect our new 2030 target and achieve net-zero emissions by 2050*". They plan to make it the law that Canada has to be on track for the Liberals 2030 emissions targets. This means that the future messaging will be that the Liberals have no choice but to take harder future emissions actions as it is the law. They will be just obeying the law as they will be obligated to obey the law. Everyone knows the messaging will be we have to do more get to Net Zero, that in itself will inevitably mean it will be the law if he actually does move to eliminate any carbon based electricity. So yes it's a negative, that is unless more Cdn natural gas can be exported via LNG to Asia. We believe this would be a plus to be priced against global LNG instead of Henry Hub.

Biden's global climate summit reminded there is too much risk to skip over natural gas as the transition fuel. Apart from the US and Canada, we haven't seen a sea shift to eliminating natural gas for power generation, especially from energy import dependent countries. There is a strong belief that hydrogen and battery storage will one day be able to scale up at a competitive cost to lead to the acceleration away from fossil fuels. But that time isn't yet here, at least not for energy import dependent countries. One of the key themes from last week's leader's speeches at the Biden global climate summit – to get to Net Zero, the world is assuming there wilt be technological advances/discoveries that aren't here today and that have the potential to immediately ramp up in scale. IEA Executive Director Faith Birol was blunt in his message [LINK] saying "*Right now, the data does not match the rhetoric – and the gap is getting wider*." And "*IEA analysis shows that about half the reductions to get to net zero emissions in 2050 will need to come from technologies that are not yet ready for market. This calls for massive leaps in innovation. Innovation across batteries, hydrogen, synthetic fuels, carbon capture and many other technologies.* US Special Envoy for Climate John Kerry said a similar point that half of the emissions reductions will have to come from technologies that we don't yet have at scale. UK PM Johnson [LINK] didn't say it specifically, but points to this same issue saying "*To do these things we've got to be constantly original and optimistic about new technology and new solutions whether that's crops that are super-resistant to drought or more accurate weather forecasts like those we hope to see from the UK's new Met Office 1.2bn supercomputer that we're investing in*." It may well be that the US and other self sufficient energy countries are comfortable going on the basis of assuming technology developments will occur on a timely basis. But, its clear that countries like China, India, South Korea and others are not prepared to do so. And not prepared to have the confidence to rid themselves of coal power generation. This is why there hasn't been any material change in the LNG demand outlook

We expect the IEA's blunt message that the gap is getting wider will be reinforced on May 18. We have had a consistent view on the energy transition for the past few years. We believe it is going to happen, but it will take longer, be a bumpy road and cost more than expected. This is why we believe the demise of oil and natural gas won't be as easy and fast as hoped for by the climate change side. The IEA's blunt warning on the gap widening should not be a surprise as they warned on this in June 2020. Birol's climate speech also highlighted that the IEA will release on May 18 its roadmap for how the global energy sector can reach net zero by 2050. Our SAF Group June 11, 2020 blog "*Will The Demise Of Oil Take Longer, Just Like Coal? IEA and Shell Highlight Delays/Gaps To A Smooth Clean Energy Transition*" [LINK] feature the IEA's June 2020 warning that the critical energy technologies needed to reduce emissions are nowhere near where they need to be. In that blog, we said "there was an excellent illustration of the many significant areas, or major pieces of the puzzle, involved in an energy transition by the IEA last week. The IEA also noted the progress of each of the major pieces and the overall conclusion is that the vast majority of the pieces are behind or well behind where they should be to meet a smooth timely energy transition. It is important to note that these are just what the IEA calls the "*critical energy technologies*" and does not get into the wide range of other considerations needed to support the energy transition. The IEA divides these "critical energy technologies "into major groupings and then ranked the progress of each of these pieces in its report "*Tracking Clean Energy Progress"* [LINK] by on track, more efforts needed, or not on track". Our blog included the below IEA June 2020 chart.

IEA's Progress Ranking For "Critical Energy Technologies" For Clean Energy Transition

🔴 Power	🟡 Renewable Power 🟢 Solar PV 🟡 Onshore Wind 🟡 Offshore Wind 🟡 Hydropower 🟢 Bioenergy Power Generation 🔴 Concentrating Solar Power	🔴 Geothermal 🔴 Ocean Power 🔴 Nuclear Power 🟡 Natural Gas-Fired Power 🔴 Coal-Fired Power 🔴 CCUS in Power
🔴 Fuel Supply	🔴 Methane Emissions from O&G	🔴 Flaring Emissions
🟡 Industry	🟡 Chemicals 🟡 Iron and Steel 🟡 Cement	🟡 Pulp and Paper 🟡 Aluminum 🔴 CCUS in Industry and Transformation
🟡 Transport	🟢 Electric Vehicles 🟢 Rail 🔴 Fuel Consumption of Cars and Vans 🟡 Trucks and Busses	🔴 Transport Biofuels 🟡 Aviation 🟡 International Shipping
🔴 Buildings	🔴 Building Envelopes 🔴 Heating 🟡 Heat Pumps 🟡 Cooling	🟢 Lighting 🟡 Appliances and Equipment 🟢 Data Centres and Data Transmission Networks
🟡 Energy Integration	🟡 Energy Storage 🟡 Hydrogen 🟡 Smart Grids	🟡 Demand Response 🟡 Direct Air Capture

Source: IEA

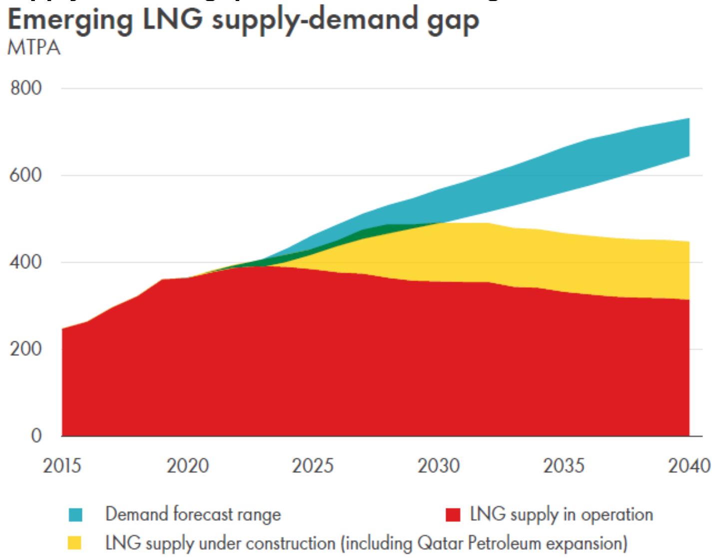
🟢 On Track 🟡 More Efforts Needed 🔴 Not on Track

Source: IEA Tracking Clean Energy Progress, June 2020

We are referencing Shell's long term outlook for LNG We recognize there are many different forecasts for LNG, but are referencing Shell' LNG Outlook 2021 from Feb 25, 2021 for a few reasons. (i) Shell's view on LNG is the key view for when and what decision will be made for LNG Canada Phase 2. (ii) Shell is one of the global leaders in LNG supply and trading. (iii) Shell provides on the record LNG outlooks every year so there is the ability to compare and make sure the outlook fits the story. It does. (iv) Shell, like other supermajors, has had to make big capex cuts post pandemic and that certainly wouldn't put any bias to the need for more capex.

Shell's March 2021 long term outlook for LNG demand was basically unchanged vs 2020 and leads to a LNG supply gap in mid 2020s Shell does not provide the detailed numbers in their Feb 25, 2021 LNG forecast. We would assume they would have reflected some delay, perhaps 1 year, at Mozambique but would be surprised if they put a 2-3 year delay in for the 5 bcf/d from Total Phase 1 +2 and Exxon Rozuma Phase 1. Compared to their LNG Outlook 2020, it looks like there was no change for their estimate of global natural gas demand growth to 2040, which looked relatively unchanged at approx. 5,000 bcm/yr or 484 bcf/d. Similarly, long term LNG demand looked unchanged to 2040 of ~700 mm tonnes (92 bcf/d) vs 360 mm tonnes (47 bcf/d) in 2020. In the 2021 outlook, Shell highlighted that the pandemic delayed project construction timelines and that the "*lasting impact expected on LNG supply not demand"*. And that Shell sees a LNG "*supply-demand gap estimated to emerge in the middle of the current decade as demand rebounds*". Comparing to 2020, it looks like the supply-demand gap is sooner.

Supply-demand gap estimated to emerge in the middle of the current decade



Source: Shell LNG Outlook 2021, Feb 25, 2021

<u>Mozambique delays are redefining the LNG markets for the 2020s: Delaying 5 bcf/d of Mozambique new LNG supply 2-3 years means a much bigger supply gap starting in 2025..</u> Even if the optimists are right, there are now delays to all major Mozambique LNG supply from LNG supply forecasts. We don't have the detail, but we believe all LNG forecasts, including Shell's LNG Outlook 2021, would have included Total's Phase 1 and Phase 2 and Exxon Rozuma Phase 1. As noted earlier, we believe that the likely impact of the Mozambique security concerns is that these forecasts would likely have to push back 1.7 bcf/d from Total Phase 1 to at least 2026, 2.0 bcf/d Exxon Rozuma Phase 1 to at least 2027, and 1.3 bcf/d Total Phase 2 to at least 2028/2029 with the real risk these get pushed back even further. 5.0 bcf/d is equal to 38 mtpa. These delays would mean there is an increasing LNG supply gap in 2025 and increasingly significantly thereafter. And even if a new greenfield LNG project is FID's right away, it wouldn't be able to step in to replace Total Phase 1 prior startup timing for 2024 or likely the market at all until at least 2027. Its why the decision on filling the gap will fall on brownfield LNG projects.

<u>And does this bigger, nearer supply gap force LNG players to look at what brownfield LNG projects they could advance?</u> A greenfield LNG project would likely take at least until 2027 to be in operations. Its why we believe the Mozambique delays will effectively force major LNG players to look to see if there are brownfield LNG projects they should look to advance. Prior to the just passed winter, no one would think Shell or other major LNG players would be considering any new LNG FIDs in 2021. All the big companies are in capital reduction mode and debt reduction mode. But Brent oil is now solidly over $60 and LNG prices hit record levels in Jan and the world's economic and oil and gas demand outlook are increasing with vaccinations. And we are starting to see companies move to increasing capex with the higher cash flows. We would not expect any major LNG players to move to FID right away. But we see them watching to see if 2021 plays out to still support this increasing LNG supply gap. And unless new mutations prevent vaccinations from returning the world to normal, we suspect that major LNG players, like other oil and gas companies, will be looking to increase

capex as they approve 2022 budgets. The outlook for the future has changed dramatically in the last 5 months. The question facing Shell and others, should they look to FID new LNG brownfield projects in the face of an increasing LNG supply gap that is going to hit faster and harder than expected a few months ago. We expect these decisions to be looked at before the end of 2021. LNG prices will be stronger, but we expect the limiting cap in Asia will be that thermal coal will be used to mitigate some LNG price pressure.

Back to Shell, does increasing LNG supply gap provide the opportunity to at least consider a LNG Canada Phase 2 FID over the next 9 months? Shell is no different than any other major LNG supplier in always knowing the market and that the oil and gas outlook is much stronger than 6 months ago. No one has been or is talking about this Mozambique impact and how it will at least force major LNG players to look at if they should FID new brownfield LNG projects to take advantage of this increasing supply gap. We don't have any inside contacts at Shell or LNG Canada, but that is no different than when we looked at the LNG markets in September 2017 and saw the potential for Shell to FID LNG Canada in 2018. We posted a September 20, 2017 blog *"China's Plan To Increase Natural Gas To 10% Of Its Energy Mix Is A Global Game Changer Including For BC LNG*" [LINK]. Last time, it was a demand driven supply gap, this time, it's a supply driven supply gap. We have to believe any major LNG player, including Shell, will be at least looking at their brownfield LNG project list and seeing if they should look to advance FID later in 2021. Shell has LNG Canada Phase 2, which would add 2 additional trains or approx. 1.8 bcf/d. And an advantage to an FID would be that Shell would be able to commit to its existing contractors and fabricators for a continuous construction cycle following on LNG Canada Phase 1 ie. to help keep a lid on capital costs. No one is talking about the need for these new brownfield LNG projects, but, unless Total gets back developing Mozambique and keeps the delay to a matter of months, its inevitable that these brownfield LNG FID internal discussions will be happening in H2/21. Especially since the oil and gas price outlook is much stronger than it was in the fall and companies will be looking to increase capex in 2022 budgets

A LNG Canada Phase 2 would be a big plus to Cdn natural gas. A LNG Canada Phase 2 FID would be a big plus for Cdn natural gas. It would allow another ~1.8 bcf/d of Cdn natural gas to be priced against Asian LNG prices and not against Henry Hub. And it would provide demand offset versus Trudeau if he moves to make electricity "emissions free" and not his prior "net zero emissions". Mozambique may be in Africa, but, unless sustained peace and security is attained, it is a game changer to LNG outlook creating a bigger and sooner LNG supply gap. And with a stronger tone to oil and natural gas prices in 2021, the LNG supply gap will at least provide the opportunity for Shell to consider FID for its brownfield LNG Canada Phase 2 and provide big support to Cdn natural gas for back half of the 2020s. And perhaps if LNG Canada is exporting 3.6 bcf/d from two phases, it could help flip Cdn natural gas to a premium to US natural gas especially if Biden is successful in reducing US domestic natural gas consumption for electricity. The next six months will be very interesting to watch for LNG markets.

Asian LNG Buyers Abruptly Change and Lock in Long Term Supply – Validates Supply Gap, Provides Support For Brownfield LNG FIDs

Posted 11am on July 14, 2021

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

<u>Sea change in Asian LNG buyers is also the best validation of the LNG supply gap and big to LNG supply FIDs.</u> Has the data changed or have the market participants changed in how they react to the data? We can't recall exactly who said that on CNBC on July 12, it's a question we always ask ourselves. In the LNG case, the data has changed with Mozambique LNG delays and that has directly resulted in market participants changing and entering into long term contracts. We can't stress enough how important it is to see Asian LNG buyers move to long term LNG deals. (i) Validates the sooner and bigger LNG supply gap. We believe LNG markets should look at the last two weeks of new long term deals for Asian LNG buyers as being the validation of the LNG supply gap that clearly emerged post Total declaring force majeure on its 1.7 bcf/d Mozambique LNG Phase 1 that was under construction and on track for first LNG delivery in 2024. Since then, markets have started to realize the Mozambique delays are much more than 1.7 bcf/d. They have seen major LNG suppliers change their outlook to a more bullish LNG outlook and, most importantly, are now seeing Asian LNG buyers changing from trying to renegotiate long term LNG deals lower to entering into long term LNG deals to have security of supply. Asian LNG buyers are cozying up to Qatar in a prelude to the next wave of Asian buyer long term deals. What better validation is there than companies/countries putting their money where their mouth is. (ii) Provides financial commitment to help push LNG suppliers to FID. We believe these Asian LNG buyers are doing much more than validating a LNG supply gap to markets. The big LNG suppliers can move to FID based on adding more LNG supply to their portfolio, but having more long term deals provides the financial anchor/visibility to long term capital commitment from the buyers. Long term contracts will only help LNG suppliers get to FID.

<u>It was always clear that the Mozambique LNG supply delay was 5.0 bcf/d, not just 1.7 bcf/d from Total Phase 1.</u> LNG markets didn't really react to Total's April 26 declaration of force majeure on its 1.7 bcf/d Mozambique LNG Phase 1. This was an under construction project that was on time to deliver first LNG in 2024. It was in all LNG supply forecasts. There was no timeline given but, on the Apr 29 Q1 call, Total said that it expected any restart decision would be least a year away. If so, we believe that puts any actual construction at least 18 months away. There will be work to do just to get back to where they were when they were forced to stop development work on Phase 1. Surprisingly, markets didn't look the broader implications, which is why we posted our 7-pg Apr 28 blog "*Multiple Brownfield LNG FIDs Now Needed To Fill New LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2?*" [LINK] We highlighted that Mozambique LNG delays were actually 5 bcf/d, not 1.7 bcf/d. And this 5 bcf/d of Mozambique LNG supply was built into most, if not all, LNG supply forecasts. The delay in Total Phase 1 would lead to a commensurate delay in its Mozambique LNG Phase 2 of 1.3 bcf/d. Total Phase 2 was to add 1.3 bcf/d. There was no firm in service date, but it was expected to

follow closely behind Phase 1 to maintain services. That would have put it originally in the 2026/2027 period. But if Phase 1 is pushed back at least 2 years, so will the follow on Phase 2, so more likely, it will be at least 2028/2029. The assumption for most, if not all, LNG forecasts was that Phase 2 would follow Phase 1. Exxon Rozuma Phase 1 of 2.0 bcf/d continues to be pushed back in timeline especially following Total Phase 1. Exxon's Mozambique Rozuma Phase 1 LNG will add 2.0 bcf/d and, pre-Covid, was originally expected to be in service in 2025. The project was being delayed and Total's force majeure has added to the delays. Rozuma onshore LNG facilities are right by Total. On June 20, we tweeted [LINK] on the Reuters report "*Exclusive: Galp says it won't invest in Rovuma until Mozambique ensures security*" [LINK]. Galp is one of Exxon's partners in Rozuma. Reuters reported that Galp said they won't invest in Exxon's Rozuma LNG project until the government ensures security, that this may take a while, they won't be considering the project until after Total has reliably resumed work on its Phase 1, which likely puts any Rozuma decision until at least end of 2022 at the earliest. Galp has taken any Rozuma Phase 1 capex out of their new capex plans thru 2025 and will have to take out projects in their capex plan if Rozuma does come back to work. This puts Rozuma more likely 2028 at the earliest as opposed to before the original expectations of before 2025. Pre-pandemic, Exxon's March 6, 2019 Investor Day noted their operated Mozambique Rovuma LNG Phase 1 was to be 2 trains each with 1.0 bcf/d capacity for total initial capacity of 2.0 bf/d with FID expected in 2019 and first LNG deliveries sometime before 2025. LNG forecasts had been assuming Exxon Rozuma would be onstream around 2025. The 2019 FID expectation was later pushed to be expected just before the March 2020 investor day. But the pandemic hit, and on March 21, 2020, we tweeted [LINK] on the Reuters story "*Exclusive: Coronavirus, gas slump put brakes on Exxon's giant Mozambique LNG plan*" [LINK] that noted Exxon was expected to delay the Rovuma FID. There was no timeline, but now, any FID is not expected until late 2022 at the earliest, that would push first LNG likely to at least 2028. What this means is that the Mozambique LNG delays are not 1.7 bcf/d but 5.0 bcf/d of projects that were in all, if not most, LNG supply forecasts. There is much more in our 7-pg blog. But Mozambique is what is driving a much bigger and sooner LNG supply gap starting ~2025 and stronger outlook for LNG prices

<u>One of the reasons why it went under the radar is that major LNG suppliers played stupid on the Mozambique impact.</u> It makes it harder for markets to see a big deal when the major LNG suppliers weren't making a big deal of Mozambique or playing stupid in the case of Cheniere in their May 4 Q1 call. In our May 9, 2021 Energy Tidbits memo, we said we had to chuckle when we saw Cheniere's response in the Q&A to its Q1 call on May 4 that they only know what we know from reading the Total releases on Mozambique and its impact on LNG markets. It's why we tweeted [LINK] "*Hmm! $LNG says only know what we read on #LNG market impact from $TOT $XOM MZ LNG delays*. *Surely #TohokuElectric & other offtake buyers are reaching out to #Cheniere. MZ LNG delays is a game changer to LNG in 2020s, see SAF Group blog. Thx @olympe_mattei @TheTerminal #NatGas".* How could they not be talking to LNG buyers for Total and /or Exxon Mozambique LNG projects. In the Q1 Q&A, mgmt was asked about Mozambique and didn't know any more than what you or I have read. Surely, they were speaking to Asian LNG buyers who had planned to get LNG supply from Total Mozambique or Exxon Rozuma Mozambique or both. Mgmt is asked "*wanted to just kind of touch on the color use talking about for these supply curve. And are you able to kind of provide any thoughts on the Mozambique and a deferral with the project of that size on 13 and TPA being deferred by we see you have you noticed any impact to the market has is there any impact for stage 3 with that capacity? Thanks*." Mgmt replies "*No. Look, I only know about the Mozambique delay with what I read as well as what you read that from total and an Exxon. And it's a sad situation and I hope everybody is safe and healthy that were there to experience that unrest but no I don't think it's, again it's a different business paradigm than what we offer. So, we offer a full value product, the customer doesn't have to invest in equity, customer doesn't have to worry about the E&P side of the business because, we've been able to both the by at our peak almost 7 Dee's a day of US NAT gas from almost a 100 different producers on 26 different pipelines and deliver it to our to facilities. So we take care of a lot of what the customer needs".*

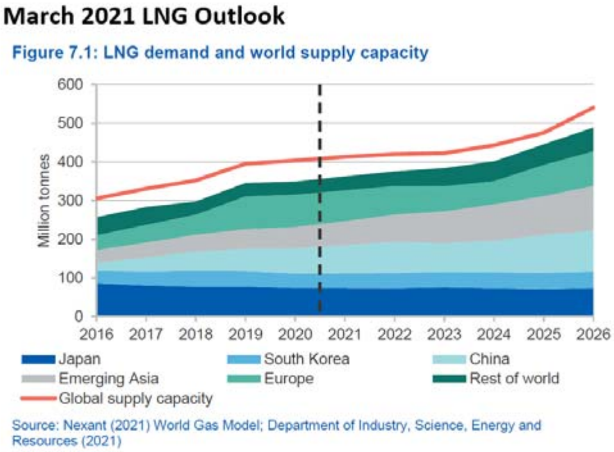
<u>There are other LNG supply delays/interruptions beyond Mozambique.</u> There have been a number of other smaller LNG delay or existing supply interruptions that add to Asian LNG buyers feeling less secure about the reliability of mid to long term LNG supply. Here are just a few examples. (i) Total Papua LNG 0.74 bcf/d. On June 8, we tweeted [LINK] *"Timing update Papua #LNG project. $OSH June 8 update "2022 FEED, 2023 FID targeting 2027 first gas". $TOT May 5 update didn't forecast 1st gas date. Papua is 2 trains w/ total capacity 0.74 bcf/d."* We followed the tweet saying [LINK] *"Bigger #LNG supply gap being created >2025. Papua #LNG originally expected FID in 2020 so 1st LNG is 2 years delayed.*

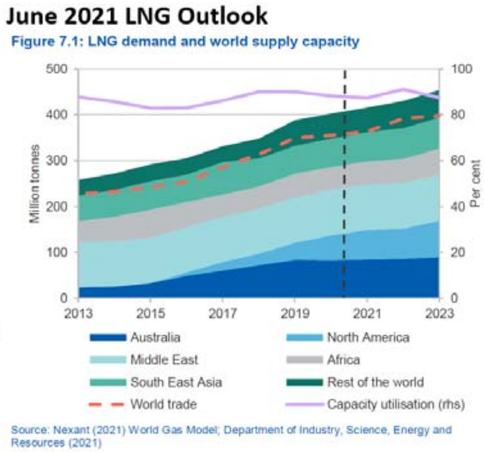
Common theme - new LNG supply is being delayed ie. [Total] Mozambique. Don't forget need capacity>demand due to normal maintenance, etc. Positive for LNG." (ii) Chevron's Gorgon. A big LNG story in H2/20 was the emergence of weld quality issues in the propane heat exchangers at Train 2, which required additional downtime for repair. Train 2 was shut on May 23 with an original restart of July 11, but the repairs to the weld quality issues meant it didn't restart until late Nov. The same issue was found in Train 1 but repairs were completed. However extended downtime for the trains led to lower LNG volumes. Gorgon produced ~2.3 bcf/d in 2019 but was down to 2.0 bcf/d in 2020. (iii) Equinor's Melkoeya 0.63 bcf/d shut down for 18 months due to a fire. A massive fire led to the Sept 28, 2020 shutdown of the 0.63 bcf/d Melkoeya LNG facility in Norway. On April 26, Equinor released "*Revised start-up date for Hammerfest LNG*" [LINK] with regard to the 0.63 bcf/d Melkoeya LNG facility. The original restart date was Oct 1, 2021 (ie. a 12 month shut down), but Equinor said "*Due to the comprehensive scope of work and Covid-19 restrictions, the revised estimated start-up date is set to 31 March 2022*". When we read the release, it seemed like Equinor was almost setting the stage for another potential delay in the restart date. Equinor had two qualifiers to this March 31, 2022 restart date. Equinor said "*there is still some uncertainty related to the scope of the work*" and "*Operational measures to handle the Covid-19 situation have affected the follow-up progress after the fire. The project for planning and carrying out repairs of the Hammerfest LNG plant must always comply with applicable guidelines for handling the infection situation in society. The project has already introduced several measures that allow us to have fewer workers on site at the same time than previously expected. There is still uncertainty related to how the Covid-19 development will impact the project progress."*

Cheniere stopped the game playing the game on June 30. Our July 4, 2021 Energy Tidbits memo noted that it looks like Cheniere has stopped playing stupid with respect to the strengthening LNG market in 2021. We can't believe they thought they were fooling anyone, especially their competitors. Bu that week, they came out talking about how commercial discussions have picked up in 2021 and it's boosted their hope for a Texas (Corpus Christi) LNG expansion. On Wednesday, Platts reported "*Pickup in commercial talks boosts Cheniere's hopes on mid-scale LNG project*" [LINK] Platts wrote "*Cheniere Energy expects to make a "substantial dent" by the end of 2022 in building sufficient buyer support for a proposed mid-scale expansion at the site of its Texas liquefaction facility, Chief Commercial Officer Anatol Feygin said June 30 in an interview." " As a result, he said, " The commercial engagement, I think it is very fair to say, has really picked up steam, and we are quite optimistic over the coming 12-18 months to make a substantial dent in that Stage 3 commercialization."* Platts also reported that Cheniere noted this has been a tightening market all year (ie would have been known by the May 4 Q1 call). Platts wrote "*We obviously find ourselves at the beginning of this year and throughout in a very tight market where prices today into Asia and into Europe are at levels that we frankly haven't seen in a decade-plus," Feygin said. "We've surpassed the economics that the industry saw post the Fukushima tragedy in March 2011, and that's happened in the shoulder period."* It's a public stance as to a more bullish LNG outlook

But we still see major LNG suppliers like Australia hinting but not outright saying that LNG supply gap is coming sooner. We have to believe Australia will be unveiling a sooner LNG supply gap in their September forecast. On June 28, we tweeted [LINK] on Australia's Resources and Energy Quarterly released on Monday [LINK] because there was a major change to their LNG outlook versus their March forecast. We tweeted "*#LNGSupplyGap. AU June fcast now sees #LNG mkt tighten post 2023 vs Mar fcast excess supply thru 2026. Why? $TOT Mozambique delays. See below SAF Apr 28 blog. Means brownfield LNG FID needed ie. like #LNGCanada Phase 2. #OOTT #NatGas".* Australia no longer sees supply exceeding demand thru 2026. In their March forecast, Australia said "*Nonetheless, given the large scale expansion of global LNG capacity in recent years, demand is expected to remain short of total supply throughout the projection period."* Note this is thru 2026 ie. a LNG supply surplus thru 2026. But on June 28, Australia changed that LNG outlook and now says the LNG market may tighten beyond 2023. Interestingly, the June forecast only goes to 2023 and not to 2026 as in March. Hmmm! On Monday, they said "*Given the large scale expansion of global LNG capacity in recent years, import demand is expected to remain short of export capacity throughout the outlook period. Beyond 2023, the global LNG market may tighten, due to the April 2021 decision to indefinitely suspend the Mozambique LNG project, in response to rising security issues. This project has an annual nameplate capacity of 13 million tonnes, and was previously expected to start exporting LNG in 2024*." 13 million tonnes is 1.7 bcf/d so they are only referring to Total Mozambique LNG Phase 1. So no surprise the change is Mozambique LNG driven but we have to believe the reason why they cut their forecast off this time at 2023 is that they are looking at trying to figure out what to forecast beyond 2023 in addition to Total Phase 1. And, importantly, we believe they will be changing their LNG forecast for more than Mozambique ie. India demand that we highlight later in the blog. They didn't say anything else specific on Mozambique but, surely they have to also be delaying the follow on Total Phase 2 of 1.3 bcf/d and Exxon Rozuma Phase 1 of 2.0 bcf/d.

Australia's LNG Outlook: March 2021 vs June 2021 Forecasts



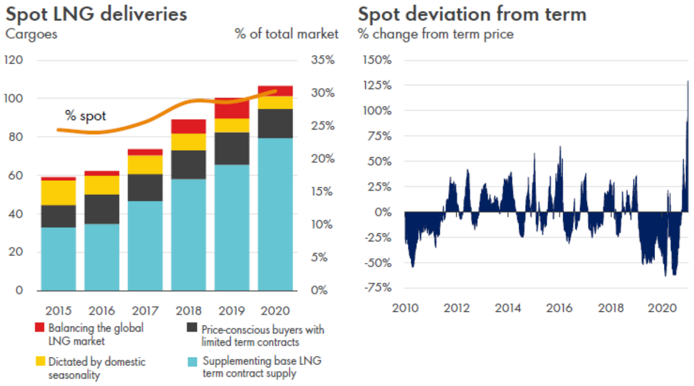


Source: Australia Resources and Energy Quarterly

<u>Clearly Asian LNG buyers did the math, saw the new LNG supply gap and were working the phones in March/April/May trying to lock up long term supply.</u> We wrote extensively on the Total Mozambique LNG situation before the April 26 force majeure as it was obvious that delays were coming to a project counted on for first LNG in 2024. Total had shut down Phase 1 development in December for 3 months due to the violence and security risks. It restarted development on Wed March 24, violence/attacks immediately resumed for 3 consecutive days, and then Total suspended development on Sat March 27. That's why no one should have been surprised by the April 26 force majeure. Asian LNG buyers were also seeing this and could easily do the same math we were doing and saw a bigger and sooner LNG supply gap. They were clearly working the phones with a new priority to lock up long term LNG supply. Major long term deals don't happen overnight, so it makes sense that we started to see these new Asian long term LNG deals start at the end of June.

<u>A big pivot from trying to renegotiate down long term LNG deals or being happy to let long term contracts expire and replace with spot/short term LNG deals</u>. This is a major pivot or abrupt turn on the Asian LNG buyers contracting strategy for the 2020s. There is the natural reduction of long term contracts as contracts reach their term. But with the weakness in LNG prices in 2019 and 2020, Asian LNG buyers weren't trying to extend long term contracts, rather, the push was to try to renegotiate down its long term LNG deals. The reason was clear, as spot prices for LNG were way less than long term contract prices. And this led to their LNG contracting strategy – move to increase the proportion of spot LNG deliveries out of total LNG deliveries. Shell's LNG Outlook 2021 was on Feb 25, 2021 and included the below graphs. The spot LNG price derivation from long term prices in 2019 and 2020 made sense for Asian LNG buyers to try to change their contract mix. Yesterday, Maeil Business News Korea reported on the new Qatar/Kogas long term LNG deal with its report "*Korea may face LNG supply cliff or pay hefty price after long-term supplies run out*" [LINK], which highlighted this very concept – Korea wasn't worried about trying to extend expiring long term LNG contracts. Maeil wrote "*Seoul in 2019 secured a long-term LNG supply contract with the U.S. for annual 15.8 million tons over a 15-year period. But even with the latest two LNG supply contracts, the Korean government needs extra 6 million tons or more of LNG supplies to keep up the current power pipeline. By 2024, Korea's long-term supply contracts for 9 million tons of LNG will expire - 4.92 million tons on contract with Qatar and 4.06 million tons from Oman, according to a government official who asked to be unnamed.*"

Spot LNG deliveries and Spot deviation from term price



Source: Shell LNG Outlook 2021 on Feb 25, 2021

Asian LNG buyers moving to long term LNG deals provide financing capacity for brownfield LNG FIDs. We believe this abrupt change and return to long term LNG deals is even more important to LNG suppliers who want to FID new projects. The big LNG players like Shell can FID new LNG supply without new long term contracts as they can build into their supply options to fill their portfolio of LNG contracts. But that doesn't mean the big players don't want long term LNG supply deals, as having long term LNG contracts provide better financing capacity for any LNG supplier. It takes big capex for LNG supply and long term deals make the financing easier.

Four Asian buyer long term LNG deals in the last week. It was pretty hard to miss a busy week for reports of new Asian LNG buyer long term LNG deals. There were two deals from Qatar Petroleum, one from Petronas and one from BP. The timing fits, it's about 3 months after Total Mozambique LNG problems became crystal clear. And as noted later, there are indicators that more Asian buyer LNG deals are coming.

Petronas/CNOOC is 10 yr supply deal for 0.3 bcf/d. On July 7, we tweeted [LINK] on the confirmation of a big positive to Cdn natural gas with the Petronas announcement [LINK] of a new 10 year LNG supply deal for 0.3 bcf/d with China's CNOOC. The deal also has special significance to Canada. (i) Petronas said "*This long-term supply agreement also includes supply from LNG Canada when the facility commences its operations by middle of the decade*". This is a reminder of the big positive to Cdn natural gas in the next 3 to 4 years – the start up of LNG Canada Phase 1 is ~1.8 bcf/d capacity. This is natural gas that will no longer be moving south to the US or east to eastern Canada, instead it will be going to Asia. This will provide a benefit for all Western Canada natural gas. (ii) First ever AECO linked LNG deal. It's a pretty significant event for a long term Asia LNG deal to now have an AECO link. Petronas wrote "*The deal is for 2.2 million tonnes per annum (MTPA) for a 10-year period, indexed to a combination of the Brent and Alberta Energy Company (AECO) indices. The term deal between PETRONAS and CNOOC is valued at approximately USD 7 billion over ten years.*" 2.2 MTPA is 0.3 bcf/d. (iii) Reminds of LNG Canada's competitive advantage for low greenhouse gas emissions. Petronas said "*Once ready for operations, the LNG Canada project paves the way for PETRONAS to supply low greenhouse gas (GHG) emission LNG to the key demand markets in Asia.*"

Qatar Petroleum/CPC (Taiwan) is 15 yr supply deal for 0.16 bcf/d. Pre Covid, Qatar was getting pressured to renegotiate lower its long term LNG contract prices. Now, it's signing a 15 year deal. On July 9, they entered in a new small long term LNG sales deal [LINK], a 15-yr LNG Sale and Purchase Agreement with CPC Corporation in Taiwan to supply it ~0.60 bcf/d of LNG. LNG deliveries are set to begin in January 2022. H.E. Minister for Energy Affairs & CEO of Qatar Petroleum Al-Kaabi said *"We are pleased to enter into this long term LNG SPA, which is another milestone in our relationship with CPC, which dates back to almost three decades. We look forward to commencing deliveries under this SPA and to continuing our supplies as a trusted and reliable global LNG provider."* The pricing was reported to be vs a basket of crudes.

<u>BP/Guangzhou Gas, a 12-yr supply deal for 0.13 bcf/d</u>. On July 9, there was a small long term LNG supply deal with BP and Guangzhou Gas (China). Argus reported [LINK] BP had signed a 12 year LNG supply deal with Guangzhou Gas (GG), a Chinese city's gas distributor, which starts in 2022. The contract prices are to be linked to an index of international crude prices. Although GG typically gets its LNG from the spot market, it used a tender in late April for ~0.13 bcf/d starting in 2022. BP's announcement looks to be for most of the tender, so it's a small deal. But it fit into the trend this week of seeing long term LNG supply deals to Asia. This was intended to secure deliveries to the firm's Xiaohudao import terminal which will become operational in August 2022.

<u>Qatar/Korea Gas is a 20-yr deal to supply 0.25 bcf/d.</u> On Monday, Reuters reported [LINK] "*South Korea's energy ministry said on Monday it had signed a 20-year liquefied natural gas (LNG) supply agreement with Qatar for the next 20 years starting in 2025. South Korea's state-run Korea Gas Corp (036460.KS) will buy 2 million tonnes of LNG annually from Qatar Petroleum".* There was no disclosure of pricing.

<u>More Asian buyer long term LNG deals (ie. India) will be coming.</u> There are going to be more Asian buyer long term LNG deals coming soon. Our July 11, 2021 Energy Tidbits highlighted how India's new petroleum minister Hardeep Singh Puri (appointed July 8) hit the ground running with what looks to be a priority to set the stage for more India long term LNG deals with Qatar. On July 10, we retweeted [LINK] "*New India Petroleum Minister hits ground running. What else w/ Qatar but #LNG. Must be #Puri setting stage for long term LNG supply deal(s). Fits sea change of buyers seeing #LNGSupplyGap (see SAF Apr 28 blog http://safgroup.ca) & wanting to tie up LNG supply. #OOTT".* It's hard to see any other conclusion after seeing what we call a sea change in LNG buyer mentality with a number of long term LNG deals this week. Puri tweeted [LINK] "*Discussed ways of further strengthening mutual cooperation between our two countries in the hydrocarbon sector during a warm courtesy call with Qatar's Minister of State for Energy Affairs who is also the President & CEO of @qatarpetroleum HE Saad Sherida Al-Kaabi".* As noted above, we believe there is a sea change in LNG markets that was driven by the delay in 5 bcf/d of LNG supply from Mozambique (Total Phase 1 & Phase 2, and Exxon Rozuma Phase 1) that was counted on all LNG supply projections for the 2020s. Puri's tweet seems to be him setting the stage for India long term LNG supply deals with Qatar.

<u>Supermajors are aggressively competing to commit 30+ year capital to Qatar's LNG expansion despite stated goal to reduce fossil fuels production</u>. It's not just Asian LNG buyers who are now once again committing long term capital to securing LNG supply, it's also supermajors all bidding to be able to commit big capex to part of Qatar Petroleum's 4.3 bcf/d LNG expansion. Qatar Petroleum received a lot of headlines following the their June 23 announcement on its LNG expansion [LINK] on how they received bids for double the equity being offered. And there were multiple reports that these are on much tougher terms for Qatar's partners. Qatar Petroleum CEO Saad Sherida Al-Kaabi specifically noted that, among the bidders, were Shell, Total and Exxon. Shell and Total have two of the most ambitious plans to reduce fossil fuels production in the 2020's, yet are competing to allocate long term capital to increase fossil fuels production. And Shell and Total are also two of the global LNG supply leaders. It has to be because they are seeing a bigger and sooner LNG supply gap.

<u>Remember Qatar's has a massive expansion but India alone needs 3x the Qatar expansion LNG capacity</u>. In addition to the competition to be Qatar Petroleum's partners, we remind that, while this is a massive 4.3 bcf/d LNG expansion, India alone sees its LNG import growing by ~13 bcf/d to 2030. The Qatar announcement reminded they see a LNG supply gap and continued high LNG prices. We had a 3 part tweet. (i) First, we highlighted [LINK] "*1/3. #LNGSupplyGap coming. big support for @qatarpetroleum expansion to add 4.3 bcf/d LNG. but also say "there is a lack of investments that could cause a significant shortage in gas between 2025-2030" #NatGas #LNG".* This is after QPC accounts for their big LNG expansion. The QPC release said "*However, His Excellency Al-Kaabi voiced concern that during the global discussion on energy transition, there is a lack of investment in oil and gas projects, which could drive energy prices higher by stating that "while gas and LNG are important for the energy transition, there is a lack of investments that could cause a significant shortage in gas between 2025-2030, which in turn could cause a spike in the gas market."* (ii) Second, this is a big 4.3 bcf/d expansion, but India alone has 3x the increase in LNG import demand. We tweeted [LINK] "*2/3. Adding 4.3 bcf/d is big, but dwarfed by items like India. #Petronet gave 1st specific forecast for what it means if #NatGas is to be 15%*

of energy mix by 2030 - India will need to increase #LNG imports by ~13 bcf/d. See SAF Group June 20 Energy Tidbits memo." (iii) Third, Qatar's supply gap warning is driven by the lack of investments in LNG supply. We agree, but note that the lack of investment is in great part due to the delays in both projects under construction and in FIDs that were supposed to be done in 2019. We tweeted [LINK] "3*/3. #LNGSupplyGap is delay driven. $TOT Mozambique Phase 1 delay has chain effect, backs up 5 bcf/d. See SAF Group Apr 28 blog Multiple Brownfield LNG FIDs Now Needed To Fill New #LNG Supply Gap From Mozambique Chaos? How About LNG Canada Phase 2? #NatGas*."

Seems like many missed India's first specific LNG forecast to 2030. Our June 20, 2021 Energy Tidbits memo highlighted the first India forecast that we have seen to estimate the required growth in natural gas consumption and LNG imports if India is to meet its target for natural gas to be 15% of its energy mix by 2030. India will need to increase LNG imports by ~13 bcf/d or 3 times the size of the Qatar LNG expansion. Our June 6, 2021 Energy Tidbits noted the June 4 tweet from India's Energy Minister Dharmendra Pradhan [LINK] reinforcing the 15% goal "*We are rapidly deploying natural gas in our energy mix with the aim to increase the share of natural gas from the current 6% to 15% by 2030."* But last week, Petronet CEO AK Singh gave a specific forecast. Reuters report "*LNG's share of Indian gas demand to rise to 70% by 2030: Petronet CEO"* [LINK] included Petronet's forecast if India is to hit its target for natural gas to be 15% of energy mix by 2030. Singh forecasts India's natural gas consumption would increase from current 5.5 bcf/d to 22.6 bcf/d in 2030. And LNG shares would increase from 50% to 70% of natural gas consumption ie. an increase in LNG imports of ~13 bcf/d from just under 3 bcf/d to 15.8 bcf/d in 2030. Singh did not specifically note his assumption for India's natural gas production, but we can back into the assumption that India natural gas production grows from just under 3 bcf/d to 6.8 bcf/d. It was good to finally see India come out with a specific forecast for 2030 natural gas consumption and LNG imports if India is to get natural gas to 15% of its energy mix in 2030. Petronet's Singh forecasts India natural gas consumption to increase from 5.5 bcf/d to 22.6 bcf/d in 2030. This forecast is pretty close to our forecast in our Oct 23, 2019 blog "*Finally, Some Visibility That India Is Moving Towards Its Target For Natural Gas To Be 15% Of Its Energy Mix By 2030*". Here part of what we wrote in Oct 2019. "*It's taken a year longer than we expected, but we are finally getting visibility that India is taking significant steps towards India's goal to have natural gas be 15% of its energy mix by 2030. On Wednesday, we posted a SAF blog [LINK] "Finally, Some Visibility That India Is Moving Towards Its Target For Natural Gas To Be 15% Of Its Energy Mix By 2030".* Our 2019 blog estimate was for India natural gas demand to be 24.0 bcf/d in 2030 (vs Singh's 22.6 bcf/d) and for LNG import growth of +18.4 bcf/d to 2030 (vs Singh's +13 bcf/d). The difference in LNG would be due to our Oct 2019 forecast higher natural gas consumption by 1.4 bcf/d plus Singh forecasting India natural gas production +4 bcf/d to 2030. Note India production peaked at 4.6 bcf/d in 2010.

Bigger, nearer LNG supply gap + Asian buyers moving to long term LNG deals = LNG players forced to at least look at what brownfield LNG projects they could advance and move to FID. All we have seen since our April 28 blog is more validation of the bigger, nearer LNG supply gap. And now market participants (Asian LNG buyers) are reacting to the new data by locking up long term supply. Cheniere noted how the pickup in commercial engagement means they "*are quite optimistic over the coming 12-18 months to make a substantial dent in that Stage 3 commercialization."* Cheniere can't be the only LNG supplier having new commercial discussions. It's why we believe the Mozambique delays + Asian LNG buyers moving to long term deals will effectively force major LNG players to look to see if there are brownfield LNG projects they should look to advance. Prior to March/April, no one would think Shell or other major LNG players would be considering any new LNG FIDs in 2021. Covid forced all the big companies into capital reduction mode and debt reduction mode. But Brent oil is now solidly over $70, and LNG prices are over $13 this summer and the world's economic and oil and gas demand outlook are increasing with vaccinations. And we are starting to see companies move to increasing capex with the higher cash flows. The theme in Q3 reporting is going to be record or near record oil and gas cash flows, reduced debt levels and increasing returns to shareholders. And unless new mutations prevent vaccinations from returning the world to normal, we suspect that major LNG players, like other oil and gas companies, will be looking to increase capex as they approve 2022 budgets. The outlook for the future has changed dramatically in the last 8 months. The question facing major LNG players like Shell is should they look to FID new LNG brownfield projects in the face of an increasing LNG supply gap that is going to hit faster and harder and Asian LNG buyers prepared to do long term deals. We expect these decisions to be looked at before the end of 2021 for 2022 capex budget/releases. One wildcard that could force these decisions sooner is the already stressed out global supply chain. We have to believe that discussion there will be pressure for more Asian LNG buyer long term deals sooner than later.

For Canada, does the increasing LNG supply gap provide the opportunity to at least consider a LNG Canada Phase 2 FID over the next 6 months? Our view on Shell and other LNG players is unchanged since our April 28 blog. Shell is no different than any other major LNG supplier in always knowing the market and that the oil and gas outlook is much stronger than 9 months ago. Even 3 months post our April 28 blog, we haven't heard any significant talks on how major LNG players will be looking at FID for new brownfield LNG projects. We don't have any inside contacts at Shell or LNG Canada, but that is no different than when we looked at the LNG markets in September 2017 and saw the potential for Shell to FID LNG Canada in 2018. We posted a September 20, 2017 blog *"China's Plan To Increase Natural Gas To 10% Of Its Energy Mix Is A Global Game Changer Including For BC LNG"* [LINK]. Last time, it was a demand driven supply gap, this time, it's a supply driven supply gap. We have to believe any major LNG player, including Shell, will be at least looking at their brownfield LNG project list and seeing if they should look to advance FID later in 2021. Shell has LNG Canada Phase 2, which would add 2 additional trains or approx. 1.8 bcf/d. And an advantage to an FID would be that Shell would be able to commit to its existing contractors and fabricators for a continuous construction cycle following on LNG Canada Phase 1 ie. to help keep a lid on capital costs. We believe maintaining a continuous construction cycle is even more important given the stressed global supply chain. No one is talking about the need for these new brownfield LNG projects, but, unless some major change in views happen, we believe its inevitable that these brownfield LNG FID internal discussions will be happening in H2/21. Especially since the oil and gas price outlook is much stronger than it was in the fall and companies will be looking to increase capex in 2022 budgets.

A LNG Canada Phase 2 would be a big plus to Cdn natural gas. LNG Canada Phase 1 is a material natural gas development as its 1.8 bcf/d capacity represents approx. 20 to 25% of Cdn gas export volumes to the US. The EIA data shows US pipeline imports of Cdn natural gas as 6.83 bcf/d in 2020, 7.36 bcf/d in 2019, 7.70 bcf/d in 2018, 8.89 bcf/d in 2017, 7.97 bcf/d in 2016, 7.19 bcf/d in 2015 and 7.22 bcf/d in 2014. A LNG Canada Phase 2 FID would be a huge plus for Cdn natural gas. It would allow another ~1.8 bcf/d of Cdn natural gas to be priced against pricing points other than Henry Hub. And it would provide demand offset versus Trudeau if he moves to make electricity "emissions free" and not his prior "net zero emissions". Mozambique has been a game changer to LNG outlook creating a bigger and sooner LNG supply gap. And with a stronger tone to oil and natural gas prices in 2021, the LNG supply gap will at least provide the opportunity for Shell to consider FID for its brownfield LNG Canada Phase 2 and provide big support to Cdn natural gas for the back half of the 2020s. And perhaps if LNG Canada is exporting 3.6 bcf/d from two phases, it could help flip Cdn natural gas to a premium vs US natural gas especially if Biden is successful in reducing US domestic natural gas consumption for electricity. The next six months will be very interesting to watch for LNG markets and Cdn natural gas valuations. Imagine the future value of Cdn natural gas is there was visibility for 3.6 bcf/d of Western Canada natural gas to be exported to Asia.

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https://tass.ru/ekonomika/14667385
EDUCATIONAL MARATHON "NEW HORIZONS"
MAY 19, 01:40Updated May 19, 02:39

About half of Russian gas buyers have opened ruble accounts to pay

Deputy Prime Minister Alexander Novak noted that the final list of buyers who agreed to pay for gas in rubles will become known in the coming days.

MOSCOW, May 19. /TASS/. About half of Gazprom Export's 54 client companies have already opened ruble accounts to pay for Russian gas supplies. The final list of buyers who have switched to paying for gas in rubles will become known in the coming days, said Russian Deputy Prime Minister Alexander Novak.
“We have about 54 companies that have contracts with Gazprom Export, there are large, medium and small companies. According to my information, about half of this number have already opened special foreign currency accounts in our authorized bank (Gazprombank - TASS note). and ruble in order to ensure the receipt of foreign exchange earnings, conversion into rubles and payment for the supplied gas in rubles," Novak said during a speech at the New Horizons marathon organized by the Znanie society.
According to the Deputy Prime Minister, the final list of buyers who agreed to pay for gas in rubles, and those who refused to pay, will become known in the coming days. "There are certain payment dates, there are advances, there is an advance payment, there is an actual payment for the supplied gas. This is a mechanism that is extended in time - for example, deliveries in April, for which payment is finally made in May," he explained.
Novak called the introduction of payment for gas in rubles as a forced measure, this is necessary to maintain export earnings.
On March 31, Russian President Vladimir Putin signed a decree that from April 1 defines a new procedure for paying for Russian gas supplies by buyers from unfriendly countries. Such states must transfer funds in foreign currencies to Gazprombank, which will buy rubles on exchanges and transfer them to special ruble accounts of importers. At the same time, Russia will continue to supply gas in volumes and at prices fixed in earlier contracts.

https://www.qna.org.qa/en/News-Area/News/2022-05/20/0037-qatar-and-germany-sign-agreement-on-energy-partnership
20 May 2022

Qatar and Germany Sign Agreement on Energy Partnership

Berlin, May 20 (QNA) - HE Minister of State for Energy Affairs Eng. Saad bin Sherida Al Kaabi and HE German Minister for Economic Affairs and Climate Action, Dr. Robert Habeck signed today a Joint Declaration of Intent to further promote the cooperation between the two countries in the field of energy, in the framework of the visit HH the Amir Sheikh Tamim bin Hamad Al-Thani to Germany as part of His Highness' European tour.

The agreement builds on the ongoing successful dialogue between the two countries and is expected to develop into a mutually beneficial Energy Partnership between Qatar and Germany through building LNG trade relations as well as pursuing the climate action ambitions of both countries.

It is expected that such partnership will further strengthen Germanys energy supply diversification through LNG imports from Qatar, while also facilitating bilateral cooperation in hydrogen and renewable sources.

Both countries will also further benefit from an intensified knowledge exchange on topics related to the energy transition, ranging from the expansion of renewable energies, its regulation and system integration, to energy efficiency and demand-side management.

The agreement is the culmination of the continuous dialogue between the two countries, covering a number of important energy-related issues and potential for deepened cooperation.

Germany aims to diversify its gas supply with the help of liquefied natural gas (LNG) in order to foster energy security during the transition period towards carbon neutrality.

The Energy Partnership between Qatar and Germany will support high-level intergovernmental dialogue on energy-related topics. It will build bridges between both countries and bring together stakeholders from the public and private sectors.

In this context, Qatar's Minister of State for Energy Affairs and the German Federal Ministry for Economic Affairs and Climate Action (BMWK) as respective responsible authorities will meet regularly. The two sides are progressing a roadmap for the Energy Partnership outlining the structure and actions of the cooperation, including the formation of two working groups.

The Working Group on LNG and hydrogen will support the development of LNG and hydrogen trade relations between Qatar and Germany and will provide a forum for discussion around questions regarding necessary infrastructure and regulatory affairs. The Working Group will also promote the cooperation between private sector stakeholders active along the LNG and hydrogen value chain.

While the Working Group on renewables, energy efficiency and demand-side management will focus on the expansion of renewable energy capacities including related topics such as infrastructure and electricity markets. The working group will create a forum for stakeholders from both countries to engage in a dialogue on necessary framework conditions, the development of infrastructure, and technology. The working group will also facilitate the exchange on energy efficiency solutions that contribute to the decarbonization of the building, transport, and industrial sectors. Demand-side management solutions that support the stabilization of electricity systems will also be part of the scope.

The new Energy Partnership between Qatar and Germany is the latest link in a successful network aiming to further progress the global energy transition. (QNA) https://www.rystadenergy.com/newsevents/news/press-releases/top-of-the-charts-permian-delaware-output-to-hit-record-in-2022-driven-by-private-operators-and-soaring-demand/

Top of the charts: Permian Delaware output to hit record in 2022, driven by private operators and soaring demand

May 19, 2022

Share

Total hydrocarbon production in the Permian Delaware Basin, the top-producing play in the Permian, will hit a record 5.7 million barrels of oil equivalent per day (boepd) average in 2022, according to Rystad Energy research. Spurred on by high oil prices and appealing well economics, total production is set to grow by around 990,000 boepd, almost half of which – 433,000 boepd – is new oil production.

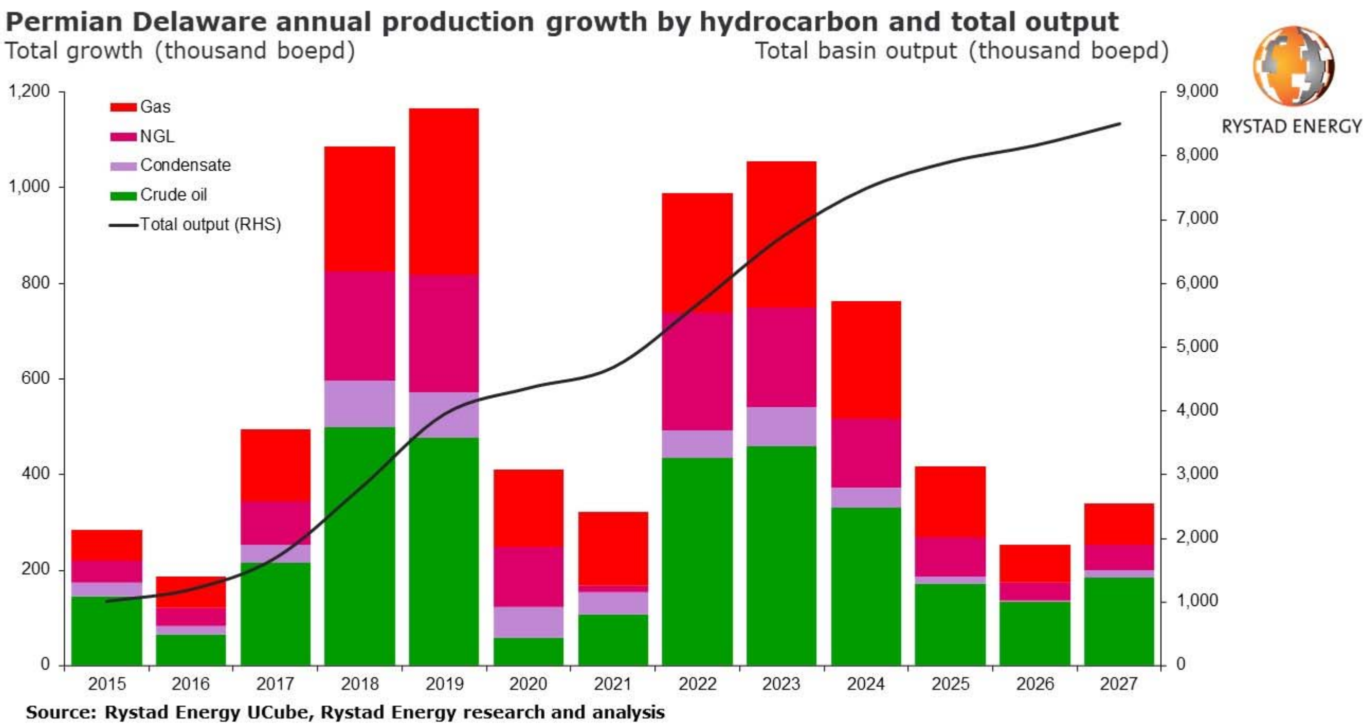
Investments in the basin are also expected to jump, surging more than 40% from 2021 levels to reach $25.7 billion this year. A significant contributor to this growth is the majors – ExxonMobil, Chevron, BP and ConocoPhillips – who last year cut Permian Delaware investments by 33% vs. 2020. This year, the majors are expected to raise investments in the basin by 60%, bringing their total to $7.4 billion. Private operators' share is also set to balloon in 2022, rising 50% from $5.8 billion in 2021 to nearly $9 billion in 2022. Cost inflation on the services side, which is expected to range between 10% and 15% this year, is also a contributor to the higher spend levels.

The operator-specific findings are based on Rystad Energy's research of a peer group of 61 operators in the basin. The forecasts are based on a scenario in which West Texas Intermediate (WTI) oil futures averages $106 per barrel in 2022 before dropping to $70 per barrel next year and to $50 per barrel towards 2025.

"The Permian Delaware has emerged as the top oil-producing play in the US shale patch, outpacing growth in other oil-rich regions. With oil prices expected to remain elevated, 2022 promises to be another outstanding year for production growth in the region," says Veronika Meyer, Rystad Energy vice president.

Private operators will be a significant driver of the record growth as they have reacted quickly to the elevated market, increasing activity and output. Private companies more than doubled their collective rig count in the basin, from 30 to 73 in a little over a year, between January 2021 to April 2022. Private players are also less focused than their public counterparts on well optimization and environmental objectives – such as cutting flaring levels – which have emerged as significant play-level trends in recent years.

This production growth may seem like a reaction to the US government's call for increased supply, but most of the drilling and capital expansion was already guided by the companies at the end of 2021, before Russia's invasion of Ukraine. Public operators have been reluctant to chase higher production growth and remain focused on capital discipline in the face of cost inflation and labor and equipment shortages.



Learn more with Rystad Energy's UCube.

Private operators are contributing significantly to drilling activity in the play. The total number of spudded wells increased by 33% last year, with private operators making up 46% of the total. The well count is estimated to grow by another 32% in 2022 and, based on current activity levels, private players are likely to contribute about 43% this year. However, their contribution is expected to decrease towards 2030 as many of these companies hold relatively small acreage positions and, consequently, may start to run out of locations at the current pace of activity.

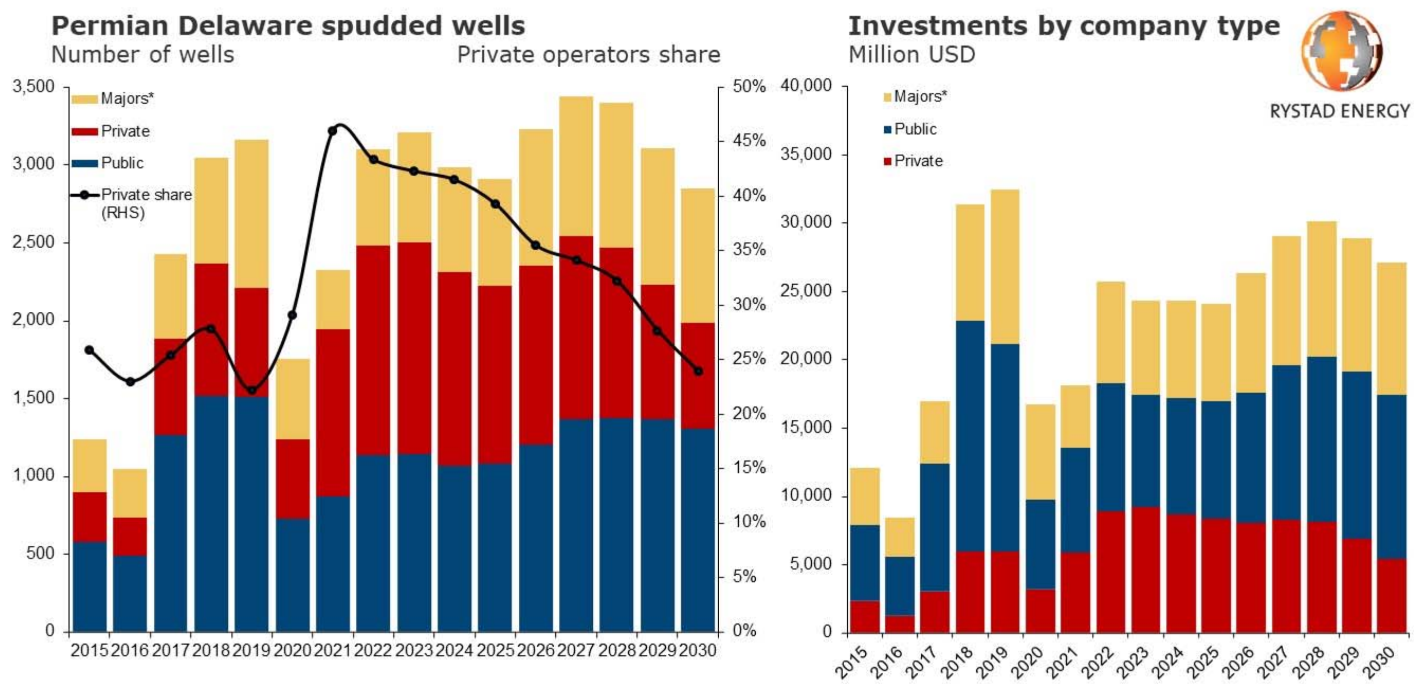
Majors, driven primarily by ExxonMobil in particular, are also actively increasing their drilling efforts in 2022. This peer group is expected to increase drilling by 60% this year and contribute about 20% of total activity in the play, up from 17% last year.

The lay of the land

The Permian Delaware play extends across Lea and Eddy counties in southeastern New Mexico and into counties in western Texas. Acreage in the Delaware West sub-basin, including Culberson and western Reeves counties, tends to have higher gas content. Estimated ultimate recovery (EUR) rates – the volume of hydrocarbons potentially recoverable in a given reserve or well – can be relatively high in this region, which helps explain a temporary shift in activity from several producers towards gassier areas in 2020, when oil prices were at their nadir. While acreage in Texas and New Mexico is being actively developed, New Mexico has gained momentum over the last couple of years, with companies that hold acreage in the state rapidly increasing activity.

Activity in the basin before 2014 was primarily dominated by vertical drilling, but the share of horizontal drilling has since picked up rapidly, fueling the growth. Production additions in 2019 reached nearly 1.2 million boepd year-over-year. Even when the Covid-19 pandemic battered the shale industry, the Permian Delaware delivered between 300,000 and 400,000 boepd in growth in 2020 and 2021.

However, the play's production dynamics have changed since the pre-Covid-19 era. The majors largely dominated the growth trend before 2020 – ExxonMobil, Chevron and BP – and other public companies that focused on meeting their aggressive production growth targets and investing cash flow. This time around, public players are maintaining capital discipline, and prioritizing returns to shareholders while keeping reinvestment rates at between 30% and 40%. High oil prices have incentivized several large producers such as EOG Resources and Occidental Petroleum to increase activity further from last year's fourth quarter and still deliver on their reinvestment objectives. Even so, it is the private operators that have stepped up the game since the beginning of last year, responding quickly to higher oil prices. Mewbourne Oil Company, which is focused on developing acreage in New Mexico, is now running 16 rigs in the Delaware, second only to EOG, while Tap Rock Resources made it to the top five drillers with a stable seven rig count in the play.



Source: Rystad Energy UCube, Rystad Energy research and analysis
*Majors includes portfolio of ExxonMobil, Chevron, BP and ConocoPhillips (ex-Shell acreage)

For more analysis, insights and reports, clients and non-clients can apply for access to Rystad Energy's Free Solutions and get a taste of our data and analytics universe.

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MAY 19, 01:21Updated May 19, 03:08

Novak: Russia will ensure energy security under any circumstances

Deputy Prime Minister said that Russia is restoring oil exports

Deputy Prime Minister of the Russian Federation Alexander Novak

MOSCOW, May 19. /TASS/. In Russia, energy security will be ensured under any circumstances, the country produces enough energy, both for domestic consumption and for export. This was announced by Deputy Prime Minister of the Russian Federation Alexander Novak during the New Horizons marathon organized by the Knowledge society.

"The most important task for our energy industry is to provide, first of all, our domestic market with high-quality and affordable energy sources. Since we produce enough energy for domestic consumption, as well as for export, in terms of the energy security of our country, we will independently from any action are provided in full," he said.

At the same time, the energy crisis in Europe is just beginning, Novak believes. "What will happen by the end of the year, or next year - there are big uncertainties. In my opinion, it will be worse, because the prices are very high, because there are risks of short deliveries," the Deputy Prime Minister added.

Oil export

Russia is restoring oil exports and redirecting it to new markets, we cannot talk about a crisis in the industry, Novak said.

"We work in constant contact with our oil and gas companies, and we do not see any serious problems that would indicate that our industry is in some kind of crisis. Yes, we received some kind of shock that allowed us to find new points of balance and reach new export opportunities, redirecting, among other things, energy resources to new markets, creating new supply chains. We are additionally looking for new partners, respectively, we are solving financing issues - the problems that the industry has faced as a result of sanctions," he said during the marathon " New Horizons", organized by the society "Knowledge".

“Nevertheless, I believe that our companies have reformatted in two months, and today they feel quite confident. The domestic market (situation) does not, in principle, affect exports, we are practically restoring it today,” Novak added.

Increase in oil production in May

Russia increased oil production in May by 200-300 thousand barrels per day (b / d) after falling in April, in June, the recovery in production will continue, Novak said.

According to the forecast of the Ministry of Economic Development, in 2022, Russian oil exports will decrease by 1.2% - to 228.3 million tons after 231 million tons in 2021 and to 224.8 million tons in 2023. In 2024-2025, exports are expected to grow to 228.1 million tons and 229.5 million tons, respectively.

Russia increased oil production in May by 200-300 thousand barrels per day (b / d) after falling in April. Production recovery will continue in June, Novak said.

“Yes, somewhere in March-April, as a result of the shock, we received a slight decrease in production and oil refining. This was expressed in approximately 10-14% figures,” he said. production is increasing. If in April we reduced production by about 1 million barrels per day, in May we already increased by 200-300 thousand b / d. And we expect that further recovery will also take place in June."

Novak also noted that the situation in Russia with the extraction and export of energy resources is now stable.

Saudi Aramco ‘mulling $30bn listing of trading arm’
2022-05-17 17:22:28.100 GMT

(The Times)

Saudi Aramco is said to be considering a spin-off of its trading arm through a separate listing that could value the division at more than $30 billion.

The Saudi state oil giant, which listed 1.5 per cent of its shares in Riyadh in 2019, last week overtook Apple to become the world’s most valuable company at more than $2.4 trillion.

It is working with banks including Goldman Sachs, JP Morgan and Morgan Stanley on a potential listing of Aramco Trading and could sell a 30 per cent stake in the division, Bloomberg reported today.

A surge in oil prices after Russia’s invasion of Ukraine helped to propel Aramco to a net income of $39.5 billion in the first three months of the year, up from $21.7 billion a year earlier.

A listing could shed new light on the opaque world of oil trading at a time when many oil companies’ trading divisions are making bumper but undisclosed profits by cashing in on extreme volatility.

Companies such as Shell and BP have reported strong performances by their trading divisions but decline to provide profit figures. Aramco has not disclosed profits for Aramco Trading or commented on its performance.

Saudi Aramco has exclusive rights to produce Saudi Arabia’s enormous oil reserves. Its listing on Saudi’s Tadawul exchange in December 2019 ranked as the world’s biggest initial public offering, raising $25.6 billion, and Aramco later sold more shares to take the total to $29.4 billion. The proceeds were ploughed into the Public Investment Fund (PIF), the sovereign wealth fund that Crown Prince Mohammed bin Salman is using to diversify the Saudi economy away from its reliance on oil.

Bin Salman said last year that there would be further Aramco share offerings, with the cash to be transferred to the PIF. Proceeds from a spin-off of the trading unit would also be expected to be placed into the fund.

Aramco was said last year to be considering selling a stake in its retail fuels and lubricants business, possibly also via a spin-off listing.

-0- May/17/2022 17:22 GMT

To view this story in Bloomberg click here:
https://blinks.bloomberg.com/news/stories/RC1EXGCEX0QO

BN 05/20 01:57 China in Talks With Russia to Buy Oil for Strategic Reserves (1)

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China in Talks With Russia to Buy Oil for Strategic Reserves (2)
2022-05-20 08:52:03.886 GMT

By Anna Kitanaka
(Bloomberg) -- China is seeking to replenish its strategic crude stockpiles with cheap Russian oil, a sign Beijing is strengthening its energy ties with Moscow just as Europe works toward banning imports due to the war in Ukraine.
Beijing is in discussions with Moscow to buy additional supplies, according to people with knowledge of the plan who asked not to be named as the matter is private. Crude would be used to fill China's strategic petroleum reserves, and talks are being conducted at a government level with little direct involvement from oil companies, said one person.
Oil has rallied this year following Russia's invasion of its smaller neighbor, but the price of its own crude has tumbled as buyers step away to avoid damaging their reputation or being swept up in financial sanctions. That's provided an opportunity for China to cheaply replenish its vast strategic reserves, which are typically tapped during times of emergencies or sudden disruptions.
"China and Russia always engage in normal economic cooperation and trade on the basis of mutual respect, equity and mutual benefit," Chinese Foreign Ministry spokesman Wang Wenbin said at a regular press briefing on Friday. "I want to stress that unilateral sanctions are not conducive to resolving issues, but constitute defiance of the existing economic system and rules."
In order to deal with skyrocketing oil and gas prices, China has organized various ways to import the fuels, the National Development and Reform Commission said in statement on Thursday. The foreign ministry for Russia didn't immediately respond to a request for comment.
Details on volumes or terms of a potential deal haven't been decided yet, and there's no guarantee an agreement will be concluded, said one person.
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The US and UK have pledged to ban Russian oil imports and the European Union is discussing similar steps, but crude from the OPEC+ producer is still flowing to willing buyers including

India and China. For the Asian nations, the heavily discounted oil is an opportunity too good to pass up, part of the reason why China has continued to take cargoes originating from Iran and Venezuela.

Refiners in China have been quietly buying Russian crude since the invasion, even as a Covid-19 resurgence dents consumption in the world's biggest crude importer. Apparent oil demand last month slumped 6.7% year-on-year as strict lockdowns confined millions to their homes. The outbreak has capped further gains in oil prices, although Brent is still up more than 40% this year.

China doesn't publicly disclose the size of its crude inventories, but a number of companies use tools such as satellites to estimate supplies. Some forecast the nation has the capacity to store more than 1 billion barrels of combined commercial and strategic stockpiles. Third-party estimates also indicate supplies have swelled recently due to the Covid-19 outbreak.

"There is still room to replenish stocks and it would be a good opportunity for them to do so, if they can be sourced on commercially attractive terms," said Jane Xie, a senior oil analyst at data and analytics firm Kpler.

Tapping Reserves

Kpler estimates overall stockpiles are at 926.1 million barrels, up from 869 million barrels in mid-March -- but still 6% lower than a record in September 2020. By comparison, the US Strategic Petroleum Reserve has a capacity of 714 million barrels. It currently holds about 538 million barrels.

China sold crude from its strategic reserves last year in a historic move to try and tame oil prices, which had soared as major economies rebounded from the pandemic. The action had little lasting impact, only depleting stockpiles and raising the prospect that China would need to restock at higher prices.

Not long after the sales, the US named China along with other major Asian oil consumers including India and Japan as participants in a coordinated release of strategic reserves.

It's unclear whether China tapped its emergency stockpiles as part of this US-led initiative.

--With assistance from Philip Glamann and Colum Murphy.

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What does the current global energy crisis mean for energy investment?

Fatih Birol

Fatih Birol

Executive Director at International Energy Agency (IEA)

Published May 13, 2022

As well as causing a grave humanitarian crisis, Russia's unprovoked **invasion of Ukraine** has had far-reaching impacts on the global energy system, disrupting supply and demand patterns and fracturing long-standing trading relationships.

It has pushed up energy prices for many consumers and businesses around the world, hurting households, industries and entire economies – most severely in the developing world where people can least afford it. And it threatens to derail efforts to tackle the world's critical challenge of reducing global greenhouse emissions quickly enough to avoid catastrophic climate change. We cannot allow tackling climate change to become yet another victim of Russia's aggression.

The global energy crisis and market tumult set off by Russia's actions have significantly complicated the picture for governments, companies and investors as they try to determine what energy projects to encourage, develop or fund. As the leading global authority responsible for energy security and the clean energy transition, the IEA has been providing the data, analysis and policy advice to help decision-makers around the world – especially governments – make well-informed choices on energy investments that support secure and affordable energy supplies while driving down emissions.

We will publish a range of new insights next month in our **World Energy Investment 2022** report, which will take into account the rapid changes the global energy system has experienced since last year's edition, and the upheaval of the past few months in particular. These issues are at the heart of consequential deliberations taking place around the world today – in government ministries, parliamentary debates, company shareholder meetings and at international gatherings, including the World Economic Forum Annual Meeting in Davos later this month.

A world falling short on climate goals and reliable energy supplies

Even before Russia's invasion of Ukraine, the world was far off track from achieving its shared energy and climate goals. Global CO2 emissions **reached an all-time high** in 2021, and fuel markets were already **showing signs** of strain. At the same time, investment in clean energy technologies has remained far below the levels that are needed to bring emissions down to net zero by mid-century – a critical but formidable challenge that the world needs to overcome if it is to have any chance of limiting global warming to 1.5 C.

Positive steps were taken at the COP26 Climate Change Conference in Glasgow in November – and the amount of clean energy spending in governments economic recovery plans **is increasing** – but we are not yet seeing the massive level of policy and investment efforts worldwide that would be needed to move us onto a net zero pathway. Governments, companies and investors all need to do much more – and fast – in order to bring more affordable and clean energy into the system.

At the same time, Russia's invasion of Ukraine appears likely to lead to a substantial and prolonged reduction in Russian energy supplies, most notably to Europe. Russia was the world's largest oil and natural gas exporter in 2021. The disruption has thrown energy markets into turmoil and created major energy security and energy poverty risks worldwide today.

Investing to strengthen energy security and reach net zero

A key question is what today's energy crisis means for fossil fuel investments if we are still to achieve our collective climate goals. Are today's sky-high fossil fuel prices a signal to invest in additional supply or a further reason to invest in alternatives?

In the IEA's landmark **Roadmap to Net Zero Emission by 2050** published in May 2021, the analysis indicated that a massive surge in investment in renewables, energy efficiency and other clean energy technologies could drive declines in global demand for fossil fuels on a scale that would as a result require no investment in new oil and gas fields.

The need for this clean energy investment surge is greater than ever today. As the IEA has repeatedly stated, the key solution to today's energy crisis – and to get on track for net zero emissions – is a dramatic scaling up of energy efficiency and clean energy.

The supply disruptions triggered by Russia's war

Russia's invasion of Ukraine has brought major disruptions to the global energy system. Taking these into account, it is clear to us that any immediate shortfalls in fossil fuel production from Russia will need to be replaced by production elsewhere – even in a world working towards net zero emissions by 2050.

On the production side, the most suitable options for this are projects with short lead times and quick payback periods. This includes, for example, shale oil and gas (which can be brought to market quickly), extending production from existing fields, and making use of natural gas that is currently flared and vented.

Some new infrastructure may also be needed to facilitate the diversification of supply away from Russia. For example, many European countries are looking to install LNG import terminals and, with careful investment planning, there are opportunities for these to facilitate future imports of hydrogen or ammonia.

However, we must not lose sight of the fact that lasting solutions to today's crisis lie in reducing demand via the rapid deployment of renewables, energy efficiency and other low emissions technologies, as highlighted in the IEA's recent **10-Point Plan to Reduce the European Union's Reliance on Russian Natural Gas**. This includes making the most of nuclear power in countries around the world that see a role for it in their energy mix.

Nobody should imagine that Russia's invasion can justify a wave of new large-scale fossil fuel infrastructure in a world that wants to limit global warming to 1.5 C. We understand why some countries and companies are looking to move ahead with the exploration and approval of large longer-term supply projects. But it typically takes many years for such projects to start producing, so they are not a good match for our immediate energy security needs. Long-lived assets also carry a dual risk of locking in fossil fuel use that would prevent the world from meeting its climate goals – or of failing to recover their upfront development costs if the world is successful in bringing down fossil demand quickly enough to reach net zero by mid-century.

The repercussions of today's turmoil

The higher near-term emissions we are witnessing today have serious consequences for our efforts to meet our climate goals. They need to be compensated for through even greater emissions reductions in the coming decades to remain within the stringent emissions budgets required to reach net zero by 2050. Today's crisis risks passing an even larger environmental challenge to our younger and future generations – and it is imperative that we strive to make the additional burden as light as possible rather than adding to it.

The extraordinary financial windfall for the oil and gas sector from today's high prices could provide a major boost to clean energy investment. Global net income from oil and gas production in 2022 is anticipated to be nearly $2 trillion higher than in 2021 and two-and-a-half times the average of the past five years, according to new IEA analysis for our **World Energy Investment 2022** report that will be published in June. If the global oil and gas industry were to invest this additional income in low emissions fuels, such as hydrogen and biofuels, it would fund all of the investment needed in these fuels for the remainder of this decade in the Net Zero Emissions by 2050 Scenario. For oil and gas producing economies, this could be a once-in-a-generation opportunity to diversify their economic structures to adapt to the new global energy economy that is emerging.

There are many ways to respond to the immediate energy crisis that can pave the way to a cleaner and more secure future. I believe the world does not need to choose between solving the energy crisis and the climate crisis – and it cannot afford to ignore either of them.

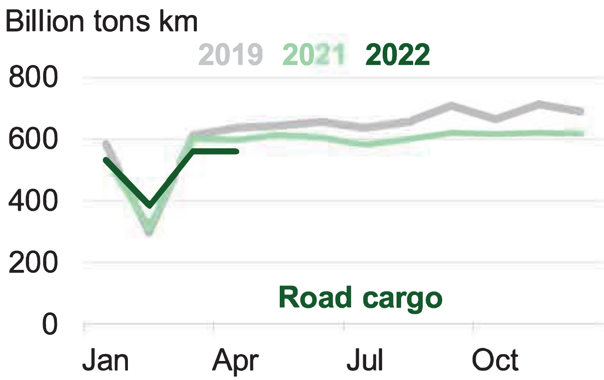
China oil markets monthly snapshot

	Indicator	Value	Change		Last update	Comment
Demand	**Traffic**		**M-o-M**	**Y-o-Y**		• Oil demand sees an uneven recovery in May as Shanghai gradually lifts restrictions while Beijing imposes new ones. • Road congestion levels climbed back to January 2021 levels, thanks to the strong rebound in tier-2 and tier-3 cities. This provides some relief to the weak gasoline consumption. Diesel demand still faces headwind as the logistics industry prosperity index plunged to 44% in April, down by 23.6% year-on-year. • The recovery of jet fuel consumption looks the most challenging. Despite an uptick in flight schedules from April-lows, the cancellation rate of China's 20 biggest airports has been hovering at around 70% in the past five weeks. For further detail, see the ***demand*** section from page 3.
	Road freight volume	560 bln tons-km	+0%	-6%	Apr 2022	
	Air passenger traffic	24 bln ppl-km	-51%	-67%	Mar 2022	
	Port cargo throughput	1.27 bln tons	+0%	-4%	Apr 2022	
	High frequency index		**W-o-W**	**M-o-M**		
	Road congestion index	104%	+1 ppt	+8 ppt	May 18, 2022	
	Subway traffic index	32%	+2 ppt	-16 ppt	May 18, 2022	
	Flight schedules		Increase	Decrease	May 17-23, 2022	
Refining	**Refinery utilization**		**M-o-M**	**Y-o-Y**		• Refinery throughput in April dropped 11% year-on-year, registering a loss of 1.5 million barrels per day. Run rates from independent refiners edged up slightly to 55% in mid-May, but was still 15 percentage points lower than a year ago. • Lack of additional export volume has forced refiners to reduce their run rates, as sluggish domestic demand leads to a pileup in oil product stocks. It will require a substantial lift of mobility restrictions before refiners -- both state-owned and independent -- can ramp up production. For further detail, see the ***refining*** section from page 7.
	Country-wide throughput	12.66 m b/d	-9%	-11%	Apr 2022	
	Independent refineries	55%	+2 ppt	-15 ppt	May 13, 2022	
	Refinery output (monthly)					
	Gasoline	11.06m tons	-19%	-6%	Apr 2022	
	Diesel	14.27m tons	-8%	+14%	Apr 2022	
	Jet kerosene	1.75m tons	-33%	-56%	Apr 2022	
Trade	**Crude imports**		**M-o-M**	**Y-o-Y**		• Fuel exports in April declined by 5% month-on-month. Chinese refiners have been excluded from the surge in global refining margins due to the lack of export quota. Beijing has shown little intention so far to issue additional quotas. Year-to-date, export volumes have amounted to two-thirds of the quota. • Crude oil imports nudged up in April, but year-to-date, total imports are still 5% lower than last year. Lower crude runs will dampen the buying interest in coming months. For more details, see the ***trade*** section from page 10.
	National total	10.51m b/d	+4%	+6%	Apr 2022	
	Selected routes (BBG)	5.20m b/d	+2%	+20%	Apr 2022	
	Fuel exports					
	Quota usage*	66%	(*gasoline, diesel and kerosene only)		Jan-Apr 2022	
	Gasoline	980k tons	-15%	-33%	Apr 2022	
	Diesel	530k tons	-21%	-81%	Apr 2022	

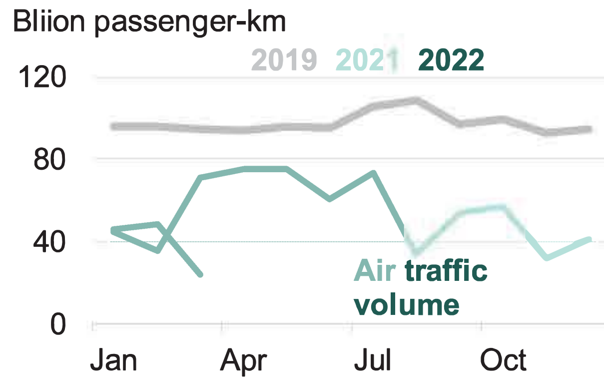
Monthly demand indicators

Demand suffered from strict Covid-19 restrictions

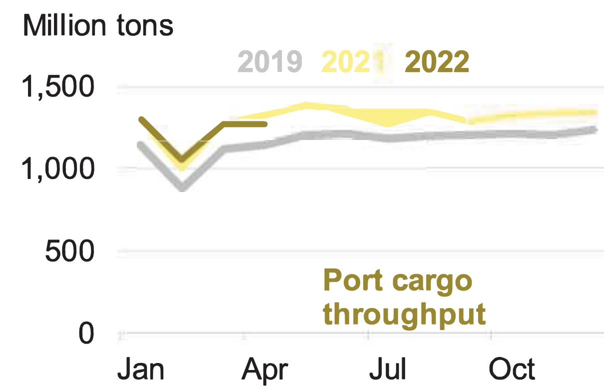
Road freight volume



Air traffic volume

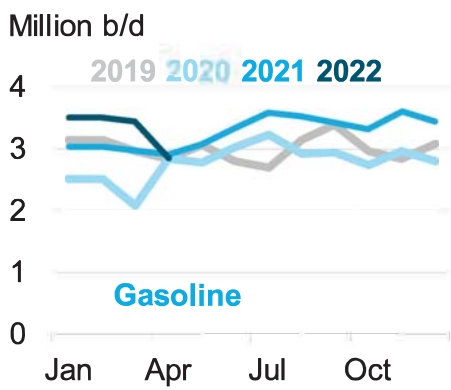


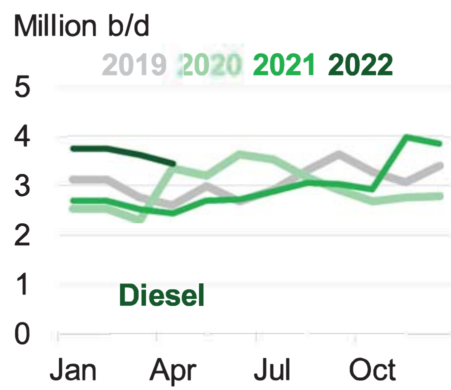
Port cargo volume

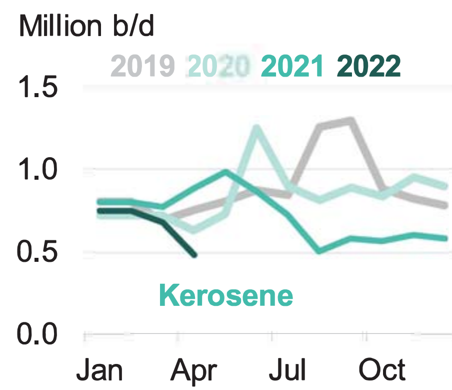


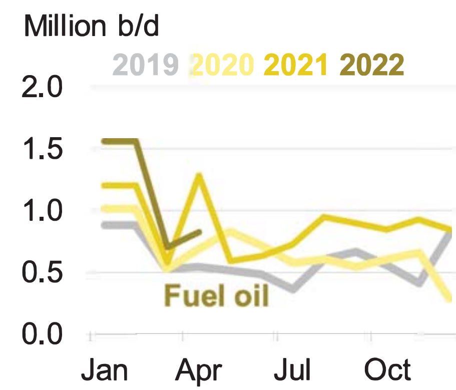
Source: National Bureau of Statistics of China

Apparent demand for transport fuels









Source: Bloomberg Terminal, BloombergNEF. Note: Apparent demand is calculated by deducting net exports from production (apparent demand = production + import – export). China's National Bureau of Statistics reports a combined value for January and February in each year. The charts represent this as an even split between the two months for illustrative purposes.

High frequency transport data

Road congestion sees a staggered recovery, while subway rides trend lower as Shanghai and Beijing close stations

Our weekly **road traffic report** is available on the BNEF Web or the Bloomberg Terminal
Our weekly **global aviation report** is available on the BNEF Web or the Bloomberg Terminal

- BloombergNEF tracks road congestion data to gauge the impact of the Covid-19 outbreak on road fuel demand.
  - 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. The cities are the top 15 cities with the highest number of vehicle registrations.
- We track the daily subway rides of three major cities to measure overall usage of public transportation.

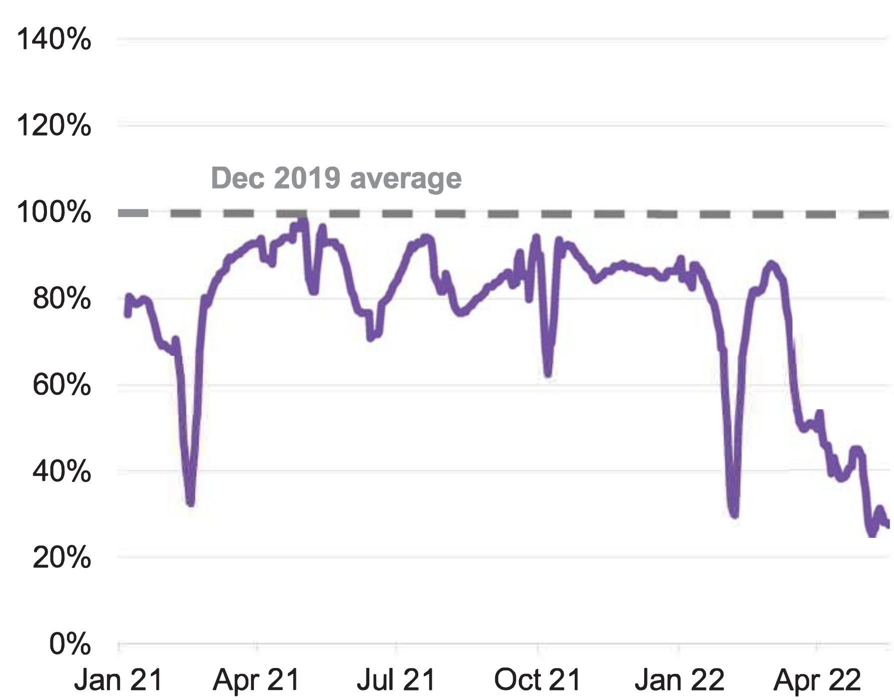
Road congestion

Peak congestion index

Source: Baidu, BloombergNEF. Note: The chart shows seven-day-moving-averages. Last update May 18.

Subway rides

Rebased Dec 2019 = 100%



Source: BloombergNEF, Beijing Subway, Shanghai Metro, Guangzhou Metro. Note: Last update May 18.

Demand Refinery Trade

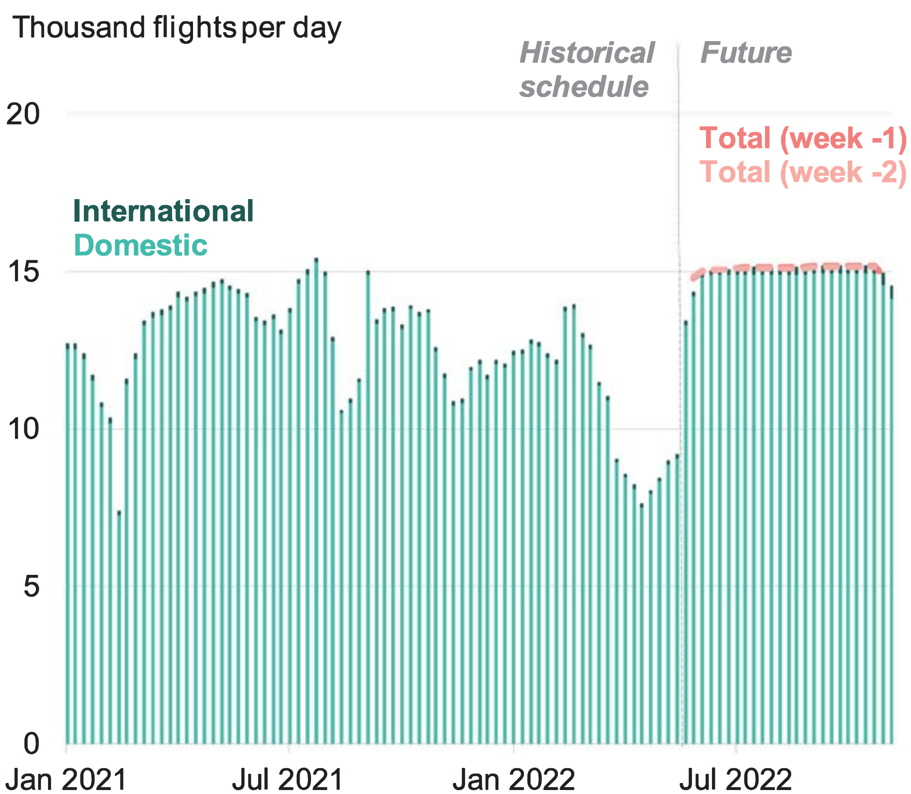
Flight schedules and jet fuel demand

Flight schedules recovered slightly from April lows

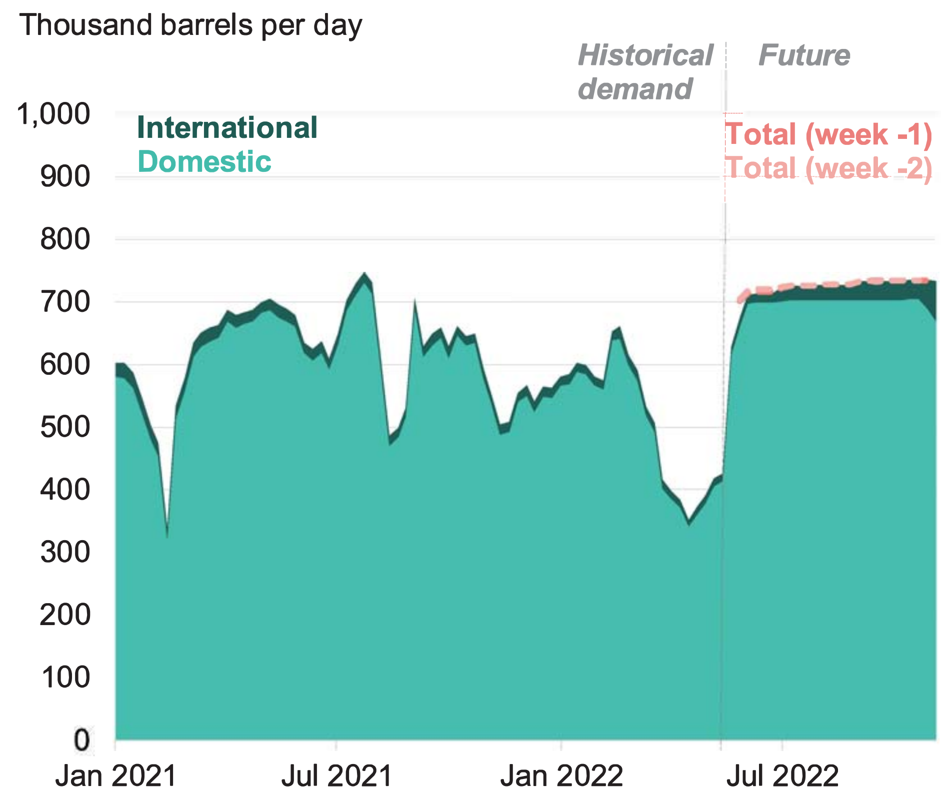
Our weekly **global aviation report** is available on the BNEF Web or the Bloomberg Terminal

- We track the flight schedules in major Chinese airports and estimate jet fuel consumption for the next six months based on data for planned routes and aircraft.
  - Schedules are based on the average daily scheduled passenger flight departures from Chinese airports
  - Oil consumption is based on the aircraft type, distance between origin and destination and the average volume of fuel consumed by each aircraft type for a given distance.
- **NEW:** Bloomberg Terminal users can use our new **DATA FLY <GO>** tool to track jet fuel demand and flight schedules.

Chinese airport flight departure schedules



Implied jet fuel demand



Source: BloombergNEF, Bloomberg Terminal FLY <GO>. Note: Last update May 11. Excludes cargo flights. The future flight schedule is subject to change. Terminal users can check DATA FLY <GO> for more details.

Refinery runs and outages

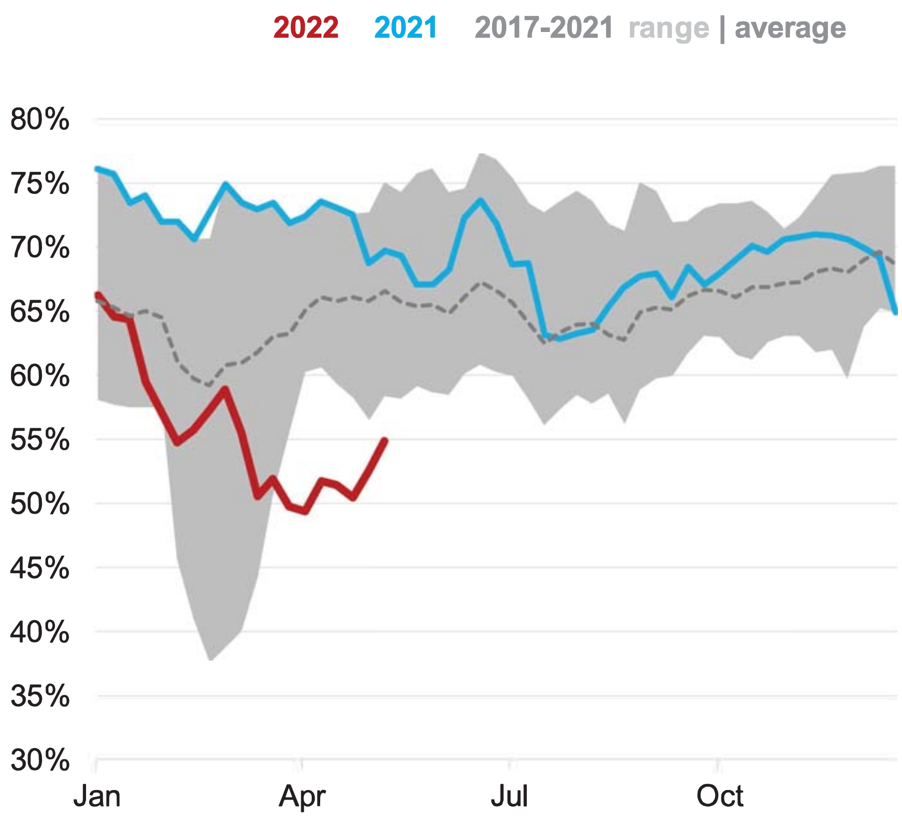
April registered a loss of 1.5 million b/d in refinery throughput

Refinery operating data is available on the Bloomberg Terminal via **SCIG <GO>**

Refinery outage data is available on the Bloomberg Terminal via **REFO <GO>**

Shandong independent refinery operating rates

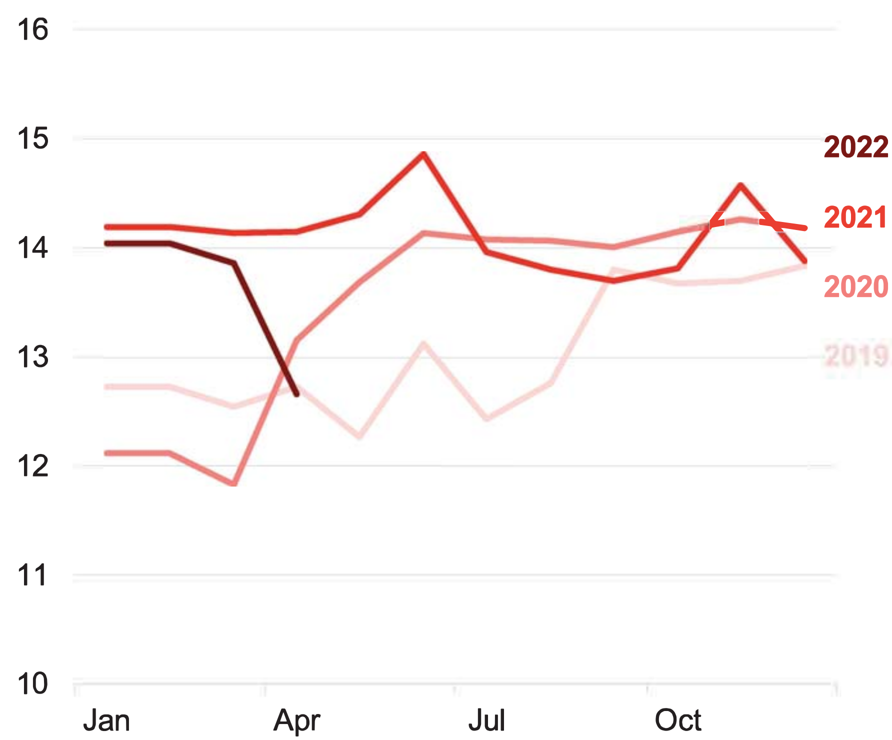
Aggregated utilization rate



Source: BloombergNEF, Shanghai Longzhong Information.

Total crude oil throughput

Million barrels per day

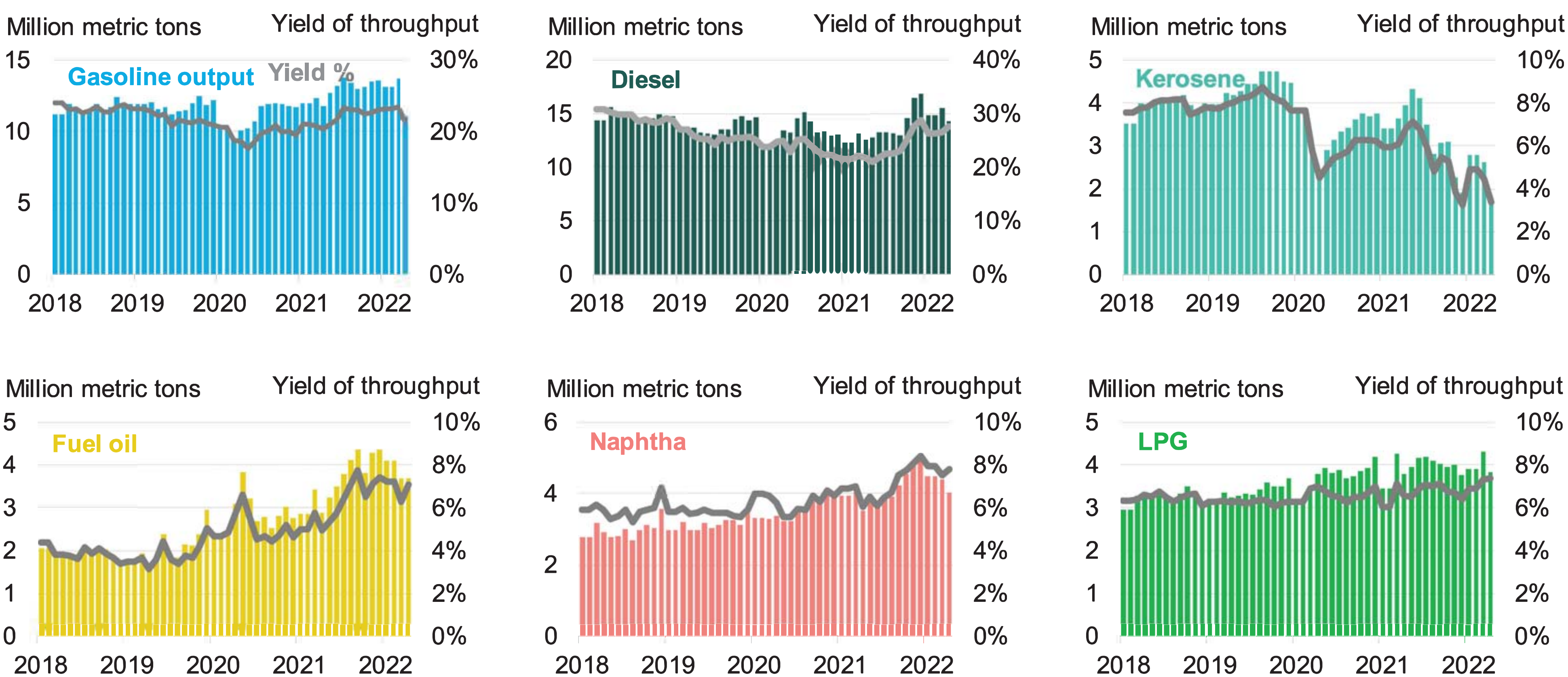


Source: National Bureau of Statistics, BloombergNEF. Note: China's statistical bureau reports a combined value for January and February. The charts represent this as an even split between the two months for illustrative purposes.

Refinery yields

Jet fuel yields dropped to a record low as massive cancellations erode demand

Refinery output and % yields

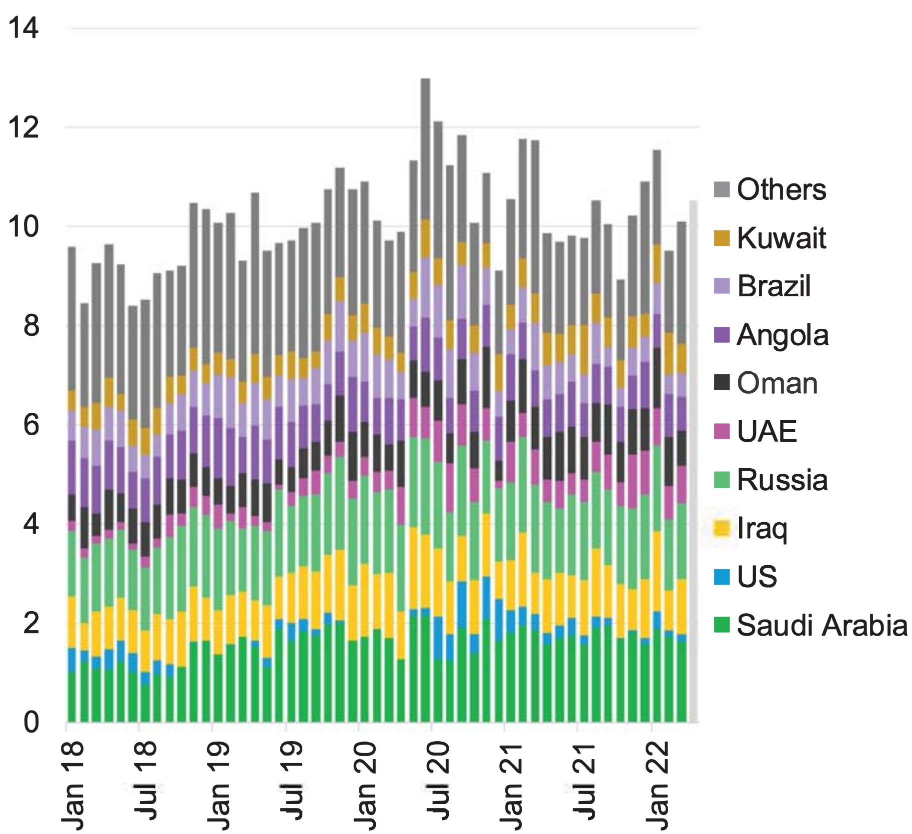


Source: BloombergNEF, National Bureau of Statistics. Note: China's statistical bureau reports a combined value for January and February. The charts represent this as an even split between the two months for illustrative purposes.

Crude imports – China total

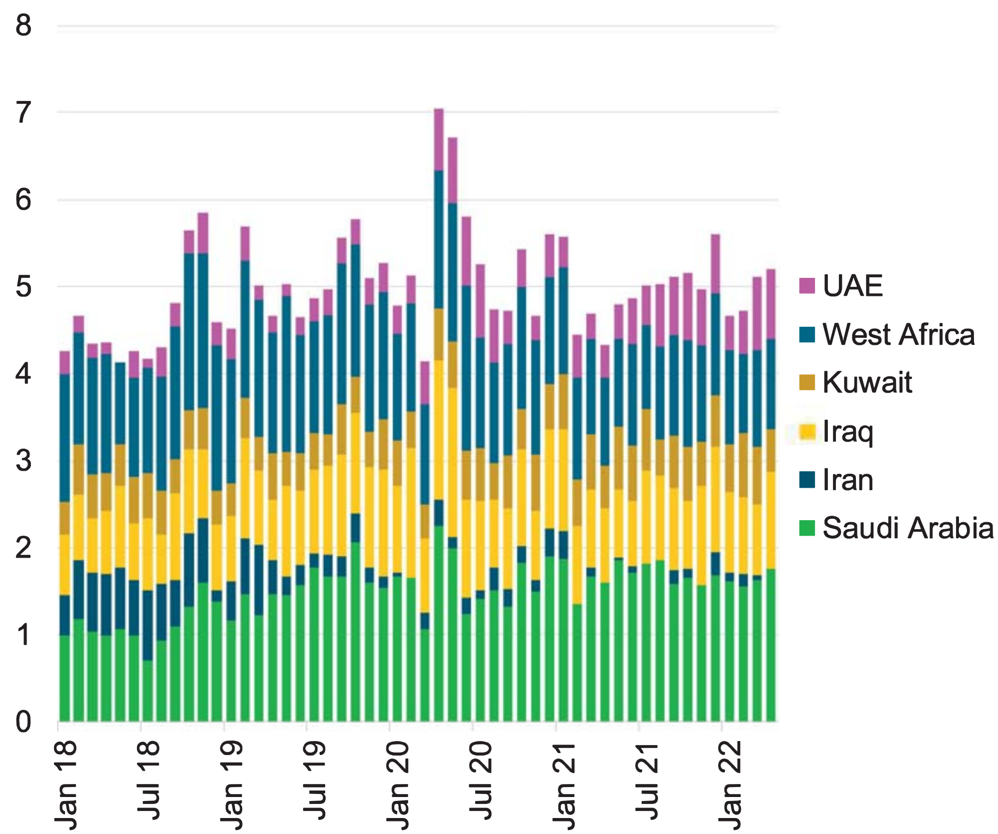
Crude imports face headwind as refinery runs hit a two-year low

China customs crude imports



Source: China Customs. Note: The original data are published in metric tons per month. Conversion rate used is 7.33 barrels per metric ton.

Bloomberg tanker tracker crude imports to China



Source: Bloomberg. Note: Selected countries only. Data based on departure dates. See LINE <GO> on the Bloomberg Terminal for more information.

Crude imports and fuels export quotas

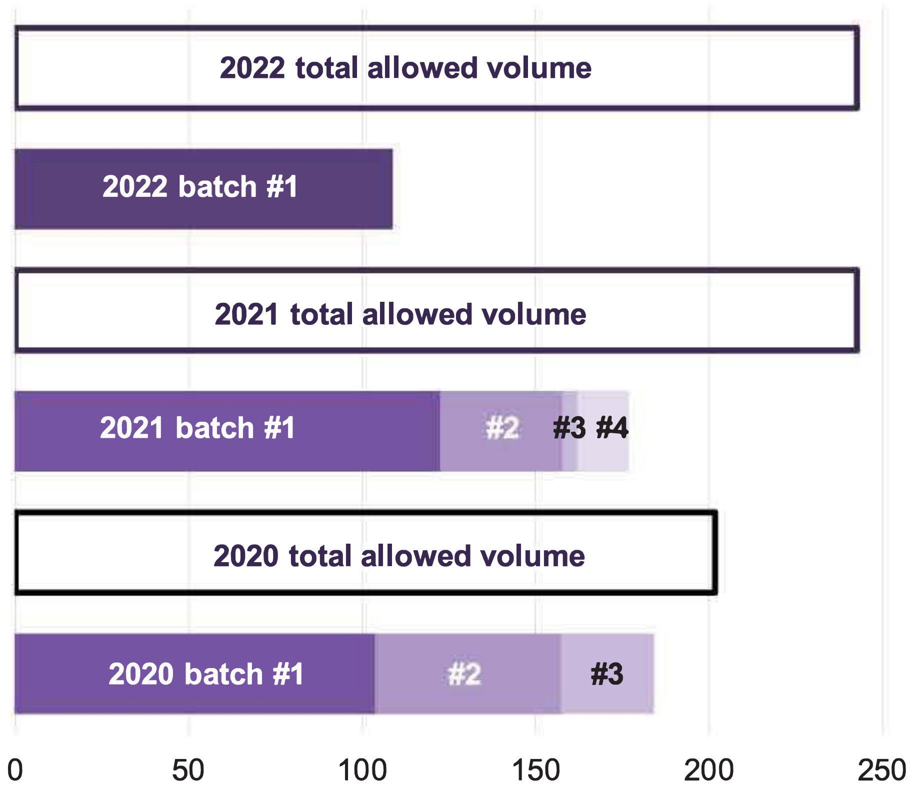
China tightens import and export quotas for 2022

See our **China Oil Quarterly** for more analysis on Beijing's crackdown on independent refineries, available on the BNEF Web or the Bloomberg Terminal

- China uses a quota system to monitor and regulate crude imports by independent refiners. Central regulators determine the total volume permitted to be imported for the full year, with the quota released in a series of 'batches'. Independent refiners apply for import quotas commensurate with their refining capacities. State-owned refiners, namely Sinopec, PetroChina, CNOOC and Sinochem, are not regulated by the quota system.
- Oil products exports are also regulated under a fuels export quota system, where only a handful of refineries are eligible. Quotas are issued in batches and arranged for general trade and tolling separately.

Crude import quota

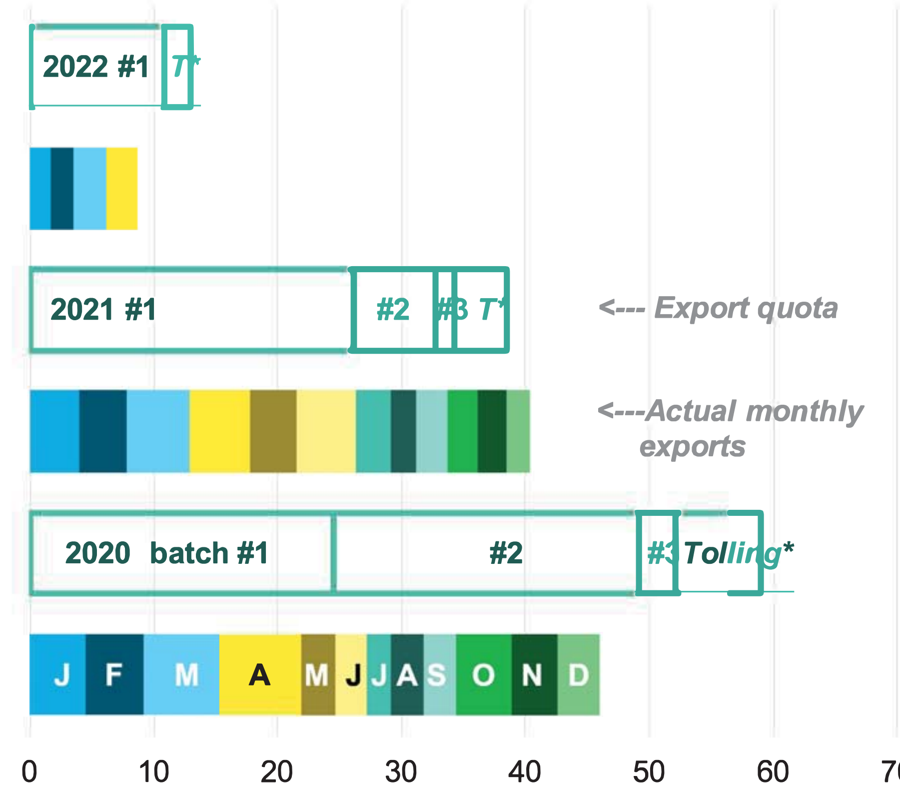
Million metric tons



Source: BloombergNEF, Ministry of Commerce

Fuels export quota and actual exports

Million metric tons

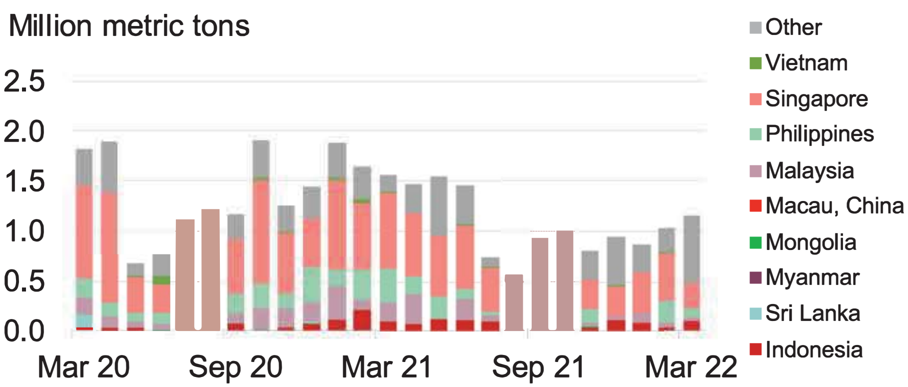


Source: BloombergNEF, Ministry of Commerce, China Customs. Note: Tolling quota (T) refers to cases when Chinese refineries take crude from foreign companies for processing in return for a fee, and then export the product back without paying taxes.

China oil product exports by top destinations

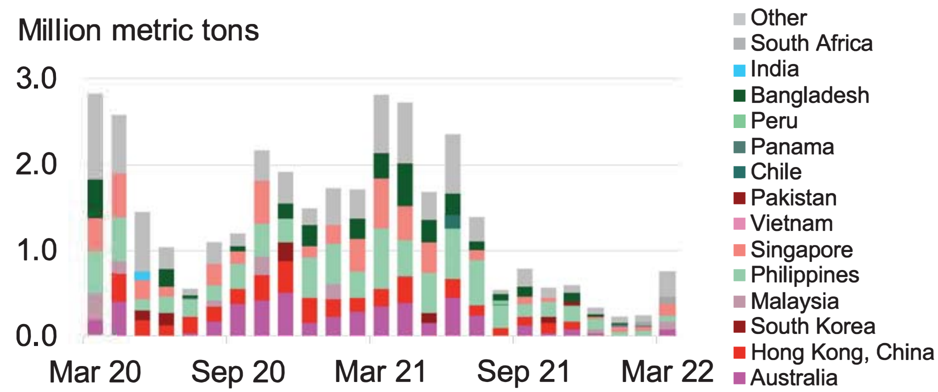
Fuel exports remain weak as Beijing shows no sign of easing export quotas

Gasoline monthly exports by top five destinations



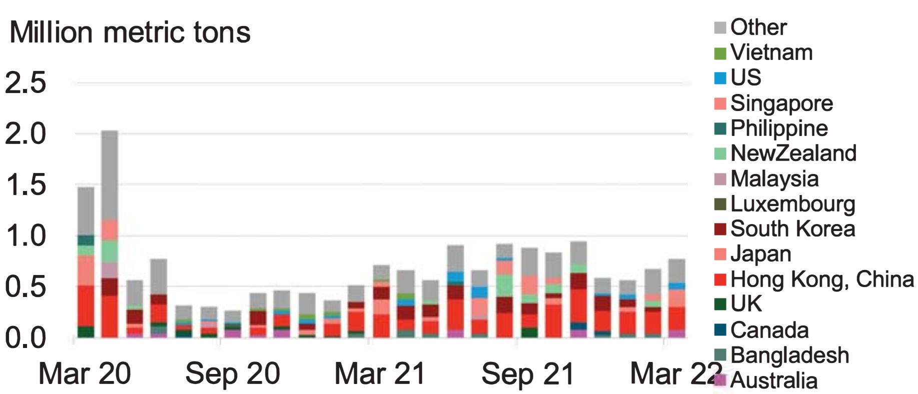
Source: China Customs, BloombergNEF

Diesel monthly exports by top five destinations



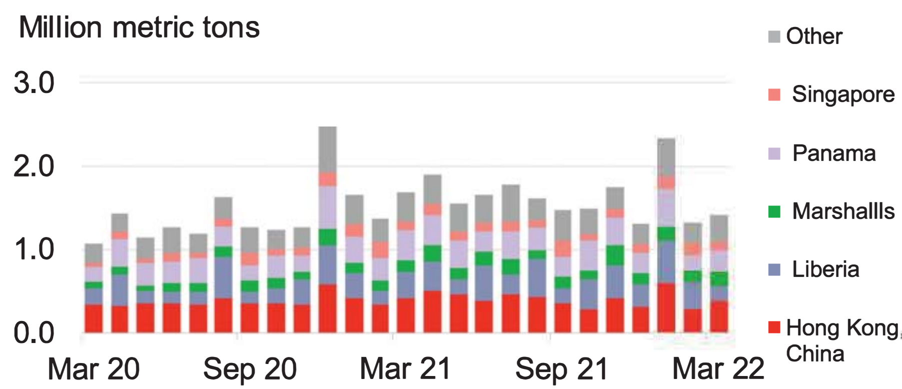
Source: China Customs, BloombergNEF

Kerosene monthly exports by top five destinations



Source: China Customs, BloombergNEF

Fuel oil monthly exports by top five destinations



Source: China Customs, BloombergNEF

Oil price outlook – Snapshot: May 16, 2022

Disclaimer: Please note that BNEF does not offer investment advice. Clients must decide for themselves whether current market prices fully reflect the issues discussed in this note.

Category	Indicator	Signal	Comment
Fundamentals	**Refinery margins**	↓	• Refinery margins weakened over the past week, but held on to the substantial gains accumulated over the previous seven weeks.
Fundamentals	**Crude stocks**	↓	• In the week ending May 6, land crude-oil storage levels in BloombergNEF's tracked regions (US, ARA, Japan) rose by 2.2% to 544.9 million barrels (m bbl). The stockpile **deficit** against the five-year average (2015-19) **narrowed from 90.8m bbl to 76.9m bbl.** • The floating crude stockpiles surplus jumped significantly in the week ending May 6. Including global floating crude stockpiles, total crude oil inventories therefore increased by 1.4% to 645.4m bbl, with the stockpile **deficit narrowing from 37.7m bbl to 37.3m bbl.**
Fundamentals	**Product stocks**	↔	• In the week ending May 6, gasoline and light distillate stockpiles in BNEF's tracked regions (US, ARA, Singapore, Japan and Fujairah) dropped by 1.0m bbl week-on-week to 267.2m bbl, with the stockpile **deficit** against the three-year average (2017-19) **narrowing from 6.2m bbl to 4.6m bbl.** Gasoil and middle distillate stockpiles in BNEF's tracked regions rose by 2.0% to 134.5m bbl, with the stockpile **deficit** against the three-year average **narrowing from 40.7m bbl to 36.2m bbl.** • Total oil product stockpiles in tracked regions increased by 0.4% to 886.6m bbl, with the stockpile **deficit** against the three-year seasonal average **narrowing from 69.9m bbl to 67.9m bbl.** Altogether, crude and product stockpiles grew by 0.8% to 1,532.1m bbl, with the stockpile **deficit narrowing from 107.6m bbl to 105.1m bbl.**
Fundamentals	**Demand indicators**	↑	• In the week to May 10, global jet fuel demand from commercial passenger flights rose by 92,100 barrels per day (or +1.9%) week-on-week to 4.87 million barrels per day. Jet fuel consumption by international passenger departures was up by 55,800 barrels per day (or +2.1 %) week-on-week, while consumption by domestic passenger departures increased by 36,300 barrels per day (or +1.7%). • The global mobility index strengthened over the past week to the highest level since March 2020, according to BNEF's calculation based on Google data. The global mobility index rose by 2.0% in the week to May 11, as growth in Europe (+3.7%) and the Americas (+0.9%) outweighed the decline in Asia Pacific ex-China (+1.4%). Meanwhile, TomTom's peak congestion data showed strong growth in North America (+6.3%), Europe (+1.6%) and Asia Pacific ex-China (+0.3%) over the same period. Road congestion in China's key 15 cities jumped by 11.9 percentage points to 102.6% of January 2021 levels in the week to May 11, according to BNEF's calculation based on Baidu data. • Daily average Covid-19 cases rose by 10% to 564,000 in the week to May 14. The Asia Pacific number grew by 10% to 220,000 daily cases, with China dropping by 74% to 7,900 daily cases. The Americas was up 16% to 118,000 daily cases, while Europe fell by 8% to 207,000 daily cases.
Financial	**Macro indicators**	↓	• The dollar index averaged at 104.2 over the past week, and was 0.7% higher than the week before. The index now sits at a 20-year high.
Financial	**Hedge fund positioning**	↓	• In the week to May 10, Managed Money net positioning in the oil complex decreased by 10.2m bbl (or -1.8%) week-on-week to 547.7m bbl and fell to the 23rd percentile (versus the 26th percentile last week) of the past five years.
Financial	**Options chains and volatility**	↓	• There was a notable increase in open interest for Brent Aug-22 puts. Brent and WTI 1M volatility skews fell significantly over the past week.
Outlook	**Weekly call**	↔	• BNEF is neutral on oil prices for the week ahead, with Brent Jul-22 trading at \$112.22/bbl and WTI Jul-22 trading at \$109.69/bbl at the time of writing. OPEC and the US EIA now expect a tighter oil market in 2022. While they have downgraded their global demand expectations, this is outweighed by the downward revision of their non-OPEC liquids supply forecasts. The IEA, on the other hand, now expects the market to be less tight, having decreased its global demand estimates and increased its non-OPEC supply forecasts. Overall, the IEA's global balance forecast for 2022 sees a slight supply deficit, while OPEC and the US EIA's supply surplus forecasts have been reduced. • Oil demand growth continued over the past week, with the global mobility index inching higher and sitting at the highest level since March 2020. Meanwhile, jet fuel demand from commercial passenger flights rose by 1.9% week-on-week as all regions except Africa saw growth. Flight departures in the Eurocontrol area stood at 86% of the equivalent week in 2019 (versus 85% last week), while passenger throughput in the US rose to 90% of the equivalent week in 2019 (versus 88% last week). However, weekly oil inventories have increased at a very slow pace over the past few week, indicating that supply might be keeping up with demand for now. Oil supply continues to be a concern, however, as several OPEC+ members are struggling to increase production. The OPEC+ compliance rate jumped to 221% in April, meaning the group is cutting output by more than twice the agreed amount.

BloombergNEF

Past outlooks

Disclaimer: Please note that BNEF does not offer investment advice. Clients must decide for themselves whether current market prices fully reflect the issues discussed in this note

Date of report	Refinery margins	Crude stocks	Product stocks	Demand indicators	Commitment of traders	Options chain and volatility	BNEF week ahead call	Brent/WTI price at time of writing ($/bbl)	Web Link
May 16	↓	↓	↔	↑	↓	↓	↔	Brent-Jul: 112.22 WTI-Jul: 109.69	
May 9	↔	↓	↔	↑	↓	↔	↑	Brent-Jul: 109.93 WTI-Jun: 107.22	
May 2	↑	↔	↑	↑	↔	↔	↑	Brent-Jul: 103.87 WTI-Jun: 101.25	
April 25	↑	↑	↔	↓	↑	↔	↔	Brent-Jul: 101.31 WTI-Jun: 97.39	
April 18	↑	↓	↔	↑	↓	↓	↔	Brent-Jun: 111.97 WTI-Jun: 106.31	
April 11	↑	↓	↔	↓	↓	↓	↓	Brent-Jun: 98.34 WTI-May: 93.69	
April 4	↑	↑	↔	↑	↓	↓	↑	Brent-Jun: 104.71 WTI-May: 99.73	
March 28	↑	↔	↔	↔	↑	↓	↔	Brent-Jun: 109.53 WTI-May: 105.58	
March 21	↔	↔	↔	↓	↓	↔	↔	Brent-May: 112.35 WTI-May: 107.56	
March 14	↑	↑	↑	↔	↓	↓	↔	Brent-May: 108.66 WTI-Apr: 104.77	
February 28	↔	↔	↔	↑	↔	↔	↔	Brent-May: 99.00 WTI-Apr: 96.38	
February 21	↔	↔	↑	↑	↔	↔	↑	Brent-May: 91.50 WTI-Apr: 90.17	
February 14	↑	↔	↑	↑	↓	↔	↑	Brent-Apr: 93.75 WTI-Mar: 92.46	
February 7	↑	↑	↔	↑	↔	↔	↔	Brent-Apr: 92.83 WTI-Mar: 91.43	

To view past reports on terminal, go to NI BNEFOIL, search for the report and click on the icon to the far right:

BloombergNEF

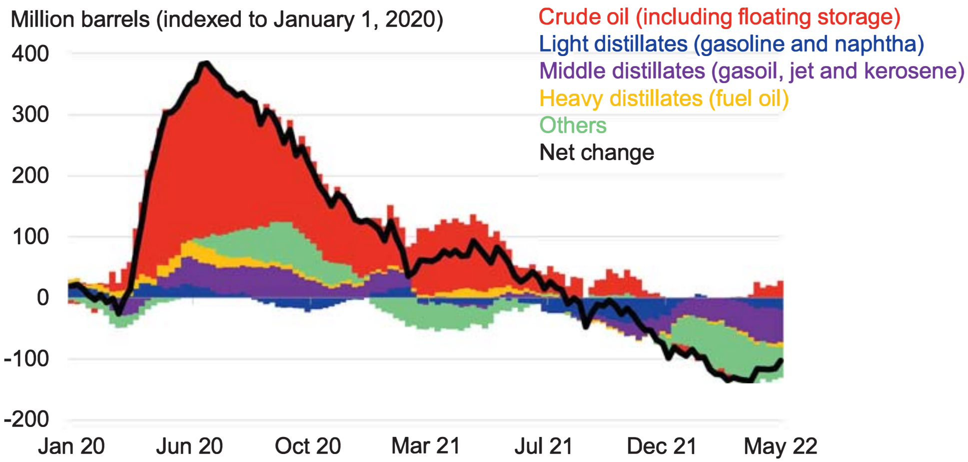
Fundamentals Financial

Weekly oil inventories

Stockpiles see an upswing

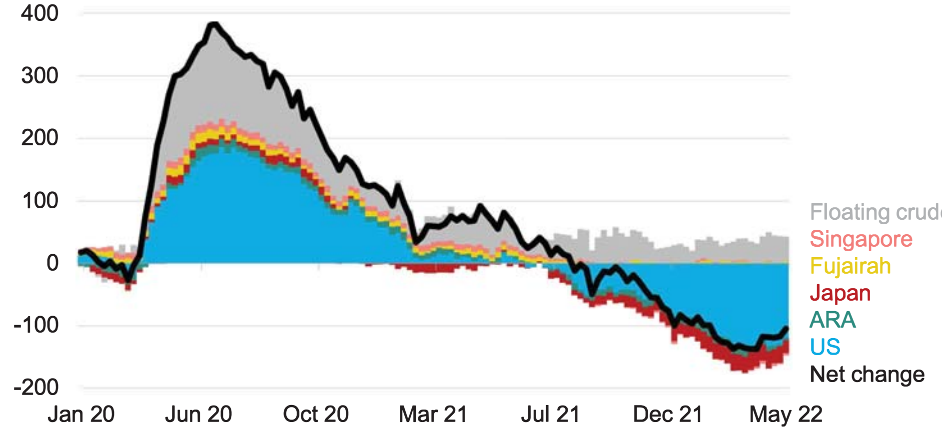
Weekly oil inventories by type

Million barrels (indexed to January 1, 2020)



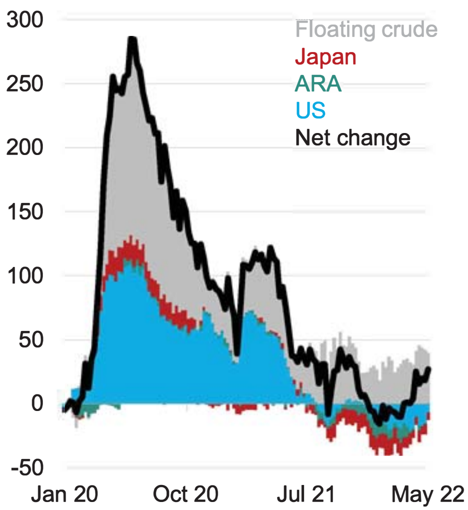
Weekly oil inventories by region

Million barrels (indexed to January 1, 2020)



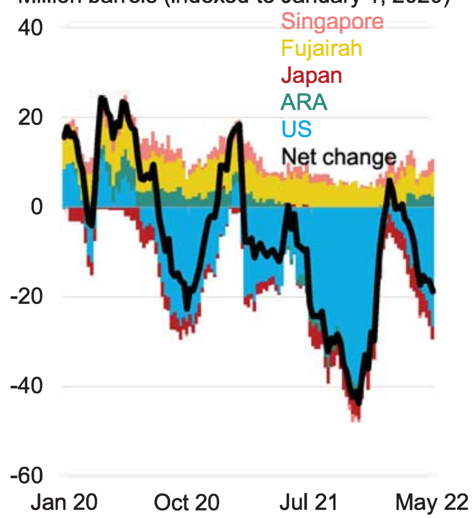
Crude inventories

Million barrels (indexed to January 1, 2020)



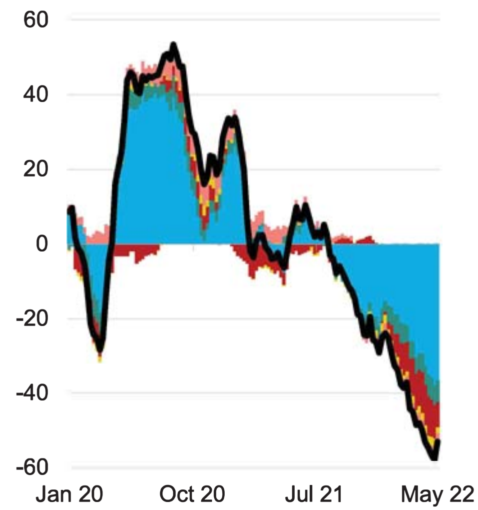
Light distillate inventories

Million barrels (indexed to January 1, 2020)



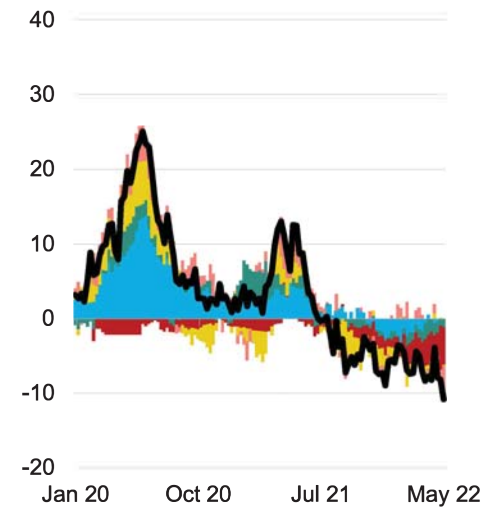
Middle distillate inventories

Million barrels (indexed to January 1, 2020)



Heavy distillate inventories

Million barrels (indexed to January 1, 2020)



Source: BloombergNEF, US EIA, PJK, IE Singapore, FEDCom/Platts, PAJ ,Vortexa, Genscape. As of the week ending ***May 6, 2022****.*

Fundamentals Financial

Aggregated oil stockpiles

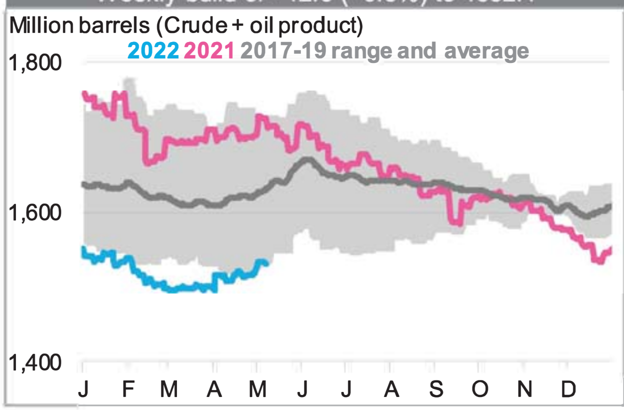
Note: We will continue to compare current inventory levels with the three-year (2017-19) seasonal average for the time being. Crude inventory data for Shandong teapots were excluded since January 10.

Neutral: Stockpiles deficit narrowed from 107.6m bbl to 105.1m bbl

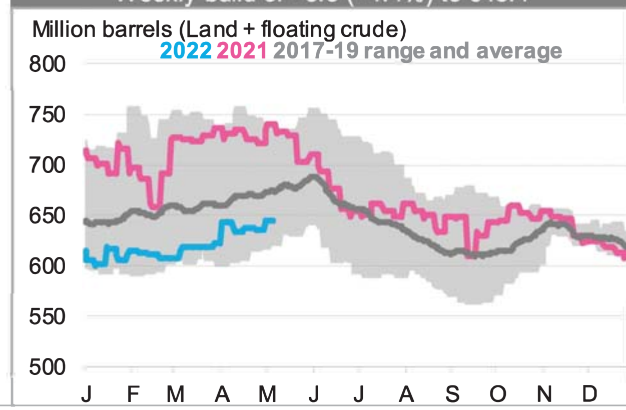
- Charts below use the **2017-19** (three-year) seasonal stockpiles. All calculations are recalibrated to measure against their respective three-year seasonal averages, so the values below might differ from the previous slides.
- Land crude inventories include the US, ARA, Japan and Shandong Teapots. Floating storage data are global. Oil product storage includes the US, ARA, Japan, Singapore, Shandong Teapots and Fujairah. Floating crude inventories may have been adjusted since the previous report – see slide 8 for further info.

Total oil and product stocks = Total crude stocks (land + floating) + Total oil product stockpiles

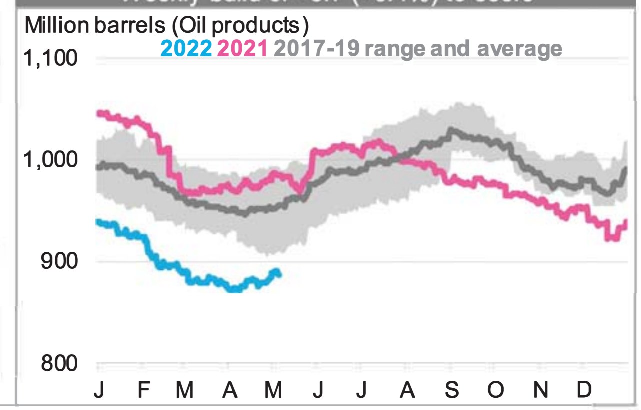
Weekly build of +12.6 (+0.8%) to 1532.1



Weekly build of +8.8 (+1.4%) to 645.4

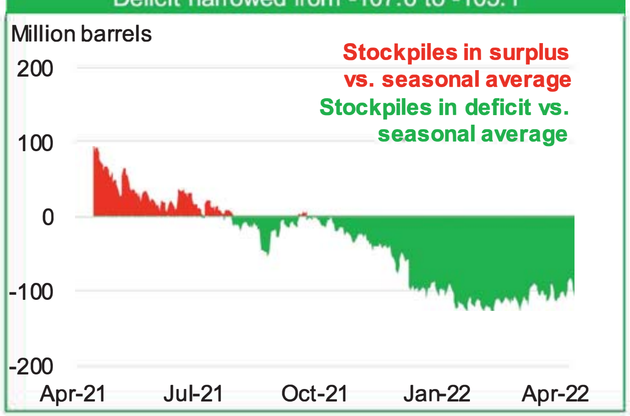


Weekly build of +3.7 (+0.4%) to 886.6

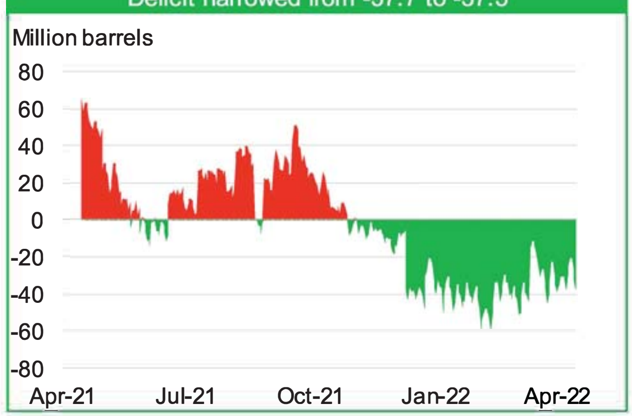


---------------------- Charts below subtract current stockpiles by the 2017-19 (three-year) seasonal average ----------------------

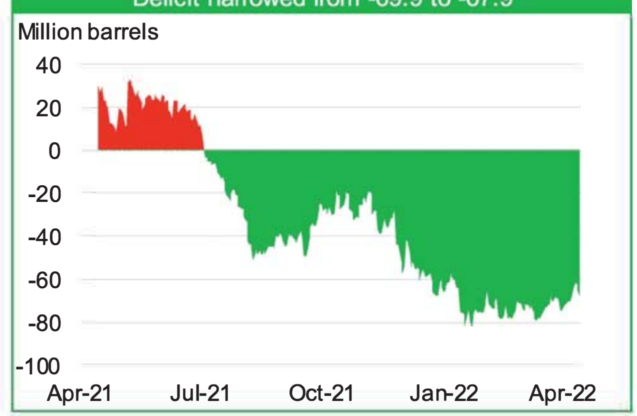
Deficit narrowed from -107.6 to -105.1



Deficit narrowed from -37.7 to -37.3



Deficit narrowed from -69.9 to -67.9



Source: BloombergNEF, US EIA, PJK, IE Singapore, FEDCom/Platts, PAJ ,Vortexa, Genscape, SCIG. As of the ***week ending May 6, 2022.***

Fundamentals | Financial

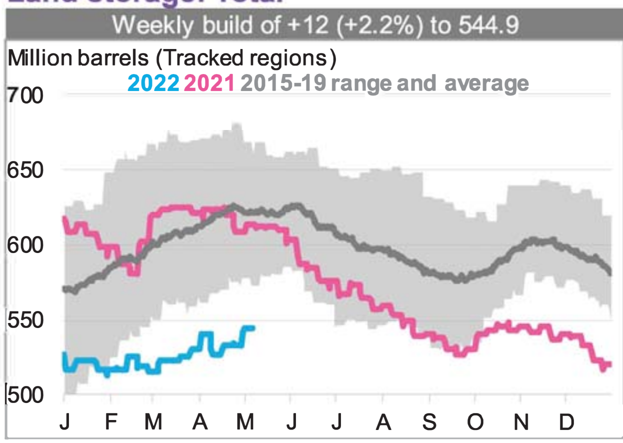
Crude stocks: Land

Note: We will continue to compare current inventory levels with the three-year (2017-19) seasonal average for the time being. Crude inventory data for Shandong teapots has been excluded since January 10.

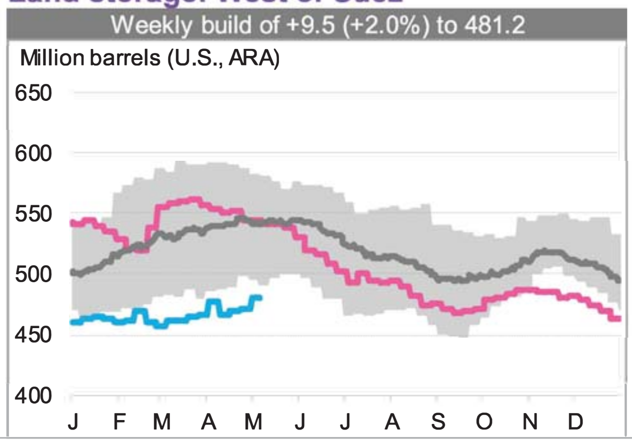
Bearish: Deficit narrowed from 90.8m bbl to 76.9m bbl against the seasonal average

- Crude inventory rises when supply outstrips demand (meaning more physical oil is available than is needed). High or rising inventories are therefore a bearish factor for oil prices. Every year, storage levels fluctuate due to seasonal demand trends. The intra-year directional movement of stockpile levels is somewhat predictable, yet the magnitude of movement can differ significantly from expectations.
- A useful way to gauge if the intra-year storage levels differ from the norm is to measure the difference between the current and seasonal average inventory levels.

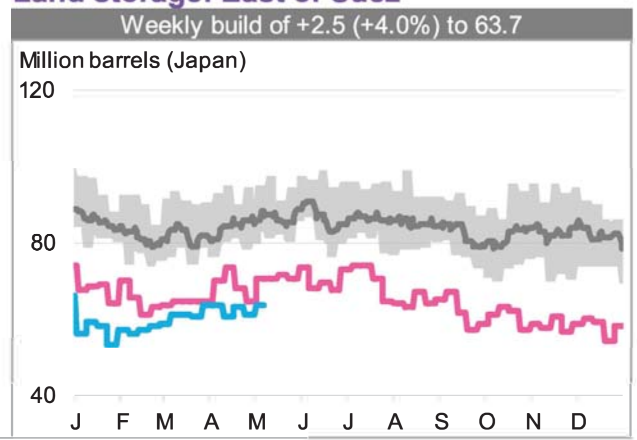
Land storage: Total



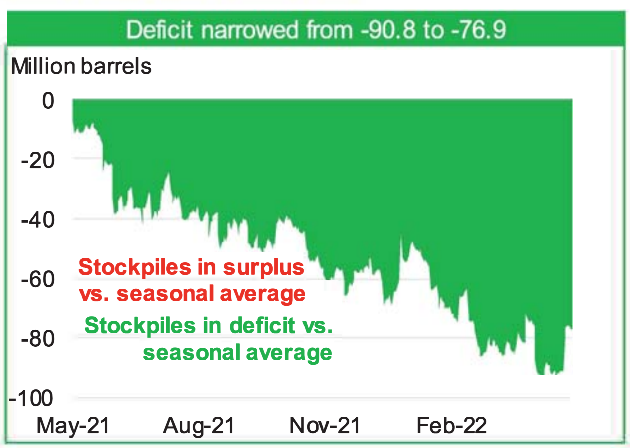
Land storage: West of Suez

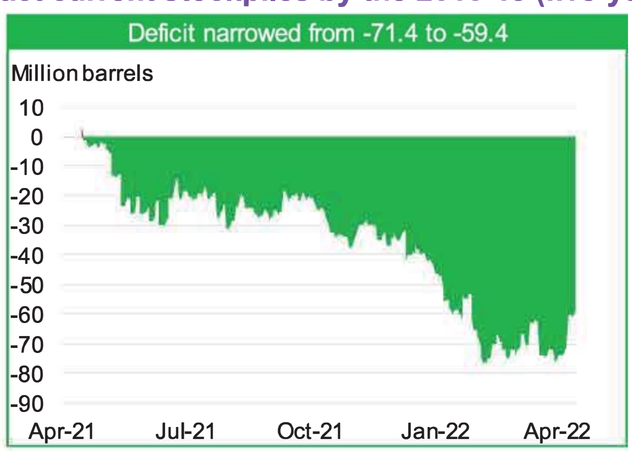


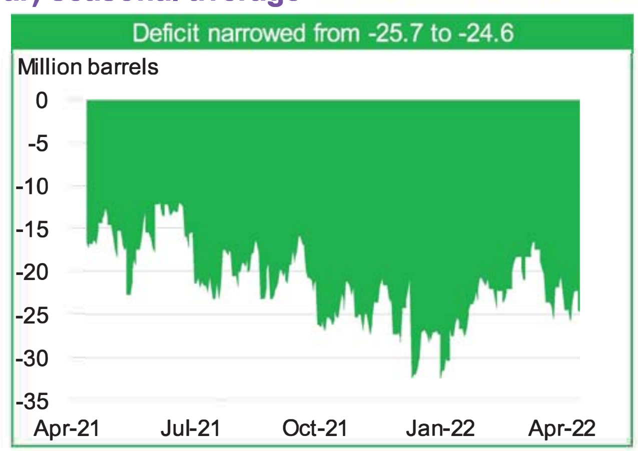
Land storage: East of Suez



Charts below subtract current stockpiles by the 2015-19 (five-year) seasonal average







*Source: BloombergNEF, US EIA, Genscape, PAJ, SCIG. Note: As of the **week ending May 6, 2022.***

Fundamentals | Financial

Crude stocks: Floating

Bearish: Surplus widened significantly

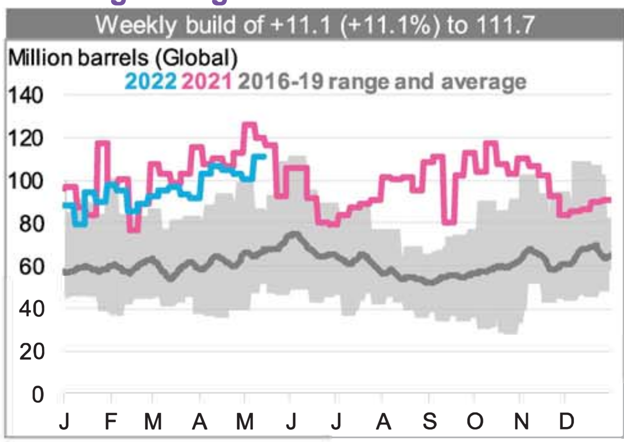
- Floating storage is only profitable if the strength of contango (future vs. prompt price) is greater than the tanker costs. Therefore, tankers become floating storage when the profit from a storage play exceeds the cost of the forward freight agreement (FFA).
- The floating storage data used in the "Oil Price Outlook" slide is for the previous week (ie, the week before the latest data shown below). That data are available in the table to the right.

Vortexa's revision to global floating crude inventories

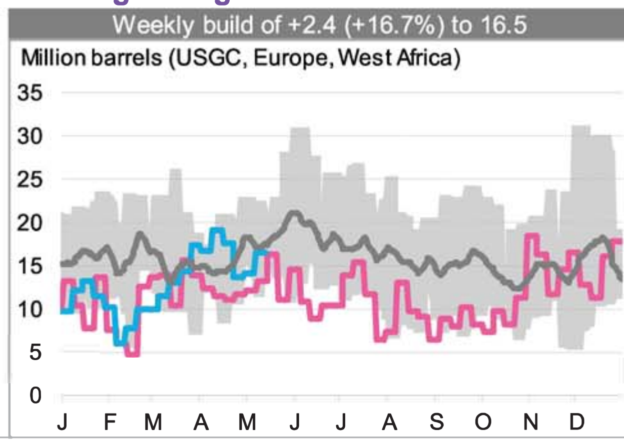
Million barrels	Previous report	Current report	Vortexa's revision
Inventories in week of May 6	94.5	**100.6***	+6.1
Inventories in week of April 29	104.6	103.7	-0.9

*Note: *Figure used to aggregate total oil inventories on page 8.*

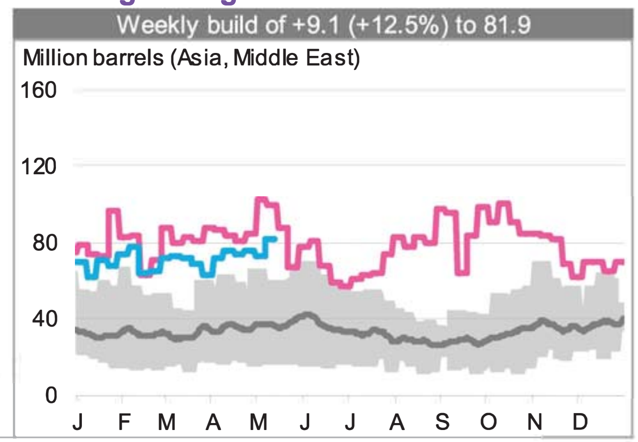
Floating storage: Total



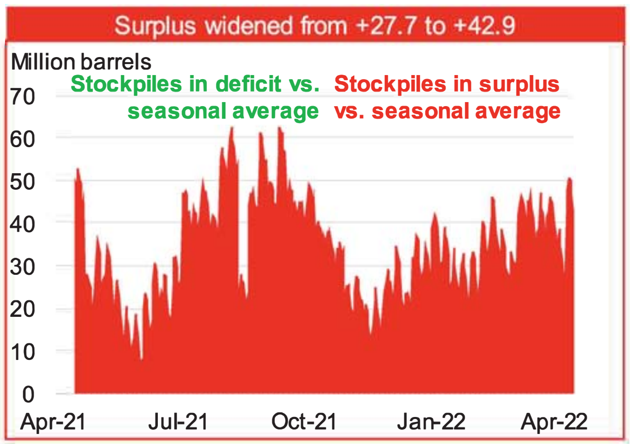
Floating storage: West of Suez

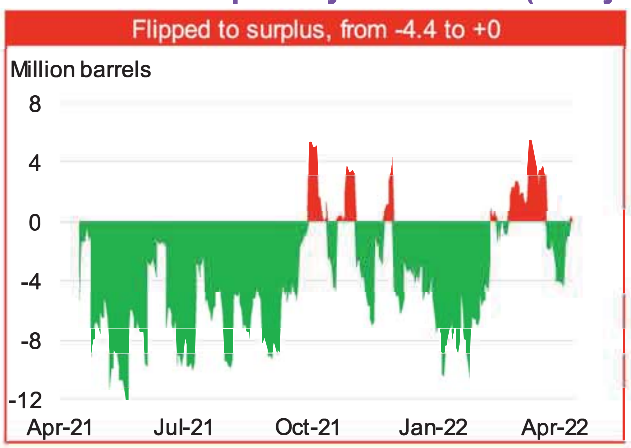


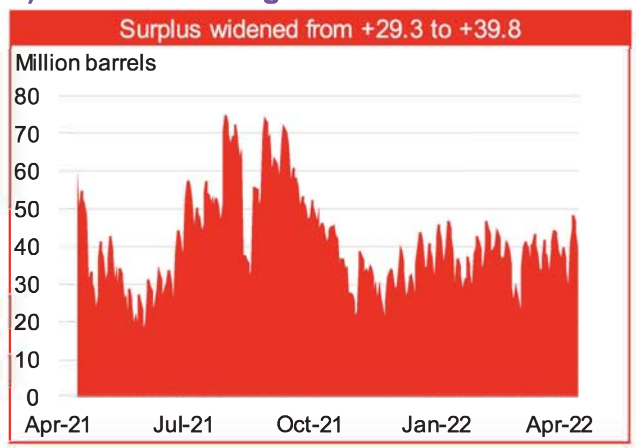
Floating storage: East of Suez



Charts below subtract current stockpiles by the 2016-19 (four-year) seasonal average







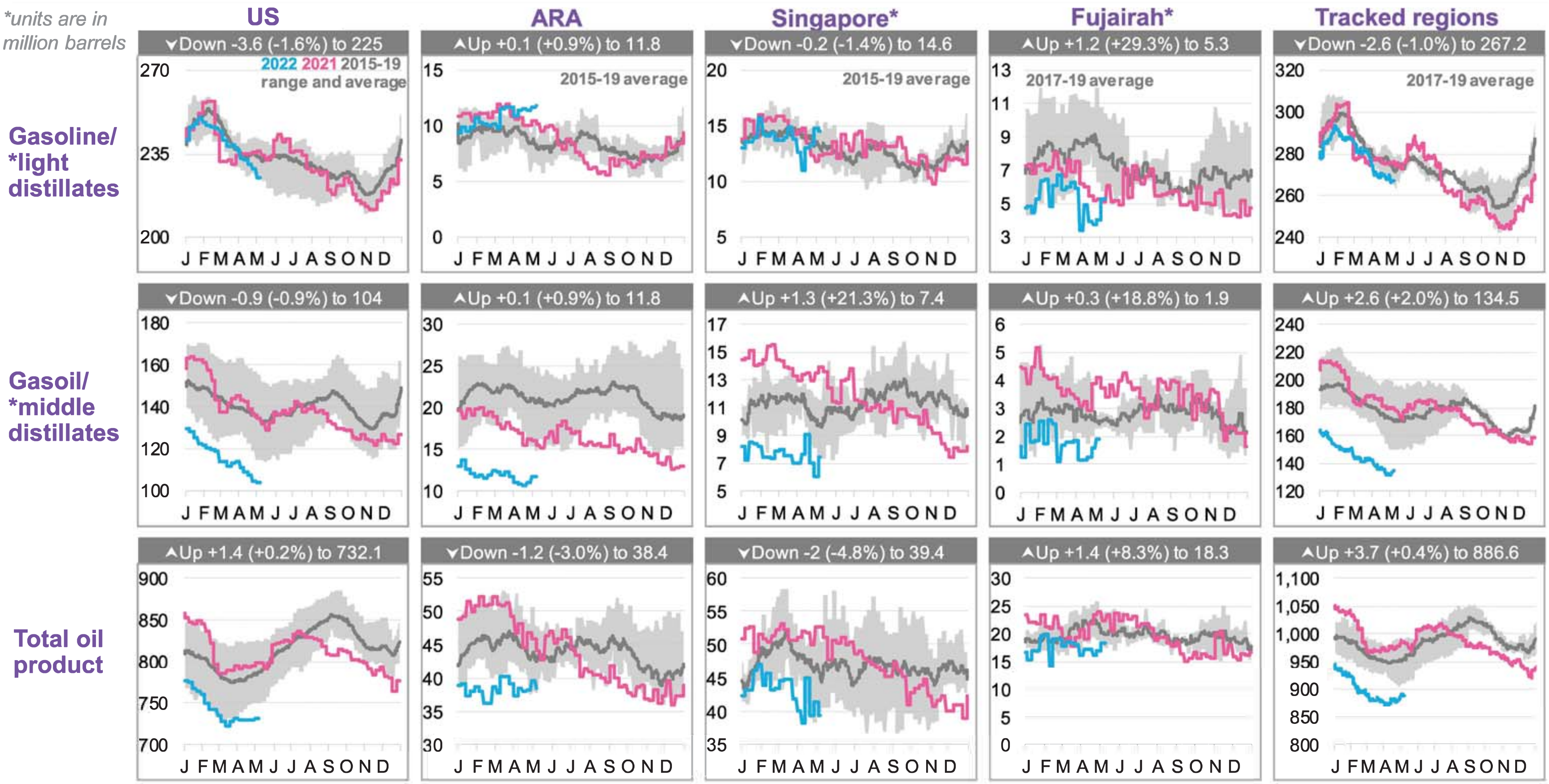
Source: BloombergNEF, Vortexa. Note: As of the ***week ending May 13, 2022****. ****Raw data from Vortexa are revised frequently, so the data in this report might change week-to-week.***

BloombergNEF

Product stocks: Current vs. seasonal average

Neutral: Oil product stockpiles in tracked regions rose by 0.4% week-on-week

- Chart legend are as follows: 2021, 2020 and the 2015-19 range and average. For Fujairah and tracked regions, the **2017-19 (three-year) seasonal range** is shown. Tracked regions include US, ARA, Singapore, Japan and Fujairah

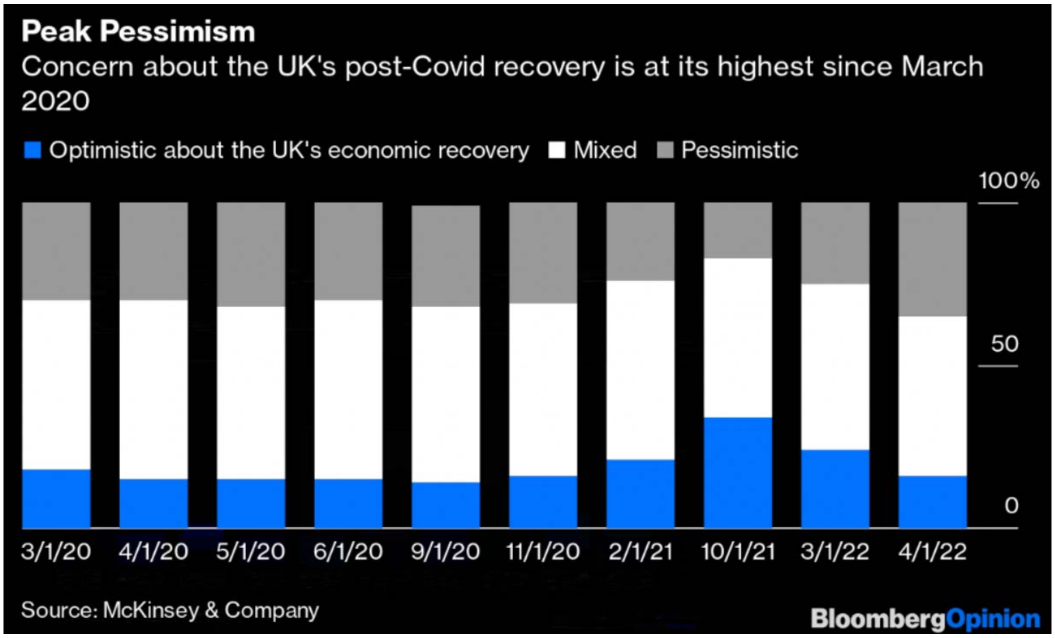


Source: BloombergNEF, US EIA, PJK, IE Singapore, FEDCom/Platts, PAJ. Note: As of the ***week ending May 6, 2022.***

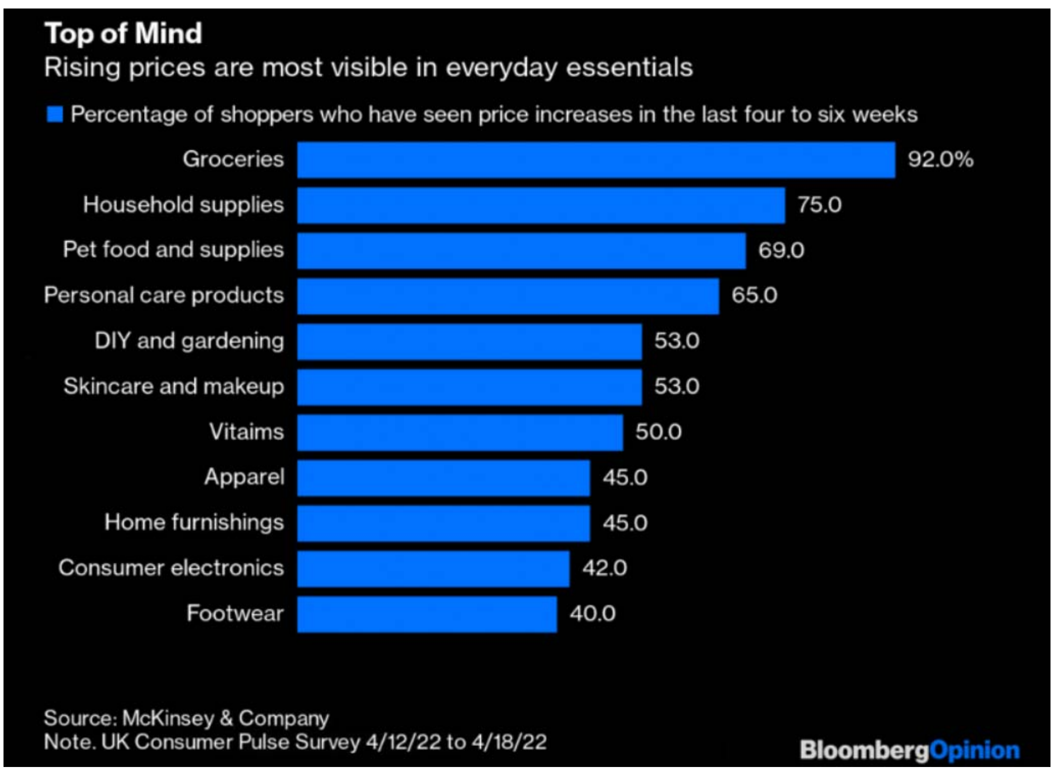
British Consumers Are Finally Starting to Crack: Andrea Felsted
2022-05-18 04:00:11.562 GMT

By Andrea Felsted
(Bloomberg Opinion) -- The remarkable strength of the UK consumer is finally starting to crack. Higher bills for household energy, more expensive fuel, pricier groceries and rising interest rates are beginning to take their toll on shoppers.
Consumer confidence slumped in April, as energy prices soared and national insurance contributions rose. GfK's measure of consumer confidence slumped to -38, a level last seen in the early 1990s as well as in 2008. Of particular note is the GfK index that tracks how people feel about making a major purchase: The most recent data suggest Brits don't think this is a good time to buy expensive items such as furniture or cars.

According to research from McKinsey & Co., UK consumers are at "peak pessimism," meaning they're the most downbeat they've been about the country's post-pandemic recovery since March 2020.

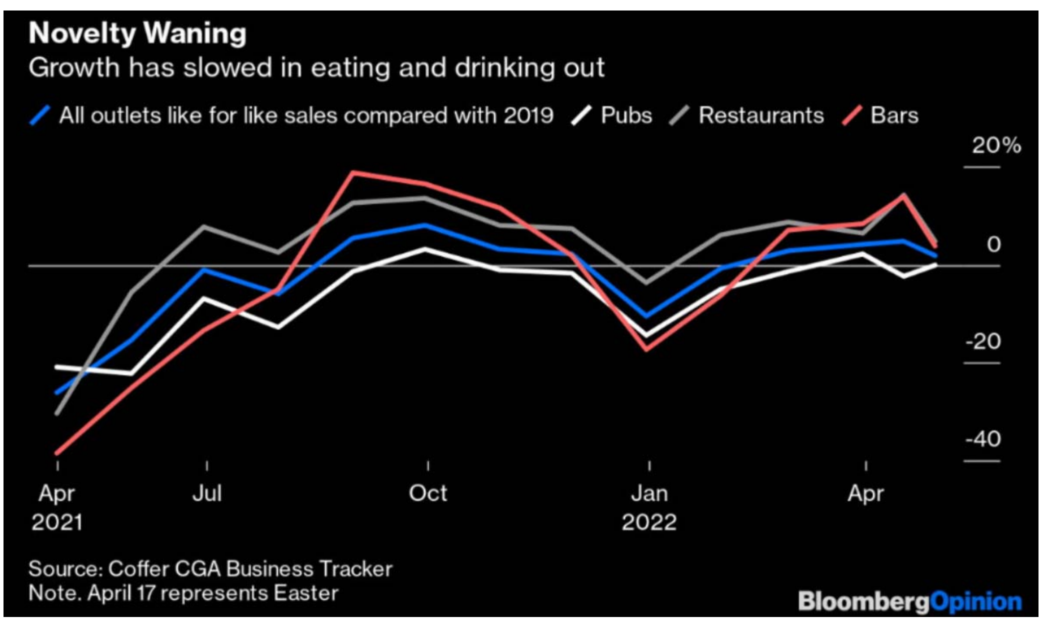


The primary driver for this sentiment is the increase in prices for essential items, with more than 90% of consumers seeing a change in the cost of their weekly grocery basket in March and April.



Measures of consumer confidence indicate how people feel about the future. But there is mounting evidence that this is already starting to take its toll on real-world spending. Sales weakened in April, according to the British Retail Consortium and KPMG's Retail Sales Monitor. Although this figure compares with the period a year ago, when consumers were unleashing pent-up demand after stores reopened, it's clear that spending is sliding. With total sales falling by 0.3% in April, and inflation estimated at 9.1% that month, this implies a big fall in the volume of goods sold.

It's a similar picture when it comes to eating and drinking in pubs and restaurants. Although sales are still up compared with 2019, according to the Coffer CGA Business Tracker, which measures the performance of the industry, they have slowed since Easter. What's more, the 2% growth in April is likely to have been driven by rising menu prices, masking some of the early signs of consumers cutting back.



Some of the change may be due to the unwinding of pandemic habits and Brits going back to their pre-lockdown preferences. In April 2021, for example, they were willing to freeze in beer gardens just to enjoy a pint in a pub. The end of Covid restrictions perhaps made that less of a priority in 2022. Similarly, online sales are cooling as shoppers return to shopping centers and high streets once more.

Big-ticket items were hit hardest by the slowdown in April, according to the BRC and KPMG. Many Brits refreshed their homes when they were spending much of their time there. Now, furniture sales are suffering. In addition, the sectoris seeing price rises, because items are generally bulky and expensive to ship in containers. Made.com Group Plc, the online home-furnishings retailer, warned on profits on Monday after volatile trading, and estimated that the digital furniture market as a whole was down by 30% to 40% so far this year.

In contrast, many consumers are splashing out on party dresses and high heels to attend weddings and other social occasions. Warm temperatures are also good for fashion purchases, and the UK has recently enjoyed a period of clement weather.

Data from Barclaycard showed that consumer credit and debit-card spending rose 18.1% in April, compared with the corresponding period in 2019, marking the highest uplift since October 2021. However, this was largely driven by holiday bookings. International travel had its best month since before the outbreak of Covid-19. In contrast, spending on some other categories, such as nights out, takeaways and subscriptions all had smaller boosts than in March.

That holiday spending may also be helping fashion: Many consumers haven't bought a new bikini or pair of strappy sandals for several years. But it is likely to be sucking money away from many other areas of the economy.

Even if the true health of the British consumer is being obscured by post-pandemic shifts, what is clear is that the country's economic backdrop is set to get worse.

While household energy bills rose for many in April, the true effect won't be felt until the autumn, when the heating goes on. At the same time, savings may be depleted by travel, and there's also the potential for further interest rate rises and any uptick in unemployment if inflation cools the red-hot labor market.

Fashion retailers usually bemoan a warm autumn because it means less demand for expensive coats, sweaters and boots. This year, if Brits can keep their heating off for longer, unseasonal temperatures might be a blessing.

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* Boris Johnson Is Focused on the Wrong Problem in Northern Ireland: Therese Raphael
* Why I'm Bullish on Britain, and Betting on Its Future: Michael R. Bloomberg

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https://www.iata.org/en/pressroom/2022-speeches/2022-05-17-02/

Date: 17 May 2022

Willie Walsh Keynote Address at Changi Aviation Summit

Your Excellency Minister S. Iswaran

Honorable ministers

Distinguished guests

Ladies and gentlemen

It is a great honour to be with you in Singapore in person for this important summit. I look forward to joining you in dialogue over the next two days on these critical issues at this time of recovery in our industry.

It has been a brutal two years for airlines. But we are seeing signs of recovery now. International travel in 2021 stood at only 25% of where we were in 2019. But in the first quarter of this year, it has recovered to 48%. And indeed some parts of the world including Europe, North America, and Latin America, the recovery has reached around 60%.

Regrettably, Asia continues to lag the recovery in 2021. International travel was only at 7% of where we were in 2019. And although it's improved to 17% in the first quarter of this year, there is still a long way to go. And to put it into context, international travel within this region, one of the biggest and most important international markets in the world, is only at 6% of where it was in 2019.

Things are improving, but they will not improve fast enough unless countries follow the initiative of countries like Singapore and remove the requirements for tests and quarantine for vaccinated travelers. The science supports these initiatives. We now have two years of rich data to support new decisions by governments and I believe, indeed, in IATA, we're convinced that this science supports the removal of testing and quarantine for unvaccinated travelers from areas of high population immunity, including many parts of this region. We also believe that where mask mandates are removed for indoor environments and public transport they should also be removed for air transport.

It's been a very difficult two years and we are beginning to see some positive signs. But all segments of the industry now need to work together to ensure that we can capitalize on this strong underlying demand. Airports need to be ready for the increase in passenger numbers. And we would ask governments to support airlines and airports as we try to recover our network.

And despite obvious headwinds such as the brutal war in Ukraine, high oil prices and increase inflation, I remain very optimistic about the recovery this year and into 2023. Unfortunately, Asia-Pacific region will lag this recovery as China continues to pursue zero-COVID. But it would be great to see countries like Japan take a bold decision and to remove restrictions on international tourists and rebuild the fantastic work that that country did in growing their tourism industry.

As you have heard, sustainability remains a key focus for the industry. I'm pleased that the airline industry has committed to achieving net zero in 2050. And we welcome the initiative of governments in this region to support airline industry in achieving that goal. I think the excellent initiative by Singapore with the International Advisory Panel on sustainable aviation hubs, is an example of how we can work together to ensure that this important target is met. This part of the world should see the move to sustainable aviation as an opportunity.

And finally, ladies and gentlemen, we are in a battle for talent. And as we try to rebuild our industry, it's important that we become more attractive, particularly more attractive to women. This industry has always been seen as a male dominated industry, we need to change that to ensure that we can, not just attract but also to retain the best talent in the industry so that we can build on the progress that we've made, and ensure that we have a sustainable financial business and a sustainable environmental business for the future.

Thank you.

SAF Group created transcript of excerpt from Port of Los Angeles Executive Director Gene Seroka on Bloomberg Markets: European Close with Alix Steel and Guy Johnson on May 16, 2022
https://www.bloomberg.com/news/videos/2022-05-16/cargo-flows-out-of-china-are-consistent-la-port-chief-video

Items in "italics" are SAF Group created transcript

At 0:15 min mark, Seroka "… *second best April in the history of the Port of Los Angeles and May arrivals looks strong as well. What we've seen are the number of ships leaving Asia, including Central China, at or about where they've been throughout the eight week lockdown in Shanghai. Much of the manufacturing is west of the city and cargo is finding its way through to the Yangshan deep sea port. and if not, it's going down to neighbouring port Ningbo, which is up 25% over this past two months*".

At 1:25 min mark, Seroka "…. *but one area that is really looking good right now is that our output from the Port of Los Angeles into the domestic US economy – 200,000 containers on a rolling 30-day basis. that's the highest it's been since we begun reporting this important information"*

SAF Group created transcript of excerpt of Port of Los Angeles Executive Director Gene Seroka hosting the media briefing features interview with PMA Leader Jim McKenna on May 6, 2022
https://www.portoflosangeles.org/references/2022-news-releases/news_050622_briefing_pma

Items in "italics" are SAF Group created transcript

At 7:25 min mark, Seroka "… *so we need to redouble our efforts to maximize cargo flow off our docks and into the domestic economy. A key factor in this equation is on-dock rail. Rail-bound cargo has increased six-fold over the last two months and is not moving off our terminals fast enough. Rail boxes are currently waiting six days to get on a train. That's triple the dwell time compared to pre-pandemic days*".

Prepared by SAF Group https://safgroup.ca/news-insights/

https://newsroom.aaa.com/2022/05/the-heat-is-on-memorial-day-forecast-points-to-sizzlin-summer-travel/

The Heat is On: Memorial Day Forecast Points to Sizzlin' Summer Travel

AAA expects 39.2 million people will travel for the unofficial start of summer

Ellen EdmondsManager, AAA Public Relations eedmonds@national.aaa.com407-444-8011

5/17/2022

ORLANDO, Fla. (May 17, 2022) – The unofficial start to summer will be a busy one this year as AAA predicts 39.2 million people will travel 50 miles or more from home this Memorial Day weekend. This is an increase of 8.3% over 2021, bringing travel volumes almost in line with those in 2017. Air travel continues to rebound, up 25% over last year, the second-largest increase since 2010. With volumes closing in on pre-pandemic levels, AAA urges travelers to book now and remember flexibility is key this Memorial Day weekend.

"Memorial Day is always a good predictor of what's to come for summer travel," said Paula Twidale, senior vice president, AAA Travel. "Based on our projections, summer travel isn't just heating up, it will be on fire. People are overdue for a vacation and they are looking to catch up on some much-needed R&R in the coming months."

Air travel volume, which began to rally last Thanksgiving, will hit levels just shy of 2019 with 3 million people expected to take to the skies this Memorial Day weekend. In fact, the percentage of people traveling by air will surpass 2019 levels with 7.7% of travelers choosing air travel as their preferred mode (it was 7.5% in 2019)

2022 Memorial Day Holiday Travelers

	Total	**Automobile**	**Air**	**Other (Bus, Train, Cruise)**
2022 (Forecast)	**39.2M**	34.9M	3.01M	1.33M
2021 (Actual)	**36.2M**	33.4M	2.41M	440,000
2019 (Actual)	**42.8M**	37.6M	3.22M	1.90M
Change (2019 to 2022)	**-8.2%**	-7.3%	-6.3%	-29.6%
Change (2021 to 2022)	**8.3%**	4.6%	25%	199.9%

"Air travel has faced several challenges since the beginning of the year," continued Twidale. "With the type of volume we anticipate, we continue to recommend the safety net of a travel agent and travel insurance. Both are a lifesaver if something unexpectedly derails your travel plans."

How to Travel Stress-Free This Summer

Memorial Day weekend is expected to be the busiest in two years, building on an upward trend that began earlier this spring. This year's forecast marks the second-highest single-year increase in travelers since 2010 (2021 was the highest), bringing volumes almost in line with pre-pandemic levels. Despite historic gas prices, breaching the $4 mark in early March, 34.9 million people plan to travel by car, up 4.6% over last year. A greater portion of travelers are opting for air and other modes of travel than in previous years. Share of car travel fell from 92.1% last year to 88.9% this year, a slight indication that higher prices at the pump are having an impact on how people choose to travel this Memorial Day. Regardless of which mode they choose, travelers should prepare for a busy holiday weekend.

Plan, plan and then plan some more. Book travel plans now if you haven't already – the earlier the better to lock in the best rate and any discounts for pre-paying in full. Flights, car rentals, accommodations, tours, cruises and other activities are in high demand and availability is filling up. Prices are already skewing higher and with greater demand, finding last-minute deals is unlikely.

- **Air**—AAA finds that the **average lowest** airfare is 6% more than last year coming in at $184/ticket with Saturday being the most expensive day to fly and Monday the least.
- **Hotels**—Mid-range hotel rates have increased about 42%, with the **average lowest** nightly rates ranging between approximately $199 – $257/night for AAA Approved Hotels.
- **Car Rentals**—Daily car rental rates have decreased 16% compared to last year, with the **average lowest** rate coming in at $100/day.

Remember, flexibility is important when considering Memorial Day travel plans – look to travel on off-peak times or days, pick a hidden gem closer to home or opt to stay at an all-inclusive resort with plenty of on-site activities. This limits the need for a rental car and paying a la carte for entertainment and dining. Based on AAA booking data, Thursday is shaping up to be the busiest day for air travel during the Memorial Day travel period (May 26 – May 30) with Monday being the lightest. For those hitting the road, Thursday and Friday are anticipated to be peak traffic days. AAA suggests reducing stress by:

- Arriving at the airport at least two hours early for domestic flights and three hours for international.
- Consider booking a flight during non-peak travel periods to cut down on wait times.
- Hitting the road when there's less traffic and allowing extra time when traveling to your destination.

For the 34.9 million Americans hitting the road, it's always advisable to get your vehicle road-trip ready with a full vehicle inspection. AAA expects to respond to over 425,000 calls for help over the Memorial Day holiday weekend. Get key components checked like the battery, fuel system, tires, brakes and fluid levels and make sure your vehicle's emergency kit is fully stocked.

Remember Your Travel Essentials

At the start of planning any trip, AAA reminds travelers not to forget the essentials – working with a travel agent and investigating travel insurance. A travel agent is an industry expert with many resources at their disposal to help plan and organize a trip that fits your individual needs and budget. They can easily look at a variety of options and scenarios to find savings not always available to the public. Plus if something goes wrong, your travel agent becomes your advocate – they will handle the logistics of changing or re-booking reservations.

AAA also highly recommends travel insurance to cover unexpected delays or trip interruptions. Travel insurance provides a safety net should something unexpected happen ahead of or during your trip. Travel agents can also advise on what travel insurance policy makes the most sense. They know you, your trip, your budget and your specific needs.

Big Cities and Beaches are Top Destinations

AAA booking data reveals that big cities and beaches are top destinations this Memorial Day, both domestically and abroad:

2022 Top Memorial Day Destinations

U.S Destinations	International Destinations
Orlando, FL	Vancouver, Canada
Seattle, WA	Dublin, Ireland
Miami, FL	Paris, France
Las Vegas, NV	Rome, Italy
Anaheim, CA	London, England
New York, NY	Cancun, Mexico
Denver, CO	Amsterdam, Netherlands
Anchorage, AK	Barcelona, Spain
Boston, MA	Nassau, Bahamas
Honolulu, HI	Calgary, Canada

Roads Will Be Busy

INRIX predicts drivers will encounter the longest travel delays before the holiday weekend, particularly during the afternoons on Thursday, May 26 and Friday, May 27. Drivers in major U.S. metros could experience double the travel times compared to a normal trip.

“Even with a significant increase in gas prices, we expect a large jump in holiday driving compared to the last few years”, says Bob Pishue, Transportation Analyst, INRIX. “Drivers should expect congestion on major roadways around big cities and popular destinations. Knowing when and where congestion will build can help drivers avoid the stress of sitting in traffic.”

Worst Corridors and Times to Travel

Metro Area	Corridor	Peak Congestion	% Over Normal
Atlanta	I-85 S, Clairmont Rd to MLK Dr	5/26/22, 3:30-5:30pm	128%
Boston	I-93 S, Purchase St to MA-24	5/26/22, 2:30-4:30pm	110%
Chicago	I-290 E, IL-110 to Racine Ave	5/26/22, 3:30-5:30pm	131%
Detroit	I-96 W, 6 Mile Rd to Walled Lake	5/27/22, 3:00-5:00pm	65%
Houston	I-69 N, I-610 to I-10	5/27/22, 4:45-6:45pm	88%
Los Angeles	I-5 S, Colorado St to Florence Ave	5/27/22, 4:45-6:45pm	123%
New York	I-278 W, Long Island Express to 39th St	5/26/22, 3:15-5:15pm	161%
San Francisco	I-80 W, Gilman St to Civic Center	5/26/22, 5:45-7:45pm	105%
Seattle	I-5 S, WA-18 to WA-7	5/27/22, 5:00-7:00pm	112%
Washington DC	I-95 S, I-495 to VA-123	5/26/22, 3:45-5:45pm	77%

Source: INRIX

Daily Worst and Best Times to Travel

Day	Worst Time	Best Time
Thursday	1:00-8:00pm	Before 6:00am or After 9:00pm
Friday	12:00-7:00pm	Before 7:00am or After 9:00pm
Saturday	1:00-6:00pm	Before 10:00am
Sunday	1:00-4:00pm	Before 10:00am
Monday	1:00-4:00pm	Before 11:00am
Source: INRIX		

Remember – Stay Safe and Patient

While most COVID-19 restrictions have eased, it’s important to keep safety in mind for yourself and others. Also, with a busy travel season, it’s easy to lose patience but remember, everyone has a common goal – getting to their destination safely. For those looking to take a few extra precautions, AAA recommends:

- Traveling with your bubble. This type of travel rose to popularity during the pandemic when many opted to vacation with people they were in close contact with. Consider taking a group trip to divvy up costs for things like activities and accommodations. If everyone is spread out, a travel agent can help manage the logistics.
- When booking a place to stay, look for accommodations that prioritize cleanliness and have implemented additional housekeeping standards since the start of the pandemic. In 2021, AAA enhanced its housekeeping evaluation to include objective, scientific validation of the cleanliness of common surfaces throughout hotels. Hotels that meet these new standards are now recognized as Inspected Clean. Look for this designation or to browse all of AAA’s Diamond properties, click here.

- Everything from airports to restaurants to attractions will be busier this Memorial Day, which means more people congregating. AAA advises travelers to follow CDC guidance, which at this time, is still recommending that people wear masks in indoor public transportation settings (airports, bus/train terminals, public transportation like subways/metros, airplanes, trains and buses).

Forecast Methodology:

In cooperation with AAA, IHS Markit– a world leader in critical information, analytics and expertise — developed a unique methodology to forecast actual domestic travel volumes. The economic variables used to forecast travel for the current holiday are leveraged from IHS Markit's proprietary databases. These data include macroeconomic drivers such as employment; output; household net worth; asset prices including stock indices; interest rates; housing market indicators and variables related to travel and tourism, including prices of gasoline, airline travel and hotel stays. AAA and IHS Markit have quantified holiday travel volumes going back to 2000.

Historical travel volume estimates come from DK SHIFFLET's TRAVEL PERFORMANCE/Monitor^{sm}. The PERFORMANCE/Monitor^{sm} is a comprehensive study measuring the travel behavior of U.S. residents. DK SHIFFLET contacts over 50,000 U.S. households each month to obtain detailed travel data, resulting in the unique ability to estimate visitor volume and spending, identify trends, and forecast U.S. travel behavior —all after the trips have been taken.

The travel forecast is reported in person-trips. In particular, AAA and IHS Markit forecast the total U.S. holiday travel volume and expected mode of transportation. The travel forecast presented in this report was prepared the week of April 11, 2022.

Memorial Day Holiday Travel Period

For purposes of this forecast, the Memorial Day holiday travel period is defined as the five days from Thursday, May 26 to Monday, May 30. The five-day holiday length is consistent with previous holiday periods.

About AAA

Started in 1902 by automotive enthusiasts who wanted to chart a path for better roads in America and advocate for safe mobility, AAA has transformed into one of North America's largest membership organizations. Today, AAA provides roadside assistance, travel, discounts, financial and insurance services to enhance the life journey of 62 million members across North America, including 56 million in the United States. To learn more about all AAA has to offer or to become a member, visit AAA.com.

About INRIX

INRIX is the global leader in connected car services and transportation analytics. Leveraging big data and the cloud, INRIX delivers comprehensive services and solutions to help move people, cities and businesses forward. INRIX's partners are automakers, governments, mobile operators, developers, advertisers, as well as enterprises large and small.

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About S&P Global

S&P Global (NYSE: SPGI) provides essential intelligence. We enable governments, businesses and individuals with the right data, expertise and connected technology so that they can make decisions with conviction. From helping our customers assess new investments to guiding them through ESG and energy transition across supply chains, we unlock new opportunities, solve challenges and accelerate progress for the world. We are widely sought after by many of the world's leading organizations to provide credit ratings, benchmarks, analytics and workflow solutions in the global capital, commodity and automotive markets. With every one of our offerings, we help the world's leading organizations plan for tomorrow, today. For more information, visit www.spglobal.com.

About DKSA

DK SHIFFLET boasts the industry's most complete database on U.S. resident travel both in the U.S. and worldwide. Data is collected monthly from a U.S. representative sample, adding over 60,000 traveling households annually and is used daily b https://news.lk/news/politics/item/34037-i-will-undertake-this-task-willingly-risking-my-life-if-needed-and-will-overcome-the-challenges-facing-us-pm

I will undertake this task willingly risking my life if needed and will overcome the challenges facing us- PM Featured

May 16, 2022

My goal and dedication is not to save an individual, a family, or a party. My objective is to save all the people of this country and the future of our younger generation. I will undertake this task willingly risking my life if needed and will overcome the challenges facing us. I ask you to extend your support to me in this endeavour.-Prime Minister, Ranil Wickremesinghe

Prime Minister's statement- 16-05-2022

Last Thursday, I accepted office as the Prime Minister. I did not request this position. In face of the challenging situation facing the country, the President invited me to take up this position. I assumed this duty not only as a political leader, but also as national leader who has benefited from free education at the Faculty of Law of the University of Colombo.

At present, the Sri Lankan economy is extremely precarious. Although the former government's budget projected a revenue of SLR 2.3 trillion, SLR 1.6 trillion is the realistic projection of this year's revenue.

The estimated government expenditure for this year is SLR 3.3 trillion. However, due to the increase in interest rates and additional expenditure of the former government, the total government expenditure is SLR 4 trillion. The budget deficit for the year is SLR 2.4 trillion. This amount equals 13% of the GDP.

The approved debt ceiling is SLR 3200 billion. By the second week of May, we had spent 1950 billion. Therefore, the remainder is SLR 1250 billion. Yesterday, a cabinet decision was made to present a proposal to parliament to increase the approved limit for issuing treasury bills from 3000 billion to 4000 billion.

In November 2019, our foreign exchange reserves were at USD 7.5 billion. However, today, it is a challenge for the treasury to find USD 1 million. The Ministry of finance is finding it difficult to raise USD 5 million required to import gas.

Amidst all these issues we are faced with several grave concerns. To ease the queues, we must obtain approximately USD 75 million within the next couple of days. At the moment, we only have petrol stocks for a single day. Due to the diesel shipment that arrived yesterday, the diesel lack of diesel will be resolved to some extent. Under the Indian credit line, two more diesel shipments are due to arrive on the 18th May and 1st June. In addition, two petrol shipments are expected on 18th and 29th May. For over 40 days 3 ships with crude oil and furnace oil have been anchored within the maritime zone of Sri Lanka. We are working to obtain dollars in the open market to pay for these shipments.

A quarter of electricity is generated through oil. Therefore, there is a possibility that the daily power outages will increase to 15 hours a day. However, we have already obtained money to avert this crisis. We must also immediately obtain USD 20 million to provide gas to consumers. The situation of kerosene and furnace oil is even more urgent. At present, the Central Bank, local state and private banks, and foreign banks functioning in Sri Lanka are all facing a dollar shortage. As you are already aware, we possess a very low amount of US dollars. Nevertheless, we succeeded in bringing in a diesel shipment yesterday despite these adverse circumstances with Indian assistance. Therefore, you can obtain that diesel from today onwards. We will also work towards making a payment for the gas shipment that arrived on Tuesday. Therefore, you will have some respite from the gas shortage.

Another grave concern is the lack of medicine. There is a severe shortage of a number of medicines including medicine required for heart disease as well as surgical equipment. Payments have not been made for four months to suppliers of medicine, medical equipment, and food for patients. The payment owed to them amounts to SLR 34 billion. In addition, payments have not been made for four months for medicine imported by the State Pharmaceuticals Corporation. As a result, pharmaceutical companies are taking steps to blacklist the SPC. Unfortunately, our Medical Supplies Division is unable to provide even two critical items of the 14 essential medicines that we currently need. These two are a medicine used in treating heart disease and the anti-rabies vaccine. The latter has no alternative treatment.

We have planned to present a new alternative budget to the development budget proposed for 2022. Intend to present it as a concessionary budget.

I further propose to privatise Sri Lankan Airlines which is incurring extensive losses. The loss for the year 2020-2021 alone amounts to SLR 45 billion. By 31st March 2021, the total loss was at 372 billion. Even if we privatise Sri Lankan Airlines, this is a loss that we must bear. You must be aware that this is a loss that must be borne even by the poor people of this country who have never stepped on an airplane.

In the short term we will have to face an even more difficult time period. There is a possibility that inflation will increase further.

At present, the government incurs a loss of SLR 84.38 per liter of 92 octane petrol, 71.19 per liter of 95 octane petrol, 131.55 per liter of diesel, 136.31 per liter of super diesel, and 294.50 per liter of kerosene oil. The Petroleum Corporation can no longer bear this loss. Similarly, although the Electricity Board charges SLR 17 per unit of electricity the cost of production is at around SLR 48 amounting to a loss of about SLR 30 per unit. This is also a serious problem.

Against my own wishes, I am compelled to permit printing money in order to pay state-sector employees and to pay for essential goods and services. However, we must remember that printing money leads to the depreciation of the rupee. Under the current circumstances, even the Petroleum Corporation and the Electricity Board are unable to obtain rupees.

The next couple of months will be the most difficult ones of our lives. We must prepare ourselves to make some sacrifices and face the challenges of this period.

I have no desire to hide the truth and to lie to the public. Although these facts are unpleasant and terrifying, this is the true situation. For a short period, our future will be even more difficult than the tough times that we have passed. We will face considerable challenges and adversity. However, this period will not be long. In the coming months, our foreign allies will assist us. They have already pledged their support. Therefore, we will have to patiently bear the next couple of months. However, we can overcome this situation. Doing so will require taking a new path.

I thank the opposition leader and the leaders of the political parties who replied to the letters that I sent them informing them of the current situation.

We must immediately establish a national assembly or political body with the participation of all political parties to find solutions for the present crisis. This will enable us to discuss with all parties and to arrive at decisions for short-, medium-, and long-term action plans that will enable us to rebuild our nation within a specified time frame.

We will build a nation without queues for kerosene, gas, and fuel; a nation free of power outages, a nation with plentiful resources where agriculture can freely flourish; a nation where the future of the youth is secure; a nation where people's labour need not be wasted in queues and in struggles; a nation where everyone can lead their lives freely with three square meals a day.

I am undertaking a dangerous challenge. In the Caucasian Chalk Circle, Grusha crossed the broken rope bridge carrying a child that was not her own. This is an even more difficult undertaking. The precipice is deep and its bottom cannot be seen. The bridge is made of thin glass and there is no handrail. I am wearing shoes with sharp nails that cannot be removed. My task is to safely take the child to the other side. I am accepting this challenge for our nation. My goal and dedication is not to save an individual, a family, or a party. My objective is to save all the people of this country and the future of our younger generation. I will undertake this task willingly risking my life if needed and will overcome the challenges facing us. I ask you to extend your support to me in this endeavour.

I will fulfill my duty towards our nation.

That is my promise to you.

https://www.ercot.com/files/docs/2022/05/16/SARA_Summer2022.pdf

Release Date: May 16, 2022

Seasonal Assessment of Resource Adequacy for the ERCOT Region (SARA)
Summer 2022

SUMMARY

The ERCOT region is expected to have sufficient installed generating capacity to serve peak demands in the upcoming summer season, June - September 2022, under normal system conditions and most of the reserve capacity risk scenarios examined. This SARA report includes seven risk scenarios reflecting alternative assumptions for peak demand, unplanned thermal outages, and renewable generation output.

With continued economic growth across the state, ERCOT anticipates a summer 2022 peak demand of 77,317 MW, which accounts for load reductions based on an incremental rooftop solar capacity forecast. This would be a new system-wide peak demand record for the region.

ERCOT anticipates there will be 91,392 MW of resource capacity available during summer peak demand hours, which includes 473 MW of planned gas-fired, utility-scale solar and wind capacity. Additionally, ERCOT expects to have 2,035 MW of operational battery storage resources, which includes 283 MW of planned additions. While some of these battery storage resources may help meet customer demand, they are not currently included in ERCOT's capacity contribution for summer because they are not expected to provide sustained capacity for meeting system peak loads.

A noteworthy development is that several operational generation resources are now classified as Private Use Network (PUN) generators. The aggregate installed capacity for these new PUN units is almost 1,700 MW.

The summer capacity planning reserve margin is forecasted at 22.8%, after accounting for forecasted customer demand, emergency demand reduction programs, typical unplanned outages, and typical renewable output.

Report Design Changes

Beginning with this SARA, ERCOT is including the installed capacity ratings of individual generating units, as well reporting the aggregate installed capacities of the various resource categories on the 'Forecasted Capacity' tab. Installed capacity ratings are based on the maximum power that a generating unit can produce during normal sustained operating conditions as specified by the equipment manufacturer.

Seasonal Assessment of Resource Adequacy for the ERCOT Region
Summer 2022
Release Date: May 16, 2022

Installed and Summer Capacity Ratings, MW

Resources, MW	Installed Capacity Rating (see note)	Expected Capacity for Summer Peak Demand	
Thermal Resources, Installed Summer-rated Capacity	71,214	63,514	Based on current Seasonal Maximum Sustainable Limits reported through the unit registration process
Hydroelectric, Peak Average Capacity Contribution	563	475	Based on 83% of installed capacity for hydro resources (summer season) per ERCOT Nodal Protocols Section 3.2.6.2.2
Switchable Capacity Total	3,840	3,490	Installed capacity of units that can interconnect with other Regions and are available to ERCOT
Less Switchable Capacity Unavailable to ERCOT	(572)	(542)	Based on survey responses of Switchable Resource owners
Available Mothballed Capacity	470	365	Based on seasonal Mothball units plus Probability of Return responses of Mothball Resource owners
Capacity from Private Use Networks	11,249	4,262	Average grid injection during the top 20 summer peak load hours over the last three years, plus the forecasted net change in generation capacity available to the ERCOT grid pursuant to Nodal Protocols Section 10.3.2.4.
Coastal Wind, Peak Average Capacity Contribution	5,138	2,928	Based on 57% of installed capacity for coastal wind resources (summer season) per ERCOT Nodal Protocols Section 3.2.6.2.2
Panhandle Wind, Peak Average Capacity Contribution	4,245	1,273	Based on 30% of installed capacity for panhandle wind resources (summer season) per ERCOT Nodal Protocols Section 3.2.6.2.2
Other Wind, Peak Average Capacity Contribution	25,812	5,162	Based on 20% of installed capacity for other wind resources (summer season) per ERCOT Nodal Protocols Section 3.2.6.2.2
Solar Utility-Scale, Peak Average Capacity Contribution	11,342	9,140	Based on 81% of rated capacity for solar resources (summer season) per Nodal Protocols Section 3.2.6.2.2
Storage, Peak Average Capacity Contribution	1,752	-	Based on 0% of rated capacity (summer season); resources assumed to provide regulation reserves rather than sustained capacity available to meet peak loads
RMR Capacity to be under Contract	-	-	
Capacity Pending Retirement	-	-	Announced retired capacity that is undergoing ERCOT grid reliability reviews pursuant to Nodal Protocols Section 3.14.1.2
Non-Synchronous Ties, Capacity Contribution	1,220	850	Based on net imports during summer 2019 Energy Emergency Alert (EEA) intervals
Planned Thermal Resources with Signed IA, Air Permits and Adequate Water Supplies	356	356	Based on in-service dates provided by developers
Planned Coastal Wind with Signed IA, Peak Average Capacity Contribution	-	-	Based on in-service dates provided by developers and 57% summer capacity contribution for coastal wind resources
Planned Panhandle Wind with Signed IA, Peak Average Capacity Contribution	-	-	Based on in-service dates provided by developers and 30% summer capacity contribution for panhandle wind resources
Planned Other Wind with Signed IA, Peak Average Capacity Contribution	16	3	Based on in-service dates provided by developers and 20% summer capacity contribution for other wind resources
Planned Solar Utility-Scale, Peak Average Capacity Contribution	141	114	Based on in-service dates provided by developers and 81% summer capacity contribution for solar resources
Planned Storage, Peak Average Capacity Contribution	283	-	Based on in-service dates provided by developers and 0% summer capacity contribution for storage resources
[a] Total Resources, MW	137,067	91,392	

Note on Installed Capacities: Installed capacity ratings are based on the maximum power that a generating unit can produce during normal sustained operating conditions as specified by the equipment manufacturer.

https://www.cppinvestments.com/public-media/headlines/2021/cpp-investments-highlights-importance-of-decarbonizing-hard-to-abate-sectors-in-addressing-climate-change

CPP Investments highlights importance of decarbonizing hard-to-abate sectors in addressing climate change

• CPP Investments releases position outlining investors' role in enabling an economy-wide evolution to a low-carbon future
• Introduces new investment approach that will identify, fund and support companies in their effort to decarbonize

Toronto, CANADA (December 15, 2021) – Helping essential, high-emitting businesses decarbonize is critical to addressing climate change, according to a recent perspective published by Canada Pension Plan Investment Board (CPP Investments). The perspective, "Investing to enable an economy-wide evolution to a low-carbon future," highlights the opportunity decarbonization presents for long-term investors, noting the need to address a particularly serious obstacle to decarbonization: strategic sectors that are essential, high-emitting and hard-to-abate.

The perspective also outlines CPP Investments' new investment approach which aims to identify, fund and support companies that are committed to creating value by lowering their emissions over time, consistent with CPP Investments' time horizon advantage.

"High-emitting companies that successfully navigate the economy-wide evolution to a low-carbon future will preserve and deliver embedded value for patient long-term investors like CPP Investments," said Deb Orida, Global Head of Real Assets & Chief Sustainability Officer. "This new investment approach complements the Fund's ongoing commitment to investing in companies that have the potential to develop innovative climate technologies around the world and furthers our existing capabilities in technologies that enable the energy evolution."

Strategic sectors that are essential, high emitting and hard-to-abate within this investment approach include agriculture, chemicals, cement, conventional power, oil and gas, steel and heavy transportation. The successful decarbonization of these sectors is not only essential to meet wider net-zero ambitions, but also to sustain economic growth, stability and a responsible transition. CPP Investments plans to work in partnership with like-minded companies, industry leaders, investors, and other interested parties to build out a dedicated investment approach to support current and future portfolio companies in their evolution.

CPP Investments also released a related perspective today focusing on an additional key element of sustainable investing, "Financing a greener future," highlighting green bonds as part of the Fund's approach to deploying capital for projects with environmental benefits. The paper outlines how for green bonds to go from a fast-growing niche to a mainstream offering, standards will have to grow out of a mix of evolving draft rules into something closer to the bond market's extant framework for governing how debt is rated, issued and evaluated for performance. The imperative is to improve green bond standards and practices quickly. Doing so can help the financial sector realize its enormous potential for guiding capital toward investments that support the transition to a low-carbon economy while also boosting returns. In 2018, CPP Investments was the world's first pension fund to issue green bonds and has floated six more issuances since.

For more information, the "*Investing to enable an economy-wide evolution to a low-carbon future*" perspective can be found on the CPP Investments website here. The "*Financing a greener future*" paper can be found here.

About CPP Investments

Canada Pension Plan Investment Board (CPP Investments™) is a professional investment management organization that manages the Fund in the best interest of the more than 20 million contributors and beneficiaries of the Canada Pension Plan. In order to build diversified portfolios of assets, investments are made around the world in public equities, private equities, real estate, infrastructure and fixed income.

Headquartered in Toronto, with offices in Hong Kong, London, Luxembourg, Mumbai, New York City, San Francisco, São Paulo and Sydney, CPP Investments is governed and managed independently of the Canada Pension Plan and at arm's length from governments. At September 30, 2021, the Fund totalled $541.5 billion. For more information, please visit www.cppinvestments.com or follow us on LinkedIn, Facebook or Twitter.

2022 climate-related shareholder proposals more prescriptive than 2021

BlackRock.

Investment Stewardship

- **BlackRock Investment Stewardship (BIS) takes a case-by-case approach to shareholder proposals and, without exception, takes voting decisions on proposals as a fiduciary acting in clients' long-term economic interests.**
- **BIS continues to see voting on shareholder proposals playing an important role in stewardship.**
- **Having supported 47% of environmental and social shareholder proposals in 2021, BIS notes that many of the climate-related shareholder proposals coming to a vote in 2022 are more prescriptive or constraining on companies and may not promote long-term shareholder value.**

BlackRock Investment Stewardship

The assets we manage are owned by other people — our clients — who depend on BlackRock to help them achieve their investment goals. These clients include public and private pension plans, governments, insurance companies, endowments, universities, charities and, ultimately, individual investors, among others. Consistent with BlackRock's fiduciary duty as an asset manager, BIS' purpose is to support companies in which we invest for our clients in their efforts to create long-term durable financial performance.

BIS serves as an important link between our clients and the companies in which they invest, and the trust our clients place in us gives us a great responsibility to work on their behalf. That is why we are interested in hearing from companies about their strategies for navigating the challenges and capturing the opportunities they face. As we are long-term investors on behalf of our clients, the business and governance decisions that companies make will have a direct impact on our clients' investment outcomes and financial well-being. In all our stewardship work on behalf of our clients, the asset owners, we therefore focus on engagement and voting outcomes that support companies' long-term ability to maximize durable financial returns.

This paper frames our approach to shareholder proposals generally and, more specifically, our initial assessment of some of the climate-related themes that are emerging in the 2022 proxy season. We set out some preliminary considerations in relation to these proposals in the context of our fiduciary duty to act in the best interests of clients who have authorized us to vote their holdings on their behalf.

BIS approach to shareholder proposals

BIS takes a case-by-case approach to voting on shareholder proposals. Without exception, our decisions are guided by our role as a fiduciary to act in our clients' long-term economic interests. We continue to see voting on shareholder proposals playing an important role in our stewardship efforts around material risks and opportunities.

In 2021, we observed a shift in climate-related shareholder proposals with requests that addressed material business risks or that were anchored in reports providing information, which would be useful to investors in assessing a company's ability to generate durable long-term value. In 2021 BIS supported 47% of environmental and social shareholder proposals (81 of 172), as we determined these proposals to be consistent with long-term value creation and not unduly constraining on management in pursuing their strategies to create shareholder value.

BIS is more likely to support shareholder proposals that are consistent with our request to companies to deliver information that helps us to understand the material risks and opportunities they face, especially where this information is additive given the company's existing disclosures. As noted below, as relates to climate risk, this is principally climate action plans with clear explanations of how the energy transition will affect a company's long-term business model and financial performance, supported by quantitative information such as scope 1 and 2 greenhouse gas (GHG) emissions and short-, medium-, and long-term targets for emissions reductions. Similarly, we may support climate-related proposals that encourage companies to provide investors with comprehensive and accessible information on how their corporate political activities support their long-term strategy.

Conversely, we are not likely to support those that, in our assessment, implicitly are intended to micromanage companies. This includes those that are unduly prescriptive and constraining on the decision-making of the board or management, call for changes to a company's strategy or business model, or address matters that are not material to how a company delivers long-term shareholder value.[1]

BIS dialogue with companies regarding the energy transition

As BIS stated in our 2022 Global Principles and commentary on Climate Risk and the Global Energy Transition, we find it useful to our understanding of the long-term climate-related risks and opportunities companies face when they disclose to investors how climate risks and opportunities might impact their business, and how these factors are addressed in the context of a company's business model and sector. Specifically, investors have greater clarity— and ability to assess risk — when companies detail how their business model aligns to scenarios for the global economy that limit temperature rises to well below 2°C, moving toward net zero emissions by 2050.

We look to companies to help their investors understand how climate risks and opportunities are integrated into their governance, strategy, and risk management, to provide scope 1 and 2 GHG emissions disclosures, and meaningful short-, medium-, and long-term science-based reductions targets, where available for their sector.

We also welcome disclosures on how companies are considering scope 3 GHG emissions, the impacts of the energy transition on their stakeholders and operations, and how they will contribute to a reliable and affordable energy system over time. Many companies are already providing robust disclosures on scope 3 GHG emissions, which we recognize are provided on a good-faith basis as reporting methods develop. Over time, the development of a widely accepted approach to consistently measure and disclose scope 3 GHG emissions would both reduce the reporting burden on companies and improve the quality of information available to investors.

At BlackRock, we believe that climate risk is investment risk, and we see growing recognition that climate risk and the energy transition are already transforming both the real economy and how people invest in it. We have been encouraged by the progress many companies in key sectors have made in their energy transition planning and actions, as detailed in their enhanced disclosures. Market-level initiatives, such as the Net Zero Banking Alliance and Oil & Gas Methane Partnership 2.0, have helped companies take steps relevant to their business models and sectors. We have also seen enhanced disclosure by many companies on how they are engaging on policy matters, through their own corporate political activities and those of the trade associations of which they are active members. This has enabled us to be more supportive of management in our voting on these issues at the shareholder meetings held to date this year.

As we outlined in our commentary Climate Risk and the Global Energy Transition, BIS will, as in prior years, be unlikely to support the re-election of directors considered responsible for climate risk oversight when corporate disclosures do not sufficiently enable investors to assess risk through the TCFD framework — including in relation to governance, strategy, and risk management — or when companies have not provided scope 1 and 2 GHG emissions disclosures and meaningful short-medium-, and long-term targets.

BIS' observations on climate-related shareholder proposals in 2022

Ahead of the peak 2022 shareholder meeting season, BIS has had an opportunity to observe and assess some of the themes in focus in the climate-related shareholder proposals on which we will vote over the coming weeks and months.

At the same time, there are some unique dynamics playing out for the first time this shareholder meeting season.

- In the U.S., the Securities and Exchange Commission revised guidance[2] on shareholder proposals, and broadened the scope of permissible proposals that address "significant social policy issues". This has resulted in a marked increase[3] in environmental and social shareholder proposals of varying quality coming to a vote. Our early assessment is that many of the proposals coming to a vote are more prescriptive and constraining on management than those on which we voted in the past year.
- Importantly, in the context of voting on shareholder proposals regarding climate-related risk, companies face particular challenges in the near term, given under-investment in both traditional and renewable energy, exacerbated by current geo-political tensions. In recent research, BlackRock noted that reducing reliance on Russian energy in the wake of the invasion of Ukraine will impact the net zero transition that is already underway. Net exporters of energy are likely to be required to increase production, while net importers are expected to accelerate efforts to increase the proportion of renewables in their energy mix. This set of dynamics will — at least in the short- and medium-term — drive a need for companies that invest in both traditional and renewable sources of energy and we believe the companies that do that effectively will produce attractive returns for our clients.
- Companies, particularly in Europe, are increasingly choosing to introduce management proposals to approve a company's climate action plan or progress in realizing its objectives. These proposals are a tool for companies seeking investor feedback on climate risk and the energy transition. In those cases where both a climate-related management proposal and a similar shareholder proposal are on the ballot, we have observed that investors, including BlackRock, are increasingly inclined to support the management proposal, as the company is demonstrating commitment to act by setting out their business plan for how they intend to deliver long-term financial performance through the energy transition. BIS continues to monitor the development of proposals on climate action plans and progress in this context.

Consistent with BIS' approach to shareholder proposals as set out above, and mindful of the current geo-political context, energy market pressures, and the implications of both for inflation, we have observed several themes of shareholder proposals that warrant special attention. These themes include:

- Ceasing providing finance to traditional energy companies
- Decommissioning the assets of traditional energy companies
- Requiring alignment of bank and energy company business models solely to a specific 1.5ºC scenario
- Changing articles of association or corporate charters to mandate climate risk reporting or voting
- Setting absolute scope 3 GHG emissions reduction targets[4]
- Directing climate lobbying activities, policy positions or political spending

Although it is still early in the shareholder meeting season, we note that many of these more prescriptive climate-related proposals are attracting lower levels of investor support.[5] In such cases, we also note that global proxy advisors ISS and Glass Lewis have been recommending that shareholders not support overly prescriptive or constraining proposals.

In conclusion, BIS is focused on supporting companies as they address the material business challenges they face, including the decades-long transition to a low carbon economy. In our voting determinations it is crucial that we take into consideration the context in which companies are operating their businesses. As we engage companies in an active dialogue about the climate-related risks and opportunities in their business models, we advocate for steps aligned with our clients' interests as long-term shareholders. Our voting on our clients' behalf, where so authorized by them, signals our support for — or concerns about — a company's approach and will always be undertaken with the appropriate consideration of our clients' long-term economic interests as their fiduciary. The nature of certain shareholder proposals coming to a vote in 2022 means we are likely to support proportionately fewer this proxy season than in 2021, as we do not consider them to be consistent with our clients' long-term financial interests.

Endnotes

1. We recognize that some of our clients may take a different view, and more of our clients are interested in having a say in how their index holdings are voted. Beginning in 2022, BlackRock is taking the first in a series of steps to expand the opportunity for clients to participate in proxy voting decisions where legally and operationally viable. To do this, BlackRock developed new technology and worked to enable a significant expansion in proxy voting choices for more clients. For more information see: https://www.blackrock.com/corporate/about-us/investment-stewardship/proxy-voting-choice
2. Pensions & Investments: SEC guidance opens the door for more ESG proxy proposals, 29 November 2021: https://www.pionline.com/regulation/sec-guidance-opens-door-more-esg-proxy-proposals
3. Politico: SEC shift fuels surge in climate-linked proxy proposals, 4 April 2022: https://www.politico.com/news/2022/04/19/sec-investor-sustainability-agenda-00026200
4. This is not to minimize value chain, or scope 3, GHG emissions. They are a major global societal issue and, for companies where they are material, the prospect of future policy change could affect the economic viability of their business models. To effect change in scope 3 GHG emissions in a fair and balanced way, policy action by governments will be necessary. Companies cannot solve scope 3 on their own. As national and regional policy expectations around scope 3 evolve and crystallize, we will look to companies to align their disclosures and commitments accordingly.
5. Financial Times: Investors at top US banks refuse to back climate proposals, 26 April 2022: https://www.ft.com/content/740b55f8-fa2e-4b66-9398-9f84aedbe8d8

Want to know more?

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BlackRock.

https://www.blackrock.com/ca/investors/en/transition-investing

A FRAMEWORK FOR OUR CLIENTS

How to invest in the net zero transition

Dear Client,

We are writing to you as a client who has expressed interest in the net zero transition. As the transition becomes increasingly pivotal to your long-term investment goals, it is our responsibility to help provide you with the answers and the tools you need to help address it in your portfolio. The choice of how to approach the transition, as always, remains with you, and as your fiduciary, we commit to helping guide and advise you as it unfolds.

We are hearing a range of questions about the transition from clients – how do I safeguard my portfolio against physical risk and transition risk? How do I measure and implement my net zero commitments? Which companies will thrive in the transition and which won't? How do I capitalize on the promise of new technologies? How will different hydrocarbon companies adapt to the transition and how will that impact my portfolio? These questions are of growing importance to long-term investors – but also difficult to answer as the economy undergoes such a profound transformation.

Decarbonization is proceeding at different speeds across different parts of the economy and the world. The shocks we see in the energy sector today are one example of the challenges the transition poses. Increased investment in the supply of renewables outpaced the reduced investment in fossil fuels. Now, increased demand for fossil fuels in the restart of economic activity and impaired supply have driven up the price and use of gas, oil, and coal. There will be periods like this when traditional energy performs well – periods that should not be seen as counter to the transition, but as part of it.

At the same time, the net zero transition is also advancing. The share of countries committed to net zero has swelled from less than 10 percent to 95 percent of global emissions. In the beginnings of a tectonic shift[1] of capital, investors have moved their money into sustainable investments at six times the growth rate of traditional investments, with assets globally now totaling $4 trillion across all ESG categories.[2] And there has been striking change across carbon-intensive industries, from energy to heavy industry to agriculture, to decarbonize and remake their businesses.

The speed and shape of the transition are deeply uncertain, and it will take decades to play out. It is essential that governments, businesses, and finance work together to manage the transition in an orderly fashion, ensuring reliable energy supply and cost along the way.

The ambition and effectiveness of government policy will be a major factor in determining the future role for hydrocarbons. Effective, long-term planning is necessary to deliver cost-efficient clean energy alternatives at scale. Without it, hydrocarbons will continue to play a central role in the global economy for a much longer time. To date, public policy has primarily focused on limiting hydrocarbon supply but has not done enough to address demand – for example, by retooling energy-intensive industries or accelerating adoption of zero-carbon energy sources – resulting in higher energy prices in some instances. And as we have seen in emerging markets, rising natural gas prices can also drive increased use of coal.

Today there is a significant degree of uncertainty about the transition. The issue, however, is no longer *whether* **the net zero transition will happen but** *how* **– and what that means for your portfolio**. Our focus on understanding the *how* of the net zero transition is driven, as always, by our role as a fiduciary. It is based on our abiding conviction that long-term investors must consider the implications on their portfolios of both physical climate risk and the transition to net zero in the real economy, and that by taking these factors into account, they can more effectively manage risk, seize new investment opportunities, and achieve better long-term returns. We delve deeper into these topics in a new paper from the BlackRock Investment Institute, "Managing the net zero transition."

We hope to answer your questions about the transition and offer you a comprehensive set of options to help you address them – whether it's tilting your broad market strategies to be more climate-aware, investing in carbon-intensive companies that are transforming their businesses, or gaining exposure to the new technologies and business models of a net zero world. We are committed to providing the full range of investment choices to help you find the best path for you and your stakeholders, and regardless of which approach you choose, we are profoundly excited to help you navigate this transformation.

We have taken a number of steps over the past two years to help you address the transition: integrating ESG risk considerations into our active investment process, introducing more than 200 new sustainable funds, building Aladdin® Climate to help you understand physical and transition risk in your portfolio; forming Decarbonization Partners to invest in innovative decarbonization technologies and businesses; and establishing a heightened scrutiny framework to help manage exposure to climate-related risk in active portfolios.

We are working to help address some of the most difficult questions in decarbonization. Our Climate Finance Partnership, a global consortium of governments, philanthropies, and institutional investors, is focused on investing in climate infrastructure in emerging markets. And the BlackRock Foundation has partnered with Breakthrough Energy Catalyst, in order to help increase the commercial viability of critical climate technologies.

We have also taken action to increase transparency for our clients, including publishing **implied temperature rise metrics** for our ETFs and public index funds. You can read a more detailed update **here**.

In 2022 and beyond, we aim to:

- Build and deliver the **industry's most sophisticated transition tools, analytics, and portfolio advice**, powered by Aladdin and designed to help investors to invest amidst high uncertainty about the pace of change in policy and the real economy.

- Offer you a **framework** for thinking about how to invest in the transition – a spectrum of "*navigate, drive, and invent.*" With capital already flowing fast to green technologies, we believe there is also a significant investment opportunity for managers who can identify the carbon-intensive companies with the best strategies for decarbonization.

- **Establish a new capability** to bring together BlackRock's efforts focused on transition finance and to incubate transition-focused investment strategies.

Helping guide you through the transition

Clients have long expected their asset manager to have a sophisticated understanding of the direction of interest rates, inflation, and macroeconomic growth. Increasingly, they expect the same sophisticated understanding of the net-zero transition.

For investors to navigate the transition, they need to be able to measure and model it. That's why we have been building Aladdin Climate – a collection of data, models, analytics and tools to help investors understand, report, and act on physical and transition risk in their portfolios and capture related opportunities.

Aladdin Climate analyzes how securities and portfolios are impacted by and contribute to forward-looking climate scenarios and decarbonization pathways. The technology integrates these analytics into a platform that investors use to manage risk and investments. These climate metrics are delivered alongside traditional financial metrics and portfolio construction capabilities, providing investors with a consistent way to evaluate risks and identify new investment opportunities.

Starting with Aladdin – and drawing on BlackRock's proprietary insights and tools across public and private markets, we aim to build the industry's clearest map of how the transition is likely to unfold across technologies, sectors, and regions. The **BlackRock Transition Scenario** will put our analytical and modeling capabilities at the fingertips of portfolio managers and clients to help illuminate the path to navigate, drive and invent the transition.

We are also augmenting our sustainable investing capabilities through tools such as BlackRock Sustainable Investing Intelligence™ – our proprietary framework that goes beyond traditional financial accounting metrics to identify companies best prepared to mitigate risks and capture opportunities associated with the transition.

In addition, BlackRock Investment Stewardship's engagement with companies about their transition plans is an essential aspect of informing our views on the transition and promoting long-term value for our clients. We ask every company to help its investors understand how it may be impacted by climate-related risk and opportunities, and how these factors are considered in a manner consistent with the company's business model and sector. BlackRock Investment Stewardship **Global Principles** contain further details on our approach.

A transition framework: navigate, drive, and invent

After hundreds of conversations with clients to inform our thinking, we have developed a framework to help you achieve your investment objectives as the transition unfolds. While we offer you a variety of ways to approach the transition, all of them recognize that a clear understanding of the transition is vital to achieving better long-term returns.

Markets are already bearing this argument out – for example, our research has shown that more sustainable companies are seeing their cost of capital fall. And while short time periods are not determinative, it is striking that in 2021, 70 percent of a selection of broad-market ESG indices outperformed their non-ESG counterparts, with average outperformance of over 100 basis points.[3]

However, we also believe that markets are only beginning to price in the effects of the climate transition on asset prices, creating a significant opportunity for our clients. Indeed, understanding sustainability characteristics is key to our ability to generate alpha, and as the transition accelerates, an understanding of these characteristics will be even more pivotal to outperformance.

Navigate

At the center of any sound investment approach is an understanding not only of how the world looks today, but how it might look tomorrow. That question increasingly hinges on understanding the net zero transition – and having the right approach to navigate it effectively.

Virtually every client is asking: how do I navigate the transition to manage risk and capture opportunity? How do I think about climate not only in terms of green technologies, but across the whole economy? How do I reconcile the ongoing role of fossil fuels – even the need for continued upstream investment – with the push to accelerate clean energy deployment? These are increasingly existential questions for portfolio construction because no investor can afford to ignore the transition as it accelerates.

Navigation isn't just about making an allocation to sustainable investments. It is about understanding as precisely as possible how the multiple forces of decarbonization will impact your *entire* portfolio – for example, how evolving technology, energy prices, government policy, and other factors interact to paint a picture of how the transition is unfolding, with implications at the security, sector, and portfolio level.

BlackRock already offers you a number of ways to navigate, including transition benchmarks and next-generation tilts that leverage proprietary data, research and insights – customizing and optimizing to lean into financially-material decarbonization and ESG objectives aligned to our clients' goals. Our active portfolios are ESG-integrated, which means that portfolio managers take sustainability-related characteristics of issuers into account in their investment decisions.

In 2022, we are committing to offer you more targeted ways to invest in line with the way decarbonization is projected to unfold.

- More strategies to enable investors to "green the core" of their portfolio by accessing climate-aware broad-market exposures and drawing on BlackRock Sustainable Investing Intelligence, including potential options for investors focused on retirement.
- We also plan to offer new fundamental and systematic active strategies and to continue to expand our iShares® strategies to include climate benchmarks.
- We will expand our Portfolio Consulting and Outsourced Chief Investment Officer capabilities to incorporate climate transition analytics and allow for greater customization to enable our clients to achieve their unique sustainability objectives.

Drive

Given the inevitability of the net zero transition, we believe navigation should be the default posture of investors. But we are hearing from more and more clients who want to do more than just understand how the transition may unfold and adjust their portfolios accordingly. They want to help **drive** it forward, positioning themselves to capture value while contributing to accelerated progress.

In this context, many of you are asking us: should my ambition be to remove as much carbon as possible from my portfolio today, or should I invest in carbon-intensive sectors that are in the process of going green? To paraphrase one climate-focused global investor, having a zero-carbon portfolio today doesn't necessarily drive decarbonization tomorrow.

Capital markets are already channeling capital to companies with green business models, such as producers of **renewable energy, suppliers of electric mobility technology, or companies focused on nature-based solutions**. We believe an underappreciated opportunity for investors seeking to drive the transition lies in **identifying carbon-intensive companies that are positioning themselves to lead decarbonization within their industries**.

The transition to net zero, of course, will take decades. The global economy will continue to rely on fossil fuels as emissions-intensive sectors like electricity, industry, and transport work to decarbonize. Some incumbents will be displaced by new technologies or more agile startups, and some will lose out to competitors who are decarbonizing more successfully. **But many other incumbents will thrive, providing important investment opportunities for our clients, and successful decarbonization plans by these companies will be critical to an orderly transition.**

What might driving successful decarbonization look like at the industry level? For a utility, it might mean negotiating the early closure of a coal-fired power plant and using free cash flow to invest in grid-scale battery technology. For a steel producer, it might mean replacing traditional blast furnaces with electric arc furnaces. For an automaker, it might be committing to all-electric vehicle designs faster than its competitors.

BlackRock already provides a number of ways for clients to drive the transition – from one of the world's leading renewable power franchises, to our Climate Finance Partnership, to a range of thematic strategies.

In 2022, we are deepening our focus on the question of decarbonization across our investment platform, integrating it more deeply into our existing strategies, and offering **new** active public-markets strategies**,** index thematic strategies, and green bond strategies. In addition, our private-markets strategies are increasingly focused on helping clients access a range of transition-focused opportunities, both in renewables and in companies seeking to decarbonize.

Invent

Finally, clients will have enormous opportunities to invest in the technologies and businesses needed to i**nvent** major aspects of a truly zero-emissions economy. Clients are asking, how can I invest in the climate tech of the future? What are the climate unicorns of the 21st century that will have the biggest impact on the transition and generate outsize returns?

Many of these technologies exist but are not yet economically competitive – such as green hydrogen, carbon capture, green cement, or sustainable aviation fuel. Capital is necessary to commercialize these new technologies and invent others, and many of you have told us you see this area as one of the most exciting investment opportunities of the coming decades.

Last year, we announced the formation of Decarbonization Partners with Temasek, which will seek to make investments in early-stage growth companies targeting proven, next-generation renewable and mobility technology. And just last week, we announced the dedicated investment team, which has already begun identifying an exciting pipeline of investment opportunities.

This year, we will establish a new capability to bring together BlackRock's efforts focused on transition finance – a hub for select strategies related to the transition; an incubator for new investment strategies; and a forum for BlackRock to connect with companies, academics, and other organizations to better understand the transition and seek the best investment opportunities on behalf of our clients.

Conclusion

The transition is a process that will unfold over many years. It will take careful planning and coordinated action among government, business and investors. We believe there is still a great deal to learn about how best to move forward, and your voice and your insights will be essential. We look forward to learning and working together, and we hope you will consider joining us for a summit on transition finance, which we will host later this year.

We are committed to being the world's leading advisor and expert on investing in the net zero transition. We are committed to giving you the most sophisticated, up-to-date analytics and the deepest understanding of how the transition will unfold. And we are committed to helping you select the investment options that are right for you and your stakeholders. It is our privilege to work with you to navigate, drive, and invent this economic and financial transformation.

Quant ETF Set for Record 75% Rebalance as Tech Stocks Plunge (1)
2022-05-18 21:32:48.499 GMT

By Sam Potter
(Bloomberg) -- A $10 billion quant strategy that chases the biggest stock-market winners is about to undergo its largest-ever reshuffle -- underscoring the dramatic shift in the fortunes of Corporate America over the past six months as the free-money era ends.
BlackRock Inc.'s iShares MSCI USA Momentum Factor ETF (ticker MTUM) is facing its latest semi-annual rebalance, with the fund's underlying index due to start the process next week. Wells Fargo & Co. estimates a whopping 75% of the smart-beta product's holdings will be turned over in favor of sectors that gain from elevated inflation like value and energy, at the expense of technology names. At the same economically sensitive companies like banks will likely be slashed in favor of defensives like health care.
As the Federal Reserve prepares to ramp up interest rates to arrest runaway price growth, expensive-looking growth equities that soared in the pandemic have tumbled. At the same time the supply-chain crisis continues to fuel the boom in raw materials, while safety trades are in vogue on fears over the resilience of the US business cycle.
The Nasdaq 100 fell the most among major benchmarks in Wednesday trading, dropping more than 5%.
All that means the market landscape has shifted markedly, setting the stage for MTUM's historic transformation.
"Our preliminary estimates indicate a wholesale renovation," Wells Fargo analysts led by Christopher Harvey wrote in a note. "Momentum holdings are expected to re-align with value and take on old-school defensive traits: lower price volatility, more stable earnings, larger size, and steadier dividends."

	May 2022 Rebalance		
	current	*est*	Δ
Health Care	12.4%	27.6%	15.2%
Energy	7.1%	18.7%	11.5%
Staples	3.8%	17.7%	13.9%
Info Tech	31.1%	9.8%	(21.3)%
Financials	24.2%	7.3%	(16.9)%
Utilities	0.0%	6.8%	6.8%
Industrials	4.0%	4.0%	0.0%
Materials	1.9%	3.9%	2.0%
Real Estate	1.2%	3.0%	1.8%
Consumer Disc	8.5%	1.0%	(7.5)%
Comm Serv	5.5%	0.2%	(5.3)%

Expected adjustments to MTUM's portfolio: Source: Wells Fargo

The adjustment is set to eclipse the prior record, which saw an estimated turnover of68% a year ago as the exchange-traded fund pivoted away from pandemic-era favorites toward winners from the economic reopening.
The rebalance schedule of MTUM's underlying MSCI US Momentum Index, which ranks stocks by their returns over a six month- and one-year horizon, is less frequent than many versions of the factor -- meaning a lot can happen between adjustments. The last reshuffle of the index in November turned out to be particularly ill-timed, with about half of the portfolio rebalanced once more in following a comeback for Big Tech. The gauge has dropped more than 25% since its all-time high that month.
This time, names such as Johnson & Johnson, AbbVie Inc. and Exxon Mobil Corp. will be among new additions, according to the Wells Fargo analysts. The likes of Microsoft Corp. and JPMorgan Chase & Co. are set to be removed.
MTUM is part of the $1.5 trillion smart-beta industry where ETFs mostly pick stocks by quantifiable characteristics known as factors. These funds tend to follow only the long side of a strategy, while a dedicated quant investor trading the momentum style would likely also short the market losers -- which can lead to significantly different performance.
A market-neutral version of the strategy is down about 2.8% in the past six months, for example. MTUM has dropped 24% in the same period.
Read more: Quant Momentum Funds Are Slammed Again in a New Fed-Linked Study
"We're seeing clients use MTUM to seek greater returns while retaining exposures to factors like quality, value and minimum volatility for diversification," said Andrew Ang, managing director at BlackRock in an email.
All told the latest reshuffle will leave MTUM "significantly cheaper" and less volatile, according to analysts at Bloomberg Intelligence.
"Post-rebalance MTUM will have a lot in common with low-volatility funds, based on our analysis, with an expected 56% of MTUM's projected weighting falling into the lowest-volatility quintile of the Russell 1000," Christopher Cain and Athanasios Psarofagis wrote in research last week.

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Excerpt
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G7 Germany 2022
Foreign Ministers' Communiqué
14 May 2022, Weissenhaus

G7 GERMANY
2022

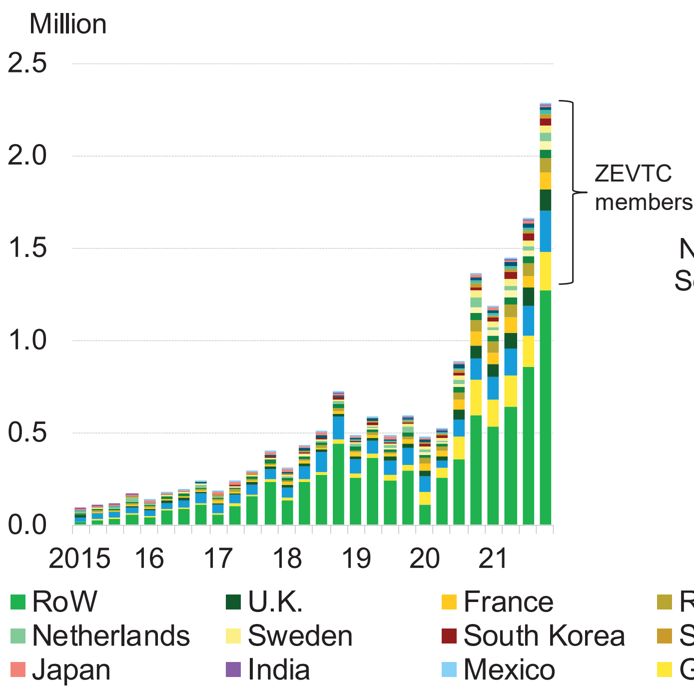
36. International cooperation and clean, secure and just energy transition for sustainable growth

[Russia's war of aggression against Ukraine has reminded us of the importance of ensuring energy security while accelerating energy transition. In this context, we recognize the importance of accelerating investment in upstream developments, including in liquefied natural gas (LNG) projects, and promoting usage of clean energy with a view to decreasing our dependency on Russia's energy.

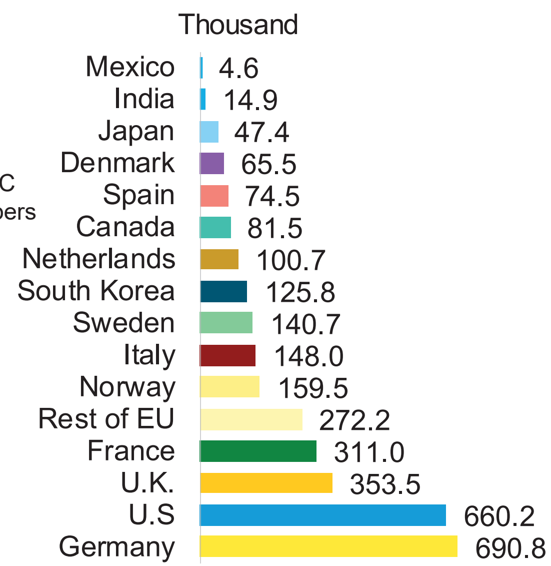
We are convinced that the 2020s must become a decade of action to speed the decarbonization of global energy systems. To this end, we commit to reduce energy consumption, promote energy efficiency, to fast-track clean, safe and sustainable energy deployment while at the same time accelerating the reduction of our overall reliance on fossil fuels. We will ensure that the transitions are just and inclusive and will strengthen international cooperation to achieve a just and inclusive transition globally. An accelerated clean energy transition that is aligned with the goals of the Agenda 2030 and the Paris Agreement is also one of the most important contributions towards energy security. Avoiding a carbon-lock-and diversifying our energy sources and energy mix supply chains will enhance our energy security and decrease undue dependencies on certain exporters and fossil fuel imports, in accordance with our climate objectives. Such energy transition will also require a greater focus and cooperation on the development of secure and sustainable sources of critical minerals - including rare earth elements – essential for green technologies. Close international cooperation has a central role to play in these efforts. Innovation offers the potential to combine effective climate change mitigation with sustainable growth and secure energy supplies.

Global passenger EV sales reached a new record in 2021

Quarterly EV sales, by country



2021 EV sales in ZEV Transition Council countries



Global passenger EV sales grew by 103% in 2021, to nearly 6.6 million units.

China and Europe have led the global passenger EV and FCV market since 2015, being responsible for 85% of global EV sales in 2021.

The next largest market was the U.S. at 10% of the global total in 2021.

ZEVTC member countries combined were responsible for 50% of global passenger EV sales.

The EU-27 leads the way in this group, with 1.8 million EVs sold in 2021 – 28% of global EV sales – and 55% of total ZEV Council member countries' sales.

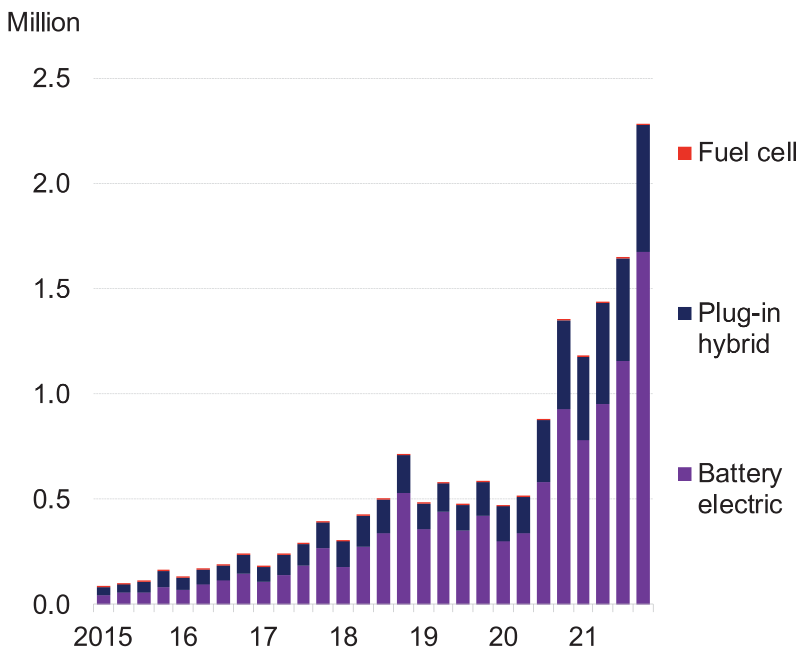
Outside of the EU, the U.S., U.K., Norway and South Korea are leaders in absolute terms with 660,000, 353,000, 159,000 and 126,000 sold in 2021, respectively.

EV sales grew the fastest in India, up 209% in 2021 compared to 2020.

Source: BloombergNEF, Marklines, Jato. Note: Includes BEV, PHEV and FCVs

Pure battery EVs are beating out plug-in hybrids

Global passenger EV sales by drivetrain



Source: BloombergNEF, Marklines, Jato. Note: Includes BEV, PHEV and FCVs

Globally, sales of battery electric vehicles outweigh those of plug-in hybrids and fuel cell vehicles.

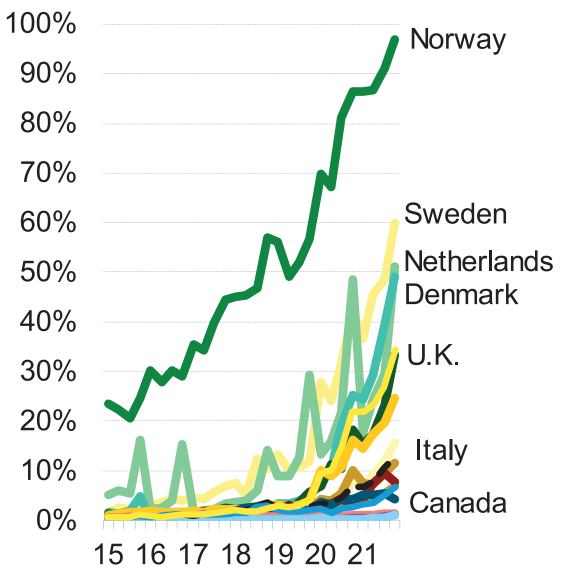
- BEVs were nearly 70% of 2021 global EV sales
- PHEVs were 30%
- FCVs are a miniscule portion of the EV market, below 1% of sales globally

FCVs continue to find it difficult to compete with BEVs on cost and popularity and are unlikely to gain market share in the passenger vehicle segment.

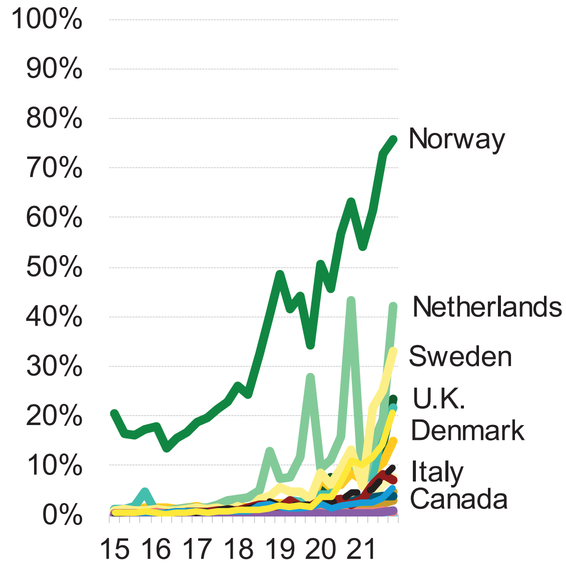
Of the ZEVTC countries, only Japan and South Korea have meaningful activity on fuel cell vehicles. Their sales were limited in 2021, accounting for 5% and 8% of EV sales in the two countries, respectively.

Some regions have reached mass-market adoption

EV share of passenger vehicle sales



ZEV share of passenger vehicle sales (excludes PHEVs)



Source: BloombergNEF. Note: Includes BEV, PHEV and FCVs

Globally, EVs accounted for 13% of passenger vehicle sales in 4Q 2021, or 9% when excluding PHEVs.

Some ZEVTC members are well above this global average, while others are still getting their ZEV markets started.

If plug-in hybrids (PHEVs) are included, countries such as Norway (97%), Sweden (60%), Netherlands (51%) and Denmark (49%) have reached very high sales penetrations.

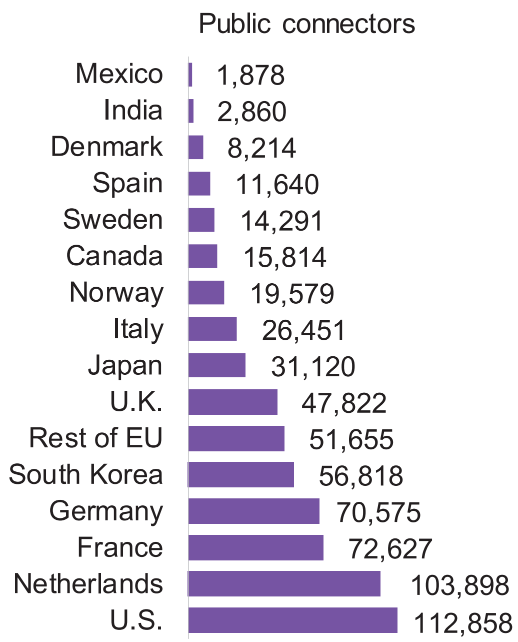
Just under half of all EVs sold in the EU-27 in 2021 were PHEVs – more than in other regions – but these are not true zero-emission vehicles.

This means that the actual ZEV share of passenger vehicles sales in ZEVTC countries like Sweden, Netherlands and Denmark was at 33%, 42% and 22% in 4Q 2021, respectively.

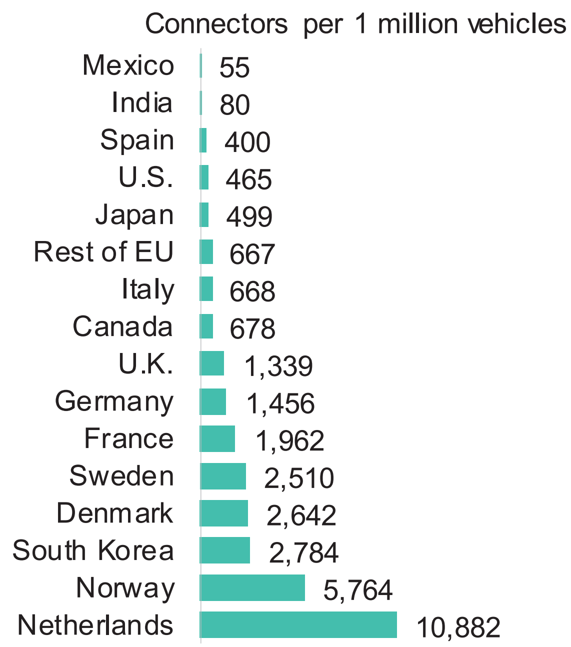
Some 75% of passenger EV sales in Mexico were also PHEVs in 2021.

The public charging infrastructure base is growing steadily

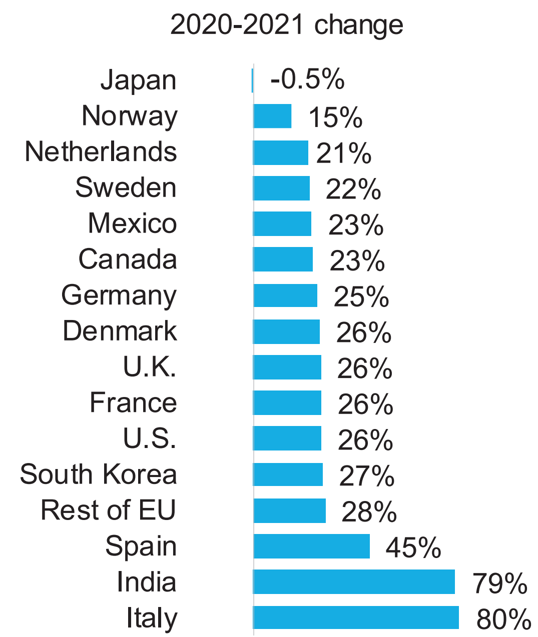
Cumulative public charging connectors installed, 2021



Public charging connectors normalized by vehicle fleet, 2021



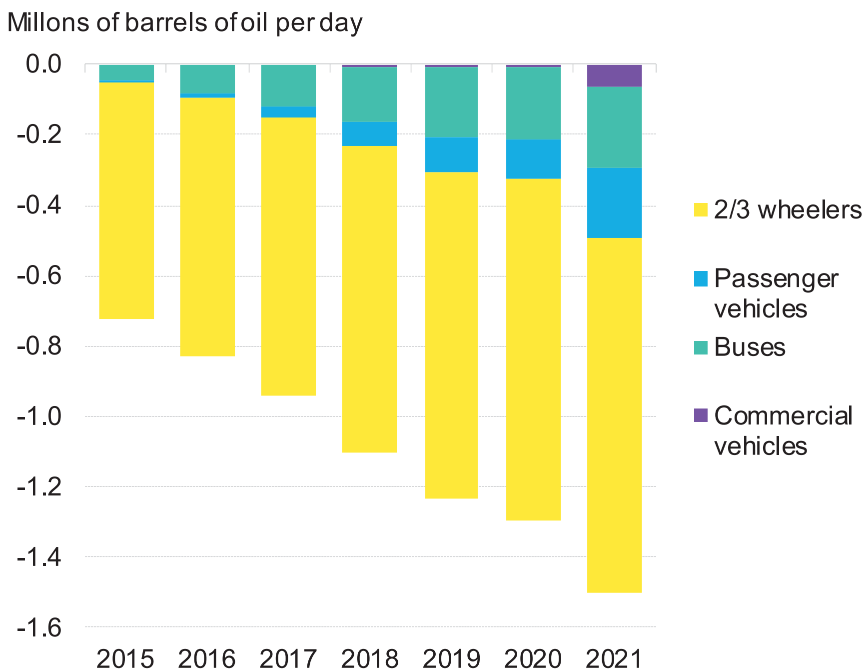
% net change 2020-2021



Source: BloombergNEF. Note: middle chart is normalized by total passenger vehicle fleet size (all drivetrains).

Oil use avoided by EVs has more than doubled since 2015

Oil demand avoided by EVs and FCVs



Source: BloombergNEF, IEA

Global oil demand in road transport reached roughly 43.7 million barrels per day in 2021, a slight increase since 2015.

The adoption of electric vehicles and fuel cell vehicles avoided almost 1.5 millions of barrels of oil per day in 2021 – about 3.3% of total demand. The displaced demand is roughly equivalent to one-fifth of Russia's total oil and oil products exports prior to the war, and roughly double Germany's imports of Russian oil and products at the end of 2021.

Avoided oil consumption has more than doubled in the past six years, up from ~725,000 barrels of oil per day in 2015.

Two- and three-wheeled EVs accounted for 67% of the oil demand avoided in 2021. This is due to their rapid adoption particularly in Asia.

Buses, with 16% of total oil demand avoided, were next, followed by passenger vehicles, the fastest growing segment, accounting for 13%. Commercial vehicles accounted for just 4% of total oil demand avoided in 2021, largely from light commercial EVs.

In BNEF’s Net-Zero Scenario, which achieves a zero-emission vehicle fleet globally by 2050, oil displacement increases to over 7 million barrels per day in 2030 – roughly equivalent to Russia's total oil and products exports prior to the war.

This figure rises to nearly 16 million barrels per day in 2035, and represents permanent removal of oil dependency.

https://www.bloomberg.com/news/articles/2022-05-20/hsbc-s-head-of-responsible-investment-attacks-climate-nut-jobs?srnd=premium-uk

HSBC Head of Responsible Investing Slams Climate 'Hyperbole'

- Stuart Kirk criticises focus on climate change at FT event
- HSBC moves to distance itself from executive's remarks

By *Harry Wilson* *and* *Loukia Gyftopoulou*

May 20, 2022, 8:11 AM MDT*Updated onMay 20, 2022, 10:38 AM MDT*

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HSBC Holdings Plc distanced itself from its asset management unit's head of responsible investment after the executive criticized the finance industry for worrying too much about the environment.

"Climate change is not a financial risk that we need to worry about," Stuart Kirk said Thursday in a 15-minute presentation at a Financial Times conference. "There's always some nut job telling me about the end of the world."

Kirk, whose role means he is responsible for integrating ESG risks and opportunities across asset classes at HSBC Asset Management, also took aim at former Bank of England Governor Mark Carney and other policy makers for talking up the risk from climate change.

"I completely get that at the end of your central bank career there are still many, many years to fill in," he said. "You've got to say something, you've got to fly around the world to conferences, you've got to out-hyperbole the next guy. But I feel like it is getting a little bit out of hand."

Kirk, who didn't respond to a LinkedIn message seeking comment, said banks were neglecting more pressing problems in order to consider climate risks.

"I work at a bank that is being attacked by crypto, we've got regulators in the US trying to stop us, we've got the China problem, we've got a housing crisis looming, we've got interest rates going up, we've got inflation coming down the pipes, and I'm being told to spend time and time again looking at something that is going to happen in 20 or 30 years hence," he said. "The proportionality is completely out of whack."

Humanity should be focused on adapting to a changing environment, said Kirk, pointing to the example of Miami: "Who cares if Miami is six meters underwater in 100 years, Amsterdam's been six meters underwater for ages, and that's a really nice place. We will cope with it."

HSBC Response

Nicolas Moreau, chief executive officer of HSBC's asset management unit, issued a statement disavowing Kirk's speech. The remarks "do not reflect the views of HSBC Asset Management nor HSBC Group in any way," he said.

"HSBC regards climate change as one of the most serious emergencies facing the planet, and is committed to supporting its customers in their transition to net zero and a sustainable future and, like HSBC Asset Management, is committed to achieving net zero by 2050."

The bank's Group Chief Sustainability Officer Celine Herweijer said Kirk's comments are "absolutely not the company's view," speaking on the sidelines of an ESG summit in London hosted by Saudi Arabia's Future Investment Initiative Institute.

"It's an individual's comments completely unaligned with the company," she told Bloomberg. "Climate change is a top headline issue for HSBC and the transition to net zero is a top priority. We are very clear on that commitment, it is a core pillar of HSBC's strategy. We are in a climate emergency. Action needs to be rapid and urgent."

'Grossly Flawed'

The speech has already led some wealth managers to consider shunning HSBC's asset management products. "We don't have any HSBC sustainable products in our portfolios at the moment and this didn't help at all," said Damien Lardoux, head of impact investing at EQ Investors.

"These comments are regressive and grossly flawed," said Beau O'Sullivan, senior campaigner for the Bank on our Future campaign. "Pension fund clients should note that HSBC Global Asset Management might not be as serious about protecting their capital from the effects of climate change as it claims to be, and they should be looking for a more responsible asset manager. And HSBC Group should be asking themselves if Kirk is right for this role."

'Always Wrong'

Kirk has worked at HSBC since early 2020 and took on his current role in July 2021, according to an HSBC statement at the time. Previously, he worked for Deutsche Bank AG's asset management unit.

His presentation made the case that while regulators, politicians and senior financiers were playing up the risks, the markets appeared to be taking the danger in their stride. "The number of times climate catastrophe is mentioned, the higher and higher risk assets go," he said. His first slide was titled: "Unsubstantiated, shrill, partisan, self-serving, apocalyptic warnings are ALWAYS wrong."

Pointing to the current economic backdrop, Kirk said markets were "crashing around our ears today and yesterday for nothing to do with climate change whatsoever."

"I implore our leaders, and our regulator most of all, because I spend way too much time at work dealing with this, just show some perspective and let's get back to making money out of the transition because there are thousands of opportunities out there."

A day after Kirk's comments, HSBC CEO Noel Quinn gave a more on-message speech at the FIII conference, saying the bank wanted to be a market leader in financing the transition of industry to a low-carbon world.

"Over the next 30 years the move to a more sustainable carbon footprint will require huge investment," Quinn said. "That has to happen in space and time, like we haven't seen before."

Climate change is a particularly sensitive issue at HSBC after it faced a warning from the UK's advertising watchdog over greenwashing. The Advertising Standards Authority found the bank misled customers in two ads published in October, the Financial Times reported earlier this month. The bank is responding to the ASA's draft recommendations, according to the FT.
— With assistance by Steven Arons, and Natasha White
(Updates from 16th paragraph with further details of speech and previous report on greenwashing claims.)

https://www.ft.com/content/d3787365-aba4-4002-b564-6c14e7f3c350

Goldman Sachs says senior staff can take as much time off as they want

More junior staff at Wall Street bank will only be entitled to a fixed number of paid days as leave

Goldman's working practices came under scrutiny last year when a group of junior staff said they were working in 'inhumane' conditions © Michael Nagle/Bloomberg

Michael O'Dwyer in London 6 HOURS AGO

Goldman Sachs has told its most senior bankers they will be allowed to take as much holiday as they want so they can "rest and recharge".

Under a new "flexible vacation" scheme introduced from May 1, partners and managing directors will be free to "take time off when needed without a fixed vacation day entitlement", the Wall Street bank told staff in a memo last month.

More junior bankers, who will still be entitled to take only a fixed number of paid days off, have been given a minimum of two extra days of holiday per year. Precise details of holiday allowances for each region would be communicated separately, the bank told staff.

Employees at all levels will be required to spend at least three weeks away from work annually from 2023, including at least one full week of consecutive days off.

The changes follow scrutiny of Goldman's working practices last year when a group of junior investment banking analysts told management they were working in "inhumane" conditions, clocking up an average of 95 hours a week with five hours of sleep a night.

The analysts presented a slide deck with proposals such as capping their working week at 80 hours and respecting an existing policy that junior bankers should not work between Friday at 9pm and Sunday morning.

In the memo to staff on April 22, seen by the Financial Times, Goldman said it was "committed to providing our people with differentiated benefits and offerings to support wellbeing and resilience".

"As we continue to take care of our people at every stage of their careers and focus on the experience of our partners and managing directors, we are pleased to announce enhancements and changes to our global vacation program designed to further support time off to rest and recharge," it said.

The removal of caps on the amount of time off senior bankers can take, first reported by the Sunday Telegraph, will apply globally.

It mirrors "unlimited" vacation policies adopted by many employers in the tech sector but which are less common at financial services companies. Unlimited leave schemes have attracted criticism from bodies, including the Chartered Institute of Personnel and Development, because they can result in staff taking fewer days off.

The changes by Goldman come as banks engage in a war for talent that has resulted in hefty pay rises and new initiatives to improve work-life balance.

Citigroup has announced plans for a new investment banking hub in the southern Spanish city of Malaga where junior analysts will be asked to work just eight hours a day and have their weekends protected. In return, they will be paid about half of the $100,000 or more starting salary handed to their first-year peers in London or New York. The sums paid to junior bankers have risen markedly in recent years with the struggle to retain overworked staff exacerbated by the boom in dealmaking during the pandemic.

Goldman Sachs

INVESTMENT BANKING DIVISION

Working Conditions Survey

Goldman Sachs & Co. LLC

February 2021

Hours Worked

On average, first year analysts are working over 95 hours per week and sleeping 5 hours per night

Question	Mean
How many hours have you worked this week (ending 2.13.21)?	105 hours
How many hours have you worked per week on average since January?	98 hours
How many hours do you sleep on average per night?	5 hours
On average, what time do you sleep?	3am

Source: Survey of first-year analysts, 13 respondents

Goldman Sachs

Near Term Retention

If working conditions do not change in the next 6 months, most 1st year analysts say they are unlikely to stay at GS

Question	Mean
If working conditions stay the same, what is the likelihood you'll still be working at GS in *1* month? (1-10, with 10 being most likely)	8.1
If working conditions stay the same, what is the likelihood you'll still be working at GS in *3* months? (1-10, with 10 being most likely)	5.2
If working conditions stay the same, what is the likelihood you'll still be working at GS in *6* months? (1-10, with 10 being most likely)	3.5

Source: Survey of first-year analysts, 13 respondents

Goldman Sachs

Select Analyst Quotes

"The sleep deprivation, the treatment by senior bankers, the mental and physical stress…***I've been through foster care and this is arguably worse***"

"I can't sleep anymore because my ***anxiety levels are through the roof***"

"My body ***physically hurts all the time*** and ***mentally I'm in a really dark place***"

"Being unemployed is less frightening to me ***than what my body might succumb to*** if I keep up this lifestyle"

"There was a point where I was ***not eating, showering or doing anything else*** other than working from morning until after midnight"

"I didn't come into this job expecting a 9am-5pm's, but I also didn't expect ***consistent 9am-5am's*** either"

"What is not ok to me is 110-120 hours over the course of a week! The math is simple, that leaves 4 hours a day for eating, sleeping, showering, bathroom and general transition time. This is beyond the level of 'hard-working', ***this Is inhumane / abuse***"

Rectifying the Situation

- **80 hours per week should be considered max capacity**
  - — In order to do our best work and deliver for the firm's clients we need to be rested and free from juggling an insurmountable amount of conflicting work streams
- **CS work should be appropriately de-prioritized versus live deal work**
  - — Although CS work is important, completing CS work should not come at the detriment of live deals
  - — CS work should not be completed after an appropriate time of night (midnight) so that analysts can get sleep when they are not working on something that is not truly urgent
- **Client meetings requiring materials should be scheduled at least 1 week in advance of the meeting date**
  - — In order to avoid unnecessary time crunches teams need ample time to prepare for meetings
  - — Doing so should lighten stress levels and give teams time to be thoughtful and produce their best materials
- **Teams should be required to meet ASAP when a meeting is set to align on content, timing, and capacity**
  - — Often times, VPs create shells for decks that do not align with what senior team members want to show, which results in junior teams creating the wrong materials. Ultimately, senior team members see these materials and junior team members often have to start from scratch on incredibly short timelines (less than 24 hours) – resulting in unnecessary stress, subpar work, and lack of sleep
- **For client meetings, teams should be pencils down 12 hours before the meeting**
  - — Junior team members often receive many comments right before meetings with the assumption that they can incorporate comments at a moment's notice. This adds undue stress and is unreasonable as senior folks are essentially asking them to put everything else to the side immediately, when instead these comments could have been given and addressed at a more reasonable time
- **The Friday night 9pm policy, and Saturday policy need to be respected**
  - — Junior bankers should not be expected to do **<u>any work</u>** after 9pm Friday or all day Saturday without a **<u>pre-approved exception</u>**, as that is the only safe-guarded personal time that we get
  - — Often times, junior people are asked to do "quick" work without an exception and it is incredibly hard to push back

Excerpt from https://www.wsgw.com/full-transcript-of-face-the-nation-on-may-15-2022/

Full Transcript Of “Face The Nation” On May 15, 2022

CBS NEWS *MAY 15, 2022 @ 4:04PM*

On this “Face the Nation” broadcast moderated by Margaret Brennan:

We turn to the former CEO and current senior chairman of Goldman Sachs, Lloyd Blankfein, who joins us from Water Mill, New York.

Good morning to you.

LLOYD BLANKFEIN (Senior Chairman, Goldman Sachs): Good morning, Margaret.

MARGARET BRENNAN: You know, Americans haven’t experienced inflation like this in 40 years now.

And the prices year over year are pretty incredible, when you look at them, gas up 44 percent, eggs 23 percent increase year over year. There’s spillover into the services too now. I mean, you look at hotel prices, 23 percent increase.

LLOYD BLANKFEIN: Sure.

MARGARET BRENNAN: … airlines over 30.

What does all of this indicate to you?

LLOYD BLANKFEIN: Well, wage as well.

I will tell you how we got here. We had this massive exogenous event, COVID, lockdowns all around the world. And, at the time that this was — that this was beginning, it was a huge crisis.

And I would say — you say worse in 40 years, kind of unprecedented that everywhere in the world all lock down at the same time. In response, there was a massive public policy response, and — to overwhelm it. And it was a little bit of fighting the last war, in some ways, because, in the financial crisis, you recall, the feeling in the aftermath was it took a long time to recover from that.

So, this time, we were going to go big. And we went big. And that created a lot of liquidity. And all those dollars are change — are chasing — are chasing assets.

MARGARET BRENNAN: Mm-hmm.

So…

LLOYD BLANKFEIN: So, we have too much growth, too much stimulus.

MARGARET BRENNAN: Too much growth. Too much stimulus.

So you agree with the San Francisco Fed…

LLOYD BLANKFEIN: Right.

MARGARET BRENNAN: … when they point to things like all the fiscal spending adding to inflation?

LLOYD BLANKFEIN: Sure.

Now, again, at the time, it was very uncertain. And the most important thing was to not have it — was to not lose all those jobs and have a massive crisis.

MARGARET BRENNAN: Right.

LLOYD BLANKFEIN: And so they reacted. And I think they reacted sensibly with what they knew at the time.

MARGARET BRENNAN: Mm-hmm.

LLOYD BLANKFEIN: And you can argue about that, but that’s all with the benefit of hindsight.

MARGARET BRENNAN: Right.

Well, let’s talk about what’s happening now to try to control it. So it is the Federal Reserve’s job.

LLOYD BLANKFEIN: Sure.

MARGARET BRENNAN: You know this.

LLOYD BLANKFEIN: Sure.

MARGARET BRENNAN: But, for our audience, it’s the central banker’s job control inflation here.

Chairman Powell said getting it down to 2 percent is going to involve some pain. What does that indicate to you? And do you think the Fed is doing what is needed right now?

LLOYD BLANKFEIN: Well, the object is, there’s an imbalance, too much demand.

And what you have to do is, you have to slow down that demand. You have to slow down the economy. And so they’re going to have to raise rates. They’re going to have to curtail, hopefully reduce the number of positions that are unopened, because they — and increase the size of the labor force.

And that’s going to involve some pain. And the real pain is not so — is partly what the Fed is going to do, but it’s just that this inflation, some of it is sticky. It’s going to be — you know, we have something like 8 percent inflation.

Some of that is transitory. Some of that is transitory, will go away. Eventually, the war in the Ukraine will be over. Some of the supply chain shocks will go away. But some of it will be a little bit stickier and it will be with us for a while. And while we’re talking about this in the macro sense, overall, for individuals and certainly the individuals at the bottom quartile of the pie sharing, it’s going to be quite difficult and oppressive.

MARGARET BRENNAN: Difficult and oppressive.

I mean, you lived through the last financial crisis…

LLOYD BLANKFEIN: Sure.

MARGARET BRENNAN: … Goldman Sachs obviously a key part. You know it very well.

When you say it took a long time, it took about 10 years to recover from the last financial crisis..

LLOYD BLANKFEIN: Yeah. That's quite a long time.
MARGARET BRENNAN: Yeah.
So, given what you're saying is unprecedented, what does recovery look like? Are you saying strap in for more than a decade of struggle here?
LLOYD BLANKFEIN: Well, it's — well, no, no. It's a little bit different. There was a lot — a lot of different things going on. And there were — it's always at least a little bit different. This is — this is kind of much different. And, there, you had the banks in trouble, a lot of distress, a lot of liquidity issues, big credit issues. Nobody was sure who was able to pay their debts as they arose.
And that took — and then, again, the financial system is the intermediary by which Fed accomplishes its activity. That's not impaired today. Actually, the consumer is starting out at a strong level. There is a lot of — it is going to be hard for people to have savings, but they already have savings. They're not necessarily going to increase it quickly because of inflation.
But they're starting in a much better place than we were then.
MARGARET BRENNAN: Mm-hmm.
LLOYD BLANKFEIN: And the Fed has very, again, powerful tools.
Some of this will transition away. Some of the supply chain issues, again, will go away. China won't be locked down forever. The war will not go — in the Ukraine will not go on forever. Some of it — and some of these things are a little bit stickier, like energy prices.
And there are some elements of the supply chain that are going to be a lot stickier.
I will give you an example. We were the beneficiary for…
MARGARET BRENNAN: Yes.
LLOYD BLANKFEIN: … a very long time of the globalization of the economy, which made goods and services cheaper because we took advantage of cheap labor and countries.
MARGARET BRENNAN: Right.
LLOYD BLANKFEIN: Well, how good do we feel, with what we've learned to be relying — and this as part of your last talk with — with Secretary Buttigieg.
How comfortable are we now to rely on those supply chains that are not within the borders of the United States that we can't control?
MARGARET BRENNAN: Yes.
LLOYD BLANKFEIN: Do we feel good about getting all our semiconductors from Taiwan, which is, again, an object of China?
MARGARET BRENNAN: Do you think we're headed towards recession?
LLOYD BLANKFEIN: We're certainly heading — it's certainly a very, very high risk factor.
And there's — but there's a path. It's a narrow path. But I think the Fed has very powerful tools. It's hard to finely tune them, and it's hard to see the effects of them quickly enough to alter it. But I think they are — I think they're responding well.
I think it's — it's…
MARGARET BRENNAN: Yeah.
LLOYD BLANKFEIN: It's definitely a risk. If I were running a big company, I would be very prepared for it. If I was a consumer, I would be prepared for it. But it's not baked in the cake.
MARGARET BRENNAN: All right, Lloyd Blankfein, thank you for your insights.

https://www.nahb.org/news-and-economics/housing-economics/indices/housing-market-index

NAHB/Wells Fargo Housing Market Index (HMI)

Indices

PublishedMay 17, 2022

Share:

The NAHB/Wells Fargo Housing Market Index (HMI) is based on a monthly survey of NAHB members designed to take the pulse of the single-family housing market. The survey asks respondents to rate market conditions for the sale of new homes at the present time and in the next six months as well as the traffic of prospective buyers of new homes.

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- Table 1: NAHB/Wells Fargo National and Regional HMI - May 2022
- Table 2: NAHB/Wells Fargo National HMI - History
- Table 3: NAHB/Wells Fargo National HMI Components - History
- Table 4: NAHB/Wells Fargo Regional HMI - History
- Table 5: NAHB/Wells Fargo Regional HMI - 3-Month Moving Averages - History
- Chart: NAHB/Wells Fargo HMI and Single-Family Housing Starts

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The NAHB/Wells Fargo HMI is a weighted average of three separate component indices: Present Single-Family Sales, Single-Family Sales for the Next Six Months, and Traffic of Prospective Buyers. Each month, a panel of builders rates the first two on a scale of “good,” “fair” or “poor” and the last on a scale of “high to very high,” “average” or “low to very low”. An index is calculated for each series by applying the formula “(good – poor + 100)/2” or, for Traffic, “(high/very high – low/very low + 100)/2”.

Each resulting index is first seasonally adjusted, then weighted to produce the HMI. The weights are .5920 for Present Sales, .1358 for Sales for the Next Six Months, and .2722 for Traffic. The weights were chosen to **maximize the correlation with starts** through the following six months.

The HMI can range between 0 and 100.

[View the release date of each HMI in 2022](#).

Table 1. NAHB/Wells Fargo National and Regional Housing Market Index (HMI)

NATIONAL

(Seasonally Adjusted)	2021								2022				
	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. *Revised*	May *Prelim.*
Housing Market Index	**83**	**81**	**80**	75	76	**80**	**83**	**84**	**83**	**81**	79	77	**69**
Housing Market Index Components													
Single Family Sales: Present	88	87	86	81	82	86	89	90	89	89	87	86	**78**
Single Family Sales: Next 6 Months	81	79	81	81	81	84	84	85	82	80	70	73	**63**
Traffic of Prospective Buyers	73	71	65	59	61	65	69	71	69	65	66	61	**52**

REGIONAL HMI

(Seasonally Adjusted)	2021								2022				
	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. *Revised*	May *Prelim.*
Northeast	78	74	73	76	67	73	69	80	71	76	65	74	**76**
Midwest	71	70	70	64	69	72	75	76	72	71	74	62	**51**
South	86	85	83	77	80	84	87	89	86	84	81	82	**76**
West	91	86	84	85	80	85	88	87	89	91	91	84	**73**

REGIONAL HMI - *3 MONTH MOVING AVERAGES*

(Seasonally Adjusted)	2021								2022				
	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. *Revised*	May *Prelim.*
Northeast	83	79	75	74	72	72	70	74	73	76	71	72	**72**
Midwest	75	72	70	68	68	68	72	74	74	73	72	69	**62**
South	84	85	85	82	80	80	84	87	87	86	84	82	**80**
West	90	89	87	85	83	83	84	87	88	89	90	89	**83**

https://www.indexologyblog.com/2022/05/17/the-rebalancing-act-of-the-sp-500-esg-index/

BLOG - May 17, 2022

The (Re)Balancing Act of the S&P 500 ESG Index

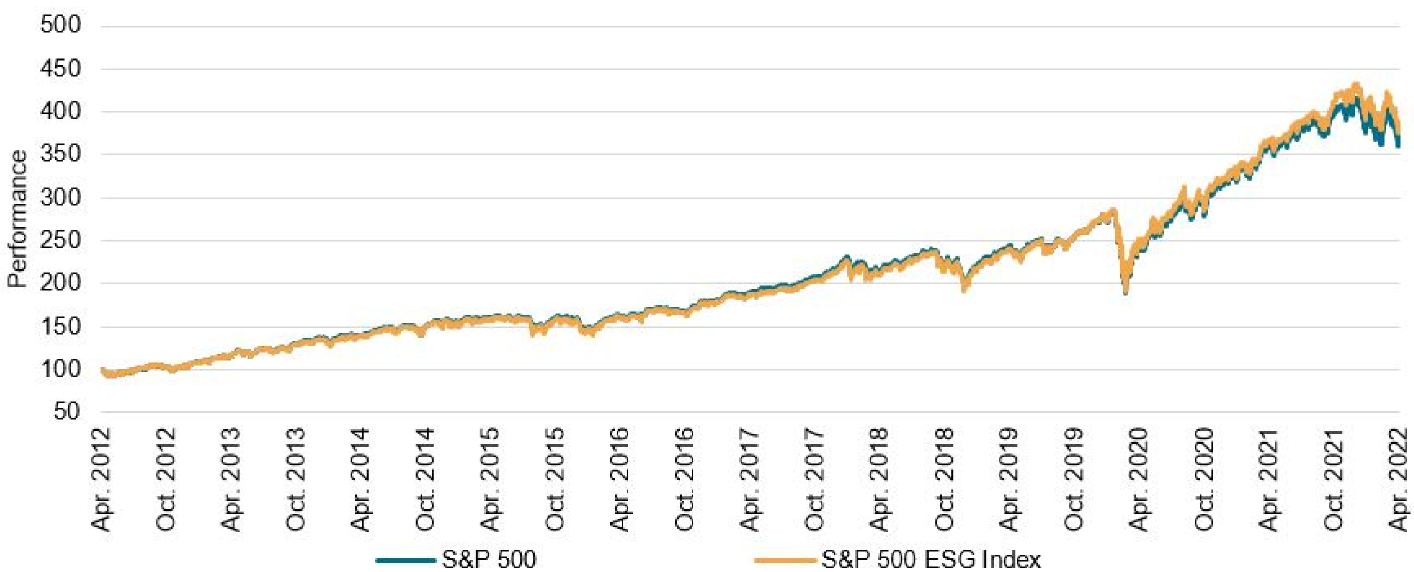
Margaret Dorn Senior Director, Head of ESG Indices, North America S&P Dow Jones Indices

It is that time of year yet again: the seasons are changing, spring is in the air and the S&P 500® ESG Index has undergone its fourth annual rebalance. Just as it has in years past, the changes of the 2022 rebalance reflect the delicate balancing act of providing for broad-based market exposure but with meaningful and measurable sustainability-focused enhancements. Without further ado, let's spring into some of those changes.

The Results

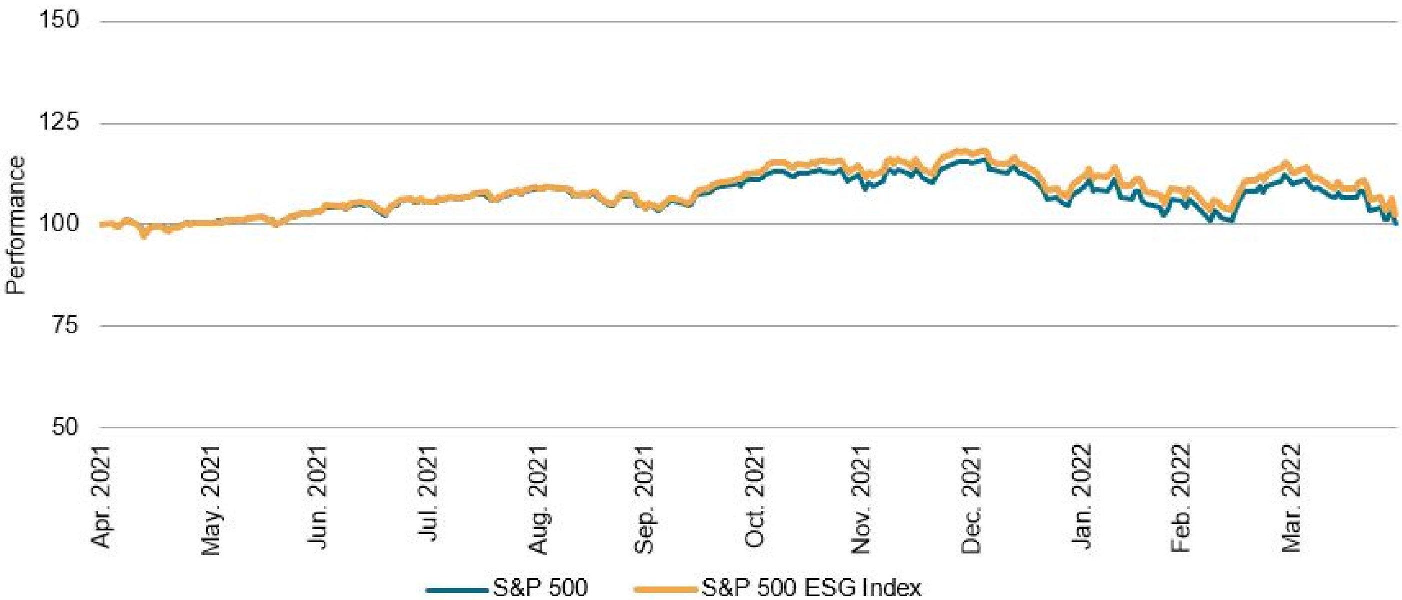
It is important that the methodology of the S&P 500 ESG Index reflect the evolving sentiments of a sustainability-minded investor. These views were voiced in the results of a recent market consultation that led to a revised and expanded list of exclusions based on a company's involvement in certain business activities such as small arms, military contracting and oil sands. The consultation also addressed several other relevant updates, including more frequent eligibility check for business involvement and UNGC exclusions.[1] Even with these enhancements, the S&P 500 ESG Index design still retains its main objective, which is to maintain similar overall industry group weights to the S&P 500 while enhancing the overall sustainability profile of the index. The index has indeed been able to accomplish this delicate balancing act, exhibiting a similar historical risk/return profile to that of the S&P 500 as well as an improvement in S&P DJI ESG Score[2] (see Exhibit 1)—even achieving a bit of welcomed outperformance over the past one year (see Exhibit 2).

Exhibit 1: 10-Year Back-Tested Historical Performance of the S&P 500 ESG Index versus the S&P 500



Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. The S&P 500 ESG Index was launched on Jan. 28, 2019. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure linked at the end of this post for more information regarding the inherent limitations associated with back-tested performance.

Exhibit 2: One-Year Performance of the S&P 500 ESG Index versus the S&P 500



Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. Chart is provided for illustrative purposes.

Who's In and Who's Out

Of the 308 constituents that were selected for inclusion in the S&P 500 ESG Index, names like Apple, Microsoft, Amazon and Alphabet once again made the cut (see Exhibit 3).

Exhibit 3: Largest 10 Constituents of the S&P 500 ESG Index Post-Rebalance

Constituent Name	Ticker	Index Weight (%)
Apple Inc.	AAPL	9.657
Microsoft Corp	MSFT	8.409
Amazon.com Inc	AMZN	4.297
Alphabet Inc A	GOOGL	2.765
Alphabet Inc C	GOOG	2.566
Nvidia Corp	NVDA	1.926
UnitedHealth Group Inc	UNH	1.861
Procter & Gamble	PG	1.497
Exxon Mobil Corp	XOM	1.443
JP Morgan Chase & Co	JPM	1.404

Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. The S&P 500 ESG Index was launched on Jan. 28, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

However, one familiar name may stick out as being absent from that list: Tesla. Tesla was ineligible for index inclusion due to its low S&P DJI ESG Score,[3] which fell in the bottom 25% of its global GICS® industry group peers. It joins Berkshire Hathaway, Johnson & Johnson and Meta, which have once again met the index methodology's chopping block (see Exhibit 4).

But, how can a company whose self-declared mission is to “accelerate the world’s transition to sustainable energy” not make the cut in an ESG index? There are many reasons.

Exhibit 4: Largest 10 Companies Left Out of the S&P 500 ESG Index Post-Rebalance

Company	Reason	Weight in the S&P 500 (%)
Tesla, Inc	Disqualifying S&P DJI ESG Score	2.086
Berkshire Hathaway B	Disqualifying S&P DJI ESG Score	1.692
Johnson & Johnson	Controversies monitoring violation	1.360
Meta Platforms, Inc. Class A	Eligible, but not selected	1.325
Home Depot Inc	Eligible, but not selected	0.898
Chevron Corp	Disqualifying S&P DJI ESG Score	0.864
Costco Wholesale Corp	Eligible, but not selected	0.657
Broadcom Inc	Eligible, but not selected	0.655
Accenture plc A	Eligible, but not selected	0.543
Wells Fargo & Co	United Nations Global Compact non-compliant	0.485

Source: S&P Dow Jones Indices LLC. Table is provided for illustrative purposes.

Talking Tesla

First and foremost, the GICS industry group in which Tesla is assessed (Automobiles & Components) experienced an overall increase in its average S&P DJI ESG Score. So, while Tesla’s S&P DJI ESG Score has remained fairly stable year-over-year, it was pushed further down the ranks relative to its global industry group peers.[4] A few of the factors contributing to its 2021 S&P DJI ESG Score were a decline in criteria level scores related to Tesla’s (lack of) low carbon strategy[5] and codes of business conduct.[6] In addition, a Media and Stakeholder Analysis,[7] a process that seeks to identify a company’s current and potential future exposure to risks stemming from its involvement in a controversial incident, identified two separate events centered around claims of racial discrimination and poor working conditions at Tesla’s Fremont factory, as well as its handling of the NHTSA investigation after multiple deaths and injuries were linked to its autopilot vehicles. Both of these events had a negative impact on the company’s S&P DJI ESG Score at the criteria level, and subsequently its overall score. While Tesla may be playing its part in taking fuel-powered cars off the road, it has fallen behind its peers when examined through a wider ESG lens.

Onward and Upward

So, while Tesla and others may not have been included in the index this year, the beauty of the annual rebalance is that they will once again have an opportunity to be reviewed for inclusion in years to come. For now, the (re)balancing act of the S&P 500 ESG Index has once again been achieved.

More information about the S&P 500 ESG Index methodology can be found here.

For more information about hypothetical back-tested data, please see the Performance Disclosure. For information about the creation of Back-Tested Data with respect to the S&P 500 ESG Index, please also see the Back-Tested Data Assumptions FAQ.

[1] Maria Sanchez. "What Is New in S&P ESG Indices?" S&P Dow Jones Indices. April 27, 2022.
[2] The index achieved an S&P DJI ESG Score improvement of 8.79% (at the index level), representing 28% of the overall ESG improvement potential, given the sustainability characteristics of the starting universe.
[3] The S&P DJI ESG Scores are the result of further scoring methodology refinements to the S&P Global ESG Scores that result from S&P Global's annual Corporate Sustainability Assessment, a bottom-up research process that aggregates underlying company ESG data to score levels.
[4] Tesla's S&P Global ESG Score improved 13 points from 2020 to 2021, whereas the S&P DJI ESG Score declined 2 points over the same time period. While several components of the scoring process are the same, such as the underlying research methodology, data collection and quality assurance, there are meaningful differences in the scoring process between S&P Global ESG Scores and S&P DJI ESG Scores. For more information on these differences, please visit FAQ: S&P DJI ESG Scores
[5] Low Carbon strategy criteria focus on companies' strategies to reduce the carbon intensity of its car portfolio (efficient technologies), but also assess its current portfolio exposure to regulatory risks.
[6] Codes of business conduct criteria encompass a company's implementation, transparent reporting on breaches and the occurrence of corruption and bribery cases and anti-competitive practices.
[7] The Media & Stakeholder Analysis is an ongoing screening of company controversies that may have financial or reputational impacts on companies assessed in the Corporate Sustainability Assessment.

A $5 Trillion ‘Wealth Shock’ Is Cracking Americans’ Nest Eggs
2022-05-21 13:27:34.240 GMT

By Ben Steverman
(Bloomberg) -- The world’s richest nation is waking up to an unpleasant and unfamiliar sensation: It’s getting poorer.
Americans’ collective net worth had been climbing at a dizzying rate for the past two years, even as families and businesses contended with the ravages of Covid-19. Households piled up an extra $38.5 trillion from early 2020 to the end of last year, bringing their collective net worth to a record $142 trillion, the Federal Reserve estimates.
Just as the US is learning to live with the virus and spending shifts back toward pre-pandemic normal, it faces a new scary threat: A plunge in wealth since the start of 2022 that JPMorgan Chase & Co. estimates totals at least $5 trillion -- and could reach $9 trillion by year-end.
So far, the richest Americans have borne the brunt, with US billionaire fortunes down almost $800 billion since their peak amid the sharp losses in stocks, crypto and other financial assets. But surging interest rates are also starting to rattle the housing market, where middle- and working-class families have the bulk of their wealth.
It all adds up to the sudden removal of a major prop to confidence: ever-bigger nest eggs. And it’s by design. To stamp out the highest inflation in decades, the Fed needs Americans to curb their spending, even if it requires an economic slowdown to get there.
“It’s painful to get back to normal after really being in a fantasy world last year,” said John Norris, chief economist at Oakworth Capital Bank. “It’s going to feel a lot worse than it actually is.”
Since the start of the year, the S&P 500 Index is down 18%, the Nasdaq 100 has lost 27% and a Bloomberg index of cryptocurrencies has plunged 48%.
That all amounts to “a wealth shock that is set to drag on growth in the coming year,” JPMorgan economists led by Michael Feroli wrote in a note Friday.
Fed Chair Jerome Powell and his colleagues have repeatedly said they’re actively aiming for such a slowdown, leaving it unlikely policy makers will move to address the Great Wealth Drop of 2022.
Read More: Fed to Plow Ahead on Half-Point Hikes, Undeterred by Stock Slump
Billionaires were the biggest winners of 2020 and 2021. Now they’re losing more than almost everyone else. The Bloomberg Billionaires Index, a daily measure of the wealth of the world’s 500 richest people, has dropped $1.6 trillion since its peak in November.
Leading the way are the Americans on the index, who have lost $797 billion since their peak. Perhaps the most humbled by it all is the world’s richest person, Elon Musk. He’s lost

$139.1 billion, or 41% of his wealth, since November, when his net worth briefly surpassed $340 billion. Amazon.com Inc. founder Jeff Bezos, the second-richest person, lost $82.7 billion, or 39% of his peak wealth.

Bernie Sanders
@BernieSanders

Today in America:
- the two richest people own more wealth than the bottom 40%
- the top 1% owns more wealth than the bottom 92%
- 45% of all new income has gone to the top 1% since 2009

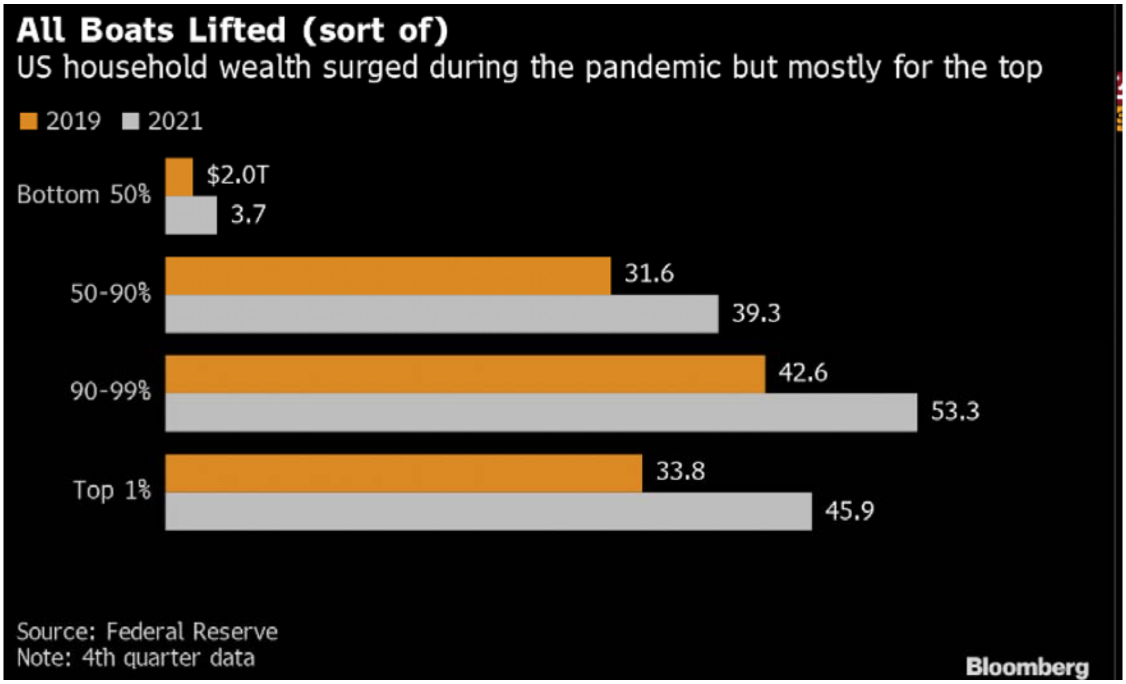
Is that the kind of economy any working person ought to be satisfied with?

Sent via Twitter Web App.
View original tweet.

While the wealth losses among the top 0.001% reduce inequality, that won't be much comfort to most people who worry about the U.S.'s widening disparities.

"In a relative sense, it's going to make the inequity a little lower -- but in an absolute sense, everyone suffers," said Reena Aggarwal, director of Georgetown University's Psaros Center for Financial Markets and Policy.

Like many, Aggarwal is concerned that falling markets will create problems for the broader economy. "Some correction was needed but this is a pretty huge correction, and it's not stopping."



A downturn in housing -- made likely by a surge in mortgage rates to the highest since 2009 -- threatens wider reverberations. Over the last decade, the robust real estate market added $18 trillion in market value to owner-occupied home valuations.

US spending has been lifted in recent years by owners tapping the enhanced values of their homes for cash. The practice of home equity extraction likely came to a halt this year. More than 40% of refinancings in the final quarter of last year saw homeowners pull cash out of their homes.

kk

the top 1% holds less than 14%.

“Higher home prices and sharply higher mortgage rates have reduced buyer activity,” Lawrence Yun, National Association of Realtors chief economist, said in a statement Thursday. “It looks like more declines are imminent in the upcoming months.”

What Bloomberg’s Economists Say...

While the plunging stock market will dent consumers’ net worth this year, the residual effect of last year’s surge in asset values -- and the resilience in home prices so far this year -- are major offsetting factors supporting consumption. As a result, personal spending is expected to grow faster this year than before the pandemic, even after the removal of fiscal stimulus.
-- Yelena Shulyatyeva, economist
For the full note, click here
It could take a while before Americans realize that their pandemic home-price gains have evaporated. Even the stock market selloff could take a while to translate into spending in a way that could tip the U.S. into recession.
“A general selloff in the equity market may have a dampening effect,” said Chris Gaffney, president of world markets at TIAA Bank, but there’s a lag for investors. “They look at their statements on a quarterly basis and all of a sudden they say, ‘Oh my goodness, my stock-market portfolio is down 20%, maybe I shouldn’t take that vacation,’ or ‘Maybe I shouldn’t buy that larger TV or a new car.’”

--With assistance from Vildana Hajric and Alex Tanzi.

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To view this story in Bloomberg click here:
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Excerpt https://www.whitehouse.gov/briefing-room/press-briefings/2022/05/16/press-briefing-by-press-secretary-karine-jean-pierre-may-16-2022/

Press Briefing by Press Secretary Karine Jean-Pierre, May 16, 2022

MAY 16, 2022•PRESS BRIEFINGS

James S. Brady Press Briefing Room

3:08 P.M. EDT

Q The President's Twitter account posted the other day, "You want to bring down inflation? Let's make sure the wealthiest corporations pay their fair share." How does raising taxes on corporations reduce inflation?
MS. JEAN-PIERRE: So, are you talking about a specific tweet?

Q He tweeted, "You want to bring down inflation? Let's make sure the wealthiest corporations pay their fair share?"

MS. JEAN-PIERRE: Look, you know, we have talked about — we have talked about this this past year, about making sure that the wealthiest among us are paying their fair share. And that is important to do. And that is something that, you know, the President has been, you know, working on every day when we talk about inflation and lowering costs.

And so it's very important that, you know, as we're seeing costs rise, as we're talking about how to, you know — you know, build an America that is safe, that's equal for everyone, and doesn't leave anyone behind, that is an important part of that as well.

Q But how does raising taxes on corporations lower the cost of gas, the cost of a used car, the cost of food for everyday Americans?

MS. JEAN-PIERRE: So, look, I think we encourage those who have done very well — right? — especially those who care about climate change, to support a fairer tax — tax code that doesn't change — that doesn't charge manufacturers' workers, cops, builders a higher percentage of their earnings; that the most fortunate people in our nation — and not let the — that stand in the way of reducing energy costs and fighting this existential problem, if you think about that as an example, and to support basic collective bargaining rights as well. Right? That's also important.

But look, it is — you know, by not — if — without having a fairer tax code, which is what I'm talking about, then all — every — like manufacturing workers, cops — you know, it's not fair for them to have to pay higher taxes than the folks that — who are — who are — who are not paying taxes at all or barely have.

Q But was does that have to do with inflation? The President said, "You want to bring down inflation? Let's make sure the wealthiest corporations pay their fair share."

Jeff Bezos came out and tweeted about that. He said, "The newly created disinformation board should review this tweet." Would you be okay with that?

MS. JEAN-PIERRE: Look, it's not a huge mystery why one of the wealthiest individuals on Earth — right? — opposes an economic agenda that is for the middle class, that cuts some of the biggest costs families face, fights inflation for the long haul — right? — and that's what we're talking about; that's why we're — we're talking about lowering inflation here — and adds to the historic deficit reduction the President is achieving by asking the richest taxpayers and corporations to pay their fair share. That is what we're talking about.

https://www.wsj.com/articles/babysitters-teenagers-inflation-11652970427?mod=hp_featst_pos5

Teen Babysitters Are Charging $30 an Hour Now, Because They Can

Sitter shortage has parents treating teenagers like VIPs; 'order anything you want for dinner'

By *Rachel Wolfe*

Follow

May 19, 2022 10:32 am ET

Before the pandemic, Dani Gantcher earned about $15 an hour babysitting in her hometown of Scarsdale, N.Y. Parents sometimes asked her to wash dishes or stay late.

Now, the 18-year-old is raking in $25 to $30 an hour. Moms and dads are asking a lot less from her. And they treat her like a VIP.

Sticker shock

"They just thank me profusely, so much that I'm like, 'Oh, my God, I was literally only here for three hours,' " she says. "The power dynamics have shifted between the teenage babysitter and the parent."

After two years of hunkering down at home with their children, parents are returning to their office jobs and social lives and are competing for part-time sitters at the same time. Teens are getting better snacks, doing fewer mundane chores and are commanding top dollar.

In Easton, Mass., 19-year-old Emma Sharkansky is making up to $30 an hour—up from $12 a few years ago. Parents are ecstatic to see her.

"It used to be you walked in and were all shy and saying thank you so much and feeling grateful to get a little spending money," the soon-to-be college sophomore says. "Now, I'm walking in and they're thanking me more than I could possibly thank them."

She still tries to go above and beyond by making up games to play with the kids and staying off her cellphone. "But parents don't ask anything above the bare minimum anymore," she says.

Child-care marketplace Care.com says babysitters on its site charged an average of $18.05 an hour in April. In 2020, that number was $14.72.

Emma Sharkansky, 19, is making as much as $30 an hour.PHOTO: EMMA SHARKANSKY

A tight labor market is creating one of the best summer-job markets for teens in years. Businesses facing a pandemic hiring crunch are scouring teen job fairs and offering bonuses and flexible schedules to young people. A daycare worker shortage is leaving parents scrambling to make alternative arrangements. Unemployment among teenagers is at its lowest level in decades.

Moms and dads are in no position to bargain or throw out lowball offers, Kidsit.com, an online babysitting resource, warned parents in a 2020 post: "It's best to play it safe and offer your sitter a competitive rate up front. That way you minimize the chances of them getting poached from you."

Some babysitters say they are setting rates, based partly on what they hear from other teens. "In one class, there are four of us that all babysit regularly, and we all talk about it," says Kate McLaughlin, 17, who lives in a Boston suburb. She now brings in $15 to $25 an hour, up from $10 to $15 before the pandemic.

A classmate told her she is getting $25 to $30 an hour. "Oh my gosh!" Kate recalls responding. "She was like, 'Yeah, but the kid is a nightmare.' "

Ashley Noto, 45, says she never had trouble finding an after-school and occasional weekend nanny for her 11- and 9-year-old sons before the pandemic. In early 2020, she paid her nanny—a college graduate—about $20 an hour to drive her sons to their various extracurricular activities and cook them dinner in the Atlanta area.

Last spring, when Ms. Noto, the chief of staff at financial-technology company Greenlight, checked the same blogs and Facebook parenting groups where she had always found success, she came away with nothing.

"Either I wasn't moving fast enough, or they were getting snapped up," says Ms. Noto.

One of the Notos' most frequent sitters is 15-year-old Liam Gregg. Liam recently raised his rates to $15 an hour, from $10. He is putting his earnings toward a new computer.

Some parents don't even ask how much he charges, handing him as much as $20 an hour. They will often order him a meal along with food for their kids—and tell him to help himself to anything in the fridge. He isn't allowed to use the stove.

Bree Steiger, an 18-year-old high-school senior from Longmeadow, Mass., now charges $15 or $16 an hour, up from $9 to $10 prepandemic. She, too, has seen amped up perks, including DoorDash takeout service.

“One family was like, ‘We’ll order anything you want for dinner,’ ” she says. “It was awesome.”


Evelyn Loperfido, 15, has made more than $1,000 babysitting in the past year.PHOTO: MARGARET LOPERFIDO

Evelyn Loperfido, 15, has been making up to $35 an hour babysitting in her hometown of Crested Butte, Colo. Before the pandemic, she charged $10 to $12. She says she has made more than $1,000 babysitting in the past year. She is using the money for clothes and perfume her parents didn’t want to pay for.

She tries not to take advantage of parents who had kids during the pandemic and might not know how much sitters charge, she says. She has even told them they are over-paying her. “But they will sometimes come back after going out all night still kind of having fun or a little tipsy, and they will just give me whatever they have in their wallet,” she says.

In Walnut Creek, Calif., Anar Hooper, a financial-content marketer and mother of three, says that in her area, many nannies are charging $40 an hour, plus benefits. She found a high-school junior who lives next door and is charging $25 an hour. Ten years ago, when her oldest daughter was little, she paid teenage babysitters closer to $14.

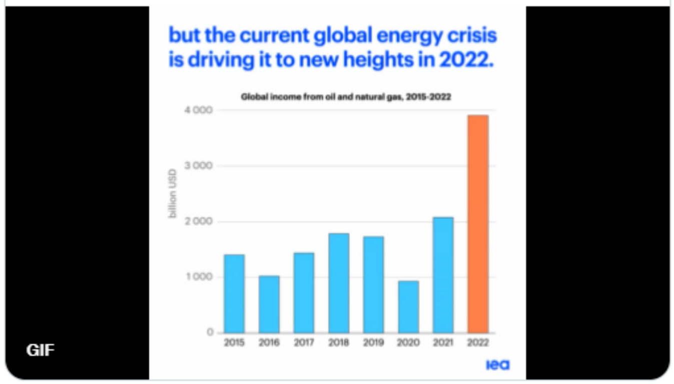
“If I were to come up with one word, it’s insane,” she says. “It’s bananas.”

Write to Rachel Wolfe at rachel.wolfe@wsj.com

Dan Tsubouchi @Energy_Tidbits · 1h

See my May 15 thread twitter.com/Energy_Tidbits... as this ties to @fbirol's 05/13 Linkedin post. Seems like a set up for the 2020s to be a decade of energy crisis. Saudi Energy Minister Abdulaziz must be loving it. #OOTT #NatGas

> **Fatih Birol** @fbirol · May 21
>
> New @IEA analysis indicates global oil & gas sector income will jump to $4 trillion in 2022, more than twice its 5-year average
>
> The best way to protect people from future price shocks is to invest as much as possible of this in an accelerated & secure clean energy transition



Dan Tsubouchi @Energy_Tidbits · 19h

#Vortexa crude #Oil floating storage at 05/21 est 93.69 mmb, -17.49 WoW vs 111.18 mmb at 05/14. Below 100 mmb, but prior 6 weeks were +/-105 mmb ie. crude oil floating storage has moved to higher levels. Thx @Vortexa @TheTerminal #OOTT

Vortexa Crude Oil Floating Storage Estimated as of May 21 at 1pm MT

Source: Bloomberg, Vortexa

Est as of May 21, 1pm MT

FZWWFST VTXA Inde
05/19/2019 - 05/20/2022

	Date	FZWWFST VT... Last Px
Fr	05/20/2022	93690
Fr	05/13/2022	111.179k
Fr	05/06/2022	101.029k
Fr	04/29/2022	104.849k
Fr	04/22/2022	106.645k
Fr	04/15/2022	108.614k
Fr	04/08/2022	105.863k
Fr	04/01/2022	93843
Fr	03/25/2022	94703
Fr	03/18/2022	97726
Fr	03/11/2022	95861

Est as of May 14, noon MT

FZWWFST VTXA Inde
05/12/2019 - 05/13/2022

	Date	FZWWFST VT... Mid Px
Fr	05/13/2022	110.855k
Fr	05/06/2022	100.987k
Fr	04/29/2022	104.107k
Fr	04/22/2022	105.002k
Fr	04/15/2022	107.129k
Fr	04/08/2022	103.082k
Fr	04/01/2022	92019
Fr	03/25/2022	94393
Fr	03/18/2022	96587
Fr	03/11/2022	96533
Fr	03/04/2022	93377

Est as of May 7, noon MT

FZWWFST VTXA Inde
05/05/2019 - 05/06/2022

	Date	FZWWFST VT... Mid Px
Fr	05/06/2022	95392
Fr	04/29/2022	101.474k
Fr	04/22/2022	101.304k
Fr	04/15/2022	105.59k
Fr	04/08/2022	102.886k
Fr	04/01/2022	89972
Fr	03/25/2022	93433
Fr	03/18/2022	95012
Fr	03/11/2022	97174
Fr	03/04/2022	93921
Fr	02/25/2022	90235

Source: Bloomberg, Vortexa

Dan Tsubouchi @Energy_Tidbits · May 21

ICYMI. Why didn't the #G7 communique last Sun get media coverage? Probably because G7 Foreign Ministers said need accelerating investments in #Oil #NatGas #LNG. And it's not just RUS, the G7 acknowledge energy security was at risk before RUS UKR. #OOTT

> **Dan Tsubouchi** @Energy_Tidbits · May 15
>
> 2/2. "In this context, we recognize the importance of accelerating investment in upstream developments, including in liquefied natural gas (LNG) projects," G7 says need more $$ in #Oil #NatGas production for energy security! Fits #1 2022 prediction. #OOTT twitter.com/Energy_Tidbits...
>
> Show this thread
>
> Excerpt
> https://www.g7germany.de/resource/blob/997532/2039866/59cf2327ee6c90999b069fca648a2833/2022-05-14-g7-foreign-ministers-communique-data.pdf?download=1
>
> G7 Germany 2022
> Foreign Ministers' Communiqué
> 14 May 2022, Weissenhaus
>
> G7 GERMANY 2022
>
> 36. International cooperation and clean, secure and just energy transition for sustainable growth
>
> [Russia's war of aggression against Ukraine has reminded us of the importance of ensuring energy security while accelerating energy transition. In this context, we recognize the importance of accelerating investment in upstream developments, including in liquefied natural gas (LNG) projects, and promoting usage of clean energy with a view to decreasing our dependency on Russia's energy.
>
> We are convinced that the 2020s must become a decade of action to speed the decarbonization of global energy systems. To this end, we commit to reduce energy consumption, promote energy efficiency, to fast-track clean, safe and sustainable energy deployment while at the same time accelerating the reduction of our overall reliance on fossil fuels. We will ensure that the transitions are just and inclusive and will strengthen international cooperation to achieve a just and inclusive transition globally. An accelerated clean energy transition that is aligned with the goals of the Agenda 2030 and the Paris Agreement is also one of the most important contributions towards energy security. Avoiding a carbon-lock-and diversifying our energy sources and energy mix supply chains will enhance our energy security and decrease undue dependencies on certain exporters and fossil fuel imports, in accordance with our climate objectives. Such energy transition will also require a greater focus and cooperation on the development of secure and sustainable sources of critical minerals - including rare earth elements – essential for green technologies. Close international cooperation has a central role to play in these efforts. Innovation offers the potential to combine effective climate change mitigation with sustainable growth and secure energy supplies.

Dan Tsubouchi @Energy_Tidbits · May 21

Good for all Cdns, @cppinvestments put in Dec 15/21 "new investment approach" that incl #Oil #NatGas as a "strategic sector". Q1/22: TSX Composite +3.1%, DJIA -4.6%, Nasdaq -9.1%. $ARX +45.6%, $CNQ +45.5%, $TOU +45.0%. See SAF Group Dec 19, 2021 Energy Tidbits 👇. #OOTT

:stment Board
l Equity Holdings - As of March 31, 20

	Shares ('000)	Market (CAD $ mil
	19,228	
ces	22,020	$
	1,614	
		$
		$

Investment Board
://safgroup.ca/news-insights/

Dan Tsubouchi @Energy_Tidbits · May 20

Should add, this may well be the way Biden signals Iran it's time to stop messing around and sign what is on the table. I should say, i have been in the camp expecting Biden to rejoin the #JCPOA. Think all this means is the next week or two could be the key. #OOTT

> **Dan Tsubouchi** @Energy_Tidbits · May 20
>
> Positive for #Oil?? US testing waters for #MBS meet, is this a signal to KSA that #Biden is likely to hold off on return to #JCPOA? Wouldn't a MBS meet & then a JCPOA be an insult to an already bad relationship? Also imagine Biden's reception if a JCPOA is signed first? #OOTT twitter.com/BenBartenstein...

Dan Tsubouchi @Energy_Tidbits · May 20

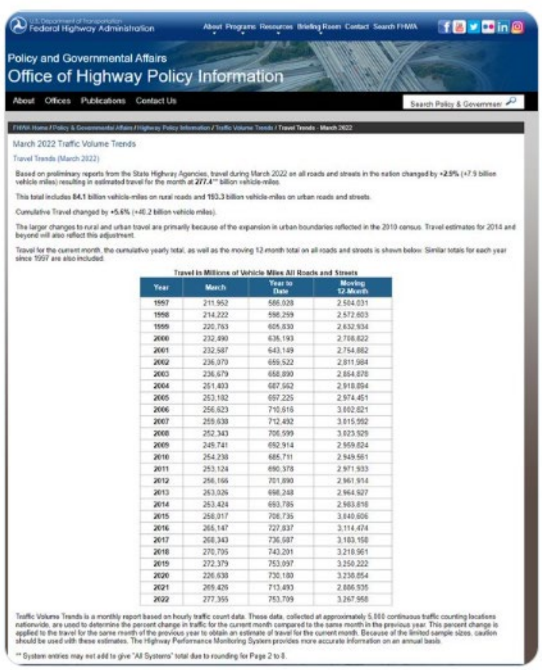
Positive for #Oil?? US testing waters for #MBS meet, is this a signal to KSA that #Biden is likely to hold off on return to #JCPOA? Wouldn't a MBS meet & then a JCPOA be an insult to an already bad relationship? Also imagine Biden's reception if a JCPOA is signed first? #OOTT

> **Ben Bartenstein** @BenBartenstein · May 19
>
> NEW: President Joe Biden is weighing a meeting with Saudi Arabia's Mohammed bin Salman as soon as next month, potentially marking a shift in Washington's approach bloomberg.com/news/articles/... @MattMartin128 @JenniferJJacobs @viviannereim

Dan Tsubouchi @Energy_Tidbits · May 20

Too bad US #Gasoline prices thru the roof is starting to impact driving demand. But at least coming off an all time record month for March for US vehicle miles driven. #OOTT

fhwa.dot.gov/policyinformat...



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FHWA Home / Policy & Governmental Affairs / Highway Policy Information / Traffic Volume Trends / Travel Trends - March 2022

March 2022 Traffic Volume Trends

Travel Trends (March 2022)

Based on preliminary reports from the State Highway Agencies, travel during March 2022 on all roads and streets in the nation changed by **+2.9%** (+7.9 billion vehicle miles) resulting in estimated travel for the month at **277.4**** billion vehicle-miles.

This total includes **84.1** billion vehicle-miles on rural roads and **193.3** billion vehicle-miles on urban roads and streets.

Cumulative Travel changed by **+5.6%** (+40.2 billion vehicle miles).

The larger changes to rural and urban travel are primarily because of the expansion in urban boundaries reflected in the 2010 census. Travel estimates for 2014 and beyond will also reflect this adjustment.

Travel for the current month, the cumulative yearly total, as well as the moving 12 month total on all roads and streets is shown below. Similar totals for each year since 1997 are also included.

Travel in Millions of Vehicle Miles All Roads and Streets

Year	March	Year to Date	Moving 12 Month
1997	211,952	586,028	2,504,031
1998	214,222	598,259	2,572,603
1999	220,763	605,830	2,632,934
2000	232,490	636,193	2,708,822
2001	232,587	643,149	2,754,882
2002	236,070	655,522	2,811,984
2003	236,679	658,890	2,864,878
2004	251,403	687,562	2,918,894
2005	253,182	697,225	2,974,451
2006	256,623	710,616	3,002,821
2007	259,638	712,492	3,015,992
2008	252,343	706,599	3,023,929
2009	249,741	692,914	2,959,824
2010	254,238	685,711	2,949,561
2011	253,124	690,378	2,971,933
2012	256,166	701,890	2,961,914
2013	253,026	698,248	2,964,927
2014	253,424	693,785	2,983,818
2015	258,017	708,735	3,040,606
2016	265,147	727,837	3,114,474
2017	268,343	736,687	3,183,158
2018	270,705	743,201	3,218,961
2019	272,379	753,097	3,250,222
2020	226,638	730,180	3,238,854
2021	269,426	713,493	2,886,935
2022	277,355	753,709	3,267,958

Traffic Volume Trends is a monthly report based on hourly traffic count data. These data, collected at approximately 5,000 continuous traffic counting locations nationwide, are used to determine the percent change in traffic for the current month compared to the same month in the previous year. This percent change is applied to the travel for the same month of the previous year to obtain an estimate of travel for the current month. Because of the limited sample sizes, caution should be used with these estimates. The Highway Performance Monitoring System provides more accurate information on an annual basis.

** System entries may not add to give "All Systems" total due to rounding for Page 2 to 8.

SAF GROUP

Dan Tsubouchi @Energy_Tidbits · May 20

Looks like @cppinvestments followed thru on their Dec 15, 2021 "new investment approach" that included #Oil #NatGas as a "strategic sector" with their $CNQ position. Thx @garquake for handling. see SAF Group Dec 19, 2021 Energy Tidbits 👇. #OOTT

Excerpt SAF Group Dec 19, 2021 Energy Tidbits memo https://safgroup.ca/news-insights/

Energy Transition – CPPIB's #MacronMoment, a "new" oil & gas investment approach

There was a significant positive to oil and gas investing this week and one that we expect others to follow, and this will lead to more long term investor capital allocation to oil and gas. On Wednesday, CPPIB announced its "new" investment approach in its release *"CPP Investments highlights importance of decarbonizing hard-to-abate sectors in addressing climate change"*. [LINK] This is a significant change for a couple of reasons and one that we have been expecting based on the feedback we hear from long term investors. CPPIB calls it a *"new investment approach"* including on oil and gas. (i) CPPIB is a leader and is providing the messaging framework that we expect others to follow. Big long term investors like CPPIB have mostly all come out plans on how they taking their investment strategy to Net Zero. But, in discussions, more are realizing the Energy Transition isn't happening as fast as expected so their challenge is how to slow play their capital allocation to Net Zero. CPPIB provide the messaging on how they will do so. (ii) CPPIB now calls oil and gas a "*strategic sector*" and one for capital allocation. CPPIB said "helping *businesses decarbonize is critical to addressing climate change, according to a recent perspective published by Canada Pension Plan Investment Board (CPP Investments). The perspective, "Investing to enable an economy-wide evolution to a low-carbon future," highlights the opportunity decarbonization presents for long-term investors, noting the need to address a particularly serious obstacle to decarbonization: strategic sectors that are essential, high-emitting and hard-to-abate.*

The perspective also outlines CPP Investments' new investment approach which aims to identify, fund and support companies that are committed to creating value by lowering their emissions over time, consistent with CPP Investments' time horizon advantage.

"High-emitting companies that successfully navigate the economy-wide evolution to a low-carbon future will preserve and deliver embedded value for patient long-term investors like CPP Investments," said Deb Orida, Global Head of Real Assets & Chief Sustainability Officer. "This new investment approach complements the Fund's ongoing commitment to investing in companies that have the potential to develop innovative climate technologies around the world and furthers our existing capabilities in technologies that enable the energy evolution."

Strategic sectors that are essential, high emitting and hard-to-abate within this investment approach include agriculture, chemicals, cement, conventional power, oil and gas, steel and heavy transportation. The successful decarbonization of these sectors is not only essential to meet wider net-zero ambitions, but also to sustain economic growth, stability and a responsible transition." Our Supplemental Documents package includes the CPPIB announcement.

Our #1 2022 Prediction – leaders like CPPIB have a #MacronMoment

Last week's (Dec 12, 2021) Energy Tidbits highlighted our #1 2022 prediction that more Energy Transition leaders (politicians and capital providers) will come out of the closet and admit (most indirectly) that they need to change their energy transition plans as the energy transition is taking longer, be bumpy and will cost more. On Dec 9, we tweeted [LINK] "*Time for #2022Predictions. My #1 is more #EnergyTransition #NetZero leaders come out of closet, have a #MacronMoment ie. have "transition" not self inflicted shortage so 2021 energy crisis isn't every year. A return to #EnergySecurity = #Oil #NatGas #LNG strong thru 2030. #OOTT.*" A #MacronMoment can take three forms. (i) A direct #MacronMoment clearly saying it isn't working as planned. We aren't picking on Macron, but he recently said it the clearest when he warned the energy transition aspiration has to be modified/reduced or else there will be years of an energy crisis. The day before COP26 started, we tweeted [LINK] on Macron's comments to the FT [LINK] that was a clear view on higher fossil fuel prices for the foreseeable future. Macron said "on demand for fossil fuels isn't going away for the foreseeable future. Macron said "*What is happening now is ironic, because we are building a system where in the medium and long term fossil energy will cost more and more, that's what we want [to fight climate change].*" he said." Japan is another calling for a pragmatic time frame ie a change in the plan. (ii) Japan now says must have a "*pragmatic time frame*" for decarbonization. No one should is surprised to see how Japan says their #MacronMoment. They use Japan-speak for the energy transition aspirations plan isn't working and needs to be changed. On Nov 9, we tweeted [LINK] on Japan's release [LINK] on its conference with IEA Executive Director Faith Birol. Japan wrote "*The two sides also exchanged views on acceleration of decarbonization efforts following COP26, and shared the importance on measures with pragmatic time frame based on individual circumstances that each countries face including its renewable energy potentials*". A pragmatic time frame or a go slow process, whatever you want to call it, it means the same thing – Japan doesn't want to get rid of fossil fuels too quickly. (iii) The US doesn't say its isn't work, just that there will be higher energy costs for years to come. US Energy Secretary Granholm has shown the third way of admitting the energy transition plan isn't working. She avoids saying the plan isn't working or needs to be changed, just that she puts on the record that high energy costs are here for years. We tweeted on her comments on MSNBC Morning Joe and created a transcript of her saying "*So the long term strategy is that. and yes we have a short term cost issue because the economy is still coming back on. we have a supply, demand that does not, the supply doesn't meet the demand. that is an issue we are going through. The president is all over this both in the short term and in the long term.*"

Burnsco @garquake · May 20

From yesterday " The Canada Pension Plan Investment Board will keep investing in the fossil fuel industry even as it seeks to meet its sustainability target, CEO John Graham said on Thursdays" guess the Q report has come out 🤣

🇨🇦🛢🔥🚀🚀#com #oott #Canada twitter.com/garquake/statu...

SAF GROUP

Dan Tsubouchi @Energy_Tidbits · May 20

Qatar's 6.4 bcfd #LNG expansion maybe 1 yr early, by 26, not 27, "will not be completed until 2026, maybe even as early as 2025". Re #JCPOA, "the Iranian leadership told us they were ready for a compromise". says @MBA_AlThani_ #NatGas #OOTT Thx @handelsblatt Mathias Brueggmann

Excerpts from https://www.handelsblatt.com/politik/international/scheich-mohammed-bin-abdulrahman-al-thani-katars-vizepremier-als-kleines-land-koennen-wir-uns-feindschaften-zwischen-grossen-machtbloecken-nicht-leisten/28358170.html

SHEIKH MOHAMMED BIN ABDULRAHMAN AL-THANI

Qatar's Deputy Prime Minister: "As a small country, we cannot afford hostilities between large power blocs"

The sovereign wealth fund from Qatar is planning further investments in German companies. But he also wants to expand his commitments in Asia. The fund does not want to withdraw from Russia.

Mathias Brueggmann 05/20/2022 - 04:00 am Leave a Comment

Jetzt teilen

Mohammed bin Abdulrahman Al Thani

Qatar's deputy prime minister is also the head of the QIA sovereign wealth fund.

(Photo: Reuters)

Read the entire interview here:

What can Qatar do to curb the soaring gas prices in Europe?

We are currently doing everything possible to help our European partners. We leave whatever volume we could deliver to Europe and do not divert LNG tankers, although under our contracts we could do so if we could get a higher price elsewhere. In addition, we are currently significantly expanding our gas production. This creates capacities for more liquid gas for Europe.

When can Germany get more LNG from Qatar - not until 2026, when your country wants to increase its liquefied gas production from the current 77 to 126 million tons a year? Or earlier?

The expansion of production in our North Dome gas field will not be completed until 2026, maybe even as early as 2025. But we want our US liquid gas plant Golden Pass in Texas, in which Qatar Energy holds 70 percent, to be ready by 2024 so that we can go to Germany can deliver.

Another country is under tough sanctions: Iran. When do you expect a breakthrough in the nuclear agreement that has now been renegotiated with your neighbor?

The Emir was recently in Tehran and met both the President and the spiritual leader of Iran. He will report this to Chancellor Scholz, since Germany is negotiating very intensively for a solution. A breakthrough is in the interests of all of us, including those of us in the region. And the Iranian leadership told us they were ready for a compromise.

Does the West need Iran's oil, which would return to world markets with a nuclear deal, as a substitute for Russian oil ?

This is certainly also a factor why the nuclear agreement should come into force again quickly. But for us it's about something else: more stability in the Gulf. Germany and Qatar are pulling together on this issue. But of course, all the extra oil in the markets helps stabilize oil prices and lower inflation.

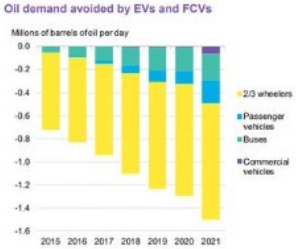
SAF GROUP

Dan Tsubouchi @Energy_Tidbits · May 19

Food for thought. @BloombergNEF fcast EVs avoided oil use more than doubled since 2015 & now almost 1.5 mmbd. YoY 2021 growth rate in #EV avoided oil use is ~0.2 mmbd, increasing but small relative to @IEA OMR 2022 YoY 1.8 mmbd growth in #Oil demand. Thx @albertwycheung #OOTT

Oil use avoided by EVs has more than doubled since 2015

Oil demand avoided by EVs and FCVs



Source: BloombergNEF, IEA

Global oil demand in road transport reached roughly 43.7 million barrels per day in 2021, a slight increase since 2015.

The adoption of electric vehicles and fuel cell vehicles avoided almost 1.5 millions of barrels of oil per day in 2021 – about 3.3% of total demand. The displaced demand is roughly equivalent to one-fifth of Russia's total oil and oil products exports prior to the war, and roughly double Germany's imports of Russian oil and products at the end of 2021.

Avoided oil consumption has more than doubled in the past six years, up from ~725,000 barrels of oil per day in 2015.

Two- and three-wheeled EVs accounted for 67% of the oil demand avoided in 2021. This is due to their rapid adoption particularly in Asia.

Buses, with 16% of total oil demand avoided, were next, followed by passenger vehicles, the fastest growing segment, accounting for 13%. Commercial vehicles accounted for just 4% of total oil demand avoided in 2021, largely from light commercial EVs.

In BNEF's Net-Zero Scenario, which achieves a zero-emission vehicle fleet globally by 2050, oil displacement increases to over 7 million barrels per day in 2030 – roughly equivalent to Russia's total oil and products exports prior to the war.

This figure rises to nearly 16 million barrels per day in 2035, and represents permanent removal of oil dependency.

9 ZEV Transition Council - Progress Dashboard

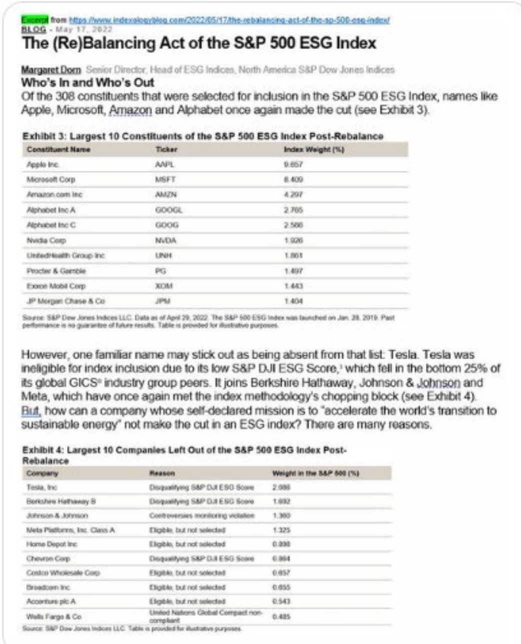
BloombergNEF

SAF GROUP

Dan Tsubouchi @Energy_Tidbits · May 19

"The (Re)Balancing Act of the S&P 500 ESG Index". #Exxon made the largest 10 constituents, #TeslaStock was on list of largest 10 companies left out of the S&P 500 ESG Index Post-Rebalance as had "disqualifying S&P DJI ESG Score". #OOTT #EnergyTransition

indexologyblog.com/2022/05/17/the...



Excerpt from https://www.indexologyblog.com/2022/05/17/the-rebalancing-act-of-the-sp-500-esg-index/

BLOG - May 17, 2022

The (Re)Balancing Act of the S&P 500 ESG Index

Margaret Dorn Senior Director, Head of ESG Indices, North America S&P Dow Jones Indices

Who's In and Who's Out

Of the 308 constituents that were selected for inclusion in the S&P 500 ESG Index, names like Apple, Microsoft, Amazon and Alphabet once again made the cut (see Exhibit 3).

Exhibit 3: Largest 10 Constituents of the S&P 500 ESG Index Post-Rebalance

Constituent Name	Ticker	Index Weight (%)
Apple Inc.	AAPL	9.657
Microsoft Corp	MSFT	8.409
Amazon.com Inc	AMZN	4.297
Alphabet Inc A	GOOGL	2.765
Alphabet Inc C	GOOG	2.566
Nvidia Corp	NVDA	1.926
UnitedHealth Group Inc	UNH	1.861
Procter & Gamble	PG	1.497
Exxon Mobil Corp	XOM	1.443
JP Morgan Chase & Co	JPM	1.404

Source: S&P Dow Jones Indices LLC. Data as of April 29, 2022. The S&P 500 ESG Index was launched on Jan. 28, 2019. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

However, one familiar name may stick out as being absent from that list: Tesla. Tesla was ineligible for index inclusion due to its low S&P DJI ESG Score,[1] which fell in the bottom 25% of its global GICS® industry group peers. It joins Berkshire Hathaway, Johnson & Johnson and Meta, which have once again met the index methodology's chopping block (see Exhibit 4). But, how can a company whose self-declared mission is to "accelerate the world's transition to sustainable energy" not make the cut in an ESG index? There are many reasons.

Exhibit 4: Largest 10 Companies Left Out of the S&P 500 ESG Index Post-Rebalance

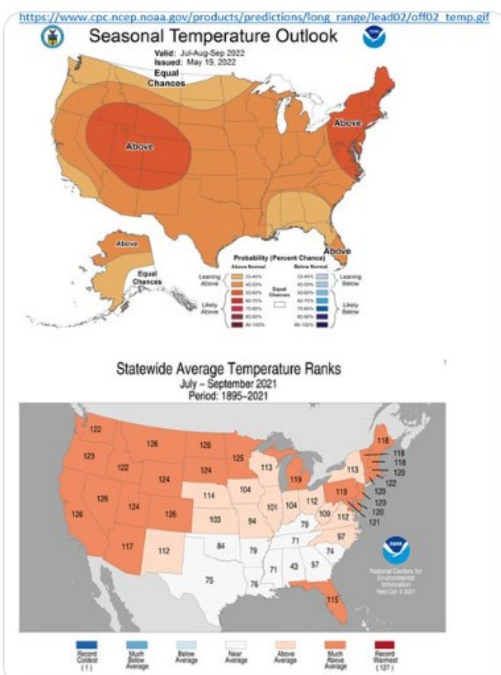
Company	Reason	Weight in the S&P 500 (%)
Tesla, Inc	Disqualifying S&P DJI ESG Score	2.086
Berkshire Hathaway B	Disqualifying S&P DJI ESG Score	1.692
Johnson & Johnson	Controversies monitoring violation	1.360
Meta Platforms, Inc. Class A	Eligible, but not selected	1.325
Home Depot Inc	Eligible, but not selected	0.898
Chevron Corp	Disqualifying S&P DJI ESG Score	0.864
Costco Wholesale Corp	Eligible, but not selected	0.657
Broadcom Inc	Eligible, but not selected	0.655
Accenture plc A	Eligible, but not selected	0.543
Wells Fargo & Co	United Nations Global Compact non-compliant	0.485

Source: S&P Dow Jones Indices LLC. Table is provided for illustrative purposes.

SAF GROUP

Dan Tsubouchi @Energy_Tidbits · May 19

Hot temps and continued support for weather driven #NatGas consumption, @NOAA continues to expect a warmer than normal summer. Reminder YoY comp is against JAS 2021 was the 3rd hottest in last 127 years. #OOTT



Dan Tsubouchi @Energy_Tidbits · May 19

Never let a good crisis go to waste. @onlyanna100 reports China in discussions to buy cheap Russian oil to replenish strategic crude oil reserves. Remember China took advantage of Covid #Oil price crash to add to strategic reserves. #OOTT

> **Anna Kitanaka** @onlyanna100 · May 19
>
> SCOOP: China in Talks With Russia to Buy Oil for Strategic Reserves
> bloomberg.com/news/articles/...

Dan Tsubouchi @Energy_Tidbits · May 19

More indicators EU should be able to refill #NatGas storage ahead of winter. #Novak: "about half" of 54 #Gazprom export customers have "already opened" special Gazprombank accounts, likely going higher as deadline not there for some. #OOTT

https://tass.ru/ekonomika/14667385
EDUCATIONAL MARATHON "NEW HORIZONS"
MAY 19, 01:40Updated May 19, 02:39

About half of Russian gas buyers have opened ruble accounts to pay

Deputy Prime Minister Alexander Novak noted that the final list of buyers who agreed to pay for gas in rubles will become known in the coming days.

MOSCOW, May 19. /TASS/. About half of Gazprom Export's 54 client companies have already opened ruble accounts to pay for Russian gas supplies. The final list of buyers who have switched to paying for gas in rubles will become known in the coming days, said Russian Deputy Prime Minister Alexander Novak.

"We have about 54 companies that have contracts with Gazprom Export, there are large, medium and small companies. According to my information, about half of this number have already opened special foreign currency accounts in our authorized bank (Gazprombank - TASS note). and ruble in order to ensure the receipt of foreign exchange earnings, conversion into rubles and payment for the supplied gas in rubles," Novak said during a speech at the New Horizons marathon organized by the Znanie society.

According to the Deputy Prime Minister, the final list of buyers who agreed to pay for gas in rubles, and those who refused to pay, will become known in the coming days. "There are certain payment dates, there are advances, there is an advance payment, there is an actual payment for the supplied gas. This is a mechanism that is extended in time - for example, deliveries in April, for which payment is finally made in May," he explained.

Novak called the introduction of payment for gas in rubles as a forced measure, this is necessary to maintain export earnings.

On March 31, Russian President Vladimir Putin signed a decree that from April 1 defines a new procedure for paying for Russian gas supplies by buyers from unfriendly countries. Such states must transfer funds in foreign currencies to Gazprombank, which will buy rubles on exchanges and transfer them to special ruble accounts of importers. At the same time, Russia will continue to supply gas in volumes and at prices fixed in earlier contracts.

Dan Tsubouchi @Energy_Tidbits · May 19

Negative to #Oil. Russia #Oil production & exports continue to recover, not going lower. #Novak: production down 1 mmb/d in Apr, up 200-300,000 b/d in May, further recovery in June. Also restoring oil exports & RUS oil exporting companies "today they feel quite confident". #OOTT

https://tass.ru/ekonomika/14667125
EDUCATIONAL MARATHON "NEW HORIZONS"
MAY 19, 01:21Updated May 19, 03:08

Novak: Russia will ensure energy security under any circumstances

Deputy Prime Minister said that Russia is restoring oil exports

Deputy Prime Minister of the Russian Federation Alexander Novak
© Artem Geodakyan/TASS
Read TASS at
Yandex.NewsYandex.Zen

MOSCOW, May 19. /TASS/. In Russia, energy security will be ensured under any circumstances, the country produces enough energy, both for domestic consumption and for export. This was announced by Deputy Prime Minister of the Russian Federation Alexander Novak during the New Horizons marathon organized by the Knowledge society.

"The most important task for our energy industry is to provide, first of all, our domestic market with high-quality and affordable energy sources. Since we produce enough energy for domestic consumption, as well as for export, in terms of the energy security of our country, we will independently from any action are provided in full," he said.

At the same time, the energy crisis in Europe is just beginning, Novak believes. "What will happen by the end of the year, or next year - there are big uncertainties. In my opinion, it will be worse, because the prices are very high, because there are risks of short deliveries," the Deputy Prime Minister added.

Oil export

Russia is restoring oil exports and redirecting it to new markets, we cannot talk about a crisis in the industry, Novak said.

"We work in constant contact with our oil and gas companies, and we do not see any serious problems that would indicate that our industry is in some kind of crisis. Yes, we received some kind of shock that allowed us to find new points of balance and reach new export opportunities, redirecting, among other things, energy resources to new markets, creating new supply chains. We are additionally looking for new partners, respectively, we are solving financing issues - the problems that the industry has faced as a result of sanctions," he said during the marathon " New Horizons", organized by the society "Knowledge".

"Nevertheless, I believe that our companies have reformatted in two months, and today they feel quite confident. The domestic market (situation) does not, in principle, affect exports, we are practically restoring it today," Novak added.

Increase in oil production in May

Russia increased oil production in May by 200-300 thousand barrels per day (b / d) after falling in April, in June, the recovery in production will continue, Novak said.

According to the forecast of the Ministry of Economic Development, in 2022, Russian oil exports will decrease by 1.2% - to 228.3 million tons after 231 million tons in 2021 and to 224.8 million tons in 2023. In 2024-2025, exports are expected to grow to 228.1 million tons and 229.5 million tons, respectively.

Russia increased oil production in May by 200-300 thousand barrels per day (b / d) after falling in April. Production recovery will continue in June, Novak said.

"Yes, somewhere in March-April, as a result of the shock, we received a slight decrease in production and oil refining. This was expressed in approximately 10-14% figures," he said. production is increasing. If in April we reduced production by about 1 million barrels per day, in May we already increased by 200-300 thousand b / d. And we expect that further recovery will also take place in June."

Novak also noted that the situation in Russia with the extraction and export of energy resources is now stable.

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Dan Tsubouchi @Energy_Tidbits · May 18

Positive for #Oil #NatGas stocks. they will be big winners in #BlackRock iShares MSCI USA Momentum Factor ETF semi annual rebalancing. Reminds will also be wins as generalist PMs also rebalance to be market weight . Thx @WellsFargo Christopher Harvey, @SamJPotter #OOTT

Quant ETF Set for Record 79% Rebalance as Tech Stocks Plunge (1)
2022-05-18 21:32:48.899 GMT

By Sam Potter

(Bloomberg) -- A $10 billion quant strategy that chases the biggest stock-market winners is about to undergo its largest-ever reshuffle -- underscoring the dramatic shift in the fortunes of Corporate America over the past six months as the free-money era ends.

BlackRock Inc.'s iShares MSCI USA Momentum Factor ETF (ticker MTUM) is facing its latest semi-annual rebalance, with the fund's underlying index due to start the process next week. Wells Fargo & Co. estimates a whopping 79% of the smart-beta product's holdings will be turned over in favor of sectors that gain from elevated inflation like value and energy, at the expense of technology names. At the same economically sensitive companies like banks will likely be dashed in favor of defensives like health care.

As the Federal Reserve prepares to ramp up interest rates to arrest runaway price growth, expensive-looking growth equities that soared in the pandemic have tumbled. At the same time the supply-chain crisis continues to fuel the boom in raw materials, while safety trades are in vogue on fears over the resilience of the US business cycle.

The Nasdaq 100 fell the most among major benchmarks in Wednesday trading, dropping more than 5%.

All that means the market landscape has shifted markedly, setting the stage for MTUM's historic transformation.

"Our preliminary estimates indicate a wholesale renovation," Wells Fargo analysts led by Christopher Harvey wrote in a note. "Momentum holdings are expected to re-align with value and take on old-school defensive traits: lower price volatility, more stable earnings, larger size, and steadier dividends."

	May 2022 Rebalance		
	current	est	Δ
Health Care	12.4%	27.6%	15.2%
Energy	7.1%	18.7%	11.5%
Staples	3.8%	17.7%	13.9%
Info Tech	31.1%	9.8%	(21.3)%
Financials	24.2%	7.3%	(16.9)%
Utilities	0.0%	6.8%	6.8%
Industrials	4.0%	4.0%	0.0%
Materials	1.9%	3.9%	2.0%
Real Estate	1.2%	3.0%	1.8%
Consumer Disc	8.5%	1.0%	(7.5)%
Comm Serv	5.5%	0.2%	(5.3)%

Expected adjustments to MTUM's portfolio. Source: Wells Fargo

The adjustment is set to eclipse the prior record, which saw an estimated turnover of 68% a year ago as the exchange-traded fund pivoted away from pandemic-era favorites toward winners from the economic reopening.

The rebalance schedule of MTUM's underlying MSCI US Momentum Index, which ranks stocks by their returns over a six-month- and one-year horizon, is less frequent than many versions of the factor -- meaning a lot can happen between adjustments. The last reshuffle of the index in November turned out to be particularly ill-timed, with about half of the portfolio rebalanced once more in following a comeback for Big Tech. The gauge has dropped more than 25% since its all-time high that month.

This time, names such as Johnson & Johnson, AbbVie Inc. and Exxon Mobil Corp. will be among new additions, according to the Wells Fargo analysts. The likes of Microsoft Corp. and JPMorgan Chase & Co. are set to be removed.

MTUM is part of the $1.5 trillion smart-beta industry where ETFs mostly pick stocks by quantifiable characteristics known as factors. These funds tend to follow only the long side of a strategy, while a dedicated quant investor trading the momentum style would likely also short the market losers -- which can lead to significantly different performance.

A market-neutral version of the strategy is down about 2.8% in the past six months, for example. MTUM has dropped 24% in the same period.

Read more: Quant Momentum Funds Are Slammed Again In a New Fed-Linked Study

"We're seeing clients use MTUM to seek greater returns while retaining exposures to factors like quality, value and minimum volatility for diversification," said Andrew Ang, managing director at BlackRock in an email.

All told the latest reshuffle will leave MTUM "significantly cheaper" and less volatile, according to analysts at Bloomberg Intelligence.

"Post-rebalance MTUM will have a lot in common with low-volatility funds, based on our analysis, with an expected 56% of MTUM's projected weighting falling into the lowest volatility quintile of the Russell 1000," Christopher Cain and Athanasios Psarofagis wrote in research last week.

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To contact the editors responsible for this story:
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Sid Verma

To view this story in Bloomberg click here:
https://blinks.bloomberg.com/news/stories/RC3K1NT0AFB9

Dan Tsubouchi @Energy_Tidbits · May 18

Understandable but crazy #ERCOT has had to ask conserve power. Yes, it's been record temp. But TX has 137,067 total installed #Electricity capacity or 1.77x ERCOT est summer peak demand 77,317 MW, but that incl interruptible capacity 35,195 MW wind & 11,342 MW solar #NatGas #OOTT

Dan Tsubouchi @Energy_Tidbits · May 18

Is @amoshochstein saying no choice but #JCPOA to stop Iran nuke progress? "Especially exiting an agreement with nothing to replace it with except for sanctions. Unfortunately, sanctions have limits to them as well. And we know where Iran is today, increasing its capacities" #OOTT

SAF Group created transcript of excerpt from Amos Hochstein (Senior Advisor to the President of the United States for International Energy) interview with Maj. Gen. (Res.) Amos Gilead (Executive Director, Institute for Policy and Strategy (IPS), Reichman University) on May 17, 2022. https://twitter.com/IPS_Herzliya/status/1526514979066757120

Items in "italics" are SAF Group created transcript

Asked about Iran, at 5:20 min mark, Hochstein "well, I don't want to get ahead of the President or ahead of others in US government and Rob Malley who is our chief negotiator but I think the most important thing to look at it as not to listen to whatever the headlines are saying from time to time since the predictions in the headlines have been rather wrong and off. The President sees the threat of a nuclear Iran as a significant national security threat to Israel, the region, to the world, to the United States. And has therefore been as committed to ensuring that Iran does not reach that level of becoming a nuclear state. We supported, this Administration and President Biden, when he was Vice President, supported the JCPOA agreement, believe that it was a tragic mistake to exit. Especially exiting an agreement with nothing to replace it with except for sanctions. Unfortunately, sanctions have limits to them as well. And we know where Iran is today, increasing its capacities. Again, I look at things from the energy perspective and from how to ensure that Iran does not have the revenues and the cash flow to continue to rebuild its economy, to have additional cash flow to support organizations, terrorist organizations around the region. And that's what we will continue to do. we continue to implement the sanctions. We have given, the opportunities have been clear that if they wanted to come back to the table in a serious way for an agreement. Again without getting into those details, that is something that the Administration wants to do. But President Biden has said not at all costs. And it has to be along the lines of what is important and consistent with national security concerns. But I will let others in my government who are handling that issue on a day-to-day basis talk to you about those kind of issues.

Prepared by SAF Group https://safgroup.ca/news-insights/

Dan Tsubouchi @Energy_Tidbits · May 18

For those not near their laptop. @EIAgov weekly #Oil #Gasoline #Distillates inventory at May 13 just released. Remember EIA oil inventories build in impact of 5 mmb #SPR oil released & coming into the system. Prior to release, WTI was $112.54. #OOTT
ir.eia.gov/wpsr/overview....

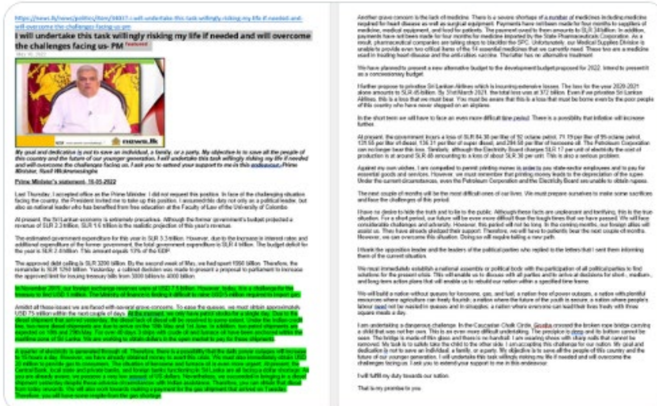
ıventory May 13: EIA, Bloomberg Survey Expectations, ,

	EIA	Expectations	
	-3.39	2.00	
	-4.78	-1.40	
	1.24	-0.60	
	-6.93	0.00	

ımercial so builds in impact of 5.0 mmb draw from SPR for M
in the oil data, Cushing had a draw of 2.40 mmb for May 13 v
oomberg
\F Group https://safgroup.ca/news-insights/

Dan Tsubouchi @Energy_Tidbits · May 18

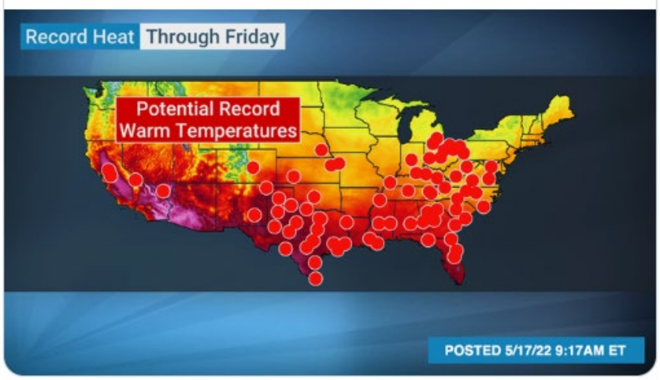
ICYMI, Sri Lanka PM's 5/16 blunt warning - foreign exchange reserves $7.5b in Nov 2019 now "challenge for the treasury to find USD 1 million", "at the moment, we only have petrol stocks for a single day", "daily blackout outages will increase to 15 hours a day" and more. #OOTT


I will undertake this task willingly risking my life if needed and will overcome the challenges facing us- PM

Dan Tsubouchi @Energy_Tidbits · May 17

And happy #NatGas! #OOTT

> **The Weather Channel** @weatherchannel · May 17
>
> Well... Happy early summer! ☀️
>
> Potentially record-warm temps continue today with tens of millions experiencing highs above 90°. Get the latest forecast and tips for beating the heat on The Weather Channel.



Dan Tsubouchi @Energy_Tidbits · May 17

1/2. Bullish for #Oil #NatGas stocks. #BlackRock is specific on investing in traditional energy stocks."This set of dynamics will - at least in the short- and medium-term - drive a need for companies that invest in both traditional and renewable sources of energy and ... OOTT

Dan Tsubouchi @Energy_Tidbits · Feb 8

3/3. "We believe an underappreciated opportunity for investors seeking to drive the transition lies in identifying carbon-intensive companies that are positioning themselves to lead decarbonization within their industries". Bullish for #Oil #NatGas stocks. #OOTT

Show this thread

Excerpts from BlackRock's

https://www.blackrock.com/ca/investors/en/transition-investing

A FRAMEWORK FOR OUR CLIENTS

How to invest in the net zero transition

Decarbonization is proceeding at different speeds across different parts of the economy and the world. The shocks we see in the energy sector today are one example of the challenges the transition poses. Increased investment in the supply of renewables outpaced the reduced investment in fossil fuels. Now, increased demand for fossil fuels in the restart of economic activity and impaired supply have driven up the price and use of gas, oil, and coal. There will be periods like this when traditional energy performs well – periods that should not be seen as counter to the transition, but as part of it.

The speed and shape of the transition are deeply uncertain, and it will take decades to play out. It is essential that governments, businesses, and finance work together to manage the transition in an orderly fashion, ensuring reliable energy supply and cost along the way.

The ambition and effectiveness of government policy will be a major factor in determining the future role for hydrocarbons. Effective, long-term planning is necessary to deliver cost-efficient clean energy alternatives at scale. Without it, hydrocarbons will continue to play a central role in the global economy for a much longer time. To date, public policy has primarily focused on limiting hydrocarbon supply but has not done enough to address demand – for example, by retooling energy-intensive industries or accelerating adoption of zero-carbon energy sources – resulting in higher energy prices in some instances. And as we have seen in emerging markets, rising natural gas prices can also drive increased use of coal.

Capital markets are already channeling capital to companies with green business models, such as producers of **renewable energy, suppliers of electric mobility technology, or companies focused on nature-based solutions**. We believe an underappreciated opportunity for investors seeking to drive the transition lies in **identifying carbon-intensive companies that are positioning themselves to lead decarbonization within their industries**.

The transition to net zero, of course, will take decades. The global economy will continue to rely on fossil fuels as emissions-intensive sectors like electricity, industry, and transport work to decarbonize. Some incumbents will be displaced by new technologies or more agile startups, and some will lose out to competitors who are decarbonizing more successfully. **But many other incumbents will thrive, providing important investment opportunities for our clients, and successful decarbonization plans by these companies will be critical to an orderly transition.**

SAF GROUP

Dan Tsubouchi @Energy_Tidbits · May 17

2/2 "... we believe the companies that do that effectively will produce attractive returns for our
clients." An even clearer message than 👇 the Feb "how to invest in the #NetZero transition". More capital for #Oil #NatGas stocks & other institutional investors will follow #OOTT

Excerpt https://www.blackrock.com/corporate/literature/publication/commentary-bis-approach-shareholder-proposals.pdf

2022 climate-related shareholder proposals more prescriptive than 2021

BlackRock.

Investment Stewardship

BIS' observations on climate-related shareholder proposals in 2022

Ahead of the peak 2022 shareholder meeting season, BIS has had an opportunity to observe and assess some of the themes in focus in the climate-related shareholder proposals on which we will vote over the coming weeks and months.
At the same time, there are some unique dynamics playing out for the first time this shareholder meeting season.
•In the U.S., the Securities and Exchange Commission revisedguidance:on shareholder proposals, and broadened the scope of permissible proposals that address "significant social policy issues". This has resulted in a marked increasein environmental and social shareholder proposals of varying quality coming to a vote.

Our early assessment is that many of the proposals coming to a vote are more prescriptive and constraining on management than those on which we voted in the past year.

•Importantly, in the context of voting on shareholder proposals regarding climate-relatedrisk, companies face particular challenges in the near term, given under-investment in both traditional and renewable energy, exacerbated by current geo-political tensions. In recent research, BlackRock noted that reducing reliance on Russian energy in the wake of the invasion of Ukraine will impact the net zero transition that is already underway. Net exporters of energy are likely to be required to increase production, while net importers are expected to accelerate efforts to increase the proportion of renewables in their energy mix. This set of dynamics will —at least in the short- and medium-term —drive a need for companies that invest in both traditional and renewable sources of energy and we believe the companies that do that effectively will produce attractive returns for our clients.

•Companies, particularly in Europe, are increasingly choosing to introduce management proposals to approve a company's climate action plan or progress in realizing its objectives. These proposals are a tool for companies seeking investor feedback on climate risk and the energy transition. In those cases where both a climate-relatedmanagement proposal and a similar shareholder proposal are on the ballot, we have observed that investors, including BlackRock, are increasingly inclined to support the management proposal, as the company is demonstrating commitment to act by setting out their business plan for how they intend to deliver long-term financial performance through the energy transition. BIS continues to monitor the development of proposals on climate action plans and progress in this context.

SAF

Dan Tsubouchi @Energy_Tidbits · May 17

Is #Biden about to throw up Hail Mary's to try to get record #Gasoline #Diesel prices down before mid-terms? Hasn't walked away from #JCPOA, opening door on VEN w/Chevron, now @arappeport reports 👇 Yellen suggests price mechanism ie. keep RUS #Oil flowing thru 2022. #OOTT

	Regular	Mid-Grade	Premium	Diesel	E85
Current Avg.	$4.523	$4.873	$5.160	$5.573	$3.882
Yesterday Avg.	$4.483	$4.845	$5.132	$5.566	$3.850
Week Ago Avg.	$4.374	$4.724	$5.011	$5.550	$3.784
Month Ago Avg.	$4.080	$4.482	$4.762	$5.028	$3.540
Year Ago Avg.	$3.045	$3.375	$3.648	$3.171	$2.551

HIGHEST RECORDED AVERAGE PRICE

	Price	Date
Regular Unleaded	$4.523	5/17/22
Diesel	$5.573	5/17/22

Alan Rappeport @arappeport · May 17

New: Treasury Department officials said on Tuesday that they wanted Europe to consider pricing mechanisms such a price cap or tariff that would eat away at much of Russia's oil profits while still giving the country enough incentive to keep producing.
nytimes.com/2022/05/17/us/...

Dan Tsubouchi @Energy_Tidbits · May 17

Big MoM and YoY drop in National Association of Home Builders/Wells Fargo Housing Market Index. 1st time HMI dropped below 70 since June 2020. Thx @TeddyGambino @zerohedge for flagging. #OOTT

nahb.org/news-and-econo...

Table 1. NAHB/Wells Fargo National and Regional Housing Market Index (HMI)

NATIONAL

(Seasonally Adjusted)	2021 May	2021 Jun.	2021 Jul.	2021 Aug.	2021 Sep.	2021 Oct.	2021 Nov.	2021 Dec.	2022 Jan.	2022 Feb.	2022 Mar.	2022 Apr. *Revised*	2022 May *Prelim.*
Housing Market Index	83	81	80	75	76	80	83	84	83	81	79	77	69
Housing Market Index Components													
Single Family Sales: Present	88	87	86	81	82	86	89	90	89	89	87	86	78
Single Family Sales: Next 6 Months	81	79	81	81	81	84	84	85	82	80	70	73	63
Traffic of Prospective Buyers	73	71	65	59	61	65	69	71	69	65	66	61	52

REGIONAL HMI

(Seasonally Adjusted)	2021 May	2021 Jun.	2021 Jul.	2021 Aug.	2021 Sep.	2021 Oct.	2021 Nov.	2021 Dec.	2022 Jan.	2022 Feb.	2022 Mar.	2022 Apr. *Revised*	2022 May *Prelim.*
Northeast	78	74	73	76	67	73	69	80	71	76	65	74	76
Midwest	71	70	70	64	69	72	75	76	72	71	74	62	51
South	86	85	83	77	80	84	87	89	86	84	81	82	76
West	91	86	84	85	80	85	88	87	89	91	91	84	73

REGIONAL HMI - *3 MONTH MOVING AVERAGES*

(Seasonally Adjusted)	2021 May	2021 Jun.	2021 Jul.	2021 Aug.	2021 Sep.	2021 Oct.	2021 Nov.	2021 Dec.	2022 Jan.	2022 Feb.	2022 Mar.	2022 Apr. *Revised*	2022 May *Prelim.*
Northeast	83	79	75	74	72	72	70	74	73	76	71	72	72
Midwest	75	72	70	68	68	68	72	74	74	73	72	69	62
South	84	85	85	82	80	80	84	87	87	86	84	82	80
West	90	89	87	85	83	83	84	87	88	89	90	89	83

Dan Tsubouchi @Energy_Tidbits · May 17

"but there is nothing I can say in terms of supply shock that doesn't make me think that oil is going one way and the world economy is going the opposite. It should follow. it should be linear, but it's converging, it's crossing" Star Fuels Matt Stanley to @sean_evers. #OOTT

SAF Group created transcript of excerpts of comments from Gulf Intelligence Founder & Managing Partner Sean Evers and Director Star Fuels Matt Stanley from Gulf Intelligence Daily Energy Markets – May 17
https://soundcloud.com/user-846530307/podcast-daily-energy-markets-may-17th

Items in "italics" are SAF Group created transcript

At 15:15 min mark, Severs "*... what has triggered this sudden, it would appear supply crunch, capacity crunch in refining. It's been a long time coming but suddenly its in the headlights. It predates Ukraine/Russia, all of it. China could certainly do something to help with its refineries operating at way less than capacity?*"

Stanley "that's a very good point, not the Arsenal one. That's the last one, I will let it go, but. The Chinese refining, you're right, if we take. Whether the market trades on gas/oil, I'm referring to gas/oil [??], what we refer to as the east/west – so it's the difference between the price in Singapore and the price in Europe. Now that has reached this year so far minus $100 a ton to plus $20. And it's usually within a $20 a ton range. It's simply Sean, the arbitrage economics cannot be priced in because no one really knows what's going on because the world is so fractured. So people can get to work in some Chinese refiners but there's no one really trading those barrels for them so they're not able to take advantage of where the demand centres are. It's a messed up world. Mike said something about a $150 oil argument. And again I will come back to this. I've had this same conversation with a few people. I understand that as soon as recession hits, crude oil prices have to come off, it does follow a pattern. When we hit $147 in 2014, it quickly, quickly came down. I can't apply anything in my 22 years experience in the oil market to the supply issues that the world has got right now. Fundamentally, economically, Mike is right but there is nothing I can say in terms of supply shock that doesn't make me think that oil is going one way and the world economy is going the opposite. It should follow. It should be linear, but it's converging, it's crossing. ... "

Prepared by SAF Group https://safgroup.ca/news-insights/

Dan Tsubouchi @Energy_Tidbits · May 16

Positive for US trucking #Diesel demand. Biggest US port, @PortofLA sending out record container volumes 200,000 on rolling 30-day basis.Rail sendouts are triple the dwell time at port, points to big truck volumes ie. more diesel. Thx Gene Seroka @adsteel @GuyJohnsonTV #OOTT

SAF Group created transcript of excerpt from Port of Los Angeles Executive Director Gene Seroka on Bloomberg Markets: European Close with Alix Steel and Guy Johnson on May 16, 2022
https://www.bloomberg.com/news/videos/2022-05-16/cargo-flows-out-of-china-are-consistent-la-port-chief-video

Items in "Italics" are SAF Group created transcript

At 0:15 min mark, Seroka "*... second best April in the history of the Port of Los Angeles and May arrivals looks strong as well. What we've seen are the number of ships leaving Asia, including Central China, at or about where they've been throughout the eight week lockdown in Shanghai. Much of the manufacturing is west of the city and cargo is finding its way through to the Yangshan deep sea port, and if not, it's going down to neighbouring port Ningbo, which is up 25% over this past two months*".

At 1:25 min mark, Seroka "*... but one area that is really looking good right now is that our output from the Port of Los Angeles into the domestic US economy – 200,000 containers on a rolling 30-day basis. that's the highest it's been since we begun reporting this important information*"

SAF Group created transcript of excerpt of Port of Los Angeles Executive Director Gene Seroka hosting the media briefing features interview with PMA Leader Jim McKenna on May 6, 2022
https://www.portoflosangeles.org/references/2022-news-releases/news_050622_briefing_pma

Items in "Italics" are SAF Group created transcript

At 7:25 min mark, Seroka "*... so we need to redouble our efforts to maximize cargo flow off our docks and into the domestic economy. A key factor in this equation is on-dock rail. Rail-bound cargo has increased six-fold over the last two months and is not moving off our terminals fast enough. Rail boxes are currently waiting six days to get on a train. That's triple the dwell time compared to pre-pandemic days*".

Prepared by SAF Group https://safgroup.ca/news-insights/

Dan Tsubouchi @Energy_Tidbits · May 16

Buckle up! "The Man" Abdulaziz "simple. it tells you that there is no refining capacity commensurate with the current demand and the expectation, again the expectation of the demand this summer when people go to gasoline, diesel & what have you for their transportation". #OOTT

SAF Group created transcript of Saudi energy minister Abdulaziz comments his slide on May 16, 2022
https://twitter.com/MoEnergy_Saudi/status/1526179612245508096

Items in "*italics*" are SAF Group created transcript

Abdulaziz "*I also would like to show you the physical impediments that no producer can sort. Here you go. Luckily, I am with a group here that are veterans of industry when did we ever, when did we, when did we have seen in our lives, at least in my 35 years in this business. I don't want to say how many years you have had. When did we have a thirty or $47. I think it's not appearing properly but it's $47 of refining margin. 650% change between March and what it is today. or 650% between the average of the five-year average and what it is today. what does this tell you? Simple. It tells you that there is no refining capacity commensurate with the current demand and the expectation, again the expectation, of the demand this summer when people go to gasoline, diesel and what have you for their transportation*".

Created by SAF Group https://safgroup.ca/news-insights/

وزارة الطاقة @MoEnergy_Saudi · May 16

من حديث صاحب السمو الملكي الأمير عبدالعزيز بن سلمان #وزير_الطاقة في جلسة حوارية بمؤتمر الشرق الأوسط التاسع والعشرين للبترول والغاز في مملكة البحرين.

Dan Tsubouchi @Energy_Tidbits · May 15

1/2. Well crafted/drafted #G7 communique. G7 didn't say they had energy security before RUS/UKR, rather it "reminded us of the importance of ensuring energy security while accelerating energy transition", followed saying ..#OOTT #NatGas #LNG

1 3 3

Dan Tsubouchi @Energy_Tidbits · May 15

2/2. "In this context, we recognize the importance of accelerating investment in upstream developments, including in liquefied natural gas (LNG) projects," G7 says need more $$ in #Oil #NatGas production for energy security! Fits #1 2022 prediction. #OOTT

Excerpt
https://www.g7germany.de/resource/blob/997532/2039866/59cf2327ee6c90999b069fca648a2833/2022-05-14-g7-foreign-ministers-communique-data.pdf?download=1

G7 Germany 2022
Foreign Ministers' Communiqué
14 May 2022, Weissenhaus

G7 GERMANY

36. International cooperation and clean, secure and just energy transition for sustainable growth

[Russia's war of aggression against Ukraine has reminded us of the importance of ensuring energy security while accelerating energy transition. In this context, we recognize the importance of accelerating investment in upstream developments, including in liquefied natural gas (LNG) projects, and promoting usage of clean energy with a view to decreasing our dependency on Russia's energy.

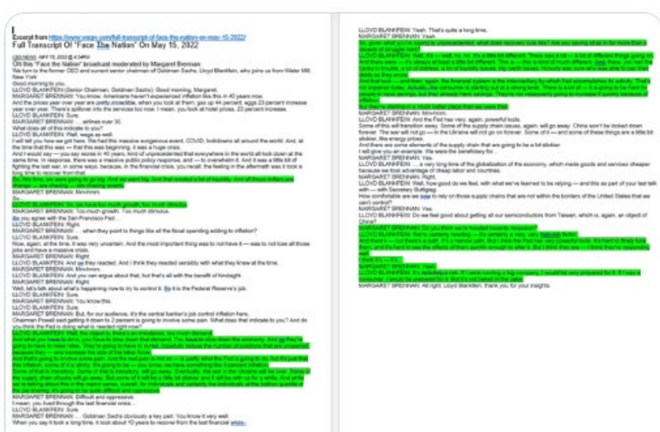
We are convinced that the 2020s must become a decade of action to speed the decarbonization of global energy systems. To this end, we commit to reduce energy consumption, promote energy efficiency, to fast-track clean, safe and sustainable energy deployment while at the same time accelerating the reduction of our overall reliance on fossil fuels. We will ensure that the transitions are just and inclusive and will strengthen international cooperation to achieve a just and inclusive transition globally. An accelerated clean energy transition that is aligned with the goals of the Agenda 2030 and the Paris Agreement is also one of the most important contributions towards energy security. Avoiding a carbon-lock-and diversifying our energy sources and energy mix supply chains will enhance our energy security and decrease undue dependencies on certain exporters and fossil fuel imports, in accordance with our climate objectives. Such energy transition will also require a greater focus and cooperation on the development of secure and sustainable sources of critical minerals - including rare earth elements – essential for green technologies. Close international cooperation has a central role to play in these efforts. Innovation offers the potential to combine effective climate change mitigation with sustainable growth and secure energy supplies.

Dan Tsubouchi @Energy_Tidbits · Dec 9, 2021

Time for #2022Predictions. My #1 is more #EnergyTransition #NetZero leaders come out of closet, have a #MacronMoment ie. have "transition" not self inflicted shortage so 2021 energy crisis isn't every year. A return to #EnergySecurity = #Oil #NatGas #LNG strong thru 2030. #OOTT twitter.com/Energy_Tidbits...

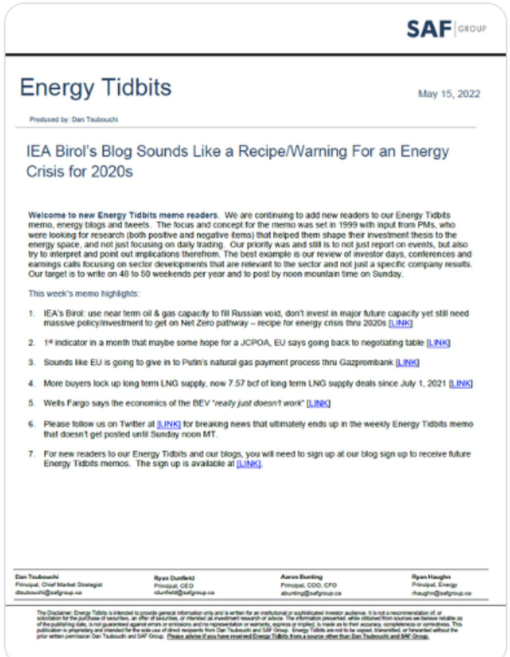
Dan Tsubouchi @Energy_Tidbits · May 15

Buckle up. "it's going to be quite difficult and oppressive""for individuals and certainly the individuals at the bottom quartile of the pie sharing", companies & consumers should be prepared for a recession says @lloydblankfein on fighting inflation. Thx @margbrennan. #OOTT



Dan Tsubouchi @Energy_Tidbits · May 15

Our weekly SAF May 15, 2022 Energy Tidbits memo is posted on our SAF Group website. This 56-pg energy research memo expands upon & covers more items than tweeted this week. See news/insights section of SAF website #Oil #OOTT #LNG #NatGas #EnergyTransition safgroup.ca/news-insights/



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Energy Tidbits

May 15, 2022

Produced by: Dan Tsubouchi

IEA Birol's Blog Sounds Like a Recipe/Warning For an Energy Crisis for 2020s

Welcome to new Energy Tidbits memo readers. We are continuing to add new readers to our Energy Tidbits memo, energy blogs and tweets. The focus and concept for the memo was set in 1999 with input from PMs, who were looking for research (both positive and negative items) that helped them shape their investment thesis to the energy space, and not just focusing on daily trading. Our priority was and still is to not just report on events, but also try to interpret and point out implications therefrom. The best example is our review of investor days, conferences and earnings calls focusing on sector developments that are relevant to the sector and not just a specific company results. Our target is to write on 48 to 50 weekends per year and to post by noon mountain time on Sunday.

This week's memo highlights:

1. IEA's Birol: use near term oil & gas capacity to fill Russian void, don't invest in major future capacity yet still need massive policy/investment to get on Net Zero pathway – recipe for energy crisis thru 2020s [LINK]
2. 1st indicator in a month that maybe some hope for a JCPOA, EU says going back to negotiating table [LINK]
3. Sounds like EU is going to give in to Putin's natural gas payment process thru Gazprombank [LINK]
4. More buyers lock up long term LNG supply, now 7.57 bcf of long term LNG supply deals since July 1, 2021 [LINK]
5. Wells Fargo says the economics of the BEV *"really just doesn't work"* [LINK]
6. Please follow us on Twitter at [LINK] for breaking news that ultimately ends up in the weekly Energy Tidbits memo that doesn't get posted until Sunday noon MT.
7. For new readers to our Energy Tidbits and our blogs, you will need to sign up at our blog sign up to receive future Energy Tidbits memos. The sign up is available at [LINK].

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