

Table of contents



VERUSINVESTMENTS.COM

SEATTLE 206-622-3700 **LOS ANGELES** 310-297-1777

Executive summary	³ Appendix	24
Why real assets?	4	
The role of real assets in a portfolio	6	
Outlook summary	7	
Current conditions and outlooks	9	

Past performance is no guarantee of future results. This report or presentation is provided for informational purposes only and is directed to institutional clients and eligible institutional counterparties only and should not be relied upon by retail investors. Nothing herein constitutes investment, legal, accounting or tax advice, or a recommendation to buy, sell or hold a security or pursue a particular investment vehicle or any trading strategy. The opinions and information expressed are current as of the date provided or cited only and are subject to change without notice. This information is obtained from sources deemed reliable, but there is no representation or warranty as to its accuracy, completeness or reliability. VERUS ADVISORY™ and VERUS INVESTORS™ expressly disclaim any and all implied warranties or originality, accuracy, completeness, non-infringement, merchantability and fitness for a particular purpose. This report or presentation cannot be used by the recipient for advertising or sales promotion purposes.

The material may include estimates, outlooks, projections and other "forward-looking statements." Such statements can be identified by the use of terminology such as "believes," "expects," "may," "will," "should," "anticipates," or the negative of any of the foregoing or comparable terminology, or by discussion of strategy, or assumptions such as economic conditions underlying other statements. No assurance can be given that future results described or implied by any forward looking information will be achieved. Actual events may differ significantly from those presented. Investing entails risks, including possible loss of principal. Risk controls and models do not promise any level of performance or guarantee against loss of principal.

"VERUS ADVISORY™ and VERUS INVESTORS™ and any associated designs are the respective trademarks of Verus Advisory, Inc. and Verus Investors, LLC." Additional information is available upon request.

Executive summary

- Inflation remains muted across the globe, and this trend will likely continue. However, because investors continue to face the risk of an unexpected inflation shock, we believe it is necessary to maintain portfolio exposure to real assets.
- Real asset exposures can provide three key portfolio benefits: inflation protection, a differentiated source of return, and portfolio level diversification. Return and diversification benefits are somewhat independent from inflation protection benefits.
- Private real estate appears favorable relative to other inflation protecting asset classes due to improving fundamentals, although competition in this space is strong and valuations are relatively rich. The value added style appears particularly attractive currently given the strong demand for purchasing stabilized assets.

- Despite the sharp decline in oil prices and dampened global inflation expectations we believe commodities can still play their role of portfolio diversification and protection against unanticipated inflation. We recommend clients maintain their strategic allocation to commodities, preferably through active management strategies.
- It is important to distinguish between strategic allocations and intermediate term valuation differentials. This report is written primarily with an intermediate term (3-5 year) view and is intended to help guide potential tilts to strategic target allocations and to guide new capital deployment, rather than to override long term portfolio planning.

Why include real assets in a portfolio?

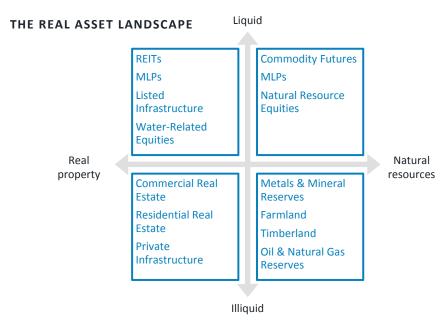
Why do we include real assets in institutional portfolios?

- Inflation protection
- Diversification
- Income generation
- Total return
- Reduction of equity sensitivity

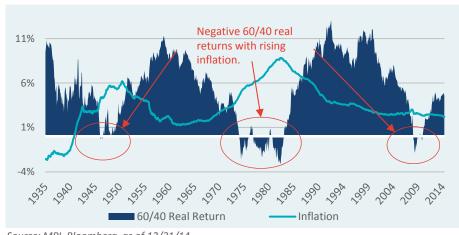
Adding real assets to a strategic asset allocation has historically improved returns while providing diversification benefits and reducing drawdowns in down markets.

A basic 60/40 portfolio including only stocks and bonds would have experienced periods of negative 10-year real returns during high inflationary periods.

Real assets are intended to serve as a guard against <u>unexpected</u> inflation. Because it is difficult to predict <u>when</u> inflation will rise, investors should continue to hold real assets during low inflationary periods.



INFLATION VS 60/40 REAL RETURNS (10 YR ROLLING)



Source: MPI, Bloomberg, as of 12/31/14



Why include real assets in a portfolio?

- Most institutional portfolios include total allocations to real assets (including real estate) in the 10-20% range. Real estate tends to be the largest component of real assets.
- The matrix on the bottom right illustrates that real estate, commodities and TIPS have been sensitive to inflation (CPI). Correlations will vary over time however, which is why a diversified basket of real assets is recommended.
- The correlation of real assets to a 60/40 portfolio is typically low, which provides diversification value.
- There is a definite trade-off for diversification and liquidity however, as publicly traded real assets tend to be more highly correlated (e.g. correlation of REITs to the S&P 500 is 0.77 while the correlation of private real estate to the S&P 500 is 0.26).

ROLLING 3-YEAR CORRELATIONS

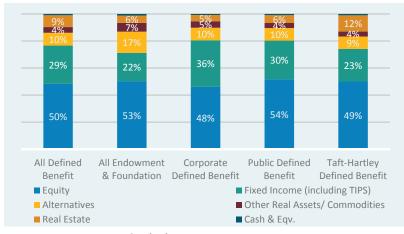


Source: MPI, as of 12/31/14



Source: MPI, Bloomberg, 10-year correlations as of 09/30/14

MEDIAN ASSET ALLOCATION



Source: InvestorForce, as of 03/31/14



The role of real assets

	Strategy	GDP sensitivity	Inflation sensitivity	Income orientation	Return enhancing	Risk reducing	Liquidity
80	Private real estate core						
al asset	Private real estate value added						
ded rea	Private real estate opportunistic						
Privately-traded real assets	Unlisted core infrastructure						
Priva	Timber						
	Farmland / agriculture						
	TIPS						
ssets	Commodity futures						
real a	REITs						
aded	MLPs						
:ly-tra	Listed infrastructure						
Publicly-traded real assets	Natural resources equity						
	Water equity						

Note: the summary above was determined using historical averages and correlations on a relative basis within each category,. It is important to note that investments within these asset classes are often heterogeneous and may possess different qualities and sensitivities (see Appendix for further details).

NA	Low/None	Moderate	High
Magnitude			



Outlook summary

Strategy	Current environment	Potential risks	Intermediate outlook
Private real estate	 Five years of strong double-digit returns. Economic tailwinds of increased job growth supporting lower vacancies and increased NOI growth for all property types. Capital has flowed to the asset class as investors seek stable income assets. This cycle has been marked by a low amount of new supply coming on to the market in most property types allowing for a potentially longer recovery. 	 The economy and GDP growth are the dominant drivers of real estate., so real estate exposure may allow the investor to benefit from economic progress. A slowdown is the largest risk factor. Rising interest rates could pose a headwind to cap rates, although current spreads to Treasuries remain near historical highs, providing some support. New supply levels remain below historic averages in all property types except multifamily, which has started to move above average levels. 	 Overall, real estate appears favorable relative to other inflation protecting asset classes due to improving fundamentals, although valuations are relatively rich and competition is strong.
REITS	 Like private real estate above, the overall fundamentals remain positive with lower vacancies, strong NOI growth and low new supply. Valuations are fully priced when compared to other equities and fixed income investments. 	 REITs tend to be very sensitive to interest rates and tend to be more volatile and quicker to react to rising rates than private markets. 	 REITs tend to have higher leverage and higher volatility than private real estate. Given current valuation levels, we are slightly favoring private real estate.
Commodities	 Commodities have underperformed significantly in recent years in a low inflationary environment, where expected inflation has often been higher than realized inflation. 	 A diversified basket of commodities is expected to be sensitive to inflation over longer periods of time, likely leading to poorer outcomes in a deflationary environment. Within the subsectors, energy and industrial metals tend to have the highest sensitivity to GDP growth and could be affected by a decrease in global demand. Since many commodities are US dollar denominated, a continued strengthening would be a headwind. 	 We recommend clients maintain their strategic allocation to commodities for diversification and to protect against Neutral unexpected inflation. We are recommending actively managed futures based strategies.
TIPS	 Low interest rates and low inflation have led to a low return environment for TIPS. Returns for the securities have been volatile over the last three years. Inflation expectations have come down globally due to declining oil prices and slowing GDP growth, primarily in Europe and China. U.S. Interest rates continued to fall throughout 2014. 	 Decreasing inflation expectations or declining interest rates due to an additional slowdown in global growth or continued decline in energy prices would be a headwind to TIPS. 	 As a pure bond investment, TIPS are less attractively priced relative to nominal bonds from a pure yield perspective. Relative to real assets, other components offer higher current yields with more direct sensitivity to inflation.
Private Infrastructure	 Strong capital inflows into this asset class are competing across fewer deals. Asset pricing continues to rise along with the average size of all infrastructure transactions, making it more difficult to put new capital to work. Strong US dollar appreciation has been a headwind to global unhedged asset portfolios. 	 There are a large number of structural risks to investing in infrastructure including overall economic conditions, regulatory risks, labor issues, leverage, currency, liquidity, credit markets and interest rates. Increasing capital flows and declining deal volume could continue to result in greater competition for putting new capital to work. 	 We remain neutral to this space given the competitive landscape to access new deals. Current Neutral pricing is putting downward pressure on prospective returns.



Outlook summary

Strategy	Current environment	Potential risks	Intermediate outlook
MLPs	 After six years of strong returns, MLP stocks suffered a 20% correction from their August highs. The correction was spurred by the significant decline in oil prices. As the majority of MLPs are midstream (pipelines, transport, etc.), the pullback may have been more extensive than truly warranted from a long term perspective. Current yields of greater than 6% are attractive and hard to come by in other areas. 	 If energy prices remain low for an extended period, the volumes of flows through pipelines and transport may decrease. Rising interest rates would have a negative impact as the MLP structure is reliant upon financing operations, while distributing the majority of cash flows. Owning MLPs may result in complex tax filing issues and may also generate a small amount of Unrelated Business Taxable Income (UBTI). 	 Given the recent pullback in MLPs relative to the overall equity market, the current environment may be attractive on a timing basis for investors who wish to make a strategic allocation.
Timberland	 Growing institutional demand and increased competition for land use has lifted timberland prices over the last decade. Low global growth has hurt timber prices as the asset tends to be highly correlated to the new housing markets. 	 Any decline of the current slow recovery of the U.S. housing market would be a challenge for timber use, affecting pricing for timberland. Continued slowdowns in Europe and Asia would also decrease demand for timber. 	 Currently viewed as expensive. Not a good near Negative term entry point.
Farmland	— Following several years of strong income and gains in cropland values, 2014 appreciation slowed. USDA forecasts 2015 corn prices to be down 4% from last year after declining 60% from their peak of \$10/bushel. Grain inventories continue to build and barring a weather shock, recovery in grain prices now extends past 2016. The strengthening of the US dollar is also bad news for U.S. farm exports as many orders have been cancelled, citing high U.S. prices.	 Lower energy cost inputs have been a recent benefit to profit margins as fuel costs are a large component of costs. Any increase in energy costs would detract from margins. Continued strengthening of the US dollar would continue to hurt export orders. 	 Currently viewed as expensive and bearish expectations for crop prices in the next year will be a headwind. Not a good near term entry point.
Other Liquid Real Assets	The current low interest rate environment has led investors to seek out income and yield replacements and has been a tailwind to many liquid real asset equity securities. Listed infrastructure, utilities and water related equities have benefitted from this movement and pricing has become relatively expensive. Natural resource equities such as energy and mining stocks have been underperforming recently due to the drop in commodity prices.	 Rising interest rates may reduce dependence on higher yielding equity securities as more income options become available. A continuation of the current commodity bust cycle would have a negative impact on natural resource equities. 	 Long term demographic trends favor these real asset securities as does their current high relative dividends. However, high valuations make this less attractive as an entry point.



Current conditions and outlooks



Real estate performance – recent history

- Real estate is five years into its recovery from the global financial crisis.
- Since the crisis, core real estate has returned between 10-14% annually, while non-core real estate vintage year returns have been between 11-18%.
- Correlation between GDP growth and core real estate returns has historically been very high.
- Some of the best non-core real estate vintage years occur during years of recessions (2001-30 and 2008-09) due to the ability to purchase at attractive valuations and the higher volumes of distressed properties available.

NCREIF RETURNS



Source: NCREIF, as of 12/31/14

VINTAGE YEAR RETURN (%) - NON CORE REAL ESTATE



Source: NCREIF, as of 12/31/14

REAL ESTATE AND THE BUSINESS CYCLE



Source: NCREIF, as of 12/31/14



Real estate fundamentals

- Vacancy rates have been on a steady downward trend for most property types. Multifamily saw an earlier recovery and has
 actually seen a slight uptick in vacancy rates the last two quarters as new construction increases.
- Industrial vacancy had the steepest declines as e-commerce has increased demand for unfilled warehouse space. Office properties have been slower to recover.
- Net operating income (NOI) growth rates continue to be strong, between 5-10% for all property types.
- Multifamily growth rates have trended upward the last couple of quarters, after slowing from their peaks in the early part of the recovery.
- Cap rates have continued to steadily decline, although spreads to Treasuries remain high.

VACANCY BY PROPERTY TYPE



Source: NCREIF, as of 12/31/14

CAP RATE SPREADS



Source: NCREIF, as of 12/31/14

4-QTR ROLLING NOI GROWTH (%) BY PROPERTY TYPE



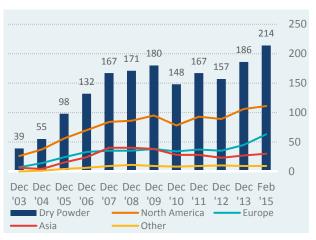
Source: NCREIF, as of 12/31/14



Real estate fundraising

- Dry powder (capital that has been raised, but not deployed) among real estate funds continues to rise as global investors seek out high quality income and total return.
- North America has attracted the most total capital, but dry powder in Europe has grown at a faster pace over the last two
 years.
- Core open-ended funds in the U.S. are also sitting on a large pool of capital, currently estimated at over \$10 billion.
- Over the last two years, the number of closed-end funds have declined, but the total assets raised per year has risen, bringing the average fund size to over \$500 million.

CLOSED-END PRIVATE REAL ESTATE DRY POWDER (\$BN)



GLOBAL REIT EQUITY ISSUANCE (\$MM)



Source: UBS, Cohen & Steers

CLOSED-END PRIVATE REAL ESTATE DRY POWDER



Source: Prequin

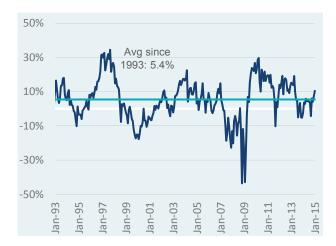


Source: Prequin

REITs

- Overall, REITs appear to be fairly valued, showing valuation metrics that are close to average levels relative to stocks and bonds.
- Relative to equities, REITs may appear slightly expensive on a share price premium to NAV basis, as well as a higher than historical average P/E premium relative to the S&P 500.
- However, REIT yield spreads relative to corporate bonds are slightly higher than the historical average.

SHARE PRICE PREMIUM TO NAV



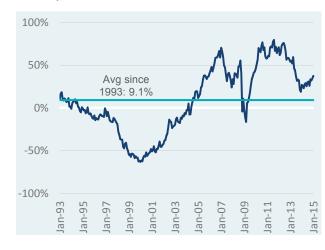
Source: Greenstreet, as of 01/31/15

REIT AFFO YIELD SPREAD TO CORPORATE BONDS



Source: Greenstreet, as of 01/31/15

REIT P/E PREMIUM TO THE S&P 500



Source: Greenstreet, as of 01/31/15



Real estate summary

Strategy	Current environment	Potential risks	Intermediate outlook	
Core	 Capital flows have driven cap rates lower from a year ago. Income is low relative to history, but still high relative to other income sources. Prices seem stretched in top markets, but so far the additional growth in those markets has offset high prices. 	 Improving fundamentals are providing a tailwind to core real estate. Vacancies are declining, NOI is rising, new construction remains low. Rising interest rates could hurt property prices and push cap rates higher. 	 Primary markets have attracted the most capital as investors flock to perceived high quality. Active managers ability to choose the best locations in fast growing markets will be key. 	Neutral
Value Added	 The amount of dry powder on the sidelines for non-core real estate has exceeded pre-crisis levels, creating large amounts of competition for deal flow, putting pressure on entry points. 	 Steady economic growth, reducing the risks to non-core properties must be weighed against the negative implications of potentially rising interest rates. Compared to the last real estate cycle, use of leverage appears less, mitigating risks to ownership of owning non-core assets. 	 With large amounts of capital on the sidelines supporting high quality stable assets, an opportunity still exists to "create core" through renovation, repositioning and releasing strategies. Favorable strategies are those that will look to execute quickly. The ability to source deals off-market or with limited marketing will be key to avoid competitive bidding wars. 	Positive
Opportunistic	 The amount of dry powder on the sidelines for non-core real estate has exceeded pre-crisis levels, creating large amounts of competition for deal flow, putting pressure on entry points. 	 Steady economic growth, reducing the risks to non-core properties must be weighed against the negative implications of potentially rising interest rates. Compared to the last real estate cycle, use of leverage appears less, mitigating risks to ownership of owning non-core assets. 	 The recovery in real estate has reduced much of the broad based distress in the system, creating fewer opportunities for opportunistic or distressed buyers to simply buy cheap. Selective opportunities still exist as refinancings from the height of the CMBS market seek out new capital. Longer time frames to execute complex distressed assets, development or turnaround opportunities adds to the uncertainty. 	Neutral
REITs	 REITs appear to be pretty fairly valued. Slightly expensive relative to equities on a share price premium to NAV basis and P/E premium to the S&P 500. Slightly inexpensive relative to corporate bonds on a spread basis. 	 Returns have benefitted from cheap access to equity and debt capital. Highly volatile asset class that is very sensitive to interest rates, and discounting economic expectations. 	 Active management in the REIT space has historically added value over the long run on a risk-adjusted basis. 	Neutral



Commodities

- Commodity indices have been on a downward trend over the past three years. Inflation expectations have been lower than anticipated globally due in large part to a decrease in demand in Europe and China, as well as increased capacity around the world. Most recently, a significant drop in energy prices has added deflationary pressure.
- The first half of 2014 was characterized by supply disruptions for many key commodities. Unusually cold weather in 1Q 2014 led to the depletion of natural gas inventories in the U.S., while a drought in Brazil led to limited coffee, soybean and sugar supply. Geopolitical instability in the Middle East and Russia/Ukraine led to disruptions in crude oil and wheat as Ukraine is one of the largest exporters. In the 2nd half of 2014, supply surpluses became the predominant theme, especially in the energy sector.
- Relative strength in the U.S. economy has led the US dollar to strengthen, weighing on commodity returns as many commodities are US dollar denominated.
- Commodities can provide diversification versus stocks and bonds and can also provide inflation protection. Commodity indices are relatively inefficient, suggesting an active approach to this asset class is generally most appropriate.

CUMULATIVE PERFORMANCE – COMMODITIES



Source: MPI, as of 03/31/15



Commodities – energy

Oil prices have fallen off sharply since June 2014 due to a combination of supply and demand factors.

Persistently low oil prices may:

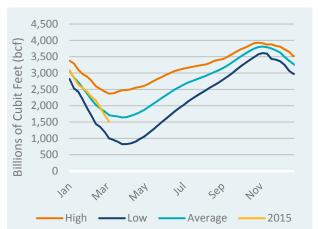
- Prove to be a catalyst for the growth of major oil importing countries.
- Allow central banks to expand balance sheets and continue to pursue accommodative policies.
- Increase geopolitical risks as oil exporting countries are negatively affected.
- Cause changes in oil production behaviors as unprofitable wells are taken offline.

OIL PRICES - WTI AND BRENT



Source: Bloomberg, as of 03/31/15

NATURAL GAS INVENTORIES



Source: U.S. Energy Information Administration. Inventories shown are all crude oil stocks within the US excluding Strategic Petroleum Reserves. High, low and averages are from 1982 – current through 3/11/15.

US CRUDE OIL INVENTORIES

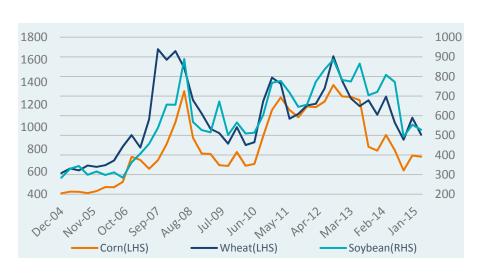


Source: U.S. Energy Information Administration. Inventories shown are all crude oil stocks within the US excluding Strategic Petroleum Reserves. High, low and averages are from 1982 – current through 3/11/15.



Commodities – agriculture and metals

- Agriculture prices have experienced significant volatility over the past 10 years. Both in the long term and over the last year a
 number of idiosyncratic issues have created this volatility, but without a strong trend.
- Early in 2014, supply disruptions caused prices to rise. In particular there was geopolitical uncertainty regarding Ukraine's wheat exports and a drought in Brazil which caused the price of coffee, soybeans and sugar to rise. Improving growing conditions in the 2nd quarter and 3rd quarter generally improved crop forecasts, bringing prices down. In the 4th quarter some delayed harvests, railway transportation issues and planting disruptions caused prices to rise again.
- Precious metals have seen relatively poor performance, and this has been exacerbated by the relative strength of the dollar.
- Industrial metals have been hampered lately by weaker than expected Chinese economic data, especially copper, which is the largest component of that sector.



Source: Bloomberg, through 03/26/2015

Precious Metal Returns (Annualized	Precious	Metal	Returns	(Annualized)
------------------------------------	-----------------	-------	---------	-------------	---

Precious Metals	1 Year	3 Year	5 Year
Palladium	9.5%	4.1%	12.6%
Gold	-8.2%	-10.8%	1.6%
Platinum	-18.1%	-11.2%	-5.1%
Silver	-22.1%	-21.8%	0.0%

Industrial Metal Returns (Annualized)

Industrial Metals	1 Year	3 Year	5 Year
Nickel	-4.4%	-9.9%	-7.8%
Aluminum	4.5%	-7.8%	-3.1%
Zinc	-1.1%	-0.7%	-1.2%
Copper	-16.0%	-11.4%	-3.8%

Source: MPI, period ending 02/28/2015



TIPS

- Recent inflation has remained below long term historical averages, primarily due to declining energy costs. U.S. interest rates have also been on the decline with long-term rates leading the way.
- Despite the continued accommodative monetary policy by the Fed and signs of stronger economic growth in the US, inflation remains well below the primary 2% target.
- Institutional investors typically hold TIPS in one of two areas in their portfolios in their fixed income allocation or in their inflation protection / real assets portfolio. Over the intermediate term however, we believe TIPS appear less attractive than other alternatives in both of these areas.
 - When compared to nominal Treasury bonds, we believe TIPS appear to be less attractive due to the current spread between the breakeven rate and inflation. In order for TIPS to outperform nominal bonds, inflation would need to print higher than the current breakeven rate.
- When compared to other real assets, we believe that the probability of higher total returns from other real asset classes make them more attractive.
- Despite these short to intermediate term relative attractiveness differentials, TIPS retain a place in the long term strategic allocation to inflation protecting assets.

U.S. TREASURY BOND RATES



Source: Bloomberg, as of 03/27/15

CURRENT INFLATION VS. FED TARGET



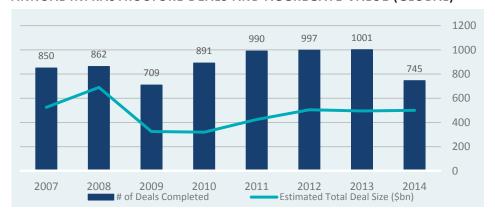
Source: Bloomberg, as of 3/31/15



Infrastructure

- Infrastructure deal activity slowed about 25% in 2014 compared to the prior three years
- Transaction sizes are increasing. The average infrastructure transaction size was estimated to be \$549 million in 2014, up 67% from the \$329 million average in 2010. This is creating a more challenging environment for managers to deploy new capital effectively with meaningful internal diversification.
- Fundraising was slightly down in 2014 with 43 new funds closed, down from 69 funds in 2013. 10 funds were over \$1 billion in size, which accounted for 73% of the capital raised.
- Investor appetite remains strong as those investors that have dedicated infrastructure allocations have continued to raise their target allocations.
- Core infrastructure may play a role as part of investors' real assets portfolios due to its greater sensitivity to inflation. Openended funds offer a good alignment of interests and the ability to gain exposure to the asset class without having to compete for new transactions in a competitive market. Taking a global approach is important as well because the opportunity set is much larger outside the U.S.

ANNUAL INFRASTRUCTURE DEALS AND AGGREGATE VALUE (GLOBAL)



AVERAGE CURRENT AND TARGET ALLOCATIONS



Source: Prequin Source: Prequin



Master limited partnerships

- MLPs have grown dramatically in terms of universe size, as well as institutional acceptance in recent years.
- Although 85% of MLPs are midstream related (pipelines, and transport), they have dramatically underperformed the broader S&P
 500 since October when oil prices began spiking downward.
- After beating the S&P 500 Index in 13 of the last 15 years, the recent pullback in prices may provide an attractive entry point as MLPs are paid on volumes rather than oil prices.
- MLPs are very dependent on credit for operational financing as most of the cash revenues are distributed as dividends, which are currently around 5.2%. As such, rising interest rates or a tightening credit market typically have a negative impact on MLPs.
- High administrative costs and complex tax burdens typically make it less cost-effective to own separate accounts with allocations less than \$10 million, while many commingled options or mutual funds do not get the full tax efficiency benefits. Therefore, MLPs are most appropriate for larger institutions.

MLPS VS. S&P 500



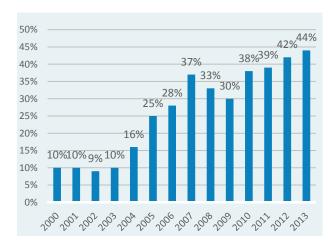
Source: Bloomberg, as of 03/9/15

ENERGY MLP UNIVERSE



Source: Credit Suisse, Wells Fargo

MLP INSTITUTIONAL OWNERSHIP



Source: Morgan Stanley, Westwood



Timberland

- Long term fundamentals remain favorable as global demand for timber products is projected to increase with population growth and an
 increasing middle class in emerging markets. New supply is expected to be constricted due to competing land use, government restrictions,
 conservation and curbing illegal harvests.
- Timber returns have historically been very highly correlated to both inflation and the housing market. Over the near term, the recovery of the
 U.S. housing market should be a tailwind, although slow growth in Europe, Asia and some emerging markets may offset some of this.
- The global investible universe of private timberlands is \$160bn. Of this, \$40bn is held by institutional investors, \$32bn is held by public timber
 REITS and the remainder is held by private owners and corporations.
- Institutional investors typically invest directly in Timber Investment Management Organizations (TIMOs) rather than liquid public REITs, which
 are limited in number and have operational / equity market risks. Direct private funds are illiquid and need to build diversified programs over
 time. Typically only very large institutional plans have or should have dedicated timber allocations.

5-YEAR TIMBERLAND RETURN VS. INFLATION ('87-CURRENT)

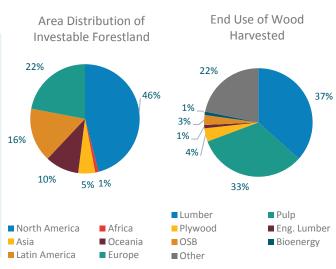


Source: Bloomberg, as of 12/31/14

AVERAGE RATES OF RETURN AND HOUSING ACTIVITY IN DIFFERENT INFLATIONARY PERIODS



Source: Credit Suisse, Wells Fargo



Source: Timberland Investment Resources, as of 12/31/12

Farmland

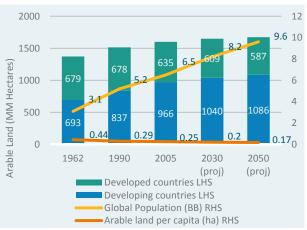
- Historical returns to farmland have been relatively high over the past two decades (12.7%) and particularly over the past decade (16.7%) as farmland has gained popularity among institutional investors.
- The institutional market for farmland assets is small relative to other real assets. Of the total \$8 trillion market, less than 1% is institutionally-owned.
- Over the long term, positive demographic trends in developing economies, such as increasing populations and greater meat-based diets, have increased demand for farmland and agriculture. At the same time, the world's supply of arable and high quality farmland is relatively fixed.
- Technological improvements that increase productivity per land unit have begun to level off.
- Although appreciation in farmland pricing slowed in 2014, cropland rent income projections are expected to decline in 2015, barring a weather shock.
- Institutional allocations are typically long-term closed-end illiquid vehicles. Given the rich current valuations, we do not believe now is a good entry point for this niche asset class.

5-YEAR FARMLAND RETURN VS. INFLATION ('93-CURRENT)



Source: Bloomberg, as of 12/31/14

TOTAL GLOBAL ARABLE LAND (PROJECTED) AND PER CAPITA USE



Source: Food & Agriculture Organization (FAO), US Census Bureau

Cumulative Returns

	1 year	3 year	5 year	7 year	10 year	15 year	20 year
NCREIF Farmland	12.6	17.3	15.1	13.9	16.7	14.1	12.7

Annual Returns

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014

NCREIF Farmland	33.9	21.2	15.9	15.8	6.3	8.8	15.2	18.6	20.9	12.6
	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
NCREIF Farmland	9.6	9.8	8.8	7.2	6.9	7.0	2.0	6.9	9.7	20.5

Source: MPI, as of 12/31/14



Other listed real assets

- Other listed real asset categories include listed infrastructure, water related equities and natural resource equities as they provide exposure to hard, tangible assets. Since these companies are publicly traded, they do contain equity market risk factors and high volatility, but can also provide return enhancement and some downside protection.
- Over the long term, all three of these sectors have outperformed the MSCI World Index, with infrastructure and water equities exhibiting dramatic outperformance. Natural resource equities had strong outperformance prior to the last four years, when commodity price declines have led to significant underperformance.
- Most institutional plans already get some exposure to these securities through their global equity programs. For most investors there is a limited case for specialist allocations to these sub-categories.

36 MONTH ROLLING ANNUALIZED EXCESS RETURN (VS. MSCI ACWI INDEX)



Source: MPI, as of 03/31/15

Cumulative Returns

	1 year	3 year	5 year	7 year	10 year
S&P Global Water	0.6	13.9	13.0	6.2	10.4
DJB Global Infrastructure	11.4	14.0	16.1	9.8	11.8
S&P Global Natural Resources	-5.2	-2.9	0.8	-2.5	5.2
MSCI World Index	7.9	13.3	11.7	5.1	6.3

Cumulative Excess Returns (vs. MSCI World Index)

	1 year	3 year	5 year	7 year	10 year	
S&P Global Water	-7.3	0.6	1.3	1.1	4.1	
DJB Global Infrastructure	3.5	0.7	4.4	4.7	5.5	
S&P Global Natural Resources	-13.1	-16.2	-10.9	-7.6	-1.1	

Source: MPI, as of 02/28/15



Appendix



Sensitivity analysis

Strategy	GDP sensitivity	Correlation to GDP	Inflation sensitivity	Correlation to CPI	Income orientation	Return enhancing	Risk reducing	Correlation to 60/40	Liquidity
Private real estate core	High - Demand for real estate is highly correlated to growth. Especially office, industrial and retail demand.	0.87	High - There is a pass thru component in rents to increased costs. Timeframe varies as hotels can be changed daily, multifamily have yearly leases, office have 3-5 year leases and industrial have leases that are sometimes 10+ years.	0.61	High - A large percentage of the total return in core real estate comes from income, historically around 6-8%. Current cap rates are around 5%.	Medium - 8% average historically	Medium	0.24	Medium - Typically quarterly liquidity, although less liquid in times of distress
Private real estate value added	High - No return stream specific correlations, but similar to core real estate, given the exit is typically into that market.		Low - Operation and execution typically have greater influence on the returns than increased income pass-thru due to higher input costs.	-	Medium - Typically value-add real estate has a higher amount of total return from appreciation and less from core income component as properties are less stabilized.	High - Targeting 11-14% returns	Low - High beta strategy, high returns, higher risk	-	Low - Typically 7-10 year closed-end funds. Some open end funds exist, but still limited liquidity
Private real estate opportunistic	High - No return stream specific correlations, but similar to core real estate, given the exit is typically into that market.		Low - Operation and execution typically have greater influence on the returns than increased income pass-thru due to higher input costs.	-	Low - Opportunistic real estate may include some non-income producing properties such as land or development or bankruptcy/foreclosure assets with little or no income.	High - Targeting 15%+ returns	Low - High beta strategy, high returns, higher risk	-	Low - Typically 7-10 year closed-end funds
Unlisted core infrastructure	Low - Privately traded core infrastructure is typically a regulated asset that is needs based.	-	High - Regulated or contracted rates typically have inflation kickers included to be able to raise rates at a set rate plus inflation.	-	High - Over half of the returns from this asset class come from income.	Medium - Targeting 8-11% returns	Medium	-	Low - Typically 10-15 year closed-end funds. A few open end funds exist, but most of lock-up provisions
Timber	Medium - Very long term asset, however demand in construction/housing has a large impact on exit prices.	0.28	Medium - Timber prices move up and down with demand as an input cost into housing.	0.30	Medium - Income yields typically between 1-4%. Currently around 3%.	Medium - 15 year returns have exceeded 7%	High - Very low correlation to 60/40, protected well in the global financial crisis	-0.1	Low - Typically 7-10 year closed-end funds
Farmland / agriculture	Medium - Demand for food & agriculture steady, not heavily dependent on GDP.	0.14	Low - Low correlation of 0.16	0.16	$\label{eq:high-locome} \textbf{High} \text{ - Income has provided up to 50\% of farmland} \\ \text{returns.}$	High - 15 year returns have exceeded 14%	High - Very low correlation to 60/40, protected well in the global financial crisis	0.09	Low - Typically 7-10 year closed-end funds
TIPS	Low - Securities tied to inflation and interest rates, uncorrelated to GDP.	0.02	Medium - Yields are tied to inflation, however interest rate movements affect the direct correlation.	0.31	Low - Typically low yields, but tied to inflation and interest rates.	Low - Overall returns are low, but spike in higher inflationary periods.	High – Very low correlation to 60/40	-0.09	High - Publically traded, daily valued
Commodity futures	Medium - Correlations exist within some commodity sectors such as energy and industrial metals that possess higher sensitivity to growth.	0.27	High	0.39	Low - Rolling futures contracts, not income oriented.	Low - Overall returns are low, but spike in higher inflationary periods	Medium	0.47	High - Liquid commingled funds (monthly liquidity) or daily mutual funds available
REITs	Medium - Growth leads to increased demand for office, industrial and retail.	0.14	Low - Low correlation of 0.21. Equity market sensitivity tends to dampen the direct correlation.	0.21	Medium - Dividend yields typically 3-5%.	High - 15 year returns have exceeded 12%	Low - Tend to have much higher correlation to equities	0.79	High - Publically traded, daily valued
MLPs	Low - Most MLPs are midstream transmission assets that have long term contracts in place which are typically paid whether asset is used or not during shorter time periods.	-0.03	Low - Correlations have been slightly negative to CPI.	-0.05	High - Typically MLP yields are in the 5-7% range. Current yields are over 5%.	High - 15 year returns have exceeded 17%	Medium - MLPs offered good downside protection in the tech bubble. Not as much in 2008, but that was credit driven	0.69	High - Publically traded, daily valued
Listed infrastructure	Medium - Infrastructure assets are more necessity driven (pipelines, energy transmission, water treatment & sewage, etc.) Demand remains fairly consistent.	0.21	Low - Low correlation of 0.19. Equity market sensitivity tends to dampen the direct correlation.	0.19	Medium - Dividend yields typically 3-4%	High - 10 year returns have exceeded 14%	Low - Tend to have much higher correlation to equities	0.88	High - Publically traded, daily valued
Natural resources equity	Medium	0.27	Medium - Exposure to metals and mining companies raises correlations, but equity market sensitivity also dampens it.	0.27	Low - Dividend yields typically 1-2%	High - 10 year returns have exceeded 12%	Low - Tend to have much higher correlation to equities	0.69	High - Publically traded, daily valued
Water equity	Medium - Necessity driven assets (irrigation, water treatment, sewage, etc.)	0.20	Low - Low correlation of 0.15. Equity market sensitivity tends to dampen the direct correlation.	0.15	Medium - Dividend yields typically 2-3%	High - 10 year returns have been 10-14%, depending on index	Low - Tend to have much higher correlation to equities	0.88	High - Publically traded, daily valued



Glossary of terms

Adjusted Funds From Operations (AFFO): A measurement which is helpful in analyzing real estate investment trusts (REITs). The AFFO typically equals the trust's funds from operations (FFO) but is adjusted for ongoing capital expenditures which are necessary for upkeep of the REIT's assets.

Capitalization Rates: The rate of return of a real estate investment, which is calculated by dividing the property's net operating income by the property's purchase price.

Core Real Estate: This category of real estate will include a preponderance of stabilized properties. Core real estate should achieve relatively high income returns and exhibit relatively low volatility. Core real estate funds tend to use less leverage.

Consumer Price Index (CPI): A measure of purchasing power and inflation that takes the average prices of a basket of consumer goods and services, such as food, medical care, and transportation, and compares the same basket of goods in terms of prices to the same period in a previous year. Changes in CPI are used to assess price changes associated with the cost of living.

Dry Powder: Investment reserves raised by investment funds to cover future obligations or to purchase assets in the future.

GDP: The total value of all services and goods produced within a country's borders, for a given time period. This calculation includes both private and public consumption, government expenditures, investments, along with total exports net of total imports.

Internal Rate of Return (IRR): the IRR is the discount rate that equates the present value of cash outflows (investment) with the present value of cash inflows (return of capital). IRR is often referred to as a dollar-weighted rate of return that accounts for the timing of cash inflows and outflows.

Master Limited Partnerships (MLPs): A limited partnership structure which is publicly traded on an exchange. MLPs combine the tax benefits of a limited partnership with the liquidity of publicly traded securities. To qualify as an MLP, the entity must generate 90% of its income from the production, processing and transportation of oil, natural gas and coal.

Net Operating Income (NOI): A calculation which is used to analyze real estate investments that generate income. NOI is the property's annual income generated by operations after deducting all expenses incurred from those operations. The growth rate in NOI is a common metric used in determining the health of a property.

Opportunistic Real Estate: An opportunistic fund is one that includes preponderantly non-core assets. The fund as a whole is expected to derive most of its return from property appreciation which may result in significantly volatile returns. These funds may employ a variety of tools such as development, significant leasing risk and potentially high leverage.

Real Estate Investment Trusts (REITs): A REIT is a company that owns and operates commercial real estate properties. REITs can be publicly traded or privately held. There are two main type of REITs: Equity REITs which generate income from the operation of properties, and Mortgage REITs, which invest in mortgages or mortgage securities.

Timber Investment Management Organizations (TIMOs): A management group that invests in timberland assets for institutional investors. TIMOs will purchase, manage and sell various timberland properties on behalf of investors.

Treasury Inflation Protected Securities (TIPS): A treasury bond that is adjusted to eliminate the effects of inflation on interest and principal payments, as measured by the Consumer Price Index (CPI). TIPS are issued in terms of five, ten and twenty years and are auctioned twice per year.

Value-Added Real Estate: A value-added real estate fund often holds a combination of core assets and other assets characterized by less dependable cash flows. These strategies are likely to have moderate lease exposure and employ moderate leverage. Consequentially, these strategies seek significant returns from property appreciation and typically exhibit moderate volatility.

Vacancy Rates: The vacancy rate is calculated as the total number of unoccupied units of a property divided by the total units of the property, at a particular point in time.

Vintage Year: Represents the year the first capital call or portfolio company investment was made.

