Fundamental Index® Newsletter · June 2009

rafi® fundamentals

Robert D. Arnott

A COMPLETE TOOLKIT FOR FIGHTING INFLATION

Inflation hurts investors in many ways, and thus planning for it is an important part of the investment process. Traditional bondholders, for example, suffer when inflation erodes the purchasing power of their fixed coupon payments. Similarly, stock investors lose, particularly over the short term to intermediate term, when their dividend payment and capital appreciation don't keep pace with inflation, largely because the companies themselves have a difficult time raising prices fast enough to match the inflation-led increases in expenses. In the long run, companies can pass inflationary costs (e.g., labor and materials) on to their customers. But it can take years for this "pass through" to make its way through the economy.

After years of relatively benign inflation, investors are starting to worry about higher levels of inflation in the (near) future. For example, immense fiscal deficits, as far as the eye can see, have many believing that the United States will try to "reflate away" its substantial debt burden. This concern is priced into the Treasury markets now, with 10-year breakeven rates—that is, the yield difference between nominal Treasuries and TIPS—ramping up from essentially zero at the start of the year to 1.8% per annum at the end of May.

Many investors have most of their liquid assets in mainstream stocks and bonds. So, if inflation is about to rear its ugly head for the first time in a quarter century, most of us are badly exposed. Given their vulnerability to inflation, many investors are adding dedicated "real return" assets to their asset mix. This shift is in the early stages, with most investors concentrating on those asset classes with the most direct link to inflation such as TIPS and real estate. These allocations to real return assets are rarely done in a diversified way, and even more rarely on a scale large enough to matter. We find that a real return mandate works better if it embraces an opportunistic and tactical approach to the puzzle built on a broader toolkit of asset classes.

Real Return Choices

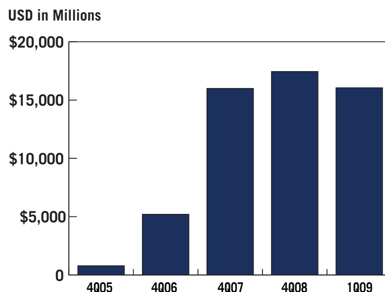
So, if inflation is a real threat, what choices does an investor have for generating real returns?

TIPS is the logical choice for real return allocations because of its structural link to rising prices. Other asset classes, such as real estate, commodities, infrastructure, and timberland are also attractive because of their lower correlation with stocks and bonds.

Another way to assess the attractiveness of an asset class is to look at its correlation with inflation. **Table 1** illustrates the quarterly correlation to inflation of a wide roster of asset classes since the inception of the S&P Global Infrastructure Index in 2002.

continued on page two

RAFI® Managed Assets*



*Includes RAFI assets managed or sub-advised by Research Affiliates® or RAFI licensees.

620 newport center drive, suite 900
newport beach, ca 92660 usa
phone +1 (949) 325-8700
fax +1 (949) 554-0192
info@rallc.com
www.rallc.com

MEDIA CONTACT
Tucker Hewes
Hewes Communications
+1 (212) 207-9451
tucker@hewescomm.com

Table 1. Quarterly Correlation of Returns to US Inflation, January 2002–March 2009

Asset Class	Index	Correlation
Bank Loans	Credit Suisse Leveraged Loan USD	0.66
Commodities	DJ UBS Commodity TR USD	0.63
High Yield	BarCap US Corporate High Yield	0.39
Convertibles	ML Convertible Bonds All Qualities	0.39
Private Real Estate	NCREIF Property	0.39
REITS	FTSE NAREIT All REITs	0.19
TIPS	BarCap Gbl Infl Linked US TIPS TR USD	0.21
Local Currency EM	JPM ELMI+ TR USD	0.20
Infrastructure	S&P Global Infrastructure TR USD	0.17
Equities	IA SBBI S&P 500 TR USD	0.15
Timberland	NCREIF Timberland	-0.31
Core Fixed Income	BarCap US Agg Bond TR USD	-0.48

Source: Research Affiliates, based on data from Morningstar Encorr.

As Table 1 shows, traditional stocks and bonds offer little protection from inflation over this time period—hence the reason for the expansion of real return programs across institutional and private portfolios. Most of the commonly accepted real return asset classes (highlighted in blue) provide significantly better inflation protection—as we would expect. Timberland is an odd outlier, but this may be due to the use of land appraisals in assessing the returns: when inflation accelerates, it may be reflected in the appraisals in future quarters, not the current quarter.

Interestingly, four asset classes not normally associated with real return—bank loans, high-yield, convertibles, and local currency emerging markets bonds—provide inflation protection which is comparable to, or better than, TIPS. Bank loans surprisingly offered an even higher correlation than commodities! All four of these "underrated inflation fighters" had a more direct link with rising prices than infrastructure and timberland.

These data invite the question: "Why not deploy a full roster of asset classes in a real return portfolio?" We find that a true inflation-hedging portfolio should have a broader toolkit than just conventional real return assets like TIPS, real estate, and commodities.

A Tactical Overlay

Many investors adhere rigidly to a long-term asset allocation rather than tactically moving among the asset classes. Such an approach tends to hurt investors in the tough times. Consider what happened in the worst inflationary period in the United States over the past 100 years. From January 1977 through April 1980, year-over-year inflation ramped up from 5% to over 14% in less than 3½ years. During that period, most asset classes failed to deliver returns in excess of inflation.

As **Table 2** shows, commodities and REITs finished near the top of the list. Surprisingly, the best performing asset class—at 14% real—was U.S. small cap. International equities offered the best real return Sharpe ratio—not commodities and not REITs![1] As expected, long bonds were the worst performing asset classes, with long credit and long Treasury indexes producing real returns of approximately –11.5%. On a cumulative basis, this translates to a 40% loss of purchasing power. Isn't this what real return mandates are supposed to protect against?

Perhaps even more noteworthy is the volatility of these assets over this inflation ramp-up period, which ensured opportunities for tactical shifts in these assets. As evidenced in **Table 3**, there were ample opportunities to capture significant real returns in the shorter time periods. For example, REITs earned real returns of +12% in 1977, –11% in 1978, +17% in 1979, and –7% in the first four months of

Table 2. Asset Class Risk and Return, January 1977—April 1980

Asset Class	Index	Annualized Return	Real Return	Standard Deviation
Small US Equities	IA SBBI US Small Stock TR USD	24.14%	13.73%	33.04%
Commodities	S&P GSCI TR	19.71%	9.30%	21.55%
International Equities	MSCI EAFE GR USD	18.08%	7.67%	16.60%
REITS	FTSE NAREIT All REITs TR	13.35%	2.94%	19.83%
Inflation	IA SBBI US Inflation	10.41%	0.00%	1.19%
Equities	IA SBBI S&P 500 TR USD	4.88%	-5.53%	15.32%
High Yield	BarCap US Corporate High Yield TR USD	2.87%	-7.54%	10.93%
Core Fixed Income	BarCap US Agg Bond TR USD	2.40%	-8.01%	8.98%
Long Treasuries	BarCap US Treasury Long TR USD	-0.97%	-11.38%	11.72%
Long Credit	BarCap US Long Credit TR USD	-1.07%	-11.48%	11.80%

Source: Research Affiliates, based on data from Morningstar Encorr.

1980. We see similar variations in the other asset classes. A tactical exposure to a broader set of asset classes provides an opportunity to add value over the static exposure to the traditional asset classes over this time period.

Summary

Inflation is the largest single enemy to long-term investors. The goods and services we purchase in retirement will be priced in tomorrow's dollars, not today's. Rapid acceleration in inflation—reflation—dramatically impacts mainstream bonds and, to a lesser extent, stocks. Thus, investors are wise to include dedicated real return exposures in their portfolios. But the devil is in the details. Those that narrowly concentrate on static real asset exposures are fighting rising prices with one hand tied behind their back. To deliver the knockout, inflation fighters need a combination of an expanded toolkit and disciplined tactical exposure management.

Table 3. Tactical Opportunities in High Inflation Regime—Period Returns

1977		1978		1979		1980 through April	
IA SBBI US Small Stock	25.4	MSCI EAFE	34.3	IA SBBI US Small Stock	43.5	IA SBBI US Inflation	5.5
MSCI EAFE	19.4	S&P GSCI	31.6	S&P GSCI	33.8	MSCI EAFE	2.2
FTSE NAREIT	19.1	IA SBBI US Small Stock	23.5	FTSE NAREIT	30.5	BarCap US Corporate High Yield	2.1
S&P GSCI	10.4	IA SBBI US Inflation	9.0	S&P 500	18.4	BarCap US Agg Bond	1.6
BarCap US Corporate High Yield	7.8	S&P 500	6.6	IA SBBI US Inflation	13.3	S&P 500	0.0
IA SBBI US Inflation	6.8	BarCap US Agg Bond	1.4	MSCI EAFE	6.2	FTSE NAREIT	-0.7
BarCap US Agg Bond	3.0	BarCap US Long Credit	-0.1	BarCap US Agg Bond	1.9	BarCap US Treasury Long	-1.2
BarCap US Long Credit	2.7	BarCap US Corporate High Yield	-1.1	BarCap US Corporate High Yield	1.0	BarCap US Long Credit	-2.0
BarCap US Treasury Long	-0.1	BarCap US Treasury Long	-1.4	BarCap US Treasury Long	-0.5	S&P GSCI	-6.3
S&P 500	-7.2	FTSE NAREIT	-1.6	BarCap US Long Credit	-4.1	IA SBBI US Small Stock	-7.4

Source: Research Affiliates, based on data from Morningstar Encorr.

Endnotes

1. Part of this lies with foreign currency exposure. EAFE outperformed the local currency variant by 8% per annum above, indicating that exposure to foreign currencies is just as important in a real return portfolio. (Calculated as the difference between the EAFE Gross Total Return and the EAFE Local Currency Total Return based on data from Morningstar Encorr.)

Performance Update

TOTAL RETURN AS OF 5/31/09	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	ANNUALIZED 10 YEAR VOLATILITY
FTSE RAFI® 1000 Index[A]	FR10XTR	10.86%	-29.74%	-7.88%	-0.32%	2.45%	17.23%
S&P 500[B]	SPTR	2.96%	-32.57%	-8.24%	-1.90%	-1.71%	16.13%
Russell 1000[C]	RU10INTR	4.07%	-32.95%	-8.23%	-1.55%	-1.28%	16.36%
FTSE RAFI® US 1500 Index[D]	FR15USTR	14.28%	-28.53%	-8.22%	1.04%	8.23%	21.61%
Russell 2000[E]	RU20INTR	1.15%	-31.79%	-10.13%	-1.18%	2.68%	21.44%
FTSE RAFI® Developed ex US 1000 Index[F]	FRX1XTR	17.13%	-31.94%	-4.47%	5.96%	6.04%	18.67%
MSCI EAFE[G]	GDDUEAFE	9.01%	-36.25%	-7.33%	3.35%	2.02%	17.84%
FTSE All World Series Developed ex US[H]	FTS5DXUS	11.43%	-35.62%	-6.18%	4.46%	3.03%	18.05%
FTSE RAFI® Developed ex US Mid Small[I]	FRSDXUS	21.84%	-27.52%	-6.88%	4.76%	NA	NA
MSCI EAFE Small[J]	MCUDEAFE	17.38%	-37.05%	-13.05%	1.18%	NA	NA
FTSE RAFI® Emerging Markets[K]	TFREMU	39.86%	-28.92%	9.46%	22.47%	NA	NA
MSCI Emerging Markets[L]	GDUEEGF	38.06%	-34.13%	3.65%	15.50%	NA	NA
FTSE RAFI® Canada[M]	FRCANTR	20.87%	-19.37%	1.00%	7.86%	NA	NA
S&P/TSX 60[N]	TX60AR	18.41%	-25.68%	1.18%	8.80%	NA	NA
FTSE RAFI® Australia Index[O]	FRAUSTR	5.40%	-24.16%	-2.55%	6.58%	8.25%	12.02%
S&P/ASX 200 Index[P]	ASA51	4.88%	-28.94%	-4.41%	6.59%	7.30%	12.83%
FTSE RAFI® Japan[Q]	FRJPNTR	10.45%	-31.91%	-12.73%	-0.54%	NA	NA
MSCI Japan[R]	GDDLJN	6.24%	-36.25%	-15.56%	-2.69%	NA	NA
FTSE RAFI® UK Index[S]	FRGBRTR	6.48%	-20.44%	-4.68%	3.78%	NA	NA
MSCI UK[T]	GDDUUK	2.12%	-23.42%	-4.74%	3.45%	NA	NA

Definition of Indices: (A) The FTSE RAFI® 1000 comprises the 1000 largest companies selected and weighted using our Fundamental Index methodology; (B) The S&P 500 Index is an unmanaged market index that focuses on the large-cap segment of the U.S. equities market; (C) The Russell 1000 Index is a market-capitalization-weighted benchmark index made up of the 1,000 highest-ranking U.S. stocks in the Russell 3000; (D) The FTSE RAFI® 1500 comprises the 1001st to 1500th largest companies selected and weighted using our Fundamental Index methodology; (E) The Russell 2000 is a market-capitalization weighted benchmark index made up of the 2,000 smallest U.S. companies in the Russell 3000; (F) The FTSE RAFI® Developed ex US 1000 Index comprises the largest 1000 non US-listed companies by fundamental value, selected from the constituents of the FTSE Developed ex US Index; (G) MSCI EAFE (Morgan Stanley Capital International Europe, Australasia, Far East) is an unmanaged index of issuers in countries of Europe, Australia, and the Far East represented in U.S. dollars; and (H) The FTSE All World ex-US Index comprises Large and Mid-Cap stocks providing coverage of Developed and Emerging Markets excluding the United States. It is not possible to invest directly in any of the indexes above; (I) The FTSE RAFI® Developed ex US Mid Small Index tracks the performance of small- and mid-cap equities of companies domiciled in developed international markets (excluding the United States), selected based on the following four fundamental measures of firm size: book value, cash flow, sales, and dividends. The equities with the highest fundamental strength are weighted according to their fundamental scores. The Fundamentals Weighted® portfolio is rebalanced and reconstituted annually. Performance represents price return only; (J) The MSCI EAFE Small Cap Index targets 40% of the eligible small-cap universe (companies with market capitalization ranging from US$200 to US$1,500 million) in each industry group of each country in the MSCI EAFI Index; (K) The FTSE RAFI® Emerging Markets Index comprises the largest 350 companies selected and weighted using the Fundamental Index® methodology; (L) The MSCI Emerging Markets Index is an unmanaged, free-float-adjusted cap-weighted index designed to measure equity market performance of emerging markets; (M) The FTSE RAFI® Canada Index comprises the Canadian stocks represented among the constituents of the FTSE RAFI® Global ex US 1000 Index, which in turn comprises the 1,000 non-U.S.-listed companies with the largest fundamental value, selected from the constituents of the FTSE Developed ex US Index; (N) The S&P/Toronto Stock Exchange (TSX) 60 is a cap-weighted index consisting of 60 of the largest and most liquid (heavily traded) stocks listed on the TSX, usually domestic or multinational industry leaders; (O) The FTSE RAFI® Australia Index comprises the Australian stocks represented among the constituents of the FTSE RAFI® Global ex US 1000 Index, which in turn comprises the 1,000 non-U.S.-listed companies with the largest fundamental value, selected from the constituents of the FTSE Developed ex US Index; (P) The S&P/ASX 200 Index, representing approximately 78% of the Australian equity market, is a free-float-adjusted, cap-weighted index; (Q) The FTSE RAFI® Japan Index comprises the Japanese stocks represented among the constituents of the FTSE RAFI® Global ex US 1000 Index, which in turn comprises the 1,000 non-U.S.-listed companies with the largest fundamental value, selected from the constituents of the FTSE Developed ex US Index; (R) The MSCI Japan Index is an unmanaged, free-float-adjusted cap-weighted index that aims to capture 85% of the publicly available total market capitalization of the Japanese equity market; (S) The FTSE RAFI® UK Index comprises the U.K. stocks represented among the constituents of the FTSE RAFI® Global ex US 1000 Index, which in turn comprises the 1,000 non-U.S.-listed companies with the largest fundamental value, selected from the constituents of the FTSE Developed ex US Index; (T) The MSCI UK Index is an unmanaged, free-float-adjusted cap-weighted index that aims to capture 85% of the publicly available total market capitalization of the British equity market

Source: All index returns are calculated using Total Return data from Bloomberg except for the FTSE RAFI Developed ex US Mid Small (FRSDXUS) and the MSCI EAFE Small (MCUDEAFE) which uses price return data.

©2009 Research Affiliates, LLC. The material contained in this document is for general information purposes only. It relates only to a hypothetical model of past performance of the Fundamental Index® strategy itself, and not to any asset management products based on this index. No allowance has been made for trading costs or management fees which would reduce investment performance. Actual results may differ. This material is not intended as an offer or a solicitation for the purchase and/or sale of any security or financial instrument, nor is it advice or a recommendation to enter into any transaction. This material is based on information that is considered to be reliable, but Research Affiliates® and its related entities (collectively "RA") make this information available on an "as is" basis and make no warranties, express or implied regarding the accuracy of the information contained herein, for any particular purpose. RA is not responsible for any errors or omissions or for results obtained from the use of this information. Nothing contained in this material is intended to constitute legal, tax, securities, financial or investment advice, nor an opinion regarding the appropriateness of any investment. The general information contained in this material should not be acted upon without obtaining specific legal, tax or investment advice from a licensed professional. Indexes are not managed investment products, and, as such cannot be invested in directly. Returns represent back-tested performance based on rules used in the creation of the index, are not a guarantee of future performance and are not indicative of any specific investment. Research Affiliates, LLC, is an investment adviser registered under the Investment Advisors Act of 1940 with the U.S. Securities and Exchange Commission (SEC).

Russell Investment Group is the source and owner of the Russell Index data contained or reflected in this material and all trademarks and copyrights related thereto. The presentation may contain confidential information and unauthorized use, disclosure, copying, dissemination, or redistribution is strictly prohibited. This is a presentation of RA. Russell Investment Group is not responsible for the formatting or configuration of this material or for any inaccuracy in RA's presentation thereof.

The trade names Fundamental Index®, RAFI®, the RAFI logo, and the Research Affiliates® corporate name and logo are the exclusive intellectual property of RA. Any use of these trade names and logos without the prior written permission of RA is expressly prohibited. RA reserves the right to take any and all necessary action to preserve all of its rights, title and interest in and to these terms and logos. Fundamental Index, the non-capitalization method for creating and weighting of an index of securities, is the patent-pending proprietary intellectual property of RA (Patent Pending Publication Numbers: US-2005-0171884-A1, US-2006-0015433-A1, US-2006-0149645-A1, US-2007-0055598-A1, US-2008-0288416-A1, WO 2005/076812, WO 2007/078399 A2, WO 2008/118372, EPN 1733352, and HK1099110).