Quarterly Economic Update

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MACROECONOMIC COMMENTARY

Fiscal/Monetary Policy

By Michael McNair

Sanctions and Shortages

Nearly everyone, including Vladimir Putin, has been shocked by the magnitude of sanctions placed on the Russian economy. It was assumed that Russian commodity exports were too big to sanction due to the importance of Russian exports to the global economy. In this special report, we examine the impact of sanctions and the fallout of the Russo-Ukrainian war on commodity markets.

The Sanctions

It is unnecessary to give an exhaustive list of the sanctions due to the volumes of articles covering the sanctions as well as the complexity of the subject. Instead, we will summarize the most important aspects of the sanctions, the sum of which has effectively cut the Russian economy off from the global economy.

1. Freezing of Russia's foreign currency reserves
2. Ban on transactions with Russian financial institutions
3. Ban on the import of Russian goods
4. Ban on the export of certain goods to Russia

Foreign currency reserves (also known as FX reserves) are foreign financial assets held in foreign currency. FX reserves can be used to defend the devaluation of the holder's domestic currency or exchange for the purchase of foreign goods and services. Thus, the freezing of Russia's FX reserves limited Russia's ability to defend the Russian ruble or purchase vital imports.

The most devastating sanctions to the Russian economy are the ban on transactions with Russian financial institutions; yet, the media has tended to focus on the ban of Russian banks from the Swift system. Swift is a secured messaging system that allows financial institutions to communicate transaction instructions that facilitate trade between economic agents that hold assets in separate banks. Removal from the Swift system is a major hurdle for Russian banks, and thus Russian individuals and institutions from transacting with non-Russian economic agents. It has been suggested that Russia can develop an alternative system that will allow a workaround for the Swift ban. However, we emphasize that an effective workaround is unachievable for a host of technical reasons; yet, the most of all because the real impediment is that financial institutions are banned from transacting with Russian financial institutions. In other words, international banks would still be banned for transactions with Russian banks even if a Swift alternative were accepted by other institutions. Kicking Russian banks off Swift creates a technical problem for any bank that might wish to ignore the transaction ban, but we emphasize that such action would be suicidal as that bank would be sanctioned and banned from transacting with the international financial system. It should be noted that even Chinese banks are refusing to transact with Russian banks

for fear of sanctions. Chinese banks hold trillions of foreign financial assets that would be at risk, not to mention a loss of access to international transactions.

The financial transaction ban has made the ban on the import of Russian goods and the export of certain goods to Russia as redundant as the removal of Russian banks from Swift. A look at the inability of Russia to sell its crude oil illustrates this point. When the financial sanctions were announced, there were supposed to be carve-outs that would allow the purchase of Russian energy products. Russia has offered, a substantial, $30 a barrel discount on their crude oil but has received zero bids despite the supposed energy “carve-outs.” A popular explanation in the media for the lack of bids for Russian crude is that buyers are refusing to purchase Russian crude for altruistic reasons. We do not deny that many buyers have refused to purchase Russian goods on their own accord. However, anyone buying a fungible commodity at a significant discount to the market price will generate a significant financial windfall, and there is no shortage of self-interested buyers. However, even if a buyer is willing to purchase Russian oil, they are unable to do so because the transaction requires a bank to facilitate the trade – through the issuance of letters of credit, for example – and there is not a financial institution on the planet that is currently willing to do so.

We should highlight some important nuances. First, the G7 announced financial sanctions on Russian financial institutions. However, the G7 does not have the power to impose these sanctions. Therefore, it is up to the regulators in each jurisdiction to develop specific rules that apply to financial institutions under their authority. Today, financial institutions operate across jurisdictions, which creates an obligation for the institutions to adhere to the strictest application of the rules.

We have spent hours over the past week talking with the experts at one bank after another, and there is a unanimous consensus that under the current application of the rules, they will refuse to facilitate any transaction with a Russian financial institution – even for Russian crude oil that was intended to be shielded from the sanctions.

The effect is that Russia is effectively cut off from trading with the global economy. Again, we must highlight some important nuances. The financial sanctions do not technically go into effect until the end of March. The regulators are allowing some specific transactions to occur until the end of the month. The most prevalent of these exceptions is for the unwinding of hedges that were previously put in place. The relevant hedging involves the purchase or sale of a commodity that is intended to be delivered (or settled) at a future date. A typical reason for hedging is to protect a buyer or seller from future price moves in the commodity. There are currently billions of dollars of contracts using Russian commodities as the underlying asset being hedged. Hedges made prior to March 2022 that were related to the purchase of commodities for delivery during the month of March can occur. However, all hedges with an expiration date post-March 2022 must be settled by the end of the month. There is little information about how these contracts are being reversed as the relevant parties are keeping the information about this settlement process close to the vest. As best we can tell, there

appears to be an opportunity for buyers to amend the expiration date and receive delivery during March. However, there are reasons other than financial sanctions – which we will get to later - that limit the ability of this settlement method in most cases.

While the trade of Russian goods has already been severely curtailed, it has not come to a stop. Most market participants do not understand that these trade flows are related to forward purchases; thus, they fail to understand that we are looking at a complete halt to Russian commodity exports – including energy - by April. It must be pointed out that the rules could be revised over the next month to allow for the export of energy. It is likely G7 leaders did not intend for their rules to eliminate Russian energy exports based on their public statements. Therefore, they could amend these rules so that they truly create an energy loophole in the sanctions. It can certainly be argued that they have an incentive to do so since $150+ oil is likely to be a headwind to their re-election chances. However, our conversations with the banks proved enlightening on this subject. They made no guarantees but were highly skeptical that even more careful writing of the sanction rules would cause the banks to reverse their transaction ban with Russian institutions. Some of the reasons given are: 1) the sanctions are a moving goal post. There will be a continued risk that future sanctions specifically target energy transactions, and the banks will be on the hook and forced to take losses on the transactions in the way that they are currently having to do with the reversal of hedges. 2) The transactions provide de minimis profits for the financial institutions, but the potential ramifications are significant. For example, BNP Paribas was fined $8.9 billion for facilitating transactions for sanctioned Iranian institutions. 3) The rewriting of rules must be done on a coordinated basis.

We were given the example of the lifting of the Iran sanctions in 2016. The Secretary of State, John Kerry, personally met with the CEOs of the major US banks to implore them to reestablish financial connections with Iranian banks. The banks all declined.

There is another impediment, unrelated to sanctions, that makes it nearly impossible to export Russian commodities: the inability to ship the product. Once a warzone has been established, all insurance policies on ships operating in a war zone become null and void. As a result, shippers are unwilling to enter Russian and Ukrainian ports.

The impact on commodity markets

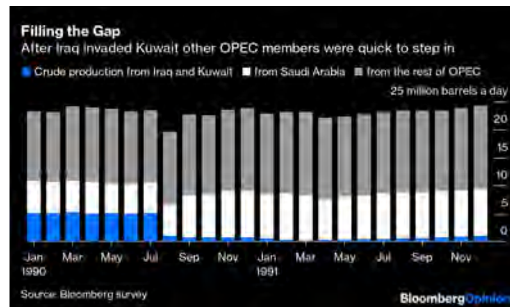
Energy

Oil

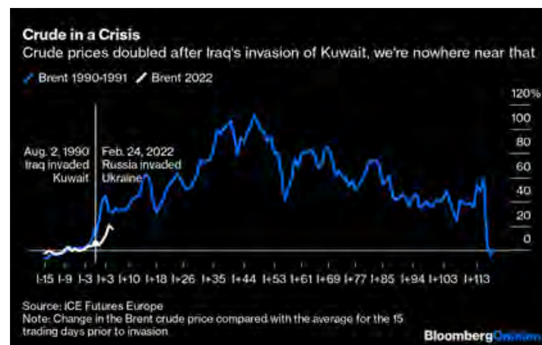
Russia produces more crude oil than Saudi Arabia. They are the second-largest producer in the world at 11 million daily barrels, or 10% of global crude production, while the Russian Urals is the single largest crude grade in the world.

The closest analog to completely removing Russian oil from the market is when Iraq attacked Kuwait in 1990, and overnight the world lost 4 million barrels a day of supply, representing 7% of global production at the time.

According to Bloomberg's Julian Lee, "The rest of OPEC stepped in, using spare capacity to boost supply. Within a month, the group's total output was almost back where it had been before the sanctions."

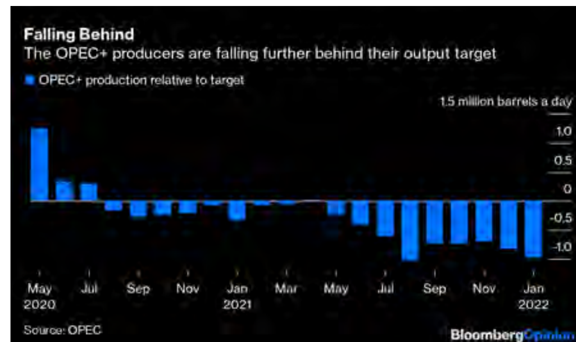


"That didn't stop oil prices from continuing to rise, though." Oil prices would eventually double in price despite the offsetting production from other OPEC members.

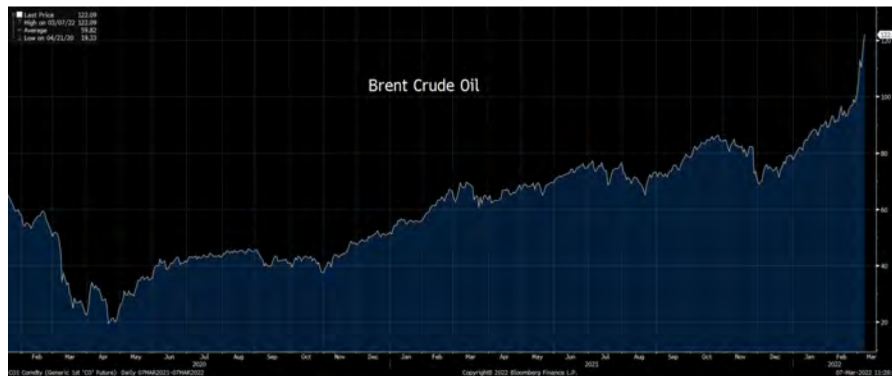


"They don't have anything like the spare capacity they held in 1990. Back then, Saudi Arabia alone was able to boost output by about 3 million barrels a day over five months and still have more in reserve. It might struggle to do half that now.

Aside from the United Arab Emirates, the rest of the OPEC+ group would be hard pressed to add much at all. They are already struggling — and failing — to keep pace with their rising output targets. Production in January was almost 1 million barrels a day below the group's goal, according to its own figures."



Global crude oil prices are up ~60% since the start of the year and ~95% year over year.



As we have previously explained, the purchase of Russian crude oil has come to a complete stop (with some exceptions for March delivery), and the hurdles appear too large and numerous to overcome in the near term. Therefore, the market is likely to lose 10% of global supply by April.

G7 leaders have publicly supported energy-related exceptions to the sanctions, but the mechanics of the sanctions have effectively neutered energy "carve-outs." The result is that the leaders are taking a political hit for creating loopholes for their energy interest while receiving none of the benefits of the loopholes (i.e., lower energy prices). If G7 leaders begin publicly calling for a ban on Russian oil, it will be a powerful sign that they do not believe they can overcome the technical hurdles of the energy carve-outs and are opting to take the political benefits of publicly supporting the inclusion of oil in the sanctions.

Update: On the morning of March 3rd, Bloomberg reported that "the Biden administration is mulling whether to prohibit Russian oil imports without the participation of allies in Europe, at least initially, according to people familiar with the matter." At this point, the writing is on the wall – at least for oil carve outs (more on natural gas below).

<u>*Natural Gas*</u>

Natural gas markets are more regional due to physical constraints that increase the cost and complexity of shipping natural gas by ships. The vast majority of Russian natural gas exports are via pipeline to Europe.

In our *Shortages and the Reverse Salient* note from November 2021, we explained the process which connects the global power markets and how a shortage of Chinese thermal coal created a cascading shortage of energy across the globe.

> "A confluence of factors caused the initial increase in coal prices. However, the incentive structure of the semi-liberalized power market is the cause of the dramatic surge in coal prices. Power producers in China and India resisted purchasing coal at higher prices because they could not pass on the costs via an increase in electricity prices – leading to severe destocking of coal inventory. By September of this year, coal inventories held by Chinese power producers dwindled to 7 days of cover. For context, Chinese power producers' coal inventories were equivalent to 28 days of cover in

September of 2019. Eventually, authorities in Beijing became worried that their utilities were at risk of running out of coal during the winter heating season. As a result, regulators directed their power producers to procure coal and natural gas supplies regardless of costs. This inelastic demand resulted in a 390% (year over year) increase in Chinese thermal coal prices.

The surging price of coal was only the first domino. Coal and natural gas are the two most common sources of energy used in electricity generation. Their relative use in power generation will fluctuate based on their relative costs. All else equal, the relative increase in price for one commodity will tend to decrease relative demand for that commodity, and vice versa. For example, an increase in the price of coal relative to natural gas will cause a relative shift away from burning coal and towards natural gas. The negative feedback loop in demand for the two commodities causes their prices to be correlated.

Over 70% of Chinese power production comes from coal, but shortages forced India and China to bid for LNG (liquified natural gas). LNG is a globally traded commodity that connects the natural gas markets around the world. China and India were previously absent from the global LNG market, but in 2021, China has overtaken Japan as the largest importer of LNG. As China and India imported more LNG it took critical supply away from countries dependent on LNG imports to satisfy marginal demand. As a result, price-insensitive buyers in East Asia tightened energy markets around the world and created a short squeeze as other power producers were left scrambling for supply. The short squeeze in the price of LNG is particularly felt in Europe where 80% of gas is priced at spot vs only 35% in East Asia."

The price of natural gas increased 800% above pre-pandemic levels and 3100% higher than in March of 2020:

At the time of our publication in November 2021, Russian gas flows to Europe were 42% below the level reached in November 2019 (2020 was impacted by COVID).

In hindsight, it is now obvious what contributed to the surge in European natural gas prices. The squeeze in the European natural gas market was orchestrated by Vladimir Putin to draw down European gas storage and tighten global energy markets in anticipation of his invasion into Ukraine. By tightening global commodity markets, Putin bet that NATO leaders would be unable to agree to sanctions on Russia's vital commodity markets. Putin could not have wished for a better global macro condition to launch his invasion – a historic increase in commodity prices and inflation (which he helped create). Putin miscalculated the resolve of NATO leaders and the willingness of its citizens to make sacrifices to sanction Russia's commodity exports. However, Putin is unlikely to have misunderstood the pain that those sanctions will inflict the world. It is unclear whether NATO leaders and citizens yet understand the cost.

For Western countries, arguably the most disastrous consequence of a sudden halt to Russian commodity exports is in the European natural gas market, and for that reason, it is the hardest market to predict.

Europe imports 40% of its natural gas from Russia. At least one economic paper has been quoted by some in the media proclaiming that a complete reduction of Russian natural gas would only create a small hit to European GDP. However, the Economists show they have no understanding of the European power market as these studies are based on unrealistic assumptions about the ability of the European power producers to procure alternate energy supplies. The reality is that there is no short-term solution to substitute the loss of Russian natural gas. In the event of a full cutoff of Russian supply, a demand reduction of 10-15% would be necessary to make it through winter 2022-23. However, the typical summer build-up of natural gas stocks for use in the following winter will not be possible – presenting an even more dire situation for the winter of 2023-2024. This is a shortage that is not achieved by residential customers turning down the heat, which might reduce consumption by 1%. It would require the shutdown of large swaths of Europe's industrial production, which would have a cascading effect on inflation and shortages throughout the world. For this reason, Russian gas supplies are seen as too big to fail. It is not inconceivable that a workaround is reached for Russian gas supplies. On the one hand, the shipping issues are not the impediment it is for oil, due to the use of pipelines. The biggest concern revolves around financial institutions' willingness to facilitate the transactions for fear of running afoul of sanctions and future losses associated with future sanctions. European regulators could rewrite the rules in a way that Russian natural gas is truly excluded from sanctions for European financial institutions. The problem is coordinating with the rules in other jurisdictions to ensure the transactions are permitted. Financial institutions must also be given a financial incentive, and it is not clear how such a mechanism would work. The hurdles to overcome are large, but the implications of failing to do so would be calamitous.

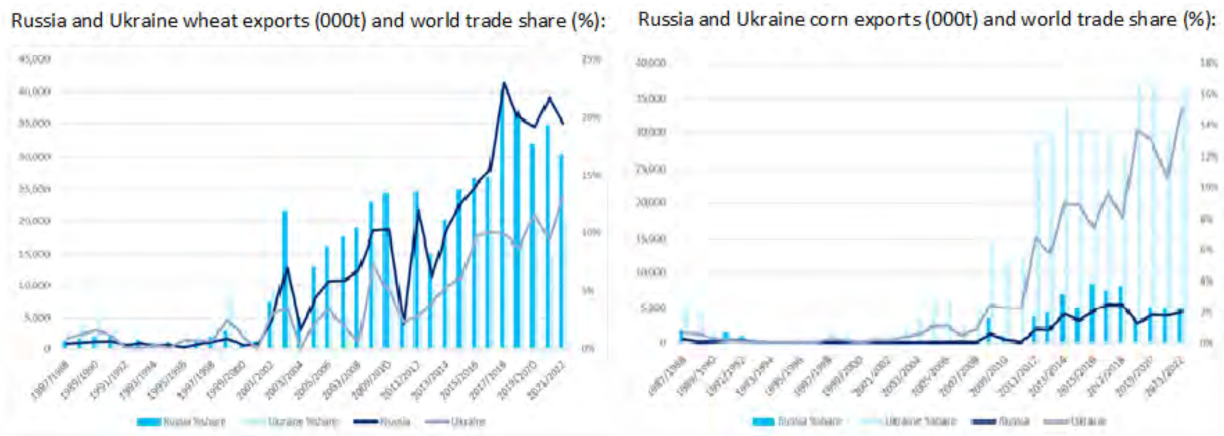
As we previously explained, the implications of a cutoff of Russian natural gas will not be contained to European power markets. This will lift prices of coal and natural gas – and thus power prices - around the world.

Update: 1) The Biden administration specifically mentioned “prohibiting Russian oil imports” but failed to mention natural gas. It is a curious omission considering that the US does not import Russian natural gas in the first place. The reasoning is possibly to allow European regulators to create natural gas carve outs that does not expose European financial institutions to violating US sanctions. 2) On March 3rd Bloomberg reported that “The European Union’s executive arm is mapping out a path to end the bloc’s reliance on Russian gas which could see import needs cut by almost 80% this year, according to two officials with knowledge of the matter.” Even natural gas exceptions are now looking to be at risk.

Agriculture

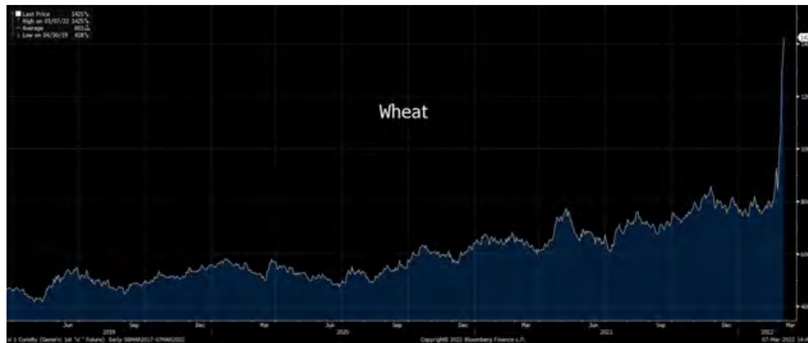
For most of the world, the biggest impact of the war – and the resulting sanctions – is from surging food prices.

The world’s largest wheat exporter just invaded the fourth largest exporter. Together, Russia and Ukraine represent 28% of global wheat exports (Russia represents 18%) and over 16% of global corn exports. While each economy has a 15% of barley export share for a combined 30% of global trade.



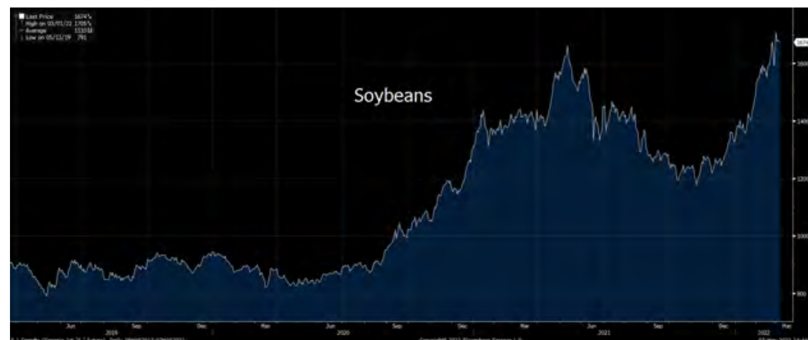
The world could experience a complete loss of Ukrainian grain by next year due to a lack of planting season. Further, Ukraine’s exports could be sanctioned if Russia succeeds in conquering the country.

Wheat price up 160% since 2019:



Corn price up 150% since mid-2020:

Bean price up 100% since 2019:

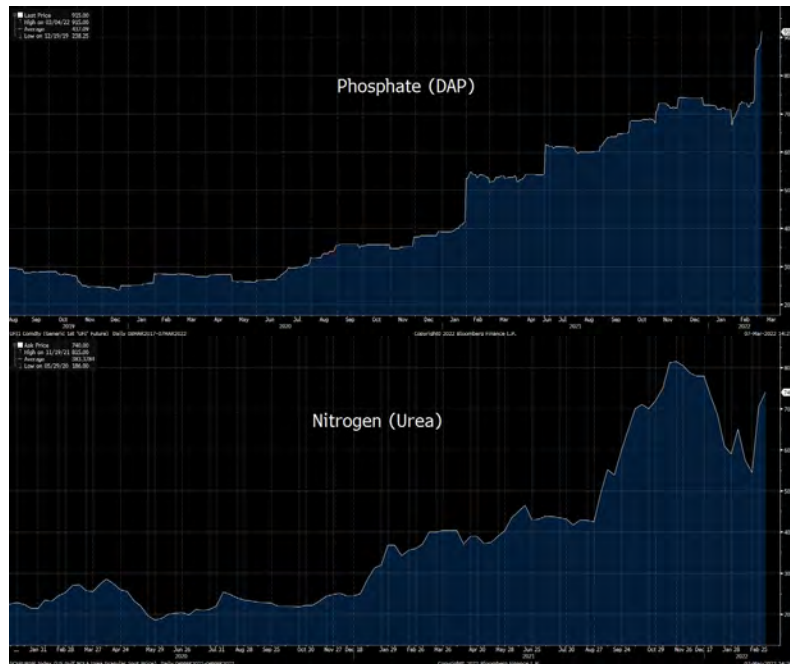


To make matters worse, we currently have a desperate shortage in each of the three main fertilizers: nitrogen, phosphate, and potash. Russia and Ukraine represent 10% of the global nitrogen market (Russia accounts for 20% of global urea exports). Last year, Europe halted production of some nitrogen production due to a shortage of natural gas. These cuts to nitrogen production are sure to increase in 2022.

Russia and Belarus (under sanctions and export through Russian ports that are off-limits to global trade) are the world's largest potash producers – together accounting for 35% of global potash production.

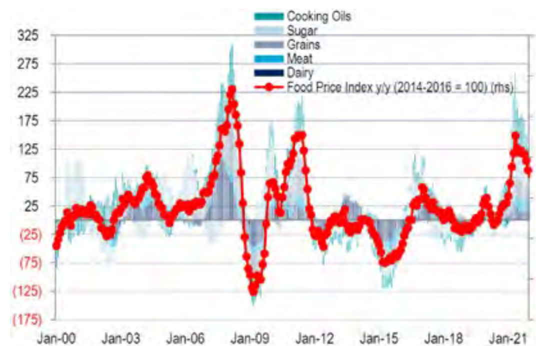
China, the world's largest phosphate producer (28% of global production), has placed an export ban because of a global shortage. The result is 266% increase in the price of phosphate, 210% increase in nitrogen prices, and 200% increase in potash prices relative to pre-pandemic prices. Rising fertilizer prices increase the price of grains by

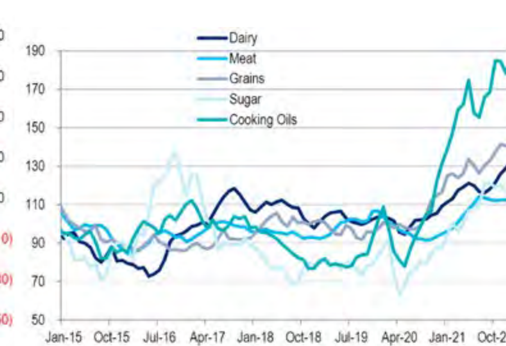
increasing the cost of production for grain. A lack of fertilizer application will have a further impact on grain prices through a reduction in grain supply due to declining yields.



Corn, wheat, and soybeans are directly consumed cereals but also serve as key feedstock into cooking oils, processed food, and meat/dairy production. This could exacerbate the headline food inflation impulse.

World Food Price Index (% YoY): World Food Price Index component levels:





Food inflation tends to lead to social instability. A prolonged war in Ukraine would likely lead to food inflation that exceeds both 2008 and 2011 – which preceded the Arab Spring.

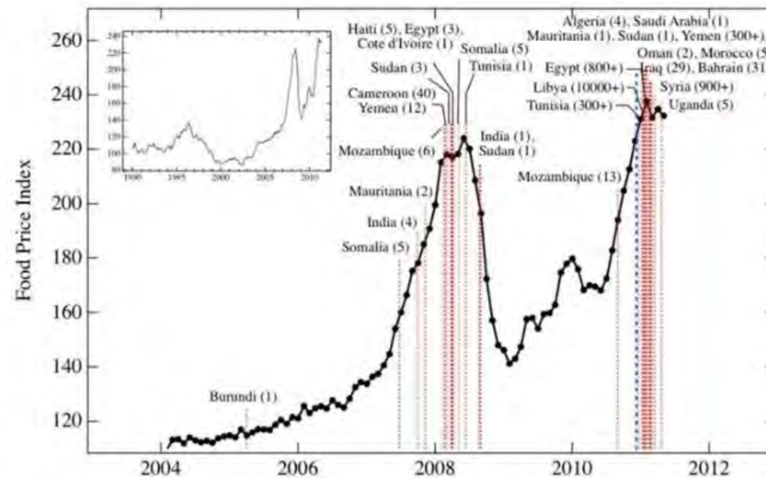


FIG. 2: Time dependence of FAO Food Price Index from January 2004 to May 2011. Red dashed vertical lines correspond to beginning dates of food riots and protests associated with the major recent unrest in North Africa and the Middle East. The overall death toll is reported in parentheses. Blue vertical line indicates the date, December 13, 2010, on which we submitted a report to the U.S. government, warning of the link between food prices, social unrest and political instability [2]. Inset shows FAO Food Price Index from 1990 to 2011.

Steel

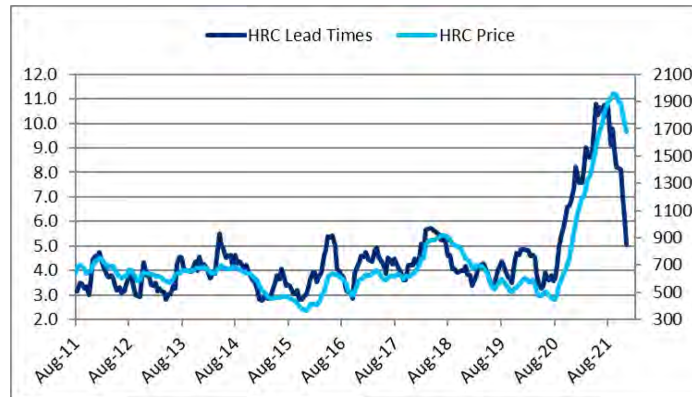
Russia and Ukraine are the 2nd and 9th largest exporters in the world (31.5 and 15.2 Mt, respectively). Together the two countries account for 10% of the global steel trade. The two countries are even more relevant in the global slab market, accounting for 24% of the global ingot/semi-finished steel export market.

The knock-on effect from higher energy prices is potentially an even more serious threat to steel supply and prices. Steel production is an energy-intensive process. Energy rationing threatens to shut down much of Europe's 11.2mt of steel production. The only way to avoid widespread shutdowns of EAF steel production in Europe is for steel prices to increase enough to make European steel producers profitable at the current record high European power prices.

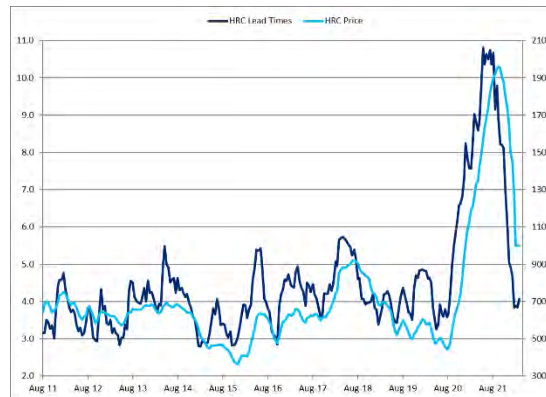
In our Shortages and the Reverse Salient note from November 2021, we highlighted that Chinese steel production was 10% below 2020 levels due to forced production shutdowns on their steel producers as a result of power rationing. These shutdowns resulted in record-high steel prices. We forecasted that steel prices would fall over the coming months as the Chinese power crisis was easing due to increased coal production.

"US steel lead times reached an all-time high of almost 11 weeks in 2021. However, lead times have recently collapsed to less than 4 weeks (vs an average of 4.5 weeks)."

Steel lead times are leading indicator for price



Fast forward four months, and we were proven correct in our bearish forecast, as steel prices have been cut in half:

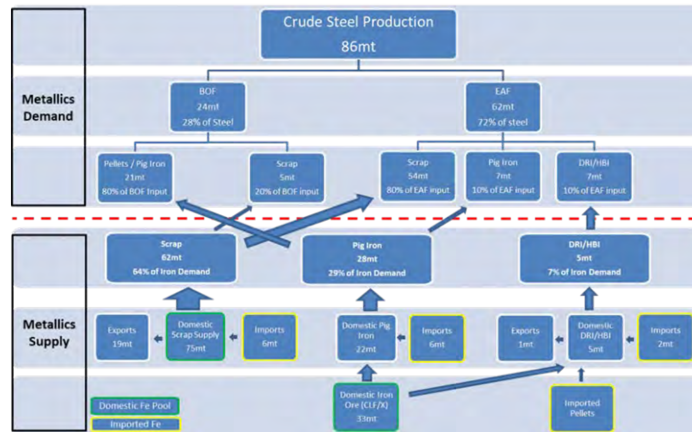


However, prices are set to reverse as a result of the fallout of the Russo-Ukrainian war.

Rising power prices are not the only factor increasing steel production costs and pressuring steel prices higher. The US is heavily reliant on Russian and Ukrainian pig iron, which comprises around 25% of a flat-rolled EAF steel mill's mix. In 2021, the U.S. imported ~6.3 Mt of pig iron, roughly 60% of which came from Russia and Ukraine.

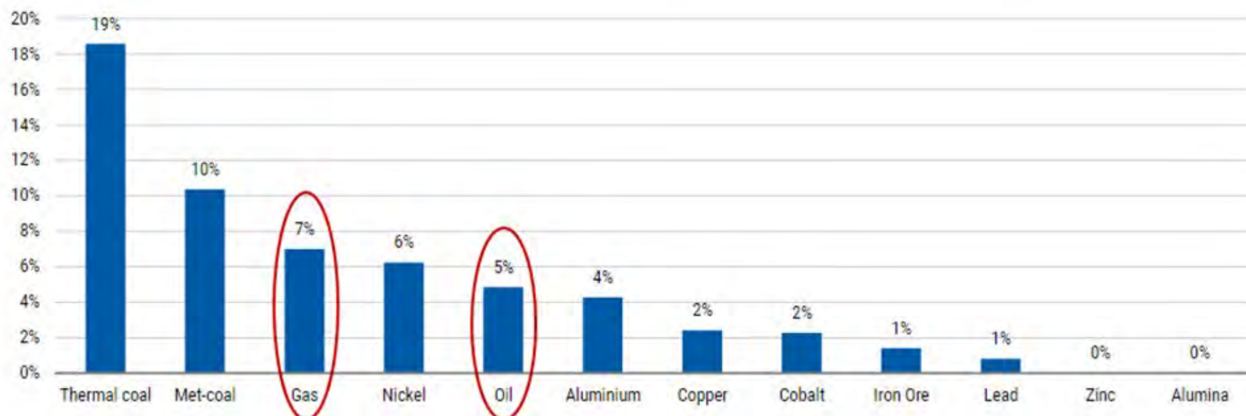
Ukraine produces ~40Mtpa of iron ore and exported 17.4Mt of iron ore to China alone in 2021. But more importantly, Ukraine is the third-largest global pellet supplier, accounting for ~10% of the pellet market.

US Metallics Balances – 2021:



We have highlighted just a handful of commodity markets to which we have intimate knowledge, but the impact on global supply chains will not be limited to those mentioned. As an example, Ukraine produces over 50% of the world's neon supply, a critical element to semiconductor chip manufacturing. We are by no means experts on the neon market, but we have enough commodity and material supply chain knowledge to know that disruption to Ukrainian supply would prolong the semiconductor shortage and limit global auto production even further.

Russia's exports as a share of global demand ex-Russia:



Current commodity prices do not fully reflect the impact of continued supply disruptions related to the Russian invasion of Ukraine. If the war continues and sanctions remain in place, commodity prices could easily double from here.

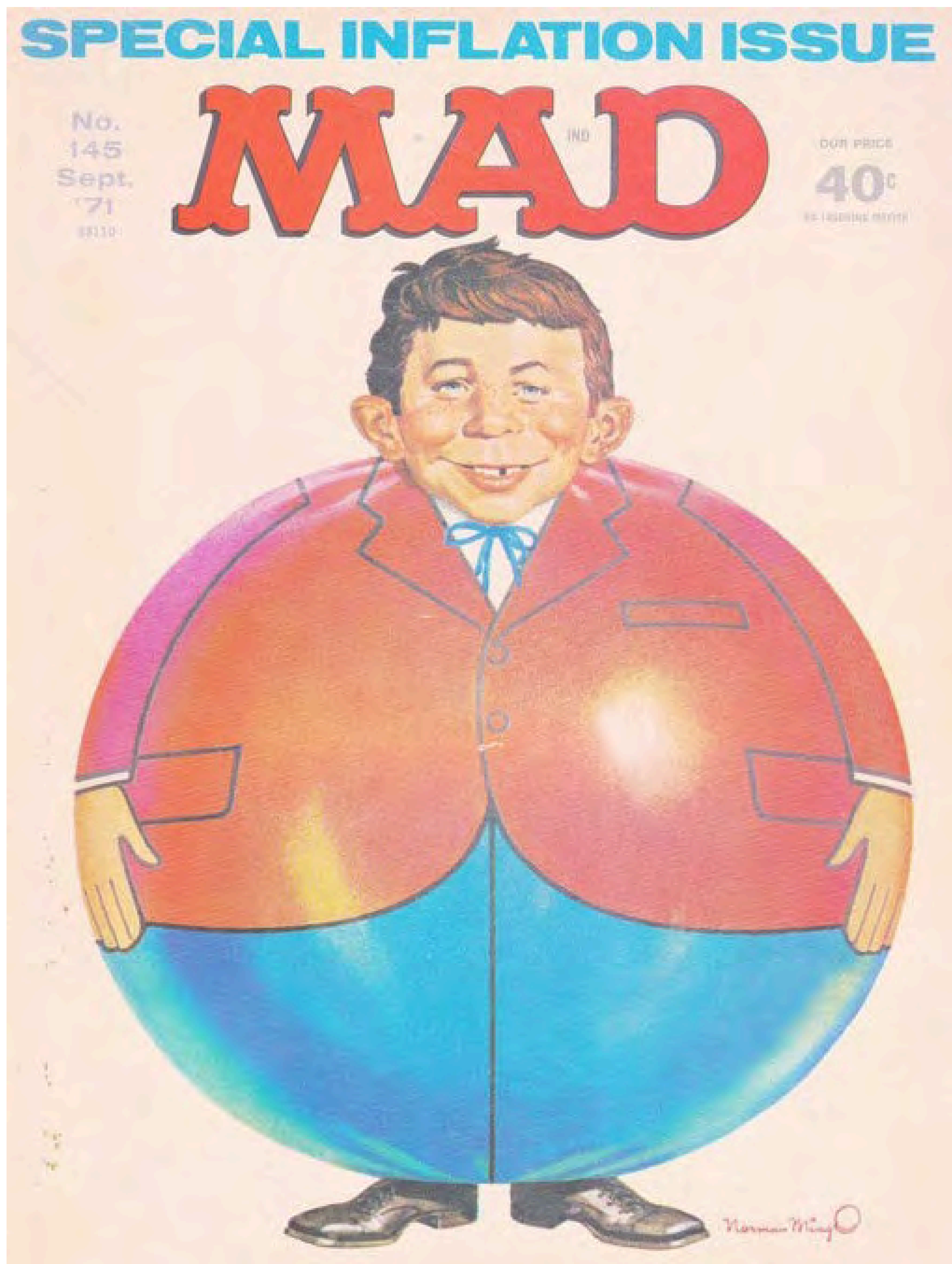
However, this is not necessarily an endorsement for commodity investment because the upshot of the severe sanctions – and the risk to commodity prices – is that sanctions

have been so destabilizing to the Russian economy that Putin will have no choice but to agree to a settlement that ends the war in Ukraine. In this scenario Russian and Ukrainian goods would, at least partially, return to the global market.

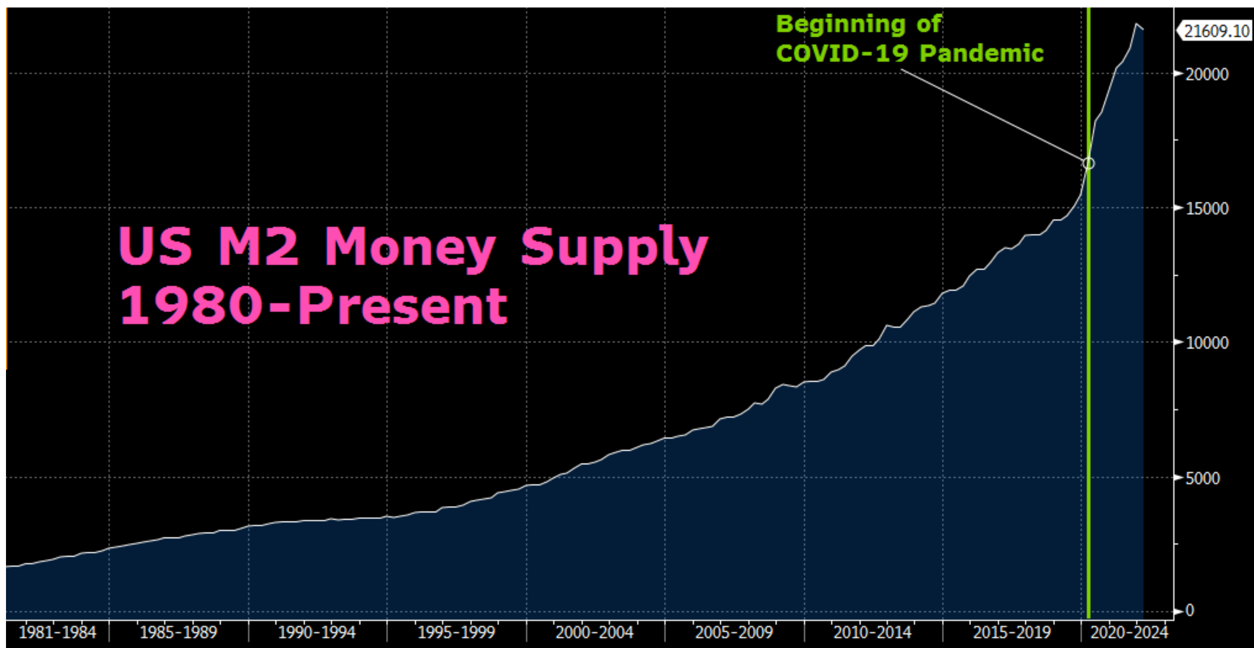
The Russian economy requires the export of natural resources and the import of technology. Russia will soon lose the ability to produce goods with international supply chains, such as autos, airplanes, computers, etc. There is a real risk of a complete collapse of the Russian economy if the sanctions remain in place.

Globalization has made the Russian economy more reliant on international supply chains in a way that could not have been imagined 50 years ago. This fact is true for every country in the world, and Russia's supply chain vulnerability will be a lesson learned by every one of them.

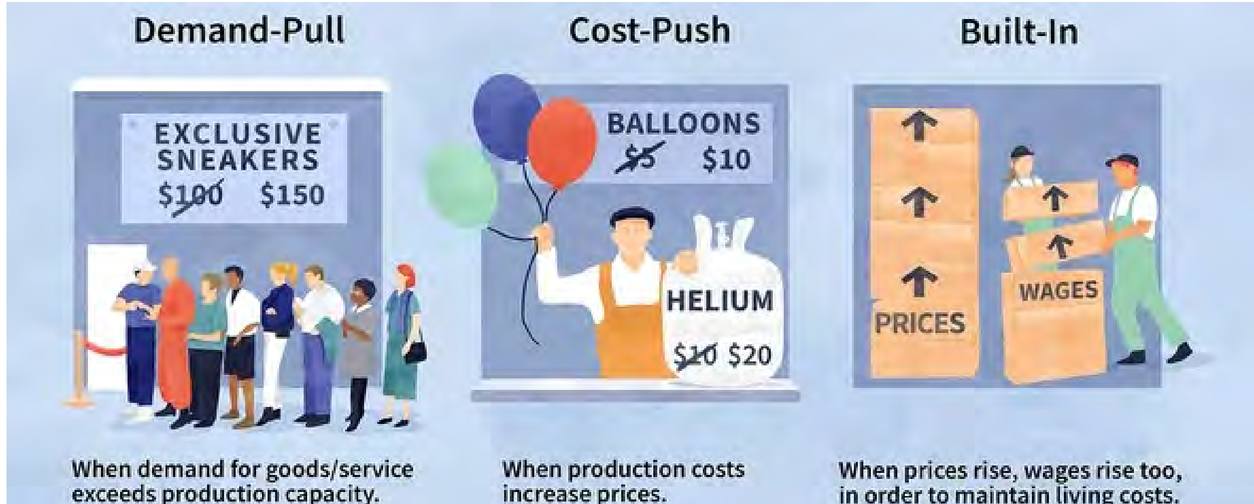
Economic Outlook
By Josh Husted



We thought it would be helpful to share some commentary on inflation, given its presence in the minds of consumers everywhere. There are no shortages of theories on inflation, but none can avoid the root cause- an increase in money supply. All else equal, an increase in the money supply will increase the price levels of goods and services.



The mechanisms by which money supply growth drive inflation can be divided into three categories: "Demand-Pull," "Cost-Push," and "Built-In." While simplistic, the following illustration can quickly bring us up to speed definitionally.



It's critical to understand how each of these mechanisms effect price levels and how they relate to each other. We've all seen the "supply-demand" curve that is helpful for simple scenarios under normal market conditions. Yet, the events of the past 24 months have conditioned us to look at "normal market conditions" as a rare occurrence- simply there to fill in the gaps between the next economic shock.

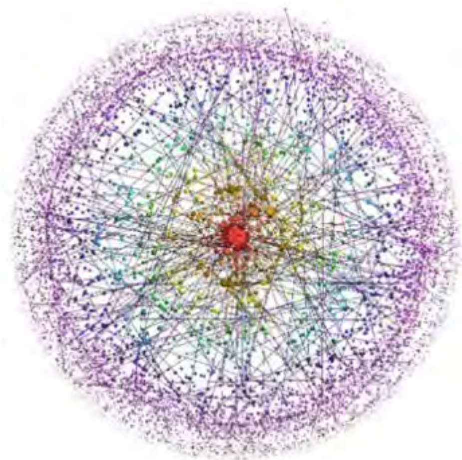
“Demand-Pull”

In the early innings of the pandemic, we saw a massive negative supply shock as governments enacted new regulatory policies restricting movement to slow the spread of COVID-19. This did not immediately impact inflation, as demand simultaneously contracted. Yet, demand was not subdued for long. The pandemic’s effect on the economy was akin to that of a giant snowstorm- something that forced everyone to huddle inside for a time but did nothing to affect the long-term psychology of consumer spending (unlike the Great Depression and the Great Recession). As the mix of consumer spending shifted from services to goods, savings balances swelled. Money that otherwise would have flowed to Disney vacations, fine dining, or holiday getaways stayed in consumers’ bank accounts.

The benefit of hindsight reveals that aggregate consumer financial health was robust enough to withstand the pandemic with far less fiscal support than was offered. Yet, the massive uncertainty and the political climate at the time led policymakers to inject extraordinary fiscal stimulus to all parts of the system, whether it was needed or not. While the stimulus payments were a lifeline to many Americans, the absence of targeted support led to money flowing where it was least needed. CNBC reported on July 9, 2020, that more than 400 country clubs and golf resorts received PPP funding alongside private jet companies, billionaires, and large corporations.

“Cost-Push”

So, with the demand picture firmly in place, let us now turn to the supply side- a far more opaque and complicated mosaic. The August 26, 2021 edition of the Wall Street Journal accurately described the global supply chain as an “intricate ballet of container ships, airplanes, trucks, and trains.” A negative supply shock caused by policy or regulation does not fit neatly into the three mechanisms listed prior; however, its effects on price are quite predictable. The best way to understand how COVID impacted suppliers is to use a fictional example of a BBQ grill manufacturer. With consumers shut-in and unable to socialize, demand for grills skyrocketed. But the economics of production were far different. PPE, COVID testing, and healthcare spending rose dramatically, while workforce staffing was increasingly harder to maintain. Critical parts sourced from global vendors were unavailable due to differing COVID policies, transportation costs rose with the surge in demand, and distribution efficiencies fell with each consumer choosing home delivery. Unrelenting demand gave cover to producers to raise prices, and raise prices, they did!



“Built-In”

So, where did the word “transitory” come from, and how did inflation spread from a few specific sectors to a broad-based scourge? In the early innings of the pandemic recovery, inflation was restricted to specific categories that were intuitively easy to understand- lumber, grills, hot tubs, home exercise equipment, etc. As COVID restrictions wore on globally, more resilient industries absorbed already scarce resources- labor, semiconductors, transportation capacity, etc. Scarcity in the remaining industries began to pressure the costs of production there, leaving price increases as the only option to protect margins. As these price increases slowly spread, workers began to take note and demand higher compensation- a phenomenon referred to as the “Wage-Price Spiral.”

If supply chain issues were initially responsible for inflation spikes, labor is now firmly in the driver’s seat. February’s 7.5% CPI print is a stark reminder of how powerful and concerning elevated inflation expectations can be. The psychology of inflation is a complex matter that is rarely resolved gently. While supply chain issues can be rectified by a redirection of resources or policy changes, inflation caused by elevated inflation expectations is quite trickier. When labor as a whole perceives that they are losing purchasing power, many biases come into play that cause the dynamic to shift from the mathematical to the emotional. One such example, “Money Illusion,” is the cognitive bias that causes people to concentrate on the nominal value of money instead of its purchasing power. Another is the tendency of people to purchase a good sooner than they otherwise would have if they believed a rise in price was imminent. The subsequent demand rush creates a self-fulfilling prophecy. The famed Yale economist, Robert J. Shiller, wrote in ’97 that “The idea of inflation evokes arbitrary injustice, arbitrary redistributions and social bitterness, and memories of social situations in which morale and a sense of cooperation were lost.” With such a potentially profound emotional and economic impact and few tools outside the dramatic to rectify it, it’s obvious why policymakers are so concerned about an ongoing wage-price spiral in the US economy.

Inflation Today

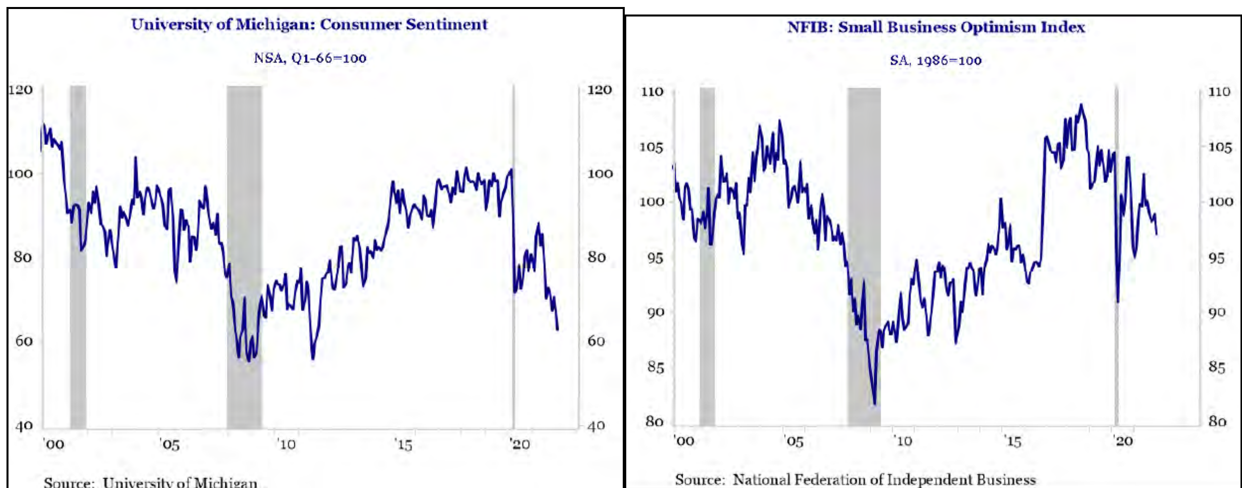
Structurally, inflation has been rather tame over the last four decades as technological innovations, supportive demographics, and other factors have largely kept it at bay. Absent the pandemic, there’s no reason to believe that trend would not have continued. While many areas of American life are back to “normal” in the post-COVID world, inflation expectations are proving to be stickier than expected.

The Fed undoubtedly misread the tea leaves in its inflation stance and kept the benchmark interest rate too low for too long. Higher interest rates promote saving > spending and are one of the most powerful tools the Fed has at its discretion to battle inflation. The Fed's overly cautious stance to rate hikes has placed it in the awkward position of hiking into slowing growth expectations. Market expectations are currently pricing in ~6 rate hikes of 25 basis points each between now and next February. Fixed 30Y mortgage rates followed this expectation higher, rising >100 basis points YTD, before pulling back slightly on the Ukraine conflict.

Policymakers seem to have finally realized just how much fiscal spending was contributing to the inflationary backdrop and failed to advance Biden's signature "Build Back Better" plan. However, states still hold billions of dollars in unspent Federal COVID relief funds. These monies still on the "sidelines," combined with anticipated municipal worker pay increases, will keep pressure on aggregate demand and the inflation backdrop.

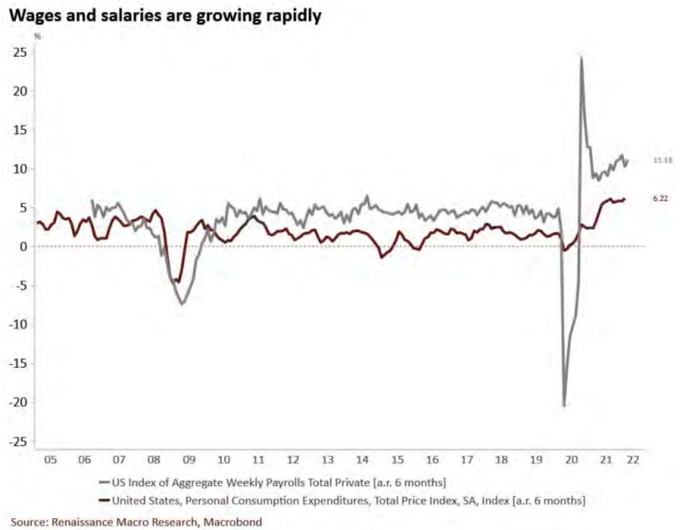
On Balance- the US Economy
As for the remainder of the economic backdrop, ex-inflation, the following notes detail what we feel you, as the reader, should know about the state of the US economy.

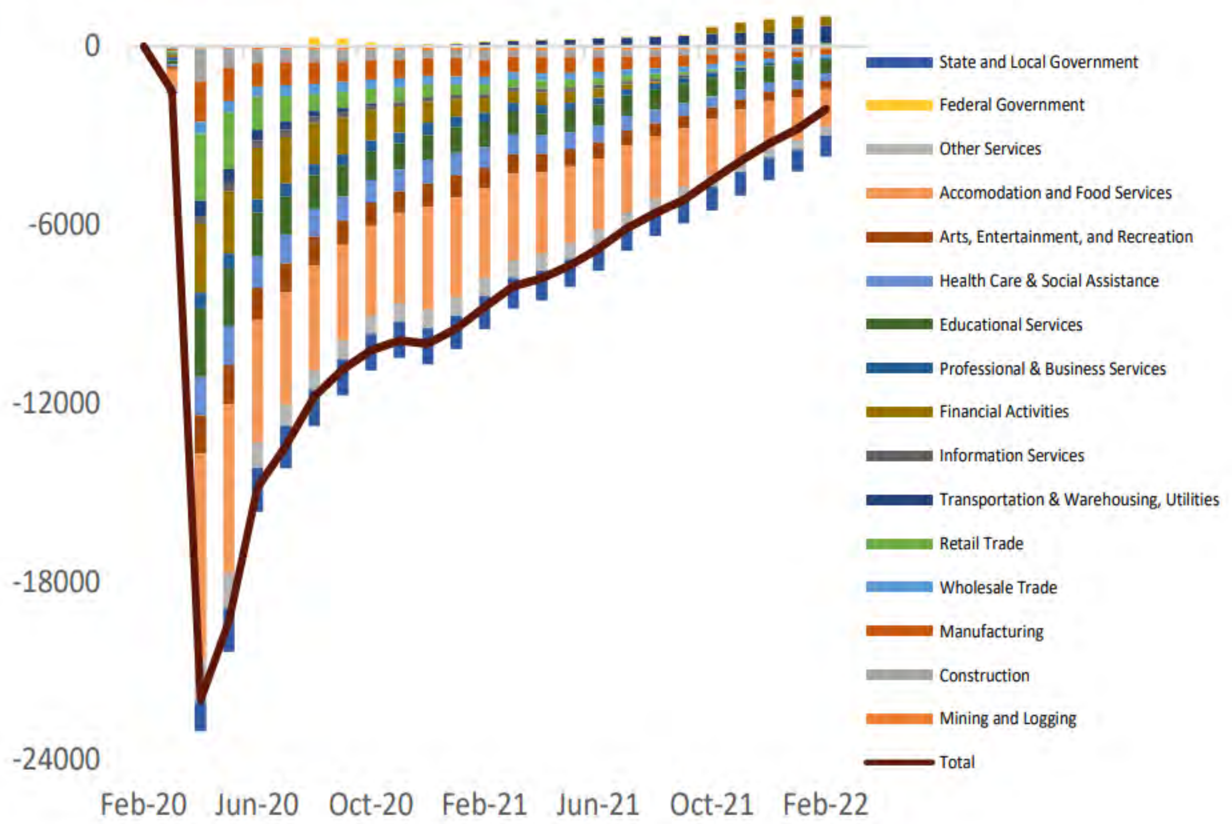
The US economy continued to enjoy strong momentum as COVID fades and business CAPEX intentions firm up. Retail sales were +3.8% in January, unemployment fell to 3.8% in February, and industrial production rose +1.4% in January, double the consensus estimate. However, a potential rebalance between goods and services spending + sharply rising energy prices present building headwinds to consumer spending projections.



Consumer sentiment has plunged as inflation has deflated nominal wages. Small business optimism has faded as well, although not to the degree of consumers, who are less optimistic than they were in the depths of a global pandemic!

Despite the dour outlook of its participants, the labor market remains on fire. Neil Dutta of Renaissance Macro Research reports that "Construction employment rose by 60,000, the most since March 2021…factory employment rose by 36,000… total hours worked surged 1.3%...and temporary help work exploded – up 35,500 to a new record high." Taking the sum product of jobs, the workweek, and average hourly earnings, the index of aggregate weekly payrolls surged 10.5% at an annual rate last month.





Nonfarm payrolls are still 2.1 million jobs shy of pre-COVID levels, as the labor force participation rate hovers ~62%. Recent research from the St. Louis Fed has revealed that the US labor force is dealing with substantial retirements, meaning labor markets may be tighter than they look.

Lastly, we'll point out housing, as new and existing single-family home sales have begun to climb again. Over the last two years, the Case-Shiller Home Price Index has advanced 30.1%, leading to owners' equity in residential real estate to breach 68%- the highest levels since the early 80s.

RSA PORTFOLIO STRATEGY

Interest Rates and Fixed Income Strategy

By Lance Lachney

At the time of our last meeting, the Federal Reserve was attempting to manage a fairly strong economy in the midst of an ongoing pandemic. Inflation, however, continued to run hot despite the solid recovery within employment. There was a hawkish shift from Chairman Jerome Powell and policymakers at the December FOMC meeting. Their stance largely fell in line with market expectations of an initial rate hike in March. The FOMC also included an accelerated timeline on the withdrawal of asset purchases that has pushed its balance sheet to the brink of $9 trillion. At this time, investors had penciled in approximately three interest rate hikes in 2022. Investment grade spreads finished the calendar year trading a fraction under 100bps, while high yield debt returned over 5% in 2021. The yield curve, measured by the spread differential between the 2yr and 10yr treasury, stood at 78bps with yield levels of .73% and 1.51%, respectively.

Financial markets are not fans of uncertainty. The Fed's pivot away from "transitory" and continuing wage pressure in employment shifted rates 20-25bps higher in the first week of the new year. Corporate spreads initially shrugged off the move and tightened a couple of basis points despite a relatively heavy new issue calendar. The release of the December CPI report opened the eyes of even the most hopeful of investors, rising 7.0% year over year. This marked the highest level witnessed in the last 40yrs. Front-end treasury yields marched upwards as investors began to pull forward their rate hike assumptions. Volatility in risk assets erupted as equity markets were upended and credit spreads started to leak wider. Investors also rotated towards safety in the long end of the treasury market, flattening the curve along the way. Rates also reacted sharply to the January FOMC meeting and the hawkish statements raised during the chairman's press conference. The facts of the matter are that inflation has continued to surprise to the upside, the labor market has tightened more rapidly than expected driving up wages, and the bottlenecks within the supply chain have not eased as quickly as hoped. Corporate debt finally threw in the towel amid the volatility as the new issue market went dark and spreads widened 12bps on the month. This was the biggest monthly move in two years, with high yield spreads rising over 50bps as well. As the

Figure 2: Markets priced 2 additional Fed hikes for 2022 in January
The market pricing for Fed hikes moved to 5 from 3 during the month of Jan.

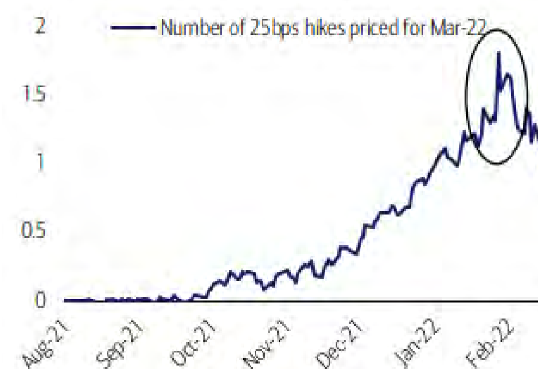
Source: Bloomberg

treasury yield curve bear flattened, investment grade credit curves also steepened, leading to massive losses in long-end corporate debt. The corporate debt index underperformed its treasury counterpart by approximately 150bps, losing 3.35% in January. The 10yr+ segment fared much worse, posting losses in excess of 5% on a total return basis. Agency and mortgage-backed securities were the so-called winners due to their lower duration profiles. By the end of the month, fed funds futures were pricing in five interest rate moves this year, two more than the market envisioned just 31 days prior.

One month doesn’t make a trend. How about two? The month of February began with another round of rate volatility as the January payroll report posted gains that exceeded estimates by nearly three times what the market had anticipated. Not to mention the 300k revision added to the previous month’s initial reading. This revelation pushed interest rates approximately 15bps higher across the curve. The inflation report for January came in above expectations, as headline prices rose 7.5% yoy while core items increased 6.0%. More startling was the .60% month over month calculation, reinforcing that the current inflationary situation was far from easing. Front-end treasury yields soared while the long end of the curve moved marginally higher. The result was a further collapse in the 2s/10s spread to approximately 45bps. By the middle of the month, market expectations for a 50bp rate hike at the March FOMC meeting had risen substantially. Interest rate volatility had also reached it highest level since the onset of the pandemic in the first quarter of 2020.

Figure 2: As much as 80% chance of a 50bps March hike

Market pricing implied 80% change of a 50bps hike in March on February 10



Source: BofA Global Research, Bloomberg

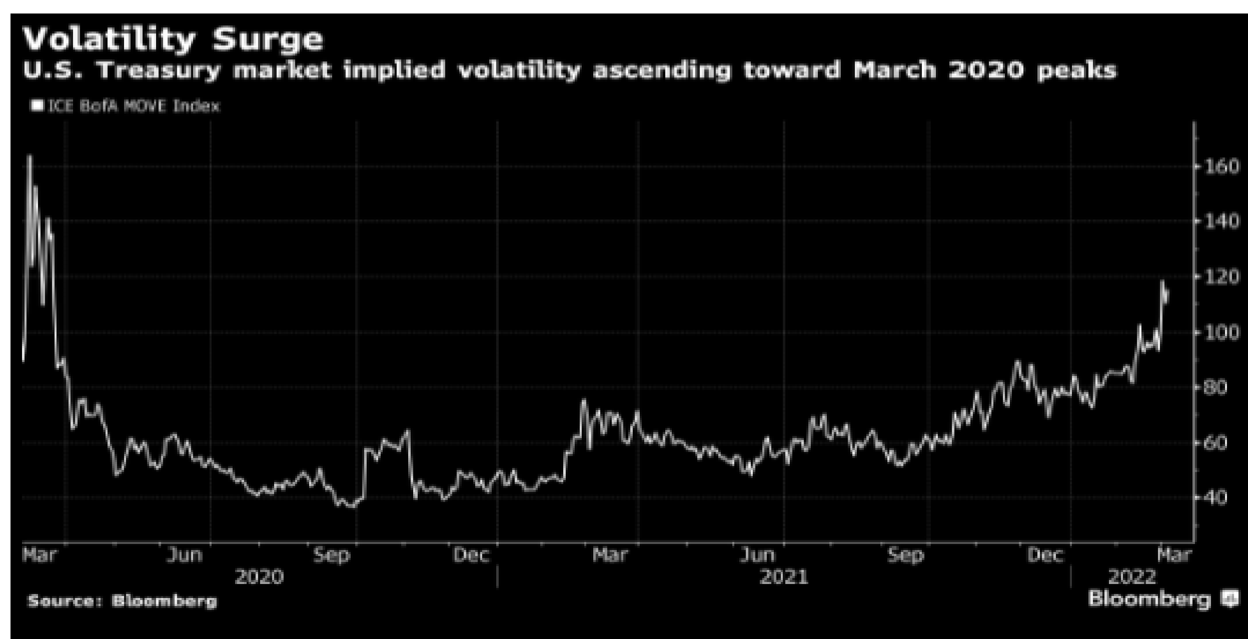
To reiterate a previous statement, financial markets are not fans of uncertainty. As tensions between Russia and Ukraine escalated, investors’ appetite for risk began to falter. A number of Fed officials attempted to walk back expectations of a 50bp move in March. Market participants sought safety in short term treasury securities. Meanwhile, spreads of high-grade securities increased by double digits once again. Hopes for a peaceful resolution were ultimately extinguished as Russia’s invasion of Ukraine became a reality, creating shockwaves and market volatility around the globe. Risk assets quickly fell out of favor, with the investment grade corporate index falling 2%, as spreads widened approximately 20bps by the end of the month. In two short months, the 10yr+ segment of the corporate bond market has given up over 9%.

IG Index: Excess and Total Returns								
	Excess Return (%)				Total Return (%)			
	Dec	Jan	Feb	2022	Dec	Jan	Feb	2022
Investment Grade	0.55	-1.02	-1.50	-2.47	-0.17	-3.13	-2.18	-5.24
Financials	0.40	-0.73	-1.13	-1.82	-0.11	-2.42	-1.67	-4.05
Industrials	0.64	-1.19	-1.61	-2.73	-0.15	-3.44	-2.34	-5.70
Utilities	0.39	-0.86	-2.05	-2.83	-0.48	-3.32	-2.86	-6.08
By Rating								
AAA	0.79	-1.67	-0.98	-2.59	-0.45	-4.38	-1.93	-6.23
AA	0.50	-0.97	-1.09	-2.01	-0.38	-3.25	-1.88	-5.07
A	0.46	-0.90	-1.30	-2.15	-0.25	-2.96	-1.97	-4.87
BBB	0.62	-1.11	-1.75	-2.79	-0.07	-3.20	-2.41	-5.53
By Tenor								
1-3 Year	0.15	-0.15	-0.44	-0.59	-0.07	-0.75	-0.77	-1.51
3-5 Year	0.34	-0.33	-0.54	-0.86	0.00	-1.56	-1.06	-2.61
5-7 Year	0.51	-0.53	-0.84	-1.34	0.12	-2.21	-1.33	-3.51
7-10 Year	0.63	-0.73	-1.57	-2.26	0.14	-2.88	-1.86	-4.69
10+ Year	0.82	-2.04	-2.69	-4.56	-0.53	-5.37	-3.86	-9.03

Source: CreditSights, ICE Data Indices, LLC, FactSet. Data as of 02/28/2022.

Trading activity during this time period has been relatively modest. Within mortgage-backed securities, the fund's purchases have predominantly been the reinvestment of prepayment proceeds. Due to the underweight positioning in the treasury sector, the fund has added short-dated securities periodically as rates have moved higher over the last couple of months. The RSA executed a swap out of longer-dated paper and into slightly shorter securities as the belly of the curve had become increasingly flat. More recently, the fund exited a position due to mature in a few months and reinvested those proceeds into the 5yr portion of the curve. The shift in interest rates appeared a little long in the tooth in our view as a miscalculation by the FOMC became more of a concern. The short duration nature of the treasury portfolio also provided an incentive for the fund to add a little insurance further out the curve. The corporate sector of the portfolio will remain the bellwether within the fixed income portfolio. The last few months have not been easy; however, the RSA has benefitted from its short duration positioning within investment grade debt. I take no solace in losing less than the next

guy or relative to any benchmark. Losses hurt, and this sector of the portfolio is down approximately 3.85% fiscal year to date. The fund added stable names in the short end at the beginning of this reporting period. As policymakers seemed poised to embark on its effort to fight off inflation, the fund moved accordingly by adding fixed and floating-rate notes within the financial sector.



Unfortunately, more uncertainty is likely to ensue. The good news is the labor market appears to be solid, adding another 687,000 jobs last month. The unemployment rate fell to 3.8%, and the participation rate is rising. American workers are experiencing the largest wage gains in decades, and economists expect the economy to grow 3% or so this year. Housing prices remain strong, and consumer spending is likely to grow as the latest variant subsides. The flip side to that optimistic case is the growth in workers' hourly earnings decelerated in the most recent employment report. This comes in the face of an expected 7.9% annual increase in inflation. Russia's invasion of Ukraine has produced an increase in every commodity imaginable, with the Bloomberg Commodity Spot Index rising 13%, its largest weekly gain in several decades. Domestic oil prices have now surpassed $115/barrel, its highest reading since 2008. That being the case, gasoline prices are approaching and, in most places, have surpassed $4/gallon. The day-to-day costs may begin to take its toll on the average American. This is also a global phenomenon, especially in Europe, who has the most exposure to Russia's natural resources. Financial markets have responded by bidding up safe assets, like the dollar, gold, and treasury securities. The benchmark treasury yield has fallen almost 30bps from its peak a couple of weeks ago. Five-year inflation expectations, heavily correlated with oil prices, have surged to 3.25%. Treasury inflation-protected securities,

which had fallen out of favor due to hawkish rhetoric, have caught a bid once again, sending real yields further into negative territory. The spread differential between 2s and 10s has collapsed to 25bps. The market is simply pricing in questions that remain unanswered. Will the recent incursion be swift or a protracted affair? Will consumer spending be able to withstand the burdening tax of inflation for a sustained amount of time? Will the Fed be able to constrain inflation without pushing the economy into a recession? Will the terminal fed funds rate be higher or lower in this cycle? At the moment, the best guess is to expect more volatility around every data point, statement, and headline.

Domestic Equity Strategy

By Kevin Gamble

In a memorable sermon one Sunday morning, the pastor posed the question: Would you like to know your future if someone could tell you exactly what was in store for the rest of your life? An interesting question to ponder and personally concluded that would pass and instead take it as it comes. Perhaps that is a good thing as the reality is no human or investor knows exactly what tomorrow is going to bring. History is constantly being written in the present and, in many ways, is like a Choose Your Own Adventure book with many protagonists and antagonists determining the plot's ultimate outcome.

2022 is setting up to be one of those years that will be especially difficult to predict given the myriad of issues and ingredients that are part of a very strange witch's brew for current investing markets. It feels that as soon as one feels certain of a particular outcome, something else is likely to occur.

Under these circumstances, what we felt best was to use this equity strategy update to touch on the top 10 questions and concerns we have as equity investors navigating these increasingly choppy waters. These concerns are not designed to scare everyone into the proverbial investment bunker but rather are consistent with the same caution that Dr. Bronner has written on recently in the *RSA Advisor*. The specific caution is to not necessarily assume the outsized equity returns of recent years are going to continue indefinitely into the foreseeable future. In Wall Street lingo, the "easy" money has likely been made in the U.S. equity markets, and the path higher is almost certain to be a little more challenging.

Exhibit 1: S&P 500 Performance Fiscal Year-to-Date

Source: Bloomberg

RSA Top 10 Questions/Concerns

1) What does Russia's invasion of the Ukraine mean for U.S. equity markets?

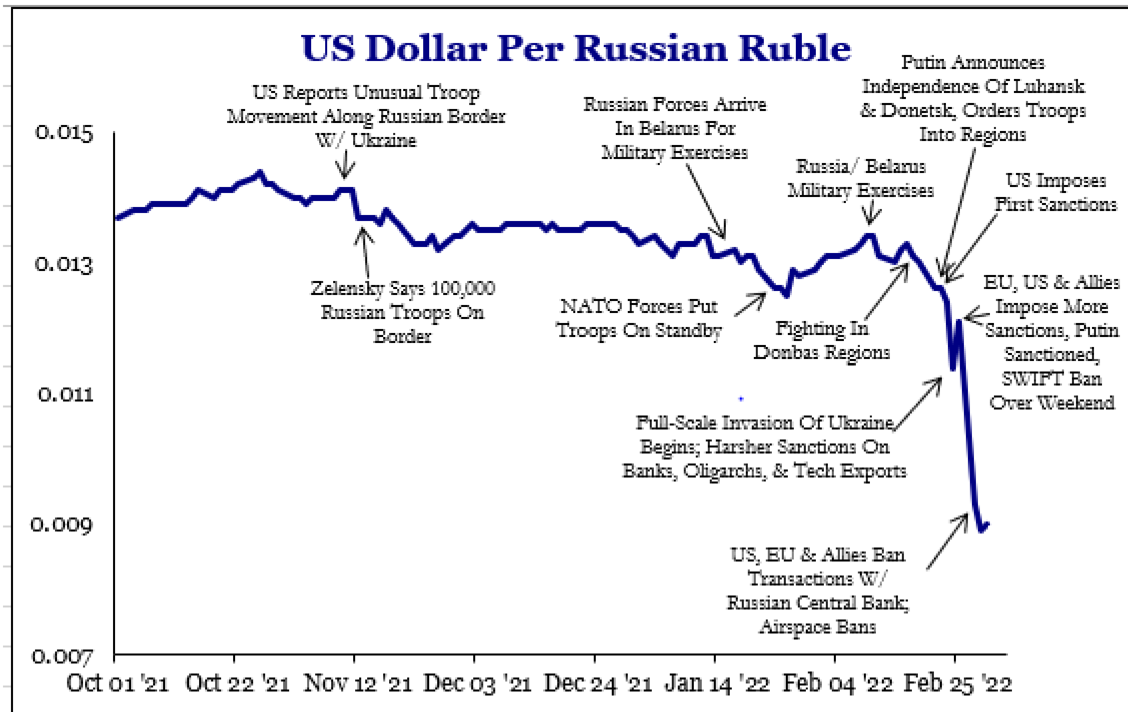
Russia's invasion of the Ukraine has undoubtedly raised investment risk and brought geopolitical concerns to the forefront. The VIX, or volatility index, has spiked above 30, and the price of a barrel of oil has risen above the $110 mark. We will certainly not pretend to be international war experts and recognize that this is a very fluid situation to monitor closely. Unfortunately, a big chess piece has been moved on the world stage, which is leading to loss of life and destruction. Russia is a nuclear power which further complicates the matter.

Outside of the obvious impacts of higher gasoline costs and higher commodity costs, there are other impacts to consider, such as the potential for financial contagion following global sanctions, the individual impact from companies withdrawing from Russia, as well as the potential reaction from China to the invasion. Putting sanctions on Russia is one thing……having a similar economic confrontation with China, should that ever occur in the future, would be something on a much more impactful scale to the global economy and financial markets.

It is important to remember that the collapse of LTCM in 1998 was in part due to the Russian financial crisis. Time will tell if there is a similar fallout given the dramatic moves in the Russian currency, interest rates, and their equity markets following stiff sanctions.

Interestingly, there seems to be a new modern-day economic warfront that was not present during the 1940s that is of real consequence. Russian oligarchs are having their assets frozen and yachts seized around the world, Russian investors are seeing the value of their assets collapse, global companies are pulling operations from Russia, etc.…China is likely sitting back and taking notes as they determine their global response and contemplate their interest in the South China Sea. Economic globalization has really changed the nature of modern day war.

Exhibit 2: US Dollar Per Russian Ruble Fiscal Year-to-Date



Source: Strategas

2) What is going to happen on the other side of the Fed liquidity mountain? Will there ever be another side? Has the Fed already made a policy mistake by allowing inflationary psychology to take hold?

The reality is that the S&P 500 index has been highly correlated with the Fed's balance sheet in the QE era. In some ways, it has been that easy in hindsight. Investors have benefited handsomely from staying long the SPX and QQQs so long as the Fed balance sheet is moving from the bottom left to the upper right. That balance sheet in the QE era has moved from less than $1 trillion in 2009 to close to $9 trillion today.

Putting $9 trillion into context: this is over $70,000 per American household of Fed balance sheet expansion, which is money which has basically been digitally created to buy bonds across the spectrum, including mortgage securities. This injection of capital into the financial markets has found its way into the liquid SPX and QQQs (which can both handle such a substantial amount of money on the liquidity front) as money has been crowded out of bonds by the Federal Reserve.

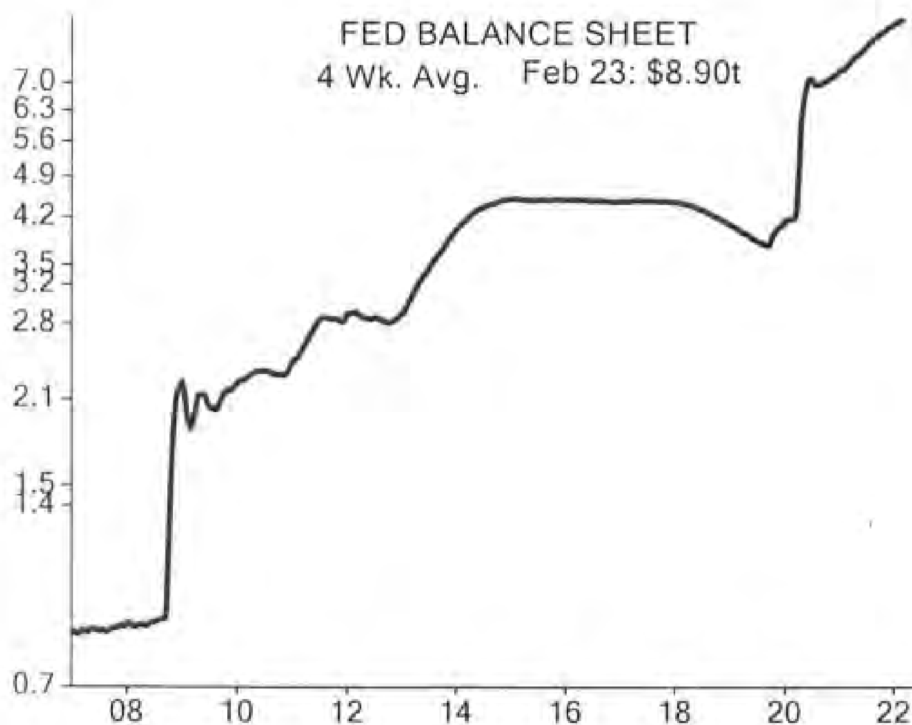
The Fed has attempted to shrink the balance sheet on several occasions over the QE years, and each time the equity market has not responded well. The last time was in 2018 when the market sold off into the end of the year before the Fed cranked up the QE engine again in response to the selloff. This response function has come to be known as the "Fed put."

The difference today versus times in the past is we have the highest inflation in 40 years which is a SIGNIFANT political problem for the party in power as we head into the

midterm elections. This fact, combined with the exploding wealth gap in society, makes this time different. At a recent middle school baseball game for my son, a spectator yelled at the umpire in disgust by telling him that the pitch “was higher than gas prices!” So, the folks are taking notice, and the umpire registered the point.

We have not seen true persistent inflation in most of our investment lifetimes. However, we have been warned that the inflation genie is hard to put back in the bottle without creating a recession. Has Powell already made the policy mistake before even raising rates? Time will tell.

Exhibit 3: US Fed Balance Sheet in the QE Era



Source: Evercore ISI

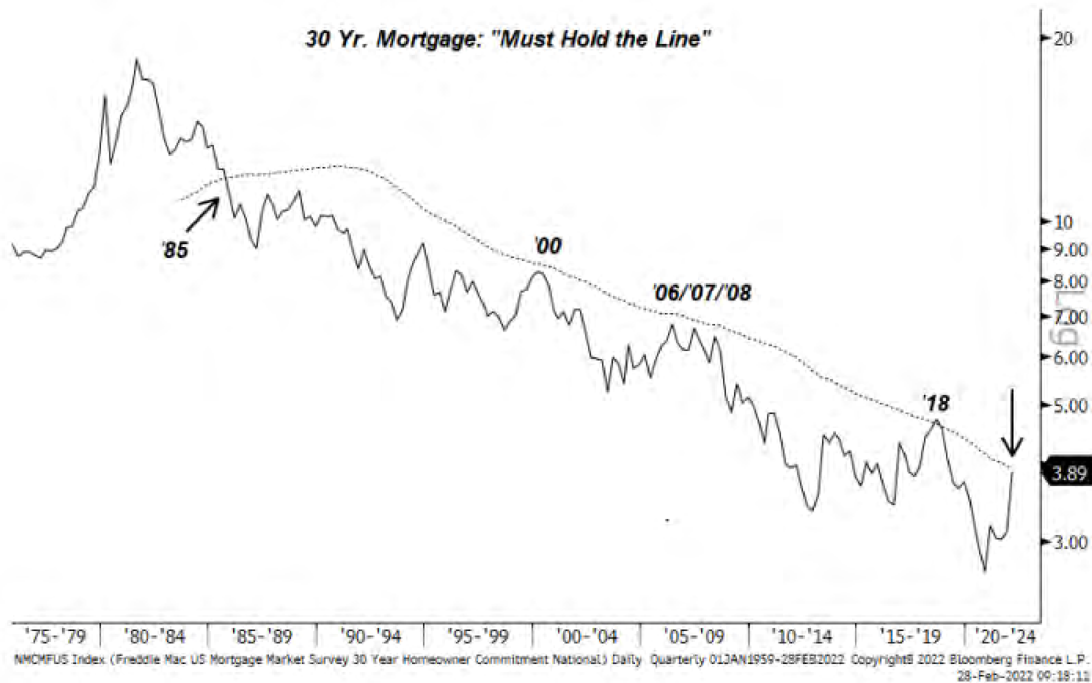
3) What would higher interest rates over time mean for U.S. equities?

While higher interest rates are not guaranteed by any means, it seems logical that if the entity that has been buying billions and even trillions of bonds exits stage right at some point in 2022, then interest rates could certainly need to move higher to entice new buyers in the face of inflationary pressures eroding the value of the income of the bonds.

Steadily rising rates would certainly be something different for markets. Like most things, some companies would benefit, and some would get hurt. Lenders would benefit, and borrowers would get hurt. As an example, in a recent *Capitol Journal* episode, it was interesting to hear from State Treasurer Boozer how a rise in short term

interest rates would be a significant positive for the general fund budget given the cash rich situation in which the state of Alabama currently finds itself.

Exhibit 4: Chart of US Mortgage Rates



Source: Evercore ISI

4) There are some stark similarities to 1939, 1972, and 2000 – Major growth peaks in U.S. equity markets

Following the recent doubling of the Fed balance sheet and negative real interest rate situation, growth assets are priced extremely rich relative to more value-oriented, cash flow, and dividend yielding assets. The situation is quite extreme and shares many similarities with the three large growth equity asset peaks of the 20th century.

The first growth asset peak occurred in 1939 when Germany invaded Poland to start World War 2. The similarities with the current Russian invasion are unmistakable.

The similarities with the peak of the Nifty Fifty era are certainly there as well given the concentrated nature at the top of the market dominated by the top 10 growth tech-oriented or quasi-tech companies such as Tesla as an example. The current inflationary backdrop is also similar to this period.

The similarities to 2000 are present as well with the concentrated technology nature of the top of the market combined with significant speculation in pockets of financial markets. NFTs and cryptocurrencies are arguably today's dot coms. Antitrust is once again a major focus in the same way that is was in 2000.

Could 2022 mark a similar type peak in growth? 1973-1977 and 2000-2002 are the greatest multi year periods of value investing in United States history. If history repeats itself or at least halfway rhymes, then perhaps the best active call one could make is a rotation to value-oriented stocks using the strong growth performers at the top of the current market as the source of funds.

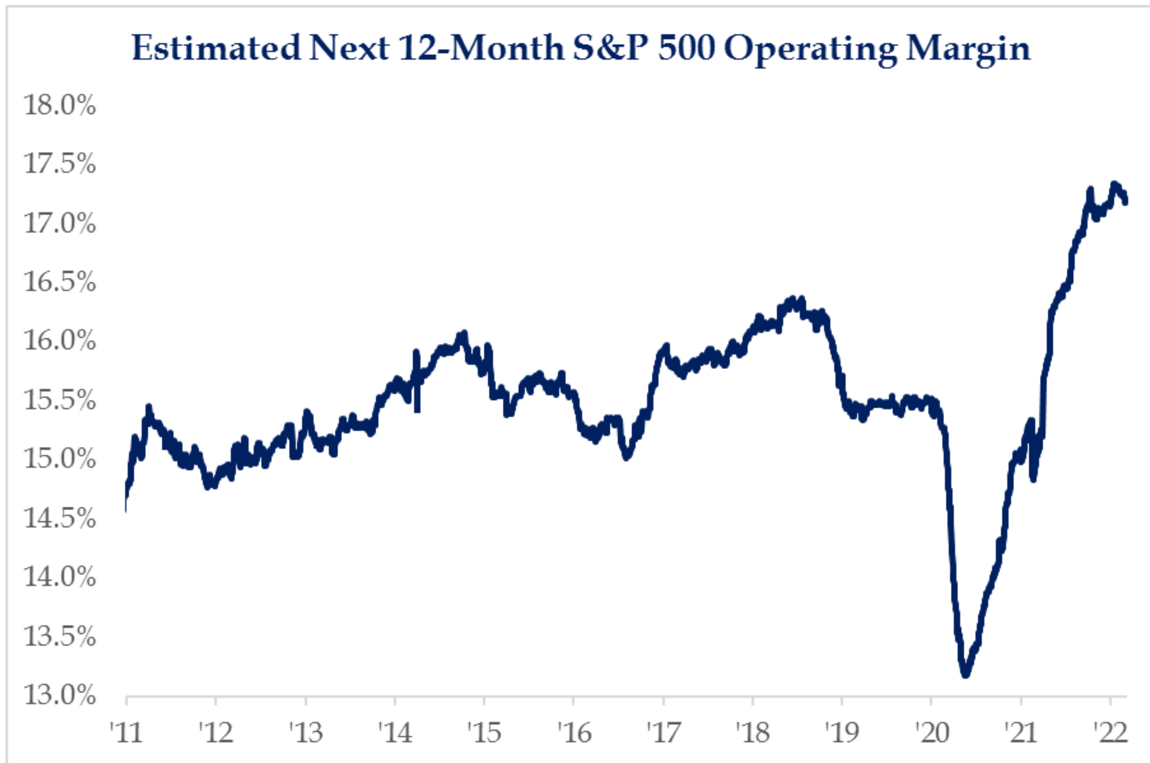
Exhibit 5: Major Growth to Value Rotations in the US Equity Markets

Source: Stifel Nicholas – Barry Bannister

5) Margin tailwinds are becoming margin headwinds

Profitability margins have been setting records for some time in the S&P 500. This is in part due to the changing nature of the markets from more industrial type companies to information technology companies but has also been driven by beautiful disinflation, lack of labor power, globalization, and falling borrowing costs. All these things are working in the opposite direction now! We currently have unhealthy inflation, labor is gaining power as evidenced by Target now offering $24/hour to in-store workers, globalization and just-in-time inventory supply chains are breaking down, and borrowing costs have likely bottomed. The affects of these changing winds will be evidenced over time; however, it should be noted for investors that we are unfortunately losing some of these profitability tailwinds, which have been at the back for equity investors since the early 1980s.

Exhibit 6: Estimated Operating Margin of the SPX – Is it Too High?

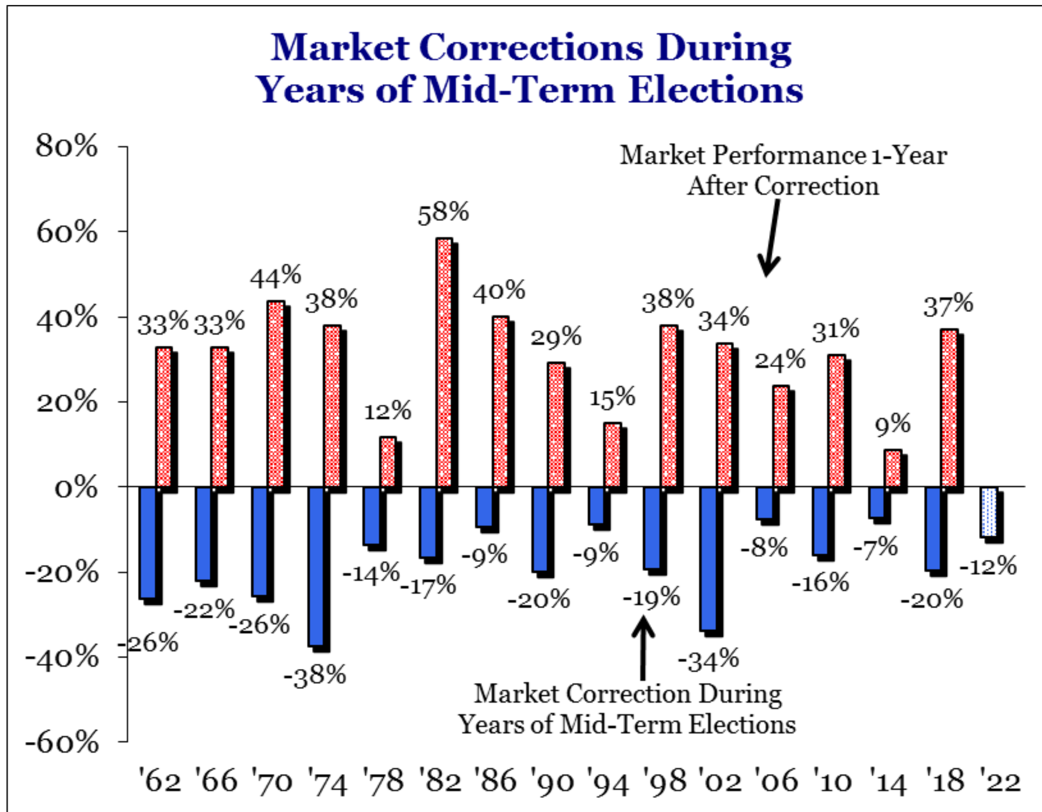


Source: Strategas

6) Midterm election years are historically choppy

Midterm election years are not typically the smooth years that year 3s of the presidential cycle tend to be. Historically, midterm election years consist of at least one 10%+ drawdown, and this year has already hit that milestone.

Exhibit 7: Historical Midterm Election Year US Equity Performance

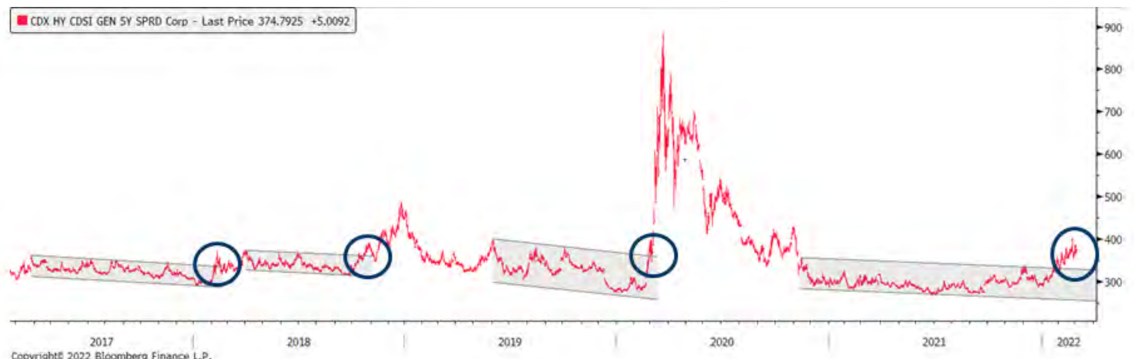


Source: Strategas

7) Credit is weakening, which is a concern

Strong credit markets are really the lynchpin to bull markets, and whenever credit weakens, the market has been weakened. Bond yields have been steadily falling for the better part of four decades, and credit spreads were tightened to historically low levels during the recent QE explosion. These credit spreads have started to normalize and turn higher, which warrants close monitoring.

Exhibit 8: Credit Spreads Are Breaking Higher



Source: Wolfe Research

8) Markets are unhealthily top heavy in large part due to market cap weighted indexing

As money has come into the financial system, it has largely piled into the S&P 500 index and the QQQs, as these indices are large enough and liquid enough to handle such large sums of money in short order. While this has been good for our equity returns, the nature of market cap weighted indexing has fed on itself to push the top names higher and higher and higher as more and more dollars buy the top of the market – this is what market cap weighted indices do with inflows! Should funds flows reverse on the other side of the QE mountain, these very same dynamics could very well work in reverse. The current S&P 500 index is unhealthily top heavy.

Here are the top 5 weights in the SPX:

Apple 7.0%
Microsoft 6.1%
Alphabet 4.2%
Amazon 3.6%
Tesla 1.9%

So, basically, 5 names represent almost a quarter of the entire index!

9) Is Gold a better hedge moving forward than bonds?

We have looked at this question in the past, and the answer could very well be yes, but pension checks are not paid in gold, and there is the real question as to whether or not we could feel comfortable with a gold position in a relevant size. We decided we prefer to have select exposure to liquid gold miner equities instead, which are highly correlated with the price of the underlying metal rather than a direct gold position.

Exhibit 9: Bullish Technical Setup for Gold

SENTIMENT NOT A THREAT FOR GOLD, CONTINUE TO LIKE IT LONG

Source: Strategas

10) What will the reopening of the economy look like? Will this put further pressure on inflation, or will reopening be part of the inflation cure? Will Covid finally be treated as a treatable endemic instead of a pandemic?

With the CDC recently dropping the mask mandate and airlines looking to potentially drop the mask mandate later this month (combined with the fact that forced masking is not a political winner for the Democrats on top of their inflation problems), what does a reopening of the economy and the associated workforce look like in the remainder of 2022? While the airlines removing forced masking is not a done deal, the recent State of the Union with very few masks and lots of handshakes and close contact combined with the blowback from the Super Bowl and the "rules for thee, but not for me" criticisms seem to have given some cover for a resumption of normal operations to the travel industry and employers.

This is a topic with many moving parts and questions which we have touched on in past updates. Will population migration to warmer, more tax-friendly areas continue? Will travel resume as normal? What does the future of work and the office look like? Will supply chains come back home?

While we have control over some of these questions, we also rely on foreign nations returning to normal operations as well in order to alleviate some of the supply chain issues currently facing many different industries, not the least of which is the very important semiconductor industry.

Equity Strategy Moving Forward

More so than the market going up or down, the nature of the US equity market certainly seems to have subtly changed over the last year or so. The market has transitioned from clear technology leadership to other areas of the market, such as energy and financials, as an example. Consumer staples are now starting to outperform consumer discretionary names, which is another subtle change under the surface. Additionally, it is noted that the dividend yield on the S&P 500 is no longer north of the 10-year treasury yield, so the TINA or "there is no alternative" narrative could break down a little in the future.

Moving some equity money out of the market cap weighted S&P 500 into an equal weighted S&P 500 index is certainly something under discussion and on the table to protect against the concentrated nature of the traditional S&P 500. Further increasing our tracking error in the active funds away from the top of the market and toward value and dividend oriented equities is also a strong consideration.

While traditional financial analysis as taught through the CFA curriculum has not been in vogue during the QE era, which has caused many traditional forms of analysis to breakdown (ex: a DCF with negative real interest rates is an issue), we expect this will reverse moving forward as a cost of money returns to society and cash flow and dividends play a greater role in investor returns as they have for much of financial

history prior to the QE era. Importantly, equity cash flow and dividends do not have the same duration risk that fixed income instruments carry in a rising rate environment.

International Equity Strategy

By Steve Lambdin

Global equities shook off a very weak third quarter and rose nicely in the fourth quarter to finish a strong 2021 as many equity markets were near record highs. Government stimulus measures and robust corporate earnings growth provided the fuel for a lot of these gains. We found this to be impressive as central bank policies were set to change in early 2022, rising inflation in many parts of the world, persistent supply chain problems, and the rapid spread of the Omicron coronavirus. We saw a meaningful pick up in volatility in the period as investors seemed to be very nervous regarding the issues just mentioned above. Developed markets significantly outperformed the emerging markets as weakness in the Chinese and Russian equity markets were too much to overcome. The European Central Bank (ECB) followed the pivot done by the US Federal Reserve (FED) and signaled a more stringent shift in bond purchase curtailments, while the Bank of England (BOE) surprised us with an interest rate increase in December. These actions seem to follow many inflation readings that indicate this is much more than just transitory and much more than a short-term issue. Rising copper and nickel prices created havoc in the manufacturing sector around the world. Meanwhile, we saw little progress with supply chain issues in the quarter as global inventory needs and the logistics around them remain in a mess, especially with semiconductor needs. Also, China's economy slowed down from the ongoing government regulation on the technology and real estate sectors of the economy. Outside of the emerging markets, the trend of economic data points in the quarter indicated a robust recovery remained firmly in place. Geopolitical tensions weighed on sentiment in the period as Taiwan and Ukraine remained an issue with most investors. No doubt the early part of 2022 will provide a lot to worry about.

	December 2021		4Q 2021		Full year 2021	
Equity index returns (%)	U.S. dollar	Local currency	U.S. dollar	Local currency	U.S. dollar	Local currency
S&P 500	4.5	4.5	11.0	11.0	28.7	28.7
MSCI ACWI	4.0	3.7	6.7	7.0	18.5	20.9
MSCI ACWI ex USA	4.1	3.4	1.8	2.7	7.8	13.0
MSCI World	4.3	4.0	7.8	8.1	21.8	24.2
MSCI Emerging Markets IMI	2.2	1.8	–1.0	–0.5	–0.3	2.3
MSCI EAFE	5.1	4.3	2.7	3.9	11.3	18.7
MSCI Europe	6.6	5.1	5.7	6.5	16.3	22.6
MSCI Pacific	2.4	2.8	–2.7	–0.8	2.6	12.0

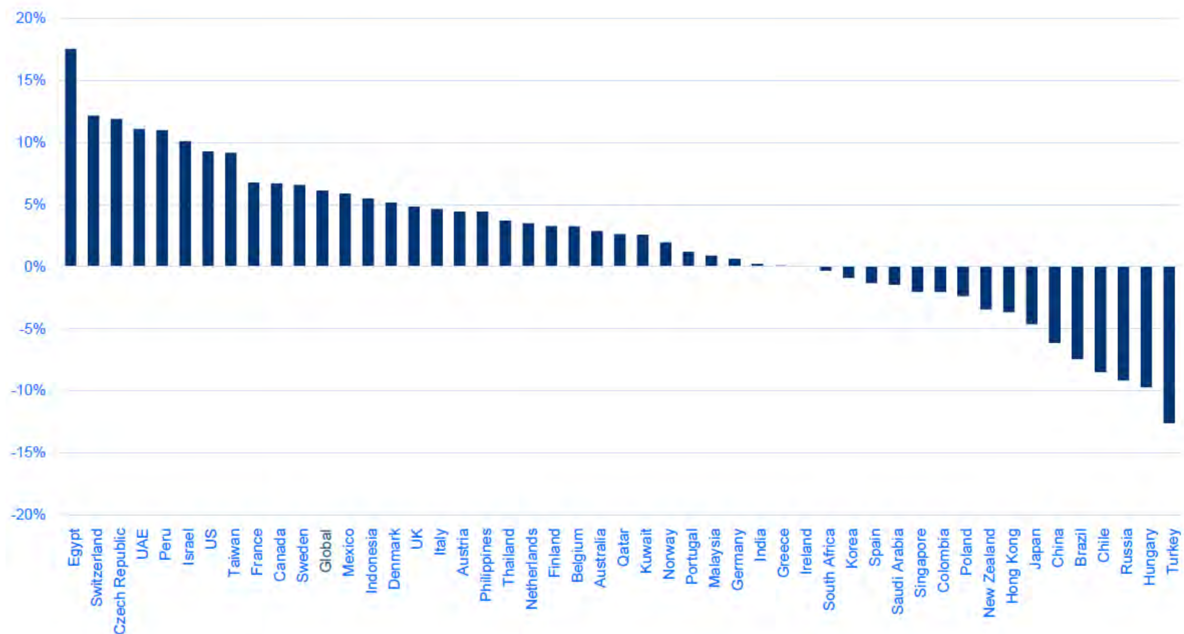
Source: RIMES; Capital Group

The MSCI EAFE Index (net dividend) and the MSCI Emerging Markets Index returned +2.69% and -1.31% respectively during the fourth quarter of 2021 vs. +11.03% for the S&P 500 Index. Investors still preferred the investment case for U.S. stocks vs global

stocks by a wide margin in the period. The U.S. dollar continued to rise in the fourth quarter and depressed returns by -1.2% for unhedged U.S. investors in the MSCI EAFE Index. The European region significantly outperformed the Pacific region as the Japanese equity market reversed course from the previous period as supply chain issues and concerns around the Omicron virus pushed this market down. Nine out of the eleven sectors of the MSCI EAFE Index had a positive return, led by materials, utilities, and consumer staples. Also, commodities cooled just a bit as the Bloomberg Commodity Index fell by -1.56% in the period, led by natural gas's fall of -39.8% after the strength from the previous quarter.

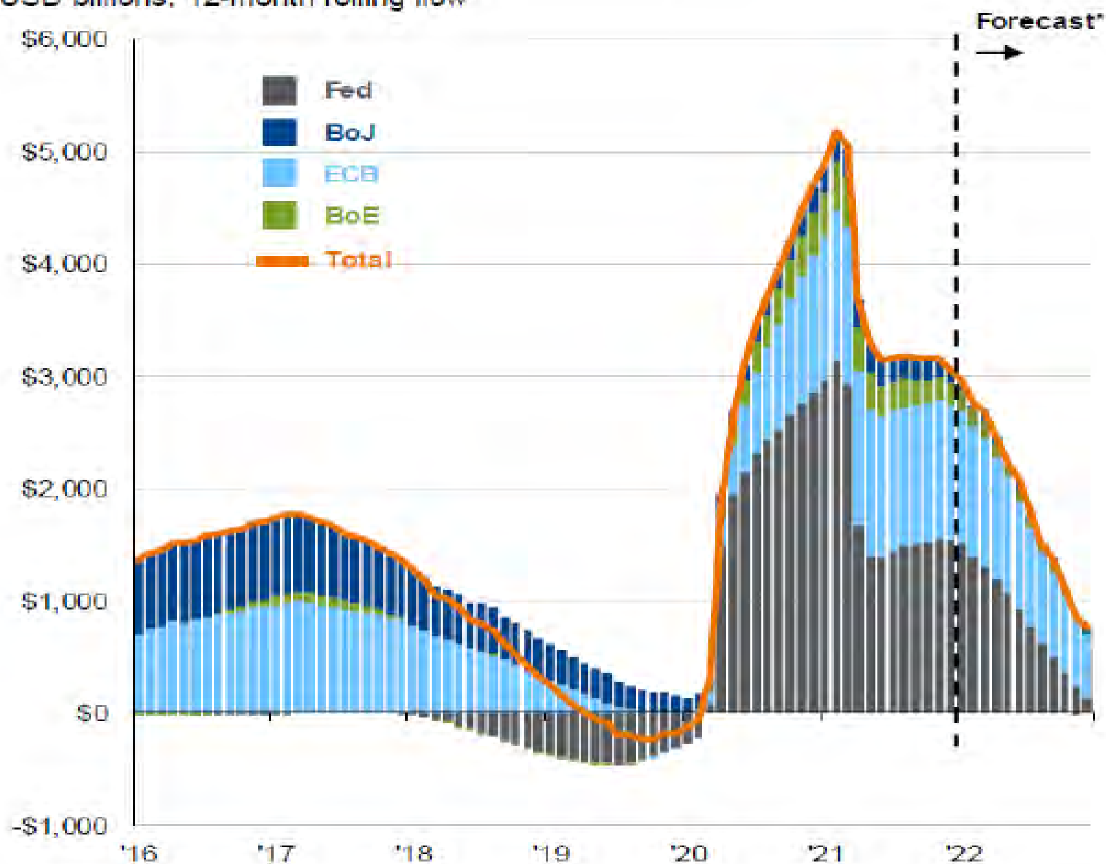
Country Returns

Fourth Quarter 2021 Index Returns



Sources: Resource Consulting Group, MSCI

Quarter-to-date thru the end of February, most global equity markets have moved significantly lower as major pivots in central bank policies caught most investors by surprise as well as a major turn for the worst with the invasion of Russian military forces into Ukraine. This is a tense situation currently with no clear vision of a peaceful outcome. The world is watching in horror as this unfolds, and a multitude of possible directions are possible over the near term. This will push investors out of risky assets such as equities into safer options of government debt. This will make for an extremely volatile market environment. The MSCI EAFE Index, the MSCI Emerging Markets Index, and the S&P 500 Index are down -6.4%, -4.8%, and -8% respectively so far.

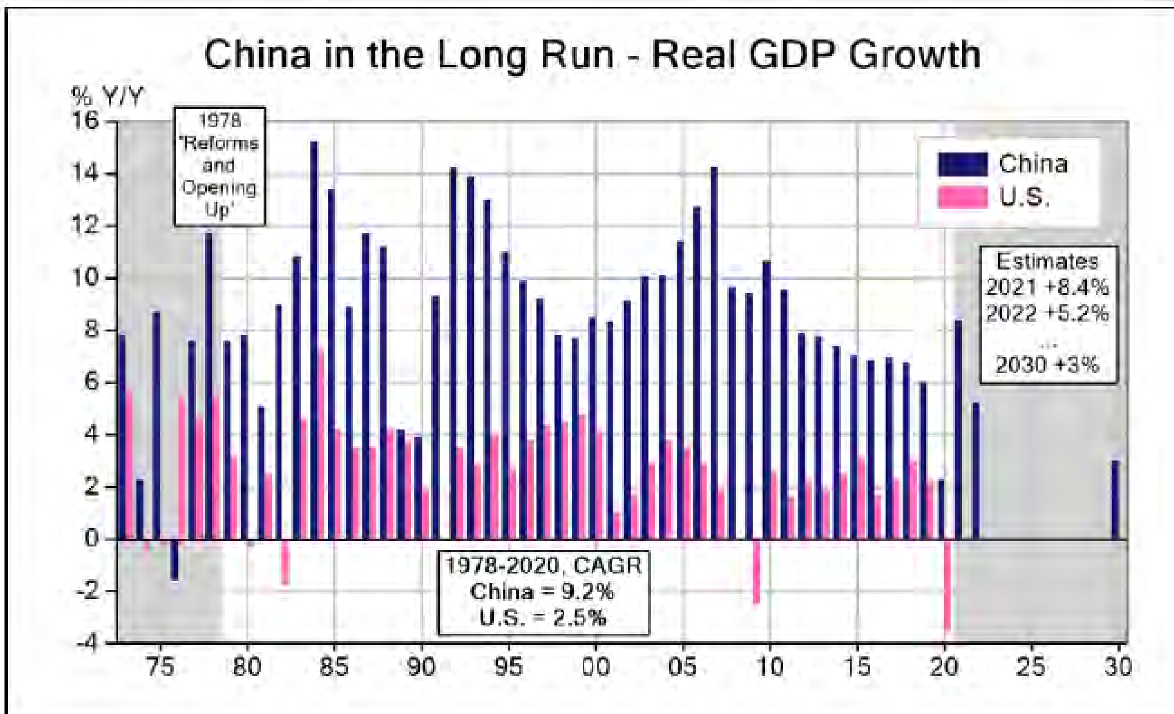


Source: Eagle Global Advisors, BIS, Factset, JP Morgan Asset Mgmt.

Asia Update

The Asia-Pacific region struggled in the fourth quarter as the Japanese equity market fell -4% in the period as the Omicron coronavirus variant continued to impact this economy, and very little relief was seen in the supply chain problems that plague many industries. The government temporarily closed its borders to foreign visitors in November for a short period of time to fight this variant. In order to counter the effects of this virus, government officials presented a 56 trillion Yen stimulus package to support the economy. While investors may have wanted a bit more, we see this as a good step forward to solidify the prospects for economic growth as we move thru 2022. In addition, the equity markets in Hong Kong, Singapore, and New Zealand were weak in the period as these countries continued to struggle with their own economic and social issues. Overall, the MSCI Pacific region fell -2.7% in the fourth quarter, making this the worst performing region in the MSCI EAFE Index.

The expected slowdown in China's economy wasn't quite as bad as expected as fourth quarter GDP rose +4.0% from the previous year. Industrial production surprised investors to the upside as GDP growth would have been much worst. This is still a slowdown from the previous quarter and a clear indication of weakness this economy is experiencing from the continuing government crackdown on technology companies and the lingering effects of the Omicron coronavirus. We expect major infrastructure projects to begin over the next several months to provide fiscal support for the economy. In addition, the People's Bank of China (PBOC) cut the required reserve ratio (RRR) as expected in January in order to boost growth going forward. This could be just the beginning of policy actions from the PBOC in 2022. Industrial production was stronger than expected recently as December production rose +4.3% from a year earlier after only rising +3.8% in November. Many economists expect this to stay steady in the coming months. Fixed asset growth continued to trend downward as December only rose +4.9% from a year earlier, the weakest reading of 2021. Property and infrastructure investments were put on hold in late 2021 as the Omicron virus continued to spread across the region. Exports continued to shine as December rose +20.9% from a year earlier to a record $340.5 billion. All types of Chinese goods remain in high demand as the world moves past lockdowns. Retail sales continued trending downward in the fourth quarter as December sales only rose +1.7% from a year earlier and was the weakest reading of 2021. Consumers are showing very little confidence with a great reluctance to spend in the current environment. January CPI rose only .9% from the previous year, which was the slowest rate of CPI growth over the last year. Food prices fell more than anticipated, and steel and coal prices rose much less than expected. This should give the PBOC plenty leeway to cut interest rates further and pump more liquidity into the financial system to provide support for the economy. Looking out over the next few months, we expect the growth outlook here to remain rather muted and perhaps come in below expectations. The property markets seem very weak, and consumers are cutting back on spending. These issues coupled with more government regulation of technology companies and the ongoing battles with the U.S. over trade could put a damper on growth expectations. However, a further re-opening of the world economies could help quite a bit. Equity markets could remain choppy over the next few months as these scenarios play out.



Source: Evercore ISI

The Japanese economy avoided a technical recession as fourth quarter GDP rose +1.3% from the previous quarter or +5.4% from the previous year. The region benefitted from better consumer spending and rising exports. Areas of strength were spending at hotels, restaurants, and entertainment. Supply chain issues eased by a fraction which helped the automobile industry. The state of virus emergency was lifted for a large part of the fourth quarter, which helped economic growth in the period. Exports were very strong in the fourth quarter as November and December were up +20.5% and +17.5% respectively. The value of shipments in December hit a record high going back over 40 years. For most of the fourth quarter, industrial production registered nice month over month gains, but December fell -1% from the previous month. This was probably due to the Omicron virus that hit late in the year. The weakness in December was mainly in machinery and transportation equipment, excluding automobiles. Better production could be limited in early 2022 until we see a break in the supply chain issues affecting most parts of the world. Japan's leading economic index gained momentum throughout the period and finished at 104.8 in December, the highest reading since July. We need to see this key data point continue in the same trajectory if we are to see a stronger economy in the region in 2022. Consumer confidence continued to struggle recently as January's reading fell to 36.7, the lowest level since August. Higher levels with this data point would be a relief for government officials. The labor market continued to be very stable in the quarter as the December jobless rate fell to 2.7%, while the jobs-to-applicant ratio stayed steady at 1.16 from a few months back. The government's fiscal support has kept the jobless rate

largely unchanged over the last several months. After a slow start to the year, we continue to expect an acceleration in economic activity in 2022 as past stimulus actions flow through the economy and most regions of the world move past the Omicron variant. Perhaps this will be good for the equity market here.

Sources: Evercore ISI

Europe Update

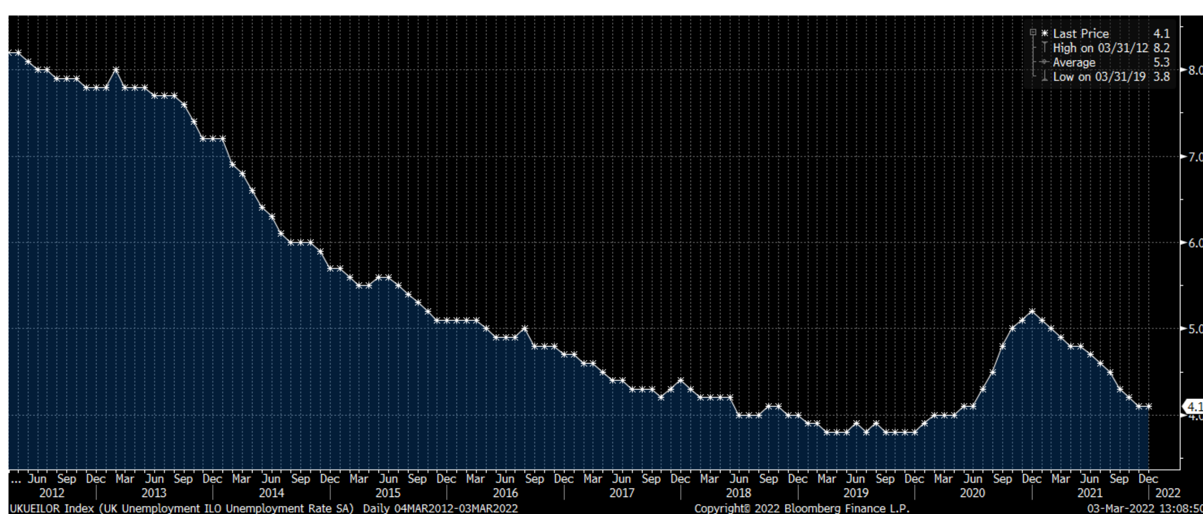
The eurozone equity markets forged ahead in the fourth quarter as strong corporate profits and economic growth pushed aside concerns over the Omicron variant with investors. The markets also endured a spike in inflation, a change in the bond buying stimulus program by the European Central Bank (ECB), and a change in leadership in Germany to make these gains even more impressive. The MSCI European Index (ex. U.K.) rose +5.7% and was the best performing major region in the MSCI EAFE Index. Results would have even been better had it not been for a strong U.S. dollar. The equity markets in Switzerland, France, and Sweden were very strong in the period, and the key German equity market trailed as political uncertainty peaked as the new chancellor Olaf Scholz survived a lengthy coalition process.

The European economy expansion slowed down in the fourth quarter as GDP rose +.3% from the previous quarter or +4.6% from a year earlier. As we saw in other regions around the world, the Omicron variant swept across the region. The German economy, which is Europe's largest, was hit especially hard as fourth quarter GDP contracted -.7% in the period. Also, supply chain bottlenecks remained a problem in the export driven German economy. But on a positive note, the economies in Spain and France surprised to the upside in the period. Across the Eurozone, we continued to see more and more people getting vaccinated, which was good for businesses seeking to bring more workers back into productive capacity. Eurozone industrial production did manage to improve marginally in November and December but remained below expectations and weaker than most expected. It's imperative to see this key statistic improve if we are to see a more robust recovery develop in 2022. Coming as little surprise, the economic confidence index continued to trend downward during the quarter as January fell to 112.7, which was the lowest level in nine months. Businesses just had little visibility as the early 2022 outlook made planning exceptionally difficult. Retail sales were weak also as December sales fell -3% from November. Lockdowns from the virus made for a difficult late Christmas shopping season. Inflation continued to move higher in the period as core CPI rose +2.6% in December from prior year levels. Headline inflation, which includes food and energy, was reported at +5% in the month. This is the highest levels we have seen in the Eurozone economy since its formation. Higher energy prices hit the region hard in the quarter. Unfortunately, headline inflation could push even higher in the coming months of early 2022. The December unemployment rate fell to 7.0%, which is the lowest level on record since the beginning of the Eurozone. Jobless claims continued to fall across the region as workers have become a bit scarce. However, we expect the supply of workers to increase in the coming months as government provided pandemic relief begins to wane off. Over the next few months, we see a growing economic recovery in the region but with a growing inflation problem that could get worse as higher energy prices filter through the economy. We believe we have pushed through most of the Omicron virus related weakness, and this should be good news for the region.

The U.K. equity market pushed aside the losses in the previous quarter and posted healthy gains in the fourth quarter, though it was a back and forth battle. We saw encouraging news on the Omicron virus front hit in December after a weak November. The more defensive areas of the market performed well in the period. The MSCI U.K. Index rose +5.6% in the quarter, which was right in line with the broader MSCI European Index. GDP growth rose +1.0% in the fourth quarter from the previous quarter, or +6.5% from a year earlier. For all of 2021, the U.K economy expanded +7.5%, which is the best since 1941 and made this economy the fastest growing advanced economy in the world. The economy should pass the 2019 output level sometime in 2022, even as growth slows down from the pace of the last year. Industrial production rebounded a bit in the quarter as November and December rose +1.0% and +.3% respectively, both above expectations. Pharmaceuticals, transportation equipment, and electronics were all areas of production strength in the quarter. Retail sales took a bit of a breather in December as sales fell -3.7% from November as consumers stayed at home to curtail the spread of the Omicron variant. We expect this to be short-lived as we move past this virus variant in the first quarter of 2022. We see a lot of pent-up demand from the consumer going forward. Core CPI has continued to march higher as December rose +4.2% from the year earlier period. We are seeing businesses passing along price increases from higher production and labor costs at an increasing rate. Outside of core inflation, we continued to see a spike in energy prices that have presented a lot of problems with the worse yet to come. Our fresh thoughts on inflation now brings us to expect even higher rates in the early part of 2022. At its early February meeting, the Monetary Policy Committee (MPC) voted to raise its main benchmark interest rate to .50% and will start to unwind its 895 billion pounds of bond holdings. The BOE is the first major central bank to begin a “rate hiking cycle.” This is

a direct effort to combat rising inflation in the region. We believe this will the first of several rate hikes that will happen through the course of 2022. The fourth quarter unemployment rate continued to move downward and fell to 4.1%, which was the lowest level since the spring of 2020. The labor market remains very tight, and we look for wage hikes in the +4% plus range as we move through 2022. Looking out to the first half of 2022, we expect the U.K. economy to cool off from the pace of 2021 but remain above past trend levels. Investors will be watching inflation readings very closely as energy prices are moving up meaningfully recently. This could put a bit of pressure on the equity markets in the region.

U.K Unemployment Rate

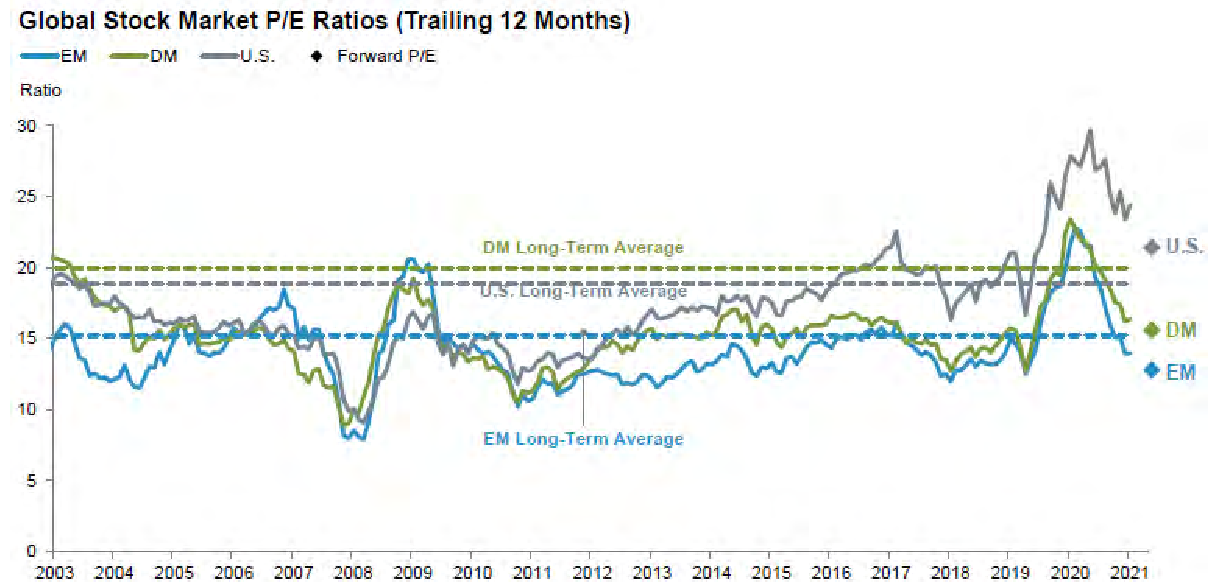


Source: Bloomberg

Emerging Markets

The emerging markets continued to push lower in the fourth quarter as China's economy cooled off, inflationary issues heated up, and a stronger U.S. dollar all came together to pressure these equities. Equity markets in Brazil, China, and Russia pushed lower in the period. Brazil continued to be plagued with significant inflation as this clouded the economic outlook in this country. Investors pushed the Chinese equity markets lower as increased regulation from the government as well as pressure from U.S. officials over technology, and fair trade made investors uncomfortable. The buildup of military forces on the Ukraine border served to push equities lower in Russia. With so many possible outcomes, investors are very nervous toward Russian equities. Overall, the MSCI Emerging Markets Index fell -1.0% in the fourth quarter of 2021, making it the worst performing equity asset class for the second quarter in a row.

Looking out over the next few months, investors will probably remain guarded and cautious toward this region until we see a de-escalation in Ukraine, comfort with China's growth trajectory and regulation issues, and a cooling of inflation projections going forward in many of the emerging markets.



Sources: Fidelity Investments AART; Bloomberg

International Equity Activity/Strategy

Heading into the next few months, we see several issues we believe will set the direction of equity markets over this time frame. At the forefront, is the ongoing Russian invasion of Ukraine. This situation can take many different directions and each with its own set of consequences. At the least, severe sanctions from the European Union and the U.S., as well as Russia's response to these could delay/derail the potential economic recovery set to happen in 2022. We don't know how severe these actions will be and what type of market response we will get. We can only wait. Also, how will the change in central banks actions affect the global equity markets? Investors are left to wonder how the markets will respond once the bulk of stimulus actions are curtailed. How far will interest rates rise and what inflation levels we be going forward are key questions and issues on investors' minds. At this point, we do see global economic growth slowing in 2022 and again in 2023 but still staying above long-term trend levels. We see this as good news even if inflation stays above trend levels. As far as the COVID-19 variant Omicron, most data points seem to indicate we are on the backside of this pandemic. Lockdowns are becoming fewer and fewer, and new infection cases are falling as well. This is certainly good news for the global economy. While supply chain issues have been much more of an issue than we expected a few months back,

most indications seem to be pointing to better times ahead in the third and fourth quarters of this year. This will also be a welcomed relief. Perhaps better clarity on these points will lead to better equity markets as this unfolds.

We continue to be very active with our put/call writing strategy on the Emerging Markets as we position ourselves to add to this asset class on any significant weakness over the near term. Premiums remain very attractive in the current equity market and the very low interest rate climate. Emerging market equities remain an asset class that looks attractive to us going forward over the long-term. Our current allocation to Emerging Market equities is approximately 3.30% of total assets and approximately 11.35% for MSCI EAFE equities across our TRS, ERS, and JRF portfolios. *(Credit is given to the following entities for charts provided: Eurostat, Morgan Stanley, Bloomberg, Fidelity Investments AART, Evercore ISI, Eagle Global Advisors, BIS, Factset, JP Morgan Asset Mgmt., RIMES, Capital Group, Resource Consulting Group, MSCI)*