

Building a Balanced Portfolio: An Unconventional Allocation

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Article Highlights

- Shifts in the economic environment are the key factors that influence how various asset classes perform.
- The goal is not to predict the next economic environment, but to position the portfolio so that it is indifferent to what actually does occur.
- Assign a smaller weight to more volatile asset classes to equalize the return impact on the overall portfolio.

It is easy to make money when the stock market is soaring. You really don't need to read this article to prosper during those favorable environments.

However, as experienced investors know, the key to long-term financial success is to survive the troughs. How does your portfolio perform during severe downturns? How vulnerable is it to prolonged periods of economic weakness? Do the losses during the inevitable bear markets offset the gains during the good times?

Investors may feel insulated from these concerns because they don't invest all their money in the stock market. Since most investors are trying to earn stable returns through time, they aim to maintain a balanced portfolio. The problem, however, is that the vast majority of portfolios are very poorly balanced and are susceptible to violent swings. The reality is that the returns of the conventional portfolio—60% stocks and 40% bonds—are almost entirely dependent on the whims of the stock market. In other words, 60/40 performs well when the stock market is up, and vice versa. In fact, since 1927 a 60/40 portfolio has been 99% correlated to the stock market. Ninety-nine percent!

This is because stocks are highly volatile and conventional bonds are not. If stocks are up 20% and bonds are up 2%, then the total portfolio has a good year. If stocks are down 20% and bonds up 4%, the total portfolio suffers. Bonds simply don't fluctuate enough relative to stocks to move



the needle.

Why should this matter? Is it so bad to have a portfolio that is entirely dependent on the success of the stock market? After all, equities are one of the highest-returning asset classes over the long run. It matters because the oscillations of equities are unpredictable and the trends can be long-lasting and extreme. Table 1 lists the excess returns of equities above cash during all the secular bull and bear market

cycles since 1927. Each period measures the peak to trough and then back to the next peak. (Every asset class return can be broken down into cash plus an excess return above cash. Since cash returns can be earned without taking any risk, it is the excess returns that are most relevant). You will notice that the stock market goes through long stretches of great results and terrible returns and spends a significant amount of time delivering below-average performance.

Who can accurately predict when the next inflection point will hit, what direction it will take and how long it will last? The simple fact is that no one really knows. Even the most sophisticated and successful professional investors may only be right 55% or 60% of the time. Some argue that you don't have to guess right because all you have to do is close your eyes and hold on. Time will reward you. The problem is that it can take a very, very long time to achieve average returns in the stock market. Consider that the S&P 500 index from 2000 to 2014 has underperformed the bond market (1.9% versus 3.7%, based on data from Bloomberg) while being significantly more volatile (having dropped 50% on

Table 1. Long-Term Equity Cycles (1927–2014)

Period	Annualized Equity Excess Returns (%)
1927–1929	41.9
1929–1948	0.4
1948–1966	13.5
1966–1982	(3.0)
1982–2000	12.7
2000–2014	1.9
Entire Period	5.7

Data source: Bloomberg; S&P 500 index returns.

two separate occasions). Fifteen years of poor results along with roller-coaster fluctuations are certainly an experience that will test the conviction of even the most patient and disciplined investors.

For these reasons, investors should focus on building a better balanced portfolio that can more reliably achieve stable returns through time. Good balance is even more important in today's uncertain economic climate.

A New Perspective

The key to grasping the core concepts of constructing a truly balanced portfolio is to remove the conventional lens and view asset classes through a new perspective. Through this improved viewpoint, the appropriate framework for building a truly balanced portfolio will become more intuitive. The concept behind building a balanced portfolio should begin with an understanding of the relationship between asset class returns and the economic environment. Changes in the economic environment largely drive asset class returns. Economic growth and inflation are the two key factors that influence how stocks, bonds, and other asset classes perform. [Shifts in general risk premiums and expected cash rates also influence asset class prices, but these latter two factors cannot be diversified away. For more detailed information, see my book, "Balanced Asset Allocation: How to Profit in Any Economic Climate" (John Wiley & Sons, 2015.)]

Table 2. Annualized Asset Class Excess Returns by Economic Environment (1927–2014)

Asset Class	Avg Excess Return (%) for All Periods (Good and Bad)	Good Environment	Average Excess Return (%)	Bad Environment	Average Excess Return (%)
Equities	5.7	Rising growth Falling inflation	10.5 9.6	Rising inflation Falling growth	2.0 1.7
Long-Term Treasuries	1.7	Falling growth Falling inflation	5.9 2.7	Rising inflation Rising growth	0.7 (2.9)
Long-Term TIPS	4.7	Rising inflation Falling growth	10.8 7.8	Rising growth Falling inflation	1.2 (1.1)
Commodities	1.5	Rising inflation Rising growth	7.8 7.0	Falling growth Falling inflation	(3.1) (4.5)

Return of cash averaged 3.7% per year from 1927 to 2014. Thus, total returns can be approximated by adding 3.7% to the average excess returns provided above.

U.S. equities: S&P 500 index. Data provided by Bloomberg.

Long-term Treasuries: Constant 30-year maturity Treasury index. Data provided by Bloomberg and Bridgewater Associates.

Commodities: 1970–2014 Goldman Sachs Commodity Index. 1934–1969 Dow Jones Futures Index. 1927–1933 Reuters/Jeffries-CRB Total Return Index. Data provided by Bloomberg and Bridgewater.

Long-term TIPS: 1997–2014 constant 20-year duration US TIPS index. For periods prior to TIPS inception in 1997 Bridgewater simulated TIPS returns were used using actual Treasury returns, actual inflation rates, and Bridgewater's proprietary methodology.

For instance, if economic growth unexpectedly slows, then stocks are biased to perform poorly. The greater the shortfall between actual growth and what had been expected, the greater the decline in stock prices. A clear example is what happened in 2008. The stock market collapsed largely because investors were expecting growth in 2008 to look similar to 2007, and instead it turned out to more closely resemble conditions in 1931. Inflation is also a critical factor. Falling inflation provides a tailwind for stock prices because of falling interest rates and lower business expenses. Predictably, the opposite growth and inflation outcomes produce the opposite effect.

The same analysis can be performed for every asset class. Each has a certain bias toward rising or falling growth and rising or falling inflation climates. Moreover, these economic environments can last short periods (months) or persist over very long time frames (years or decades). Consider that inflation was rising from the late 1960s to the early 1980s and resulted in significant underperformance for equities for over a decade. Similarly,

2000 to 2014 was a period during which growth significantly underachieved the high expectations coming out of the Internet boom and therefore resulted in a 15-year period during which stocks severely underperformed their average historical returns.

Since shifts in the economic environment are the key factors that influence asset class returns, it is logical to frame the asset allocation decision on this insight. Constructing a well-balanced portfolio is as straightforward as answering two key questions:

- Which asset classes to own, and
- What percentage to allocate to each.

Which Asset Classes?

A combination of asset classes that performs well in different economic environments should be selected. The following four asset classes provide a reasonable starting point:

- Equities,
- Long-term Treasury bonds
- Long-term inflation-linked bonds (Treasury Inflation-Protected

- Securities, or TIPS), and
- Commodities.

Stocks and commodities tend to outperform when growth is rising; long-term Treasuries and TIPS do well when growth is falling; TIPS and commodities produce strong results when inflation is rising; and stocks and Treasuries do well when inflation is falling. Two of these four asset classes are biased to outperform in each of the four economic environments (rising/falling growth and inflation) as displayed in Table 2. The average excess returns during the various environments since 1927 are provided in the table.

The reason long-term Treasuries and TIPS are used rather than more traditional shorter-duration fixed-income strategies is because more interest rate/inflation sensitivity is desired and less dependence on credit is preferred for an economically balanced portfolio. The bond portfolio should do well when growth is weak, so the allocation is oriented toward government debt. If the bond portfolio has a heavy credit component, then the bonds may underperform at the same time as the equities are lagging. Traditional bond strategy results in 2008 provide an excellent example. Many of these funds, which underweighted government bonds and overweighted higher-yielding, lower-quality securities, were down in 2008 while long-term Treasuries were up more than 40%.

Moreover, since bonds are much less volatile than equities and commodities, longer-duration bonds produce better economic balance in a portfolio. That is, more volatility in some asset classes is better than less volatility. Despite the counterintuitive nature of this statement as a stand-alone concept, when considered within the context of building an economically balanced portfolio it is a critical component. The positive-returning assets need to go up enough to offset the negative-returning assets' losses. Therefore, longer-duration Treasuries and TIPS offer excellent diversification benefits within a well-balanced portfolio.

I focus on the four aforementioned asset classes to simplify the discussion

and emphasize the core concepts. It is the concepts, rather than the specific asset classes, that endure through time. You may certainly include additional asset classes beyond those mentioned here to achieve even better diversification. Crucially, you should think of each within the context of how it would perform in different economic environments since the goal is to build a portfolio that is balanced to various economic outcomes.

How Much to Allocate to Each?

Now that you have selected asset classes that cover all the potential economic outcomes, the next step is to determine how much you should allocate to each. Let's start by looking at this from the highest level.

The goal is to gain exposure to the shifts in the economic climate, since these shifts are largely responsible for the fluctuations of returns produced by asset classes. When one of these unpredictable shifts occurs, you want to make sure that your portfolio has sufficient exposure to that environment so that you benefit from its occurrence. Again, the goal is not to predict which environment will dominate next, but to position yourself so that you are, by and large, indifferent to what occurs. By exposure, I am referring to the idea that the excess returns you capture from that environment are large enough to roughly offset underperformance in the rest of the portfolio, which is invested in market segments that were not favorably influenced by the economic environment.

Remember that the main goal of

asset allocation is to capture the excess returns above cash offered by various asset classes over time while minimizing the volatility due to fluctuations of those excess returns. By neutralizing the impact of shifts in the economic environment, which is what mostly causes the fluctuation around average excess returns, you are able to accrue the excess returns with more consistency.

You can maintain sufficient exposure to the four economic climates by focusing on the following two areas:

- The economic bias of each asset class, and
- The volatility of each asset class.

By owning asset classes that cover the four economic outcomes (rising growth, falling growth, rising inflation and falling inflation), you will own an asset that is biased to outperform in each of these environments. In order to size these allocations appropriately, you must understand the approximate volatility of each asset class. Volatility is critical because it quantifies the fluctuations around the average excess return. Those asset classes that are highly volatile will fluctuate around their average more than those that are less volatile.

More volatile assets should receive a smaller weight than less volatile assets to roughly equalize the return impact from each asset class at the portfolio level. This step helps balance the risk associated with each economic outcome. Consider the approximate volatility of the four asset classes that we have been discussing: equities, commodities, long-term Treasuries and long-term TIPS as displayed in Table 3.

The volatility of stocks and commodities has been similar from a long-term historical perspective. Likewise, long-term TIPS and Treasuries have also exhibited a similar volatility over the long term. Furthermore, you should observe that the volatility of stocks and commodities is about 50% higher than that of long-term TIPS and Treasuries. To roughly equalize the exposure to the various economic climates covered by these four asset classes, you should own about 50% more of the lower-volatility assets (Treasuries and TIPS) than the more

Table 3. Volatility of Asset Classes (1927–2014)

Asset Class	Approximate Volatility (%)
Equities	15
Long-Term Treasuries	10
Long-Term TIPS	10
Commodities	15

Data source: Bloomberg.

Table 4. Weighted Volatility of Asset Classes

Asset Class	Economic Exposure	Weight (A) (%)	Approx. Volatility (B) (%)	Weighted Volatility (A × B) (%)
Equities	Rising Growth/ Falling Inflation	20	15	3
Long-Term Treasuries	Rising Growth/ Rising Inflation	30	10	3
Long-Term TIPS	Falling Growth/ Falling Inflation	30	10	3
Commodities	Falling Growth/ Rising Inflation	20	15	3

volatile assets (equities and commodities).

Your focus here should not be on precision, but on the conceptual logic that underlies the allocation process. You do not need to calculate the exact volatility of an asset class, and you do not need to worry whether the volatility is higher or lower than normal. Having a rough sense of the relative volatility levels across your chosen asset classes is all that is required to achieve a reasonable level of economic balance.

Applying the logic described above to these four asset classes, the following mix represents a well-balanced asset allocation:

- 20% equities,
- 20% commodities,
- 30% long-term Treasuries, and
- 30% long-term TIPS.

With this mix, the total exposure to rising growth, falling growth, rising inflation and falling inflation is roughly balanced. The return impact of each asset class is merely a product of the volatility of each asset class and the allocation to each. I refer to this measure as weighted volatility. Table 4 summarizes the weighted volatility of the various asset classes within the sample balanced portfolio. You can see that the weighted volatility is the same for each asset class. Most importantly, since the asset classes each reflect different economic biases, the economic balance in this portfolio is evenly distributed.

Some investors express concerns about allocating to long-duration bonds in the current low-interest-rate environment. They are worried that interest rates

will rise and their bonds will perform poorly. There are three important points to consider. First, returns for all asset classes, including bonds, are influenced by how the

future transpires relative to what was expected. Since nearly everyone expects rates to rise, that outcome is already priced in to the yield curve (reflected in an upward sloping yield curve). Thus, rates would have to rise more than what is discounted for bonds to deliver negative excess returns. Second, you should not be overconfident in your ability to guess the timing and direction of interest rate moves. Many smart investors have been predicting rising rates since 2007 and rates have significantly declined since that time (through May 2015). Finally, and most importantly, a well-balanced portfolio's outcome is indifferent to whether rates rise or fall (relative to discounted rates). That is the whole point of being well balanced. The key is to appreciate why rates rise. If it is strong growth that forces rates higher, then stocks and commodities are likely to outperform their average, offsetting underperformance in bonds. If rates rise because of rising inflation, then commodities and TIPS are biased to outperform. In both cases, most critically, you don't have to accurately guess

which way rates are going to move next because the balance in the portfolio provides the needed hedge.

Historical Returns: The Balanced Portfolio vs. 60/40

How has the Balanced Portfolio performed over time and how does it compare to the traditional 60/40 mix? In short, the very long-term returns are nearly identical. More significantly, the Balanced Portfolio has produced similar returns with less volatility and stronger downside protection. Table 5 shows the long-term trailing excess returns and volatility as of December 31, 2014. The data used covers monthly returns from 1927 to 2014 and therefore is exhaustive, covering a wide range of economic environments including the Great Depression, the inflationary 1970s, the bull market of the 1990s and the credit crisis of 2008.

Table 6 summarizes the Balanced Portfolio's worst calendar years since 1927. On only two occasions was the calendar-year total return worse than -10.0% and only three times was the excess return worse than -10.0%. In the 2008 credit crisis, the Balanced Portfolio only declined 6.9% (-8.8% excess return), far better than most portfolios. Clearly, this portfolio offers strong downside protection.

As you can see, the Balanced Portfolio is not impervious to occasional losses. All portfolios will lose money at times as markets fluctuate. What generally causes severe losses in the Balanced Portfolio is one of two outcomes. First, when there is a financial crisis resulting in a panicked rush to cash, all asset classes

Table 5. Balanced Portfolio Versus 60/40 Mix (1927–2014)

	Annual Average Excess Return (%)*					Volatility Since 1927 (%)*
	10 Years	25 Years	50 Years	75 Years	Since 1927	
The Balanced Portfolio	5.3	5.9	4.3	4.7	4.4	8.1
60/40	5.3	5.4	3.4	4.7	4.7	11.6
Cash	1.6	3.3	5.4	4.1	3.7	—

*As of 12/31/2014.

Total returns can be approximated by adding the return of cash to excess returns.

Table 6. Balanced Portfolio's Worst Calendar Years Since 1927

Calendar Year	Excess Return (%)	Cash Return (%)	Total Return (%)
1930	(13.0)	2.3	(10.7)
1931	(26.9)	1.2	(25.8)
1932	(5.5)	0.9	(4.6)
1937	(8.7)	0.3	(8.4)
1969	(7.8)	7.1	(0.7)
1981	(16.7)	15.4	(1.3)
1994	(9.9)	4.3	(5.6)
2001	(6.7)	3.8	(2.9)
2006	(6.2)	5.0	(1.2)
2008	(8.8)	1.9	(6.9)

Table includes all calendar years during which the Balanced Portfolio declined more than 5.0% (excess returns) since 1927.

are negatively impacted. Notable examples of this rare dynamic are 1930–32 (Great Depression), 1937 (severe recession), and 2008 (credit crisis). Second, when cash rates rise significantly more than discounted, cash becomes more attractive, leading to selling pressure across all assets. The years 1981 and 1994 represent good examples of this type of unusual period. Both of these environments were periods during which all asset classes were simultaneously negatively impacted. Since the idea of the Balanced Portfolio is to efficiently accrue the excess returns offered by

owning asset classes, it will naturally underperform when all asset classes concurrently underperform cash. Fortunately, these negative climates are rare, short-lived and are generally followed by a significant rebound. Moreover, the Balanced Portfolio tends to perform better than the 60/40 portfolio during these unique environments because of its lower allocation to equities, which often take the biggest hit among the asset classes.

Conclusion

Conceptually, the Balanced Portfolio makes sense. Statistically, the Balanced Portfolio is compelling. Practically, because so few investors maintain a truly balanced portfolio, it may be challenging to implement.

The challenge lies not in the difficulty of investing in these strategies but in the courage, understanding and patience it takes to be different from one's peers. Indeed, the Balanced Portfolio is much simpler, more cost-effective and more tax-efficient to implement than nearly every other portfolio. A simple balanced portfolio may be constructed by using as few as four liquid and low-expense exchange-traded funds and/or mutual funds. (Low-cost, tax-efficient index funds may be used. The Goldman Sachs Commodity Index, which invests in commodity futures, was used

to calculate commodities' return. A commodity producer stock fund could be used as an alternate, though the higher equity risk would be need to be factored in.) However, the fact that so few investors embrace the benefits of the Balanced Portfolio initially may make it more difficult to adopt.

Keep in mind that portfolios do not have to be perfectly balanced to be successful. However, the more economically balanced a portfolio is, the more efficient will be the trade-off between risk and return. It should be viewed more like a spectrum rather than an all-or-none proposition. A portfolio can be more or less balanced, and the more balanced it is the more efficient it should be. Because the starting point for most portfolios is extreme imbalance (99% correlation to any asset class is virtually perfectly imbalanced), then perhaps a step toward better balance would be beneficial.

This is a very simplistic, yet effective conceptual approach to identifying balance in a portfolio. It is clearly not an exact science, but it doesn't have to be. It is the logical connections that are critical. The bias of each asset class to the various environments is reliable. The impact of volatility to this bias is reasonable. Combining the asset classes from an economic bias perspective makes sense since we want the total portfolio to be economically balanced. It really is that easy. ▲

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