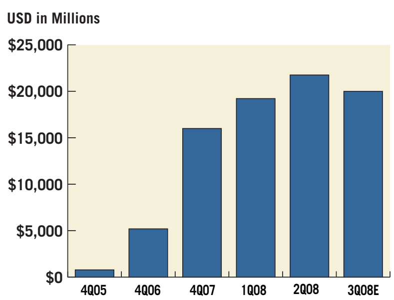
Fundamental Index® Newsletter · October 2008

rafi® fundamentals

RAFI® Managed Assets*



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WHAT A DIFFERENCE A QUARTER MAKES

The third quarter of 2008 was, in words that may be an immense understatement, a remarkable period in the global capital markets. A rolling, slow-motion market crash has savaged one asset class after another, and volatility continues into the new quarter. Risk-reducing asset allocation has proved to be nearly impossible because all asset categories except the most liquid of nominal Treasuries have experienced significant declines. Even the few positive holdouts in the first half of the year—notably, commodities—gave way in the third quarter to sizable losses. And the dramatic reversals in prices weren't restricted to asset classes; it occurred also for individual stocks as, in three short months, yesterday's relative heroes transformed into laggards.

In times like these, it's helpful to review historical relationships for insights into what might happen in the future—both with asset allocation generally and in the cross section of the equity markets.

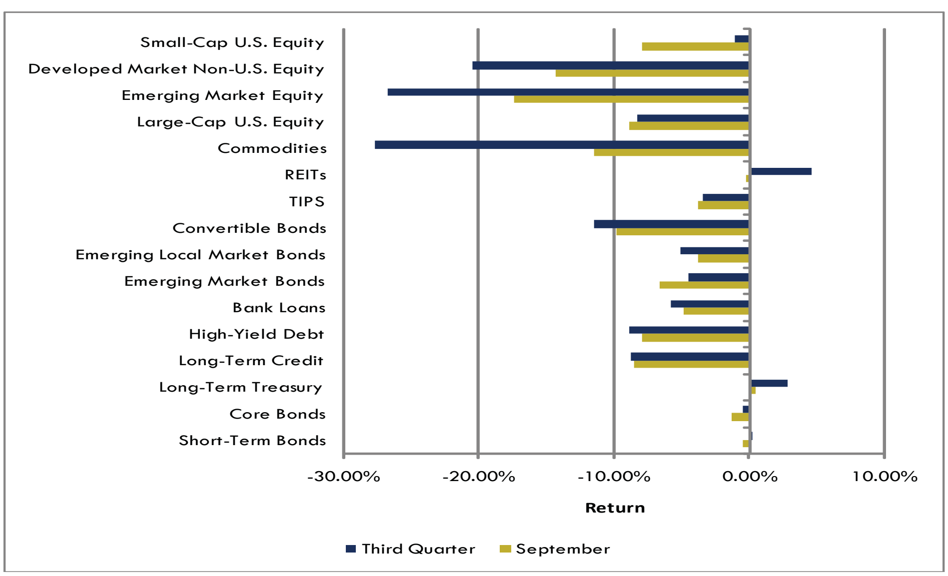
Asset Allocation

The financial crisis turned into a full-fledged market panic in September 2008 as many global financial Titanics—which had been deemed too big to sink—slipped beneath the waves or ran aground, where they required massive public and private rescue efforts.

Investors of all types suddenly reassessed their risk appetites. Just how big is this iceberg of bad loans? Where will the shifty subprime shoals surface next? Without clear answers, investors began summarily liquidating all risk exposures, culminating in the enormous September 29th equity market sell-off. **Figure 1** provides September and third-quarter returns from 16 major asset classes.

These numbers are ugly. Whoever coined the phrase "The only thing that goes up in bear markets is correlations" couldn't have come up with a better case study. Many of these

Figure 1. Return to Major Asset Classes, September 2008 and Third Quarter 2008



Source: Research Affiliates

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Table 1. Absolute Performance Rank of September 2008 vs. Previous 249 Months

	Short-Term Bonds	Core Bonds	Long-Term Treasury	Long-Term Credit	High-Yield Debt	Bank Loans	Emerging Market Bonds	Emerging Local Market Bonds
September Rank	242 / 249	237 / 249	144 / 249	249 / 249	249 / 249	200 / 200	173 / 177	175 / 177

	Convertible Bonds	TIPS	REITs	Commodities	Large-Cap U.S. Equity	Emerging Market Equity	Developed Market Non-U.S. Equity	Small-Cap U.S. Equity
September Rank	247 / 249	129 / 131	166 / 249	212 / 213	245 / 249	248 / 249	249 / 249	239 / 249

Note: Comparison dates from January 1988 or the inception of the underlying index, whichever was shorter.
Source: Research Affiliates.

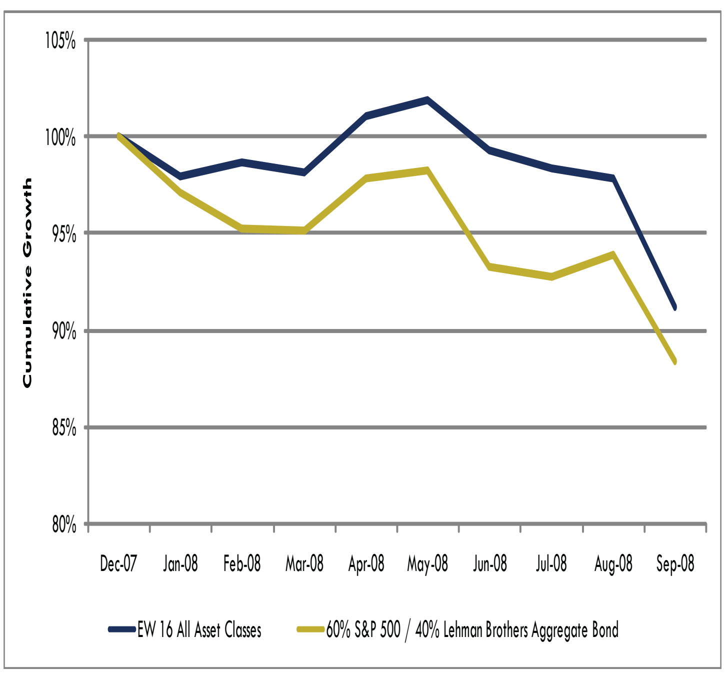
asset classes have unique return drivers and risk exposures, yet they all sold off. Diversification was of no help.

To gauge the improbable nature of this lockstep sell-off, we list in **Table 1** the relative rank of September's results for each asset class since January 1988. Incredibly, September ranked in the bottom decile of absolute monthly performance for 14 of the 16 asset classes, including four (long-term credit, high-yield debt, bank loans, and developed market non-U.S. equity) that experienced their worst month of absolute performance in the last 20 years. REITs and long-term Treasuries were not in their bottom decile ever, but even these classes were well below the historical median results for their class. Not a single asset class delivered results that were above the historical average—not one!

Diversification allowed a portfolio to avoid much of the drawdown until September. **Figure 2** shows the cumulative 2008 performance of an equally weighted (EW) portfolio of the 16 asset classes in Figure 1 and Table 1 with the performance of a traditional 60%/40% U.S. stock/bond mix (with stocks represented by the S&P 500 Index and bonds represented by the Lehman Brothers Aggregate Bond Index). Note how the diversified 16-asset approach largely avoided significant losses and dramatically outperformed the 60/40 mix until September. In the end, with almost everything producing historic losses, asset allocation was largely futile. Of the 16 asset classes, 15 finished September in the red, which resulted in the equally weighted basket producing a return of –6.74%. The magnitude of this loss was exceeded only by the decline of –8.34% of August 1998 (largely ascribed to the collapse of Long-Term Capital Management). The five worst months since 1988 are presented in **Figure 3**.

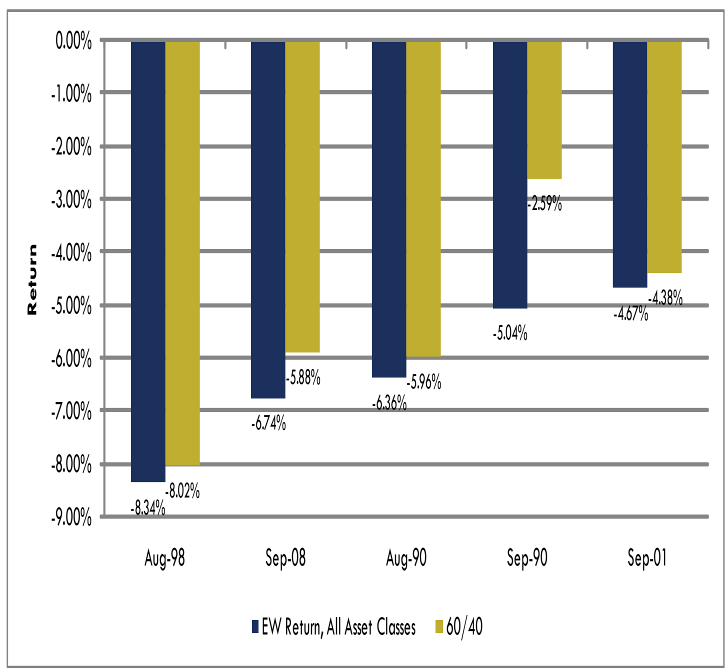
Although painful, this correction has led many asset classes to offer reasonable—and in several cases, impressive—forward-looking premiums for bearing risk. This situation was not the case in the past few years; investors evidently felt entitled to higher and higher returns for bearing less and less volatility. Many of our friends and clients have heard us remark in recent years about the dearth of "low-hanging fruit"—that

Figure 2. Cumulative 2008 Performance of Equally Weighted Portfolio of 16 Asset Classes and 60%/40% U.S. Stock/Bond Portfolio



Source: Research Affiliates

Figure 3. Performance of 16-Asset Portfolio vs. 60/40 Portfolio for Five Worst Months since 1988



Notes: ML US Corporate & Government 1-3 Year; LB US Aggregate Bond TR; LB US Treasury Long TR; LB US Long Credit TR; LB US Corporate High Yield TR; Credit Suisse Leveraged Loan; JPM EMBI + Composite TR; JPM ELMI + Composite; ML Convertible Bonds All Qualities; LB Global Inflation Linked US TIPS TR; FTSE NAREIT All REITs TR; DJ AIG Commodity TR; S&P 500 TR; MSCI Emerging Markets TR; MSCI EAFE TR; Russell 2000 TR.

Sources: eVestment Alliance and Morningstar Encorr.

is, markets that are attractively priced relative to both other markets and their own history. Today, low-hanging fruit abound. Indeed, almost too many markets are attractively priced!

Risk premiums have a habit of nearly always drifting back to an equilibrium—which is what we mean by "mean reversion." The reversals may, however, cause prices to snap back "too much" relative to a "reasonable" level. Too small a forward-looking risk premium quickly becomes too large a premium. Today, we are actually witnessing in some categories forward-looking risk premiums well above historical norms for the first time in many years. This situation is good for those who will be net purchasers of assets. It doesn't do much to ease the recent pain, but it reminds investors that it is always darkest and coldest right before dawn. We think the next few months will afford buyers some of the best opportunities in years to embrace risks that others shun and wade far afield in our search for attractive asset allocation opportunities.

Mean Reversion in Equities

The phrase "What goes up must come down" applies equally well to Newton's apple and the stock market. No individual stock—nor, for that matter, asset class—will outperform peers forever. Inevitably, prices adjust. We illustrate this powerful trend with an examination of the top 10 U.S. stocks by capitalization through time. And we explore how investors can benefit from mean reversion in the current markets.

Of course, there are two ways a stock can make it on to this exclusive top 10 list—it is a large company whose future results will validate its lofty ranking or it is overvalued, perhaps dramatically so. These overvalued shares presumably have recently experienced dramatic run-ups in price to make it into the top 10. This is where mean reversion comes into play. The market will realize expectations for these stocks have gotten ahead of themselves and they will revert to some price level that more accurately reflects future prospects.

The performance implications of mean reversion for capitalization-weighted indexes are huge because the top 10 companies have the largest weights in the index. Thus, their subsequent underperformance will bring the whole index down. This outcome is easily seen in **Table 2**, where, on average, only 3 of the top 10 stocks by capitalization outperformed over the subsequent 10 years and, cumulatively, all 10 underperform the average stock by almost 30%.

Table 2. Performance of Top 10 Stocks in Cap-Weighted Portfolio, 1926–2006

	1-Year	3-Year	5-Year	10-Year
How often did the top 10 stocks in a cap-weighted portfolio outperform the average stock in the following period?	44%	40%	37%	31%
By how much did the top 10 stocks underperform the average?	-2.9%	-11.1%	-17.7%	-29.4%

Source: Research Affiliates.

In 2007 and 2008, amazing turnover has occurred in the top 10 stocks in the cap-weighted S&P 500. Comparing the top 10 list for June 30, 2008, with the list for year-end 2006, we discover that 5 of the top 10 are no longer on the list. Not surprisingly, three firms were financial institutions—Citigroup, Bank of America, and AIG. Altria Group (consumer staples) and Pfizer (health care) also faltered enough on a relative basis to drop out of the top 10. AT&T was a replacement by way of its merger with SBC Communications. The four new stocks outperformed their peers enough to climb into the top 10. Two of the additions rode the wave of "black gold" prices—the energy twins Chevron Corporation and ConocoPhillips. The other two are in information technology—Apple Computer and IBM—which has traditionally been a high-beta sector and held up well in the recent market downturn.

If a market is efficient, nothing is wrong with allocating more to recent winners. In a random walk, recent winners are just as likely to outperform as the stocks that have faltered. But a random walk is not what has occurred historically, and it didn't occur in the third quarter of 2008 either. The five new additions to the S&P 500 returned on average –17.5% for the quarter versus –8.4% for the S&P 500 as a whole and –7.9% for the average stock.[1] Large-cap U.S. stocks faced a tremendous headwind during the third quarter.

If a market is less-than-fully efficient, index investors will benefit from indexing strategies that break the link between price and portfolio weight. The Fundamental Index® methodology does exactly that. It selects and weights stocks in an index on the basis of their fundamental size (as measured by sales, cash flow, book value, and dividends) and rebalances back to those weights on an annual basis. The stocks whose prices have surged well ahead of their fundamental size, their underlying economic scale, are sold and the proceeds are used to purchase stocks whose prices have cratered relative to changes in fundamental size. Intuitively, one can see that this rebalancing offsets some of the problems with holding large allocations to recent winners—which are headed for a reversal. Large capitalization stock indices by over-allocating to these recent winners faced a tremendous headwind during the third quarter.

Of course, this trend won't occur every quarter or, for that matter, year. We can be relatively confident, however, in the mean-reversion process repeating. Trees don't grow to the sky, and an individual stock won't outperform forever. Successful companies see their stock prices rise simultaneously with investor expectations. Human nature conditions investors to favor investments that have been profitable recently and to extrapolate recent earnings and revenue gains well into the future, which causes valuations to rise beyond the reasonable and sets the stage for mean reversion.

Looking Back and Forward

In a volatile market like today's, two approaches provide insurance against the price reversals—a disciplined, relative-value approach to asset allocation in the broad capital markets and an indexing approach that anchors on metrics of fundamental size rather than capitalization. Both are critical in the face of an uncertain and unsettling investment environment.

Trying to pick market peaks and troughs is folly. But buying investments that most investors fear has always been one of the most powerful tools in an investing toolkit. Recent years have afforded few opportunities to follow this strategy. So, we relish the opportunity to be more bullish, in many markets, than most investors. The "permabears" are, albeit selectively, exuberantly bullish. We think that the months ahead will afford the patient long-term investor some of the most promising investment opportunities in many, many years. We think that, five years hence, we will look back on the next few months as the foundation for extremely profitable investment choices.

[1] S&P Equal Weight Index.

Performance Update

TOTAL RETURN AS OF 9/30/08	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	ANNUALIZED 10 YEAR VOLATILITY
FTSE RAFI® 1000 Index[A]	FR10XTR	-20.84%	-24.33%	-0.31%	6.37%	6.81%	13.87%
S&P 500[B]	SPTR	-19.29%	-21.98%	0.22%	5.17%	3.06%	14.37%
Russell 1000[C]	RU10INTR	-19.50%	-22.10%	0.13%	5.49%	3.49%	14.52%
FTSE RAFI® US 1500 Index[D]	FR15USTR	-13.80%	-18.16%	1.31%	9.58%	12.56%	17.33%
Russell 2000[E]	RU20INTR	-10.38%	-14.48%	1.83%	8.15%	7.81%	18.89%
FTSE RAFI® Developed ex US 1000 Index[F]	FRX1XTR	-28.74%	-29.43%	2.90%	11.76%	9.74%	15.35%
MSCI EAFE[G]	GDDUEAFE	-28.91%	-30.13%	1.58%	10.16%	5.42%	15.31%
FTSE All World Series Developed ex US[H]	FTS5DXUS	-28.32%	-29.14%	2.57%	11.02%	6.46%	15.42%

Definition of Indices: (A) The FTSE RAFI® 1000 comprises the 1000 largest companies selected and weighted using our Fundamental Index methodology; (B) The S&P 500 Index is an unmanaged market index that focuses on the large-cap segment of the U.S. equities market; (C) The Russell 1000 Index is a market-capitalization-weighted benchmark index made up of the 1,000 highest-ranking U.S. stocks in the Russell 3000; (D) The FTSE RAFI® 1500 comprises the 1001st to 1500th largest companies selected and weighted using our Fundamental Index methodology; (E) The Russell 2000 is a market-capitalization weighted benchmark index made up of the 2,000 smallest U.S. companies in the Russell 3000; (F) The FTSE RAFI® Developed ex US 1000 Index comprises the largest 1000 non US-listed companies by fundamental value, selected from the constituents of the FTSE Developed ex US Index; (G) MSCI EAFE (Morgan Stanley Capital International Europe, Australasia, Far East) is an unmanaged index of issuers in countries of Europe, Australia, and the Far East represented in U.S. dollars; and (H) The FTSE All World ex-US Index comprises Large and Mid-Cap stocks providing coverage of Developed and Emerging Markets excluding the United States. It is not possible to invest directly in any of the indexes above.

Source: Based on price data from Bloomberg.