



## What the New Normal Means for Asset Allocation

Geoff Considine, Ph.D., Quantext, Inc.

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A *New Normal* is coming into focus, providing a glimpse of the slow growth and higher inflation that may soon characterize the U.S. economy. Warnings about this alarming prospect have been articulated by Bill Gross of PIMCO and by his colleague Mohammed El-Erian.

PIMCO's new paradigm is not, in fact, that new. Many of its themes are described in detail in El-Erian's book, ***When Markets Collide***. In it, El-Erian warned investors to prepare for an increasing economic shift of power to emerging markets and increasing correlations between major asset classes

Under the *New Normal*, investors should prepare for lower equity risk premia. If economic growth slows, it stands to reason that equities will deliver lower average returns than many investors expect (see [here](#)). Lower returns are also likely to be accompanied by substantially higher volatility than we have experienced in recent decades—though less than the very high volatility of late 2008.

If this view is correct, what should investors do? I will examine the implications of this *New Normal* for asset allocation and financial planning by stress-testing some well-known asset allocations to see how well they will serve investors in the forecast environment.

Back in June 2008, I [analyzed](#) some model portfolios that had been proposed by Paul Merriman and Ted Aronson, both very experienced commentators on global markets. Paul Farrell, who writes regularly about so-called "lazy portfolios," proposed that those asset allocations would be an effective way to deal with stagflation — low economic growth coupled with significant inflation risk. My analysis at the time suggested that was not really the case. The portfolios in question had low exposure to asset classes that tend to weather inflation (such as commodities and REIT's) and fairly high Beta, which meant that they derived most of their returns from price increases in the S&P500. At about the same time, I analyzed a model portfolio proposed by Mohamed El-Erian in ***When Markets Collide*** that was designed to account for the forces anticipated by the *New Normal* world view, and I [found](#) that my Monte Carlo projections were in broad agreement with his analysis.

Gross suggested that firms with strong consumer franchises — like Coke (KO) and Procter and Gamble (PG) will tend to do well in the *New Normal*. In July, Gross [wrote](#) the following:



*...the outlook for risk assets – stocks, high yield bonds, and commercial and residential real estate will involve just that – risk. Investors should stress secure income offered by bonds and stable dividend-paying equities.*

And earlier this month he [offered](#) a related insight:

*An investor should remember that a journey to 3% nominal GDP means default/haircuts for assets on the upper end of the risk spectrum, as well as extremely low-yielding returns for government and government-guaranteed assets at the bottom end.*

In Monte Carlo analysis, companies like Coke and P&G are attractive in volatile environments because they are fairly low volatility and low-Beta. Low volatility means that they can help to mitigate overall risk in the portfolio. Low volatility is also related to low default risk — something I have [shown](#) using credit ratings and Monte Carlo simulations. These companies seem like a good place to put money in times when the default risk of firms is elevated. Monte Carlo analysis makes the link between investments with high market risk and default risk quite clear.

I have [argued](#) for years that companies like KO and PG provide low-Beta portfolio enhancements. I have also [noted](#) that Dividend Aristocrats, a set of stocks that have maintained or raised their dividends for at least twenty-five years, as a group tend to provide this portfolio impact, and our [simulations](#) suggest that this will continue to be the case. Dividend Aristocrats tend to be both low volatility and low Beta. High volatility assets will not thrive in an economic environment of high volatility and low growth — conditions that are at the heart of PIMCO's *New Normal*. High Beta assets rely on price appreciation for their returns, and price appreciation is driven by expectations of earnings growth. In a low-growth environment, a larger portion of returns will be provided by dividends, as opposed to price appreciation.

An additional theme that Gross does not discuss explicitly is the likelihood that correlations between asset classes will remain high for quite some time, reducing the effectiveness of traditional asset allocation. (El-Erian, on the other hand, does discuss this issue in his book.) One of the last refuges of low correlation is a selection of Blue Chip stocks. This, all by itself, has important implications because it challenges the idea that investors are well-served by buying the entire market-cap weighted index.

Key themes that emerge from the *New Normal* model that are entirely consistent with the projections from Monte Carlo simulations (using Quantext Portfolio Planner) are the following:

- 1) Dividend Aristocrats and similar stocks are a good choice for equity exposure.
- 2) TIPS should make up a considerable portion of bond exposure to protect against inflation.



- 3) High volatility / high Beta asset classes will be too risky for many investors—even at moderate allocation levels.
- 4) Emphasis on international equity exposure is necessary to protect against a weaker dollar.

My Monte Carlo analyses [confirm](#) the views of Gross and El-Erian that emerging markets will have substantially higher long-term returns than [domestic markets](#), but the risks associated with emerging markets also remain high. For years, emerging markets have had volatilities substantially greater than the S&P500 and Betas substantially greater than 100% relative to the S&P500 for years.

With PIMCO's *New Normal* in mind, how might we modify some model asset allocations? By way of example, we will look at [Ted Aronson's model portfolio](#) and how it might change under this world view.

Fund Name	Ticker	Percentage of Funds
Vanguard 500 Index	VFINX	15%
Vanguard Emerging Markets Stock Index	VEIEX	20%
Vanguard European Stock Index	VEURX	5%
Vanguard Extended Market Index	VEXMX	10%
Vanguard High-Yield Corporate	VWEHX	5%
Vanguard Inflation-Protected Securities	VIPSX	10%
Vanguard Long-Term U.S. Treasury	VUSTX	5%
Vanguard Pacific Stock Index	VPACX	15%
Vanguard Small Cap Growth	VISGX	5%
Vanguard Small Cap Value Index	VISVX	5%
Vanguard Total Stock Market Index	VTSMX	5%

### ***Aronson's Model Portfolio***

This portfolio, with 20% in bonds, is spread between domestic and international equities, as well as between large-cap and small-cap equities. One striking feature of this portfolio is that it diversifies mainly by combining market-cap weighted equity indexes, not by including asset classes such as REIT's, commodities, or sub-classes like infrastructure.

When I [analyzed](#) this portfolio in May 2008, the Monte Carlo projections estimated its expected annual return to be 9.1% with a standard deviation of 14.3%. This can be compared to the trailing three-year average annual return (arithmetic) of 13.5% with a



standard deviation of 9.1%. Quantext Portfolio Planner (QPP) was projecting that this portfolio would have considerably lower return than it had enjoyed in recent years and significantly higher risk — there was a high potential for mean reversion (downwards) because the preceding years had substantially exceeded the expected long-term return. When I run the Aronson portfolio through QPP using data through the end of July 2009 with all baseline settings, I find that the expected annual return is 9.3% with a standard deviation of 16.6% — remarkably close to the projections in May 2008. The major difference today, of course, is that mean reversion is on our side, because the trailing three-year return for this portfolio is now 1.5%.

The baseline settings for QPP used in both May 2008 and now assume that the real return for the S&P500 is 5.3% with a standard deviation in total return (nominal) of 15%. Implied volatility (which is expressed in terms of annualized standard deviation in return) in options pricing is a useful sanity check to see where the markets expect volatility to go. The implied volatility for the S&P500 for options expiring in December of 2011 was 26% as of this [writing](#). This is substantially lower than the very high values we saw late in 2008, but is still far above the long-term average of 15% that QPP uses as its baseline value.

The Aronson portfolio has a current Beta of 0.99, so the higher volatility in the S&P500 translates directly into higher volatility for this portfolio. If the S&P500 has volatility of 26%, the Aronson portfolio will see volatility of a little over 26%. Historically it is not typical for a portfolio with 20% bonds to have a Beta that is essentially 1.00. This is a result of the higher correlations between asset classes.

How might we modify this portfolio to align better with the *New Normal* world view? First, we will want more TIPS and fewer high-Beta equities. We will also want allocations to some low-volatility Dividend Aristocrats. There is also a lot of redundancy in the original Aronson portfolio—there are funds with so much correlation that they add no real value. The trailing three-year correlations between the portfolio and each fund are shown below:



Fund	Portfolio
VFINX	96.0%
VEIEX	95.6%
VEURX	97.6%
VEXMX	95.9%
VWEHX	80.5%
VIPSX	47.0%
VUSTX	6.7%
VPACX	95.6%
VISGX	95.0%
VISVX	90.1%
VTSMX	96.6%

VEURX and VTSMX add no net value to this portfolio under current projections. High correlations between a range of asset categories that diminish the diversification benefits of combining these assets classes are a key part of the *New Normal*, and this idea has been emphasized as a long-term theme by EI-Erian. Corporate bonds and TIPS have low correlations, with returns above nominal bonds.

Now let's apply the *New Normal* world view. I have thrown out asset classes that were so highly correlated that they did not add anything, I have selected a series of low-volatility, high-quality stocks from the Dividend Aristocrats, and I have emphasized emerging markets for my broad equity exposure. Further, I have added exposure to commodities, REIT's, and a tilt towards infrastructure in the form of utilities. Consider the following portfolio:



Name	Ticker	Percentage of Funds
Vanguard Emerging Markets Stock Index	VEIEX	15%
Vanguard High-Yield Corporate	VWEHX	3%
Vanguard Total Stock Market Index	VTSMX	0%
Vanguard Inflation-Protected Securities	VIPSX	10%
Vanguard Long-Term U.S. Treasury	VUSTX	7%
Vanguard REIT Index	VGSIX	5%
Dow Jones AIG Commodity Index ETN	DJP	7%
iShares Dow Utilities Index	IDU	5%
Clorox	CLX	4%
Chubb	CB	4%
AFLAC	AFL	4%
Abbott Labs	ABT	4%
Archer-Daniels-Midland	ADM	4%
Consolidated Edison	ED	4%
Coke	KO	4%
Procter & Gamble	PG	4%
Wal-Mart	WMT	4%
Johnson & Johnson	JNJ	4%
Kimberly-Clark	KMB	4%
Exxon	XOM	4%

***The New Normal Alternative to Aronson's Portfolio***

The Monte Carlo simulation (QPP) projects that this portfolio will have 9.3% in expected return, with 12.3% in standard deviation under baseline conditions. This is the same expected return as for the Aronson portfolio, but with substantially lower risk. Part of what makes this portfolio attractive is the low correlation between the individual stocks:



Ticker	Correlation to Portfolio
VEIEX	88.5%
VTSMX	91.4%
VIPSX	49.2%
VUSTX	21.9%
VGSIX	73.4%
DJP	61.4%
IDU	73.4%
CLX	37.3%
CB	53.6%
AFL	78.4%
ABT	21.6%
ADM	33.9%
ED	25.5%
KO	75.5%
PG	59.8%
WMT	31.3%
JNJ	73.7%
KMB	57.9%
XOM	53.0%

### ***Correlations to New Normal Portfolio***

In a world in which market-cap weighted indexes have very high correlations, individual stocks provide one of the last refuges for those seeking to combine assets with low correlations.

A standard critique of this kind of analysis is that this portfolio, with significant allocations to individual stocks, is too risky because it is undiversified. There are several ways to respond to this. First, this approach could be implemented with a larger number of properly selected individual stocks. Second, I have previously [analyzed](#) the issue of increased default risk with individual stocks, and I found that this is quite well captured in QPP. Third, QPP agrees with the [Charlie Munger](#) world view that it is possible to own a small number of stocks and still have a well-diversified portfolio. Our proposed *New Normal* portfolio has a Beta of 66% and, of course, carries significant non-systematic risk by virtue of its small number of concentrated positions. Recent [research](#) by Burton Malkiel shows that non-systematic risk is, in fact, rewarded by the market, and Eugene Fama and Ken French have [shown](#) that low-Beta portfolios outperform. Both QPP and Bill Gross share a preference for “stable dividend-paying



equities,” which implies a careful selection from the universe of stocks, rather than just buying market-cap weighted indexes.

Finally, owning individual equities helps to provide an additional benefit: In an era of low expected returns, it becomes ever more important to minimize the drag expenses exert on returns. Owning individual stocks over extended periods of time can yield a portfolio with the absolute minimum in expense drag (transaction costs only). It can also confer tax benefits. One of Gross’ [points](#) with regard to the *New Normal* is that expenses that that seemed small in the context of 10%-plus annual returns will loom large in an era of lower returns.

As a second example — and with the core concepts in mind — let’s look at a portfolio with 40% fixed income designed by Paul Merriman of FundAdvice.com:

Fund Name	Ticker	Percentage of Funds
Vanguard 500 Index	VFINX	6%
Vanguard Value Index	VIVAX	6%
Vanguard Small Cap Index	NAESX	6%
Vanguard Small Cap Value Index	VISVX	6%
Vanguard REIT Index	VGSIX	6%
Vanguard Emerging Markets Stock Index	VEIEX	6%
Vanguard Developed Markets Index	VDMIX	12%
Vanguard International Value	VTRIX	12%
Vanguard Short-term Treasury	VFISX	12%
Vanguard Intermediate-term Treasury	VFITX	20%
Vanguard Inflation-Protected Securities	VIPSX	8%

### ***Merriman’s Model Portfolio***

When I first analyzed this portfolio, I found that it was not very well diversified. This outcome is amplified when the analysis incorporates data through July 2009 because of the increase in correlations across asset classes during 2008-2009. If we look at the correlations of the non-fixed-income asset classes to the portfolio and to one another, it is clear that the correlations are so high as to be of very limited diversification value:



	Portfolio	VFINX	VIVAX	NAESX	VISVX	VGSIX	VEIEX	VDMIX	VTRIX
VFINX	95.9%	100.0%							
VIVAX	95.5%	98.4%	100.0%						
NAESX	95.0%	96.0%	94.5%	100.0%					
VISVX	93.5%	93.8%	94.8%	98.5%	100.0%				
VGSIX	86.0%	81.1%	83.1%	89.3%	91.8%	100.0%			
VEIEX	90.9%	87.1%	82.9%	82.9%	77.0%	65.0%	100.0%		
VDMIX	97.5%	93.4%	92.4%	90.1%	86.9%	77.5%	94.2%	100.0%	
VTRIX	96.7%	93.2%	91.4%	89.5%	85.7%	75.1%	96.1%	99.6%	100.0%

### ***Correlations Among Elements of Merriman's Portfolio***

In particular, the correlation between the S&P500 (VFINX) and the large-cap value index fund (VIVAX) is 98.4%. There is nothing wrong with adding a value tilt to a portfolio, but holding both these funds certainly does not add much in the way of diversification. Similarly, the correlation between the small-cap index, NAESX, and the small-cap value index, VISVX, is 98.5%. The correlation between the developed international index fund, VDMIX, and the international value index, VTRIX, is even higher at 99.6%.

My Monte Carlo projections for this portfolio yield an average annual return of 7.5% with a standard deviation of 12.4%. This portfolio also has a Beta of 0.74 and R-squared of 92% (vs. the S&P500). Although this portfolio has 40% in bonds, the vast majority of its performance is driven by the S&P500.

After some experimentation with the Monte Carlo projections, I arrived at the following alternative to Merriman's allocations:



Name	Ticker	Percentage of Funds
Vanguard Small Cap Value Index	VISVX	5%
Vanguard REIT Index	VGSIX	6%
Vanguard Emerging Markets Stock Index	VEIEX	15%
iShares Dow Utilities Index	IDU	4%
Vanguard Inflation-Protected Securities	VIPSX	25%
Vanguard Intermediate-term Treasury	VFITX	5%
Dow Jones AIG Commodity Index ETN	DJP	8%
Clorox	CLX	3%
Chubb	CB	3%
AFLAC	AFL	3%
Abbott Labs	ABT	2%
Archer-Daniels-Midland	ADM	3%
Consolidated Edison	ED	3%
Coke	KO	2%
Procter & Gamble	PG	2%
Wal-Mart	WMT	3%
Johnson & Johnson	JNJ	3%
Kimberly-Clark	KMB	2%
Exxon	XOM	3%

### ***The New Normal Alternative to Merriman's Portfolio***

As in the previous case, I have thrown out asset classes that added no real diversification value, I have emphasized emerging markets, and I have added significant allocations to Dividend Aristocrats. I have also added explicit commodities exposure (DJP) as well as exposure to infrastructure in the form of utilities (IDU). This portfolio has higher historical return and lower historical risk than the Merriman portfolio (trailing three years through July 2009). The Monte Carlo projected return for this portfolio is 8.8% with a standard deviation of 12.2% (as compared to a projected annual average return of 7.5% and a standard deviation of 12.4%). The Beta of this portfolio is 0.66 (vs. 0.74 for the Merriman portfolio), despite the fact that this portfolio holds only 30% in bonds vs. 40% in the Merriman portfolio. This portfolio also has much higher exposure to emerging markets (VEIEX) than the original. The projected improvement in return of 1.3% per year (with slightly less risk) may appear minor for those who still think in terms of double-digit equity returns. Under the *New Normal* paradigm of lowered expectations, however, this improvement is substantial.



## **Discussion**

The types of portfolios shown in these examples challenge the conventional wisdom of asset allocation — they are very different from what most advisors espouse and practice. But there is increasing evidence that the traditional models are not working. It is hard to argue, for example, that investing in broad index funds is "safer" than owning individual stocks after a year like 2008. The S&P500 lost 37% last year, and emerging markets lost more than 50%. The substantial increase in correlations among the major market-cap weighted equity indexes means that simply buying domestic and foreign equities provides very little diversification benefit. When we incorporate the additional *New Normal* themes described by Gross and El-Erian, there is increased focus on inflationary risks and on the notion that the emerging markets will be the engines of growth in coming years. These themes lead to heavier allocation to emerging markets, along with targeted exposure to stable dividend-paying companies for domestic exposure. Under this world view, commodities and infrastructure also look attractive.

The Monte Carlo analyses clearly suggest that a global market-cap weighted approach to equity exposure does not make a lot of sense. This conclusion is also a constant under-current in El-Erian's *When Markets Collide*, in which he wrote:

*Passive exposures typically track indexes that are backward looking—that is they reflect the world of yesterday rather than the world of tomorrow. (pp. 204)*

If we see slower economic growth in the U.S. and other developed markets, accompanied by a progressive weakening of the dollar and its attendant consequences (such as higher inflation, higher commodity prices, and lower real yields on bonds), the best performing asset allocations will be very different than those that have worked in the past. The *New Normal* paradigm challenges fundamental assumptions about the effectiveness of markets in determining value and in predicting the future prospects of individual companies and, by extension, entire sectors (the financial sector being an obvious example). All of these factors tend to support the idea, espoused by Gross, that investors will need to minimize the drag on investment performance represented by intermediation and tax. Owning individual securities looks more attractive in such an environment.

The model portfolios presented here are not provided as ideals but rather as examples of what *New Normal* portfolios might look like. For those investors who prefer to have less exposure to individual stocks than is shown in these examples, the numbers of carefully-selected firms can easily be expanded.

An extended period of high volatility across asset classes is consistent with Minsky's financial instability hypothesis, a model frequently cited in PIMCO [publications](#). In Minsky's model, investors take on more risk and leverage when markets are stable and exhibiting low volatility. As investors increasingly leverage up and demand less and



less return for the risks they take on, they set the stage for financial crisis. Once a crisis starts, there is a period of active de-leveraging which corresponds to high volatility. Investors became complacent in the years up to 2007 in terms of taking on risk. Today, they have swung to the opposite extreme. In this environment, investors must take a critical look at traditional asset allocation models and consider how they should be adapted to better serve the demands of the *New Normal*.

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