Rocaton

INSIGHTS

Building a Better Inflation Hedge: *The Case for Real Assets*

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EXECUTIVE SUMMARY

After witnessing the U.S. equity market rally more than 32% in 2013 and experiencing the first negative calendar year for core U.S. fixed income since 1999, investors may find themselves questioning the prospects for returns in traditional stock and bond markets going forward. In addition, continued quantitative easing from central banks around the world has many market pundits predicting the return of inflation in the not too distant future. As we outlined in a recent Rocaton Insights (*The Outlook for Treasury Inflation Protected Securities*, November 2013), inflation linked bonds may not provide the inflation hedge that many investors are expecting. Real assets may provide a solution to both challenges by potentially delivering (1) robust returns and (2) also acting as a hedge to inflation.

Real assets can be broadly defined as any asset that has a claim to an underlying physical or tangible asset. These assets differ from financial assets whose value is derived from a contractual claim. Common examples of real assets include commodities and real estate. The balance of this paper will focus on four broad categories of real assets: real estate, timber, energy and infrastructure/master limited partnerships. While these strategies do not have an explicit link to inflation (in the way that TIPS do), they often have a positive correlation with at least some measures of inflation. Historically, both real estate and timber have had modest positive correlations (0.5–0.8) with changes in CPI over the last three decades. Further, one of the best ways to hedge inflation over the long term is to earn attractive returns. Based on this view, the aforementioned real asset classes may help investors meet both their return and inflation hedging objectives.

Real Estate

Real estate, both public and private, represents one of the most well-known and most utilized real asset categories used by investors. Real estate is considered by many to have inflation linked properties because as the cost of hard goods and materials increases, the "replacement cost" of assets should also increase, potentially creating an environment in which it is more expensive to build competing properties and limiting new supply. Shorter-term lease sectors, such as hotels and apartments, are able to adjust rents relatively quickly in response to an inflationary environment. Certain retail properties share in the revenues of their tenants which may be rising alongside inflation. Despite being resident in many portfolios, there are enhancements that investors can make to their real estate holdings that may improve projected returns. Since investors began adding real estate to their portfolios, the primary focus has been on publicly-traded REITS and/or open-ended core real estate funds. While it is beyond the scope of this paper, current valuation metrics suggest that core real estate properties (i.e. high quality, commercial properties) will find it challenging to generate attractive returns over the next five to ten years. Additionally, REITS in particular may not provide a meaningful hedge to inflation given their sensitivity to interest rates and link to public equity markets. Investors could instead consider private "non-core" real estate strategies that have much wider breadth and depth than traditional core real estate funds and include strategies such as value-added, opportunistic and real estate lending.

Among other differentiators, "non-core" strategies can purchase both traditional and non-traditional real estate assets. Examples of non-traditional assets include investments in data centers, cell towers, healthcare facilities, casinos, parking facilities and golf/resort assets. These strategies also have flexibility with regard to deal structure and have the ability to access deals through real estate loans, multi-property portfolios or loan pools, joint ventures, operating companies, structured products, public securities and other real estate related assets. Opportunistic or value-added strategies typically focus on investing in assets that may require significant operational improvement such as construction, renovation, repositioning, releasing or may simply require additional capital expenditure. The liquidity profile will vary for non-core strategies, but in general, investors can expect a five to ten year lock up period. Other considerations for opportunistic strategies include the use of leverage, fees, portfolio concentration and investments in "niche" areas. Currently, Rocaton believes that many investors are adequately compensated for these risks and that these strategies could produce returns in excess of traditional core real estate funds. As stated earlier, core property pricing will make it challenging for core funds to deliver much more than mid-single digit returns for the next five to ten years. Although strategies will differ meaningfully, we would expect well managed opportunistic real estate strategies to deliver net returns well in excess of core funds and potentially even double digit returns. In the five years since the global financial crisis began, a significant amount of distressed real estate has been worked out in the U.S.; however, it seems that there are still opportunities to acquire undercapitalized assets at relatively high yields in the U.S. and potentially a longer term opportunity to participate in the distressed asset and loan sales in Europe. Investors should consider real estate valuation levels, the cyclicality in the real estate investing cycle, the demand and supply balance of real estate assets and current prices relative to replacement cost in evaluating the environment for investing in real estate.

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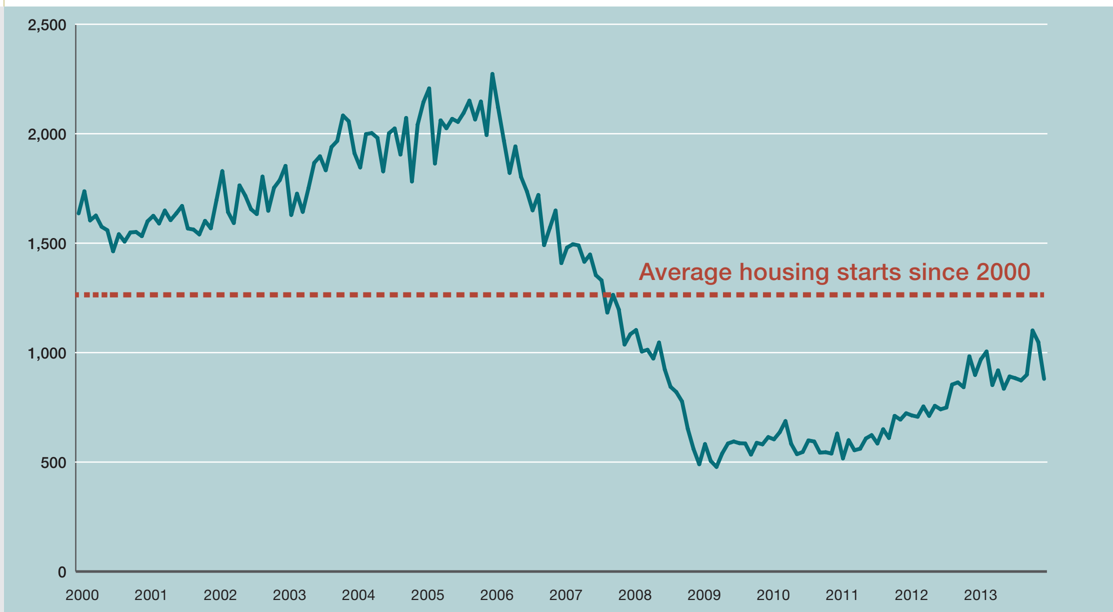
Timber

An underutilized asset class, timber is one of the more unique opportunities in the real assets space. At its core, timber investments involve the growing and harvesting of trees which can then be sold for various uses. The properties that are owned within timber funds are typically diversified by region, tree species and maturity. Trees grow in both volume and value as they mature, growing in tonnage and jumping to more valuable product classes. For example, trees can be sold as pulpwood for \$8–10 per ton after 10-15 years while trees that are 20–25 years in age can be sold as sawtimber for \$23–27 per ton. Current sawtimber pricing is 20–30% below peak pricing and is largely linked to demand from the U.S. housing market. A continued recovery in U.S. housing could potentially provide timber investors with attractive returns over the long-term. Recently, both housing permits and housing starts have moved off depressed levels signaling that healthy demand for timber may continue (see Figure 1). Aside from traditional hardwood and softwood uses, such as plywood, furniture and flooring, timber investments benefit from increased paper and pulp demand. Despite a decline in demand for newsprint, other sectors of the paper and pulp sector, including tissue, containerboards and cardboard, are expected to experience modest demand growth over the next decade.

Historically, the timber asset class (as defined by the NCREIF Timberland Index) has generated high single-digit to low double-digit returns. Since inception of the index in 1987, timber has delivered an annualized return of 12.7%. Over the last 10 years ending December 31, 2013 the NCREIF Timberland Index has returned 8.4% annualized. While returns will likely vary by strategy, Rocaton believes timber strategies may deliver 7–9% unlevered internal rates of return, net of fees and expenses.

Figure 1:
U.S. Housing Starts (000's, seasonally adjusted annualized rate)



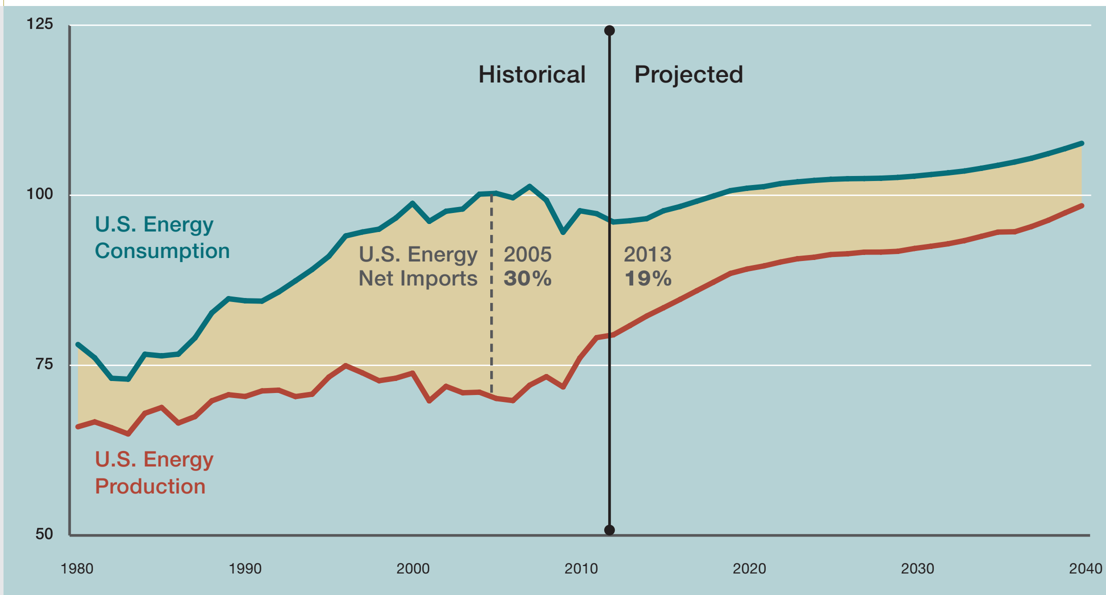
Source: Bloomberg

Timber investing, of course, involves risks, although these risks may look vastly different compared to other parts of investors' portfolios. Timber strategies usually take the form of illiquid vehicles that rely on manager skill to acquire, manage and sell properties. Price volatility also exists, although managers have some ability to mitigate this risk by determining when and how much timber to harvest and sell each year. Fire, flooding and pests, although rare, present potential risks to timber portfolios. Investments in the Southern U.S., for example, are less likely to experience the sweeping fires that sometimes engulf the Western U.S. Pine trees have a higher moisture content making them less susceptible to large scale fire. Pest infestations can damage trees and managers must actively monitor properties and treat any infestations as soon as they are detected. Regulatory and environmental risks must also be closely monitored by investment managers.

Energy

The energy industry, particularly in the U.S., may represent one of the most attractive opportunities for investors. The U.S. is in the midst of an energy renaissance with crude oil production reaching its highest level in more than 25 years, driven by new drilling technologies including hydraulic fracturing ("fracking") and horizontal drilling. Additionally, U.S. energy imports are declining, reflecting increased domestic petroleum and natural gas production, increased use of biofuels, demand reductions resulting from rising energy prices and the adoption of new efficiency standards for vehicles (see Figure 2). This new dynamic has the potential to create a wealth of opportunities for investors.

Figure 2:
Total U.S. Energy Production and Consumption (quadrillion BTU)



Source: U.S. Energy Information Administration

Historically, investors have turned to commodities futures or public equities as a way to gain exposure to the energy sector in the U.S. In our view, investments in commodity futures may face headwinds and returns may be disappointing, as has been the case over the past several years, despite a generally rising commodity price environment (see Rocaton Insights—*End of the "Super Cycle"?: The Outlook for Commodities,* August 2013). Poor returns experienced by crude oil futures can be partially explained by the shape of the futures curve, which has largely resulted in a negative roll yield.

Investors wishing to take advantage of the U.S. energy renaissance should instead look to private energy strategies. The capital-intensive nature of horizontal drilling and hydraulic fracturing has created a significant demand for capital in the energy industry and a variety of opportunities for investors. Private energy strategies will generally focus on providing capital to exploration and production, oilfield services, transportation and storage infrastructure companies. Many strategies seek to be more tied to the business of purchasing existing production, enhancing operations and supplying commodities to consumers. Additionally, most strategies seek to hedge a substantial portion of their production and therefore have less exposure to short-term changes in commodity prices.

A challenge that exists with private energy strategies is the long-term lock up of many strategies (typically 7–15 years). Consideration should also be given to environmental and regulatory risk. Given that most private energy funds will look to hedge production, in the event of a short-term spike in energy prices these strategies may not appreciate as much in value relative to a commodities future strategy. In addition, a dramatic long-term fall in energy prices, although currently not expected, would undermine long-term returns. Despite the range of potential outcomes for commodity prices being wide, it appears that private energy investments provide investors with the opportunity to gain long term exposure to commodities, while taking advantage of the ability of skilled managers to add value and protect against downside risk through managing operations effectively and carefully hedging the assets.

Infrastructure/Master Limited Partnerships ("MLPs")

Although by no means a "new" asset class, infrastructure investing has certainly been underutilized by many investors. Toll roads, bridges, tunnels, oil and gas pipelines, airports, hospitals and schools are all examples of infrastructure investments. More formally defined, infrastructure assets provide essential services and facilitate the operation of communities and economies through the provision of transportation services, regulated utilities (generation, transmission, storage and distribution), communication services, water supply, waste management and social services. Common characteristics of the above are that they provide essential services, they are able to charge fees for usage (either to the consumer or to a government/municipal entity), they tend to be long-lived assets and produce relatively stable cash flows. Importantly, infrastructure assets have a low rate of obsolescence and high barriers to entry. They might even be considered "natural" or "quasi" monopolies as there are typically few, if any, alternatives to the use of existing infrastructure assets.

The current state of much of the world's infrastructure represents, at a high level, the opportunity in this asset class. More specifically, for anyone who has traveled in the U.S. recently, it should come as no surprise that America's bridges, roads, railways and airports are in need of considerable repairs and maintenance. In their 2013 Report Card for America's Infrastructure, the American Society of Civil Engineers assigned the nation's overall infrastructure a grade of "D+" (poor) and estimated that the U.S. will require approximately $3.6 trillion in infrastructure investment by 2020. Investments in this space will often take the form of private equity-style vehicles which have multi-year lock up periods. Aside from the illiquidity, another risk that exists includes potential difficulty in purchasing and/or exiting investments. Many government entities have been very slow to sell assets due to union and taxpayer unhappiness and, historically, asset managers have been unsuccessful in exiting investments. A limited universe of high quality investment managers also presents a challenge for those investors wishing to gain access to the asset class. Nonetheless, infrastructure investments can provide investors with a diversifying exposure while also producing stable cash flows.

MLPs represent a similar form of exposure to the infrastructure sector. MLPs are publicly traded partnerships that derive most of their cash flows from real estate, natural resources and commodities. These partnerships were created in the mid-1980's through the passing of two separate tax-reform acts. As a result of these reforms, MLPs pay no corporate level taxes provided that they generate 90% of their cash flow from qualified activities using qualified natural resources (see Figure 3 for examples).

Figure 3:
Master Limited Partnership Qualifying Natural Resources and Activities

Qualifying Natural Resources	Qualified Activities
Oil, gas, petroleum products	Exploration, development & production
Coal and other minerals	Mining
Timber	Gathering and processing
Industrial source carbon dioxide[1]	Refining
Ethanol, biodiesel and other alternative fuels[1]	Compression
	Transportation (pipeline, ship, truck)
	Storage, marketing, distribution

[1] Added as a qualifying natural resource in 2008

Source: National Association of Publicly Traded Partnerships

MLPs own, maintain and operate the majority of energy infrastructure in North America and are involved in the transportation, storage and processing of crude oil and natural gas. As production levels continue to rise, MLPs look poised to take advantage of the growing supply of crude oil and natural gas. Increasing supply of these commodities will likely create growth opportunities for many midstream energy MLPs. Further, MLPs stand to benefit from increased infrastructure demand for refined petroleum products.

While MLPs present a compelling case for investment, there are a number of challenges associated with owning the asset class. Notably, the tax treatment for MLPs can be complex. Direct investors will receive a K-1 instead of a 1099 while tax-exempt entities (such as pensions and endowments) will typically incur Unrelated Business Income Tax ("UBTI"). This will necessitate the need to file tax returns and generate a tax liability if the UBTI exceeds $1,000 per year. Finally, there are limitations placed on mutual funds and exchange traded funds with regards to ownership of MLPs. Since the passage of the American Jobs Creation Act of 2004, mutual funds and ETFs are permitted to own MLPs, but MLPs in aggregate cannot exceed 25% of the fund's assets nor can the fund own more than 10% of any one security. Therefore, the challenge for many investors is finding a suitable vehicle that meets their specific situation.

Conclusion

A five-year rally in U.S. equity markets and interest rates that are near historically low levels has presented investors with a difficult challenge. Although global quantitative easing has yet to produce high levels of inflation, it is unlikely that the current very low levels of inflation will be sustained over the long-term. Real assets returns can be driven by different factors than financial assets which dominate many investors' portfolios. Determining the proper allocation to real assets will vary across different investors given the illiquid nature of many of these asset classes. Rocaton would suggest that investors review their liquidity needs to get a better understanding for how real assets might play a role in their portfolio. A "pacing analysis", which examines potential capital calls and subsequent distributions from private strategies, may help investors determine an appropriate target allocation to real asset strategies.

While no single asset class can provide a perfect inflation hedging solution or be guaranteed to deliver high returns, an allocation to real assets has the potential to improve portfolio outcomes.

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