

Rethinking Asset Allocation

Part I: Begin with Asset Class Selection

After the failure of so called “diversified” asset allocation strategies to protect their clients from the ravages of The Great Bear Market, investment managers and advisors are going through a period of healthy self-examination: Some recent headlines and excerpts from the *Wall Street Journal*:

6/17/2009: “Balanced is Out, Absolute-Return In”

The opening sentence: “After last year’s stock meltdown savaged just about every U.S. and international asset class, many investors have concluded that traditional portfolio diversification isn’t only discredited, but pure bunk.”

7/4/2009: “No Quick Recovery for Hard Hit Target Funds”

The article begins, “Given the dramatic, wealth-killing market Crash of 2008, it’s not surprising that target-date funds faced a lot of criticism in recent months. Some of these so-called set-it-and-forget-it retirement vehicles lost investors as much as 40% of their savings last year.”

The July 4th publication date was a bit ironic. It was far from (financial) Independence Day for those planning to retire in 2010. “The five-biggest 2010 target-date funds lost an average of 29% from the start of the market’s fall in mid-October 2007 through March 9 of this year... Those five-largest 2010 funds are still down 16% on average for the year ended June 30.”

7/10/2009: “Failure of a Fail-Safe Strategy Sends Investors Scrambling”

The article leads with an anecdote of an advisor standing up and announcing to his peers, “Hi. My name is Carl, and I’m a recovering asset-allocationist.”

I think Carl touched a chord. Before we all run off to a twelve-step program to recover from an addiction to a failed idea, consider the possibility that the failure is not in the idea, but in its implementation and communication.

Long before Modern Portfolio Theory (MPT) came along, the concept of risk reduction through diversification was captured in the old adage, “Don’t put all your eggs in one basket.” Beyond the old adage, a big insight of MPT was the Markowitz efficient frontier.

The efficient frontier is a mathematical framework that helps us identify the “optimal portfolio” – one that maximizes expected return subject to investor risk tolerance. All we need to do is provide inputs to the model – expected returns, standard deviations and correlations for each asset class we include in the model – and we are good to go.

So what went wrong? Perhaps a little too much attention to the framework and not enough attention to the inputs and assumptions?

Successful investors can neither ignore the insights of MPT nor use the quantitative techniques it has spawned as substitutes for solid research and judgment.

There are far too many aspects of asset allocation theory and its application to address in one note, which is why this is part one of a series. Today, we address one aspect – the asset classes we choose to build that diversified, optimal portfolio.

What is an asset class?

One aspect of investment business that I find peculiar is the fuzzy concept of an asset class, particularly given its importance as an input to building an effective asset allocation. Is large cap value a separate asset class from large cap growth? Is large cap a separate asset from small cap? Are they all just part of one big asset class called domestic stocks? **Remember, what we put in the optimizer will determine what we get out.**

Here are a few criteria to help define an asset class. An asset class is a collection of investments that:

1. Have a common legal and regulatory structure
 - Stocks have a different claim of corporate earnings and assets than bonds.
2. Have common economic drivers
 - TIPS and nominal bonds respond to inflation in opposite ways, yet they are often considered the same asset class. They are not.
3. Correlate highly with one another
 - TIPS were issued in 1997. If we measure the correlation of TIPS to nominal bonds since then, they will appear highly correlated. What will happen to that correlation calculation if we experience another inflation period like the 1970's?
4. Are collectively dissimilar to other asset classes
 - This is the source of diversification benefit.

Think about these criteria. If all asset classes in a portfolio respond to an economic driver in the same way, then they will behave the same when that driver dominates. If that driver is not significant – dormant, relatively stable, range-bound etc. – over the period we use to quantify correlation, **then we will experience correlation surprise** and our diversification will not be near what we expected.

Let's take a common sense look from a macro level. Here are publicly available asset classes that are commonly used in an optimizer and a few macro economic drivers that affect them.

Asset Class		Sensitivity* to Changes in		
Optimizer Input	Macro Class	Growth	Inflation	Deflation
Large Cap Growth	Stocks	+	-	-
Large Cap Value	Stocks	+	-	-
Small Cap Growth	Stocks	+	-	-
Small Cap Value	Stocks	+	-	-
International	Stocks	+	-	-
Emerging Markets	Stocks	+	-	-
High Yield Bonds	Hybrid	+	-	-
Investment Grade Bonds	Hybrid	-	-	-
Government Bonds	Default-Free Bonds	-	-	+
TIPS	Real Return Bonds	-	+	-
REITS	Real Estate	+	+	-
Commodities	Commodities	+	+	-

* Directional tendency of asset price changes to changes in the macro economic factor

A quick perusal of table shows that when economic growth increases, 9 of the 12 assets tend to do well. When inflation increases, 9 of the 12 assets do poorly, but not exactly the same nine. When we enter into a deflationary environment, only one of the listed assets does well – default-free bonds.

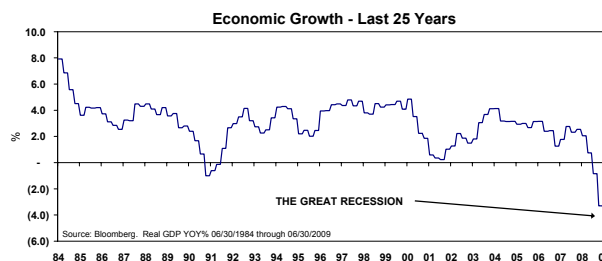
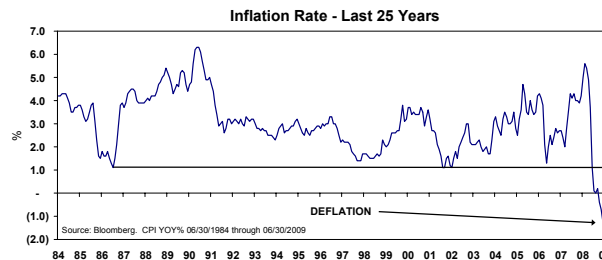
Note that high yield and investment grade bonds are hybrids. In effect, they are just blends of exposures to government bonds and stocks. The degree of equity exposure is a function of credit quality.

Here is what correlation surprise looks like:

Correlation(%) with the Russell 3000 Index			
Last 25 Years			
Asset Class (Index)	To 12/31/06	From 12/31/06	Change
Commodities (GSCI)	(4)	55	59
International (MSCI EAFE)	58	93	35
REITS (Wilshire)	46	82	36
Govt Bonds (BC/Lehman)	9	(14)	(23)

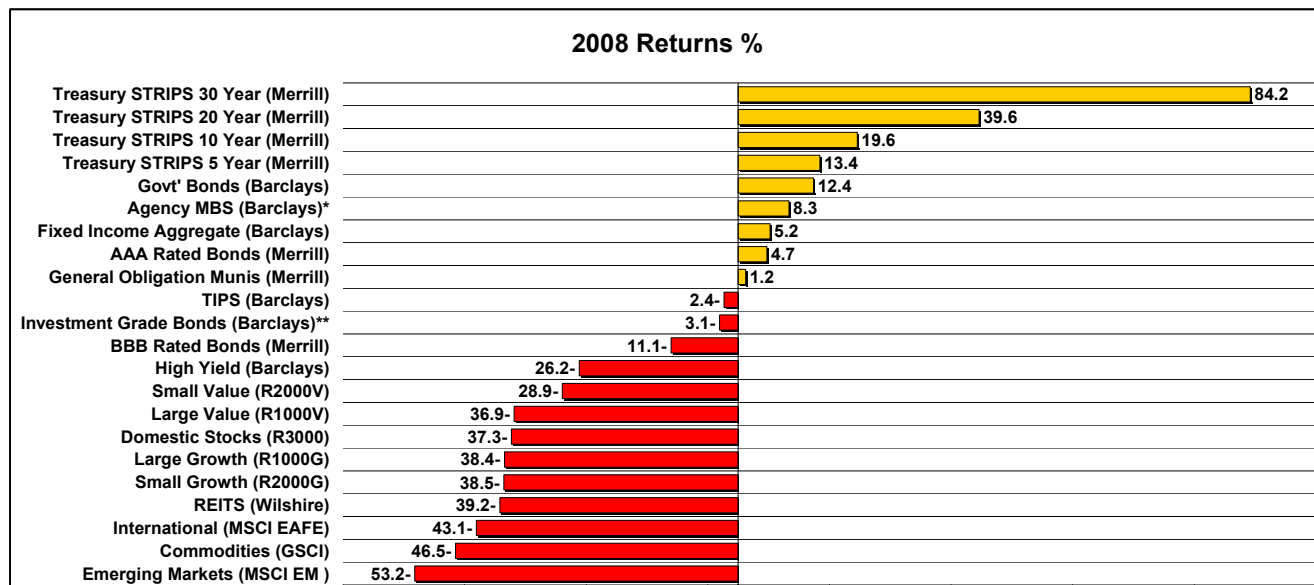
Source: MPI Stylus from 06/30/84 to 06/30/2009

Here is how the economic drivers changed:



High yield has more implicit equity exposure than investment grade bonds which have more than AAA rated bonds. When balance sheets deteriorate as they did in 2008, the degree of implicit equity exposure goes up for all corporate bonds.

In 2008, with a global recession and falling prices, a typical portfolio oriented to economic growth would be expected to suffer badly and did. Only the highest quality bonds had positive returns, and the longer the duration the higher the return. Most bond managers were lucky to earn the 5.2% return of the Barclays Aggregate Index, so the typical balanced portfolio experienced a lot of pain.



* Agency MBS are Mortgage Backed Securities issued by U.S. Government Agencies

** Investment Grade Bonds include all bonds rated BBB and above

*** Treasury Strips provide a single payment at maturity. They are zero coupon bonds backed by the U.S. Treasury

What can we do about it?

1. Hedge
2. Buy insurance
3. Tilt or tactically manage our asset allocation based on evolving compensation for risk in markets
4. Improve the diversification of our Policy Asset Allocation

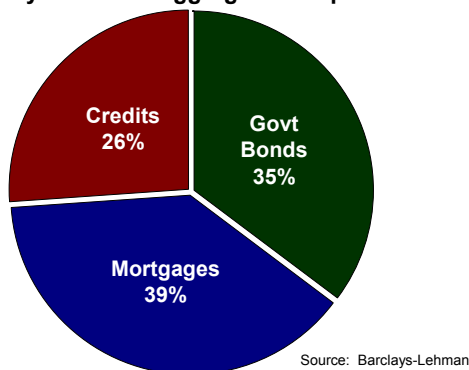
Hedging is a great thing. However, if we construct a perfect hedge, then we will have no risk and earn the risk-free rate. **Market risk is necessary to achieve long-term growth. We just want to be well-compensated for that risk.** We could buy insurance, either through the options market or from an insurance company, but it is especially expensive now. Strategic tilts and tactical asset allocation can have merit, provided they are based on expected compensation for risk and not market timing, but **we need to start from the right base, or normal portfolio, which is our Policy Asset Allocation (PAA).** So, for today, we will focus on our PAA and which asset classes can help us improve our diversification and compensation for risk.

Fixed Income

As we saw above, the correlations between stocks and default-free bonds changed as the economic environment changed. If all we considered were the historical correlations and not the economic drivers, we probably did not have enough government bonds in our PAA – this is one reason asset allocators put constraints on the optimizer. If we modeled fixed income as a single asset class and implemented based on the Barclays Aggregate Index, our portfolio probably had too few government bonds that were too short.

The Barclays Aggregate Index is the preferred benchmark for multi-sector fixed income managers and is often used to represent a single investment grade fixed income class during the optimization process. The problem is that using it may not be in our best interest.

Barclays-Lehman Aggregate Composition



One of the easiest ways for an active fixed income manager to beat the Aggregate over the long run is to simply underweight governments in favor higher yielding mortgages and credits. However, given the hybrid nature of credits, a structural overweight increases our implicit equity exposure.

This is analogous to a tactical asset allocator always being overweight stocks relative to bonds. Risk exposure is greater than intended. It feels good most of the time because equities generally out perform... until they don't... as in 2008.

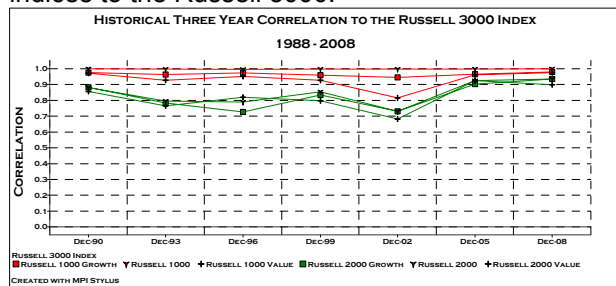
In 2008, the Aggregate returned only 5.2% and most intermediate fixed income managers underperformed it or lost money. The PIMCO Total Return Fund (PTTDX) managed by well-regarded Bill Gross, underperformed the Aggregate Index by 0.8% but beat the peer group average by 9.2% according to Morningstar. This means the average fixed income manager lost 4.8% in 2008 and did not fulfill the intended role of fixed income in the total portfolio.

The asset allocator needs to have the tools to ensure that fixed income fulfills its intended role in the portfolio – diversification, risk reduction, and income. Taking control of the policy targets and allocation ranges that help the allocator better diversify inflation, deflation and recession risks means treating TIPS and very high grade bonds, primarily governments, as distinct classes.

For small portfolios, or for those that seek to reduce complexity, additional asset classes can be problematic. Not to worry, we can offset the increase by tossing a few equity style boxes.

Domestic Equities

Here are the correlations of equity size and style indices to the Russell 3000.

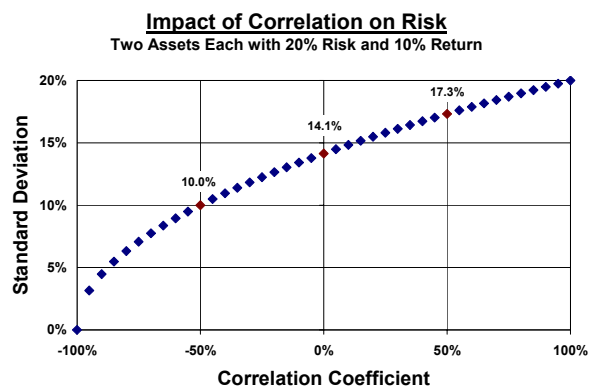


The green lines are small cap and the red are large cap. Each capitalization has three lines – one each for the growth, value and core styles. The period ending 2008 shows the correlations above 90% for all sizes and style. Over all the periods shown, to the extent there is diversification benefit, it is more significant for capitalization than style.

For small cap, the 2002 low point in correlation with the Russell 3000 ranges from 68% to 73% depending on style. The average correlation over the entire period is just over 80%. What is this

worth in terms of risk reduction? Not much.

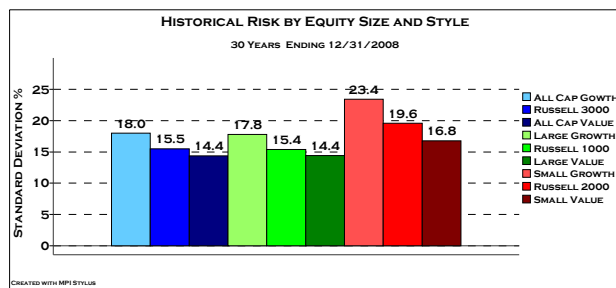
The chart below shows the impact of varying levels of correlation on risk for a hypothetical two asset portfolio. With correlations in the 70% to 90% range, the risk reduction benefit is small.



As correlation moves from 100% to 70%, total risk falls from 20% to 18.4% for the two asset portfolio, not much of a decline. With 10 assets, total risk remains above 17%. This is still a lot of risk.

Let's look at the total risk data for domestic equities:

Some observations:



1. Pure growth is significantly more risky than value or core, suggesting that portfolios should have style balance or be tilted to value.
2. Holding the market weight in small cap comes close to minimizing domestic equity risk – there is little difference in risk between the all cap and large cap across styles.
3. All cap value has the lowest risk at 14.4%. The Russell 3000 is just 1.1% higher at 15.5%. **No matter how much we slice, dice and recombine domestic equities by size and style, it is unlikely we will produce and sustain risk levels substantially below the broad market averages.**

The above does not mean we should not seek a diversified domestic equity portfolio. We should. However, understand that this is diversification of domestic equities only. It is not diversification of the total portfolio risk through the use of asset classes with substantially different legal frameworks and economic drivers.

For the asset allocator, **when setting Policy Asset Allocation, reduce the number of domestic public equity classes to one or two, and focus on asset classes that offer greater total portfolio diversification potential. Leave equity style box decisions to portfolio construction and implementation strategy.**

International, Emerging Markets, Real Estate, and Commodities

It has been observed that the correlations of these asset classes have risen dramatically and no longer offer significant diversification benefit. This is true when looking backwards and there are several good reasons – increased global trade and capital flows, institutional investors increasing exposures to commodities, deleveraging etc.

We have two choices:

1. Treat world equities as a single asset class, which means U.S. based investors are woefully underinvested in foreign markets
2. Treat them as separate asset classes

However, going back to our asset class criteria, **real estate and commodities have fundamentally different legal and regulatory structures than equities. Economic drivers differ as well. As economic conditions evolve, the degree of correlation will rise and fall depending on which economic drivers are dominant.**

While the march to a single world equity market may be inexorable, the road will be bumpy and the destination is a long way off. Asking “are we there yet?” is like my daughter an hour into a day long drive. International and emerging markets still have different legal and regulatory structures, different political/governance structures and different comparative advantages.

Developed international and emerging market equities are stocks, as are U.S. equities. **The U.S. market represents only about 30% of the world equity market capitalization** and emerging markets are the growth markets. These markets can't be ignored.

Keep international and emerging markets as distinct asset classes if the size of the portfolio allows. If size demands it, collapse them into a single class, and use managers that span both in a single portfolio.

Final Thoughts

That we call something an asset class, calculate its risk, return and correlations, put in an optimizer with other asset classes and produce an efficient frontier, does not automatically mean that portfolios selected from the frontier are well-diversified and well-compensated for the risk they bear. All it means is that we were able to feed the model inputs, turn the crank, and generate outputs.

To be clear, our view is that the principles of asset allocation and diversification remain as important as ever. However, somewhere along the way these principles may have been co-opted by the appeal of the mathematical models and processes used to apply them. As a result, 2008 appears to be a case where instead of being approximately right, many portfolios ended up being precisely wrong.

Important Information and Disclosures

This material represents an assessment of the market environment at a specific point in time and is not intended to be a forecast of future events, or a guarantee of future results. The information contained herein is believed to be accurate but has not been independently verified.

Asset allocation analysis may assist you in determining if you have the right mix of investments for a given set of objectives and risk tolerance. Asset allocation does not ensure a profit or protect against losses in a declining market.

Diversification may help to reduce the effects of investment risks when gains in one investment class help offset losses in another. There is no certainty that any investment or strategy will be profitable or successful in achieving your specific investment objectives.

This report provides hypothetical information using historical data and rates of return. Depicted rates of return are not representative of the actual rate of return that you will experience with any particular investment product.

The performance of an unmanaged index is not indicative of the performance of any particular investment. It is not possible to invest directly in any index.

Past performance is no guarantee of future results. The information shown should not be considered as a prediction of any investment results. Principal values of your investments will fluctuate and when redeemed, may be worth more or less than your original investment.

Costs associated with an investment are not reflected in the illustrations [e.g., mutual fund sales charges, management fees, administrative fees, taxes, other maintenance fees or mortality fees]. If included, these costs would lower returns. Note that costs differ depending on the investment. Assuming two investments have identical returns, the investment with lower costs would provide a higher overall projected value.

Sources of information for this report include The Wall Street Journal, Bloomberg, Standard & Poor's, Russell, Barclays/Lehman, MSCI, Merrill, Wilshire, Morningstar, Bureau of Economic Analysis, MPI Stylus, The CFA Institute and FDx Advisors.

Related reading on current and past thinking regarding asset class selection, asset allocation, and implementation:

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