Market Newsletter
March 31, 2022

EXECUTIVE SUMMARY

- 40-year high inflation, increasing interest rates and the war in Ukraine have caused uncertainty in the stock markets.

- The Federal Reserve has started raising interest rates and is expected to raise it 6 more times in 2022.

- The yield curve (A graph showing interest rates of bonds of various maturities) has inverted. This is usually a harbinger of a recession. However, it has only inverted in some portions and is steep in other portions making it unclear when a recession could occur.

- The drop in stocks and an 8% expected growth in corporate earnings have made stocks 10% cheaper than they were at the beginning of the year.

- Stocks are a better asset class than residential real estate to grow wealth over the long term. Over the long-term, stocks have returned twice as much as residential real estate. If you had invested in a portfolio of stocks with long-term discipline and had continually added to it, you would have historically done much better than with homes. Additionally, stocks are highly liquid and can easily be a source of funds with very low transaction costs.

Table 1: Market indices

(Returns include dividends)	**Quarter to date**	**Year to date**	**1 Year**	**3 Year Annualized**	**5 Year Annualized**
S&P 500	-4.60%	-4.60%	15.65%	18.92%	15.99%
S&P Mid Cap 400	-4.88%	-4.88%	4.59%	14.14%	11.10%
S&P Small Cap 600	-4.70%	-4.70%	2.22%	13.95%	11.11%
MSCI Emerging Markets	-6.92%	-6.92%	-11.08%	5.31%	6.35%
MSCI EAFE	-5.79%	-5.79%	1.65%	8.29%	7.23%
Vanguard Total Bond Market Index (VBMFX)	-6.00%	-6.00%	-4.17%	1.59%	2.02%
Investment Grade Credit (C0A0)	-7.74%	-7.74%	-4.31%	2.97%	3.30%
Non-Investment Grade Credit (H0A0)	-4.51%	-4.51%	-0.29%	4.40%	4.56%
Bloomberg Commodity Index Total Return	25.55%	25.55%	49.25%	16.12%	9.00%
Dollar Index (DXY)	2.76%	2.76%	5.45%	0.35%	-0.41%
10 Yr Rate	2.33% 03/31/2022	1.51%% 12/31/2021	1.75%% 03/31/2021	2.41% 03/31/2019	2.40% 03/31/2017

Source: S&P Dow Jones, ml.com, MSCI.com, Morningstar, Bloomberg, Yahoo Finance

Table 2: Recent Major US Economic Releases (These indicators have a significant impact on the stock market)

As of 04/05/2022			
	Latest Release	Recent Trend	Notes
Non Farm Employment	431,000	Positive	Hiring by employers was strong in the first three months of the year. Unemployment rate ticked down to 3.6% approaching the 50 year low of 3.5% set before the pandemic. More people are looking for work and the participation rate is up to 62.4%. Wage growth was elevated at 5.6% but not high enough to keep up with inflation.
Weekly Claims for Unemployment Insurance	202,000	Positive	Unemployment claims are at a historically low level reflecting a strong employment situation.
ISM Manufacturing Index (over 50 indicates growth)	57.1	Negative	Manufacturing is still growing and the index is well above 50. However, it has been falling, hurt by supply chain issues, high energy costs, covid lockdowns in China and labor shortages.
ISM Non Manufacturing Index (Over 50 indicates growth)	58.3	Negative	Like manufacturing, the services sector is growing but at a slower rate than a few months ago. However, the sector picked up speed in March as compared to February alleviating fears of a recession.

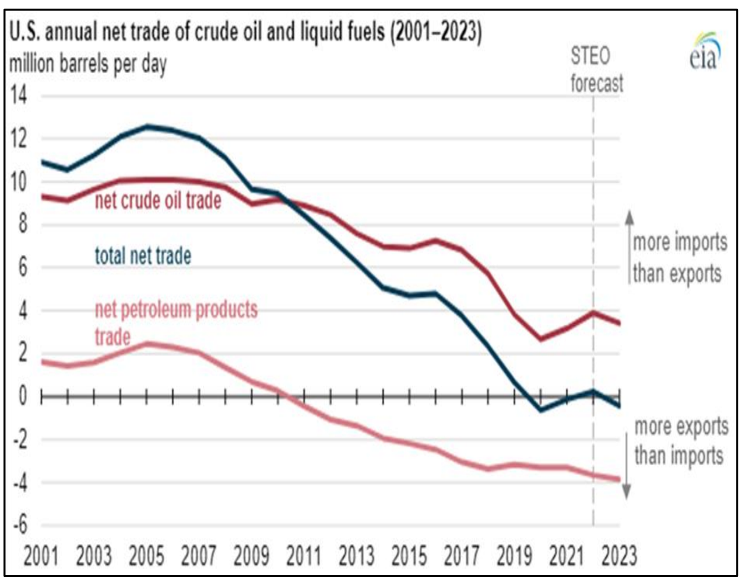
	Latest Release	Recent Trend	Notes
Consumer Prices (Month over month change)	0.8%	Negative	Inflation is running at a yearly rate of 7.9%, the highest level since 1982. Strong demand combined with supply chain issues worsened by the war in Ukraine has caused a spike in prices ofconsumer goods.
Producer Prices (Month over month change)	0.8%	Negative	Like consumers, producers are paying a higher price for the goods they use. Producer prices rose 10% from last year.
Retail Sales (Month over month change)	0.3%	Positive	High food and energy prices forced consumers to cut back on other items such as home furnishings and appliances. The latest retail sales for February was weaker than expected although January retail sales was revised upwards.
Consumer Confidence (Conference Board)	107.2	Negative	Inflation and worries about the war has depressed consumer confidence, which has been declining since the post pandemic high set in June 2021. However, the latest number release in March was the highest this year.
Durable Goods Orders (Month over month change)	-2.2%	Positive	Orders for long lasting goods such as appliances, electronics and autos fell sharply in February after 4 straight months of increases. Supply chain constraints hurt production and delayed shipments.
Industrial Production (Month over month change)	0.5%	Positive	Strong demand especially in the manufacturing sector supported industrial production in February, which came out better than expected. Labor shortages and supply chain issues are still challenging the sector.
Capacity Utilization	77.6%	Positive	Capacity utilization is higher than its pre pandemic level but slightly lower than its long term average.
Housing Starts	1.769 million	Positive	Housing starts increased 6.8% from a year ago reflecting strong activity in the housing sector. Permits remain at high pointing to an acute shortage of houses.
Home Prices (Case-Shiller Home Price Index- Year over Year)	19.2%	Positive	After 4 months of stagnation, home prices roses by 19.2% in January as compared to a year ago. This was the strongest January since the start of the data series. 16 of the 20 metro areas tracked recorded acceleration in prices.
GDP (Real, Annualized)	6.9%	Positive	GDP growth was strong in the fourth quarter of 2021, helped significantly by inventory buildup. Excluding inventories, GDP grew by 1.6% annualized rate. For the full year GDP grew by a healthy 5.7%.

Source: Bloomberg, www.federalreserve.gov, www.bls.gov, www.ism.ws, www.nahb.org

Stocks and bonds fell in the first quarter, leading to one of the worst starts to the year and an unusual one where both asset classes fell. Stocks fell much steeper mid quarter, with the S&P 500 index being down almost 13% at one point, while the technology heavy Nasdaq index went into a bear market as it fell over 20%. Both indexes subsequently recovered to end the quarter down 4.95% and 9.10% respectively. As interest rates rose, bonds fell 6%, a significant drop for an asset class considered to be a defensive part of portfolios. The only asset class that rose in the quarter was commodities, which gained over 25% as supply chain shortages and the war in Ukraine heightened the scarcity of commodities.

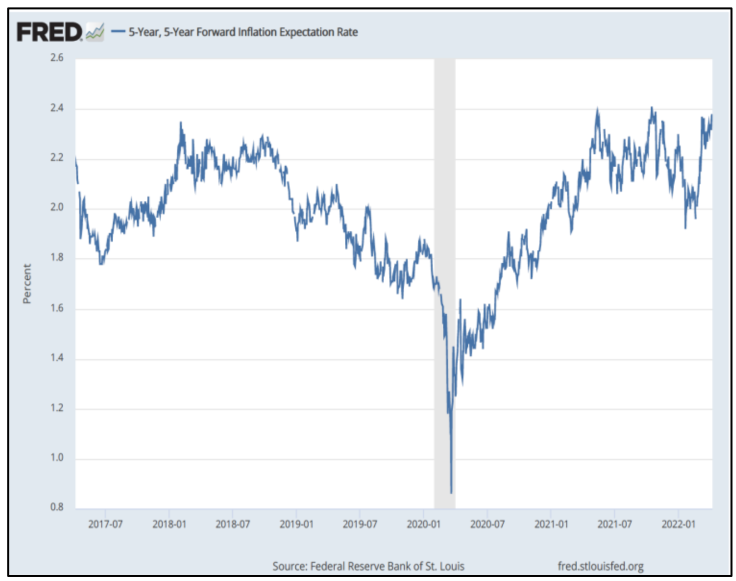
The big concerns during the quarter were inflation and the Federal Reserve's (Fed) expected response to curtailing it, the possibility of a recession and the consequence of the war in Ukraine. Annual consumer price inflation is running at a 40 year high of 8%, bringing back memories of sustained and painful inflation in the late 1970's. In that period, the Fed, led by Paul Volcker raised interest rates sharply leading to a recession in the early 80's. There are several similarities and differences between now and then. Like then, the current spike in inflation was caused by supply side disruptions after the pandemic and recently worsened by the war in Ukraine. In both periods, monetary policy (Interest rates and other policies adopted by the Fed) stoked inflation. Unlike in the 1970's the magnitude of commodity spike is relatively low today especially because of domestic production of oil which has led to the US being a net exporter of petroleum products (Fig 1). In comparison, oil prices quadrupled in 1973-74 and doubled in 1979-80. Secondly, the Federal Reserve is more active in managing inflation and has several modern tools to do so. Finally, the structural reasons responsible for low inflation in the last several years, such as the deflationary impact of technology and an ageing population remain and are likely to put a lid on inflation. Bond market signals such as the 5-year, 5-year forward inflation expectation rate (Discussed in last quarter's letter) continue to indicate that inflation should drop back to lower levels of between 2 and 3% in the next few years. (Fig 2)

Fig 1: The US is now a net exporter of Petroleum



Source: US Energy Information Administration

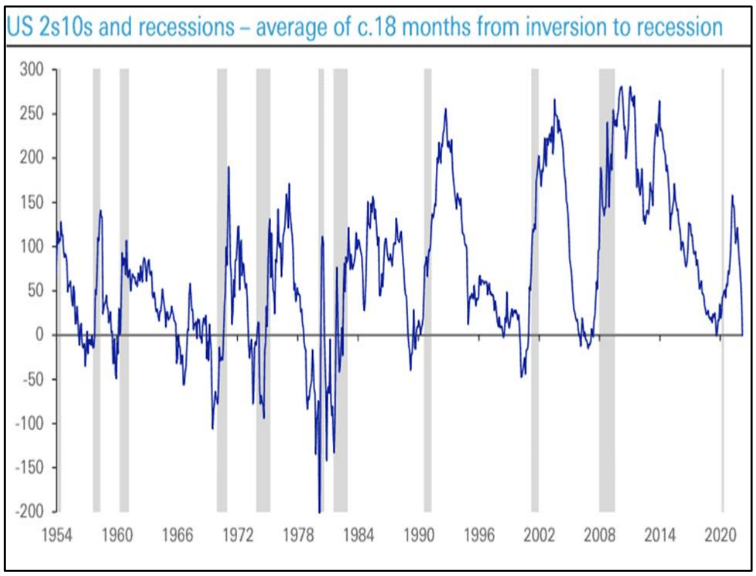
Fig 2: The bond market expects lower inflation in the future



Source: The Federal Reserve Bank of St Louis

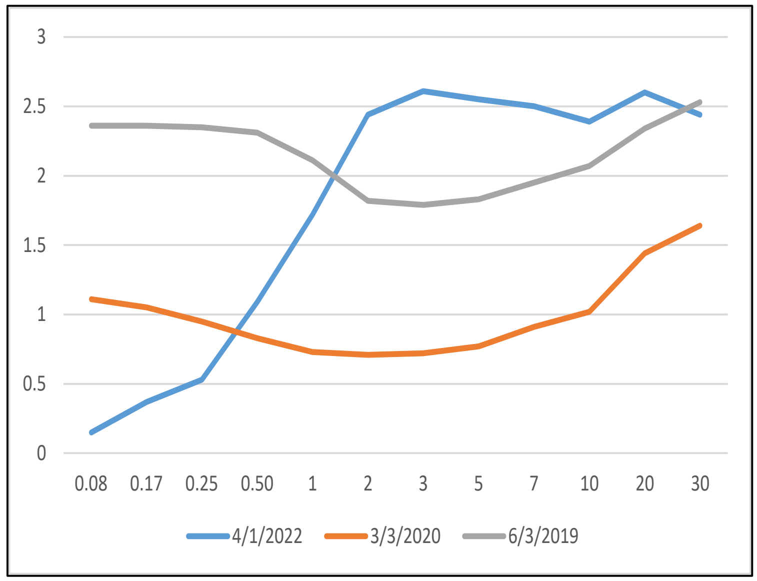
In its March meeting, the Fed raised interest rates by 50 basis points (0.5%; 100 basis points is equal to 1%) and acknowledged that it would act forcefully to curtail inflation. It now expects to raise interest rates another 6 times in 2022 to nearly 2%, higher than the level rates were before the Pandemic. Following, the first rate-hike by the Fed, the yield curve (A graph showing interest rates of bonds of various maturities) inverted for a brief period, i.e shorter maturity bonds had a higher interest rate than longer maturity bonds. This abnormal condition is often seen as a harbinger of recession because every recession in the last 50 years was preceded by an inversion in some part of the yield curve (Fig 3). The hand wringing about the possibility of a recession has started and so have the headlines about 'yield curve inversion'. However, only a portion of the yield curve has inverted and there are unusual conditions that has led to the inversion. Currently, the inversion is between the 2 year and the 10-year portion of the yield curve i.e the 2-year treasury has a higher interest rate than the 10-year treasury bond. However, if you consider the 3 month and the 10-year interest rates, the curve has not inverted but is quite steep. (Fig4). The Federal Reserve Bank of New York uses this part of the yield curve to predict recessions and has recently calculated the probability of recession in the next one year to be quite low at less than 6%. There are also several unusual technical factors that are influencing the yield curve since the Fed has embarked on an unprecedented monetary policy after the pandemic, buying up billions of dollars of Treasury bonds around the 10-year maturity. This has kept the 10-year rate artificially low causing the inversion. Finally, an inversion of the yield curve is not a signal to sell stocks- in the previous 7 inversions- stocks were up on average by 11% over the next 12 months after the inversion.

Fig 3: Yield curve usually invers before a recession



Source: GFD, FRB, Deutsche Bank

Fig 4: Part of the yield has inverted now as it did in 2019

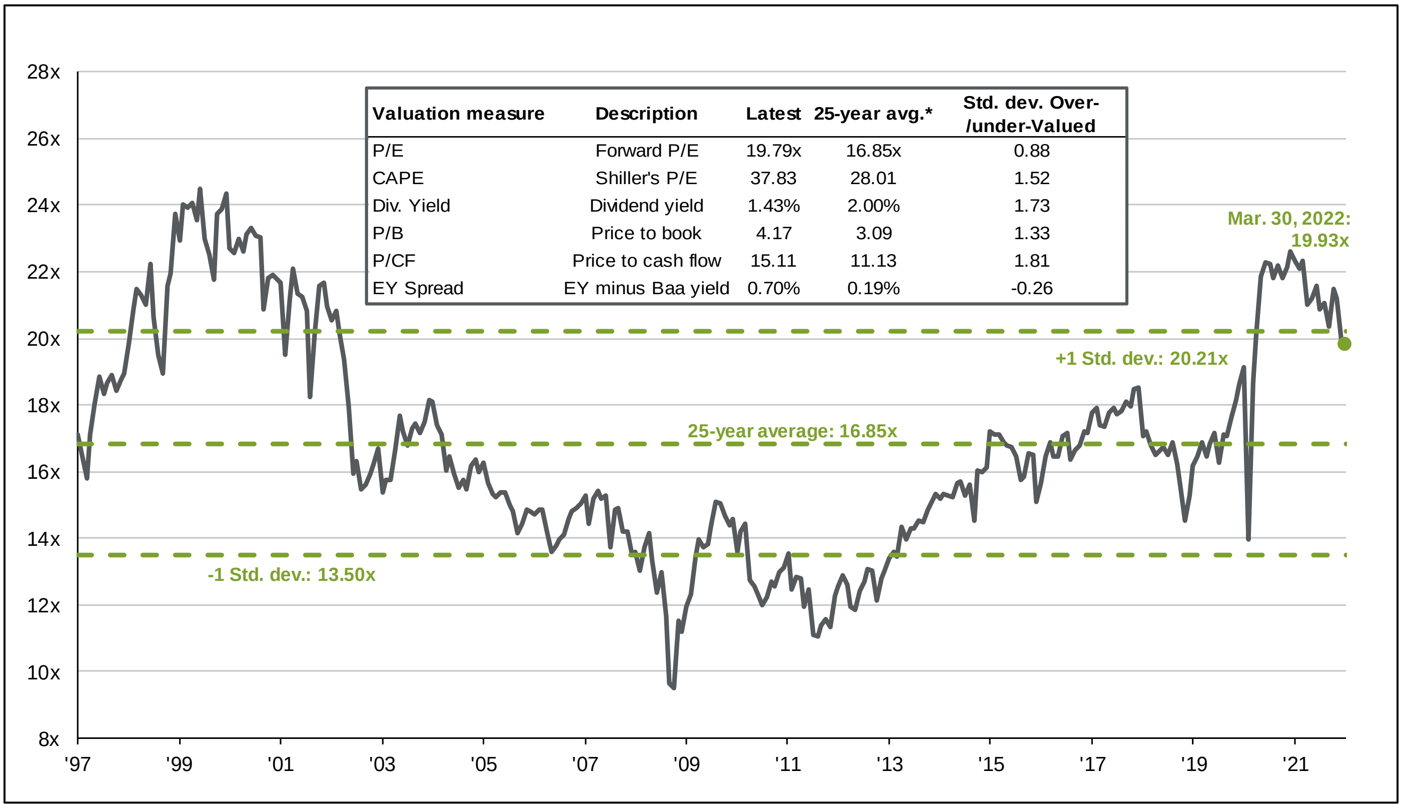


Source: Treasury.gov

In late February, Russia attacked Ukraine. What was expected to be a short war, has dragged on for several weeks with heavy casualties on both sides. Ukraine and Russia are important suppliers of commodities such as oil, wheat and precious metals such as Palladium. As western countries rallied to issue financial and trade sanctions on Russia, commodity prices spiked. Russia is an important supplier of oil (It accounted for 8% of global oil trade before the war), which shot up to $130 before falling back to $100. Stock markets dropped significantly after the invasion but have rallied since then and most equity markets are above where they were before the invasion. The only exception is Emerging Market Equities which are expected to be directly (Russia had a 1-2% weighting in Emerging Market Equity indexes) and indirectly affected by the war to a larger extent than other markets. The effect of the war is likely to be felt more in overseas economies than in the United States. Europe is already feeling the recessionary effect of the war.

According to S&P Dow Jones Indices, earnings of companies in the S&P 500 is expected to increase by 8% in the first quarter of 2022 as compared to the first quarter of 2021. Analysts have been cutting earnings estimates for the first quarter citing inflation, rising interest rates and the conflict in Ukraine, however, they expect the headwinds to mitigate later in the year and they have been raising earnings estimates for the full year 2022. For the full year, earnings are expected to increase by over 8%. Falling equity markets coupled with expected increase in earnings have made stocks cheaper- the forward price earnings multiple of the S&P 500 has dropped to 19.8X which is 10% below the levels late last year. (Fig 5).

Fig 5: S&P 500 valuation



Valuation measure	Description	Latest	25-year avg.*	Std. dev. Over-/under-Valued
P/E	Forward P/E	19.79x	16.85x	0.88
CAPE	Shiller's P/E	37.83	28.01	1.52
Div. Yield	Dividend yield	1.43%	2.00%	1.73
P/B	Price to book	4.17	3.09	1.33
P/CF	Price to cash flow	15.11	11.13	1.81
EY Spread	EY minus Baa yield	0.70%	0.19%	-0.26

Source: JP Morgan

Building long term wealth with stocks versus homes

You may have heard that buying a home is one of the best ways to build wealth. Indeed, a significant proportion of US household wealth is in real estate (25% according to data from the Federal Reserve). Home prices have increased significantly in several cities around the country and there has been a flood of money buying up homes for investment purposes. However, as explained in this article in Barron's (CLICK HERE FOR THE ARTICLE) "over the long term, history shows the stock market has returned about twice as much as residential real estate. And it has done so with far fewer headaches than the attendant expenses of upkeep, which have come as a shock to many recent home buyers" According to the article between 1972 and 2021, stocks returned 12.47% per year versus 5.41% per year for residential housing. More recently, between 2012 and 2021, stocks returned 16.98% per year as compared to 7.38% for residential real estate. One of the reasons why people tend to do well with residential real estate is that they tend to hold it for the long term- no one sells their home because home prices have dropped neither do they 'try to time the markets' as they do with stocks. Home ownership also forces people to save and contribute continually towards the asset in the form of mortgage payments. If you had invested in a portfolio of stocks with similar long-term discipline and had continually added to it, you would have historically done much better than with homes. Additionally, stocks are highly liquid and can easily be a source of funds with very low transaction costs.