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MALLARD ADVISORS LLC

Comprehensive Financial Planning
& Wealth Management Solutions

THE QUARTERLY MALLARD CALL

Breaking Down Stock Returns — William D. Starnes

Investors understand that over the long-term stocks provide positive returns, yet in the short-term these returns can be very uncertain to downright loopy. What is going on here? What is the generator of these long-term returns; and what is the cause for all the uncertainty in the short-term?

The Big Picture
At the most basic level, long-term stock returns come from a combination of earnings paid out to investors (income in the form of dividends) and the upward rise in prices of stocks (appreciation). Stocks are pieces of business ownership, and owners receive earnings in the form of dividends. Owners also receive price appreciation due to business growth. ***Income + Appreciation = Long-Term Total Stock Return.*** These are the components of stock returns as can be seen in the graphic below.

Source of Long-Term Returns
As mentioned above, stocks pay income to investors and this is in the form of dividends. For example, right now the Vanguard 500 Index of large U.S. based companies has a dividend yield of 2%. In other words, if you own $100,000 of the Vanguard 500 Index, you can expect income of about $2,000/year. While some people take this income for the purpose of spending, most reinvest the income by using the dividends to buy more shares (this is called dividend reinvestment). Dividends as a source of stock returns are quite predictable. While the long-term dividend rate of large U.S. stocks has been about 4%, the current dividend yield is 2%. Therefore, compared to history, in the next 10 years or so, returns (from income) should be about 2% less than historical returns would suggest.

Let's break down the *appreciation* component into their two sources. First, appreciation in stock prices comes from business and **earnings growth**. As mutual fund investors, you can think of this more globally as being driven by economic growth. Historically, over the long-term, earnings growth has generated a return of about 5%-6% towards the total return earned by stocks. Earnings growth is relatively stable and predictable in both the short and the long run.

The second source of appreciation (and depreciation) in stock prices can come from increases (and decreases) in **stock valuations**. When it comes to increasing valuations, investors bid up stock prices due to their optimism, euphoria, or excitement over the future. This pushes stock prices higher - not necessarily a result of solid investment fundamentals. Typically, these changes in returns are measured by a P/E ratio. That simply means the price (P) investors are willing to pay for earnings (E). When investors are excited about the future, they are willing to pay

Sources of U.S. Stock Market Returns

Components	Source	Type of Return
Income	Dividends	Investment Based Return
+		
Appreciation	Earnings Growth	Investment Based Return
	Change in Valuations	Speculative Based Return
=		
Total Nominal Return		

Continued On Page 2

Notices

Vacation Plans
Bill will be away the week of April 10th in Orlando with his family.

Mallard E-Mail Update
Are you receiving our e-mail newsletters (which are different from this quarterly newsletter)? If not, let us know by sending an e-mail requesting to be added to our e-mail newsletter list.

Use ShareFile
When sending confidential information to us, please remember to use the **secure *ShareFile* link** contained at the bottom of each of our email signatures rather than using the attachment function of your email software. This link is also located at the top of every page of our website.

MyWealthWindow
You can always access your WealthWindow from a link found at the top of every page of our website.

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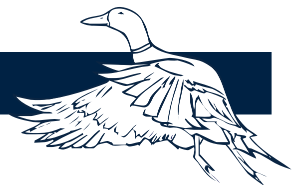


more for an investment. This drives up prices, leads to appreciation, and increases stock valuations. Because P/E ratios fluctuate around a long-term average, when the P/E is much higher than this average, it is interpreted to mean that future returns will be lower because it is assumed that P/E ratios revert to their mean. When P/E ratios are high, academics will call the stock market *overvalued* (as they expect prices to *decline* to get the P/E back to average). Another way to think about it is that **when investor optimism bids up prices, they are effectively borrowing returns from the future and front-loading them to now** (for the time being). Naturally, pessimism, loss of faith, and fear of the future can drive investors to bid prices down as well.

So, the sources of stock returns are:

1. Income - earnings paid in the form of dividends
2. Appreciation
   a. Earnings Growth - due to economic growth
   b. Changes in the Valuation of Stocks - due to investors bidding up/down prices

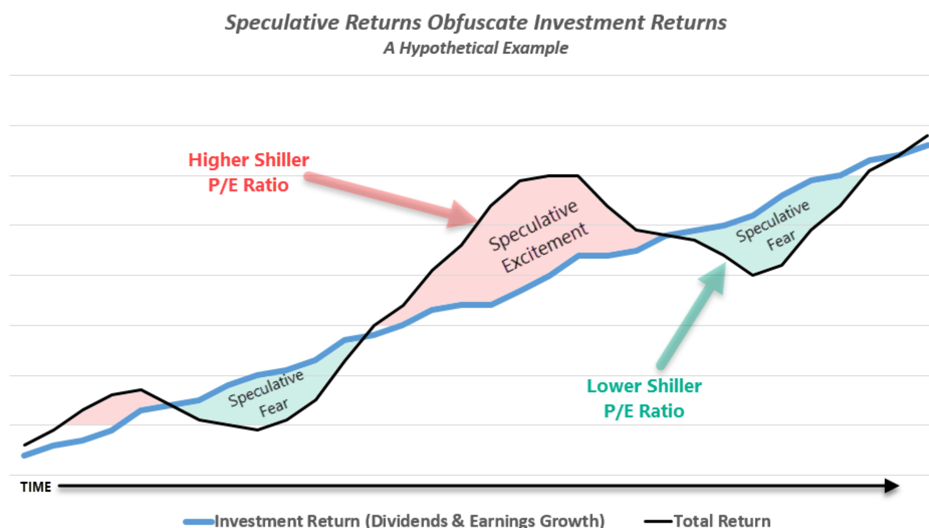
Investment Return Versus Speculative Return
We invest to capture the returns generated by the first two sources of investment returns - dividends and earnings growth. In the very long run, dividends and earnings growth provide true investment returns—returns as a result of the business earnings and the economic environment. As proof, according to John Bogle, the sum of real dividend yields and earnings growth from 1871-1997 equaled 6.7%, whereas over that same time stocks provided actual real returns of 7%. That is pretty close. In other words, the returns investors actually receive over the long term are a function of dividends and earnings growth.

Looking at the image below, think of investment returns (i.e., dividends and earnings growth) over time as represented by the stable blue line. However, total return (represented by the volatile black line) moves above and below the investment return due to the third form of return—valuation changes (the speculative component).

Valuation changes result in total returns moving above and below the fair value investment return (blue line). These speculative returns that push prices higher (due to excitement), or lower (due to fears) are hard to estimate because **they are driven by human emotions, which are almost impossible to predict.** While this is an important factor in prices and returns in the short-run (10 years and less), in the long-run valuation changes are an irrelevant component of stock returns. Since most of us are long-term investors and not speculators, we can ignore this component of stock return. Think of it as the emotional noise of short-term investors.

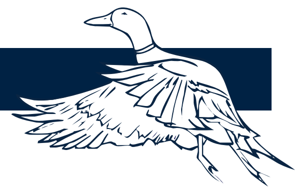
Looking at the chart below, it is easy to see that the prices of stocks (represented by the black line) tend to be much more volatile than the values the companies produce (represented by the blue line). This is a critical distinction that investors generally don't see. The goal is to capture the returns the businesses produce (the blue line) and to be indifferent to the emotional valuation swings of investors.

The concept of investment versus speculative return can also be seen in the housing market. Think of a rental property. It produces net rental income and appreciation that historically has run about 1% higher than inflation. However, looking back on the housing bubble, there was also a speculative component - valuations. Investors bid up housing prices due to their optimism, euphoria, and excitement. This pushed the prices of homes higher but was not the result of anything other than the hope that a "greater fool" would pay a higher price than you. **So, betting on valuation changes is speculative and has nothing to do with investing**.



Is the Market Overvalued?
The most popular valuation measure is the CAPE Ratio made known by Robert Shiller (also known as the Shiller P/E Ratio). The CAPE Ratio for large U.S. companies is currently about 29 (the top quintile) while the long-term average is about 17. Most academics consider a CAPE Ratio of 20+ to be overvalued - however there is much debate over this.

There are many other valuation methods as well which all point to the U.S. stock market being overvalued. This makes sense given the huge outperformance of this asset class over the last five years.



Value of Knowing the Sources of Stock Returns

What we know now is that with low starting dividend yields and higher than average valuations (which eventually revert to the mean), the probabilities suggest lower than average stock returns over the next ten years or so. In other words, relative to history dividends will provide less return, and as valuations revert towards their mean, this component will also be a drag on future U.S. stock returns (see the graphic to the right as an example).

Historically, the higher the *starting* CAPE ratio, the lower the *future* returns have been (on average), and vice versa. This can be seen clearly in the table below which shows if you had purchased U.S. stocks at a starting CAPE Ratio in the highest quintile, you generally received poorer returns than if you had purchased at times when the CAPE Ratio was in the lowest quintile (i.e., undervalued).

U.S. Large Company Stocks

Sources of Returns	Historical	10-Year Expected Return*
Dividend Yield	4.0%	2.0%
	+	+
Earnings Growth	6.0%	5.5%
	+	+
Valuation Change	0.0%	-2.0%
	=	=
Total Nominal Return	10.0%	5.5%

* Not a prediction; just examples

Does this mean you should sell your stocks and buy bonds? I am afraid not. With 10-year bond yields at 2%, the expected returns from bonds over the next ten years is 2%.

Valuations are a major factor in stock returns in the short term (explaining 60-90% of subsequent 10-year returns), so people desperately want to use them to predict short-term stock returns. They can't. Long-term investors know bear markets are inevitable and accept this as they wait for the fear-based speculation to end.

Different Asset Classes are Valued Differently

Keep in mind that U.S. Large Cap Stocks are only one of many asset classes that can all have different valuations! While U.S. stocks are considered overvalued, international, emerging markets, REITs, and commodities are not.

There are also attractively valued bond asset classes as well. Your asset allocation can take these valuations into account to reduce exposure to the most overvalued asset classes and increase exposure to the most undervalued assets. You can also diversify globally across the major asset classes!

S&P 500: 1926-2016
Average Annual Returns

CAPE Ratio	3 Years	5 Years	10 Years
5 to 10	19.8%	18.3%	15.5%
10 to 15	15.6%	13.4%	13.9%
15 to 20	6.9%	8.0%	9.7%
20 to 25	8.9%	8.6%	5.7%
25 & Higher	0.4%	0.7%	3.9%

Source: Robert Shiller

Considerations Going Forward

First, curtail your expectations for U.S. stocks. Don't use historical returns as a basis for the returns you can expect over the next 10-15 years. Unfortunately, corrections are worse when stock prices are overvalued. However, the market does NOT have to correct for the CAPE Ratio to come down. Instead, earnings can grow to catch up with prices, bringing the CAPE Ratio down without having a strong bear market. Or, the market could move sideways for a few years without a big correction. In other words, valuations tell you nothing in the short-run.

Second, take these lower expectations into account when considering your planning. The result of considering lower returns generally means that something else has to give - spending less, saving more, and possibly retiring later.

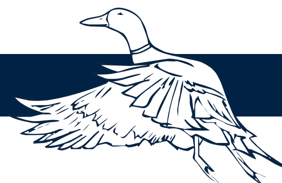
Keep in mind that we are only referring to the valuation of the U.S. stock market. Our clients have globally diversified portfolios of stocks and bonds. Some of these other asset classes are undervalued. This is always the case which is why we diversify and take extreme valuations into account.

Finally, never get tempted into using valuations to perform market timing. Valuations do tell you something about expected 10-year returns, but nothing about what will occur in the short-term. In 1996, Alan Greenspan used market valuations to announce that the market was likely experiencing "irrational exuberance". If you had gotten out of the market based upon valuations at that time, you would have then sat by watching your friends "get rich" in 1997, 1998, and 1999. Three years of ***envy*** is more than any human investor can stand! In other words, markets can remain overvalued longer than you can retain your patience!

If you are a long-term investor enjoy the recent returns, curb your expectations for the future, let your advisor take valuations into account when designing your asset allocation, and avoid trying to time the market because you feel it is overvalued.

Bill Starnes is the founder and senior advisor at Mallard Advisors, LLC

Investment Commentary



In our cover article, we discussed market valuations with the conclusion that the U.S. stock market is considered overvalued as measured by the Shiller P/E Ratio. While this may be a reasonable gauge for setting long-term market return expectations, valuations tell you nothing about shorter-term market moves.

What we did not address in the article is a large, generally unspoken fear for some clients. Namely, the fear is that these valuations and recent market gains (attributed to a "Trump Bump") will leave the stock market quite vulnerable to a "Trump Dump". In other words, there is a fear that if the President says/does something shocking or unexpected, then investors will begin to dump stocks, and send the market into a tailspin. Naturally the assumption is that these potential losses can easily be avoided if ,"we just get out now!"

We think the market is not nearly as susceptible to the antics of politicians as most investors fear. It is not politicians that create business, products, or jobs. This is far more dependent upon tax rates, interest rates, and the economic environment in which businesses operate. Thankfully, the U.S. economy is far too big for any single politician to impact. However, **bear markets are inevitable. It is not a matter of if, but when**, it won't be the result of just one politician. Bear markets are a natural part of a complex system like the stock market which is driven by an even more complex economic system and then wrapped up in the emotions of investors. Therefore, you must simply grin and ***bear*** it.

On to the good news….Over the last eight years, the S&P 500 Index has returned almost 17% on average each year. The first quarter of 2017 provided the highest returns for U.S. large-cap stocks since the last three months of 2013. U.S. stocks have been on a tear which also explains their higher valuations.

We own diversified portfolios, and over the last 12 months, a globally diversified balanced portfolio provided a total return of about 11%. Also note how returns from international asset classes have outperformed all other asset classes this year-to-date.

Total Return as of 03/31/2017

	March	1st Qtr	YTD	Last 12 Months	*Annualized* 3 Years	5 Years
GLOBALLY DIVERSIFIED BALANCED PORTFOLIO**						
60% Equity / 40% Bond	0.38%	3.84%	3.84%	10.98%	4.27%	6.92%
STOCKS						
Larger-Cap	0.10%	6.03%	6.03%	17.02%	10.22%	13.14%
Smaller-Cap	(0.24%)	3.70%	3.70%	21.36%	7.27%	12.74%
International - Developed Mkts	2.82%	8.41%	8.41%	13.65%	1.02%	4.75%
International - Emerging Mkts	2.25%	10.82%	10.82%	17.36%	1.74%	0.70%
Real Estate	(2.36%)	0.95%	0.95%	2.95%	9.80%	9.58%
Inflation Hedges*	(0.65%)	0.50%	0.50%	19.85%	(4.82%)	(0.72%)
BONDS						
U.S. Investment Grade Bonds	(0.06%)	0.90%	0.90%	0.34%	2.50%	2.16%
Global Bonds	(0.10%)	(0.01%)	(0.01%)	1.18%	4.10%	0.00%

** Each asset class is represented by a relevant Vanguard Index fund except for Inflation Hedges where the Morningstar Category average for **"Natural Resources"** is used.*

*** The portfolio is represented by the DFA Global Allocation Fund (60% Equity / 40% Bond)*