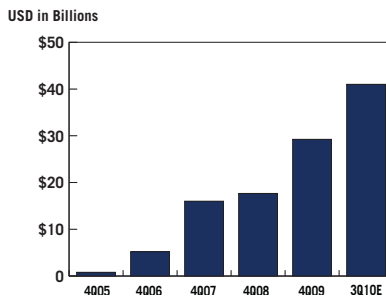


Fundamentals



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RAFI® Managed Assets*



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THE GLAD GAME

Last month we used the term “Pollyanna” to describe the optimistic return scenarios that need to occur for institutions and plan participants to cover their liabilities. The term originated with the 1913 children’s book of the same title by Eleanor Porter. In it, the young Pollyanna plays the “Glad Game” where one finds something to be glad about in any situation. As an orphan growing up with a strict aunt, Pollyanna finds a reason to be optimistic even as she faces obstacle after obstacle in her new surroundings.

Investors today would do well to play a bit of the Glad Game. Despite a world of low single-digit yields and high single-digit return targets, there are ways that investors can span this seemingly irreconcilable gap. Let’s descend from our wall of worry and see what steps we can take on the bridge between reasonable prospective market returns and the aspirational returns needed to meet our liabilities.¹

Rational Expectations

As we outlined in the October 2010 issue of *Fundamentals*, the easy—and wrong—way to get long-term return expectations of 7.5–8.0% is to use aggressive return assumptions.² In so doing, we risk allowing our return assumptions, not relative investment merit, to drive our asset allocation choices. Our preferred approach is to build a

strategy using *conservative* long-term return assumptions that we think can be achieved *without exceptional manager skill or outsized alpha*. Our current return assumptions are shown in **Table 1**, with a summary of our rationale presented here.

Stocks: Combining U.S. stock yields of 2% with long-term historical growth rates for earnings and dividends of 1% provides a real return expectation of 3%. Add in 2% for inflation (roughly today’s break-even rate for long TIPS) and investors can expect about 5% on domestic stocks. International developed market stocks offer a higher yield, but likely slower growth, so it’s dangerous to assume more from those allocations. Emerging markets likely offer higher growth and dividend yields but are expensive relative to their own historical returns. On top of the broad equity market returns, we are assuming an additional 2–3% for using the Fundamental Index® approach in the developed markets and 4.5% for emerging markets.³

Private Equity: We assume a higher private equity return with a little trepidation. High fees and hidden volatility can make these strategies more profitable for the manager than for the investor. Still, we presume that the best private equity managers can deliver moderate alpha. Those relying on this asset class have to be *very confident* that (1) their selected managers have

a competitive advantage which exceeds the fees, and (2) they themselves have superior skill in choosing the managers.

Global TAA, Alternative Assets: To achieve a 7.5% return, we're assuming programs that emphasize alternative assets (anything outside of mainstream stocks and bonds) and target real returns can earn a bit less than private equity. Furthermore, a real returns focus should deliver sharp reductions in volatility, especially relative to liabilities.

Investment Grade Bonds: We assume investors can achieve about 1% over the current Barclays Aggregate yield of 2.5% by taking on a bit of duration and a bit of investment-grade credit risk. Moving away from cap weight adds another 0.5%.

High Yield and Emerging Markets Bonds: Riskier bonds have higher yields (5–8% yields now), but they also carry higher default risk, so we think 5–6% makes sense. Adding 2% for moving away from cap weight—empirical data suggests that this is conservative—brings us to the 7.5% estimate.

Liability-Driven Investing (LDI): Duration extension is cheap (today) given the steep yield curve. If 20-year bonds give us 3.5% at a time when cash yields are zero, and if we leverage an LDI slice two-fold, we get an implied yield of 7%—until the yield curve flattens. The nice thing is that the yield curve slope will tell investors when this opportunity is no longer available. This strategy is also an inflation policy against sustained deflation in which current yields would seem too rich, not too low.

Long TIPS: This is the safe haven that best matches a true risk-free investment for most institutions and individuals. Unfortunately, TIPS are not priced to offer much real return at the moment. A low real yield might be fine—better than most assets—if inflation kicks in, as we think is reasonably likely. We also think that the long TIPS yield (currently 1.7%) will fall below 1.5% at some point in the next three to five years. What PIMCO terms a “New Normal”—an extended period of reduced economic growth—is consonant with lower real yields. TIPS would deliver capital gains, on top of the yield, which itself rides on top of an inflation rate that may prove daunting in the years ahead. Even with a modest return, this is an inflation policy against severe bursts of future inflation.

Hedge Funds and Real Return Strategies: Hedge funds—like most lock-up strategies—offer a certainty of

higher costs and usually hidden risks in exchange for the *possibility* of higher returns. We assume that these funds will offer 4–5% real returns, net of their lofty fees. In fact, we believe that poorly chosen hedge funds will do far worse than this, while a well-selected portfolio of hedge funds may do somewhat better. Real return strategies include a roster of ideas as diverse as timber partnerships, direct real estate, and infrastructure. These asset classes are mostly illiquid, with hidden risks, but are often more sensibly priced than hedge funds.

Table 1. Risk and Return Assumptions

Asset Class	Geometric Return	Standard Deviation
U.S. Stocks	5.00%	16.0%
RAFI® US	7.00%	16.0%
International Stocks	5.00%	20.0%
RAFI International	8.00%	20.0%
EM Equity	5.00%	30.0%
RAFI EM	9.50%	30.0%
Private Equity	8.00%	25.0%
GTAA, AA	7.50%	8.5%
U.S. Bonds	2.30%	5.0%
RAFI IGB	4.00%	7.0%
FI HY+EMB	7.50%	9.0%
LDI	7.00%	25.0%
Long TIPS	4.00%	9.0%
HF & RR	7.00%	8.0%

Source: Research Affiliates.

With this conservative (but, in our view, realistic) roster of return assumptions, the classic 60/40 blend gets investors just over half of their 8% expected return target. Apropos of our *Fundamentals* from October, “Hope is not a Strategy,” we think it’s very important to recognize that if we expect 8% at a time when conventional balanced investing is priced to deliver 4% long-term returns, our plans are ruined. Reciprocally, if we expect 4% and find ways to earn 8%, our plans are sound and we wind up richer than we expected.

This dilemma prompts two suggestions and a critical distinction between expected returns and aspirational returns.

- Our *expected* returns should be reduced, systematically and steadily, to a more realistic level. These expectations should be deliberately conservative, reflecting a high level of confidence. We should never *expect* alpha derived from manager skill, nor should we set returns by extrapolating the past. Past is not prologue.

- Our *aspirational* returns can be considerably higher, reflecting the fact that thoughtful investors, willing to stray far from mainstream, can—and often do—capture much higher returns. But we dare not depend upon earning the aspirational returns until after they’ve been achieved!

In effect, investors should hope for the best while planning for the worst.

The (Maverick) Risk and Return Trade-Off

Merely aspiring to higher returns is not sufficient. One must painstakingly craft strategies and portfolios that can achieve these aspirational returns without undue reliance on manager skill and without sharply higher risk. Here, it’s important to return to the risk paradigm that I proposed in the *Financial Analysts Journal* in 2003,⁴ recognizing that there are several distinct risk measures, each of which has independent relevance and each of which can hurt us. There’s conventional volatility in returns, which introduces a risk of poor investment returns. There’s the asset/liability mismatch, which leads to a risk that we cannot cover our future obligations. And, there’s maverick risk, in which investors choose a different path than their peers, exposing them to criticism, especially when performance suffers. *All three risks are hugely important. Yet, we typically focus our analytics on the first of these, simple volatility, and our behavior on the last of these, maverick risk.*

In today’s low yield environment, investors can take steps to earn higher returns than the classic 60/40 allocation with reasonably high confidence in their

return advantage. **Table 2** outlines a series of steps investors can take to boost their long-term expected portfolio returns. Each step improves our prospective returns, and most serve to reduce both volatility and asset/liability mismatches.⁵ No single step is radical and no single step gets us to our aspirational returns. But if we continue down the progression as outlined below, we discover 7–8% is achievable... as long as we are willing to cut ties with the peer group and accept substantial “maverick risk.”

We can take these steps in whichever order we like. But we need to gauge how far down this path we can proceed before we’ve exceeded our board’s (or client’s) tolerance for “maverick risk.” There is no “right answer” for how far we dare to progress down this path. My simple (even simplistic) rule of thumb is that we should not take any step that can’t survive one bad year. If our board or client would reverse course after one bad year, then we do them no favors taking that step, regardless of the investment merits of the strategy.

Start with the Classic 60/40: Using our return assumptions, investors will get about 4.6% in the very long run (based on current prices and yields), with about 10% annualized volatility.⁶

Add TIPS, Private Equity, Hedge Funds, and Real Return Strategies: TIPS and real return strategies will reduce both the absolute volatility and our asset/liability mismatch, at acceptable returns, while private equity and hedge funds will offer higher returns, at higher risk.

Add Non-Price Weighting: If half of the liquid stock and bond portfolios can be moved away from strategies that anchor on market cap, reducing our

Table 2. From the Classic 60/40 to a Maverick Allocation

Asset Class	60/40	Add TIPS, PE, HF, and RR	50/50 Cap and RAFI	Add HY, EMB, and LDI	Add GTAA, AA, and RR	All-In Maverick
U.S. Stocks	40.0	35.0	17.5	15.0	10.0	0.0
RAFI® US	0.0	0.0	17.5	15.0	15.0	10.0
International Stocks	15.0	15.0	7.5	7.5	5.0	0.0
RAFI International	0.0	0.0	7.5	7.5	7.5	10.0
EM Equity	5.0	5.0	2.5	5.0	5.0	0.0
RAFI EM	0.0	0.0	2.5	5.0	5.0	15.0
Private Equity	0.0	5.0	5.0	5.0	5.0	7.5
GTAA, AA	0.0	0.0	0.0	0.0	10.0	15.0
U.S. Bonds	40.0	25.0	12.5	5.0	2.5	0.0
RAFI IGB	0.0	0.0	12.5	5.0	5.0	0.0
FI HY+EMB	0.0	0.0	0.0	5.0	7.5	15.0
LDI	0.0	0.0	0.0	10.0	7.5	15.0
Long TIPS	0.0	10.0	10.0	10.0	7.5	5.0
HF & RR	0.0	5.0	5.0	5.0	7.5	7.5
Geometric Return	4.59	5.2	6.08	6.98	7.27	8.54
Standard Deviation	10.42	10.67	10.98	11.79	11.54	11.45

Source: Research Affiliates.

reliance on the most expensive stocks and the most debt-laden borrowers, history and common sense suggests a material benefit... regardless of what non-cap methodology we choose.

Add High Yield Bonds, Emerging Markets (both stocks and bonds), and LDI: Emerging market countries are not afflicted by massive deficits, daunting debt burdens, or an army of near term prospective retirees. A larger than conventional allocation makes a great deal of sense. High yield offers the prospect of moderate risk and attractive returns for those patient enough to ride out the rough times. Meanwhile, LDI can sharply reduce the asset/liability mismatch, especially when the yield curve is steep.

Add Global TAA and Alternative Assets: A carefully crafted contrarian GTAA approach should add value, especially as most large asset owners are largely buy-and-hold strategic allocators. In other words, active asset allocation has less competition—always good for alpha generation! For purposes of this exercise, we assume that GTAA delivers the average of all the individual asset classes listed here, plus a 1% gain from sensible tactical choices. We presume that the full suite of liquid alternative markets can do much the same.

Remove all Remaining Cap-Weight Products: The final step is to replace all remaining cap-weighted alternatives with non-cap strategies, such as Fundamental Index strategies, while boosting exposure to emerging markets and to duration and credit risk.

The result is what we call the All-In Maverick Portfolio—that is, the portfolio is substantially different from the peer group allocation. To be sure, this allocation is not entirely “maverick”: roughly one-third of the portfolio is in mainstream stocks and bonds. Even so, this portfolio will invite criticism when it—inevitably—has a disappointing year.

Conclusion—Choosing Risks Wisely

Can investors get to a 7% or 8% expected return in the current world of low stock and bond yields? By making aggressive return estimates, it's easy to push up return forecasts while eliminating any need for contributions. But, hope is not a strategy. Otherwise, we may as well assume 20% returns and stop worrying!

With conservative return assumptions and conventional investing, our 7% or 8% return assumptions are incompatible with a world of 2% stock yields and 3% bond yields. A carefully crafted, well-executed departure from the classic 60/40 portfolio—involving liberal use of a broad array of alternatives and embracing non-price-weighted index strategies—can move investors materially in the right direction.

As we noted, however, taking these steps is not comfortable. Comfort is rarely rewarded. Investors can move down the path toward this maverick portfolio, careful not to exceed their board's or their client's “comfort” threshold. This approach goes against human nature and invites second-guessing whenever it inevitably doesn't work. Keynes' oft-cited “reputation” quotation, in its more complete form, bears careful consideration:

“...it is the long term investor...who will in practice come in for most criticism, wherever investment funds are managed by committees or boards or banks. For it is the essence of his behaviour that he should be eccentric, unconventional and rash in the eyes of average opinion. If he is successful, that will only confirm the general belief in his rashness; and if in the short run he is unsuccessful, which is very likely, he will not receive much mercy. Worldly wisdom teaches that it is better for reputation to fail conventionally than to succeed unconventionally.”

Endnotes

1. It will be apparent throughout this work that our own approaches are favored. Put simply, it would be disingenuous if we offered products that we did not think were part of the answer! I would note that there are a lot of ways to achieve some of these same goals
2. See “Hope is Not a Strategy,” *Fundamentals*, October 2010, http://researchaffiliates.com/ideas/pdf/Fundamentals_201010.pdf.
3. Other issues of *Fundamentals* explain the excess returns associated with the Fundamental Index approach, so we will not repeat the details here.
4. See “What Risk Matters? A Call for Papers!,” *Financial Analysts Journal*, vol. 59, no. 3 (May/June 2003):6-8.
5. In the past, I've suggested that investors ought to compute their liabilities, based on discounting future obligations, using the Treasury strips curve (or, for indexed liabilities, using the TIPS curve). I don't think investors should necessarily replace current funding formulas or pension expense formulas with this hyper-conservative liability calculation. But they ought to know what this number is because it will tell them how much of their current liability can be immunized on a risk-free basis. This calculation makes the size of the gap between assets and liabilities very clear, and so can help to discourage ill-considered plans to slash contributions or to sweeten benefits of underfunded pension plans.
6. We use standard deviation as the risk metric in this exercise due the wide intended audience of this publication. For pension funds, this is most assuredly an inadequate measure of risk. Thus, we will occasionally reference asset/liability risk as well.

Performance Update

TOTAL RETURN AS OF 10/31/10	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	ANNUALIZED 10 YEAR VOLATILITY
FTSE RAFI® 1000 Index ^A	FR10XTR	10.91%	19.81%	-3.78%	3.82%	4.98%	18.19%
S&P 500 ^B	SPTR	7.84%	16.52%	-6.49%	1.73%	-0.02%	16.45%
Russell 1000 ^C	RUTOINTR	8.48%	17.66%	-6.14%	1.99%	0.29%	16.73%
FTSE RAFI® US 1500 Index ^D	FR15USTR	14.94%	28.16%	0.75%	6.41%	11.34%	23.23%
Russell 2000 ^E	RU20INTR	13.58%	26.58%	-3.91%	3.07%	4.89%	21.42%
FTSE RAFI® Developed ex US 1000 Index ^F	FRX1XTR	5.07%	7.58%	-7.06%	6.05%	7.11%	19.90%
MSCI EAFE ^G	GDDUEAFE	5.13%	8.82%	-9.15%	3.79%	3.61%	18.49%
FTSE All World Series Developed ex US ^H	FTS5DXUS	5.99%	10.64%	-8.40%	4.79%	4.40%	18.70%
FTSE RAFI® Developed ex US Mid Small ^I	FRSDXUS	9.25%	11.11%	-4.21%	5.57%	10.81%	18.43%
MSCI EAFE Small ^J	MCUDEAFE	11.19%	11.80%	-9.75%	1.37%	6.44%	20.03%
FTSE RAFI® Emerging Markets ^K	TFREMU	13.60%	23.08%	-1.06%	19.77%	23.22%	25.25%
MSCI Emerging Markets ^L	GDUEEGF	14.26%	23.89%	-3.70%	15.28%	14.96%	24.88%
FTSE RAFI® Canada ^M	FRCANTR	8.86%	17.97%	1.00%	8.50%	9.00%	14.36%
S&P/TSX 60 ^N	TX60AR	7.33%	15.45%	-2.31%	7.04%	4.75%	15.82%
FTSE RAFI® Australia ^O	FRAUSTR	-3.33%	3.19%	-5.66%	5.87%	9.37%	13.10%
S&P/ASX 200 Index ^P	ASA51	-0.96%	4.58%	-7.57%	5.35%	8.04%	13.56%
FTSE RAFI® Japan ^Q	FRJPNTR	-7.52%	-5.17%	-16.89%	-7.05%	-0.33%	18.47%
MSCI Japan ^R	GDDLJN	-8.98%	-6.63%	-19.45%	-8.73%	-3.83%	18.22%
FTSE RAFI® UK ^S	FRGBRTR	7.71%	12.21%	3.16%	8.37%	6.45%	17.27%
MSCI UK ^T	GDDUUK	7.71%	16.12%	-1.86%	5.07%	2.36%	15.14%
RAFI Investment Grade Master ^U		10.92%	11.15%	9.12%	7.46%	7.37%	6.06%
Merrill Lynch US Corporate Master ^V	COA0	11.51%	11.95%	7.85%	6.65%	7.15%	6.23%
RAFI High Yield Master ^W		14.30%	18.35%	12.65%	10.90%	10.88%	11.23%
Merrill Lynch US High Yield BB-B Rated ^X	HOA4	14.25%	17.83%	7.94%	7.98%	7.62%	10.19%

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 EAFE 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; (U) The RAFI® Investment Grade Master Index is a U.S. investment-grade corporate bond index comprised of non-zero fixed coupon debt with maturities ranging from 1 to 30 years issued by publicly traded companies. The issuers held in the index are weighted by a combination of four measures of their fundamental size—sales, cash flow, dividends, and book value of assets; (V) The Merrill Lynch U.S. Corporate Master Index is representative of the entire U.S. corporate bond market. The index includes dollar-denominated investment-grade corporate public debt issued in the U.S. bond market; (W) The RAFI® High Yield Master is a U.S. high-yield corporate bond index comprised of non-zero fixed coupon debt with maturities ranging from 1 to 30 years issued by publicly traded companies. The issuers held in the index are weighted by a combination of four measures of their fundamental size—sales, cash flow, dividends, and book value of assets; (X) The Merrill Lynch U.S. High Yield Master II Index is representative of the U.S. high yield bond market. The index includes domestic high-yield bonds, including deferred interest bonds and payment-in-kind securities. Issues included in the index have maturities of one year or more and have a credit rating lower than BBB-/Baa3, but are not in default.

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.

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