

REAL RETURN STRATEGIES

Using ETFs

By Scott Chambers, Ph.D. Professor of Finance, Linfield College and
Brian Lawrence, CFA, Principal, Headwater Investment Consulting

Over the past several years, economists and investment professionals have become increasingly concerned about the possibility of a resurgence of inflation. This concern has been accentuated by the recent round of Fed rate cuts and its unprecedented provision of liquidity into the monetary system. The recent slide in the dollar heightens concerns of import-led inflationary pressure.

The aim of any portfolio is the long-term creation of increased purchasing power. Inflation puts this objective at risk. Periods of increasing or high inflation have historically been associated with low or even negative returns for stocks and bonds. For example, during the inflationary environment 1973-1983, the S&P 500 had an overall negative real or inflation adjusted return for the period. That is, an investment in the index for that entire period was worth less, after adjusting for purchasing power, than before the period. Similarly, an investment in long-term government bonds over this same period also created a real return loss.

Large university endowments which are invariably at the forefront of new

trends, have devoted increasing portions of their funds to such hard assets as real estate, natural resources, and commodities, all of which typically do well during periods of rising inflation. Plan sponsors and other types of investors are, more and more, looking to add such “inflation protecting” type assets to their portfolios. An easy and cost-effective method for adding a real return component to a portfolio is through the use of exchange traded funds (ETFs). In recent years, many new ETFs have been introduced which can be utilized to help protect portfolio value from an extended period of increasing inflation.

TIPS-BASED PRODUCTS

Treasury Inflation Protected Securities (TIPS), bonds first issued by the U.S. Treasury in 1997, represent the most direct hedge against inflation, and thus the most reliable guarantor of real return. The key feature of TIPS is their semi-annual inflation adjustment. Bond principal is adjusted based on changes to the Consumer Price Index (CPI). It should be noted, while TIPS payments rise with inflation, they can

fall when we experience deflation. Fortunately, interest payments cannot fall below zero, and investors are guaranteed, upon maturity, the greater of the bond’s face value or inflation adjusted value.

Two indexes (Lehman & Barclays Capital TIPS) have been constructed to follow the TIPS market. They share many common characteristics.

- Constituents are U.S. Treasury issued inflation linked securities.
- Securities must be denominated in U.S. dollars and have fixed rates.
- Index constituents are updated on the last business day of each month and remain static throughout the month.
- Eligible securities must have at least one year remaining to maturity.

Concurrently, two TIPS ETFs are available — iShares Lehman TIPS Bond Fund (TIP) and SPDR Barclays TIPS (IPE).

The TIPS market is very straightforward compared to most asset categories and the return potential is somewhat

Name	Symbol	Inception	AUM	Expense Ratio	Yield 30-Day	12-Month	# of Holdings	Portfolio Turnover
iShares Lehman TIPS Bond	TIP	12/4/03	\$4.6b	0.20%	2.27%	3.74%	24	17%
SPDR Barclays Capital TIPS	IPE	5/25/07	\$9.8m	0.18%	-	-	24	0

TABLE 1

Name	Symbol	Inception	AUM	Expense Ratio	Yield 30-Day	12-Month	# of Holdings	Portfolio Turnover
DJ Wilshire REIT ETF	RWR	4/23/01	\$1.3b	0.25%	30.6%	3.76%	82	16%
First Trust S&P REIT Index	FRI	5/8/07	\$1.9m	0.50%	28.2%	—	100	—
Vanguard REIT ETF	VNQ	9/23/04	\$1.8b	0.12%	31.1%	3.92%	104	21%

TABLE 2

limited. Since their introduction, the real return component imbedded in these bonds has averaged around 2%.

REAL ESTATE PRODUCTS

Real estate does not provide an absolute link to inflation like the TIPS category; however, it is also recognized as an asset that is highly correlated to inflation. As leases roll over during inflationary periods, landlords can raise rents. Additionally, land values tend to rise with general price levels.

The market has developed such that investors have access to both domestic and foreign real estate through ETFs that invest in Real Estate Investment Trusts (REITs).

DOMESTIC REAL ESTATE

Each of the funds in Table 2 buys a broad swath of the REIT market. The primary difference is that DJ Wilshire screens out certain REITs, such as healthcare and mortgage REITs. Therefore, the DJ Wilshire ETF owns fewer securities than the other funds listed in Table 2.

INTERNATIONAL REAL ESTATE

International real estate as an asset class is an intriguing investment because of its developing nature and potential diversification benefits. More countries around the world, such as Germany and Italy, are passing laws or rewriting current regulations that will allow companies to adopt a REIT structure. In addition, an extended period of relative stability and declining borrowing costs has created a more favorable environment for real estate investment in emerging markets. Finally, economic growth is creating demand for housing, office space and retail space. More REITs are coming to market, deepening and broadening the population of international real estate investment choices.

A low relative correlation to most other investments creates the potential for diversification benefits. The degree of correlation depends on the data set examined; the quality of the data could be questioned due to the current evolution of the asset class and a possible lack of REITs that existed over previous time periods. Thus, it is difficult to put a tremendous amount of faith in correlations derived from thin data. It has also been noted that gathering data on

individual properties globally is a difficult task.

Nonetheless, the 1999 Yale study “Global Real Estate Markets: Cycles and Fundamentals” (Case, Goetzman, Rouwenhorst) found average cross-country return correlations in the range of .33 to .44. Though the Yale study concludes global GDP drives long-term performance, the correlation seems low enough to indicate there is significant diversification benefit in real estate markets across countries. Local factors, as well as divergent country and regional cycles obviously influence returns; a prime example of this is Japan.

International real estate exhibited a low or negative correlation to all assets except U.S. stocks (.61) and international stocks (.99). Given our previously stated concerns about thin historical data and the difficulty of gathering individual property values, the correlation must be viewed with caution. Below (Table 3) is a summary of correlations incorporating DJ Wilshire International Real Estate Index data.

There are three indexes which track international real estate investments.

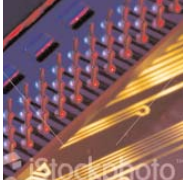
- **DJ Wilshire Global REIT, ex-U.S.**—A float-adjusted market capitalization weighted index focused on publicly traded real estate securities outside of the U.S.
- **FTSE EPRA/NAREIT Global Real Estate Index Series**—The index members are free-float adjusted as well as liquidity, size and revenue screened. The index is designed to track the performance of listed real estate companies and REITs worldwide.

	U.S. Stocks	Int'l Stocks	U.S. Bonds	Int'l Bonds	U.S. R.E.	Int'l R.E.
U.S. Stocks	1.00	0.66	0.01	0.01	0.10	0.61
Int'l Stocks	0.66	1.00	-0.37	0.22	0.10	0.99
U.S. Bonds	0.01	-0.37	1.00	0.25	-0.05	-0.45
Int'l Bonds	0.01	0.22	0.25	1.00	-0.05	0.19
U.S. R.E.	0.10	0.10	-0.05	-0.05	1.00	0.09
Int'l R.E.	0.61	0.99	-0.45	0.19	0.09	1.00

TABLE 3 1992-2006; data provided by Dow Jones
 Green = r greater than .40
 Blue = r greater than 0 and less than .40
 Red = r less than 0

Name	Symbol	Inception	AUM	Expense Ratio	Multiple	Dividend Yield	# of Holdings
SPDR DJ Wilshire Int'l Real Estate	RWX	12/19/06	\$1.1b	0.60%	6.9	3.53%	153
First Trust FTSE Global Real Estate	FFR	8/30/07	\$5.3m	0.60%	—	—	—
Wisdom Tree Int'l Real Estate	DRW	6/5/07	\$52.8m	0.58%	7.3	—	206

TABLE 4



Ticker (data as of...)	RWX (03/31/07)	FFR (05/31/07)	DRW (09/30/07)
United States	—	38.7%	—
Japan	20.0%	13.6%	10.5%
Australia	18.7%	11.5%	35.6%
United Kingdom	18.3%	9.5%	6.5%
Hong Kong	6.5%	8.6%	24.1%
Canada	6.8%	3.4%	—
France	6.1%	3.1%	6.2%
Netherlands	5.1%	2.7%	0.9%
Singapore	7.0%	2.5%	7.7%
Sweden	1.6%	1.0%	2.6%
Austria	4.7%	—	—
Switzerland	1.0%	—	—
Germany	1.0%	—	—
Italy	0.8%	—	1.3%
Belgium	0.7%	—	—
Spain	0.6%	—	1.6%
New Zealand	0.6%	—	—
South Africa	0.5%	—	—
Thailand	0.04%	—	—
Others	—	5.4%	3%
TOTAL	100%	100%	100%

TABLE 5 Country Allocations

• **WisdomTree International Real Estate Index**—A fundamentally weighted index, based on regular cash dividends, that measures the performance of companies in developed markets outside of the U.S. and Canada.

International REIT ETFs are especially new to the market. No investment vehicle has existed for greater than 11 months and therefore data is scarce (see Table 4).

The SPDR (RWX) distinguishes itself by having the most broadly diversified portfolio, with investments in 18 different countries. The First Trust FTSE (FFR) product is the only global real estate ETF, owning both U.S. and international REITs. WisdomTree (DRW) follows a fundamentally weighted index approach. By its very nature, the strategy has led to a more concentrated portfolio and higher country weights (Table 5).

COMMODITY INDEX PRODUCTS

Commodities offer another well-known hedge against inflation. While a handful of commodity indexes exist,

two are followed by ETFs.

- Deutsche Bank Liquid Commodity Index—Optimum Yield/PowerShares DB Commodity Index Fund (DBC)
- Goldman Sachs Commodity Index/iShares GSCI Commodity Index Fund (GSG)

The indexes have many similarities as well as differences. Each index rebalances and reweights. Such a strategy, in a mean reverting environment, should add return (rebalancing benefit) over time. Also, both incorporate production weighting of their components, though each has a twist in the process.

At this point the indexes diverge. The Goldman Sachs CI has the most components (24), but energy dominates the index (over 70%), potentially overwhelming the performance of other commodities. DB has very few components (6), but invests in the most liquid commodities in each sector (Table 6).

Additionally, each manages their futures contracts differently. Commodity futures contracts are used by each index and ETF to replicate the return of various commodities. The typical method for managing these futures contracts is to buy the nearby futures contract and roll it forward each month. The Goldman Sachs GSCI follows this approach.

DB treads a completely different path. The DB Index tries to take advantage of the changing nature of commodity forward curves. At the roll date, they look at contracts maturing over the next 13 months, selecting the contract that is viewed to maximize positive roll yield in markets exhibiting backwardation and minimize the negative roll yield where markets are in contango.

CONCLUSION

The ETF market has expanded rapidly in recent years and continues to evolve, with innovative new products coming to market. For example, many financial firms have recently launched exchanged traded notes that pay index returns like ETFs but are actually obligations of the issuing company. Recently, both Barclays and Goldman Sachs have introduced ETNs based on various commodity indexes. Product innovations like these continue to expand the opportunity for all types of investors to quickly and easily diversify into a variety of real return strategies.

	GSCI	DBC
Energy	73.4%	56.9%
Grains	12.4%	25.6%
Vegetable Oils	0.0%	0.0%
Livestock	3.7%	0.0%
Precious Metals	2.2%	10.8%
Industrial Metals	8.6%	11.5%
Softs	0.0%	0.0%
TOTAL	100%	100%

TABLE 6

Name	Symbol	Inception	AUM	Expense Ratio
PowerShares DB Commodity Index Fund	DBC	2/3/06	\$1.2b	0.83%
iShares GSCI Commodity Index	GSG	7/21/06	\$367m	0.75%

TABLE 7