# Quarterly Asset Class Report Real Assets

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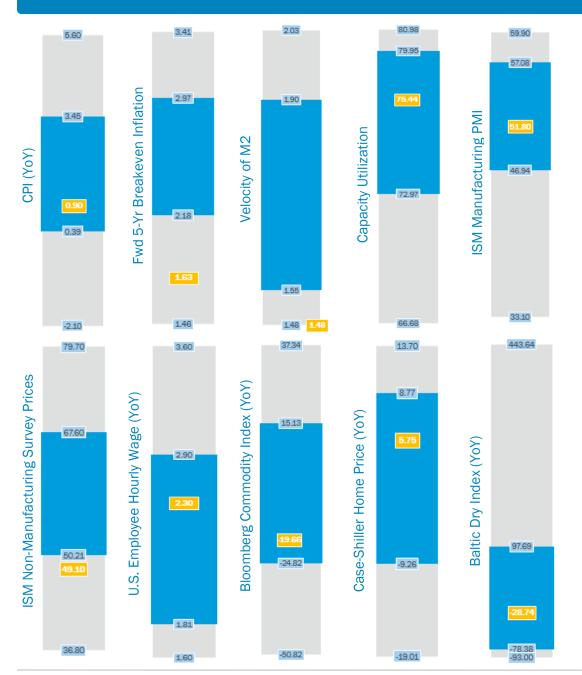
Role in the Portfolio Real Assets

Canterbury Consulting recommends and communicates asset-class strategy with the objective of constructing a diversified portfolio of real asset strategies designed to (in aggregate):

- (i) Preserve purchasing power
- (ii) Generate uncorrelated returns to other asset classes
- (iii) Provide high risk-adjusted returns within the constraints of (i) and (ii)

Role	Asset Categories	Risks
Growth	Public and Private Equity	Market Decline
Capital Preservation	Fixed Income, Hedge Funds	Rising Interest Rates, Highly Correlated Markets
Inflation Protection	Real Assets: Real Estate, Commodities	Deflation

- Real assets are appropriate for investors with long time horizons (10+ years) and inflation linked liabilities
- Canterbury's real asset portfolios are expected to deliver net of fees returns in excess of the diversified benchmark over full market cycles. The benchmark is equally weighted to TIPS, commodities, and commodity stocks:
  - 33% Barclays U.S. TIPS 1-5 Yr/ 33% Bloomberg Commodity / 17% S&P North American Natural Resources / 17% Alerian MLP



#### Current

#### +- 1 Standard Deviation From the Mean

#### 10-Year High and Low

- Canterbury monitors several inflation and real asset indicators to help detect imbalances that are expected to cause price pressures
- These indicators remained relatively constant, however, significant volatility led to wide fluctuations during the quarter
- The forward five-year breakeven inflation rate, calculated as the difference between yields in TIPs and Treasuries, remained low, however, the rate varied throughout the quarter as U.S. recessionary concerns came and went
- The ISM manufacturing pricing index trended above '50' this quarter, signaling a lack of contraction. However, given subdued U.S. growth projections, higher manufacturing production and the subsequent exports will be important to monitor
- Commodity-related securities declined in the first half of the quarter, however the space rebounded significantly in the second half





Farmland, Timberland, and REITs are screened from inclusion in Real Asset portfolios because they don't exhibit a sensitivity to inflation of greater than zero





Infrastructure Equities are screened from Real Asset portfolios because they have a correlation of greater than 0.8 to equities

Risk-adjusted returns of the remaining asset classes are used to help optimize Real Asset portfolios

Based on 10-yr rolling data since inception: REITs (1972), Commodities (1991), NR Equities (1996), MLPs (1996), Infra. Equities (2002), Private RE (1978), Farmland (1992), Timber (1987), & TIPS (1997)



## **Screening Process**

Diversifier

Risk-Adjusted
Returns

Asset
Mix

### **Asset Mixes**

Mixes	Sensitivity	Reliability	Correlation to Stocks	Correlation to Bonds	Sharpe Ratio
Previous Mix	1.66	0.55	0.55	0.09	0.34
Liquid Direct	1.59	0.60	0.49	0.16	0.49
Diversified Direct	1.20	0.60	0.46	0.12	0.70
Morningstar U.S. Real Asset Index	0.58	0.66	0.49	0.34	0.89
CPI	1.00	N/A	0.04	-0.14	-0.11

Based on monthly data from 3/1/1997 to 9/30/2015. The composition for each mix is shown on the following page.

 Canterbury utilizes a screening process to narrow down the asset classes for inclusion in real asset portfolios based on pre-specified roles:

#### Inflation Hedge:

High Reliability (>50%) and Sensitivity (>0) to Inflation

#### Diversifier:

Low Correlation (<0.8) to Stocks and Bonds

#### Risk-Adjusted Returns:

Sharpe Ratio is considered when optimizing the allocations to remaining asset classes

 These roles are used to help build portfolios of real assets that exhibit a high degree of sensitivity (>1) and reliability (>60%) to inflation, low correlation to stocks & bonds (<0.6), and generate competitive riskadjusted returns (>0.5)

#### **Previous Recommendation**

Previous Mix	Managers	Exposures
Commodities	40.0%	29.0%
TIPS	40.070	29.0%
Natural Resource Equities	60.0%	42.0%

#### **New Recommendations**

Liquid Direct	Managers	Exposures
Commodities	50.0%	33.0%
TIPS		33.0%
MLPs	25.0%	17.0%
Natural Resource Equities	25.0%	17.0%

Portfolio Ranges	5-10%
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Diversified Direct*	Managers	Exposures
Commodities	33.0%	25.0%
TIPS	33.07	25.0%
MLPs	17.0%	12.5%
Natural Resource Equities	17.0%	12.5%
Private Real Estate*	33.0%	25.0%

Portfolio Ranges	5-15%

Multi-Asset	Managers	Exposures
Dynamic Multi-Asset Mix	100.0%	100.0%

Portfolio Ranges 5-10%		
	Portfolio Ranges	5-10%

\*Private Real Asset allocations will vary by client appetite and output from private capital pacing models

- Utilizing the framework laid out in this document, we can develop a diversified mix of exposures to the real asset universe
- Investors with smaller real asset portfolios, or those who are unable or unwilling to take on illiquidity, can still gain diversified access to real assets by investing in a dynamic multi-asset manager mix
- A portfolio's allocation to real assets will fall within a range and be determined by expectations for inflation and underlying assets

