MORNING BRIEFING
April 21, 2022

LNG, Credit & Green Buildings

Check out the accompanying chart collection.

Executive Summary: Natural gas prices are higher than they've been in over a decade owing not to demand but supply issues. The crux of the problem: Europe's need to find non-Russian sources of gas. Jackie reports on the factors that have been turning the screws on the natural gas market and looks at where the S&P 500 Energy sector stands after its huge runup. … Also: A look at how the high-yield, asset-backed, and municipal areas of the bond market are faring with the Fed in tightening mode. ... And: Some innovative green buildings blur the lines between indoors and out.

Energy: Ukraine War Hits Home. US natural gas prices hit their highest level in more than a decade earlier this week, spurred by cold weather in the US Northeast and expectations that the US will export as much gas as possible to European allies looking for alternatives to buying Russian gas (*Fig. 1*). Meeting their needs won't be easy or happen overnight. It will require spending billions to build liquid natural gas (LNG) capacity and European commitments to buy LNG from those facilities over the next two decades despite the objections of environmentalists.

Those commitments are necessary because the recent spike in LNG prices doesn't reflect a lack of gas on the planet; total consumption worldwide is forecast to fall slightly this year, according to the International Energy Agency. Rather, it reflects gas in the wrong hands, Russia's. For Europe to secure non-Russian supplies, it will need to make long-term purchase commitments to its new suppliers. It's conceivable that in a few years, when additional supply is brought on the market, the price of natural gas could fall back sharply.

But until that time, natural gas and energy shares in general are enjoying a bull market. The S&P 500 Energy sector has been by far the best performer of the S&P 500 sectors. Here's the ytd performance derby for the S&P 500 and its 11 sectors through Tuesday's close: Energy (44.5%), Utilities (6.4), Consumer Staples (3.1), Materials (-0.8), Health Care (-1.9), Financials (-3.8), Industrials (-4.2), Real Estate (-4.3), S&P 500 (-6.4), Consumer Discretionary (-9.9), Information Technology (-13.9), and Communication Services (-14.7) (*Fig. 2*).

All of the Energy sector's component industries are benefitting from the strength. Here are

their ytd gains through Tuesday’s close: Oil & Gas Equipment & Services (55.6%), Integrated Oil & Gas (48.0), Oil & Gas Exploration & Production (43.1), Oil & Gas Refining & Marketing (36.2), and Oil & Gas Storage & Transportation (27.8) (*Fig. 3*).

Here's a look at some of the factors moving the natural gas market:

(1) *US market is tight.* US natural gas in storage amounted to 1,397 billion cubic feet (bcf) as of Friday, April 8, according to the US Energy Information Administration’s (EIA) latest *report*. The amount in storage is 23.9% lower than last year and 17.8% below the five-year average of 1,700 bcf.

The agency attributed the low inventory level to the colder-than-normal winter temperatures in the US starting in January as well as an uptick in LNG exports. LNG deliveries were 18.4% higher—1.8 bcf/day—during the 2021-22 heating season.

Higher prices are doing their job and increasing drilling activity—just not fast enough. The natural gas rig count increased by 2 to 143 rigs during the week ending April 15, according to Baker Hughes (*Fig. 4*). The number of oil rigs also rose by 2, to 548. Taken together, the total rig count has hit 693, the highest level since March 27, 2020 and 254 more than the same week a year ago. Natural gas production increased by 4.5 bcf/d compared to year-ago levels, but the stepped-up production wasn’t enough to offset the increase in demand, an April 14 EIA *report* stated.

(2) *Europe needs gas.* Europe entered this year short on natural gas due to a very cold winter. The situation grew worse after the Ukraine war broke out, making it essential for the EU to replace the 10.7 bcf/d of natural gas it bought from Russian pipelines last year. No doubt European governments would like to replace Russian gas with green sources of energy, but the volume is just too great to do that over the near term.

European governments will need to import as much LNG as possible. Natural gas prices in Europe have risen to levels competitive with Asia’s, so Asian LNG suppliers with flexibility have begun to shift their supplies to Europe. But to entice suppliers to invest the capital to build new LNG facilities, European entities will need to provide guarantees that the LNG will be purchased for the next 20 years over any objections of environmentalists.

European Commission President Ursula von der Leyen and US President Joe Biden struck a deal whereby the EU would guarantee long-term demand for another 50 billion cubic meters of LNG a year (about 4.9 bcf/day) supplied by the US. Still, that would replace less

than half of the natural gas the EU imported from Russia last year, an April 17 *FT* article reported.

Why not provide more? Because the US doesn't have excess LNG capacity. Last year, the US exported a record 9.7 bcf/day, which is up 50% from 2020. But even new capacity is typically spoken for, with long-term contracts in place even before construction begins.

By the end of this year, US capacity is expected to hit 11.4 bcf/d, making the US the largest LNG producer—surpassing Australia (with estimated peak LNG production capacity of 11.4 bcf/d) and Qatar (10.4 bcf/d). Another dozen new LNG facilities are on the drawing board, but it will take years before they are producing LNG. "In 2024, when construction on Golden Pass LNG—the eighth US LNG export facility—is completed and the facility begins operations, US LNG peak export capacity will further increase to an estimated 16.3 bcf/d," according to a January 6 article in the *Journal of Petroleum Technology*.

(3) *Energy sector stats.* Despite the extraordinary run in the S&P 500 Energy sector's price index this year, it's not at its all-time highs In fact, its market-capitalization share of the S&P 500 stands at a lowly 4.1%, down from a peak of 16.1% in 2008 (*Fig. 5*). And its share of S&P 500 forward earnings, at 6.8%, is above its market-cap share. Meanwhile, net earnings revisions continue to be positive, including during April (32.8%), March (29.7), and February (17.5) (*Fig. 6*). The sector is expected to grow revenues by 23.7% this year as earnings soar an estimated 73.1% (*Fig. 7* and *Fig. 8*). And the recent surge in earnings has brought the sector's forward P/E down to 11.6 from over 40.0 in mid-2020 (*Fig. 9*).

Credit: Looking for Cracks. The Federal Reserve has been signaling its intention to raise interest rates loudly, clearly, and often. Despite the well signaled intentions, it's highly possible that some area of the bond market will encounter problems as a result of the monetary tightening. In 1994, the Orange County bankruptcy came out of the blue as interest rates rose. With that in mind, let's look at how some of the riskier areas of the bond market are faring:

(1) *High yield.* High-yield bonds have sold off with the backup in Treasury yields, but not extensively so far. The yield spread between US high-yield corporate debt and the 10-year US Treasury bond has increased to 347 bps from 250 at its low last year (*Fig. 10*). Likewise, the yield on high-yield bonds has risen to 6.40%, up from a low of 3.92% last year (*Fig. 11*). During the US's Covid-19 lockdowns in 2020, high-yield debt yields surged north of 10%.

In the latter stages of economic expansions, high-yield offerings tend to get risker as the

market gets frothy. This time around, that hasn't happened in the high-yield bond market, but it has happened in the loan market. The percentage of high-yield bonds rated single-B and below has shrunk over the past two decades, to just under 50% today from 80% in 2000. Conversely, in the high-yield loan market, the percentage of loans rated single-B and below has increased to almost 80% today from 50% in 2000, according to S&P Global data cited in an April 2 *FT* *article*.

Last year, a record $613 billion of US leveraged loans were priced, the vast majority of which are held by CLOs. CLO issuance was also at record highs last year: $185.2 billion in 2021 through December 15, topping the previous record of $128.9 billion in 2018, according to a December 17 S&P Global *report*. The report also noted that new firms have entered the market to manage CLOs: A record 124 firms managed the CLOs sold in 2021, up from the high of 108 in 2019.

High-yield bond issuance fell 70% in Q1 y/y, the slowest pace since 2016, while leveraged loan issuance in Q1 was strong at $169.9 billion, the second highest on record and accompanied by strong issuance of CLOs.

(2) *ABS market cools.* CLOs weren't the only category of asset-backed securities (ABS) hitting records in 2021. More than $1 trillion of ABS issuance was sold last year, the highest level since 2007 when the housing market bust and ensuing recession caused issuance to crater for the next three years.

The ABS market has recently slowed with the backup in interest rates and increase in volatility. Mortgage-related security issuance in March slowed to $230.3 billion, down from $424.2 billion in March 2021. Likewise, ABS issuance dropped to $27.0 billion in March from $56.2 billion in March 2021, according to *data* from SIFMA.

Affirm, a buy-now-pay-later lender, postponed a $500 million securitization offering in March. Past-due payments on the company's loan receivables jumped to 6.4% at year-end from 4% on June 30, 2021, a March 14 *FT* *article* reported. Auto lender World Omni Financial also recently pulled a deal.

Lots of new companies using technology to make lending more efficient or more accurate have entered the lending market in recent years. Those who depend on the ABS market for funding may need to look elsewhere until the market loosens up. SoFi Technologies recently received a bank charter that allows it to fund using bank deposits instead of relying on the securitization market, an April 17 *WSJ* *article* noted.

(3) *Muni yields normalizing.* The yield on triple-A rated municipal bonds has backed up to 2.45%, more than double its low yield of 0.94% last year (*Fig. 12*). The higher yield doesn't signal market distress, though, because the spread between triple-A munis and the 10-year Treasury yield has held steady around -45bps (*Fig. 13*).

US bond funds in general, and muni funds specifically, have suffered outflows from mutual funds. The week ending April 13 saw outflows for corporate investment-grade bond funds (-$4.5 billion), high-yield bond funds (-4.0 billion), and municipal bond funds (-4.3 billion), according to *data* from Refinitiv Lipper.

Disruptive Technologies: Buildings Going Green. Much has been made of JPMorgan's environmentally friendly headquarters being built in New York City. The all-electric building doesn't use natural gas. It's powered mainly by hydroelectric energy and boasts zero greenhouse gas emissions.

The building uses sensors, AI, and machine learning systems to predict, respond, and adapt to energy needs, according to the firm's April 14 *press release*. Triple pane glazing on glass facades and automatic solar shade systems are connected to the HVAC systems for greater energy efficiency. Advanced water storage and reuse systems reduce water usage by more than 40%.

But JPMorgan isn't alone. Many architects are experimenting with technologies and materials to make commercial buildings as environmentally friendly as possible. Here's a look at some buildings that caught our eye:

(1) *A building or a bush?* Eden can be found in Manchester, England. There, a 115,000 square foot, 12-story office building is being built with exterior walls covered with 32 species of plants. Europe's biggest living wall of 350,000 plants will also contain insect "hotels" and bird nesting boxes.

The building, due for completion in May 2023, is all electric and has solar panels generating electricity on site. It also has rainwater "harvesting" to "serve" the green wall. The building boasts abundant fresh air, a wellness area with a yoga studio, and meditation area.

Others are also bringing green to the workplace. Architectural firm Penda has designed an 18-story apartment building that will have jutting balconies holding fully grown trees, an April 18 *article* in *The New Yorker* reported. In Vancouver, the Earth Tower will be a 40-story apartment building with shared winter gardens and a rooftop greenhouse.

(2) *Built like a tree.* In Norway, an 18-floor building filled with office and residential units and a hotel, was built using manufactured wood. Glulam, or glued laminated timber, glues together pieces of lumber. The goal is to replace concrete with a sustainable material, wood, The New Yorker article stated.

Other developers are following suit. New York architectural firm SHoP has designed a 40-story tower in Sydney with an internal timber structure that will be wrapped with a curvy exoskeleton of steel and glass. Solar panels will be on the outside of the building, and indoor terraces will have naturally ventilated gardens.

(3) *Farmer on the roof.* The Jacob K. Javits Center in New York City has installed a one-acre working farm on its roof as part of a recent expansion. The farm is expected to produce up to 40,000 pounds of fruits and vegetables a year, which will be used in meals served at the convention center, according to an April 20 *article* on Greenroofs.com. In addition to a garden, the roof will have paved pedestrian spaces, a shade garden, ornamental perennial flowers in planters, an orchard, and a greenhouse.

Some benefits of a roof garden include providing healthy food from a local source, creating a source of food and a habitat for wildlife in an urban environment, and lowering the building's energy expenses and roofing replacement costs.

The garden will use recycled water collected in the Javits facility's 300,000-gallon water storage system. And other areas of the roof will have 3,000 solar panels.

Calendars

US: **Thurs:** Leading Indicators 0.3%; Initial & Continuous Jobless Claims 180k/1.455m; Philadelphia Fed Manufacturing Index 21.0; Natural Gas Storage; IMF Meetings; Powell. **Fri:** M-PMI & NM-PMI Flash Estimates 58.2/58.0; Baker-Hughes Rig Count; IMF Meetings. (Bloomberg estimates)

Global: **Thurs:** Eurozone Headline & Core CPI 2.5%m/m/7.5%y/y & 1.2%m/m/3.0%y/y; Eurozone Consumer Confidence -20.0; France Business Survey 105; UK Gfk Consumer Confidence -33; Japan Core CPI 0.8%y/y; Japan M-PMI & NM-PMI Flash Estimates; Lagarde; Bailey; Sweeney; Mann. **Fri:** Eurozone, Germany, and France C-PMI Flash Estimates 53.9/54.1/55.0; Eurozone, Germany, and France M-PMI Flash Estimates

54.7/54.5/53.0; Eurozone, Germany, and France NM-PMI Flash Estimates 55.0/55.5/56.5; Eurozone Current Account; UK C-PMI Flash Estimate 59.7; UK Headline & Core Retail Sales -0.3%m/m/2.8%y/y & -0.4%m/m/0.7%y/y; Canada Headline & Core Retail Sales -0.1%/0.1%; Lagarde; Bailey. (Bloomberg estimates)

Strategy Indicators

Stock Market Sentiment Indicators (*link*): The Bull/Bear Ratio (BBR) fell back below 1.00 as this week saw the fewest bulls since the three-week span of BBR readings below 1.00 during the weeks ending March 1 through March 15. The BBR declined for the second week to 0.96 this week after climbing the prior three weeks from 0.84 (which was the lowest since March 2020) to 1.26 two weeks ago. Bullish sentiment fell for the second week to 32.1% after climbing four of the prior five weeks by 9.2ppts (to 39.1% from 29.9%). Meanwhile, bearish sentiment advanced for the second week to 33.3% after falling the prior three weeks from 36.5% (which was the most bears since March 2020) to 31.0%. The correction count increased for the third straight week to 34.6%, after falling six of the prior seven weeks to 28.2% from 40.0%—which just missed equaling March 2020's high count of 40.9%. The AAII Ratio fell for the second week to 24.6% last week after climbing the prior two weeks from 31.1% to 53.7%, as bullish sentiment fell for the third week, from 32.8% to 15.8% over the period, while bearish sentiment rose from 27.5% to 48.4% the past two reporting weeks.

S&P 500 Earnings, Revenues, Valuation & Margins (*link*): The S&P 500's forward profit margin ticked back down to 13.3% last week from its record high of 13.4%. Since the end of April 2020, it has exceeded its prior record high of 12.4% in September 2018. It's now up 3.0ppts from 10.3% during April 2020, which was the lowest level since August 2013. Forward revenues and earnings were both back at record highs after ticking down briefly in early February. They have both been making new highs since the beginning of March 2021 after peaking just before Covid-19 in February 2020. Since the Q2-2021 earnings season came in way better than expected, analysts have been playing catch-up with their lowball estimates from the Covid-19 shutdown period. Prior to this catch-up period, consensus S&P 500 forecasts had been falling at rates paralleling the declines during the 2008-09 financial crisis. Forward revenues growth rose 0.1ppt w/w to 8.0%. That's down from a record high of 9.6% growth at the end of May 2021, but compares to its recent 12-month low of 7.1% from early December. Still, that's up from 0.2% forward revenues growth during April 2020, which was the lowest reading since June 2009. Forward earnings growth fell 0.2ppt w/w to 9.6%.

It remains above its 16-month low of 8.2% in early December. That's down from its 23.9% reading at the end of April 2021, which was its highest since June 2010, and up substantially from its record low of -5.6% at the end of April 2020. So far this year, analysts' revisions to their forecasts for 2022 revenues have outpaced their revisions for 2022 earnings, so the imputed 2022 profit margin estimate that we calculate from those forecasts has ticked lower. They expect revenues to rise 9.8% (steady w/w) in 2022 and 5.4% in 2023 (unchanged w/w) compared to the 16.4% gain reported in 2021. They expect earnings gains of 9.7% in 2022 (down 0.4ppt w/w) and 10.1% in 2023 (up 0.2ppt w/w) compared to an earnings gain of 51.0% in 2021. Analysts expect the profit margin to remain steady in 2022 at 13.1% (unchanged w/w) compared to 13.1% in 2021 and to improve 0.6ppt y/y to 13.7% in 2023 (unchanged w/w). The S&P 500's weekly reading of its forward P/E fell 0.1pt w/w to 19.2, but remains above its 23-month low of 18.6 in late February. That's down from an eight-month high of 21.7 at the end of 2021 and compares to 23.1 in early September 2020, which was the highest level since July 2000 and up from a 77-month low of 14.0 in March 2020. The S&P 500 weekly price-to-sales ratio fell 0.03pt w/w to 2.55, but is up from its 15-month low of 2.48 at the end of February. That compares to a record high of 2.88 at the end of 2021 and a 49-month low of 1.65 in March 2020.

S&P 500 Sectors Earnings, Revenues, Valuation & Margins (*link*): Last week saw consensus forward revenues rise for six of the 11 S&P 500 sectors, forward earnings rise for five sectors, and the forward profit margin rise for three. Nearly all sectors are at or near record highs in their forward revenues, earnings, and profit margins. Energy still has forward revenues and earnings well below its record highs, but its profit margin of 10.5% is at its highest reading since February 2008. Financials and Utilities have forward earnings at or near their record highs, but their forward revenues and margins are lagging. Only three sectors posted a higher profit margin y/y in 2020: Consumer Staples, Tech, and Utilities. For 2021, all but the Utilities sector posted a y/y improvement. Four sectors are expected to see margins decline or remain flat y/y in 2022: Communication Services, Consumer Staples, Financials, and Real Estate. Here's how they rank based on their current forward profit margin forecasts along with their record highs: Information Technology (25.3%, down from its 25.4% record high in late February), Financials (18.7, down from its 19.8 record high in August 2021), Real Estate (16.4, down from its 19.2 record high in 2016), Communication Services (16.2, down from its 17.0 record high in October), Utilities (14.1, down from its 14.8 record high in April 2021), Materials (13.2, down from its 13.4 record high in December), S&P 500 (13.3, down from its 13.4 record high a week earlier), Health Care (11.2, down from its 11.5 record high in early March), Industrials (10.2, down from its 10.5 record high in December 2019), Energy (10.5 [14-year high], down from a record-high 11.2 in 2007), Consumer Staples (7.5, down from its 7.7 record high in June), and Consumer

Discretionary (7.9, down from its 8.3 record high in 2018).

S&P 500 Q1 Earnings Season Monitor (*link*): With over 12% of S&P 500 companies finished reporting revenues and earnings for Q1-2021, revenues are beating the consensus forecast by 1.8% and earnings have exceeded estimates by 9.9%. We expect these figures to change markedly in the coming weeks because companies in the Financials sector typically weigh more heavily on the early season results. At the same point during the Q4 season, revenues were 2.4% above forecast and earnings beat by 6.4%. For the 62 companies that have reported Q1 earnings through mid-day Wednesday, the aggregate y/y revenue and earnings growth rates have slowed considerably from their double-digit percentage readings from Q2-2021 to Q4-2021. The small sample of Q1 reporters so far collectively has a y/y revenue gain of 8.3% and an earnings decline of 5.4%. We expect the aggregate Q1 earnings growth reported will turn positive soon as more non-financial firms report. While just 68% of the Q1 reporters so far has reported a positive revenue surprise, 81% has beaten earnings forecasts. However, fewer companies have reported positive y/y earnings growth in Q1 (58%) than positive y/y revenue growth (74%). We expect to see revenue and earnings surprises moderate q/q due to missed deliveries, higher costs, and increased company guidance ahead of the earnings season.

US Economic Indicators

Existing Home Sales (*link*): “The housing market is starting to feel the impact of sharply rising mortgage rates and higher inflation taking a hit on purchasing power,” said Lawrence Yun, NAR’s chief economist. Existing home sales contracted for the second month, by 2.7% in March and 11.1% over the period, to 5.77mu (saar), the lowest since mid-2020. Over the comparable periods, single-family sales sank 2.7% and 10.8% to a 21-month low of 5.13mu (saar), while multi-family sales fell 3.0% and 13.5% to a 19-month low of 640,000. Sales fell in three of the four regions in March, with sales in the West holding steady, while all four remained below year-ago levels: West (0.0% m/m & -4.7% y/y), Northeast (-2.9 & -11.8), South (-3.0 & -3.0), and Midwest (-4.5 & -3.1). Total inventory increased 11.8% to 950,000 units last month after sinking to a record-low 850,000 units during January, though was still down 9.5% y/y, narrowing from the 29.5% y/y decline last March. Unsold inventory was at a 2.0 months’ supply in March, up from a record low of 1.6 months in January though down from the 2.1 months’ supply last March. The median existing home price was up 15.0% y/y, with prices rising in all regions, marking 121 consecutive months of y/y increases—the longest-running streak on record. Yun noted: “Home prices have consistently moved

upward as supply remains tight. However, sellers should not expect the easy-profit gains and should look for multiple offers to fade as demand continues to subside."

Global Economic Indicators

Eurozone Industrial Production (*link*): Headline production in the Eurozone, which excludes construction, increased in February for the third time in four months, up 0.7% mm and 4.1% over the period. Consumer goods production (up 2.0%) accounted for most of February's gain, with output of consumer durable and nondurable goods advancing 2.7% and 1.9%, respectively, and nondurable goods output posting its third increase in four months—jumping 6.1% over the period to within 0.3% of a new record high. Consumer durable goods production remains on a modest uptrend, climbing to its highest reading since September 2008. Meanwhile, output of intermediate goods climbed 0.9% in February and 2.3% over the four months through February to its highest level since mid-2018, while capital goods production declined 2.8% during the two months through February after a three-month surge of 7.5%. Energy output contracted for the third month, by 1.1% in February and 2.5% over the period. Three of the top four Eurozone economies saw an increase in production in February, with Italy posting the largest gain—rebounding 4.0% after sliding 4.5% the prior two months, moving back near the top of its recent flat trend. Meanwhile, Spain saw its industrial production move higher for the sixth time in seven months, by 0.9% m/m and 5.2% over the period, to its highest level since May 2019. Industrial output in Germany increased for the fifth successive month, by 0.4% in February and 5.4% over the period, to its highest level since the start of 2021. In the meantime, industrial output in France moved lower for the third time in four months, falling 0.9% in February, though was little changed over the period—eking out a 0.1% uptick.

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