Aequitas Investment Advisors

Investment Markets Review – First Quarter 2022

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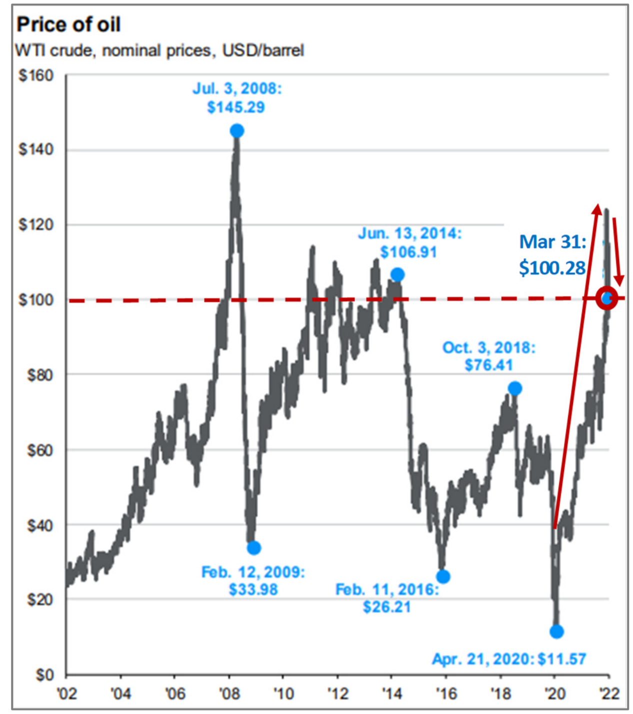
From: Aequitas Investment Advisors

Re: A Confluence of Uncertainties

We entered 2022 with a relatively optimistic view of the U.S. economy given an historically low unemployment rate, rising wages, and record corporate earnings. Economic growth around the globe was also strong with key indicators pointing to accelerating economic activity in most countries and regions. Beyond a potential resurgence in Covid cases, one of the greatest risks to the outlook was the impact of persistently high inflation and how aggressively the Federal Reserve, and other central banks around the world, might raise interest rates in an effort to combat inflation. Most economists were forecasting strong economic growth through the end of 2022 and well into 2023. Sadly, however, Vladimir Putin's invasion of Ukraine not only created a humanitarian disaster, it also created heightened uncertainty about the war's impact on the global economy, especially for less developed countries in the Middle East and North Africa (MENA) which now face a food crisis given their dependence upon grain imports from Ukraine and Russia. And for much of the developed world, including the U.S., the war in Ukraine has prompted economists to significantly lower their growth estimates given increased upward pressure on energy and food prices.

While the humanitarian crisis in Ukraine is at the forefront of our concern, the impact of Russia's stranglehold on European energy supplies presents a significant challenge for European leaders and their allies. Although the U.S. does not depend upon oil imports from Russia, we do not control of the *price* of oil which is determined primarily by *global* supply and demand. And as we painfully know, the price of oil is subject to the impact of global conflicts and manipulation by authoritarians and dictators. Oil prices had already spiked given strong consumer demand following the Covid-19 economic collapse, but the war in Ukraine briefly propelled the price to over $120 per barrel (WTI). It was just about two years ago at the beginning of the pandemic when oil plummeted to under $12 per barrel; and for a brief period in April of 2020 the price went negative given a collapse in demand and excess supply. As seen in the chart to the top right, the price of oil has historically been quite volatile and is actually lower today (the red dotted line) than in July of 2008 and in June of 2014.

The challenge which Europe faces is to free itself from Putin's energy stranglehold which take time, unfortunately. To expediate the process, according to the European think tank Bruegel, "Europe should join with the United States, Canada and other major energy producers in a trans-Atlantic pact to assure that it has readily available energy alternatives." Bruegel goes on to state that necessary actions would include "…increasing imports of liquefied natural gas [of which the U.S. is one of the world's largest producers], deploying renewable energy more robustly, conserving energy and expanding the use of biogas and hydrogen."

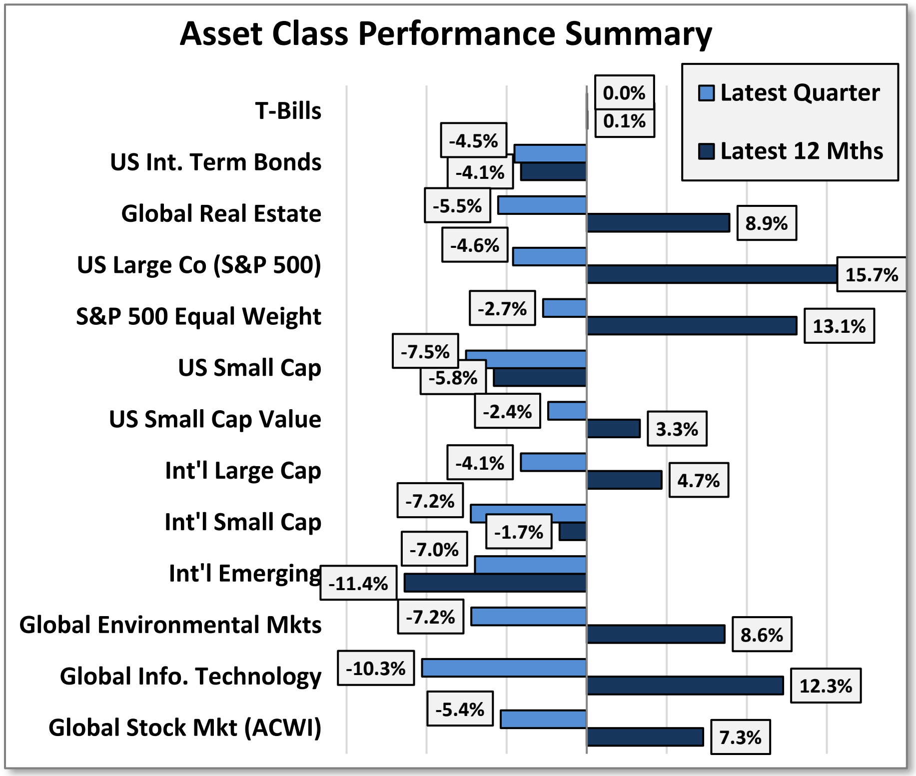


Just this past week, Bloomberg.com posted a lead article entitled, *Russia's Invasion Supercharges Push to Make a New Green Fuel.* The article highlights that, "Europe's push to wean itself off Russian natural gas is sparking billions of dollars in new commitments toward building a market for low-carbon hydrogen. 'It's kind of a tipping point," said Phil Caldwell, chief executive officer at Ceres Power Holdings Plc, a U.K.-based hydrogen technology company. 'You're going to see that capital coming in on a big scale now. There's no turning back.'"

More than eight years ago, we added the Pax Global Environmental Markets fund to our model portfolios. At present, 43.5% of the fund's holdings are invested companies involved in Energy Efficiency, as well as Renewable and Alternative Energy, including several companies directly engaged in the global hydrogen sector. In addition, given growing concern for the future of our environment and the destructive effects of climate change, several years ago we incorporated several sustainability-oriented fund strategies into our model portfolios. We will return to this topic later in this report, but first we'll review the recent investment performance of the major asset classes.

Asset Class Performance Review

For the first quarter of 2022, every major asset class was in negative territory with the Global Stock Market falling by 5.4%. The negative returns ranged from 2.4% (US Small Cap Value) to 11.4% (Emerging Markets). Even the US Intermediate Bond Index fell by 4.5% under the weight of rising interest rates. There was no place to hide during the quarter with the exception of US T-Bills which were flat (seldom has a 0% return looked so good!). Once the Fed began signaling more



aggressive actions to help fight inflation, interest rates rose sharply causing bond prices to fall. Stock prices, as well, declined as investors became concerned about the impact of higher borrowing costs on consumer spending and corporate earnings. Of note, the asset classes which suffered the most during the quarter were Growth Stocks which had previously outperformed over the past few years, but which are considered to be the most vulnerable to price corrections given their extraordinarily high valuations (at the beginning of the quarter, the Price-to-Earnings Ratios of Large and Mid-Cap Growth Stocks were more than 40% higher than their 20-year averages).

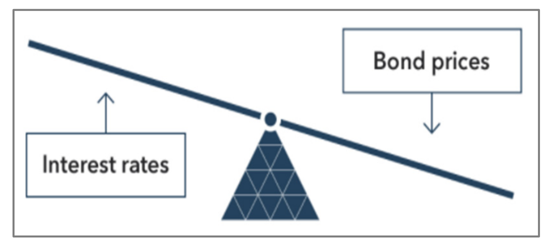
U.S. Stock Market Style Box
First Quarter 2022

	Value	Blend	Growth
Large	1.6%	-6.0%	-13.6%
Mid	4.9%	-5.1%	-16.0%
Small	1.8%	-6.2%	-13.4%

For the latest 12 months through March 31st, asset class returns were generally positive with the exception of Int'l Small Caps (-1.7%), US Intermediate Bonds (-4.1%), U.S. Small Caps (-5.8%) and Emerging Markets (-11.4%). US Large Cap stocks (+15.7%) posted the biggest gain aided to a large extent by the energy sector (the S&P 500 Equal Weighed Index gained 13.1%). Next in line were Global Information Technology stocks (+12.3%), Global Real Estate (+8.9%), Global Environmental Markets (+8.6%), Int'l Large Caps (+4.7%), US Small Cap Value stocks (+3.3%) and, lastly U.S. T-Bills (+0.1%). The entire Global Stock Market advanced by 7.3%.

The Impact of Rising Interest Rates on Bond Prices

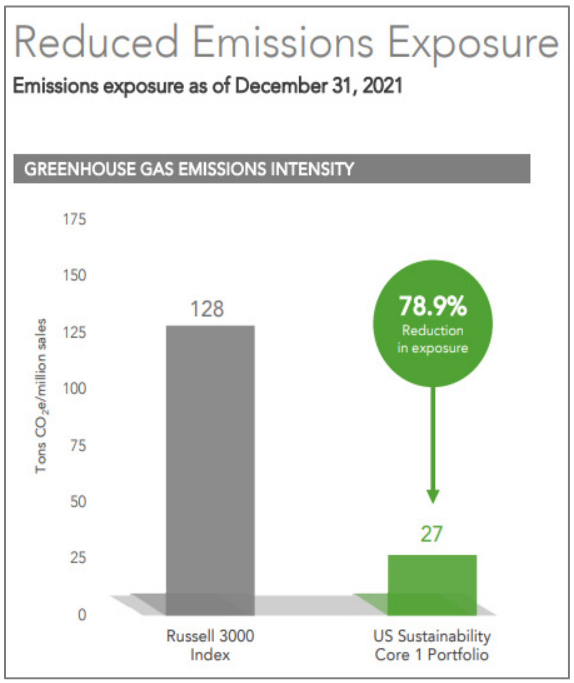
Bond interest rates, as measured by the 10-year Treasury Note, had been steadily falling over the past 40 years and reached an historic low point during the depths of the pandemic when the Federal Reserve was attempting to jumpstart the economy by lowering borrowing costs. At that time, the 10-year US Treasury Note had a yield of just above 0.5%, while the 3-year Treasury Note had a yield of less than 0.2% (essentially zero!). At the end of last month, the 10-Year Treasury yield was 2.3% and the 3-Year yield was 2.4%. While higher interest rates are beneficial to bond investors over the long-term, when interest rates rise for newly issued bonds, the prices of older bonds fall. However, those lower-priced bonds will appreciate in value between now and their maturity and there will be no loss if the bonds are held to maturity. With a laddered portfolio of individual bonds, as the older bonds mature, the investor (or manager) can buy newly issued bonds with higher yields so that over time the investor enjoys higher returns. For bond mutual funds, the same process occurs,



but the investor cannot control which bonds are sold when he or she needs to liquidate part of the fund for cash flow purposes. However, short-term bond funds are very liquid, are less sensitive to interest rate risk and enable investors to enjoy higher yields more quickly than longer-term bonds.

Sustainability-Oriented Investing

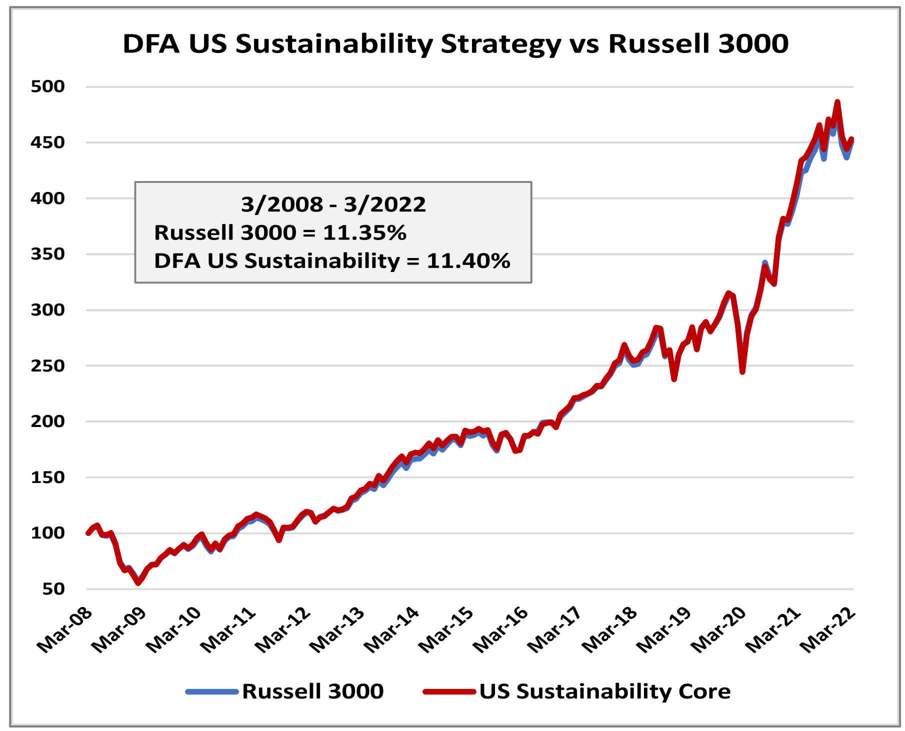
Dimensional Fund Advisors was a pioneer in the creation of sustainability-oriented investment strategies beginning with the launch of their first such fund in 2008 (the DFA US Sustainability Core Fund). This fund is a highly diversified portfolio of more than 2,100 stocks invested across the Large, Mid and Small Cap spectrum. Its benchmark is the Russell 3000 Index. As with most of DFA's strategies, the fund is "tilted" toward smaller companies, stocks with lower prices and companies with higher profitability than the broad market. Importantly, the Sustainability fund is also designed to avoid companies which are major greenhouse gas (GHG) emitters in favor of companies which exhibit more sustainable environmental characteristics. DFA's patented approach was designed with the assistance of leading climate scientists and incorporates measurable environmental goals. Their process has resulted in a portfolio of companies with close to 80% less exposure to GHG than its benchmark.



Utilizing an approach that focuses on greenhouse gas emissions ("GHG"), DFA can accurately assess which corporations are actively doing harm to the environment and either exclude or underweight those firms (more than 70% of S&P 500 companies disclose their GHG emissions data). Conversely, they can reward companies that are good stewards of the environment by overweighting them.

Taking action to limit greenhouse gas emissions is critical, we believe, given the economic consequences of doing nothing. Simulating the impact of rising temperatures, the Swiss Re Insurance Group found, "…that global GDP would be 11-14% lower than in a world without climate change by midcentury. By contrast, and while it still would be costly to invest the money needed to prevent warming above 1.5ºC — the threshold under which we must stay to avoid climate catastrophe — the negative impact on gross domestic product (GDP) is estimated to be only about 4.2% by midcentury. Investing in mitigation and adaptation is expensive — *but only about a third as expensive as doing nothing* [our emphasis added]."

In the past, it might have been assumed that in order to incorporate environmental priorities into one's portfolio, one would have to sacrifice investment returns. Historical performance demonstrates, however, that one can still achieve favorable performance while at the same time making a positive impact on the environment. In the line graph below, we've compared the cumulative performance of the DFA U.S. Sustainability Core fund against the Russell 3000 Index. The performance is virtually identical which is impressive given that the Russell 3000 has outperformed 72% of its actively managed peer group over the past 10 years!



While we are pleased with the long-term performance of DFA's sustainability-oriented investment strategy and are optimistic about its future, we are also mindful that such a strategy can lead to periods of underperformance as has been the case so far in 2022. Sharply rising oil prices have boosted traditional energy stocks which sustainability-oriented portfolios normally exclude. During the first quarter of 2022, the DFA US Sustainability fund underperformed the Russell 3000 benchmark by approximately 1.5%. However, over the past the past 3-, 5-, and 10-year trailing periods ending March 31st, the fund has outperformed the benchmark.

We've seen significant developments in the financial markets which might favor a sustainability-oriented approach in the future, including:

- More and more companies are committing to disclose their carbon emissions in their annual and quarterly filings, easing the tracking of corporate behavior – both good, and bad. This is happening both domestically and, importantly, abroad – even in developing markets.
- The global energy supply chain should normalize over time as (hopefully) the Ukrainian conflict wanes and the global pandemic recedes into the background.
- Companies and governments are making significant commitments to both alternative and cleaner sources of energy (especially given improving economics and the new urgency to diversify energy sources away from bad actors such as Russia).
- Awareness is increasing about the harmful effect of GHG emissions on the climate, and some of earth's best and brightest minds are working on solutions to ensure our continued survival on the planet, including low-carbon hydrogen. Human ingenuity is an extremely powerful force, especially in the face of crises!

Is a Recession on the Horizon?

Recently, the financial media has drawn its attention to the R-word, or the possibility that a recession might be on the horizon given the confluence of economic uncertainties. Before looking at the current factors which might lead to an economic slowdown, it's important to recognize that recessions are fairly common. Since the early 1950s, the U.S. has experienced 11 recessions with an average duration of just under 11 months (an average of one recession every six years). The worst downturn was the 2007-09 Great Recession which lasted 18 months during which the unemployment rate reached 10% and stock prices had their biggest decline since the Great Depression. The shortest recession was the Covid-19 downturn which had a duration of just over 2 months.

Currently, the economy remains in an expansion mode with unemployment near an all-time low of 3.6% with wages growing at the fastest clip since 1981 (+6.7% over the past 12 months). Ironically, strong consumer demand has driven consumer prices higher causing the Fed to shift from accommodation (i.e., keeping interest rates low to stimulate growth) toward tightening (i.e., raising rates in order to cool off the economy in an effort to combat inflation). Some economists feel that the Fed is behind the curve and will need to raise interest rates much faster than had been previously expected. The fear is if the Fed overreacts and tightens too much, or too quickly, the Fed might unintentionally cause the economy to fall into a recession. The Fed's challenge, therefore, is to tighten monetary policy sufficiently to make a difference in the battle against inflation while also attempting to avoid sending the economy into a tailspin. To further complicate this difficult balancing act, the Fed must also consider the

Post WWII Recessions and Stock Market Performance:
12 Months Before, During and 12 Months Following

Recession Start	Length (Years)	During Recession	12M Before	12M After
7/31/1953	0.83	18%	-3%	30%
8/31/1957	0.67	-4%	-5%	33%
4/30/1960	0.83	17%	-6%	10%
12/31/1969	0.92	-5%	-11%	8%
11/30/1973	1.33	-13%	-18%	23%
1/31/1980	0.50	7%	14%	8%
7/31/1981	1.33	6%	8%	20%
7/31/1990	0.67	5%	3%	8%
3/31/2001	0.67	-2%	-23%	-18%
12/31/2007	1.50	-37%	4%	12%
2/29/2020	0.17	-1%	6%	44%
Average Return		-1%	-3%	16%
% Positive Return Periods		45%	45%	91%

impact of rising consumer prices which will also have a dampening effect on consumer spending and economic growth. It could be that the Fed's tightening efforts *coupled* with a naturally dampening effect of high consumer prices might create a more severe economic slowdown than necessary.

Economists are divided about the prospects of a recession. One camp believes that the Fed will be successful in engineering a "soft landing" which would avoid a serious economic downturn. Fed Chair Jerome Powell recently stated, "The probability of a recession within the next year is not particularly elevated. All signs are that this is a strong economy, one that will be able to flourish — not to say withstand, but certainly flourish — in the face of less accommodative monetary policy." There's another camp of economists which believe that a "hard landing" is more likely given that many of the factors which might cause an economic slowdown are beyond the Fed's capacity to control, e.g., supply chain issues (exacerbated by the rolling Covid-19 lockdowns in China) and the impact of the war in Ukraine.

Whether or not we will have a recession over the next twelve months, or so, investors are generally well advised not to try and time the markets. First of all, a recession is not even official until *after* the economy has experienced two successive quarters of negative growth as measured by GDP. Secondly, stocks have historically performed the worst during the 12 months leading up to a recession than they did during the recession itself (please refer to the table on the previous page). This means that for market timing to work, one would have to successfully predict the occurrence of a recession well in advance. Lastly, in all but one of the 11 recessions since 1950, the stock market performed well (sometimes very well) during the 12 months immediately following the end of the recession. Given the difficulty of predicting the timing of a possible recession, the best strategy for dealing with recession risk, we believe, is to maintain a well-balanced portfolio and avoid or underweight those areas of the stock market which might be the most vulnerable to significant price correction. For example, over the past three months as investors have been focused on the potential impact of higher interest rates and slowing economic growth, we've seen lower-priced Value Stocks performing much better than higher-priced Growth Stocks (please refer back to the U.S. Stock Market Style Box on page 2).

Closing Comment – We Are All Ukrainians

We have all been watching in horror as the citizens of Ukraine have been subjected to the brutal attacks of Putin's military. Yet, we are also inspired by the courage of the Ukrainians, led by their president Volodymyr Zelensky, to stand up against overwheming odds. We are reminded of the late Senator John McCain's words at the time Russia invaded Crimea in 2014, "The West must do whatever it can to support Ukrainian patriots. Ukraine's fight is our fight, too. We are all Ukrainians."

If you are interested in examining ways to support the people of Ukraine, we have posted several links on our website's Chart Room which provide opportunities to consider. https://aequitas-inv.com/chart-room/