1492 CAPITAL MANAGEMENT
DISCOVERING OPPORTUNITY

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IDENTIFY THEMES | FUNDAMENTAL ANALYSIS | TARGET VALUATION | GROWTH STRATEGY | VALUE STRATEGY | CORE ALPHA STRATEGY | VALUE INCOME STRATEGY

1492 Vantage Point Quarterly Newsletter

Welcome to 1492 Capital Management's newsletter for the first quarter of 2022. In each quarterly newsletter, we provide our perspective on the most recent quarter, preview what lies ahead, and offer a bit of market trivia.

Our corporate slogan is "Discovering Opportunity" which is our daily focus for our clients with our small cap strategies and our wealth management portfolios. Our investment professionals possess a tremendous amount of experience navigating through multiple market cycles. 1492's time-tested strategies are based on a three-step process of identifying investment themes from hundreds of meetings annually with company executives, extensive tire-kicking of the financial statements, and a rigorous valuation methodology.

An Already Complicated Backdrop Gets More Complicated by Ukraine War

As we stated in our fourth quarter 2021 newsletter, we thought this year was going to be tough sledding with PMI's peaking and with the Fed hiking interest rates. Nothing has changed here as more evidence points to PMI's topping out, and the Fed has started their hiking phase. Recent commentary from several FOMC members indicates that they are in favor of accelerating rate hikes to include 50 basis point hikes in the impending meetings on the calendar. The Ukraine war has clearly muddied the water on a number of fronts, which includes unanticipated commodity spikes, heightened geopolitical risk, and a massive destruction of a country and dislocation of millions of women and children into Eastern Europe. Despite this negative backdrop, the stock market has persevered remarkably well, albeit in negative territory for the quarter. The market peaked on the first trading day of the year and the S&P 500 (-15%) and Russell 2000 (-22%) then fell into correction and bear market territory from their respective highs. Interestingly, the S&P 500 pulled off a feat that has only happened about 10 times in its history. The index appreciated 11% in 11 days in the midst of all of this chaos which just goes to show you why market timing is so difficult. What is even more interesting is that the rally off the bottom in the S&P 500 began on the day that Russia launched their invasion of Ukraine on February 24, and the historic 11-day run started on March 15. Not to be left out of the discussion, the NASDAQ Composite index had its largest single day point gain of 886 points on February 24 with an intraday swing of over 7% -- one of the biggest in history. Clearly the market sold the rumor and bought the news of the invasion. COVID appears to have finally faded in the U.S., but recent COVID lockdowns in China could hamper an already fragile supply chain. All of these cross currents netted out to a modest loss for the S&P 500 of -4.6% which continued to outpace the Russell 2000's decline of -7.5% for the quarter.

As stated above in our newsletter title, the backdrop has become increasingly complicated with inflation surging, the Fed hiking rates, Russia invading Ukraine, COVID flaring up, and demand waning from very high levels. We'll attempt to cut through all the noise and hyperbole and offer what we are focusing on as we navigate a very tricky environment.

Please read on to see our unique views of what's on tap for the balance of 2022, what some of the key themes are that we're investing in here at 1492, what we believe the key stock market drivers will be, and indulge in some stock market trivia. We will be providing our strategy webinars and detailed performance information on 1492's strategies in a separate email in the

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coming week. If you would like to discuss any of our strategies with us, please contact Tim Stracka at 414-238-3398.

Review of the Quarter: An Already Complicated Backdrop Gets More Complicated by Ukraine War

As we stated in our fourth quarter 2021 newsletter, we thought this year was going to be tough sledding with PMI's peaking and with the Fed hiking interest rates. Nothing has changed here as more evidence points to PMI's topping out, and the Fed has started their hiking phase. Recent commentary from several FOMC members indicates that they are in favor of accelerating rate hikes to include 50 basis point hikes in the imminent meetings on the calendar. The Ukraine war has clearly muddied the water on a number of fronts, which includes unanticipated commodity spikes, heightened geopolitical risk, and a massive destruction of a country and dislocation of millions of women and children into Eastern Europe. Despite this negative backdrop, the stock market persevered remarkably well, albeit in negative territory for the quarter. The market peaked on the first trading day of the year and the S&P 500 (-15%) and Russell 2000 (-22%) then fell into correction and bear market territory from their respective highs. Interestingly, the S&P 500 pulled off a feat that has only happened about 10 times in its history. The index appreciated 11% in 11 days in the midst of all of this chaos which just goes to show you why market timing is so difficult. What is even more interesting is that the recent rally off the bottom in the S&P 500 began on the day that Russia launched their invasion of Ukraine on February 24, and the historic eleven-day run began on March 15. Not to be left out of the discussion, the NASDAQ Composite index had its largest single day point gain of 886 points on February 24 with an intraday swing of over 7%, which is one of the biggest in history. Clearly the market sold the rumor and bought the news of the invasion. COVID appears to have finally faded in the U.S., but recent COVID lockdowns in China could hamper an already fragile supply chain. All of these cross currents netted out to a modest loss for the S&P 500 of -4.6% which continued to outpace the Russell 2000's decline of -7.5% for the quarter.

The war in Ukraine has brought about a number of concerns, not the least of which is the unprovoked devastation of a country and its people that will likely take decades to return to some form of normalcy, if ever. We won't focus on the war itself but on the financial implications that have and will come out of such an invasion. Unfortunately, history is littered with a significant number of invasions and wars. Interestingly, the stock market has reacted very consistently to prior major geopolitical events/war as shown in the chart below left. Through quarter end, the S&P 500 has rebounded +5.6% since the start of the Ukraine invasion which is ahead of the historical averages. The chart on the right shows the performance of the Russell 2000 following bear market corrections like the one we just experienced. Forward returns are quite attractive following these episodes, but did we already see the bottom or is there more downside to come?

S&P 500 Performance
Around Select Geopolitical/Military Events

Date	Geopolitical/Military Event	Total Return After Event +1Mo	+3Mos	+6Mos	+12Mos
12/7/1941	Pearl Harbor	-1.0%	-10.2%	-7.2%	7.3%
10/31/1956	Suez Canal Crisis*	-1.1%	-1.0%	2.2%	-6.4%
10/20/1962	Cuban Missile Crisis	8.7%	18.4%	26.7%	36.3%
10/17/1973	Arab Oil Embargo*	-5.3%	-10.7%	-12.6%	-32.6%
11/3/1979	Iranian Hostage Crisis	3.7%	13.8%	5.9%	32.8%
12/25/1979	U.S.S.R. In Afghanistan	6.0%	-6.7%	11.5%	33.1%
8/3/1990	Iraq Invades Kuwait	-6.1%	-8.7%	1.3%	16.2%
1/17/1991	Gulf War	12.9%	20.0%	18.1%	31.8%
8/17/1991	Gorbachev Coup	0.3%	0.0%	8.6%	12.5%
2/26/1993	World Trade Center Bombing	1.2%	3.0%	5.5%	8.1%
9/11/2001	9/11*	0.6%	4.4%	7.7%	-15.5%
3/20/2003	Iraq War	2.2%	14.2%	19.3%	28.9%
2/20/2014	Annexation of Crimea	1.9%	2.3%	9.1%	17.1%
	Average	**1.9%**	**3.0%**	**7.4%**	**13.0%**

*Economy was in a recession at some point during the measurement period.

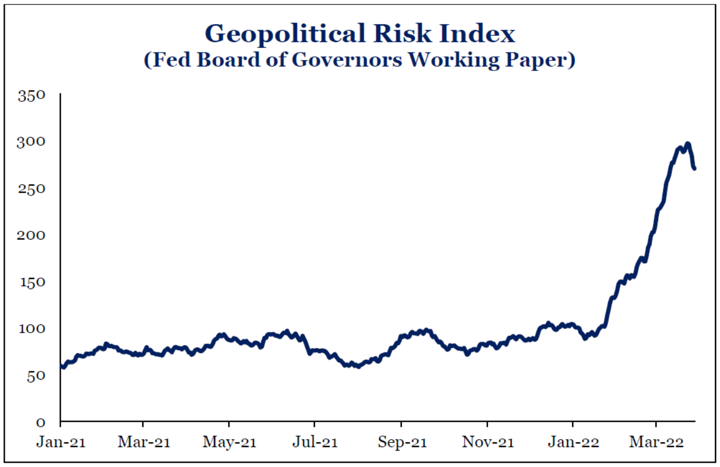
Source: Strategas Research

Russell 2000 Forward Peformance from Bear Market Bottoms

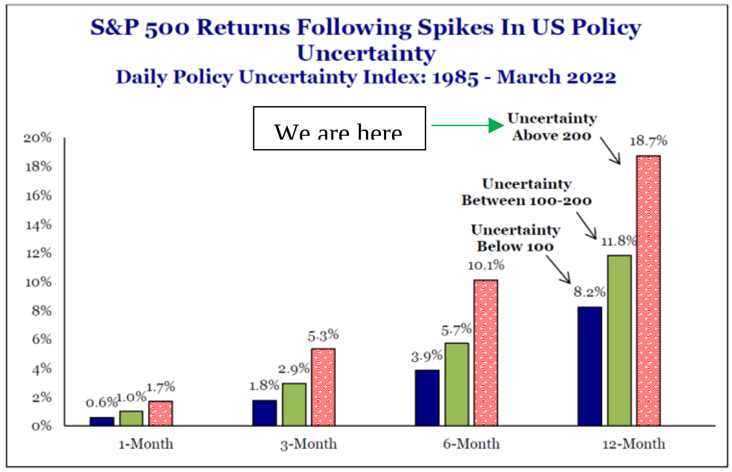
Bear Market Start	Bottom	Price Chg. From Peak (%)	R2 Absolute Price Change (%) Fwd. 6M	Fwd. 1Y	Fwd. 2Y (An.)	R2 Price Change Relative to SP5 (%) Fwd. 6M	Fwd. 1Y	Fwd. 2Y (An.)
02/08/80	03/27/80	-26.7	60.1	75.2	20.7	29.1	38.1	14.0
06/15/81	08/12/82	-29.2	62.1	92.4	30.6	20.6	34.7	4.9
06/24/83	07/25/84	-26.0	18.7	30.5	23.3	-0.4	1.8	-3.2
08/25/87	10/28/87	-39.1	36.5	39.7	26.6	23.9	19.1	5.4
10/09/89	10/31/90	-34.0	45.7	54.0	28.9	20.5	24.7	11.4
04/21/98	10/08/98	-36.9	32.7	37.7	25.6	-8.9	-1.5	4.4
03/09/00	10/09/02	-46.1	13.9	59.4	32.9	1.7	25.7	12.6
10/09/07	03/09/09	-59.4	66.2	95.1	55.0	16.0	26.5	15.2
04/23/10	07/06/10	-20.5	35.3	42.6	17.8	11.6	12.5	2.2
04/29/11	10/03/11	-29.6	37.0	37.9	33.0	8.4	6.4	9.0
06/23/15	02/11/16	-26.4	28.9	45.6	25.0	9.4	19.0	4.5
08/31/18	12/24/18	-27.2	19.8	32.4	25.9	-4.1	-4.7	0.6
02/20/20	03/18/20	-41.6	56.6	128.8		15.4	65.5	
11/08/21	01/27/22	-20.9						
		Average	**39.5**	**59.4**	**28.8**	**11.0**	**20.6**	**6.7**
		Median	**36.5**	**45.6**	**26.2**	**11.6**	**19.1**	**5.2**

Source: Furey Research

Geopolitical tensions have clearly been rising and take us back to the days of the cold war. The chart below left shows how the geopolitical risk index has moved significantly higher since the start of the Ukraine war. Similar to the charts above, the chart below right shows how the market performs following a spike in the geopolitical risk index. The greater the spike in the index, the larger the forward year returns are. In the chart below left, the risk index shot well above 200 so if history holds, we should have stock market returns that approach 19% over the next year. We think most investors would settle for that performance.

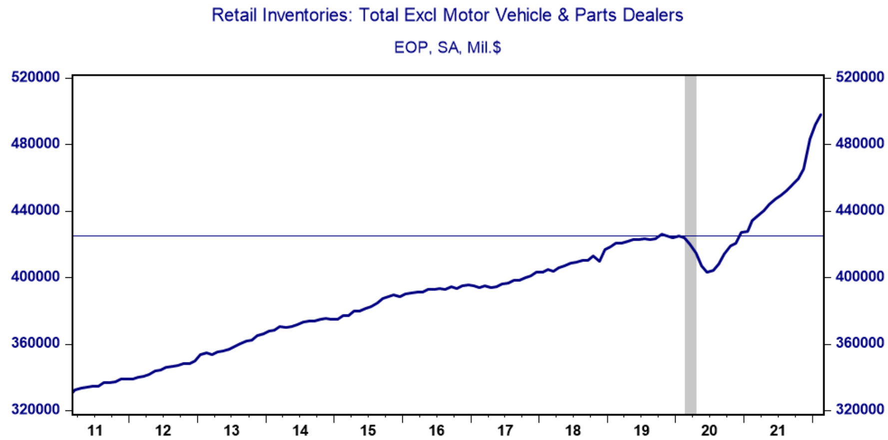


Source: Strategas Research

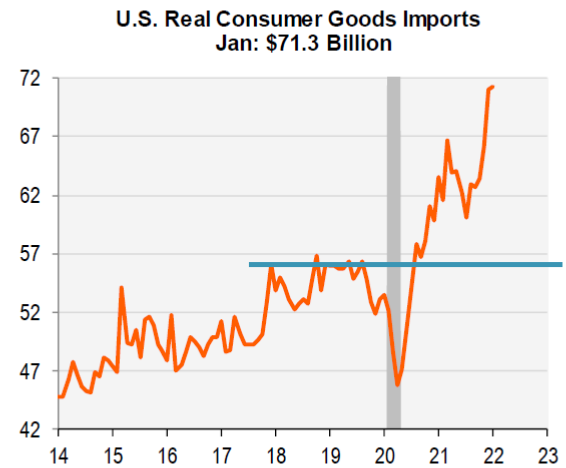


Source: Strategas Research

The recent COVID lockdowns in China bring the focus back to the supply chain woes that have plagued the post-pandemic recovery. China battles regional COVID outbreaks that pale in comparison to the numbers in the U.S. They continue to employ a zero-tolerance policy, locking down cities and neighborhoods as COVID cases appear. This policy has caused some renewed angst for any companies sourcing goods from China. Despite investors' concerns over supply chains, the statistics show a significant recovery has already occurred. The one area that remains constrained, but improving, is the semiconductor chip shortage. This shortage continues to wreak havoc on the automotive industry, and they continue to have production curtailed due to an inadequate supply of chips. Given the size of the auto sector, this curtailment is still a major economic headwind globally. However, examining inventories excluding autos depicts a very different story. As the chart below left shows, inventories are now significantly above trendline over the past decade. For much of the pandemic, retailers had a difficult time keeping up with the insatiable demand for goods as homebound Americans shopped to their hearts content. This surge may be foreshadowing a looming slowdown as retailers and the like realize that they have too many goods sitting on their shelves, which may bring back discounting that we haven't seen since pre-pandemic. Further, the chart on the right shows that consumer goods imports have been remarkably strong after plummeting earlier in the pandemic. This comment runs contrary to the narrative that the ports are clogged, and goods aren't entering the country.



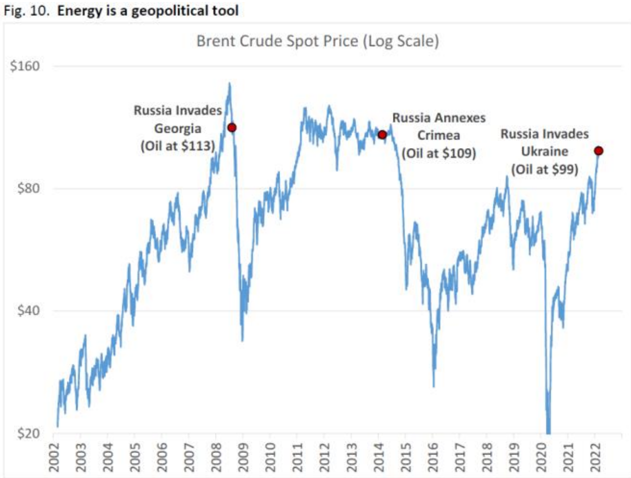
Source: Strategas Research



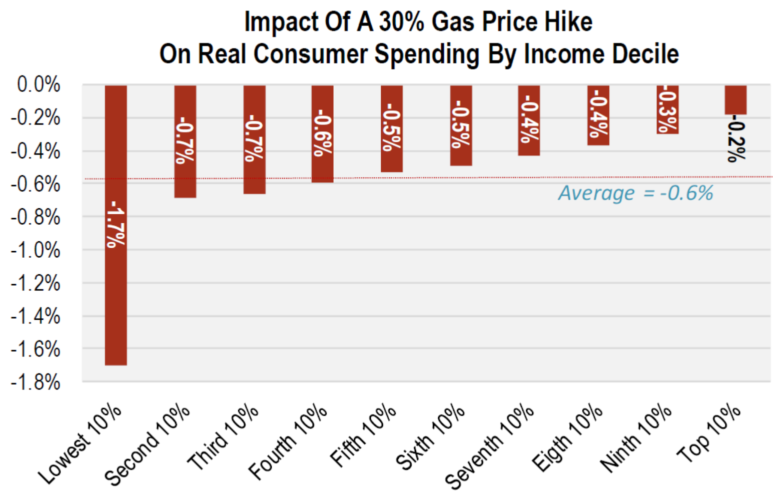
Source: PSC

One of the major consequences of the Ukraine war is the recent surge in oil/gas prices as the market prices in the absence of Russian oil and refined products. The price of a barrel of oil surged to $130/barrel following the sanctioning of Russia but has recently retreated to around $100/barrel. Everyday news outlets are proclaiming that oil and gasoline prices are at or near all-time highs. This commentary makes for great headlines and gets everyone worked up, but the truth of the matter is that the inflation-adjusted price of oil and gasoline is substantially lower than levels seen over the past 20 years. The chart below left shows the 20-year price history of crude oil. Many forget that in 2008 oil spiked to over $145 per barrel. *This spike would equate to $200/barrel in today's dollars or about twice as high as the price today.* It's interesting to note that all three of Russia's recent invasions have occurred when crude oil was near its peak – maybe it's just a coincidence. The chart on the right demonstrates what a 30% price spike means to the consumer. Clearly, a price increase of this magnitude acts as a tax on consumer spending as households can't cut energy consumption even as prices rise, so they have to reduce spending elsewhere. Price spikes have the greatest impact on the lowest income consumer.

Fig. 10. **Energy is a geopolitical tool**



Source: FRP, FactSet; as of 2/28/22



Source: PSC

Despite all of the issues discussed above, the stock market had a modest pullback in the first quarter. As can be seen in the table below, for the fourth quarter in a row, the returns for the stock market in the first quarter were stronger for the larger market cap stocks with the S&P 500 down -4.60% and with small caps falling -7.53%. However, the Russell 2000 Value Index return (-2.40%) fared better and was ahead of the S&P 500. The Russell 2000 Growth Index had a weaker performance compared with the other indices as higher valued secular growth stocks continued their selloff which started just about one year ago. The best performing major index in the quarter was the S&P 500, as the tech-heavy NASDAQ Composite index continued to falter with a -8.95% return. As inflation surged, many energy, material, and industrial stocks performed well and are more heavily weighted in the value indices.

Index Returns		
Index	First Qtr. 2022 Return	2022 YTD Return
Russell 2000	-7.53%	-7.53%
Russell 2000 Growth	-12.63%	-12.63%
Russell 2000 Value	-2.40%	-2.40%
S&P 500	-4.60%	-4.60%
Dow Jones Industrials	-4.57%	-4.57%
NASDAQ Composite	-8.95%	-8.95%

Source: 1492 Capital Management, LLC and FactSet

From a style perspective, the Russell 2000 Value Index (-2.40%) beat the Russell 2000 Growth Index (-7.53%) in the quarter as the Energy and Utilities sectors were the only sectors posting positive returns. These two sectors have heavier weights in the value index. COVID shutdowns and rising interest rates pummeled Healthcare (-14.4%), Technology (-13.8%), and Consumer Discretionary (-17.2%) sectors in the first quarter. Healthcare has the highest weighting in the Russell 2000 Growth Index, and biotech stocks which generally are long duration assets which don't act well during a rising rate environment heavily impacted the sector. Technology stocks that heretofore were to be owned at any price received a price check as the Fed raised rates and as there were recent reports of weakness in demand for electronic equipment and cellphones. Nearly every highly valued growth stock has seen a 40% haircut since late last year. Utilities (+3.2%) were beneficiaries of risk off trading due to Fed speak and higher rates, but the best performing sector by far was Energy (+41.2%) as oil prices spiked following Russia's invasion of Ukraine. The table immediately below highlights the performance of the Russell 2000 style indices by sector for the first quarter of 2022.

Table 5 - Russell 2000 Growth Scorecard through March 31st

	March			1Q2022			
GICS Sector	Absolute	Contribution	Relative	Absolute	Contribution	Relative	Wgt
Com Serv	-2.33	-0.07	-2.79	-11.68	-0.32	0.95	2.7
Discretionary	-7.53	-1.12	-7.99	-18.81	-2.96	-6.18	13.6
Staples	-3.85	-0.17	-4.31	-10.09	-0.42	2.54	4.1
Energy	17.79	0.50	17.33	34.73	0.82	47.36	3.4
Financials	-1.85	-0.10	-2.31	-13.83	-0.82	-1.20	5.5
Health Care	2.30	0.52	1.85	-14.95	-3.73	-2.32	25.1
Industrials	2.35	0.42	1.90	-9.11	-1.33	3.52	15.7
Info Tech	0.99	0.23	0.53	-14.98	-3.41	-2.35	22.8
Materials	4.09	0.15	3.63	0.61	0.00	13.24	3.5
Real Estate	2.26	0.07	1.80	-12.94	-0.43	-0.31	3.3
Utilities	5.53	0.02	5.07	-10.26	-0.03	2.36	0.4

Source: Jefferies

Table 7 - Russell 2000 Value Scorecard through March 31st

	March			1Q2022			
GICS Sector	Absolute	Contribution	Relative	Absolute	Contribution	Relative	Wgt
Com Serv	5.66	0.19	3.70	-2.87	-0.09	-0.48	3.6
Discretionary	-2.85	-0.20	-4.81	-14.20	-1.15	-11.80	7.1
Staples	2.22	0.06	0.26	-3.65	-0.12	-1.25	3.0
Energy	16.32	1.35	14.36	43.41	2.89	45.80	9.6
Financials	-3.88	-1.03	-5.83	-5.41	-1.59	-3.01	25.3
Health Care	0.61	0.04	-1.34	-13.20	-1.30	-10.80	8.8
Industrials	2.94	0.48	0.98	-2.68	-0.36	-0.28	15.3
Info Tech	1.64	0.09	-0.32	-8.92	-0.50	-6.52	5.4
Materials	1.71	0.07	-0.25	-2.52	-0.14	-0.13	4.5
Real Estate	5.00	0.55	3.04	-2.32	-0.29	0.08	11.9
Utilities	6.60	0.34	4.64	4.11	0.25	6.51	5.4

Returns across the international markets were mixed at best as the Ukraine war negatively impacted Europe's market. Their markets were down substantially more at the outset but have rebounded as investors concluded some of the worst outcomes weren't going to happen imminently. Emerging market countries like Brazil saw nice gains as basic materials (iron ore and metals) primarily drive their economy and have benefitted from the sanctions on Russia. China's markets have lagged due to a slowing economic environment and continued COVID lockdowns. The U.S. bond market was under pressure as the Fed began hiking interest rates. The real action was in the commodity sector where the big winners were crude oil and natural gas on shortage concerns due to the sanctions being imposed on Russia, which is a major exporter to Europe. Other winners included gold that rebounded on the geopolitical concerns and rising inflation rates and the Volatility Index which was notably higher for the plethora of reasons that we discussed above.

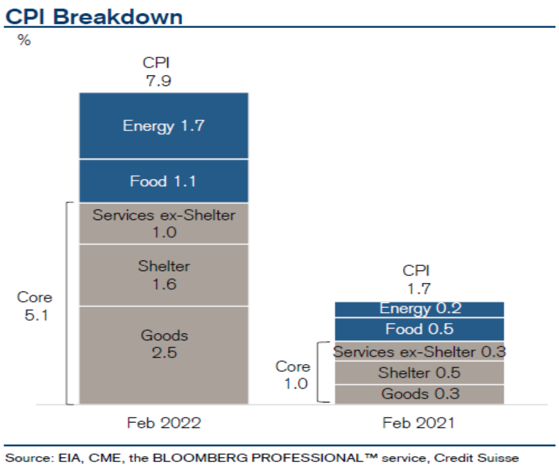
Index	First Qtr. 2022 Return	2022 YTD Return
France	-6.7%	-6.7%
Germany	-9.3%	-9.3%
Brazil	+14.5%	+14.5%
India	+1.1%	+1.1%
China- A Shares	-12.3%	-12.3%
China- Shenzhen A Shares	-15.9%	-15.9%
Japan	-2.5%	-2.5%
Long-Term Treasuries (TLO)	-10.1%	-10.1%
Investment Grade Corp Bonds	-7.5%	-7.5%
Gold	+7.7%	+7.7%
Volatility- VIX index	+18.6%	+18.6%
Oil	+30.2%	+30.2%
Natural Gas	+64.3%	+64.3%
Lumber	-16.6%	-16.6%

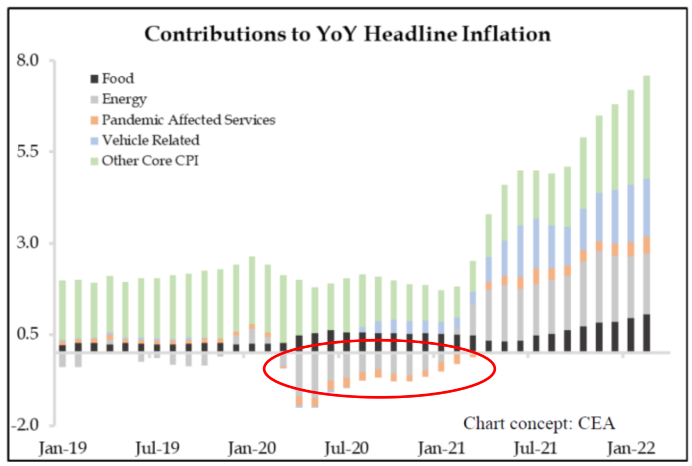
Source: 1492 Capital Management, LLC

Updated 2022 Outlook: The Fed is Driving the Economy Through the Rear-View Mirror - Again

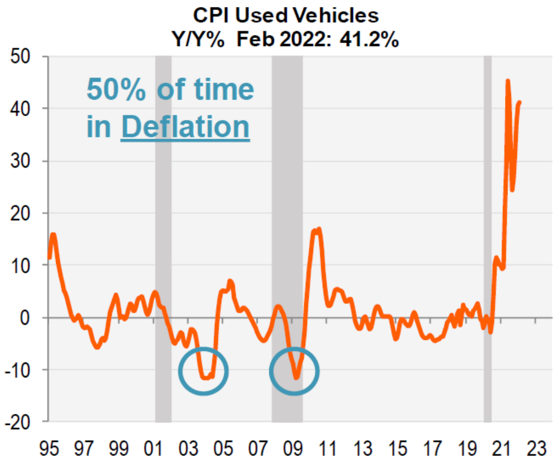
In last quarter's newsletter in the section entitled "Those Who Cannot Learn from History Are Doomed to Repeat It", (**1492CM 4Q21 Newsletter**) we argued that the Fed was about to make the same mistake that they did in 2018 and tighten interest rates just as the economy and inflation were about to cool dramatically. When we wrote that piece in late 2021, we clearly didn't know that Russia would invade Ukraine and touch off price spikes in a number of commodities including oil, natural gas, wheat, and nickel, to name a few. Now the inflation backdrop has become more complicated since the start of the year and the sanctions being imposed against Russia are being carefully chosen so as not to upset the inflation applecart. As we sit here today, the market is pricing in a total of nine 25 basis point rate hikes in 2022 (one of which already occurred in March) with another three being baked into the cake in 2023. In their March meeting notes, the Fed indicated they were in favor of making 50 basis point hikes in the coming meetings. We think this action is insane. Interest rate hikes are code for tamping down overheated demand. However, at that pace of increases, they will be hitting demand, and therefore inflation, with a sledgehammer instead of a tack hammer and further slow an already decelerating economy.

First, remember that inflation is just simple math that calculates the change in the price of goods on a year-over-year basis. We believe that there are a number of events already developing that will curtail inflation as we progress through the year. To make our case, let's look at the key items that are causing inflation to be elevated currently. The chart on the left compares the CPI (consumer price index) and its components to those of a year ago. You can see that nearly every component is higher year over year but the ones that particularly stand out are energy and goods. Let's start with energy. Oil prices have spiked, but keep in mind that we're comparing current oil prices of $100/barrel which the Ukraine war has juiced versus $53/barrel in February 2021 (nearly +100%) when we were still in COVID lockdowns globally, and oil demand was significantly reduced. As we showed earlier in this newsletter, current oil prices are still significantly lower than several periods over the last 20 years when they were sustainably over $100/barrel for years. Energy costs tend to bleed into the cost of almost any product that you can think of either as energy is required to make it or distribute it. As we anniversary energy costs a year from now, they likely won't be up on a percentage basis as much as this year. For proof of how this works, the chart on the right similarly shows the components of inflation as they impact the headline inflation number over time. Note that the grey bars depict energy (oil) costs. If you recall, the price of oil fell dramatically at the start of the pandemic in early 2020. You can see in this chart how the grey bar was a significant detractor to the CPI computation in much of 2020 as the price of oil collapsed and compared against the prior year "normal" price of oil.

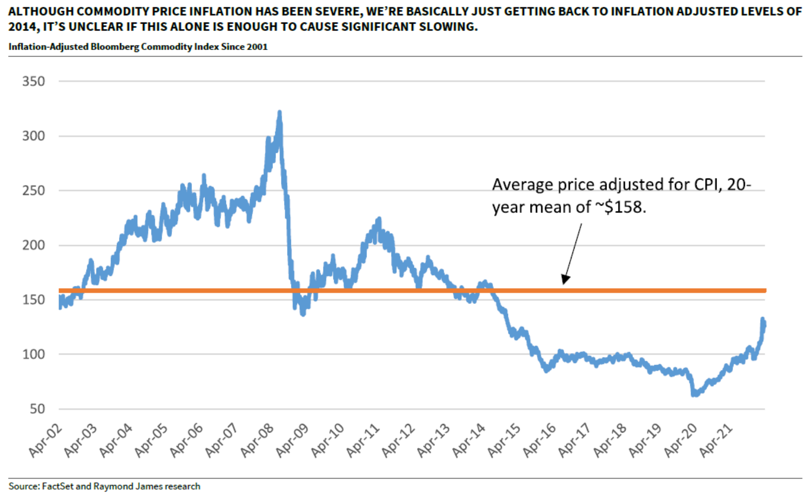




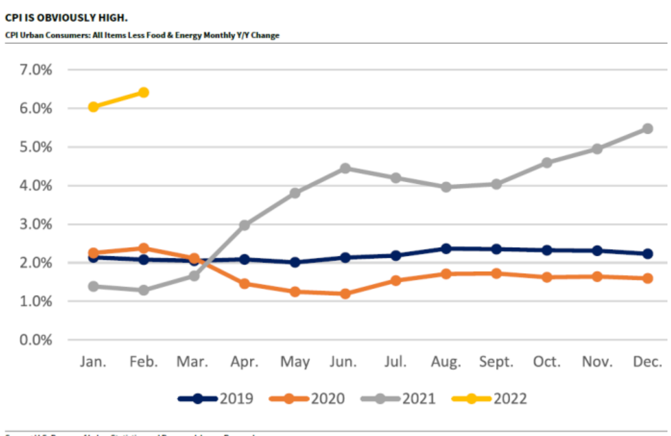
Next, let's focus on the goods component. Simplistically, goods include tangible items like furniture and cars. Below left is the CPI chart for used cars. Insatiable demand from consumers who didn't want to take mass transit any more during the pandemic, a reduction in new car production caused by supply chain snafus, extraordinarily low interest rates for financing a car purchase, and stimulus dollars in the pockets of Americans precipitated this low level of car inventories on dealer lots. This confluence of events created a perfect storm, and the price of used cars jumped +41% YOY in February *when throughout much of the past 30 years, used vehicles saw deflation 50% of the time*. The current 40% inflation has never occurred. All of the circumstances that caused this supply shortage have unwound or will unwind in the coming months and remember, a year from now when they do the computation for the CPI, they will be comparing against a once-in-a-lifetime event. On the right is a chart of the Bloomberg commodity index which considers all different commodity prices. The index has been inflation adjusted so you're able to see how current prices compare with historical prices. Despite all of the headlines and news articles about raging inflation, today's commodity price levels are rather tame compared with the early 2000's and 2010's.

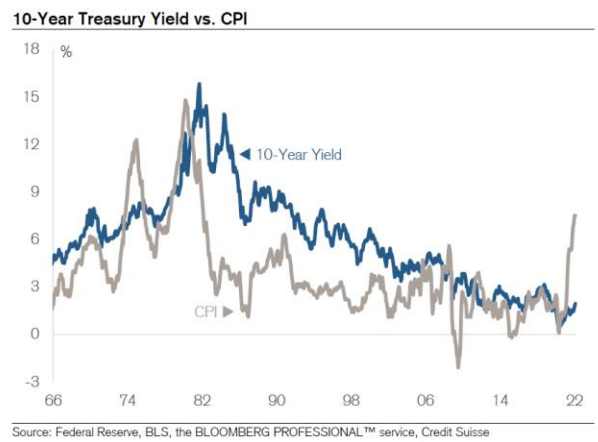


Source: PSC

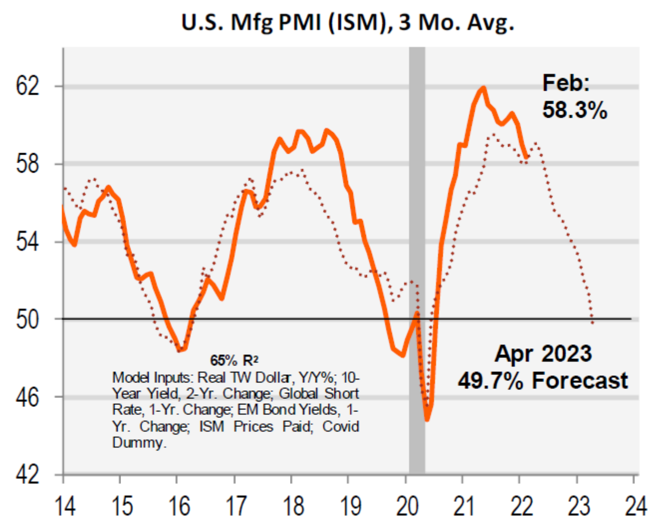


Lastly, as the chart below left shows, the inflation calculation is just a year-over-year calculation which is currently comparing (yellow line) against a subdued 2021 inflation level (grey line) that includes the pandemic lockdown. As we move through the balance of 2022, the comparisons get tougher which makes it a much higher hurdle to show continued lofty inflation rates. By June, we should see significantly lower CPI reports as we begin to lap those tougher comparisons. CPI levels and interest rates have historically tracked each other reasonably close as shown in the chart below right. Historically, the bond market has always been viewed as the "smart money" when compared to the stock market. If inflation is not transitory and is out of control, then why are the 2-, 5- and 10-Year U.S. Treasury interest rates all around 2.5% today, despite CPI pushing 8%? Is it possible that they are looking at the chart on the left and realizing that there are some significant anomalies that have caused the current high CPI level? We think that is likely, and it's not because the bond market has suddenly lost its marbles. The bond market is looking ahead and not through the rear-view mirror.

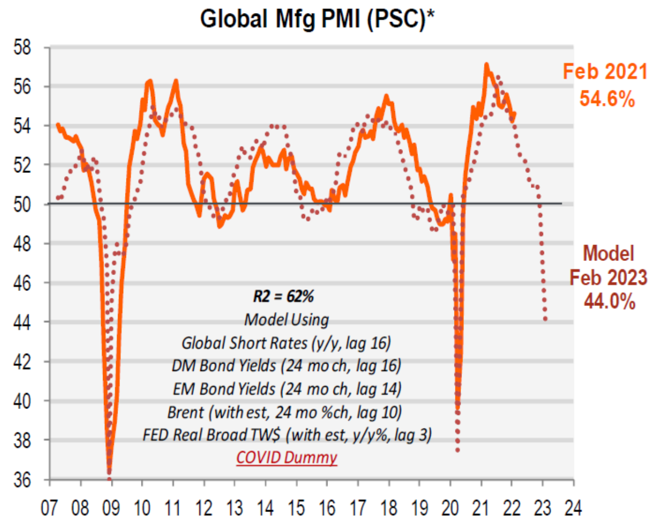




Now let's move on to the fundamentals of the economy. As we stated above, our concern with the Fed being too aggressive on rates is that they aren't tightening as the economy is beginning to accelerate as is typical in most rate hiking cycles (2015 being the most recent), but rather they're tightening as the economy has already peaked. If they're too aggressive, they'll send the economy into recession. The global central bank interest rate hiking cycle started in early 2021, and to date there have been more than 145 central bank rate hikes around the world. Talking heads and media outlets have been blasting the Fed for being way behind the curve. However, what were they supposed to do? We just did a $1.9 trillion stimulus package in March 2021 because the Biden administration thought our economy was still too weak, and we didn't have clear line of sight to the end of the pandemic. Was the Fed supposed to step in just a few months later and begin hiking rates? That wouldn't make any sense to reverse course so quickly after spending nearly $6 trillion on stimulus programs to keep the U.S. economy from an ugly pandemic-induced recession. However, I'm in agreement that a certain amount of stimulus needs to be withdrawn from the system now, but what's been teed up is excessive. The chart below left shows why I'm concerned. We've shown this chart many times through the years, and it has proven to be a good chart to identify turning points in the economy. It takes into consideration global short rate changes, 2-year Treasury rate changes, and a few other items noted on the chart. The inputs are generally advanced 12-24 months as it takes time for these changes to have an impact on the real economy. As the chart shows, the forecast implies that the U.S. Manufacturing PMI will continue to slow over the next year with levels falling from 58 currently to something below 50 a year from now. A level below 50 implies the economy is shrinking. This shrinkage is what's already baked in the cake before the Fed adds nine interest rate hikes to the mix and begins to unwind their bond purchases. The chart on the right shows a similar model that makes a couple of tweaks as it focuses on the global PMI. The conclusion is similar but worse, as the model forecasts global PMI's plummeting to 44 a year from now, which is significantly below the critical 50 level. The Ukraine war also has implications that may cause a further slowing of European economies.

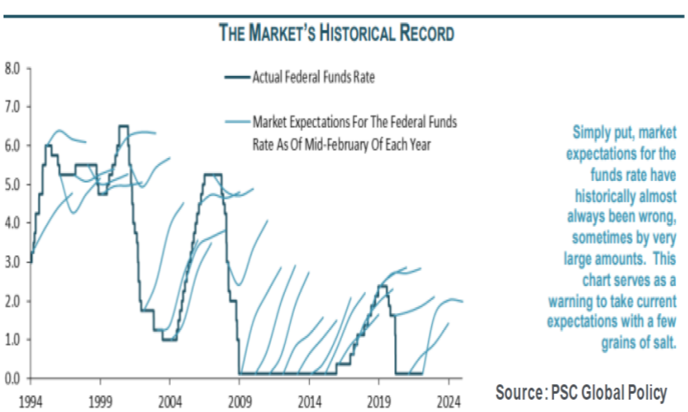


Source: PSC



Source: PSC

When it comes to Fed interest rate hiking cycles, neither the Fed nor the market has been very good at implementing or predicting interest rate cycles. For example, in the chart below left, it shows the market's expectations for the future Fed Funds rate as of February each year in the light blue line. It's interesting to note that the market's expectations are almost always universally wrong and ahead of reality by a wide margin. As of today, the market is pricing in nine rate hikes in 2022 with some of them being 50 basis point hikes in the next few months. Time will tell if the market is right or if it continues its track record of overestimating the Fed's path of rate hikes. However, the Fed is similarly bad in implementing their interest rate policy as shown in the chart on the right. The chart shows the number of months from the time the Fed stops tightening to the first rate cut. That average through the last nine tightening cycles is that they are cutting rates within an average of five months following the last hike. This point implies that they consistently overdo it or implement their rate hikes too quickly. Let's hope that they learn from the past and start looking out the windshield as they drive the economy and not through the rear-view mirror that they've used far too often in the past.



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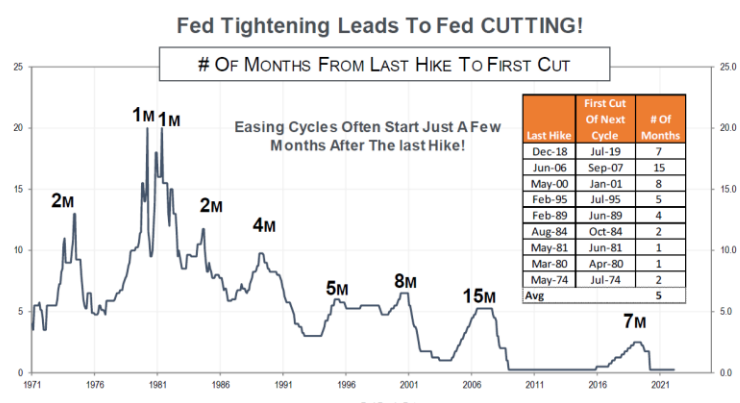
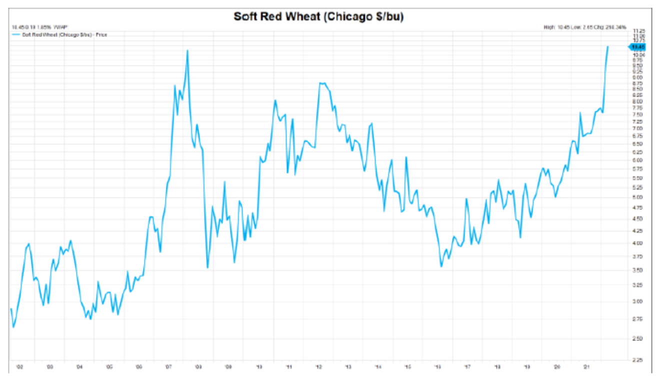


Source: PSC

Updated 2022 Outlook: "Only when the tide goes out do you discover who's been swimming naked"- Warren Buffett

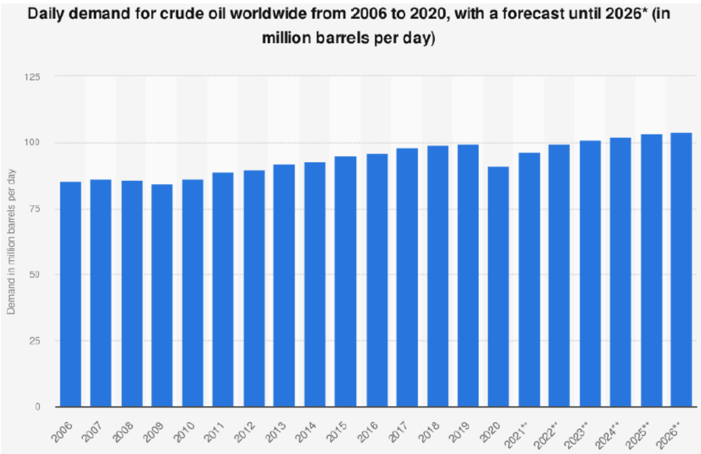
The quote on the heading for this section is a famous Warren Buffett quote which we felt was appropriate for the situation many countries or industries find themselves in as a result of the Ukraine war. The war has exposed a number of situations where industries and governmental entities found themselves ill-prepared for a supply shock that the war has brought. Most of these difficulties were a result of being overly reliant on a single source of a commodity or a result of rushed decisions or ill-conceived plans. In addition to the chart on oil prices that we presented earlier in the newsletter, the charts immediately below show a couple of other commodities that have spiked higher as market participants realized that Russia, Ukraine, or both, were significant suppliers to the world. The first chart shows the price of nickel which spiked over 100% in a matter of days as the market realized Russia supplies 20% of the world's pure nickel which is a key input to electrical vehicle batteries, for example (more on this below). The chart on the right shows the price of wheat which vaulted 60% in a matter of days. We've already discussed the price of oil earlier, but it too jumped more than 50% to $130/barrel as the fighting in Ukraine commenced.

Source: Furey Research Partners and FactSet Research.

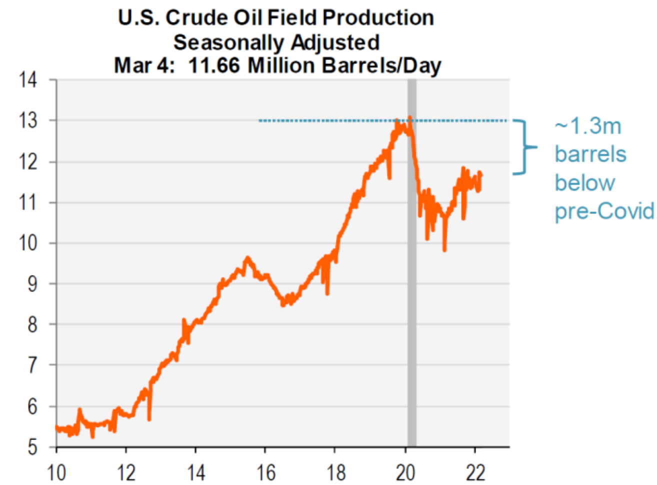


Source: Furey Research Partners and FactSet Research.

Price spikes or the absolute inability to procure these products has sent shockwaves through governments and industries alike. If we focus on oil and natural gas for a minute, ill-conceived policies, regulatory bias, or the rush to meet some artificial climate change targets have left countries like Germany in a world of hurt. As an analyst looking in from the outside, it is sometimes difficult to imagine how these entities put themselves in such precarious positions. Using oil as an example, it would appear that there is a fundamental misunderstanding about the oil market. To level set the discussion, global oil demand is roughly 100 million barrels per day. Despite efforts around the globe to reduce fossil fuel use and promote renewable energy sources like solar, wind, hydro, etc., these efforts have yet to make a significant dent in the demand for oil as shown in the chart below left. In fact, by 2023 it's estimated that post-pandemic demand will be at an all-time high as economic activity normalizes. Regulatory, legislative, and ESG efforts over the past decades to effectively make fossil fuels go the way of the dinosaur, have been largely ineffective if you examine oil demand. These efforts have left countries/industries with their pants down who may have thought that they could get by without a long-term exit strategy. Let's face it, fossil fuel use and its infrastructure has been 150 years in the making and can't be unwound in a matter of a few years by decree, but at times these decrees have caused entities like Germany to find themselves in a precarious position. Germany receives a significant portion of their energy supplies (both natural gas and oil) from Russia. Unfortunately, the Ukraine war has exposed this reliance, and now every country that is involved with trying to impose sanctions against the Russians for invading Ukraine has to tip-toe along a very fine line so as not to leave Germany without an alternative source of energy. To make matters worse, Germany made the decision to shut down their nuclear power generating facilities this year which at a minimum, would have provided a stopgap alternative to fossil fuels. While the U.S. could certainly supply a significant amount of the world's demand for natural gas as we have several hundred years' worth of supply, the regulatory bodies overseeing U.S. LNG (liquefied natural gas) production has put governors on the industry because nobody wants an LNG plant in their back yard. The chart below right shows U.S. oil production over the past 12 years. The explosion in production came as a result of the oil shale boom and technological advancements. In 2019, the U.S. was effectively energy independent. However, many E&P companies are now focused on returning cash flow to shareholders rather than reinvesting those dollars into production growth. Investors were responsible for convincing oil companies not to drill because they have historically been poor at generating attractive returns, and the ESG movement is also aimed at reducing dependence on fossil fuels.

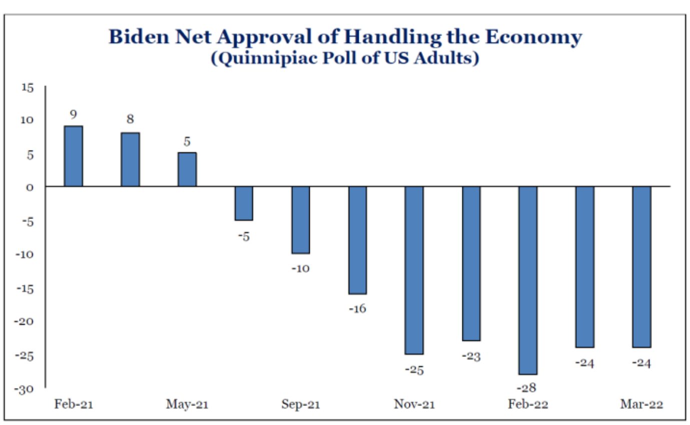


Source: Statista



Source: PSC

We had the recent privilege to attend an energy investor dinner which included many of the largest E&P companies in the U.S. The Biden administration has contacted none of them about increasing production to alleviate the current high oil prices. However, even if they were, all of them said that they would be unable to significantly ramp production because they cannot get a drilling rig. The industry has scrapped all of the lower performing rigs in favor of the more efficient/high powered rigs, and they are effectively unavailable. Additionally, they cannot obtain fracking crews as many left the industry during the pandemic for greener pastures and aren't coming back. They all agreed that even if they could get a rig and crew, it would take one year to get that set up and then another year before those wells would be flowing oil. In times of spiking prices, it's always amazing what politicians say. For example, the Biden administration in 2020 said that they would move away from the oil industry and take away any subsidies. Now they are suffering from falling approval ratings as shown on the chart below left and they want the oil industry to drill. The solution that the Biden administration produced was releasing oil from the strategic petroleum reserve (SPR). The SPR has approximately 700 million barrels of oil in it. It was really designed to be used for emergency use cases or in case of war. However, now it appears that politicians use it to persuade the American public that they are doing everything they can to protect the little people from the big bad energy companies. The release of oil from the SPR makes for great headlines but it is such a small amount that it's a futile exercise to lower oil prices sustainably. The first release from the SPR was 30 million barrels. This amount equates to 0.3 days worth of oil or a little more than 7 hours worth of global demand. Almost laughable. The Biden administration's more recent announcement was for 180 million barrels to be released over 180 days, or one million barrels per day. Again, this is a pittance in the whole scheme of global demand at 1% of daily needs. What happens after that? They've reduced our SPR by 25% and put the country further at risk if we would truly need that supply for what it was intended. It also acts as a disincentive for the oil companies to drill if the government is going to try and push prices down. The chart below right shows the world rig count which represents the number of rigs actively drilling for oil. After years of the industry getting bashed from all sides, it is clear that the industry is now focused on returns for their shareholders and will only increase drilling if the economics dictate.



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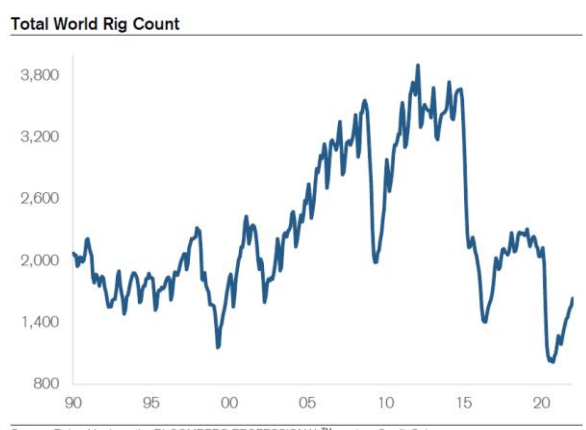
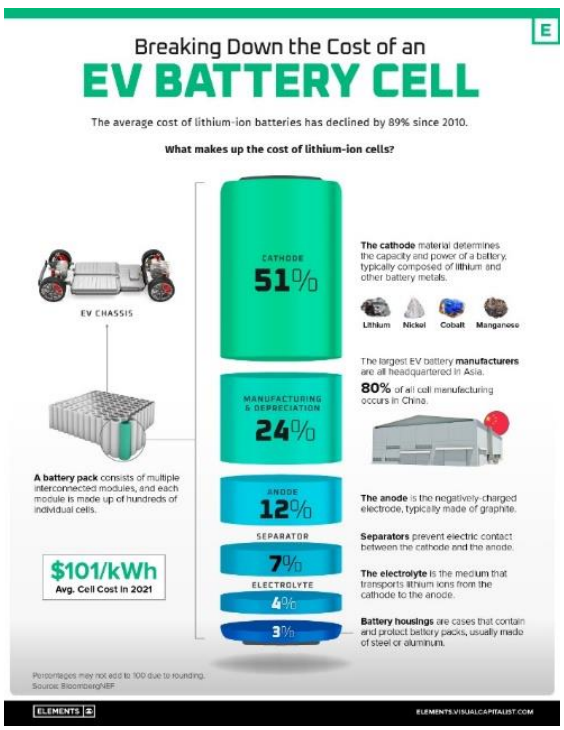
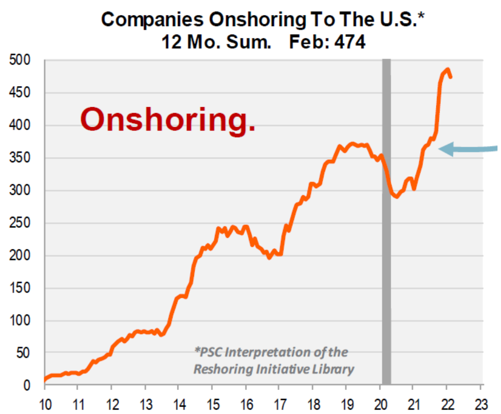


Another industry that got caught with their pants down is the Electrical Vehicle industry or EV's. The industry has been anointed as a climate change solution even though electricity has to be generated somehow to "fuel" the car and in today's world is still generated in many geographies with coal and fossil fuels. That point is an argument for another day. The Ukraine war precipitated both the recent spike in nickel metal prices shown above of 100%+ and the realization that Russia supplies 20% of the world's stock. In fact, trading in nickel on the London Metal Exchange was halted for a number of days as the price spiked. Nickel along with lithium and cobalt are significant inputs into an EV's battery. Lithium prices have seen an incredible fourfold price spike over the past nine months as demand has far outstripped supply. When you consider that these metals make up over 50% of the cost of an EV's battery, you have issues. The graphic below shows that the cathode of a battery is comprised of a combination of nickel, lithium, cobalt and manganese and highlights that the cost of EV batteries has declined significantly through the years. However, this reduction was prior to the recent price spikes that are war related. The total kilowatt hours (kWh) an EV battery has can range from 60 to 200 kWh's with Tesla's popular Model S at 100 kWh's. Analysts estimate that Tesla's pre-war battery cost is roughly $13,500 using a $135/kWh cost and 100 KWh's on board the car. Assuming that 50% of a battery's cost is from these metals, we can do some quick math to see what it may cost if only nickel prices stay elevated. There are several different battery recipes, but Tesla reportedly uses the nickel-cobalt-aluminum chemistry, and the mix has moved from 5-3-2 to 9-1-1 to improve energy density and driving distance. Lithium is also included but its presence is generally not one of the ingredients that is changed dramatically. Its cost per pound, even at elevated levels, is around $39/lb and the typical Lithium-ion battery contains about 20 pounds of the metal or about $780. Conversely, nickel makes up the significant weight of an EV battery. In the configuration of 9-1-1 the average EV battery could contain more than 100 pounds of nickel but is dependent upon the ultimate configuration. Assuming 100 pounds of nickel would imply a pre-war cost of around $2,400 and that effectively would have doubled to $4,800 based on the price that this metal traded to once the Ukraine war started. This spike would increase the cost of the total battery by $2,400 or nearly 20%. If sustained, these metals prices would lower margins substantially in an already relatively low margin business. This point hammers home that more and more industries don't want to get caught naked when the tide goes out, and a major onshoring movement is likely just around the corner.



For much of the 1990's and 2000's there was a major trend in corporate America to move production facilities to China, Mexico, and other nations where labor was significantly cheaper. However, as the years have passed, places like China have become less attractive as labor rates have become less compelling. Further, escalating transportation costs have made the economic justification more difficult as well. In 2016, the Trump Administration also started to impose tariffs on goods that were manufactured in China in an attempt to pressure China to stop stealing our IP and subsidizing their state-owned enterprises when competing with the U.S. Now throw in the pandemic and the Ukraine war and you have really muddied the waters as supply chains have broken down and as countries that have heretofore been sources of critical resources may no longer be palatable trading partners (Russia, for example). This has almost every industry rethinking their globalization strategies, particularly for critical components or difficult to procure resources. The chart below left shows the 12-month rolling total number of companies who have announced onshoring projects back in the U.S. You can see that there have been several waves with the most recent one that began in 2017 when President Trump imposed broad tariffs on China. The chart on the right shows the country from where these companies exited. As one would expect, China leads the list over the past two years.



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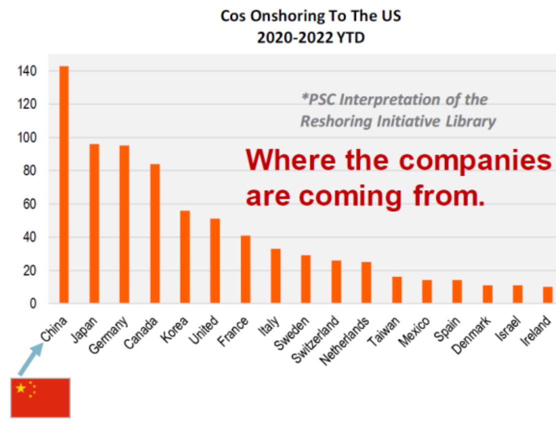


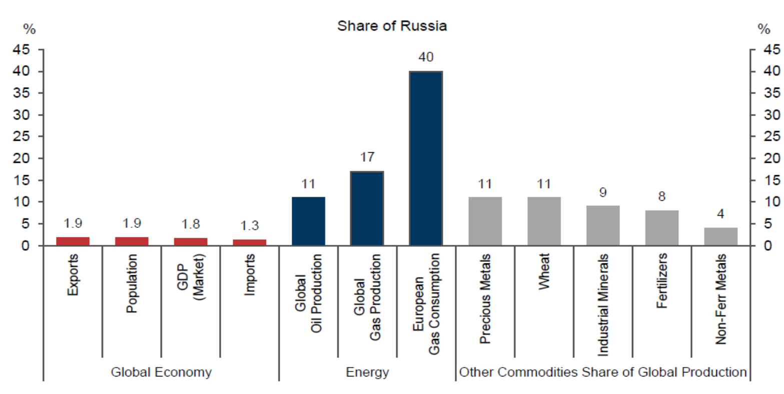
Source: PSC

Not to pick on the Electrical Vehicle industry, but so much of what they use from commodities to the production of battery cells is done in other countries, most notably China. One segment that's been highlighted recently is the use of "rare earth metals" in a host of applications, most notably in EV's. Rare earth metals include such metals as Neodymium, Cerium, and Gadolinium, to name a few. Unfortunately, 90% of the world's rare earth metals are found in China. What happens if we have a falling out with China or they decide to hoard those metals for their own uses? This possibility is a big risk. We recently had an opportunity to meet with management from MP Materials which is the owner of the only rare earth mine in the United States based in California. They produce Neodymium-Praseodymium Oxide, NdPr for short. This compound is the primary ingredient in the world's most efficient and highest strength permanent magnets. Their production is shipped overseas for further refining and ultimately made into magnets. China also produces about 90% of the world's magnets. Therein lies the problem. Unbeknownst to most, there are numerous electric magnets in an EV car that help turn the wheels of the car and move the power seats up and down. Currently these magnets are sourced from China. Recently, MP Materials signed a deal with General Motors to produce magnets in Texas. This move will reduce some of the dependency that we have on China currently. However, there are numerous examples of this type of situation within aerospace and defense, industrial and healthcare applications – all of which are at risk of being caught with their pants down.

Thematic Investing: 2022 Launches the Move from NIMBY to YIMBY for Strategic Resources

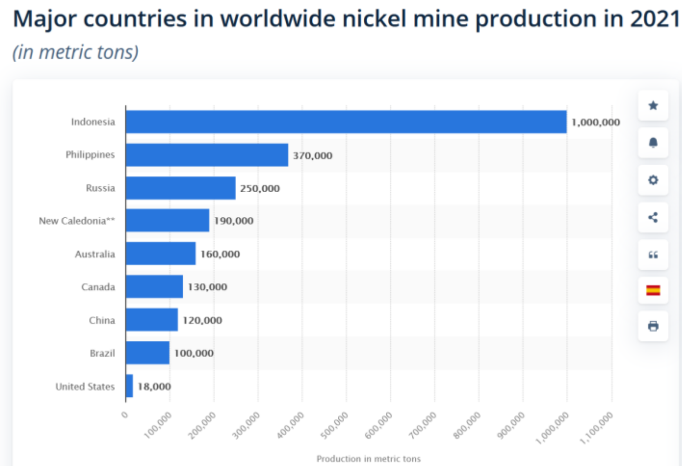
With our thoughts and prayers for the Ukrainian people, this madness has shaken the U.S. and our allies into a reassessment of its commodities sourcing and its strategic implications. As we discussed in the section above and in our third quarter 2021 newsletter with the piece "Strategic Resources, Strategic Resources…Get Your Strategic Resources Here," the U.S. and just as importantly the world, is reliant on China and Russia for critical resources. In that newsletter, we discussed how dependent we are upon China for the rare earth metals that we need for a variety of parts for EVs and wind turbines. In addition to nickel, gas and oil, now the world is scrambling to see how we can replace Russian commodities like coal, fertilizer, wheat, and palladium. As seen in the table below from Goldman Sachs, Russia is mid-size economy with outsized commodity power.

Exhibit 1: A Medium-Sized Economy with a Huge Energy Sector



Source: IMF, Goldman Sachs Global Investment Research

This key supplier for European natural gas consumption also represents 13-14% of global urea fertilizer exports and controls with Belarus about 35% of the potash fertilizer market according to RBC research.



Source: Statista

From NIMBY to YIMBY

As we mentioned earlier Russia is a major player in nickel for EV's. While the chart above shows that Russia is the number three player nickel producer worldwide, it also shows the relative insignificance of the United States which currently produces nickel from one mine in Michigan. A key point for consideration is that it is very difficult to develop new sources of key minerals quickly. As an example, a 2005 field trip to Polymet Mining's proposed mine and facility near the iron range of Minnesota which was to produce copper and nickel is to date not in production 17 years later due to environmental permitting and financial setbacks – the *"NIMBY"*. While the time frame to add production in and near existing mines for key strategic resources is easier, it is still a lengthy, multi-year process that is often burdened with its own delays. In a recent Bloomberg interview, Freeport Copper's CEO Richard Adkerson said, "Even if the price of copper were to double overnight it would still be years before we had significant incremental production coming on. The market is going to need the copper far faster than companies like ours can produce it." This commentary can be applied to nickel and any other strategic mineral as well.

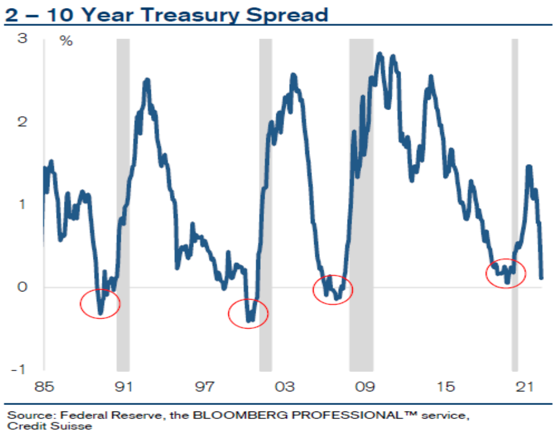
When considering the impact of Russia's devastation in the Ukraine on global commodities, Ukraine is a country that, according to Piper Jaffray research, has grown its corn (#5 globally) and wheat production (#6) from 14 million metric tonnes in crop year 2000-2001 (9/1/00 to 8/31/01) to an expectation of 75 million metric tonnes for crop year 2021-2022. As a key supplier of incremental corn and wheat demand for the last two decades, their research estimates their harvest collapsing to just 30-35 million metric tonnes in 2022-2023 with a return to 2021-2022 levels in 2024-2025 at the earliest. This shortfall will keep corn and wheat prices at very elevated levels while Russian fertilizer exports remain highly unpopular, and the rest of Europe suffers from poor to no economics from higher priced natural gas used to produce ammonia, the building block for any nitrogen fertilizer. Global farming will want to boost planted acreage but will suffer from lower yields due to a diminished fertilizer supply and thus have difficulty filling in the lost Ukrainian grain supply.

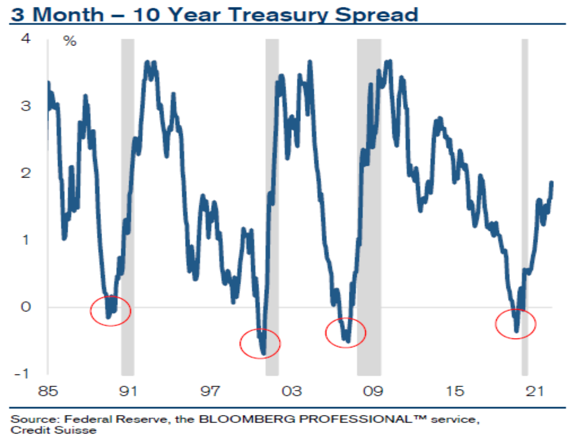
What we've learned from China's policy and Russian belligerence should generate a secular investment theme from NIMBY to YIMBY or Not in My Backyard to Yes in My Backyard for strategic resource development. We believe that we will witness this change in the U.S. through higher oil and gas drilling to boost domestic production, more natural gas pipelines and LNG facilities, and additional fertilizer capacity as we utilize our abundant domestic natural gas to make ammonia and urea. We should also see the development of new copper mines to generate supply of the building block for greater electrification of our economy and maybe even the end to the war on coal as the U.S is the Saudi Arabia of coal reserves. Throughout economic history, the cure for higher prices has been higher prices that precipitate less demand near-term and the investment in additional capacity for the longer term. If we've learned anything from Chinese and Russian policy, welcome to the *"YIMBY"* as a secular investment theme in strategic resource development between the U.S. and its allies.

Updated 2022 Outlook: This Chart Will Be Featured in Every Investment Newsletter- But It's the Wrong One

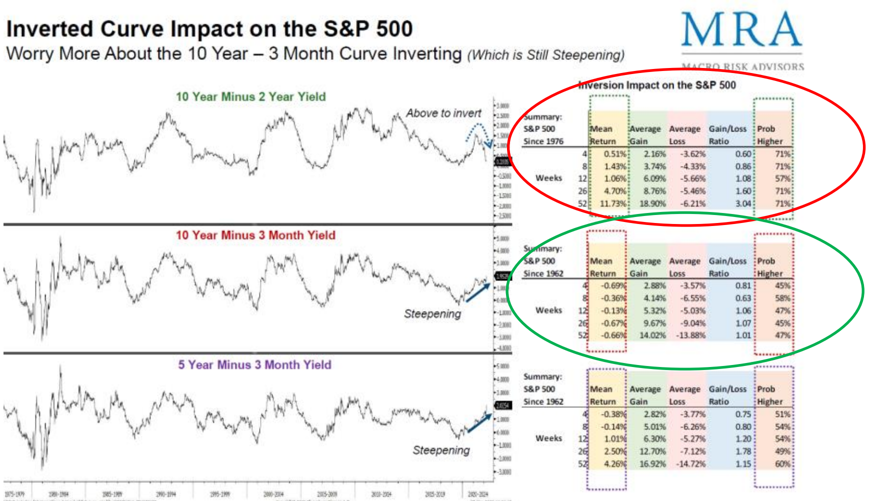
The chart below left is the chart that every investment newsletter will feature this month/quarter. It shows the inversion of the yield curve, which in this case refers to when the 2-year U.S. Treasury yield is in excess of the 10-year U.S. Treasury yield. It actually slightly inverted in the past couple of days. *It's famous for predicting 12 of the last six recessions.* That fabulous success rate is exactly why it's the wrong chart to use. The problem with the 2-10 Treasury yield inversion as it's known, is that it happens in many instances, a year or more prior to the start of a recession. When it's been correct, it has taken about

18 months before a recession actually happened. The correct chart to view is the 10-year U.S. Treasury yield minus the 3-month U.S. Treasury Bill yield which is shown below right. Why is this better? It's really quite simple, and it falls on banks willingness to lend and keep the economy humming.





In its simplest form, banks borrow from depositors and pay them a short-term interest rate on their checking or savings account balance. They in turn take those funds and lend them out to borrowers at a higher rate for a house or car, for example. They borrow short term and lend longer, and as long as the yield curve is positively sloped (short duration interest rates are lower than long duration interest rates), they are willing to lend. The banks' willingness to lend is still fairly robust currently as they can pay depositors next to nothing on their deposits and turn around and lend those proceeds to someone else that wants to buy a car at a 5% rate. This spread is how banks make money. The $5 trillion of stimulus money has found its way onto bank's balance sheets in the form of deposits, and they've been more than willing to lend those funds out to borrowers. However, it's when those short rates creep up without a corresponding steepening in the yield curve that banks start to tighten their belts and make it more difficult to borrow at reasonable rates. This process is ultimately how we find ourselves in recessions. Financial conditions tighten up too much, and the economy ultimately slows or shrinks. What the Federal Reserve does with interest rates really dictates the short end of the yield curve. As we discussed earlier in the newsletter, the forecast is that the Fed is going to be aggressive in raising short term interest rates in 2022 which will ultimately push up the 3-month rates as a result. When this happens and the market believes that the Fed may have been too aggressive with their rate hikes, we get 3-month/ 10-year inversion which the data tells you is a much better indicator of a recession and of negative returns in the stock market. The chart below shows the data regarding why the 10 Year- 3-month curve is a much better predictor. It's simply more timely and more predictive than the 10-Year/2-Year curve which tends to show significant stock market gains before a recession hits. The chart below right shows the S&P 500 returns before and after initial rate hikes. While returns are potentially more muted, they certainly aren't Armageddon.



Summary: S&P 500 Since 1976		Mean Return	Average Gain	Average Loss	Gain/Loss Ratio	Prob Higher
Weeks	4	0.51%	2.16%	-3.62%	0.60	71%
	8	1.43%	3.74%	-4.33%	0.86	71%
	12	1.06%	6.09%	-5.66%	1.08	57%
	26	4.70%	8.76%	-5.46%	1.60	71%
	52	11.73%	18.90%	-6.21%	3.04	71%

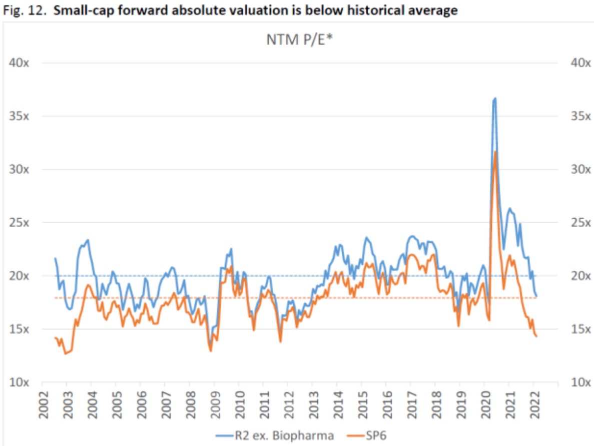
Summary: S&P 500 Since 1962		Mean Return	Average Gain	Average Loss	Gain/Loss Ratio	Prob Higher
Weeks	4	-0.69%	2.88%	-3.57%	0.81	45%
	8	-0.36%	4.14%	-6.55%	0.63	58%
	12	-0.13%	5.32%	-5.03%	1.06	47%
	26	-0.67%	9.67%	-9.04%	1.07	45%
	52	-0.66%	14.02%	-13.88%	1.01	47%

Summary: S&P 500 Since 1962		Mean Return	Average Gain	Average Loss	Gain/Loss Ratio	Prob Higher
Weeks	4	-0.38%	2.82%	-3.77%	0.75	51%
	8	-0.14%	5.01%	-6.26%	0.80	54%
	12	1.01%	6.30%	-5.27%	1.20	54%
	26	2.50%	12.70%	-7.12%	1.78	49%
	52	4.26%	16.92%	-14.72%	1.15	60%

Updated 2022 Outlook: Bringing it all Back to Small Caps

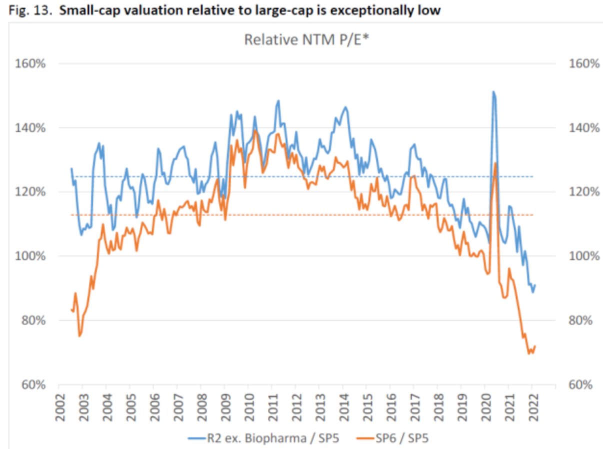
As you can see from our commentary to this point, we're certainly more guarded about the stock market's prospects, particularly if the Fed remains on the warpath to hike interest rates aggressively. It's possible that they're jawboning the market to take corrective action themselves, but at this point we have to take them at their word and expect the worst. Nevertheless, there are a number of historical guideposts that can help us navigate the more difficult market ahead. As we showed above, rising rates doesn't have to mean that the stock market drops precipitously. To the contrary, returns are more muted for a time until confidence builds that a recession isn't right around the corner. In the meantime, we believe that valuation support will be extremely important and, on that front, small caps look quite compelling. Since March 15, 2021, large caps have outperformed small caps (S&P 500 less Russell 2000) by an historic 27.1% despite small cap profit growth and outlook for profit growth exceeding that of large caps. This performance has left both the absolute and relative valuation metrics for small caps well below their historical averages and at levels that we haven't seen in decades. The absolute valuations for the Russell 2000 and the small cap S&P 600 are on the left and the "relative" valuations chart of those small cap indices compared to the S&P 500 is on the right chart.

Fig. 12. Small-cap forward absolute valuation is below historical average



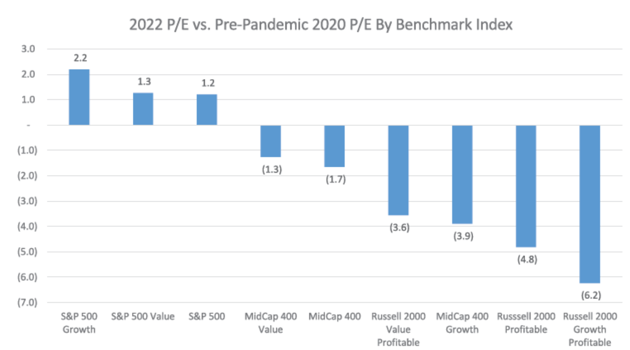
Source: FRP, FactSet; as of 2/28/22; *Valuation represented as sum of all stocks' Cap divided by sum of all stocks' NTM Earnings

Fig. 13. Small-cap valuation relative to large-cap is exceptionally low

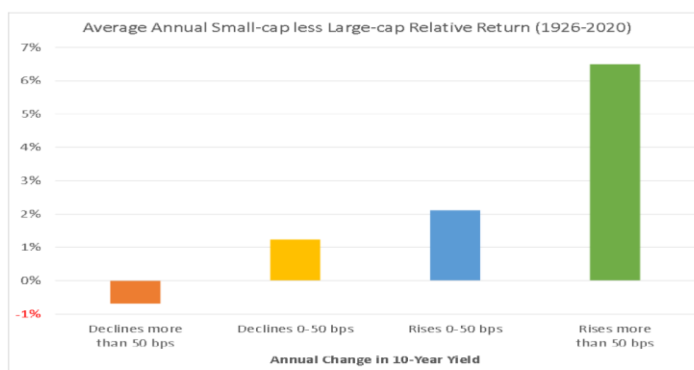


Source: FRP, FactSet; as of 2/28/22; *Valuation represented as sum of all stocks' Cap divided by sum of all stocks' NTM Earnings

The chart below left shows how significantly the current P/E ratios for both small and large cap indices have changed when compared with the pre-pandemic P/E ratios. The disparity gets linearly worse as you move down the market cap spectrum. This progression is due to the significant underperformance of the Russell 2000 Index that we noted above.



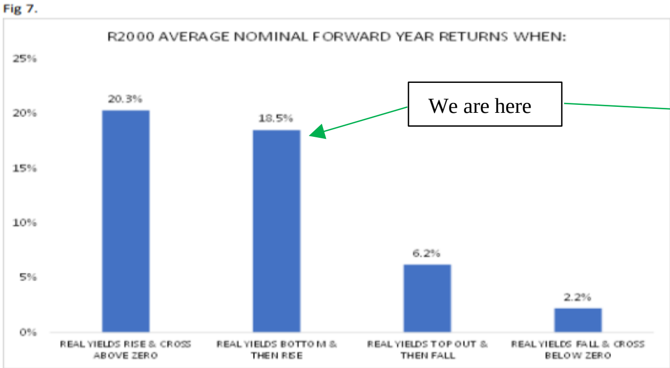
Source: FactSet, Raymond James research



Source: Furey Research Partners

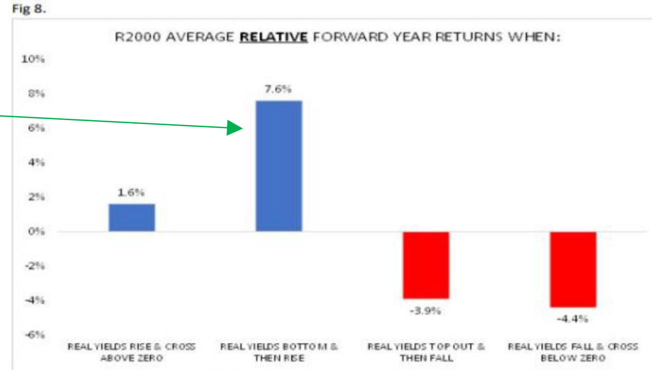
Real yields (treasury yields less inflation) have been extraordinarily negative due to the accommodative action of the Fed throughout the pandemic and to rising inflation of late. With inflation at 8% and the 10-year U.S. Treasury yield at 2.5%, the real yield is -5.5%. As the Fed ratchets interest rates higher and inflation cools as we expect, real yields will have bottomed and will begin advancing. The chart below left shows that when this movement happens, historically small caps have done well and post forward one-year returns of +18%. The chart below right shows that on a relative basis compared with the S&P 500, small caps have historically outperformed by over 7%. Periods of time when inflation is low and rising or at 3% or more and falling rapidly have historically been stronger periods for small cap returns. Small caps don't like deflation.

Fig 7.



Source: Furey Research Partners and FactSet Research

Fig 8.

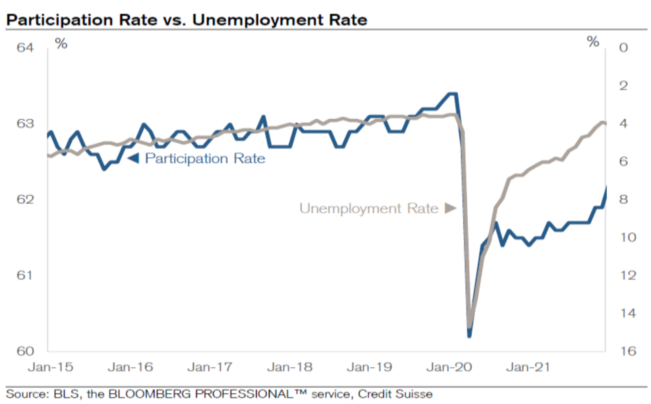


Source: Furey Research Partners and FactSet Research

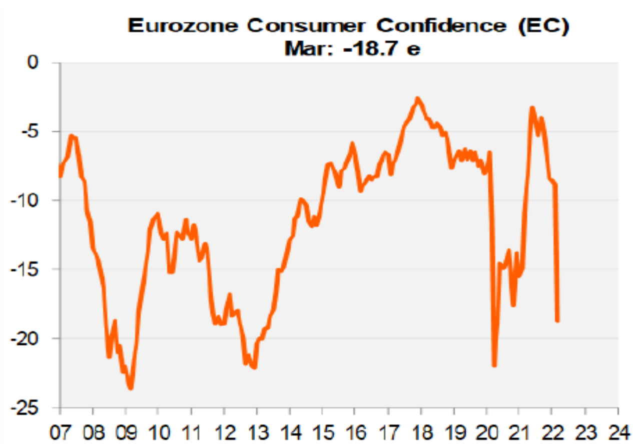
Updated 2022 Outlook: A Picture is Worth a Thousand Words

We articulated our updated 2022 outlook above and the key issues and drivers for the stock market. Yet, we believe that there are other topics that we haven't spent a great deal of time on that deserve some mention. In order to provide you with a shorter read, as everyone's time is valuable, we decided to express it in pictures. As they say, a picture is worth a thousand words, and we'll let you interpret what we view as some compelling charts. We'll provide a bullet point or two of explanation as to why we think the chart or graphic is important.

This chart shows the impact of the "great resignation" in which many people who were close to retirement decided to take early retirement as a result of the global pandemic. Participation rate remains subdued while unemployment rate pushes near all-time lows.

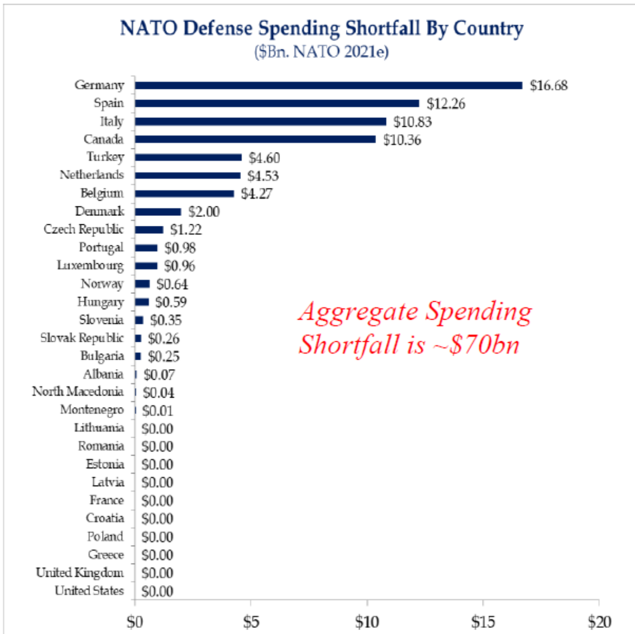


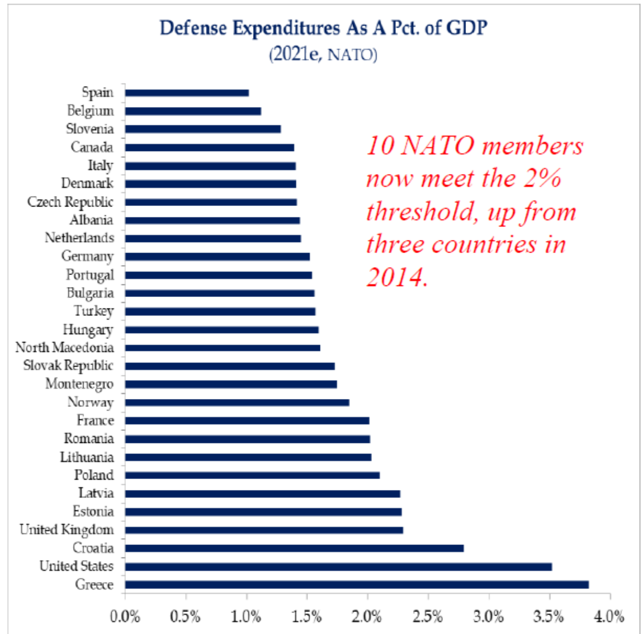
The Ukraine war has clearly significantly impacted European countries through soaring energy costs, etc.



Source: PSC

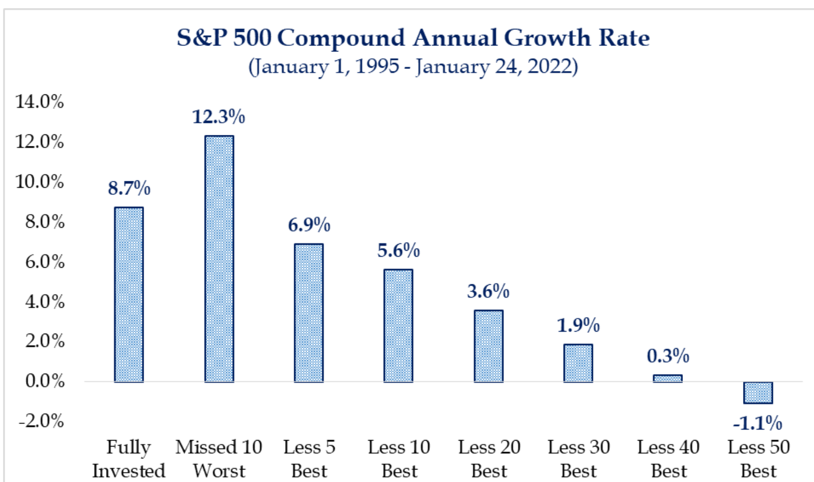
The Ukraine war has brought to light the preparedness of NATO to fulfill its defense commitment. Recall that President Trump was going to withdraw from the organization due to many countries not paying their fair share. While the number of members holding up their end of the bargain has improved, there are many that still fall far short.





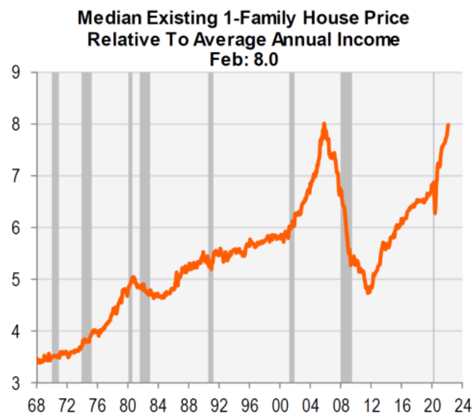
Source: Strategas

The following chart shows just how difficult it is to use market timing as an investment strategy. If you missed the 10 best days in the market since 1995, you would reduce your annual returns by nearly 300 basis points on an annualized basis. It means that your investment portfolio would have missed returns of 128% over this period.

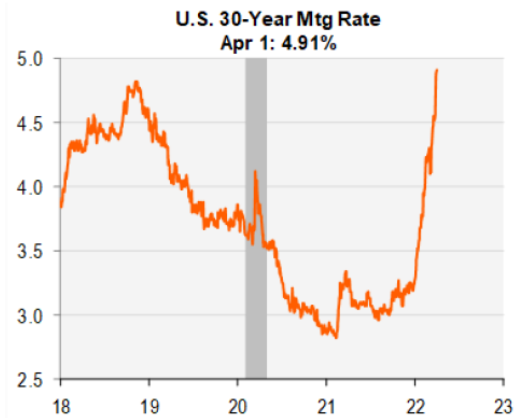


Source: Strategas

This scary chart below left shows that current home prices relative to the average annual income is exactly where we were in 2006 just before the home market crashed. To make matters worse, the chart on the right shows that mortgage rates have spiked up almost 2% in the past six months, which makes it more difficult to finance a home purchase.



Source: PSC



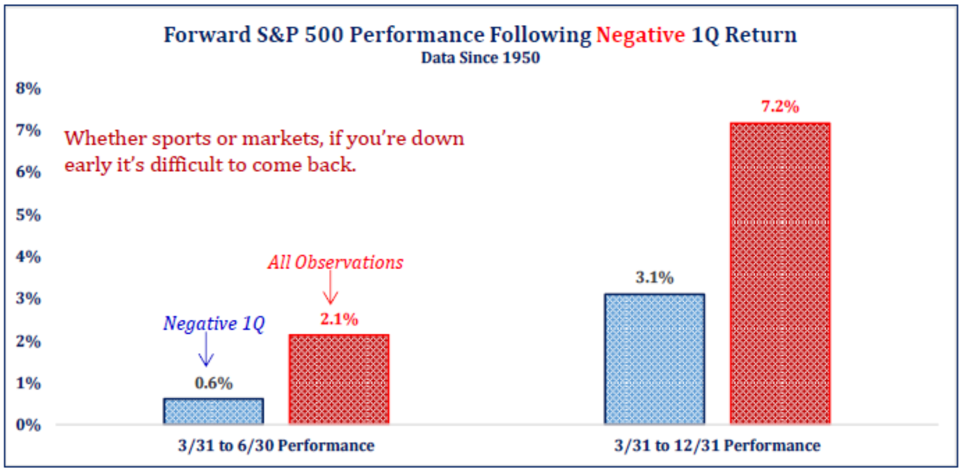
Stock Market Trivia

Each quarter we offer a piece of market trivia that we believe is interesting or timely, or both. This quarter we focus on stock market returns following a negative first quarter return like we saw this year. While we wish we had better news to share, the median returns aren't spectacular. In fact, the odds of a positive return for the balance of the year are just slightly better than a coin flip. The chart on the right shows these same statistics but compares them to the average observations for all years.

Forward S&P 500 Performance Following Negative 1Q Return

Year	1Q Performance	3/31 to 6/30 Performance	3/31 to 12/31 Performance
1953	-4.8%	-4.5%	-1.9%
1957	-5.5%	7.4%	-9.3%
1960	-7.6%	2.9%	5.0%
1962	-2.8%	-21.3%	-9.3%
1966	-3.5%	-5.0%	-10.0%
1968	-6.5%	10.4%	15.1%
1969	-2.3%	-3.7%	-9.3%
1970	-2.6%	-18.9%	2.8%
1973	-5.5%	-6.5%	-12.5%
1974	-3.7%	-8.5%	-27.0%
1977	-8.4%	2.1%	-3.4%
1978	-6.2%	7.1%	7.7%
1980	-5.4%	11.9%	33.0%
1982	-8.6%	-2.1%	25.6%
1984	-3.5%	-3.8%	5.1%
1990	-3.8%	5.3%	-2.9%
1992	-3.2%	1.1%	7.9%
1994	-4.4%	-0.3%	3.0%
2001	-12.1%	5.5%	-1.1%
2002	-0.1%	-13.7%	-23.3%
2003	-3.6%	14.9%	31.1%
2005	-2.6%	0.9%	5.7%
2008	-9.9%	-3.2%	-31.7%
2009	-11.7%	15.2%	39.8%
2018	-1.2%	2.9%	-5.1%
2020	-20.0%	20.0%	45.3%
Average	-5.8%	0.6%	3.1%
Median	-4.6%	1.0%	0.9%
% Positive	-	53.8%	50.0%

Source: Strategas Research



Source: Strategas Research

We hope that you found our first quarter 2022 review and updated 2022 outlook newsletter to be insightful and interesting. Should you have any questions about anything discussed herein or would like more information about 1492 Capital Management, please call us at 414-276-1492.

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