Richard Bernstein Advisors

The Leaders In Pactive® Management

Insights

October 2018

Richard Bernstein, Chief Executive and Chief Investment Officer

Richard Bernstein Advisors

Richard Bernstein Advisors LLC (RBA) is an independent investment adviser focusing on longer-term investment strategies that combine top-down, macroeconomic analysis and quantitatively-driven portfolio construction. We strive to be the leading provider of innovative investment solutions for investors, and our competitive edge is our research-driven macro style of investing.

Our top-down macro approach differentiates our firm from the more common, traditional bottom-up approach of most asset managers. Our extensive array of macro indicators allows us to construct portfolios for clients that are innovative, risk-controlled, and focused on overall portfolio construction instead of individual stock selection.

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The realities of diversification

Insurance policies always carry a premium that must be paid to the insurer by the insured in exchange for protection against an adverse event. It would be nice to receive a huge payout for free when something unfortunate happens, but that isn't reality. Most of us understand that concept well, but investors too often lose sight of that simple concept when it comes to portfolio management.

Investors forget that portfolio diversification is an insurance policy against one's view of the world being incorrect. Like all insurance policies, diversification comes with a premium that must be paid. However, investors seem to believe that portfolio diversification is available without an insurance premium. People realize the fantasy of an insurance policy that comes with no premium, but somehow investors remain captivated by the idea that portfolios can be diversified without hindering performance.

At RBA, we try to invest in negatively correlated asset classes rather than uncorrelated asset classes. Whereas uncorrelated asset classes (other than cash) sometimes lose their diversification properties during bear markets, that more rarely happens to negatively correlated asset classes. However, because negatively correlated asset classes generally underperform during an equity bull market, investing in negatively correlated asset classes can be a drag on performance. That drag on performance is the insurance policy premium.

What if there was no risk?

If one knew with 100% certainty that there was going to be a bull market over the next 12 months, then one would likely be 100% invested in equities. It might be prudent under those circumstances to invest in high beta stocks or to borrow to be more than 100% in equities or both. Investors tend not to do those things because they cannot perfectly predict equity returns. However, "aggressive" portfolios tend to be less diversified, whereas "conservative" portfolios tend to be more diversified.

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Chart 1 compares the returns of the S&P Target Risk® Aggressive Index with those of the S&P Target Risk® Conservative Index. The more aggressive index currently has roughly 80% in stocks. The more conservative index accentuates asset classes such as bonds (roughly 70%). Chart 2 highlights the 12-month rolling volatility of each portfolio.

Although the aggressive index outperforms the conservative index over the past 17 years, the aggressive index's volatility is considerably higher. Recently, the volatility of the aggressive index has been more than twice that of the conservative index (7.0% vs. 3.1%).

The performance of these two indices reinforces the idea that there is no "free lunch". In other words, higher returns necessarily come with more risk, and the insurance against higher volatility and portfolio losses comes with a premium that must be paid called lower returns.

Although the aggressive index outperforms the conservative index over the past 17 years, the aggressive index's volatility is considerably higher.

CHART 1:

S&P Target Risk® Aggressive Index vs. S&P Target Risk® Conservative Index: (Dec. 2000 – Sep. 2018)

Source: Bloomberg Finance L.P.
For Index descriptors, see "Index Descriptions" at end of document

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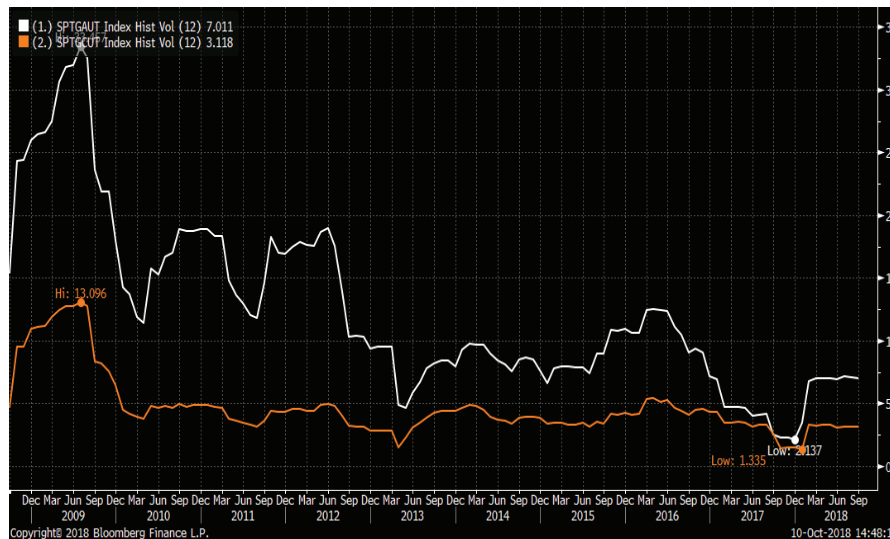
Higher returns necessarily come with more risk, and the insurance against higher volatility and portfolio losses comes with lower returns.

CHART 2:
S&P Target Risk® Aggressive Index vs. S&P Target Risk® Conservative Index: 12-Month Rolling Volatility



Source: Bloomberg Finance L.P.

Diversification and lowering volatility

RBA aims to lower the volatility of our portfolios and enhance upside/downside results by investing in negatively correlated asset classes. Chart 3 shows asset class correlations and betas to the S&P 500®. There are several important conclusions from this chart:

1. Some asset classes commonly referred to as uncorrelated, such as hedge funds, are quite correlated. Although their betas are low, meaning they tend to move in smaller increments than the overall equity market does, they do seem to move in tandem with the equity market.

2. Diversification is not simply a function of whether an asset class is called "stocks" or "bonds" or "US" or "non-US". Note that correlations to the S&P 500® tend to increase as assets' underlying exposures to the business cycle increases. US high yield and Treasuries are both typically categorized as "bonds", but this analysis suggests their diversification potential is starkly different. See our report from several years ago on this topic. http://www.rbadvisors.com/images/pdfs/Asset_Allocation_2.0.pdf

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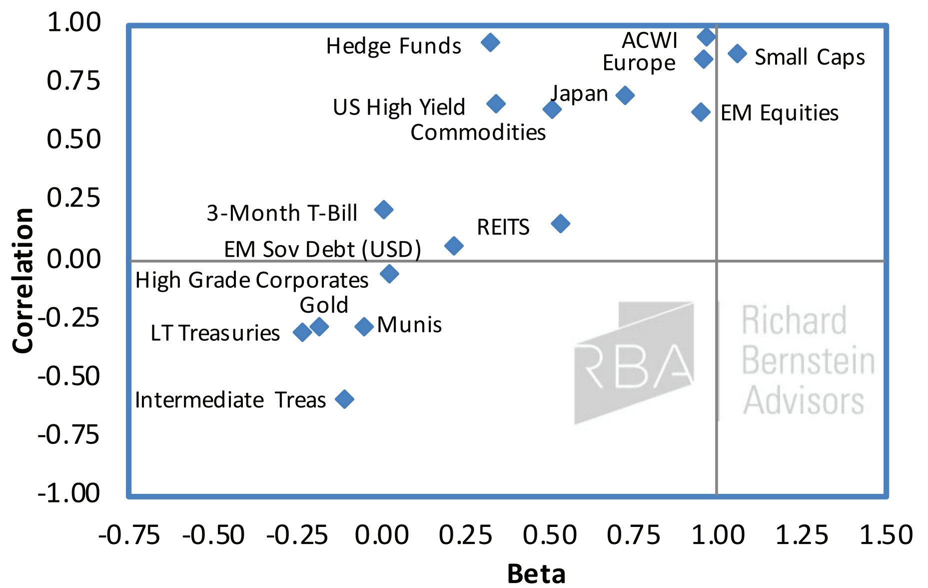
3. Cash is indeed an uncorrelated asset class (beta roughly 0.0 and correlation roughly 0%). Chart 4, on the following page, shows the returns of cash versus stocks. The insurance premium associated with investing in cash instead of stocks over the past twenty years (which includes two meaningful bear markets) has been almost 600 basis points/year. That difference in returns indicates it's VERY expensive to attempt to insure against virtually all risk.

CHART 3:
Asset Class Beta and Correlation to the S&P 500®
(Past 5 years as of Sept. 30, 2018)



Source: Richard Bernstein Advisors LLC. Standard & Poor's, HFRI, MSCI, Bloomberg Finance L.P., *ICE® BofAML Bond Indices®

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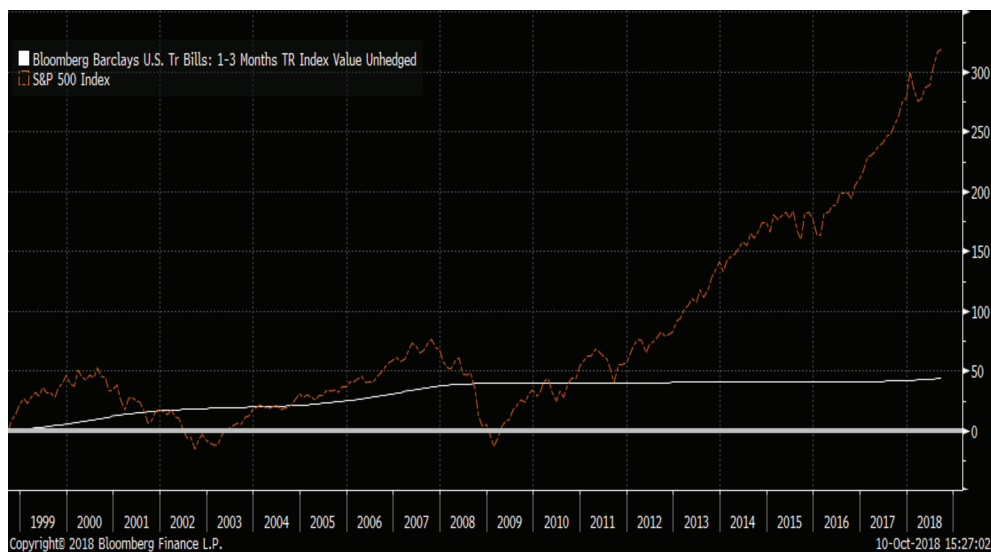
The insurance premium associated with investing in cash instead of stocks over the past twenty years (which includes two meaningful bear markets) has been almost 600 basis points/year. That difference in returns indicates it's VERY expensive to attempt to insure against virtually all risk.

CHART 4:
Cash vs. Stocks Performance
Sept. 1998 – Sep. 2018



Source: Bloomberg Finance L.P.

There's no free lunch!

All insurance has a cost associated with it, and so does diversification because it helps protect against adverse events hurting wealth. The notion that one can effectively diversify a portfolio without paying an insurance premium of giving up some return sounds enticing, but ultimately seems erroneous.

At RBA, we try to diversify our portfolios and, although we comparison shop for "policies", we do pay the insurance premium.

To learn more about RBA's disciplined approach to macro investing, please contact your local RBA representative.
[www.rbadvisors.com/images/pdfs/Portfolio_Specialist_Map.pdf.](www.rbadvisors.com/images/pdfs/Portfolio_Specialist_Map.pdf)

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INDEX DESCRIPTIONS:

The following descriptions, while believed to be accurate, are in some cases abbreviated versions of more detailed or comprehensive definitions available from the sponsors or originators of the respective indices. Anyone interested in such further details is free to consult each such sponsor's or originator's website.

The past performance of an index is not a guarantee of future results.

Each index reflects an unmanaged universe of securities without any deduction for advisory fees or other expenses that would reduce actual returns, as well as the reinvestment of all income and dividends. An actual investment in the securities included in the index would require an investor to incur transaction costs, which would lower the performance results. Indices are not actively managed and investors cannot invest directly in the indices.

ACWI: MSCI ACWI Index (ACWI®): The MSCI ACWI® Index is a widely recognized, free-float-adjusted, market-capitalization-weighted index designed to measure the equity-market performance of global developed and emerging markets.

S&P 500®: Standard & Poor's (S&P) 500® Index: The S&P 500® Index is an unmanaged, capitalization-weighted index designed to measure the performance of the broad US economy through changes in the aggregate market value of 500 stocks representing all major industries.

Europe: MSCI Europe Index. The MSCI Europe Index is a free-float-adjusted, market-capitalization-weighted index designed to measure the equity-market performance of the developed markets in Europe. The MSCI Europe Index consists of the following 16 developed market country indices: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom

EM: MSCI Emerging Markets (EM) Index. The MSCI EM Index is a free-float-adjusted, market-capitalization-weighted index designed to measure the equity-market performance of emerging markets.

Japan: MSCI Japan Index. The MSCI Japan Index is a free-float-adjusted, market-capitalization-weighted index designed to measure the equity-market performance of Japan.

Small Caps: Russell 2000 Index. The Russell 2000 Index is an unmanaged, capitalization-weighted index designed to measure the performance of the small-cap segment of the US equity universe. The Russell 2000 Index is a subset of the Russell 3000® Index.

Gold: Gold Spot USD/oz Bloomberg GOLDS Commodity. The Gold Spot price is quoted as US Dollars per Troy Ounce.

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Commodities: S&P GSCI® Index. The S&P GSCI® seeks to provide investors with a reliable and publicly available benchmark for investment performance in the commodity markets, and is designed to be a "tradable" index. The index is calculated primarily on a world production-weighted basis and is comprised of the principal physical commodities that are the subject of active, liquid futures markets.

REITS: THE FTSE NAREIT Composite Index. The FTSE NAREIT Composite Index is a free-float-adjusted, market-capitalization-weighted index that includes all tax qualified REITs listed in the NYSE, AMEX, and NASDAQ National Market.

3-Mo T-Bills: ICE® BofAML 3-Month US Treasury Bill Index. The BofA Merrill Lynch 3-Month US Treasury Bill Index is comprised of a single issue purchased at the beginning of the month and held for a full month. The Index is rebalanced monthly and the issue selected is the outstanding Treasury Bill that matures closest to, but not beyond, three months from the rebalancing date.

Long-term Treasury Index: ICE® BofAML 15+ Year US Treasury Index. The BofA Merrill Lynch 15+ Year US Treasury Index is an unmanaged index comprised of US Treasury securities, other than inflation-protected securities and STRIPS, with at least $1 billion in outstanding face value and a remaining term to final maturity of at least 15 years.

Intermediate Treasuries (5-7 Yrs): ICE® BofAML 5-7 Year US Treasury Index. The BofA Merrill Lynch 5-7 Year US Treasury Index is a subset of The BofA Merrill Lynch US Treasury Index (an unmanaged Index which tracks the performance of US dollar denominated sovereign debt publicly issued by the US government in its domestic market). Qualifying securities must have at least one year remaining term to final maturity, a fixed coupon schedule and a minimum amount outstanding of $1 billion. including all securities with a remaining term to final maturity greater than or equal to 5 years and less than 7 years.

Municipals: ICE® BofAML US Municipal Securities Index. The BofA Merrill Lynch US Municipal Securities Index tracks the performance of USD-denominated, investment-grade rated, tax-exempt debt publicly issued by US states and territories (and their political subdivisions) in the US domestic market. Qualifying securities must have at least one year remaining term to final maturity, a fixed coupon schedule, and an investment-grade rating (based on an average of Moody's, S&P and Fitch). Minimum size requirements vary based on the initial term to final maturity at the time of issuance.

High Grade Corporates: ICE® BofAML 15+ Year AAA-AA US Corporate Index. The BofA Merrill Lynch 15+ Year AAA-AA US Corporate Index is a subset of the BofA Merrill Lynch US Corporate Index (an unmanaged index comprised of USD-denominated, investment-grade, fixed-rate corporate debt securities publicly issued

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in the US domestic market with at least one year remaining term to final maturity and at least $250 million outstanding) including all securities with a remaining term to final maturity of at least 15 years and rated AAA through AA3, inclusive.

U.S. High Yield: ICE® BofAML US Cash Pay High Yield Index. The BofA Merrill Lynch US Cash Pay High Yield Index tracks the performance of USD-denominated, below-investment-grade-rated corporate debt, currently in a coupon-paying period, that is publicly issued in the US domestic market. Qualifying securities must have a below-investment-grade rating (based on an average of Moody's, S&P and Fitch) and an investment-grade-rated country of risk (based on an average of Moody's, S&P and Fitch foreign currency long-term sovereign debt ratings), at least one year remaining term to final maturity, a fixed coupon schedule, and a minimum amount outstanding of $100 million.

EM Sovereign: ICE® BofAML US Dollar Emerging Markets Sovereign Plus Index. The BofA Merrill Lynch US Dollar Emerging Markets Sovereign Plus Index tracks the performance of US dollar denominated emerging market and cross-over sovereign debt publicly issued in the Eurobond or US domestic market. Qualifying countries must have a BBB1 or lower foreign currency long-term sovereign debt rating (based on an average of Moody's, S&P and Fitch). Countries that are not rated, or that are rated "D" or "SD" by one or several rating agencies qualify for inclusion in the index but individual non-performing securities are removed. Qualifying securities must have at least one year remaining term to final maturity, a fixed or floating coupon and a minimum amount outstanding of $250 million. Local currency debt is excluded from the Index.

3-Mo T-Bills: ICE® BofAML 3-Month US Treasury Bill Index. The BofA Merrill Lynch 3-Month US Treasury Bill Index is comprised of a single issue purchased at the beginning of the month and held for a full month. The Index is rebalanced monthly and the issue selected is the outstanding Treasury Bill that matures closest to, but not beyond, three months from the rebalancing date.

Long-term Treasury Index: ICE® BofAML 15+ Year US Treasury Index. The BofA Merrill Lynch 15+ Year US Treasury Index is an unmanaged index comprised of US Treasury securities, other than inflation-protected securities and STRIPS, with at least $1 billion in outstanding face value and a remaining term to final maturity of at least 15 years.

Hedge Fund Index: HFRI Fund Weighted Composite Index. The HFRI Fund Weighted Composite Index is a global, equal-weighted index of over 2,000 single-manager funds that report to the HFR (Hedge Fund Research) database. Constituent funds report monthly net-of-all-fees performance in USD and have a minimum of $50 million under management or a twelve (12)-month track

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record of active performance. The Index includes both domestic (US) and offshore funds, and does not include any funds of funds.

S&P Target Risk® Aggressive Total Return Index: The S&P Target Risk Aggressive® Index is one of four multi-asset class indices that compose the S&P Target Risk Series. The S&P Target Risk Aggressive Index emphasizes exposure to equities, maximizing opportunities for long-term capital accumulation. It may include small allocations to fixed income to enhance portfolio efficiency.

S&P Target Risk® Conservative Total Return Index: The S&P Target Risk® Conservative Index is one of four multi-asset class indices that compose the S&P Target Risk Series. The S&P Target Risk Conservative Index emphasizes exposure to fixed income in order to produce a consistent income stream and avoid excessive volatility of returns.

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RBA Investment Process:

- Quantitative indicators and macro-economic analysis are used to establish views on major secular and cyclical trends in the market.
- Investment themes focus on disparities between fundamentals and sentiment.
- Market mis-pricings are identified relative to changes in the global economy, geopolitics and corporate profits.

About Richard Bernstein Advisors

Richard Bernstein Advisors LLC is an independent investment adviser. RBA partners with several firms including Eaton Vance Corporation and First Trust Portfolios LP, and currently has $9.5 billion collectively under management and advisement as of Sept. 30th, 2018. RBA acts as sub advisor for the Eaton Vance Richard Bernstein Equity Strategy Fund and the Eaton Vance Richard Bernstein All Asset Strategy Fund and also offers income and unique theme oriented unit trusts through First Trust. RBA is also the index provider for the First Trust RBA American Industrial Renaissance® ETF. Additionally, RBA runs ETF asset allocation SMA portfolios at UBS, Merrill Lynch, Morgan Stanley Smith Barney, Wells Fargo, RBC, Janney and on select RIA platforms. RBA's investment insights as well as further information about the firm and products can be found at **www.RBAdvisors.com**.

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