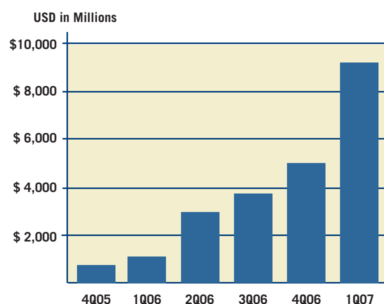
fundamentals™

RAFI Managed Assets*



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

RESEARCH AFFILIATES

155 N. Lake Avenue, Suite 900
Pasadena, CA 91101
Phone (626) 584-2100
Fax (626) 584-2111
info@rallc.com
www.rallc.com

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

Topic of the Month – PENSIONS AND THE FUNDAMENTAL INDEX™

In today's world, the decision on how much equity to hold in a pension fund is not easy. Most plan participants are many years away from retirement. Moreover, retired participants are living longer and so the "average dollar" saved in pensions won't typically be spent for many years. As such, pension fund asset allocations often include hefty doses of equities – the average corporate plan holds a little over 60%.[1] Seems reasonable – conventional wisdom says that the inevitable stock market "storms" can be weathered in order to earn outsized returns with such a long horizon on the sponsor's side.

Unfortunately, there are two sides to the pension coin: assets and liabilities. Liabilities – how much the pension owes to its participants – are calculated every year, just like asset returns. To determine the amounts needed today for future retiree payments, plan sponsors calculate the present value of estimated future payments using a discount rate equivalent to current interest rates. Given that the amount needed today will be smaller if you can earn 10% than it would be if you could only earn 5%, future liabilities are less cumbersome with higher interest rates than with lower interest rates. Any portfolio that rises when interest rates fall (and liabilities grow) helps the pension plan sponsor minimize its risk. For this reason, investments that on average rise in value when interest rates fall (i.e., bonds) are excellent hedges to pension liabilities.

With this brief primer in mind, it is no wonder that 2000-2002 was labeled the perfect storm for pensions – their equity-centric assets fell considerably while their liabilities skyrocketed in the wake of plunging interest rates. With diminished funded ratios and regulatory changes like the Pension Protection Act of 2006, many plan sponsors are now seeking strategies to more closely match their assets to their liabilities. This has spawned a variety of Liability Driven Investment (LDI) strategies designed to introduce more interest rate exposure – and therefore more liability matching behavior – into pension plan asset allocations. Regardless of the rate of adoption of LDI strategies, pension plans are still likely to allocate significant sums to equities to access their higher expected return potential. We, therefore, believe it important to better understand the role of equities in the asset liability puzzle.

A recent study by IPM of Sweden[2] examined the performance of the Research Affiliates Fundamental Index (RAFI™) approach versus that of a capitalization-weighted approach to assessing each equity portfolio's interest rate sensitivity and liability hedging characteristics in the United States, Japan, Sweden, and Europe. The results show that in the U.S. market, RAFI displayed a higher correlation to government bonds (0.32 versus

continued on page two

[1] Independent Consultants Cooperative (ICC) Corporate Universe Median Allocation as of 9-30-06. Courtesy of Wurts & Associates.

[2] Djehiche, Boualem and Jonas Rinné. 2006. "Can Stocks Help Mend the Asset and Liability Mismatch?" Working paper, IPM *Informed Portfolio Management AB Stockholm.*

0.23) and a longer empirical duration (3.6 years versus 2.5 years) to bonds than the S&P 500.[3] However, unlike most interest rate sensitive stock portfolios with their large bank and utilities positions, RAFI earned a materially higher return than the S&P 500. Similar results were found in other markets.

Higher returns and better asset/liability matching? Hard to believe but intuitively these results make sense. Recall that RAFI holdings and weights are selected using a blend of fundamental measures of firm size – sales, cash flow, book value, and dividends paid. In doing so, RAFI is able to break the return drag associated with a capitalization-weighted strategy that always overweights overpriced stocks and underweights underpriced stocks.

The intuition is enhanced by looking at Figure 1, which shows RAFI performance in various economic environments.

Let's look at the recession period, which is typically a tough time for pension plans. In a recessionary period, RAFI produces an average annualized return of 6.8% versus 3.0% for the S&P 500 Index, or a premium of 3.8%, which is significantly better than the strategy's overall advantage of 2.1% for all environments. So at a time when liabilities are rising (because interest rates typically fall due to slow demand) and the ability to fund them is falling (because corporate earnings—the source for plan contributions—are lower), RAFI produces larger excess returns than the capitalization-weighted alternative. At the same time, RAFI still generates a meaningful excess return during the good times, unlike defensive and conservative equity portfolios.

These results suggest that a partial cure to the pension woes can be had by shifting pension equity portfolios from capitalization-weighted indexes to a RAFI approach.

Figure 1: Fundamental Index 1000 Performance in Different Economic Environments

1962 - 2005	EXPANSIONS	RECESSIONS
RAFI™ 1000	13.2%	6.8%
S&P 500 Index	11.4%	3.0%

Source: IPM (2006)

Performance Update

TOTAL RETURN AS OF 4/30/07	BLOOMBERG TICKER	YTD	12 MONTH	ANNUALIZED 3 YEAR	ANNUALIZED 5 YEAR	ANNUALIZED 10 YEAR	10 YEAR VOLATILITY
FTSE RAFI™ 1000 Index[A]	FR10XTR	5.85%	18.51%	15.28%	11.05%	12.39%	14.28%
S&P 500[B]	SPTR	5.10%	15.24%	12.25%	8.54%	8.04%	15.16%
Russell 1000[C]	RU10INTR	5.47%	15.16%	12.94%	9.08%	8.48%	15.27%
FTSE RAFI™ US 1500 Index[D]	FR15USTR	5.36%	10.89%	17.04%	15.43%	16.15%	18.29%
Russell 2000[E]	RU20INTR	3.77%	7.83%	14.65%	11.13%	10.39%	19.99%
FTSE RAFI™ Global Ex US 1000 Index[F]	FRX1XTR	9.69%	22.83%	25.07%	19.79%	13.22%	15.06%
MSCI EAFE[G]	GDDUEAFE	8.87%	20.32%	23.00%	17.09%	9.08%	15.06%
FTSE All World Series Developed x-US[H]	FTS5DXUS	8.90%	20.49%	23.70%	17.75%	9.79%	15.10%

Source: Based on price data from Bloomberg

[3] Duration is a measure of price sensitivity to interest rate movements. For small interest rate changes, the duration is the approximate percentage that the value of the asset will fall/rise for a 1% increase/decrease in interest rates.

© 2007 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 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. The information contained herein should not be construed as financial or investment advice on any subject matter. 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 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).

The trade names Fundamental Index, RAFI, RAFI-Global, Fundamental Global, Fundamentals Weighted, Fundamental 1000, Fundamental 2000, Fundamental 3000, Global Fundamental, the RAFI logo, and the Research Affiliates corporate name and logo are the exclusive intellectual property of Research Affiliates, LLC. Any use of these trade names and logos without the prior written permission of Research Affiliates, LLC, is expressly prohibited. Research Affiliates, LLC, 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 Research Affiliates, LLC (Patent Pending Publication Numbers: US-2005-0171884-A1, US-2006-0015433-A1, US-2006-0149645-A1,WO 2005/076812 , US-2007-0055598-A1 and EPN 1733352).

Definition of Indices:

A. The 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 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.
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.

Note - It is not possible to invest directly in any of the indexes above.

155 N. Lake Avenue, Suite 900
Pasadena, CA 91101
Phone (626) 584-2100
Fax (626) 584-2111
info@rallc.com
www.rallc.com