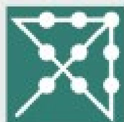
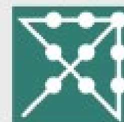


# Yardeni Research



**MORNING BRIEFING**
**March 10, 2022**

## Stagflation, Russian Oil & Gas, and Carbon Credits

*Check out the accompanying chart collection.*

**Executive Summary:** Stagflation—higher inflation with slower economic growth—may be upon us, suggests the NFIB's February survey of small business owners. Most are struggling to fill open positions, which is perpetuating a wage-price spiral. Earlier this week, we raised our inflation outlook and dropped our GDP forecast—resulting in lower expectations for the stock market this year. … And: How will the US and Europe meet their energy needs with less reliance on Russian oil and gas imports? Jackie looks at this question from multiple angles. … Also: How is the EU carbon credit market weathering its first war? Spoiler alert: Not well.

**US Economy: Monitoring Stagflation.** February's survey of small business owners conducted by the National Federation of Independent Business suggests that the inflationary boom may be starting to give way to a more stagflationary economic outlook. The percent of small business owners raising their average selling prices soared to a record 68% last month (*Fig. 1*). That's a record high, exceeding even the highs of the Great Inflation of the 1970s. The percent planning to raise their average prices edged down to 46%, which is also higher than the 1970s readings.

The labor market boom may be losing some momentum, as evidenced by the sharp drop in owners' plans to increase employment from 26% in January to 19% in February (*Fig. 2*). Part of the problem is that employers can't find workers because the labor shortage is chronic.

Of the 93% of those hiring or trying to hire, 57% of business owners reported few or no qualified applicants for the positions they were trying to fill, up 2 points from the prior month. The "few" and "no" responses were roughly evenly split: few qualified applicants (31%, up 2 points) and no qualified applicants (26%, unchanged).

Even if the supply-chain kinks get straightened out, the shortage of labor is structural for demographic reasons. That will continue to fuel a wage-price spiral unless productivity growth improves significantly, which Debbie and I think is likely over the next few years. For the here and now, the Ukraine crisis is adding to inflationary pressures.

In *Monday's* and *Tuesday's* *Morning Briefing*s, we raised our outlook for inflation and reduced our forecast for real GDP, which is why we lowered our expectations for the forward P/E of the S&P 500 from 19 to 16 and our year-end target for this index from 4800 to 4000.

**Energy: Replacing Russia.** The horrific news coming out of Ukraine has united western nations and saddened Americans' hearts unlike anything since 9/11. It's early days, but we get the sense that Americans don't object to President Joe Biden's ban on Russian energy imports; they're willing to pay higher fuel prices as a way to support the Ukrainian people. Americans may disagree on how to replace the supply from Russia but not on the need to do so.

The price of gas is north of $4 a gallon and quickly rising; it may be $5 by summer driving season (*Fig. 3*). And what a driving season it was going to be, with the rapid drop in Covid-19 cases and hospitalizations unleashing two years of pent-up road trips! Pump prices are bound to crimp some of that demand.

Granted, Americans won't be socked by higher energy prices nearly as badly as European consumers. The US imported about 50,000 barrels per day of oil from Russia in 2020. Europe imported almost 2.4 million barrels per day. Likewise, the US is self-sufficient when it comes to natural gas, while almost 30% of Europe's total natural gas comes from Russia.

Replacing Russian energy won't happen overnight, but here's a look at how the sands are likely to be shifting today and over the next few years:

(1) *Natural gas, Europe, and Russia.* Europe has struggled in recent years to supply its own natural gas as old fields were depleted and new sources not developed owing to the region's focus on developing renewable sources of energy.

Natural gas production in EU-27 and the UK was halved during the decade from 2010 to 2020, from 18 billion cubic feet per day (bcf/d) to 9 bcf/d. Meanwhile, the region's demand for natural gas has been relatively stable at about 45 bcf/d from 2016 through 2020.

Imports filled the 36 bcf/d hole. The EU-27 and the UK imported more than 80% of their natural gas in 2020, up from 65% in 2010, according to a February 11 *report* by the US Energy Information Administration (EIA). Russia is the largest supplier of natural gas to Europe, supplying 13 bcf/d in 2020 via pipeline, compared to 11 bcf/d in 2010.

Russia has the largest proved natural gas reserves in the world—1,688 trillion cubic feet (tcf)—surpassing those of Iran, Qatar, and the US. Europe is Russia's largest customer: 72% of Russia's natural gas exports went to OECD Europe, including 16% to Germany, 12% to Italy, and 8% to France. Non-OECD Europe imported another 17% of Russia's natural gas exports, and Asia and Oceania imported 11%, according to a very informative December 13 EIA *report* on Russia's energy markets. The US doesn't import any natural gas from Russia.

Russia's "Energy Strategy to 2035" lays out the country's energy goals, including prioritizing the development and diversification of energy exports, with a focus on increasing investment in liquid natural gas (LNG), particularly in the Artic region. Russia aims to export 4.5-4.9 tcf of LNG per year by 2024 and 8.3-9.6 tcf per year by 2035.

Europe had planned to buy more of Russia's natural gas—until Russia invaded Ukraine. In response to the invasion, Germany, which gets 38% of its natural gas from Russia, halted the certification of Nord Stream 2, a natural gas pipeline between Russia and Germany.

To diversify its energy sources, Germany announced plans to build LNG terminals, though that could take two years, and to keep its coal-powered electric plants available for emergencies. The country has boosted its subsidies for solar and wind power in hopes that renewables will supply 80% of Germany's electricity needs by 2030 and 100% by 2035, a February 28 Reuters *article* reported. The country still plans to shut down its nuclear reactors.

(2) *LNG, Europe, and the US.* The US can continue to help the Europeans by exporting LNG to their shores. The US had LNG peak liquefaction capacity of 11.6 bcf/d as of November, which should increase to 13.9 bcf/d by year-end. If successful, the US would be producing more than the world's two largest LNG exporters, Australia (11.4 bcf/d) and Qatar (10.4 bcf/d). US LNG peak output is expected to jump again in 2024 to 16.3 bcf/d after construction of Golden Pass LNG, the eighth US LNG export facility, is completed, a December 9 EIA *report* states. That won't completely replace the 13 bcf/d of natural gas Russia supplied to Europe in 2020 via pipeline, but it's a start.

Like Germany, Italy also plans to build LNG terminals. They'll be able to import 12 billion cubic metres of LNG per year, or roughly half of what Italy imports from Russia. The problem: The project will take at least four years.

US LNG exporters benefit because the price of natural gas has jumped much more sharply

in Europe than it has in the US (*Fig. 4* and *Fig. 5*).

(3) *Crude oil, Europe, and Russia.* Russia exported almost five mbd (thousand barrels per day) of crude oil and condensate in 2020. Almost half of those exports went to European countries, particularly Germany (11%), the Netherlands (11), and Poland (7). Asia and Oceania purchased another 42% of Russia's exports, with China being the largest importer (31). Only about 1% of Russia's exports wound up on US shores, reports the EIA.

Given Germany's large imports of both crude and natural gas, it's understandable that the country has little choice but to continue importing from Russia even as it attempts to diversify its energy sources. "At the moment, the supply of energy for heating, for mobility, for electricity generation and for industry cannot be secured any other way," German Chancellor Olaf Scholz said in a recent press statement.

The US should be able easily to boost production to replace its crude imports from Russia. US crude production was 11.6 mbd in December; that's up from the Covid-related drop to 9.7 mbd in May 2020 but still far below the 12.97 mbd produced in November 2019 (*Fig. 6* and *Fig. 7*).

Energy CEOs in recent days have held to the limited production increases that were planned before the Ukraine war. Scott Sheffield, CEO of Pioneer Natural Resources, said it would take many months to sharply boost output, blaming supply-chain constraints and investors' preference that profits be used for share buybacks or dividends, a March 4 *FT article* stated.

Pioneer had previously disclosed plans to increase oil production by no more than 5% this year. "Shale regions such as western Texas would increase output by about 700,000 b/d this year," Sheffield said, and the growth rate could double to 1.4mn b/d in 2023 and 2024. But replacing lost Russian supplies would require a "global coordinated effort."

May we suggest that oil and gas CEOs take note of Americans' emotional reaction to the war in Ukraine? People watching each successive day bring more and more horrific pictures from that besieged country don't want to hear that production isn't ramping as fast as possible because shareholders want dividends and share buybacks. Spending as much as necessary to pump as much as possible may be what US citizens and politicians soon demand from oil companies. Doing anything less may be viewed as unpatriotic—a label that no company or institutional investor wants.

(4) *Oil, OPEC, and Russia.* Since all eyes are on which US companies will be boosting their oil and gas production, it's notable that OPEC+ won't be. It has chosen not to use its four mbd of spare capacity to counter the impact of the Ukraine war on the oil market, a March 8 *WSJ* *article* reported (*Fig. 8*). That's because offering those supplies to the West would be siding against Russia, which co-chairs the cartel.

In its most recent meeting, OPEC+ opted to stick with preexisting plans to increase production by 400,000 barrels per day. The de facto leaders of Saudi Arabia and the United Arab Emirates declined recent requests from the US to speak with President Biden about building support for Ukraine and surging oil prices, a March 8 *WSJ* *article* reported.

It doesn't help that US–Saudi relations were strained before the Ukraine war. A March 3 Reuters *article* reported: "Traditionally strong ties between Riyadh and Washington were shaken when Biden released a U.S. intelligence report implicating Prince Mohammed in the 2018 murder of journalist Jamal Khashoggi and ended U.S. support for offensive operations in Riyadh's costly war against Iran-aligned Houthis in Yemen.

"So far, Biden has refused to speak to Prince Mohammed directly, saying 86-year-old King Salman is his counterpart—even though the young prince effectively runs the kingdom and had a close relationship with Biden's predecessor Donald Trump." The Saudis reportedly want weapons for the Yemen war and recognition for Prince Mohammed.

The first sign that stances may be thawing came yesterday when the United Arab Emirates said it would push OPEC to pump more oil. "The U.A.E. reversed its stance under pressure from the U.S., a key security partner and weapons supplier for the federation of Gulf emirates," a March 9 *WSJ* *article* reported. The UAE has one million barrels of spare oil production capacity.

(5) *Carping over Keystone.* The Keystone XL pipeline could give Europeans another source of oil outside of Russia's influence. The pipeline was to carry oil from the Canadian oil sands in Alberta 1,240 miles to Nebraska to join an existing pipeline that would take the crude down to the refineries on the Gulf Coast. The Keystone XL was slated to carry 830,000 barrels of oil each day.

Alberta is landlocked, so the pipeline was seen as an inexpensive way to transport the oil to the coastline, where it could be exported. Environmentalists weren't happy with the project because accessing oil from oil sands is more energy intensive than traditional oil drilling. It also involves mining, killing forests, and exposing land and water to the risk of oil leaks.

President Obama canceled the project for these reasons only to have it revived by the Trump administration in 2017 and killed once again by President Biden. TC Energy terminated the $9 billion project in June with only 10% of the pipeline constructed.

Some view resuming the Keystone XL project as a better alternative to coaxing oil from the dictators ruling Venezuela and Iran, as the Biden administration reportedly has been doing. Construction could be finished in Q1-2023 if the Biden administration would give the project the go-ahead, said Alberta Premier Jason Kenney, according to a March 7 Bloomberg *article*.

**Disruptive Technologies: Carbon Market Meets War.** The price of European Union carbon credits has gotten clobbered in the wake of the Ukraine war. EU carbon credit futures, which neared €97 per tonne of CO2 in February, tumbled to €68.51 as of Tuesday's close. Let's take a look at what's happening in this market, which is living through its first war:

(1) *Liquidity and demand destruction.* A March 7 *report* from ING attributed the drop in carbon prices to liquidity needs and the expectation that demand will decrease as a result of the war. Investors are selling their carbon credits to raise funds to "cover losses in other asset classes and/or to access liquidity for more expensive gas and electricity." Some selling may also be due to stop-loss orders triggered by the falling price of CO2 credits.

From a fundamental perspective, the price of credits may be falling on fears that the Ukraine war will result in slower economic growth and reduce industrial companies' needs to use energy and buy carbon credits.

The ING analysts note that the price of carbon credits could quickly reverse if Russia reduces its supply of natural gas to Europe, forcing nations to burn more coal as a result. Coal-burning power plants emit twice as much CO2 as natural gas-powered plants.

Prior to the war, the EU was expected to expand the industries required to buy carbon credits and limit the number of new permits granted. It was part of the EU's Fit for 55 program to cut greenhouse gas emissions by 55% by 2030. The expected increase in demand had sent the price for carbon credits higher. Moreover, speculators had entered the markets, industrial players complained.

With the price of Brent crude up 43% ytd to $111.68 yesterday and natural gas prices surging 21%, investors are questioning whether the EU will move forward with Fit for 55

(*Fig. 9* and *Fig. 10*). Will there be a willingness to pay for carbon credits if energy prices are through the roof?

(2) *CO2 emissions keep rising.* Despite the success of the European ETS (Emissions Trading System) market, global energy-related emissions of $CO_2$ rose 6% last year to a record 36.3 billion tonnes, a March 8 Reuters *article* reported. Emissions from coal hit a high of 15.3 billion tonnes, accounting for more than 40% of the growth in total global $CO_2$ emissions. Coal-fired electricity generation surged in India last year, and rose in Europe and the US, where rising natural gas prices meant burning coal was more profitable. Natural gas emissions were 7.5 billion tonnes.

China's emissions, at 11.9 billion tonnes in 2021, represented a third of the world's total emissions. And China was the only major economy to grow emissions in both 2020 and 2021. US emissions in 2021 were 4% below 2019 levels, and EU emissions were 2.4% lower.

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## Calendars

**US: Thurs:** Headline & Core CPI 0.8%m/m/7.9%y/y & 0.5%m/m/5.9%y/y; Initial & Continuous Jobless Claims 216k/1.475m; Federal Budget Balance; Natural Gas Storage. **Fri:** Consumer Sentiment Headline, Current Conditions & Expectations 61.3/66.0/58.8; Baker-Hughes Rig Count. (Bloomberg estimates)

**Global: Thurs:** Japan Household Spending -3.0%m/m/3.6%y/y; EBC Interest Rate Decision; EU Leaders Summit. **Fri:** Germany CPI 0.9%m/m/5.1%y/y; UK GDP 0.2%m/m/0.8%3m/3m/9.3%y/y; UK Headline & Manufacturing Industrial Production 0.1%m/m/1.9%y/y & 0.2%m/m/3.1%y/y; UK Trade Balance -£12.6b; Canada Employment Change & Unemployment Rate 160k/6.2%; EU Leaders Summit. (Bloomberg estimates)

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## Strategy Indicators

**Stock Market Sentiment Indicators** (*link*): The Bull/Bear Ratio (BBR) remained below 1.00 this week, though edged up a bit. The BBR ticked up to 0.90 this week after falling seven of the prior eight weeks from 2.15 to 0.87—which was the lowest reading since March 2020

and the first reading below 1.00 since early April 2020. Bullish sentiment climbed to 32.2% this week after sliding seven of the previous eight weeks by 20.7ppts, from 50.6% to 29.9%—which was the fewest bulls since the start of 2019. Meanwhile, bearish sentiment achieved a plurality among the advisors this week, moving higher for the fifth successive week, from 25.0% to 35.6% over the period, to its highest percentage since April 2020. The correction count fell for the fourth week this week from 40.0% to 32.2%—equaling bullish sentiment. Last month, the initial February correction count of 40.0% just missed equaling early March 2020's high count of 40.9%. The AAII Ratio climbed to 42.3% last week, after falling from 40.7% to 30.4% the prior two weeks. Bullish sentiment rose for the second week, from 19.3% to 30.4% over the period, while bearish sentiment fell from 53.7% to 41.4% last week.

**S&P 500 Earnings, Revenues, Valuation & Margins** (*link*): The S&P 500's forward profit margin was steady at a record high of 13.3% last week. 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 both were back at record highs after ticking down briefly during the past three weeks. Both have 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 was steady w/w at 7.8%, and remains above its 12-month low of 7.1% in early December. That's down from a record high of 9.6% growth at the end of May 2021. Still, that's up from 0.2% forward revenues growth during April 2020, which was the lowest reading since June 2009. Forward earnings growth rose 0.1ppt w/w to 9.0%. 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. Analysts' revisions to their forecasts for 2022 revenues continue to improve, but earnings are rising at a slower rate, and so is the imputed profit margin estimate that we calculate from those forecasts. They expect revenues to rise 9.0% (up 0.5ppt w/w) in 2022 and 5.5% in 2023 (unchanged w/w) compared to the 16.4% gain reported in 2021. They expect earnings gains of 9.0% in 2022 (up 0.1ppt w/w) and 9.9% in 2023 (unchanged w/w) compared to an earnings gain of 51.4% in 2021. Analysts expect the profit margin to remain steady in 2022 at 13.2% (unchanged w/w) compared to 13.2% in 2021 and to improve 0.5ppt y/y to 13.7% in 2023 (unchanged w/w). The S&P 500's weekly reading of its forward P/E rose 0.9pt w/w to 19.2 from a 22-month low of 18.6. 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 of rose 0.08pt w/w to 2.56 from a 15-month low of 2.48. That's down from 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 both forward revenues and forward earnings rise for ten of the 11 S&P 500 sectors as the forward profit margin rose for eight and fell 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 record highs, but its profit margin is near its highest reading since November 2008. Financials and Utilities have forward earnings at or near 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%, a new record high this week), Financials (18.7, down from its 19.8 record high in August 2021), Real Estate (16.5, down from its 19.2 record high in 2016), Communication Services (16.4, down from its 17.0 record high in October), Utilities (14.4, 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, a record high this week), Health Care (11.3, down from its 11.5 record high a week earlier), Industrials (10.2, down from its 10.5 record high in December 2019), Consumer Staples (7.6, down from its 7.7 record high in June), Consumer Discretionary (8.1, down from its 8.3 record high in 2018), and Energy (9.4 [13-year high], down from a record-high 11.2 in 2007).

**S&P 500 Sectors Forward Revenues and Earnings Recovery from Covid-19 Trough** (*link*): The S&P 500's forward revenues and earnings as well as its implied forward profit margin bottomed at cyclical lows on May 28, 2020 after 14 weeks of Covid-19-related declines. Forward revenues and earnings have risen 26.1% and 64.0%, respectively, to record highs since February 2021. The forward profit margin has risen 3.3ppts to a record high of 13.3%. That exceeds its prior pre-Covid record of 12.4% in late 2018. During the latest week, consensus forward revenues and forward earnings rose for ten of the 11 S&P 500 sectors, and the forward profit margin rose for eight and fell for three. Here's how the S&P 500 and its 11 sectors rank by their changes in forward revenues and forward earnings since May 28, 2020: Energy (forward revenues up 54.4%, forward earnings up 2,445.9%), Materials (38.6, 107.6), Information Technology (33.9, 56.0), Industrials (30.7, 82.5),

Communication Services (27.9, 57.5), S&P 500 (26.1, 64.0), Financials (22.1, 69.6), Health Care (21.1, 36.8), Consumer Discretionary (20.1, 108.6), Real Estate (19.2, 38.0), Consumer Staples (16.2, 23.0), and Utilities (3.1, 6.8).

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## US Economic Indicators

**JOLTS** (*link*): Job openings in January was little changed from December's record high, while the number of quits was within 258,000 of November's record high. Job openings dipped 185,000 to 11.263 million at the start of this year, after jumping 526,000 in December to a record-high 11.448 million. There were 6.51 million unemployed in January, so there were 1.8 million available jobs for each unemployed person at the start of this year. Job openings declined in several industries, led by accommodations & food services (-288,000) and transportation, warehousing & utilities (-132,000), while job openings in the federal government were 60,000 lower. Meanwhile, the largest job openings occurred in other services (136,000) and durable goods manufacturing (85,000). The number of quits remained on a sharp accelerating trend, though have paused a bit. Quits fell for the second month by 258,000 during the two months ending January to 4.25 million, after jumping 378,000 in November to a record-high 4.51 million. Quits had jumped 558,000 during the six months through September. Before the pandemic, quits hovered around 3.5 million. Many employers are raising wages and incentives amid a severe labor shortage, which gives workers confidence that they can get better pay elsewhere. Meanwhile, hirings barely budged in January, climbing 7,000 to 6.457 million after falling 255,000 in December—the largest monthly decline in over a year—reflecting a surge in Omicron cases during the month.

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