January 14, 2021

Graves-Light Q1’21 Client Newsletter

Main Points:

- Most asset classes achieved positive returns over 2020, which is remarkable given the economic damage that resulted from the COVID pandemic. Going forward, we are concerned that recent market performance has “pulled forward” future returns.

- Our current recommendations largely mirror those we presented at the beginning of 2020. We believe investors should focus on adjusting their equity exposure to look less like the S&P 500 (i.e. more value, small-cap, and international equities) and build commodity exposure. COVID related economic shocks moved markets against our recommendations during the first half of 2020. However, market behavior changed over the second half of the year, with domestic, large-cap growth stocks underperforming other areas of the equity markets and commodities achieving stock-like performance during Q4’2020.

- In the past, periods combining rich equity valuations and low real interest yields (i.e. excluding inflation) produced subsequent multi-year periods where the popular allocation of 60% S&P 500 and 40% domestic bonds struggled to earn a return above the inflation rate; essentially, such portfolios have lost purchasing power which eroded the portfolio’s ability to offset standard of living increases during the periods under study.

- Given historical precedents, which suggest returns over the next five years or so may be below the long-term average, we believe it is important to focus on what we can control. Therefore, we strongly believe detailed financial planning, with a focus on realistic goals and tax efficiency, will be paramount in maximizing after-tax returns.

(540) 433-3076 | 100 South Mason Street, Suite C Harrisonburg, VA 22801 | www.glpwm.com

"It will fluctuate."

--JP Morgan when asked what the market will do.

Overview

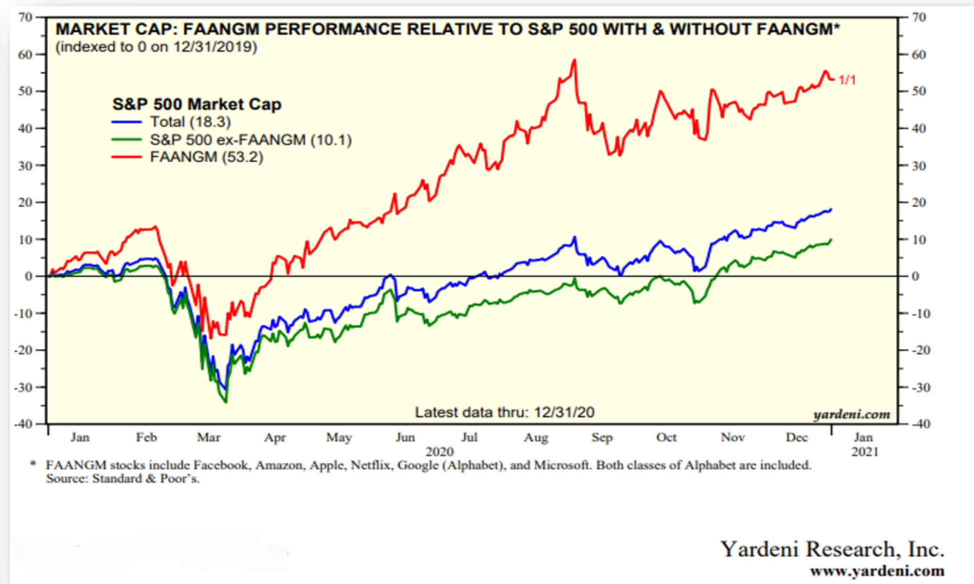
2020 was an exceptional year, encompassing a wide range of investor emotions and portfolio returns. Last year started with a strong economy and many investors were enthusiastic about investment opportunities. Then, the reality of COVID struck during late February setting off rapid and frightening declines across all major asset classes. Non-cash investments experienced significant strains as the Federal government scrambled to craft suitable responses to the unfolding meltdowns in both the real economy and the financial markets. The declines were painful and swift with the benchmark S&P 500 falling 30.5% on a year-to-date basis before bottoming on March 23rd. From that point on, the stock market embarked upon a stunning rally rising approximately 70% over the remainder of the year and finished with an overall gain of 18.3%.

The previous quarter (December 31, 2020 end) saw fantastic market returns in the face of the contentious election season and a resurgence of COVID cases. We were particularly pleased with the Q4'2020 quarter returns of the S&P 500 Value Index up 14.5%, the 31.4% jump in Russell Small-Cap index, and the 16.0% increase achieved by international stocks, as measured by the benchmark EAFE index, compared to the S&P 500 Growth index's 10.7% performance. Yet, we are concerned that recent market performance has been "pulled forward" and future returns may be less impressive.

The beginning of each year brings ritualistic Wall Street forecasts for the year ahead. According to a recent Barron's article, the average investment strategist projection points to a 10% increase for the S&P 500 by the end of 2021. Earlier in our careers, we were involved in the forecasting process at major Wall Street firms and we have found that an estimate of 10% year-ahead stock market appreciation can be a "plug figure" which matches the long-term average return of the S&P 500. As such, it is often used when analysts have little conviction in their analysis. In our view, the utility of such projections is best summarized by Warren Buffett's quip that "Forecasts may tell you a great deal about the forecaster; they tell you nothing about the future." The remainder of this newsletter to organized to provide a cursory review of the past year, discuss a bit about what our research is telling us about the state of the markets, and elaborate on our current recommendations and intentions for positioning client portfolios.

Quick review of 2020

The S&P 500's full-year 2020 return of 18.3% was driven by six stocks (Facebook, Amazon, Apple, Netflix, Google (Alphabet), and Microsoft. As shown in the following graph, the S&P 500 excluding these six stocks was up 10.1% for the year, which was only marginally above the Dow Jones Industrial Average's return of 9.72%.



The growth side of the market, driven by the big tech stocks, was up 33.3%, as measured by the S&P 500 Growth index, for 2020. In comparison, the S&P 500 Value index was up only 1.4%. The 32% spread between the two indices was the widest ever recorded, with the difference largely established during the market drop and the immediate period afterwards. The EAFE index (i.e. international stocks) was up 7.8% for the year and U.S. dividend-oriented stocks experienced negative returns for 2020.

The second half of 2020 witnessed some important changes in market behavior, especially once the calendar changed to September, as domestic value stocks, small-cap issues, and international meaningfully outperformed the S&P 500 over the remainder of the year. Commodities returns improved and essentially matched the S&P 500 over the same September through December time-period while bonds, as measured by the Bloomberg Barclays Aggregate index, eked out a return of 0.7% over the final quarter of the year. All of these trends were supercharged by Pfizer's unexpected vaccine news released in early November.

Graves-Light Research and the Broader State of the Markets

We spent much of 2020 reviewing our market assumptions and revising calculations in light of the upheaval wrought by this past tumultuous year. And yet we find ourselves reaching many of the same conclusions that we did at the beginning of last year. We continue to believe clients should tilt their portfolios away from domestic large-cap growth stocks and emphasize value, small-cap, and international

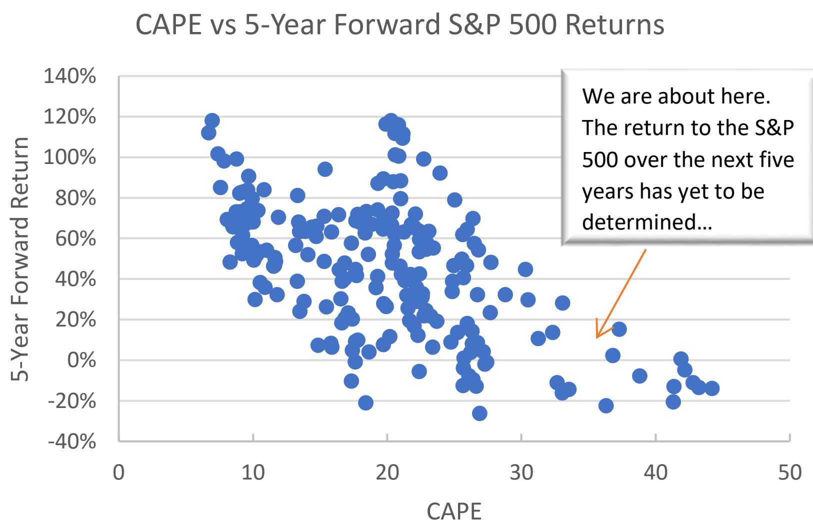
issues for the desired equity exposure, maintain short-term maturities to limit principal loss if interest rates materially increase, and add exposure to broad-based commodities via an index-type structure.

Financial market prediction is a notoriously difficult thing. Short-term market forecasting (say, less than a year or two ahead – such as what is put out by the major investment houses this time of year) has been demonstrated time and again to be a fool's errand – the probability of the forecaster being correct is almost always about 50%. That is not forecasting, it is coin flipping. However, over the last several decades various strands of academic research have indicated that the behavioral biases of investors appear to be persistent enough to allow some degree of intermediate- to long-term market forecasting to be effective. These models tend to demonstrate that broad market returns have a degree of predictability at the 7- to 10-year horizon.

Over the past year, Graves-Light has been developing a series of proprietary intermediate-term forecasting models based on the academic research to try to better understand the state of the market, provide expectations for future asset returns, and inform portfolio formation. These models are imperfect by their very nature but are an important supplement to traditional portfolio selection methods. Quantitative models can provide key insights into the market that are difficult to come across in other ways.

Domestic Equities

As an illustration of the kinds of forecasting relationships we study, consider one of the components in our models - the CAPE measure developed by Robert Shiller, a Nobel Prize winning professor at Yale University. CAPE is an acronym for "Cyclically Adjusted P/E Ratio." We have discussed this quantity in past newsletters. A standard PE ratio, which is just the price of an asset divided by the annual earnings of the asset, is a measure of how expensive an asset is relative to its earnings. For example, a $100 stock that earns $5 profit each year would have a PE ratio of $100/$5, or 20. If the same stock, earning the same amount of profit each year were selling for $150, then its PE ratio would be $150/$5, or 30. CAPE works just like the standard PE ratio, except that instead of using a single year's worth of earnings in the denominator, the earnings for CAPE are adjusted over 10 years to capture various economic cycles. Shiller's CAPE is then applied to the S&P 500 index as a proxy for the aggregate stock market.



Research has demonstrated that there is an inverse relationship between CAPE and 10-year forward looking returns in the S&P 500. The preceding chart shows a scatterplot illustrating CAPE for a given quarter, and the subsequent 5-year return to the S&P 500.[1] Even casually, it can be seen that when CAPE is low (e.g. less than 10) that returns tend to be much higher than when CAPE is high (e.g. greater than 30).

The CAPE measure is imperfect, and Graves-Light models rely on more than just the CAPE measure for broad market forecasting, but this measure alone is associated with about 1/3 of the historical variation in stock market returns. Today, the CAPE measure is around 34, indicating that the market is rather expensive by historical standards, and the next 5-year period is likely to produce below-average market returns. While historical returns of the US stock market have been around 10% per year, our forecast for the average percent U.S. stock market return, as measured by the S&P 500, over the next five years is unlikely to be more than mid- single digits annually. This probability of below average returns has significant implications for financial planning.

International Equities

The oldest index that tracks international stocks is the EAFE index, published by MSCI. EAFE (which is an acronym for Europe, Australasia and the Far East) can be thought of reflecting the state of the stock market for non-U.S. and Canadian developed countries, in much the way the S&P 500 reflects the state of the stock market in the United States. Accordingly, quite a few mutual funds and exchange-traded funds use this index as their benchmark.

As with U.S. stocks, behavioral and economic relationships may be used to forecast international equity returns at an intermediate horizon. These forecasts are complicated further by differing economic prospects of different countries, different exchange rates with the U.S. dollar, and so forth. However, despite the obstacles, intermediate horizon forecasting for the EAFE index can be effective. Currently, it costs about $1.23 to buy a €1. In April of 2020, that same Euro only cost about $1.08, while in April of 2014 it cost about $1.37. The strength of the dollar a key indicator of the future returns to foreign equities in developed countries, since historically there has been a range in which the U.S. dollar trades with these currencies (since 2000, the Euro has never been cheaper than about $0.87 nor more expensive than about $1.57). There is no guarantee that future exchange rates will remain in this range, but past relationships suggest that mean-reversion tends to take place, implying some degree of predictability.

The combination of relevant variables suggests to us that the foreign stocks of developed countries are likely to outperform their U.S. counterparts in dollar terms over the next half decade or so. Like the U.S. market, we expect lower than normal returns, but a bit higher than investors are likely to realize from the tech-stock heavy S&P 500.

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[1] Returns are "continuously compounded returns" over a complete five-year period. The scatterplot reflects data from 1962 to mid-2020 and is meant for illustrative purposes only.

The U.S. Bond Market

It is generally easier to predict the returns of bonds than it is for to stocks – though there is still a good bit of estimation error in the process. To a substantial extent, future high-quality corporate bond returns may be forecast using the current U.S. Government 10-year Treasury rate. As U.S. Treasury bonds are the closest thing to a "risk-free" asset in the world, they tend to have the lowest dollar-denominated yields. While corporate bonds return a bit more, the magnitude of those returns tend to move up and down with U.S. Treasuries. The 10-year U.S. Treasury rate began 2021 yielding around 0.91%, which jumped above 1% the day the Democrats secured control of the U.S. Senate. These values are very low by historical standards, a function of massive intervention by the Federal Reserve in the wake of the global pandemic and continuing through today. In addition, an increase of 100 basis points (for example, an increase from 1% to 2%) in market interest rate over 2021 would result in bond holders experiencing a negative return. As shown in the accompanying chart, a 1% increase in interest rate would result in holders of a 10-Year Treasury Note losing 8.2%, including the coupon payment/income, over the next 12 months with the Bloomberg Barclays Aggregate Index (i.e. the S&P 500 of the bond market) losing 5.1% under the same assumptions. Essentially, we are highlighting that the historically "safe" asset could be more dangerous than commonly appreciated, especially if inflation builds more quickly and dramatically than expected.

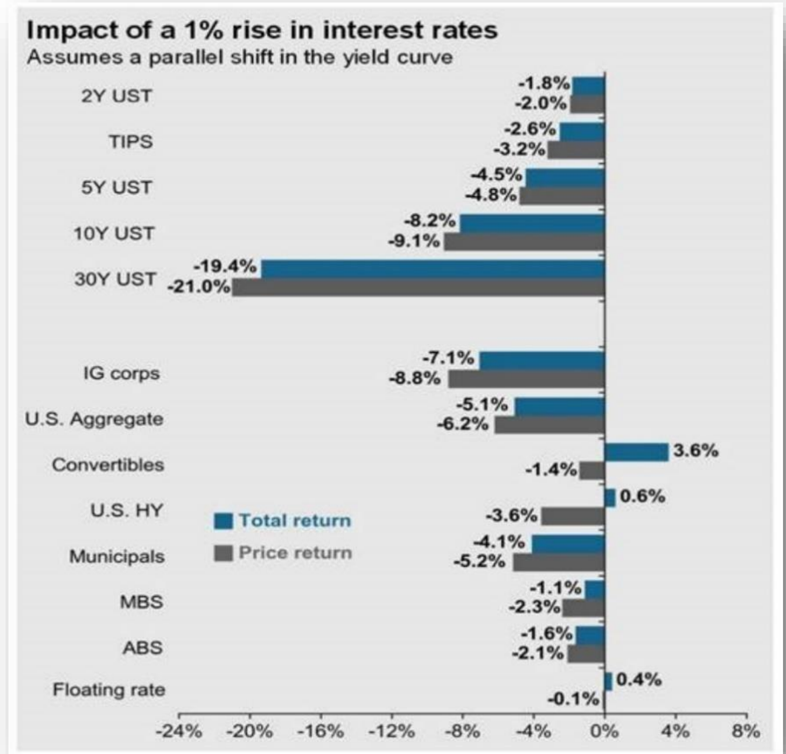

Chart Courtesy of JP Morgan. Data as of 12/31/2020

Recommended Portfolio Allocation

"The one reality that you can never change is that a higher-priced asset will produce a lower return than a lower-priced asset. You can't have your cake and eat it. You can enjoy it now, or you can enjoy it steadily in the distant future, but not both—and the price we pay for having this market go higher and higher is a lower 10-year return from the peak"

--Jeremy Grantham of GMO LLC

EXHIBIT 1: 60/40 "LOST DECADES" ARE MORE COMMON THAN YOU THINK

Most started with expensive stocks or bonds – today, both are

As of 9/30/20 | Source: Bloomberg, Global Financial Data (early history), Factset (S&P 500 returns and CPI), J.P. Morgan (J.P. Morgan GBI United States Traded), Shiller data;
real yields are the yield on the 10-Year U.S. Treasury minus the 12-month trailing CPI.
*60% U.S. Equities (S&P 500), 40% U.S. Bonds (U.S. Treasuries) rebalanced monthly. Past Performance is not indicative of future results.

Source: GMO, LLC

While the machination of financial asset prices over the next few months is largely unknowable, we do feel more comfortable about considering portfolio changes based on longer-term data. As shown in the chart above, the current stock market valuation and interest rate environment are similar to levels experienced prior to multiyear periods of poor returns in the past. Therefore, we believe that client portfolios should be oriented differently than portfolios constructed solely on some combination of the S&P 500 and the U.S. bond market.

We addressed this same predicament in our Q1'2020 client letter (which is available for those who wish to delve deeper) and recommended moving away from both large-cap growth stocks and bonds, especially those with longer maturities. The onset of COVID resulted in domestic growth stocks powering to even higher levels than the rest of the stock market and interest rates dropped precipitously resulting in longer-dated government bonds achieving strong returns. As such, the valuation and yield concerns in regard to longer-term returns have become even more acute. Conditions began to normalize during the second half of the year and market leadership shifted to the asset classes we have been recommending for the long-term. We believe this nascent performance trend will continue as long as progress on defeating COVID continues and economic conditions normalize.

Closing Thoughts

Like most of the seven and a half billion other people on the planet, we are thrilled to have 2020 in our rearview mirror. The prospect of the wide dissemination in 2021 of COVID vaccines (even though their rollout has been slower than hoped-for to date), and the attendant increase in the well-being of humanity

and economic activity bode well for everyone. The anticipation of this recovery appears to be already embedded in asset prices to some extent, implying increased likelihood of lower-than-average market returns across most asset classes moving forward.

Stretched market valuation, enthusiastic investor behavior, still-uncertain governmental policy, and the concerning pickup of COVID cases combine to highlight a need for thoughtful long-term portfolio positioning. Importantly, we are not suggesting an imminent market top or recommending impulsive selling of portfolio holdings. It is wise to never forget that short term market fluctuations are certain to occur and are almost completely unpredictable. Rather, we believe future principal and income gains will be more difficult to achieve. Therefore, ***focusing on what we can control through detailed financial planning***, especially those functions such as setting realistic goals and tax planning, will likely prove paramount in maximizing after-tax returns sufficient to achieve one's future needs and aspirations.

Best regards,

Asa W. Graves VII, CFA

Chief Investment Officer

Jason Fink, PhD

Director of Research

DISCLOSURE

Stocks offer long-term growth potential but may fluctuate more and provide less current income than other investments. An investment in the stock market should be made with an understanding of the risks associated with common stocks, including market fluctuations. Stock dividends are not guaranteed. Investments primarily concentrated in one sector may be more volatile than those that diversify across many industry sectors and companies. The technology industry can be significantly affected by obsolescence, short product cycles, falling prices and profits, and competition from new market participants. Global/International investing involves risks not typically associated with U.S. investing, including currency fluctuations, political instability, uncertain economic conditions, different accounting standards, and other risks not associated with domestic investments. Investments in emerging markets may be subject to additional volatility. Stocks of small and mid-cap companies may also be subject to greater risk than that of larger companies because they may lack the management expertise, financial resources, product diversification and competitive strengths to endure adverse economic conditions.

The value of fixed income securities will fluctuate with changes in interest rates, prepayment payment rates, exercise of call provisions, changes in the issuer's credit ratings, market conditions, and other variables such that they may be worth more or less than original cost if sold prior to maturity. There is also a risk that the issuer will be unable to make principal and/or interest payments. Although treasuries are considered free from credit risk they are subject to other types or risks. These risks include interest rate risk, which may cause the underlying value of the bond to fluctuate, and deflation risk, which may cause the principal to decline and treasury securities to underperform traditional securities.

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