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Investing In A Low Return Environment: Suggestions For Improving Portfolio Risk/Reward Potential

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History and Expectations

Over the past two and half decades interest rates have declined precipitously. This decline in rates provided a tailwind for advancing stock and bond markets. Consider that the Ibbotson data, covering the years 1926-2004, indicates that large cap stocks have delivered a 10.4% annualized return and that long-term government bonds have delivered a 5.4% annualized return. However, over the past twenty-five years, ending in 2004, returns to stocks and bonds were substantially greater, with an annualized return of 13.5% for the S&P 500 and an annualized return of 9.6% for the Lehman Brothers Aggregate Bond Index.

The exceptional returns from bonds over the past couple of decades are understandable. The yield on the 5-Year Treasury dropped from almost 16% in the fall of 1981 to around 2.3% in the summer of 2003. The inverse relationship between yield and price has been mightily apparent. But the return to equities is a bit harder to explain. Academics and practitioners alike seem to be in agreement that stocks have performed better than they theoretically should have. Experts purporting to explain this phenomena state that, among other things, the observed excess returns to stocks may have been a function of improved liquidity, the increasing ease with which investors have been able to achieve diversification or a changing view of the risk associated with equities. Incidentally, the book "Dow 36,000" argued that investors understand that stocks are not nearly as risky relative to bonds as was once thought, and as a result, investors are bidding down the risk premium to a point where it will essentially be zero. Of course the book was written prior to the complete collapse of the NASDAQ, which five years later remains 60% below its high – a reminder that yes,

stocks do carry significant risk. At this stage in the game, with interest rates having apparently bottomed out and stock valuations far from what could be considered cheap, what does that mean for future stock and bond returns? For bonds, the best predictor of future returns seems to be yield to maturity at the time of purchase, and today, the yield on the Lehman Aggregate Bond Index stands at roughly 4.5%. Therefore, it is reasonable to

expect future returns over say the next five years to be around 4.5%, or less than half of what they have been over the past 25 years. For stocks, future returns are more difficult to estimate, and there are competing opinions on how to best arrive at the equity risk premium, i.e. the expected excess return to stocks over bonds. The purpose of this paper is not to explore the equity risk premium, but it is worth noting that studies by

Arnott and Bernstein (2002), Asness (2000), Ibbotson and Chen (2003), and Siegel (2004) have determined that the equity risk premium could be as low as 0% or as high as the historically observed excess return to stocks of 5%. If it is safe to assume that the truth usually lies somewhere in the middle, then returns to stocks will be less attractive going forward than they have in the past.

What to Do?

So the question becomes what should investors do in the face of low expected returns for traditional stock and bond portfolios? There are a number of ways for investors to increase their expected returns, including:

- ❑ Lowering expenses – simple, but always effective

"AT THIS STAGE IN THE GAME, WITH INTEREST RATES HAVING APPARENTLY BOTTOMED OUT AND STOCK VALUATIONS FAR FROM WHAT COULD BE CONSIDERED CHEAP, WHAT DOES THAT MEAN FOR FUTURE STOCK AND BOND RETURNS."



- ❑ Systematically rebalancing – buy low, sell high
- ❑ Investing opportunistically – increase the potential sources of alpha
- ❑ Diversifying – add non-traditional asset classes or uncorrelated beta
- ❑ “Do no harm...spend less, save more, make less heroic assumptions” – Clifford Asness, AQR

We will skip over the first two items, lowering expenses and systematically rebalancing, as there is little, if anything, to add to those subjects that is not widely accepted. We will also skip over the last bullet point, while noting that it is indeed sage advice. Our focus will be on the ideas behind hiring opportunistic managers and diversifying outside of traditional asset classes. We will present those two broad ideas along with specific investment recommendations in turn. But first we will consider whether investors tasked with fiduciary oversight should even consider looking “outside the box”.

Prudence

If convention says that portfolios should be built with traditional stocks and bonds, and that style specific managers should be hired to manage those positions, lest the asset allocation stray from its intended mix, then is it prudent to do otherwise? “One of the paradoxes of our business is that reducing or avoiding real risk in portfolios can seriously increase career or business risk, which rises with any deviation from standard behavior.” – **Jeremy Grantham**

“Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally.” – **John Maynard Keynes**

“Lemmings as a class may be derided, but never does an individual lemming get criticized.” – **Warren Buffett**

Repetitive perhaps, but impactful nonetheless.

less. However, it is clearly the duty of anyone tasked with fiduciary oversight to address the question of prudence before shedding the lemming label. So what does the Uniform Prudent Investor Act, which governs the behavior of trustees, say about going outside the comfort zone of traditional asset classes and strategies? The Act lays out guidelines for portfolio management, including the following:

- ❑ The standard of prudence is applied to any investment as part of the total portfolio, rather than to individual investments.
- ❑ All categoric restrictions on types of investments have been abrogated; the trustee can invest in anything that plays an appropriate role in achieving

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the risk/return objectives of the trust and that meets the other requirements of prudent investing.

The “requirements of prudent investing” being that trustees consider expected total return, the degree and nature of risks involved, the marketability of the investment and transaction costs. In other words, as opposed to limiting the available investment options, the Act clears the way to consider non-traditional asset classes or strategies.

As mentioned previously, we have separated our investment ideas into two buckets, an opportunistic bucket and a diversification bucket, which we will

now discuss in turn.
Opportunistic Investing

“...our interpretation of Grinold’s [1989] law of active management is that the value added of an active manager is a function of his skill times the number of independent decisions (the opportunity set) the manager can make per year.” – Alexander Ineichen, UBS

Mr. Ineichen’s comments were in regard to the hedge fund industry, but are applicable to discussions of “long-only” managers as well. He is essentially arguing that complexity provides the opportunity, and as such, complexity must be sought out; a statement that we agree with wholeheartedly. Incidentally, while we do not address hedge funds in this paper, Innovest is a proponent of absolute return strategies for many of the same reasons that we advocate using opportunistic, long-only managers.

It is our contention that artificially constraining a talented money manager, i.e. forcing the manager into a box, may not be the optimal way in which to generate alpha. Due to the efforts of Morningstar and the consulting community, style purity has been drilled into the heads of investors everywhere. But even the most fervent believer in strict adherence to style purity would have a hard time arguing why, for example, a large cap manager who has just discovered the next Microsoft should refrain from buying its stock because the market cap is \$9 billion and his/her universe of large cap stocks begins at \$10 billion. Alternatively, as a former colleague, Jeremy van Arkel of Frontier Asset Management liked to argue, if Oracle, a tech stock, goes from 70 to 10, then what kind of stock is it? A tech stock! But it has moved through many indices and styles in varying percentages throughout this time. So, if a manager buys Oracle at 10 and sells it as 20, what kind of investor is that man-



ager? Growth, tech, value, deep value, small cap, market timer, speculator...all of these? Style purity, even if considered to be an attractive characteristic, is often hard to define. Further, and more importantly, style purity necessitates leaving certain opportunities for others to capitalize on.

We spend an inordinate amount of time trying to identify managers who have an edge, whether that edge comes from a manager's intellect, experience, strategy, resources or trading/implementation tactics. So if the same effort is required to identify a style pure manager as is required to identify an opportunistic manager with a more plentiful opportunity set, and consequently, a greater chance of generating alpha, where should our resources be focused?

We are being somewhat argumentative of course. There are valid reasons for investing with style pure managers – we certainly do on behalf of our clients – but the point is that if return expectations are low across the board, flexibility and larger opportunity sets would seem to be more important now than in the past. Complexity provides the opportunity and we believe complexity can best be exploited by flexible investment strategies. While hedge fund managers and multi-cap equity managers fall into this opportunistic strategy bucket, our focus is on the use of global bond and private equity managers as suggested alpha generating strategies.

Global Bonds

There is nothing earth shattering about suggesting that a manager with a global bond mandate should have more opportunities to generate alpha than a domestic bond manager. In a sense, the “core plus” strategy run by Bill Gross of PIMCO, among others, is a more constrained global bond strategy that allows Mr. Gross to invest in off-benchmark

segments, like high yield or foreign bonds, when and if the risk/reward trade off is favorable. This opportunistic approach has certainly boosted Mr. Gross' results over the years. And if Mr. Ineichen is correct in his definition of the value added of an active manager, then the increased complexity of worldwide sector calls, country decisions and currency decisions adds to the potential alpha that a manager can generate...if the

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manager is truly skilled that is.

The fact remains that few U.S. based investors have ventured outside our borders within their fixed income portfolios, yet the U.S. debt market makes up only 40% of the total debt market worldwide, according to the Bank for International Settlements. U.S. investors systematically ignore 60% of the total opportunity set for fixed income. In the past, this may have been understandable given that markets were less integrated, corporate bond markets outside of the U.S. were not particularly robust, emerging market debt issuers were of much more questionable credit quality than they are today and information was often hard to come by. But with more integrated markets, improved credit quality, greater transparency and liquidity, and lower transaction costs, many of these barriers have been removed.

Because fixed income analysis, more so than equity analysis, lends itself to quantitative techniques, and because the technology to do so is readily available, the fixed income

markets have become more and more efficient; a trend that can be expected to continue. Fixed income managers must find a way to overcome the low barriers to entry within their world . A starting point is to increase the size of the opportunity set.

A bit of faith is required however, as there are few truly global, opportunistic investment products in existence (e.g. fewer than 40 mutual funds with at least 10 years of history exist and not all of those fit the profile that we are describing) and properly measuring alpha for such strategies requires intimate knowledge of the portfolios and the risks therein, both intended and unintended. A common mistake in performance measurement is labeling excess return over a benchmark as alpha, which is not the case. Often times what is thought to be alpha is another form of beta, but that is another discussion entirely.

In addition to alpha generating potential, investing globally brings with it diversification benefits as well. Bridgewater Associates has produced research demonstrating that individual bond markets exhibit low cross-correlations, thus providing true diversification. In addition, their research indicates that since 1968, hedged non-U.S. bonds have been about 25% less risky than U.S. bonds while delivering almost identical returns. When combined with the diversification benefits, this risk/reward profile should enhance the efficiency of a portfolio within a mean variance optimization framework. Our analysis of returns using the Lehman and Citigroup bond indices over the past 15 years provides similar results. Global bond indices have generated returns in line with those of U.S. bond indices, and as for risk, that is largely a question of hedging policy, with higher risk associated with unhedged indices and lower risk for the hedged indices, as could be expected.

Given the evidence and logic, and staring at a 4.5% return expectation for domestic



fixed income over the next few years, we believe that investors should be focusing their efforts on identifying quality fixed income managers that have the people, skills and resources to take advantage of 100% of the world's bond markets, not just the 40% available within the U.S.

Private Equity

Our second suggestion within the opportunistic investing category is to consider private equity investments. Private equity funds typically fall into one of three broad categories, venture capital, buyout or mezzanine. Venture capital funds invest in start-up ventures, whereas buyout funds typically invest in established ventures in need of change; mezzanine funds are essentially niche lenders that often provide capital to buyout transactions. The primary differentiating factor between public and private equity managers (other than the obvious public vs. private distinction) is that private equity managers take an active role in managing portfolio companies, necessitating management decisions, marketing decisions, product decisions and financial decisions. It is this aspect of private equity from which the opportunity for alpha generation originates – complexity.

Private equity offers the potential to gain access to new industries and companies during their highest periods of growth or to invest in troubled companies with compelling valuations (i.e. turnarounds). The allure of private equity has been the outsized returns associated with venture backed companies like Google or Ebay, or successful buyout stories like Seagate, not to mention the clubby feel of being on the inside of the private equity game.

However, with high return potential comes substantial risk. Risks include high failure rates (especially for VC fund investments) and almost non-existent liquidity at both the portfolio and fund level (10-year lock-ups are standard at the fund level). Additionally, there is manager specific risk,

which comes in many forms. For example, while the difference between a good large cap manager and a poor large cap manager may only be a few percentage points, the difference between top and bottom quartile performance among private equity funds can be enormous. This again speaks to the alpha opportunity in the private equity world. Arguably nowhere else can alpha be generated to the extent available in private equity (of course, not being able to properly account for the risks involved may call into question whether this is truly alpha or not, as discussed previously).

Finally, while some in the private equity world claim that it is a good diversifier to a traditional portfolio, we would argue against such a statement. Ask any venture capital investor what happened to returns

of identifying skilled private equity managers and gaining access thereto may lead to the decision that private equity is not appropriate.

Diversification

“Even if volatility is not a perfect measure for risk, investors not perfectly rational, markets not perfectly efficient, nor trading frictionless, the concept of diversification – essentially the bottom line of the first generation of financial theory – is still a laudable concept, i.e., a good idea until there is evidence suggesting otherwise (which, as of early 2005, there was not). Efficiency gains through diversification are probably the only free lunch in financial economics accessible to all investors.” – Alexander Ineichen, UBS

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when the NASDAQ, the primary exit outlet for most venture-backed IPO's, went south. Just because valuations often remain unchanged for extended periods of time does not mean that investments in private companies are non-volatile and/or non-correlated with public markets. The fact is that these markets are highly correlated with the public markets and investors considering private equity should fully understand that. The reason for putting forth private equity as an asset class worth considering is not based on an optimization argument, it is solely about alpha generation. Innovest believes that private equity can be a beneficial addition to a diversified portfolio. However, liquidity, fee and asset allocation issues, along with the time intensive process

Again, Mr. Ineichen provides us with a starting point for our discussion. Because of the low expected returns for stocks and U.S. bonds, diversification solely across those asset classes may be leaving opportunities for greater efficiency on the table. While our suggestion to consider global bond managers also has diversification benefits, the primary reasoning behind that recommendation along with the recommendation to consider private equity was to expand the

potential sources of alpha available to a portfolio. We now turn to two alternative asset classes that most likely offer diversification benefits regardless of their alpha potential. We believe investors should consider commodities and bank debt for their distinct risk, return and correlation profiles. One might think of these asset classes as offering uncorrelated beta exposure with potential alpha generation layered on top.

Commodities

A lot has been written about commodities of late, especially with regard to the explosive growth in China and its emergence as one of the biggest consumers of commodities, surpassing even the U.S. in certain cat-



egories. There is also a debate about whether interest and speculation in commodities is approaching the bubble mentality witnessed in tech stocks in the late nineties or merely the justifiable recognition of an asset class poised at the outset of a long term bull market. Our role as consultants and strategic asset allocators allows us to bypass the tactical arguments surrounding valuation and concentrate on the long term benefits of adding commodities to a portfolio of stocks and bonds. For those looking for a thorough evaluation of the upside potential for commodities, we would suggest reading "Hot Commodities" by Jim Rogers, in which he lays out the supply/demand imbalances that he expects to persist for an extended period. At this time we are not aware of a similarly comprehensive encapsulation of the bearish case to recommend as a balancing position to Mr. Rogers.

In any event, as stated above, our interest is in the diversification benefits of commodities for the long term. We should note that our comments rely heavily on a paper published in 2004 by the Yale International Center for Finance, written by Gary Gorton of the University of Pennsylvania and K. Geert Rouwenhorst of Yale University. The paper, entitled "Facts and Fantasies About Commodity Futures" is essential reading for anyone considering the asset class. While the following words may not be quoted verbatim from the paper, readers should attribute most of the facts and insight to the work completed by Messrs. Gorton and Rouwenhorst, unless otherwise indicated.

Because of the practical problems associated with investing in physical commodities, i.e. delivery, storage, and liquidity, the vast majority of investment in commodities is through the futures markets. It is important to understand that commodity futures do not represent direct exposure to actual commodities. Investment in commodity futures represents bets on the expected future spot

price of the underlying commodities. Producers of commodities often have an interest in locking in prices in advance and thus typically offer an incentive to speculators to assume the price risk. As an example, if an oil company believes that oil prices three months from now will be \$50 a barrel, they might be willing to enter into a contract today to sell oil produced three months hence at \$48 a barrel. The producer then locks in the selling price and the

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buyer of the futures contract locks in an expected risk premium of \$2, but in doing so, assumes the risk of adverse price movements. Unexpected price increases add to the speculator's return, whereas unexpected declines in price subtract from the speculator's return. So long as the spot price follows the expected trend, those trends in spot prices are not a source of return to investors; investors in commodity futures can make money even if the trend in spot prices is down. This is an important concept and is counterintuitive to investors who have not participated in these markets previously. Interestingly, the historical risk premium earned by investors in futures contracts has been about 5%, which is roughly the same as the observed excess returns to stocks over bonds.

Some argue that investors are able to capture commodity price movements through the stocks of those companies that produce commodities. In fact, many mutual funds

that invest in natural resources market themselves as a way to play the commodities cycle. However, over the 45-year time period studied by Gorton and Rouwenhorst, the cumulative performance of futures has tripled the performance of the stocks of commodity producers. Further, the correlation between commodity futures and commodity company stocks has been low at about 0.38. Innovest calculated the average correlation between natural resource mutual funds (using all available funds regardless of length of track record or focus) and the S&P 500, and found it to be 0.58 over the past twenty years. Clearly, the stocks of commodity producers are more highly correlated to the stock market than they are to commodities, and as a result, provide less diversification.

When compared to the overall stock and bond markets, it was found that over all horizons – except monthly – the correlation between equally weighted commodity futures and stock and bond returns was negative, and that the negative correlation increased with time. Innovest's own analysis covering the past twenty-five years was in line with Gorton and Rouwenhorst's findings in that more often than not commodities have had a negative correlation to stocks and bonds. However, Innovest used the Goldman Sachs Commodity Index as our proxy for commodities, which is neither equal weighted, nor as representative of all commodities, given that it has had a very large weighting to energy related commodities over the years. Regardless, commodity future returns have at least exhibited a low correlation, if not always negative, to stocks and bonds, providing substantial diversification.

But what about the risk and return characteristics of commodities? Gorton and Rouwenhorst found that the average annualized return to a fully collateralized (i.e. unlevered) investment in an equally weight-



ed index of commodity futures has been comparable to the S&P 500 (10.8% vs. 10.5%) since 1959. In addition, the volatility of an equally weighted commodity futures index has been slightly below that of the S&P 500. Conventional wisdom says that commodities are far more risky than stocks, but that does not appear to hold up under scrutiny. In fact, commodity futures returns are positively skewed, whereas stock returns are negatively skewed.

With equivalent return potential to stocks (at least historically, although we are not projecting such going forward), similar risk characteristics and true diversification benefits (including a hedge against both inflation and a falling dollar) we believe that commodities should be considered as a complement to traditional stock and bond portfolios.

Bank Debt

In a world of rising interest rates and the accompanying risks for fixed income investors, bank debt offers a welcome alternative to traditional fixed income. Bank debt, or floating rate loans, essentially exchange interest rate risk for credit risk. Bank debt funds invest primarily in floating rate loans that are typically priced at LIBOR-plus and are reset periodically, which means that as rates rise, the yields on these portfolios rise as well.

The advantage to bank debt is that it resides at the top of the capital structure, offering both seniority and security. The downside is that credit quality is often lower than most traditional fixed income portfolios and bank debt does not have the same level of call protection as bonds do. Managers of bank debt funds can and do mitigate the credit risk by investing in hundreds of different loans.

While the market for floating rate debt has been growing and maturing in recent years,

it is still relatively new to most investors. Additionally, data on floating rate funds is sparse, as there are only five mutual funds with track records in excess of five years, so modeling these strategies into an asset allocation is left to art over science. Innovest's approach has typically been to carve out a segment of the fixed income portfolio for bank loan funds as a hedge against higher interest rates. The level of exposure is dependent on the client's risk and return goals. We would draw attention to the fact that improving credits and increased interest in this asset class has likely extracted much of the capital appreciation potential out of the market, so return expectations should be solely a function of yield. Regardless, the interest rate hedge and low correlations to other asset classes and strategies makes this asset class attractive and should help in a low return environment.

Conclusion

In a world of low expected returns, investors must look past traditional stock and bond portfolios in order to improve the efficiency of their portfolios. It is our belief that there are two primary ways to do so. First, invest with opportunistic managers who consider larger opportunity sets from which to generate alpha. Second, diversify outside of traditional asset classes. Within those two broad themes, we identified four investment ideas worthy of consideration. Within the "opportunistic" category, our analysis identified global bond and private equity strategies as offering greater complexity, and thus greater opportunity for alpha generation for skilled managers. Within the "diversification" category, our analysis indicates that the commodity and bank loan asset classes offer unique risk, return and correlation profiles that complement traditional stock and bond portfolios. While all of these ideas may not be appropriate for all clients, we believe there is a benefit to simply having the

conversation and widening the scope of traditional investment thinking.

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