LPL RESEARCH

STRATEGIC INSIGHTS

A CLOSER LOOK AT GLOBAL MACRO

March 2015

Despite the mystique of outsized returns typically associated with hedge funds, institutional and high-net-worth investors primarily gravitate to these solutions to provide diversification benefits relative to equity and fixed income holdings. The flexibility to short, invest across asset classes, and use different instruments provides alternative investments with the potential to deliver an uncorrelated return stream that may be less susceptible to market movements. Today, these performance characteristics are increasingly valued by investors, as they search to broaden the breadth of their investment allocation choices.

Among hedge fund strategies used by investors, one of the categories providing the highest level of diversification to traditional asset classes is global macro. The statistics support this thesis, as among the categories from Credit Suisse, the CS Global Macro Index exhibits one of the lowest correlations to equity markets, with only short bias and managed futures hedge funds showing lower [Figure 1]. This is notable from an asset allocation perspective; although a thoughtful arrangement of hedge fund strategies may help reduce volatility and capital losses from a total portfolio, global macro is one of the solutions that may actually make money in a negative market environment.

1 CREDIT SUISSE GLOBAL MACRO INDEX EXHIBITS ONE OF LOWEST CORRELATIONS TO EQUITY MARKETS

Credit Suisse Hedge Fund Indexes	Credit Suisse Hedge Fund Indexes										
Description	A	B	C	D	E	F	G	H	I	J	K
Credit Suisse Hedge Fund Index (USD) (A)	1.00	0.55	-0.49	0.72	0.31	0.76	0.80	0.83	0.21	0.52	0.57
Convertible Arbitrage (USD) (B)	0.55	1.00	-0.27	0.44	0.22	0.65	0.33	0.45	-0.07	0.70	0.36
Dedicated Short Bias (USD) (C)	-0.49	-0.27	1.00	-0.54	-0.18	-0.59	-0.10	-0.70	0.07	-0.26	-0.76
Emerging Markets (USD) (D)	0.72	0.44	-0.54	1.00	0.17	0.68	0.46	0.67	0.00	0.31	0.54
Equity Market Neutral (USD) (E)	0.31	0.22	-0.18	0.17	1.00	0.33	0.09	0.23	0.01	0.37	0.30
Event Driven (USD) (F)	0.76	0.65	-0.59	0.68	0.33	1.00	0.39	0.74	-0.01	0.57	0.63
Global Macro (USD) (G)	0.80	0.33	-0.10	0.46	0.09	0.39	1.00	0.44	0.33	0.26	0.23
Long/Short Equity (USD) (H)	0.83	0.45	-0.70	0.67	0.23	0.74	0.44	1.00	0.09	0.48	0.67
Managed Futures (USD) (I)	0.21	-0.07	0.07	0.00	0.01	-0.01	0.33	0.09	1.00	0.07	-0.07
Multi-Strategy (USD) (J)	0.52	0.70	-0.26	0.31	0.37	0.57	0.26	0.48	0.07	1.00	0.39
S&P 500 – Total Return (K)	0.57	0.36	-0.76	0.54	0.30	0.63	0.23	0.67	-0.07	0.39	1.00

Source: LPL Research, FactSet 12/31/14

All indexes are unmanaged and cannot be invested into directly.

Alternative strategies may not be suitable for all investors and should be considered as an investment for the risk capital portion of the investor's portfolio.

The strategies employed in the management of alternative investments may accelerate the velocity of potential losses

Advisors have historically obtained the benefits of hedge fund noncorrelation through their use of managed futures, or commodity trading advisors (CTA). These quantitative strategies capitalize on price-based signals across markets to generate profitable returns in a wide variety of environments. As very liquid, scalable investment strategies, managed futures products were made available to a broader audience than has occurred with traditional hedge funds. However, in recent years, CTAs have fallen out of favor, due to poor relative returns subsequent to the global financial crisis.

Global macro is a closely related approach to managed futures, but a far less common allocation in advisor portfolios. We believe this trend has been largely due to a lack of availability of global macro approaches in a lower-minimum format. That reality is changing, however, as many hedge fund approaches have been democratized through 1940 Act mutual funds and an increasing number of lower-minimum private placement vehicles.* With access improving for this other half of the macro asset class, we believe that advisors should consider layering in an allocation to global macro to complement or replace their existing CTA holdings.

Defining Global Macro

Global macro strategies use a top-down, macroeconomic view of the world to formulate their investment opinions. These managers analyze fundamental macro data such as country-specific gross domestic product (GDP), inflation, exchange rates, interest rates, debt levels, supply-demand dynamics, and expected central bank policies around the globe. The ultimate goal is to profit from perceived imbalances or mispricings and to carefully allocate to trades where the observed risk-return profile is skewed in the fund's favor.

Global macro strategies maintain a very broad investment universe, including assets such as global equities and bonds (both corporate and sovereign), currencies, commodities, or volatility instruments. Although global macro portfolios tend to trade liquid index-based futures instruments, like CTAs, they also have the flexibility to buy individual cash securities and a range of derivatives. This flexibility allows the execution of more nuanced investment ideas than what may be seen with managed futures strategies.

Investors should understand that global macro managers are distinguished from managed futures managers as a result of contrasting investment approaches. While CTAs are price-based strategies, global macro strategies make decisions based on fundamental data. These decisions may be qualitative in nature or executed systematically, but the inputs to the investment process are distinct.

The result of this difference is that managers offer the potential to be more anticipatory of inflection points in asset prices. Managed futures managers, on the other hand, are backward looking and thus may miss inflection points in financial markets. This is not to say that managed futures are not useful or effective investment tools. Instead, we believe that by combining a global macro manager with a trend-following CTA, investors can create a more robust, all-weather investment allocation that still delivers attractive diversification benefits. Institutional investors have long taken advantage of this natural pairing to smooth the return experience and to diversify the source of returns for this part of the portfolio; just as the equity investor diversifies between value and growth strategies, so too should the macro investor diversify between managed futures and global macro products [Figure 2, page 3].

* This change is due to the expansion of "slots," or the number of permitted investors in private placement vehicles, which has allowed hedge fund managers to reduce their minimum investment requirements. This has occurred because of two developments: 1) the increased creation of registered investment companies, vehicles registered under the 1940 Act and 1933 Act that do not cap the number of permitted investors; and 2) the Jumpstart Our Business Startups Act (JOBS Act) of 2012, which increased the capacity of limited partners in 3(c)7 vehicles from 499 to 1,999 investors.

How Global Macro Strategies Make Money

Global macro strategies first gained widespread investment interest as a result of a wager against the British pound (GBP) by George Soros and the Quantum Fund in the fall of 1992. At the time, the GBP was a member of the European Exchange Rate Mechanism (ERM), established to coordinate exchange rate policies between European countries. This system was designed to facilitate stable currency fluctuations between countries, typically within a prescribed band. The GBP, for example, was allowed to fluctuate within a 6.0% range relative to the German deutsche mark. If the GBP traded outside this band, the British government would bring the rate back within its trading range by entering the currency market to either purchase or sell pounds.

Soros's fundamental analysis recognized that German growth after the collapse of the Berlin Wall significantly outpaced that of an English economy mired in the country's most severe recession since the end of World War II. In the absence of the 6.0% ERM trading band, this growth divergence should have caused a significant devaluation of the GBP. To undermine Britain's artificial currency inflation, Soros and several other large investors began selling substantial amounts of GBP. These actions caused the Bank of England to exhaust its foreign currency reserves while defending its currency, before eventually abandoning the ERM regime. With no formal currency defense plan in place, the GBP rapidly depreciated, leaving the Quantum Fund with profits in excess of $1 billion.

While bold bets such as these grab headlines and capture the imagination of investors, the directional, concentrated style of George Soros and his peers from the early 1990s has given way to a new breed of global macro manager today. Coinciding with the increase in institutional demand for hedge funds in the early 2000s—an investor base that demands steady consistent results and protection of principal — there was a pronounced shift in overall portfolio construction by global macro managers. Managers evolved away from concentrated and levered portfolios to well-diversified vehicles that adhere to strict risk management techniques. Greater emphasis was placed on portfolio risk measurements such as value at risk, stress testing, shortfall risk, stop-loss orders, and risk-based capital allocations to prevent excessive drawdowns and to optimize portfolio monitoring.

This is not to say the modern macro trader altogether avoids an occasional well-placed directional trade. In 2014, for example, explicit short bets against particular commodity contracts, as well as timely long positions in the Japanese equity market, have been highly profitable trades. However, surrounding these bets are a series of smaller, less directional bets designed to contribute to a steady, incremental return profile. These could include carry trades, various

2 DIVERSIFYING BETWEEN MANAGED FUTURES AND MACRO PRODUCTS CAN DELIVER POTENTIAL BENEFITS

Description	Annualized Return	Annualized Standard Deviation	Beta	Alpha	Sharpe Ratio	R-Square	Correlation
Credit Suisse Hedge Fund Index Global Macro (USD)	10.93	9.17	0.15	0.78	0.89	5.66	0.24
Credit Suisse Hedge Fund Index Managed Futures (USD)	5.69	11.50	-0.05	0.56	0.25	0.50	-0.07
Blend of 50/50 CS HFI Global Macro and Managed Futures	8.48	8.40	0.05	0.67	0.68	0.66	0.08
S&P 500–Total Return	9.43	14.92	1.00	0.00	0.44	100.00	1.00

Source: LPL Research, FactSet 12/31/14
All performance referenced is historical and is no guarantee of future results.
All indexes are unmanaged and cannot be invested into directly.

forms of arbitrage, or relative value trading across a wide variety of asset classes. Managers can bet on the relative performance between certain commodities, predict mean reversion between similar instruments, or trade the shape of futures market curves in any market imaginable, just as a few examples. For illustrative purposes, we have detailed two simple trades in global macro portfolios below.

Currency Carry Trade Example

- Observed Opportunity: Country A and Country B have interest rates of 3.5% and 0.5%, respectively.
- **Trade Construction:** An investor borrows from Country B at the 0.5% rate, converts this amount into the currency of Country A, and subsequently purchases bonds in Country A.
- **Profits:** Assuming that the exchange rate between the two countries remains stable, the investor earns a positive carry of 3.0%. The investor also has the ability to earn additional profits from any appreciation in Country A's currency, which is often a result of capital flows following the attractive interest rate level.

Yield Curve (Bear) Flattener Example

- **Observed Opportunity:** An investor believes the Federal Reserve (Fed) will increase the target fed funds rate to a level higher than the market currently has priced in. For example, assume that the current spread between the 10-year Treasury (2.5%) and the 2-year Treasury (0.5%) is 2.0%, or 200 basis points. The investor believes the higher than expected rate hike will result in the short end of the yield curve rising by an amount greater than the long end.
- **Trade Construction:** The investor would sell short 2-year futures and go long the 10-year futures.
- **Profits:** As correctly expected by the investor, the Fed hikes interest rates higher than anticipated. The yield on the 2-year Treasury futures increases to 0.75%, an increase of 25 basis points, while

3 HISTORICALLY, GLOBAL MACRO MANAGERS ARE HIGH PERFORMING AMONG HEDGE STRATEGIES

Data shown are annual averages from January 1994 to December 2014.

Credit Suisse Hedge Fund Indexes	Annualized Return	Annualized Standard Deviation	Beta	Sharpe Ratio	Correlation	Max Drawdown	Annualized Upside Capture %	Annualized Downside Capture %
Credit Suisse Hedge Fund Index (USD)	8.49	7.16	0.27	0.80	0.57	-19.68	41.16	20.10
Convertible Arbitrage (USD)	6.97	6.56	0.16	0.64	0.36	-32.88	25.06	1.64
Dedicated Short Bias (USD)	-5.53	16.30	-0.83	-0.51	-0.76	-76.28	-65.54	-109.49
Emerging Markets (USD)	7.26	14.01	0.51	0.32	0.54	-45.14	54.30	48.26
Equity Market Neutral (USD)	4.74	9.73	0.20	0.20	0.30	-45.10	24.70	14.78
Event Driven (USD)	9.18	6.09	0.26	1.05	0.63	-19.15	39.81	13.77
Fixed Income Arbitrage (USD)	5.39	5.38	0.12	0.48	0.33	-29.02	19.13	0.86
Global Macro (USD)	10.93	9.17	0.15	0.89	0.24	-26.79	37.51	-0.58
Long/Short Equity (USD)	9.36	9.44	0.42	0.69	0.67	-22.00	55.25	37.71
Managed Futures (USD)	5.69	11.50	-0.05	0.25	-0.07	-17.74	17.22	-4.51
S&P 500 – Price Return	7.33	14.91	1.00	0.30	1.00	-52.56	94.34	103.72
Barclays U.S. Aggregate	5.75	3.63	0.01	0.82	0.04	-5.15	13.69	-11.45
S&P 500 – Total Return	9.43	14.92	1.00	0.44	1.00	-50.95	100.00	100.00

Source: LPL Research, FactSet 12/31/14
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the 10-year Treasury futures yield increases 10 basis points to 2.6%. This leaves the yield spread between the two futures contract at 185 basis points, 15 below the initial spread of 200. While the investor sees losses in the long 10-year position, he realizes a greater amount in profits from the 2-year short sale.

Ultimately, this philosophy yields a diverse portfolio of trades that truly have no economic relationship with one another. Because of the flexibility inherent to this strategy approach, we often find the universe of global macro managers to be highly heterogeneous; for this reason, a comprehensive evaluation process should be carried out to fully understand a manager's investment style.

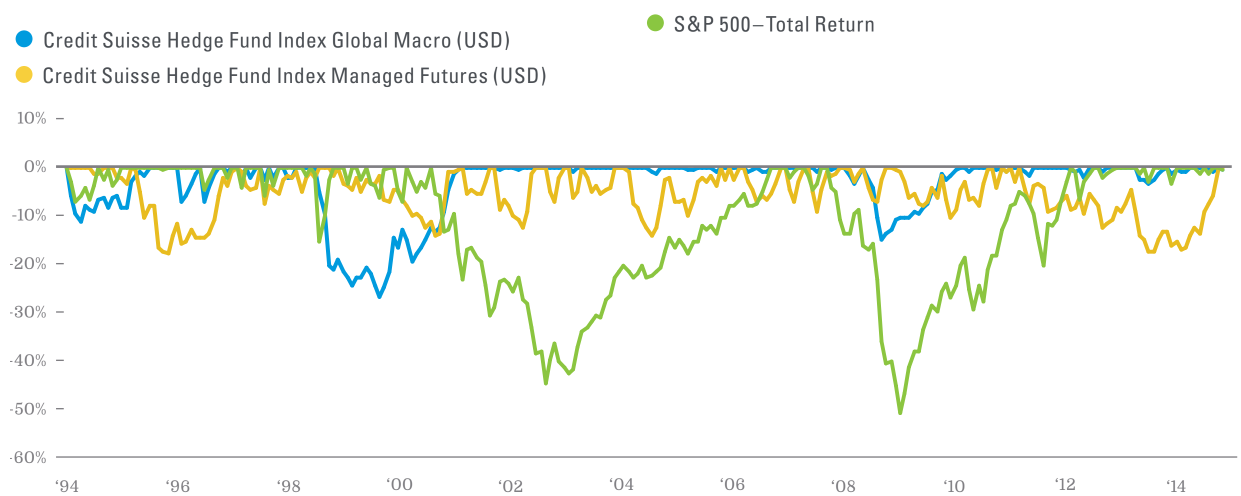
By the Numbers: The Historical Case for Global Macro

Based on historical data, global macro managers are the best performing strategy of any of their peers in the hedge fund universe [Figure 3, page 4]. Indexes in this group generated strong absolute levels of return since the popular group of Credit Suisse indexes were launched in 1994. With returns in excess of both equity and fixed income markets, we would suggest that global macro deserves consideration as a portfolio allocation based on returns alone, irrespective of its attractive diversification benefits.

As we illustrated earlier, global macro is among the most uncorrelated of all hedge fund strategies. What makes the category more intriguing, however, is the asymmetry its historical performance profile has exhibited relative to equities. Since the inception of the Credit Suisse indexes, the global macro category has captured nearly 40% of equity market performance in up markets, while also maintaining positive performance in down periods (i.e., negative downside capture). A similar profile is evident over the more recent 10-year trailing period; global macro strategies offered investors +28% upside market capture and -2% downside market capture. It is precisely this type of uncorrelated performance profile that makes global macro so unique.

An allocation to global macro strategies does not come without volatility, as they have exhibited an annualized standard deviation on the higher end of the hedge fund universe. Still, at just over 9% annualized over the past 20 years, the volatility of global macro managers remains well below that of long-only equity. Importantly, the group maintains capital protection characteristics, with maximum drawdown levels nearly half of equities and among the lowest of its hedge fund peers [Figure 4].

4 **MAXIMUM DRAWDOWN OF CS GLOBAL MACRO IS AMONG LOWEST OF HEDGE FUND INDEXES**



Source: LPL Research, FactSet 12/31/14
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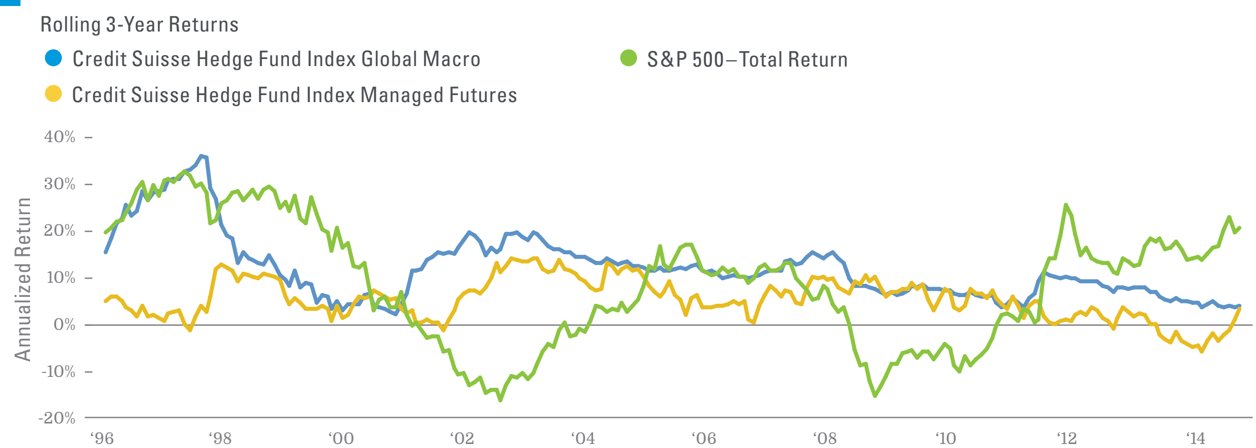
To be fair, global macro strategies fared only slightly better than managed futures since the financial crisis and generally lagged other hedge fund strategy groups. Heavy intervention by global central banks had the desired effect of increasing asset prices around the world. Unfortunately, those reflationary policies were indiscriminate in the securities and assets that they impacted. With little structural equity beta exposure, many of these strategies failed to participate in the robust stock market run of the past six-plus years [Figure 5]. For reasons we discuss in the next section, however, we believe the environment for global macro managers may be improving.

Why Does Global Macro Make Sense in 2015?

As we think about the difficulties global macro managers faced in the post-financial crisis period, we anticipate that some of those headwinds will

5 UNDERPERFORMANCE DURING RECENT STOCK MARKET RUN



Source: LPL Research, FactSet 12/31/14
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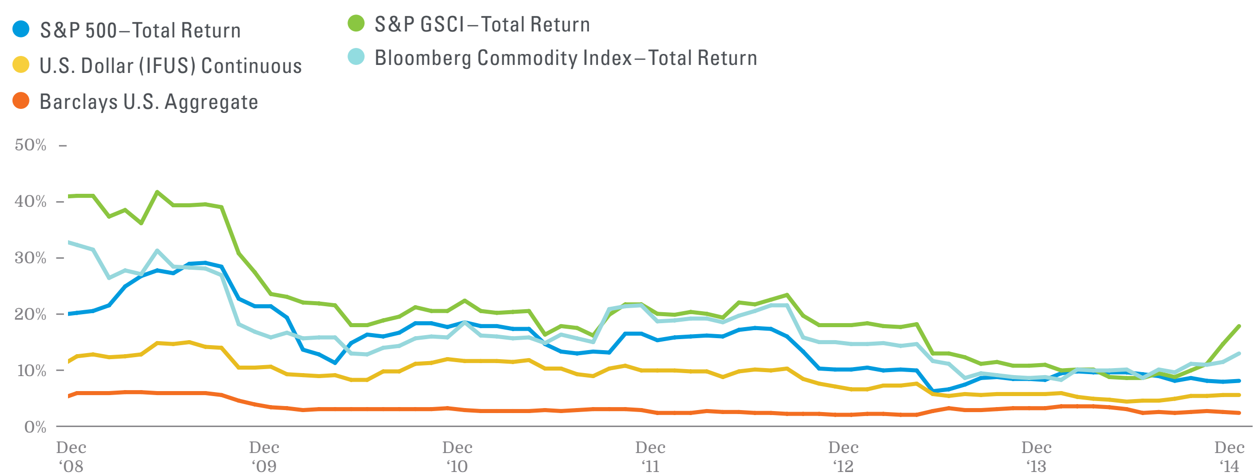
6 GLOBAL MACRO AND CTA STRATEGIES HISTORICALLY PERFORM BETTER WITH RISING VOLATILITY



Source: LPL Research, FactSet 12/31/14
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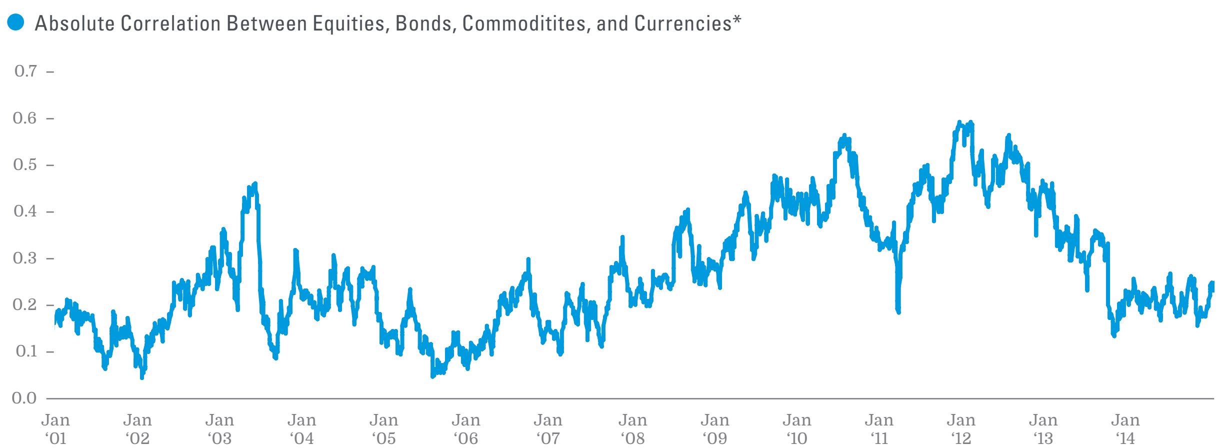
dissipate moving forward. Central bank divergence, falling correlations, rising dispersion, and naturally increasing volatility are moving in favor of macro managers. Specifically, global macro and CTA strategies exhibit a tendency to perform more effectively when asset class volatility is rising, as opposed to when it is declining, such as the environment since the end of 2008 [Figure 6, page 6].

In addition to the role of volatility, there are four factors we would highlight as potential tailwinds for global macro managers at the start of 2015:

- **Central bank policy divergence.** As a result of heavy central bank involvement in financial markets since the global financial crisis, volatility around the globe has declined dramatically, leading to historically low levels of volatility across asset classes. The Fed was the first major central bank to step away from direct asset purchases (the third round of quantitative easing ended in October 2014) and may increase overnight interest rates at some point in the near future. The actions of the Fed stand in contrast to the European Central Bank (ECB), the Bank of Japan (BOJ), and others that continue on a path of easing. A period of monetary policy divergence, such as we are now entering, may lend itself to definitive trading opportunities, particularly for global macro managers with the foresight to position their portfolios in advance of those divergences.
- **Correlation/dispersion environment.** The evolution of monetary policy may provide another catalyst in the form of falling correlations and rising dispersion. Trading opportunities are sparse when correlations are elevated, as various asset classes will move in a coordinated pattern. Throughout the end of 2013 and the majority of 2014, correlations across major asset classes declined from the historically high levels experienced between 2008 and 2012. In conjunction with the European crisis becoming less of a focal point, correlations across asset classes entered a new stage in 2012 and 2013. That trend of lower correlations remained intact throughout the early portion of 2014, returning intra-asset correlations to levels more consistent with historical readings prior to 2008 [Figure 7].

7 LOW CORRELATIONS OF 2013 AND 2014 COULD PROVIDE FUTURE TRADING OPPORTUNITIES



Source: LPL Research, FactSet 12/31/14
*Average absolute correlation between the S&P 500 Index, Barcays U.S. Aggregate Index, Trade-Weighted U.S. Dollar Index, and Bloomberg Commodity Index.
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- **Replacement to traditional asset allocation.** Another reason to consider macro is that the domestic economy is entering a transition year and equity prices are nearing a sixth consecutive year of gains. Such an elongated period of gains does not necessarily present an immediate concern as we do not believe bull markets fade due to age, but with equity prices near all-time highs, it is prudent to begin thinking about diversifying certain portions of client portfolios. There is also concern about the potential for a rising interest rate environment, which would negatively impact many fixed income strategies. As we illustrated previously, global macro strategies demonstrate modest correlation to equity and fixed income markets, and thus, provide a unique source of diversification in a world otherwise starved for uncorrelated investment ideas.
- **Unknowns.** Markets always harbor the possibility of unforeseen occurrences suddenly becoming a focal point and injecting volatility into asset prices. In recent years, events such as oil price swings, sovereign bailouts, the Islamic State militants, and other geopolitical affairs rose to prominence quickly and unexpectedly. Some observers believe, for example, that excesses in the economies of Japan and China may put pressure on global financial markets. Such risks typically impact a wide spectrum of assets, and it can be useful to have allocations such as global macro that can profit from those dislocations.

Conclusion

Global macro managers offer a potentially interesting opportunity set on a forward-looking basis, given their increased exposure to securities most explicitly impacted by central bank intervention: sovereign bonds and currencies. Unprecedented action taken by the Fed, ECB, and BOJ has arguably created dislocations in many of these securities. Global macro managers may be best poised to reap the benefits of an eventual capitulation in the yen or the euro, or to gain from the dispersion between sovereign bonds. Unfortunately, these potentially lucrative investment opportunities do not fall under the purview of most investors' traditional equity and fixed income investments. We believe a thoughtful allocation to global macro strategies—either in combination with CTAs or without — may be a strong source of positive alpha for investors moving forward.

For advisors considering an allocation to global macro, we believe that a 5–10% allocation in client portfolios may be appropriate; at this level, we believe suitable clients can obtain the potential benefits of global macro, while still mitigating the individual risks of this highly uncorrelated strategy. Given the absolute return profile of global macro, we recommend that clients consider funding such an allocation from satellite or credit-sensitive fixed income. Please note, however, that this is an alpha-seeking opportunity and may not necessarily play an analogous role of portfolio protection like traditional fixed income investments.

Global macro has not necessarily had the most interesting return pattern in recent years, largely due to headwinds discussed throughout this paper. However, as central bank policy divergence materializes and volatility re-emerges, macro managers may see a more fertile environment for generating successful investment ideas. In our opinion, the combination of global macro's unique performance characteristics and these global fundamental developments makes the strategy one of the more exciting potential investment opportunities in 2015. ■

IMPORTANT DISCLOSURES

The opinions voiced in this material are for general information only and are not intended to provide specific advice or recommendations for any individual. To determine which investment(s) may be appropriate for you, consult your financial advisor prior to investing. All performance reference is historical and is no guarantee of future results. All indexes are unmanaged and cannot be invested into directly.

The economic forecasts set forth in the presentation may not develop as predicted.

There is no assurance that the techniques and strategies discussed are suitable for all investors or will yield positive outcomes. The purchase of certain securities may be required to affect some of the strategies.

Stock and Pooled Investment Risks

Investing in stock includes numerous specific risks including: the fluctuation of dividend, loss of principal and potential illiquidity of the investment in a falling market.

Because of its narrow focus, specialty sector investing, such as healthcare, financials, or energy, will be subject to greater volatility than investing more broadly across many sectors and companies.

There is no guarantee that a diversified portfolio will enhance overall returns or outperform a nondiversified portfolio. Diversification does not ensure against market risk.

Investing in foreign and emerging markets securities involves special additional risks. These risks include, but are not limited to, currency risk, geopolitical risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Investing in mutual funds involves risk, including possible loss of principal. Investments in specialized industry sectors have additional risks, which are outlined in the prospectus. Please read the fund's prospectus for more information on risks, fees, and other important information.

BOND AND DEBT EQUITY RISKS

Bonds are subject to market and interest rate risk if sold prior to maturity. Bond and bond mutual fund values and yields will decline as interest rates rise and bonds are subject to availability and change in price.

Government bonds and Treasury bills are guaranteed by the U.S. government as to the timely payment of principal and interest and, if held to maturity, offer a fixed rate of return and fixed principal value. However, the value of fund shares is not guaranteed and will fluctuate.

High-yield/junk bonds are not investment-grade securities, involve substantial risks, and generally should be part of the diversified portfolio of sophisticated investors.

Investing in foreign and emerging markets debt securities involves special additional risks. These risks include, but are not limited to, currency risk, geopolitical and regulatory risk, and risk associated with varying settlement standards.

ALTERNATIVE PRODUCT RISKS

Derivatives involve additional risks, including interest rate risk, credit risk, the risk of improper valuation, and the risk of noncorrelation to the relevant instruments they are designed to hedge or to closely track.

Currency risk is a form of risk that arises from the change in price of one currency against another. Whenever investors or companies have assets or business operations across national borders, they face currency risk if their positions are not hedged.

Selling short can result in losses should the borrowed security increase in price, rather than decline. The theoretical potential loss is unlimited. Additionally, short sales will incur interest on the borrowed shares while also being subject to margin calls, or early sales in the event that the original owner wishes to sell their position.

Commodity-linked investments may be more volatile and liquid than the underlying instruments or measures, and their value may be affected by the performance of the overall commodities baskets as well as weather, geopolitical events, and regulatory developments.

Global macro strategy is a hedge fund strategy that selects it holdings primarily on the macro-economic and political views of various countries, and is subject to numerous risks such as: geopolitical, derivative, commodity, volatility, currency, and regulatory.

Event driven strategies, such as merger arbitrage, long/short equity strategies, and arbitrage are highly speculative, include a high degree of risk, and may not be suitable for all investors.

Managed futures strategies use systematic quantitative programs to find and invest in positive and negative trends in the futures markets for financials and commodities. Futures and forward trading is speculative, includes a high degree of risk, and may not be suitable for all investors.

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