



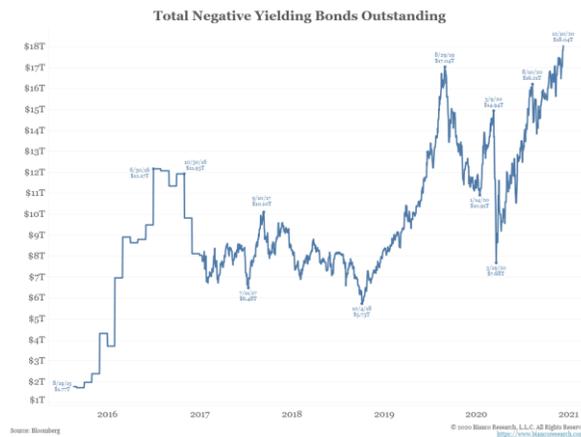
Among a myriad of other things, the year 2020 will be remembered as a period that featured an unprecedented use of the word “unprecedented”. The extraordinary nature of this year is evidenced in everything from unprecedented pandemic case counts and the most ambitious vaccine campaign in U.S. history to a record election turnout, and from the first-ever government-mandated shut-down of the economy to a previously unimaginable campaign by a sitting president to undermine the credibility of an American election.



However, even against such an extraordinary and unparalleled backdrop, one can argue that the unprecedented nature of the year 2020 perhaps manifested itself best in the capital markets and in the macroeconomic environment where,

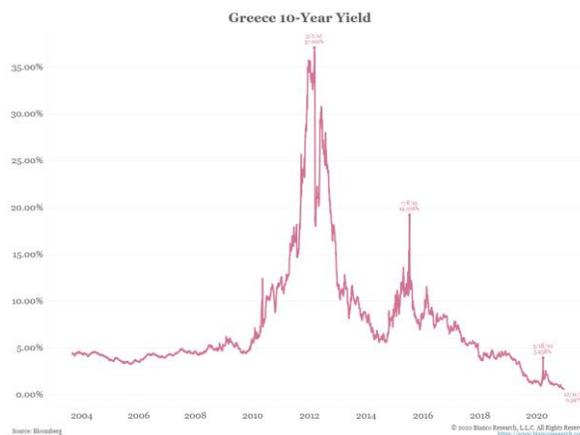
among other things, the year produced the fastest and shortest equity bear market in history, the sharpest economic contraction in U.S. history (which led to the worst economic contraction since the Great Depression), and the lowest U.S. interest rates in history.

While the market in 2020 that most immediately comes to mind is probably the stock market, the market that ranks highest on the “unprecedented scale” almost certainly has to be the bond market, where \$18 trillion of global securities (almost one-third of total global fixed income) pays a negative interest rate, where short-



term U.S. rates spent the year mired at virtually 0%, while long-term U.S. rates reached their lowest levels in history. Currently, 27% of the world’s investment grade debt pays a negative

interest rate (i.e., the investor is guaranteed to lose money, if they hold a bond to maturity). Even some “junk-rated” debt offers negative yields, despite also having significant default-related risks.



Indeed, in this crazy, upside down world of interest rates, even the yield on the “junk-rated”, 10-year Greek sovereign bond is now approaching 0.5%, when as recently as 2012 it was viewed as such a bad credit risk that it required a 35% yield to attract investors. Moreover, it now has a

lower yield than a U.S. Treasury note, which makes almost no sense, when you consider that a U.S. Treasury note is a much safer investment, and thus should have the lower yield.

Perhaps most importantly, we believe that the year 2020 likely marked the end of a 39-year-old bull market in bonds. If that expectation is ultimately proven correct, it could catalyze a sea-change in how people invest, as cyclical bull and bear markets in bonds tend to last for decades, as opposed to the relatively short cycles traditionally found in equity markets, which tend to be measured instead in years, or even months. This is clearly visible in the chart of the 10-year Treasury.



Further complicating matters is something called convexity, which is basically the phenomenon that any given change in interest rates

has a much bigger impact on bond prices when rates are low than when rates are high. For example, if the yield on a 10-year Treasury note were to simply increase, over the course of a year, from the current 0.91% to only 2.0% (a reasonable potentiality), the price of the security would decline by 9%. By comparison, if rates increased by the same 1.09% over the year, but from a rate of 8.91% to 10.0%, the price decline would only be 6.8%. Moreover, with a current yield of less than 1%, there is virtually no dividend yield to help offset the price decline.

Interest Rates in the Developed World

Country	Policy Rate	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	6-Year	7-Year	8-Year	9-Year	10-Year	15-Year	30-Year
Switzerland	-0.75	-0.84	-0.91	-0.84	-0.81	-0.81	-0.78	-0.76	-0.72	-0.68	-0.64	-0.59	-0.43	-0.36
Germany	-0.50	-0.75	-0.74	-0.77	-0.83	-0.80	-0.79	-0.79	-0.73	-0.66	-0.61	-0.42	-0.19	-0.19
Netherlands	-0.50	-0.73	-0.75	-0.77	-0.76	-0.75	-0.71	-0.67	-0.63	-0.58	-0.52	-0.45	-0.13	-0.13
Denmark	-0.60	-0.60	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65	-0.65
Finland	-0.50	-0.72	-0.77	-0.75	-0.75	-0.72	-0.69	-0.61	-0.56	-0.50	-0.43	-0.19	-0.06	-0.06
Austria	-0.50	-0.65	-0.73	-0.73	-0.73	-0.72	-0.66	-0.64	-0.59	-0.46	-0.41	-0.21	0.01	0.01
Japan	-0.10	-0.08	-0.13	-0.15	-0.14	-0.14	-0.12	-0.12	-0.10	-0.08	-0.04	0.01	0.19	0.61
France	-0.50	-0.70	-0.68	-0.73	-0.74	-0.73	-0.70	-0.62	-0.59	-0.51	-0.43	-0.36	-0.18	0.04
Belgium	-0.50	-0.71	-0.68	-0.76	-0.74	-0.73	-0.71	-0.65	-0.58	-0.55	-0.48	-0.41	-0.18	0.02
Ireland	-0.50	-0.70	-0.70	-0.70	-0.68	-0.64	-0.60	-0.52	-0.42	-0.28	-0.13	0.02	0.33	0.84
Spain	-0.50	-0.59	-0.67	-0.63	-0.59	-0.50	-0.42	-0.42	-0.28	-0.22	-0.13	0.02	0.33	0.84
Portugal	-0.50	-0.63	-0.64	-0.72	-0.61	-0.58	-0.48	-0.40	-0.28	-0.21	-0.14	0.02	0.34	0.70
Italy	-0.50	-0.51	-0.47	-0.44	-0.30	-0.18	-0.02	0.07	0.21	0.32	0.44	0.56	0.93	1.43
United Kingdom	0.10	-0.07	-0.06	-0.12	-0.12	-0.11	-0.09	-0.06	0.02	0.06	0.15	0.20	0.42	0.74
Australia	0.10	-0.02	0.04	0.09	0.12	0.20	0.33	0.45	0.58	0.73	0.87	0.99	1.35	1.97
New Zealand	0.25	0.25	1.73	0.22	0.31	0.31	0.49	0.49	0.49	0.49	0.49	0.49	0.89	1.36
Canada	0.25	0.17	0.22	0.26	0.31	0.37	0.46	0.53	0.63	0.74	0.84	1.01	1.28	1.63
United States	0.13	0.08	0.09	0.14	0.19	0.39	0.65	0.91	1.17	1.43	1.69	1.95	2.21	2.47

As noted, bond investors have enjoyed a 39-year bull market that started in the early 1980s, with long-term rates peaking around 16% and short-term rates briefly touching 20%, before ultimately bottoming out earlier this year, with short-term rates near

0% and the benchmark 10-year Treasury note yielding around one-quarter of 1%.

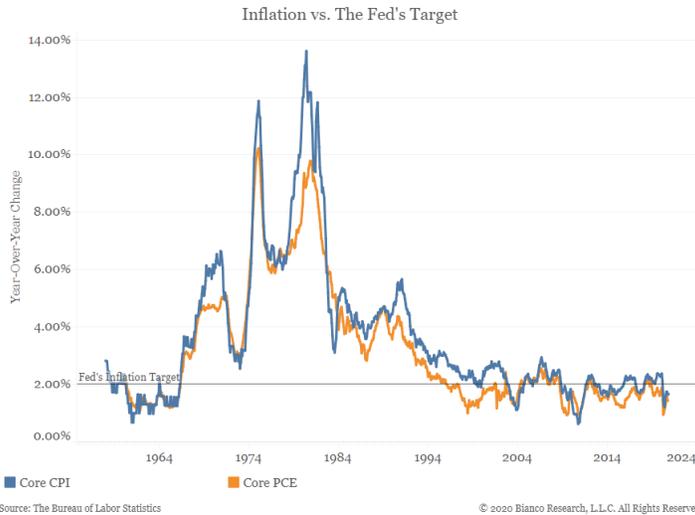
Real Interest Rates in the Developed World (Nominal Minus CPI)

Country	Inflation Rate	Policy Rate	6-Month	1-Year	2-Year	3-Year	4-Year	5-Year	6-Year	7-Year	8-Year	9-Year	10-Year	15-Year	30-Year
Switzerland	-0.70	-0.05	-0.14	-0.21	-0.14	-0.11	-0.11	-0.08	-0.06	-0.02	0.02	0.06	0.11	0.27	0.34
Germany	-0.30	-0.30	-0.45	-0.44	-0.47	-0.53	-0.50	-0.49	-0.49	-0.43	-0.42	-0.36	-0.31	-0.12	0.11
Netherlands	0.80	-1.30	-1.53	-1.55	-1.57	-1.56	-1.55	-1.51	-1.47	-1.43	-1.38	-1.32	-1.25	-0.93	-0.93
Denmark	0.50	-1.10	-1.10	-1.15	-1.15	-1.15	-1.15	-1.15	-1.15	-1.15	-1.15	-1.15	-1.15	-1.15	-1.15
Finland	0.20	-0.70	-0.92	-0.97	-0.95	-0.95	-0.92	-0.89	-0.81	-0.76	-0.70	-0.63	-0.39	-0.26	-0.26
Austria	1.30	-1.80	-1.95	-2.03	-2.03	-2.03	-2.02	-1.96	-1.94	-1.89	-1.82	-1.76	-1.51	-1.24	-1.24
Japan	-0.40	0.30	0.32	0.27	0.25	0.26	0.28	0.28	0.30	0.32	0.36	0.41	0.59	1.01	1.01
France	0.20	-0.70	-0.90	-0.88	-0.93	-0.94	-0.93	-0.90	-0.82	-0.79	-0.71	-0.63	-0.56	-0.38	0.14
Belgium	0.51	-1.01	-1.22	-1.19	-1.27	-1.25	-1.24	-1.22	-1.16	-1.09	-1.06	-0.99	-0.92	-0.69	-0.20
Ireland	-1.10	0.60	0.40	0.40	0.42	0.46	0.50	0.58	0.58	1.10	0.79	1.01	1.40	1.40	1.40
Spain	-0.80	0.30	0.21	0.14	0.17	0.21	0.30	0.38	0.52	0.67	0.82	1.13	1.64	1.64	1.64
Portugal	-0.20	-0.30	-0.43	-0.44	-0.52	-0.41	-0.38	-0.28	-0.20	-0.08	0.06	0.18	0.54	0.90	0.90
Italy	-0.20	-0.30	-0.31	-0.27	-0.24	-0.10	0.02	0.19	0.27	0.41	0.52	0.64	0.76	1.13	1.63
United Kingdom	0.70	-0.60	-0.77	-0.76	-0.82	-0.82	-0.81	-0.79	-0.76	-0.68	-0.64	-0.55	-0.50	-0.28	0.04
Australia	0.70	-0.60	-0.72	-0.66	-0.61	-0.58	-0.50	-0.37	-0.25	-0.12	0.03	0.17	0.29	0.65	1.27
New Zealand	1.40	-1.15	0.33	-1.18	-1.18	-1.09	-1.09	-0.91	-0.91	-0.91	-0.91	-0.91	-0.91	-0.91	-0.91
Canada	0.70	-0.45	-0.53	-0.48	-0.44	-0.39	-0.34	-0.24	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17	-0.17
United States	1.20	-1.08	-1.12	-1.11	-1.06	-1.01	-0.81	-0.55	-0.55	-0.55	-0.55	-0.55	-0.55	-0.55	-0.55

Even now, with long-term rates already having more than tripled off of

their historic lows, the entire Treasury yield curve, with the sole exception of the 30-year Treasury bond, is yielding below the inflation rate (see the “real interest rate” chart). In other words, bond holders are already losing purchasing power every year, net of inflation, and we believe that inflation is likely headed higher, particularly in light of the current massive fiscal and monetary stimulus, the anticipated normalization of the economy in 2021, the recent trend towards deglobalization, the Fed’s stated desire for higher inflation, and its promise not to raise interest rates or proactively tighten monetary policy until after inflation has actually exceeded and sustained above their 2% target.

Against this backdrop, it is little wonder that Jamie Dimon, Chairman and CEO of JPMorgan, was just quoted as saying, “I think Treasuries at these rates, I wouldn’t touch them with a 10-foot pole.”



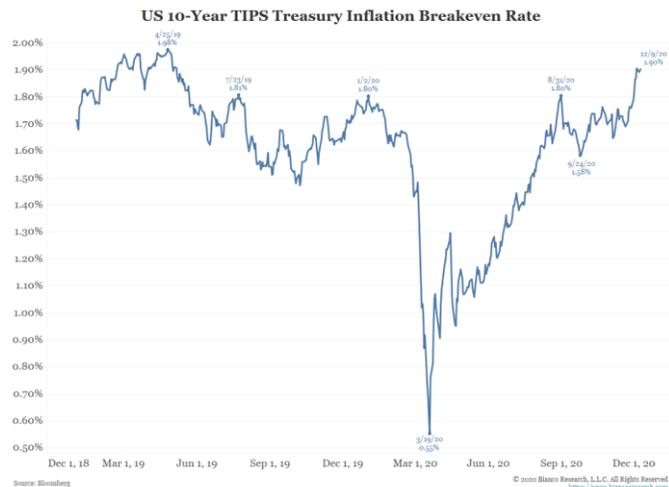
If we are correct in our expectation that both inflation and interest rates will move modestly higher, then bond investors will not only lose purchasing power net of inflation, but also nominal market value due to the existence of higher rates.

It is only logical that inflation and interest rates move in near lockstep, as investors demand that yields move higher with

inflation to help offset the loss in purchasing power caused by those higher inflation rates.

However, higher inflation is not the only potential catalyst for higher rates, as rates will also tend to trend higher in anticipation of a strengthening economy and/or an increasing demand for credit. In general, equities will tolerate higher interest rates quite well, if rates are rising in response to faster growth, but less well if they are a response to increasing inflation. That said, either catalyst should be a concern to bond investors, with a combination of both accelerating growth and rising inflation being doubly troubling.

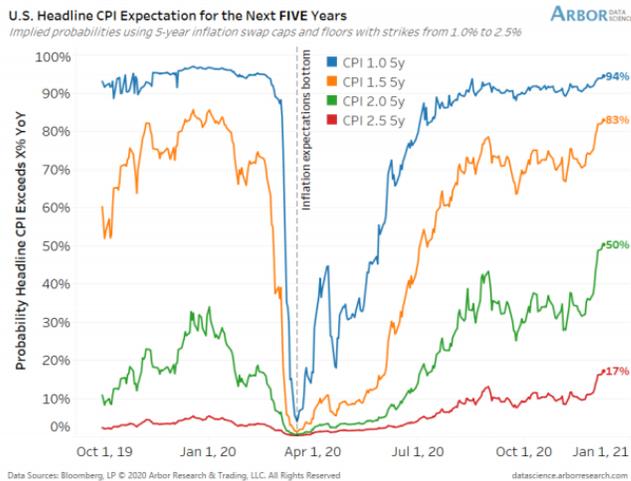
A look at the inflation “break-even rate”, which is a measure of the difference in yield between traditional, fixed 10-year Treasuries and 10-year T.I.P.s (inflation-protected Treasury securities), and the fact that it is steadily rising, suggests that rates are moving higher largely because of expectations for increasing inflation, and not primarily due to growing expectations for either faster growth or stronger demand for credit.



While equity markets tend to prefer low rates and low inflation, they have historically dealt quite well with modest upticks in inflation, which is our expectation. That said, in a bond market that is already priced for rates to stay near 0% for as far as the eye can see, any sustainable up-tick in inflation has the potential to be particularly problematic.

From a purely mechanical perspective, bond prices and interest rates are virtually always inversely correlated, and increasing inflation erodes the purchasing power of the fixed income stream that bonds provide. These are two of the most dependable relationships in the capital markets. Higher rates/inflation catalyze lower bond prices and *nice-versa*.

Due to a steady and sustained decline in inflation over recent decades, bonds have proven to be a remarkable investment for the past 39 years, as their prices have just meandered higher year after year largely without interruption, all the while spinning off regular income in an otherwise income-starved world.



Indeed, very few current investors have ever even seen a bear market in bonds, and most view bonds as risk-free investments. We are more concerned that bonds have now gone from providing “risk-free return to return-free risk”, and that investors will soon learn to view bond investing in a very different light.

Importantly, while we do suspect that the bull market in bonds has reached its end, we are not necessarily

anticipating significant losses both because there are still numerous deflationary influences in the world that should help to keep inflation from getting out of hand, and because there is so much negative-yielding debt overseas, that U.S. yields are quite high on a relative basis, and should thus draw substantial foreign money into our bond markets if rates go significantly above current levels.

It is also quite possible, in light of the Fed’s ongoing and massive bond purchases (and their dampening impact on interest rates), that we could, at least temporarily, have yet another largely unprecedented event, with inflation climbing higher, but interest rates remaining low.

While we recognize that such rate depressing policies may be beneficial in the short term for the bond market, as it reduces the downwards pressure on bond prices that are a mechanical reaction to higher rates, it could be very deleterious to bonds over the longer term, as it would prevent bond yields from moving higher/bond prices moving lower to help protect future bond investors from the erosive, long-term impact that inflation has on the purchasing power of fixed income.

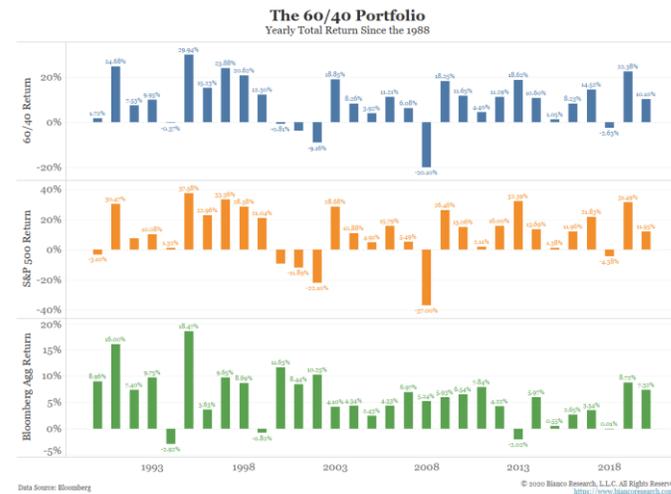
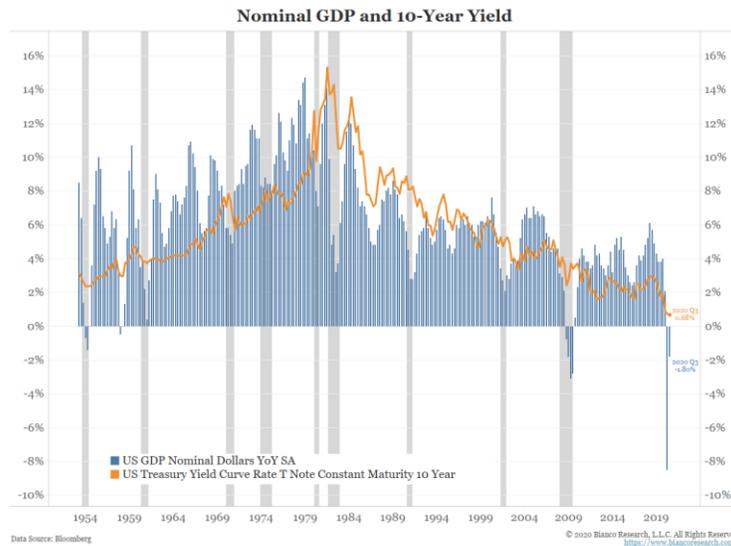


One of the likely catalysts for both current inflation and expectations for future inflation is the falling value of the U.S. dollar, which has declined by 12.5% from its late March highs. However, the fact that “breakeven” rates are increasing throughout the western world suggests that this is more of a global (non-currency) phenomenon, and a response to macroeconomic factors like surging debt levels, massive expansion of the global money supply, an expected 2021 recovery from the global pandemic and supply/demand issues.

To explain this last point, while the global supply of goods has been significantly constricted by this year's massive global contraction, spending power has actually improved dramatically as a result of government transfer payments, such as those included in the CARES Act.

Indeed, as was just noted by economist David Rosenberg, "personal income for all of society is \$500 billion, or 2.5%, higher than what would have been the case had the coronavirus never happened". Historically, an increased supply of money chasing a reduced supply of goods has tended to cause inflation.

If we are correct in our assumption that the path of least resistance for bond prices in general, and high-quality bond prices in particular, is now likely down, it will mean that the fixed income component of balanced, multi-asset-class portfolios is more likely to drag on performance, rather than enhance returns, as has been the case throughout the investing career of most current investors, where a mix of 60% equities and 40% debt has provided an almost ideal portfolio from the perspective of risk-adjusted returns.



Importantly, the diminished outlook for bonds does not necessarily mean that bonds need to be avoided, and can no longer play an important role (providing the aforementioned ballast) in portfolios.

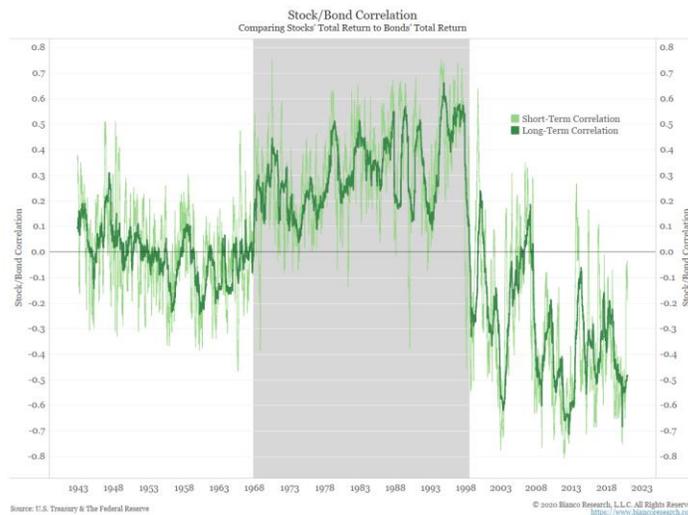
To explain, stocks are an optimistic asset class that thrives when the economy and corporate earnings are strong. More accurately, stocks generally react very positively to indications that future earnings and

economic growth are set to improve. By contrast, bonds are generally a very pessimistic asset class that loves misery, and celebrates almost any further worsening of economic conditions, particularly if the worsening news implies a reduction in inflationary pressures.

The worse the news, the better that bonds like it and, just as high-quality bonds suffer the most when conditions improve, these higher quality segments of the bond markets tend to benefit the most when conditions deteriorate.

In other words, while higher-quality bonds may drag on performance over the foreseeable future, they do tend to react to news very differently than do stocks, and thus may still have an important role in diversifying and stabilizing a balanced portfolio.

In fact, one could argue that bonds might be an even more effective hedge for equities in the anticipated environment, when you consider that, for much of the past forty years, the virtual lack of inflation has allowed stocks and bonds to trade overwhelmingly in the same



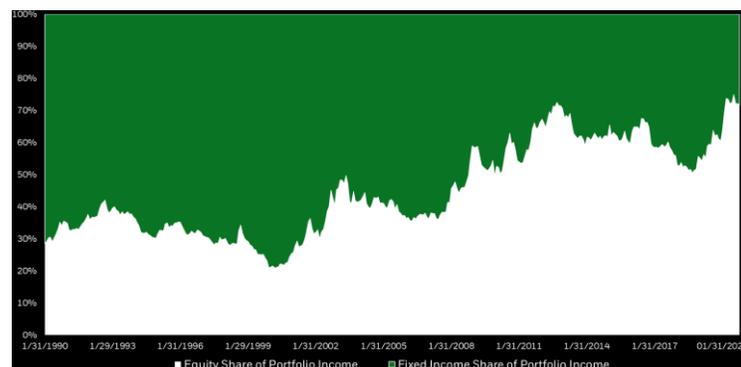
direction, albeit with temporary divergences. This relationship between stocks and bonds has been even more closely correlated throughout the new millennium, which suggests that bonds have recently not been that great of a hedge against equity volatility after all, as stock and bond prices have generally traded together.

Of note, we believe that the primary importance of this perceived deterioration in the outlook for bond prices has

everything to do with its implications for diversification and performance, and relatively little to do with the loss of an avenue for current income, as there are an array of financial vehicles and strategies that generate income significantly higher than what is currently available in the bond markets, including large segments of the domestic stock market itself, where broad indexes of dividend paying stocks are yielding between three and four times the yield of a 10-year Treasury note, and many of the higher-yielding stocks are also those that are most undervalued, including many presumed beneficiaries of a post-pandemic recovery.

Moreover, as is illustrated below, this is a global phenomenon. If you invested 60% of a portfolio in the MSCI World Equity Index and 40% in the Barclays Aggregate Bond Index, 70% of the portfolio’s dividend yield would come from the equity allocation (white) rather than the bond holdings (green).

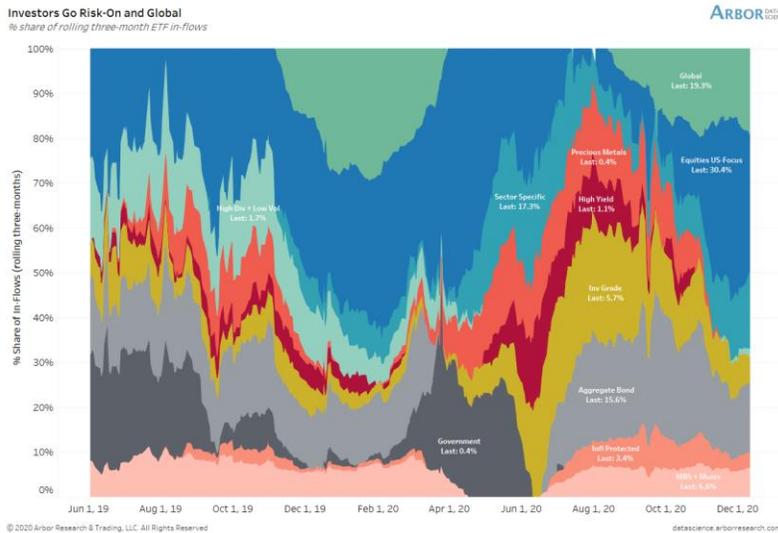
The aforementioned potential for a sea-change in portfolio building comes from the fact that, over recent decades, it has become a core strategy on the part of everyone from personal investment advisors and individual investors to institutional portfolio managers



to allocate along the lines of 70/30 or 60/40 mix between stocks and bonds respectively, as a means of producing attractive returns with a built-in shock absorber to help buffer the impact of equity market volatility. In addition to income and positive returns, the bond allocation has provided ballast, so it leaves “very large shoes to fill”, if it can no longer so amply fill its traditional role in a portfolio.

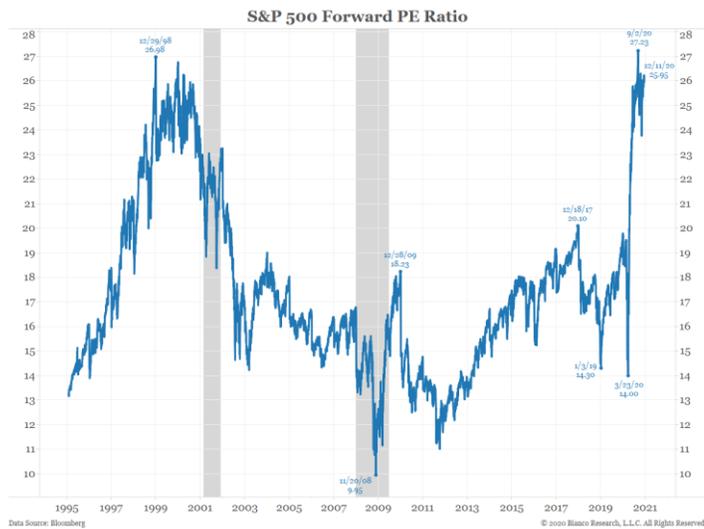
Given how accustomed both investors and investment advisors are to bond prices only moving in one direction (higher), it has been our premise that it will take some time for investor behavior to even potentially start changing in a significant and obvious way.

That said, if you look at ETF (exchange-traded fund) flows, which tend to provide an early

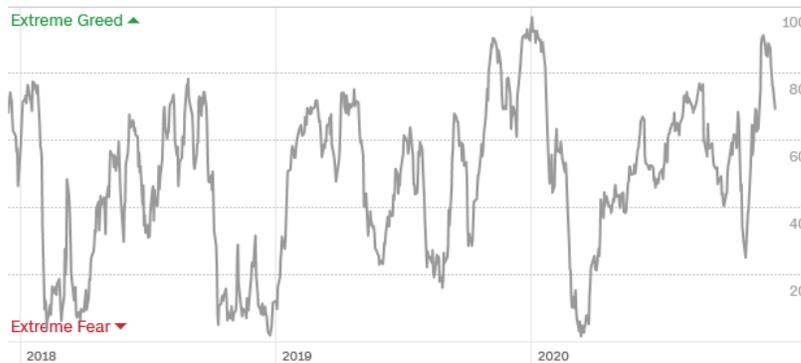


indication of changes in investor behavior, there is evidence that this approach to allocation may already be starting to change. As recently as August, the overwhelming percentage of asset flows were moving into different types of bonds and even precious metals ETFs. Since that time, money has flowed dramatically out of bonds and precious metals, and into both domestic and global equity ETFs.

Of course, those flows are indicative of a surge in bullish sentiment that has exacerbated two of the primary challenges faced by equity investors, which are that sentiment is arguably already egregiously bullish, and that valuations are already at almost unprecedentedly high levels. Indeed, the only time in history when we have seen equities so highly valued when compared to expected corporate earnings was around the peaking of the dot.com bubble in 1999 and early 2000.



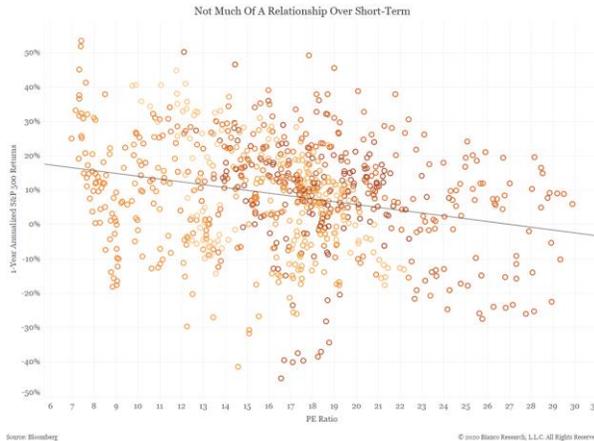
In addition, while not as interest-rate-sensitive as bonds, stock prices are certainly still influenced by interest rates in general, and inflation rates in particular. Indeed, when inflation is above 3%, the S&P 500 has historically averaged returns of only 6.3% per year (6.0% median average).



This compares to average annual returns of 15.6% (18.2% median average) when inflation is below 3%. Further, the trend in inflation is arguably as important to equity prices as is the nominal rate, with the S&P 500 averaging 6.7% per

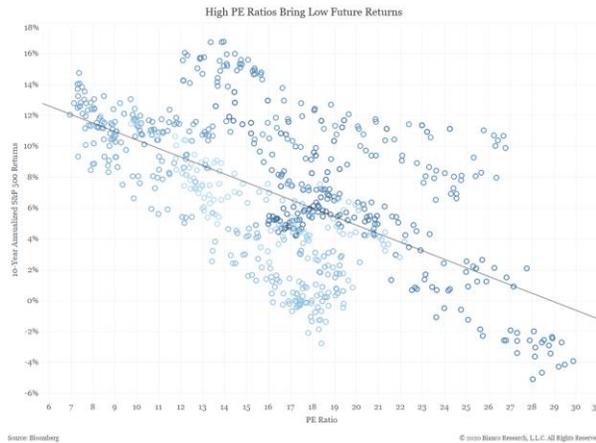
annum (6.2% median average) returns when inflation is rising, as compared to 16.5% per year (18.9% median average) returns when inflation is on the decline.

While we are generally quite optimistic in our intermediate-term outlook for the equity markets, they do face a number of challenges that investors should be aware of. In addition



to the impact of higher interest rates, equity markets are confronted with very bullish readings of investor sentiment, which we are somewhat concerned about over the very near term, as it suggests that the market has already priced a significant part of the anticipated future good news into current prices, while perhaps underestimating the pandemic-related troubles immediately ahead. This presents a great segue to our other point of some concern: very high valuations.

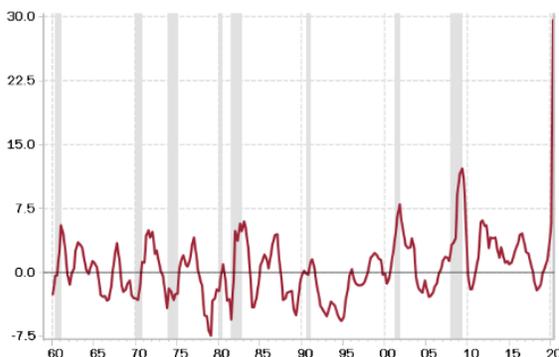
There is very little correlation between 1-year returns and equity valuations, and valuation has historically proven to be a very poor market timing indicator, particularly over the short term. However, the long-term correlation can not be so easily dismissed, as there has historically been a very high correlation between valuations and average equity returns over the following ten years. Indeed, based upon history, current market valuations suggest that we should anticipate average annual returns for the S&P 500 Index over the next decade of only around 4% per year.



Whether these general rules still apply in the current environment remains to be seen, particularly in light of what might be the most unprecedented phenomenon of all, which is the explosion in money supply growth that flooded the system with more money than can be employed in the real economy,

CHART 11: Gap Between M2 and Nominal GDP — A Record!

United States
(year-over-year percent change)



Shading indicates U.S. recession
Source: Haver Analytics, Rosenberg Research

and which has instead been pouring into the capital markets, and driving prices higher. Once this mountain of liquidity is ultimately deployed in the real economy, it could very reasonably become a very different kind of catalyst, one that could drive inflation higher, to something in the realm of 2.5% to 3.0%.

While this has ultimately proven to be a pretty good year for Wall Street, it has been absolutely brutal for most of Main Street which, quite appropriately, represents yet another largely unprecedented divergence. All things considered, this has been one of the most extraordinary years in history, and a 12-month period that we will look forward to being able to look back upon with “2020 hindsight”.

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