Retired Investor

Invest Wisely…Get an Impartial Second Opinion.

Contents

This Month's Issue: Key Points

This month's issue begins with a review of recent research into investor behavior which proves, yet again, why consistently successful active management is so hard. Our second feature is intended to help readers make better sense of the deluge of headlines about changing volatility, risk aversion, correlations, risk appetites, risk premia and the like. We start with a review of key concepts and then move onto the insights provided by recent research. Our product and strategy notes cover interesting papers on the U.S. housing market, university endowment fund returns, mutual fund rating systems, the rising pressures on CEOs of private equity owned companies, and the new timber ETF from Claymore.

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This Month's Letters to the Editor

What do you think of 130/30 funds?

That's an interesting and timely question. The logic behind these funds is that an active manager should be able to generate higher risk adjusted returns (alpha) by going both long and short stocks, rather than limiting short positions to a zero weight relative to a benchmark weight. The theory certainly makes sense, as far as it goes, and assuming a truly skilled active manager is running the money (always a big if). However, we have two caution flags to raise. First, implementing a continuing short investment strategy may be outside the skill sets of many managers who have historically managed long-only portfolios. Second, we have yet to hear an argument as to why we would want to invest in a 130/30 fund rather than investing in a broad equity market index product and another product that follows a deliberate market neutral investment strategy (that is, seeking to earn returns from company specific risks, while hedging away overall market risks and thereby generating returns that have a low correlation with other asset classes in a portfolio).

I'm disappointed you don't provide more tactical trading and fund recommendations. Why not?

The short answer is because that is not the purpose of our publications. But that is too glib. Let me put things in a broader context. We like to say that forecasts can be made at three levels. At the strategic level, forecasts focus on what could happen and why, and generally have a longer time frame. At the operational level, they focus on how something could happen. And at the tactical level, they are quite granular and short term, focusing on issues like when, where, and who. Most of our writing is focused on strategic and operational issues – what could happen in the future and how best to position a portfolio to achieve one's goals under a wide range of possible scenarios. Tactically, of course, there are questions about the best way to implement allocations to different asset classes and how to minimize taxes through holding different asset classes in taxable and non-taxable accounts. Those are the tactical issues on which we focus, rather than short term trading recommendations where we

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believe we have no competitive advantage versus the many other publications and other parties that are in this segment. There is, however, one big exception to this, and that is our ongoing effort to identify situations involving serious asset class overvaluation. The reason for this is clear: mathematically, avoiding large losses is more important to achieving long term goals than eeking out that last 25 basis points of return. Because of this, we are willing to stick out necks out, so to speak, when we believe circumstances merit a warning to our readers.

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Global Asset Class Returns

YTD 31Oct07	In USD	In AUD	In CAD	In EURO	In JPY	In GBP	In CHF	In INR
Asset Held								
US Bonds	4.68%	-12.71%	-18.09%	-4.92%	1.46%	1.69%	-0.47%	-7.49%
US Prop	-2.92%	-20.31%	-25.69%	-12.52%	-6.14%	-5.91%	-8.07%	-15.09%
US Equity	11.12%	-6.27%	-11.65%	1.52%	7.90%	8.13%	5.97%	-1.05%
AUS Bonds	14.69%	-2.70%	-8.08%	5.10%	11.47%	11.70%	9.54%	2.52%
AUS Prop	19.90%	2.51%	-2.87%	10.30%	16.67%	16.91%	14.74%	7.72%
AUS Equity	47.70%	30.31%	24.93%	38.11%	44.48%	44.71%	42.55%	35.53%
CAN Bonds	20.77%	3.38%	-2.00%	11.18%	17.55%	17.78%	15.62%	8.60%
CAN Prop	21.98%	4.59%	-0.78%	12.39%	18.76%	18.99%	16.83%	9.81%
CAN Equity	45.31%	27.92%	22.54%	35.71%	42.08%	42.32%	40.15%	33.13%
Euro Bonds	6.38%	-11.01%	-16.39%	-3.21%	3.16%	3.39%	1.23%	-5.79%
Euro Prop.	-6.16%	-23.55%	-28.93%	-15.75%	-9.38%	-9.15%	-11.31%	-18.33%
Euro Equity	22.78%	5.39%	0.01%	13.18%	19.55%	19.79%	17.62%	10.60%
Japan Bnds	3.82%	-13.57%	-18.95%	-5.78%	0.59%	0.83%	-1.34%	-8.36%
Japan Prop	8.74%	-8.65%	-14.03%	-0.86%	5.52%	5.75%	3.59%	-3.43%
Japan Eqty	1.06%	-16.33%	-21.71%	-8.54%	-2.17%	-1.93%	-4.10%	-11.12%
UK Bonds	1.01%	-16.38%	-21.76%	-8.59%	-2.22%	-1.98%	-4.15%	-11.17%
UK Prop.	-25.13%	-42.52%	-47.90%	-34.73%	-28.35%	-28.12%	-30.28%	-37.30%
UK Equity	16.28%	-1.11%	-6.49%	6.68%	13.05%	13.29%	11.12%	4.10%
World Bnds	6.91%	-10.48%	-15.86%	-2.69%	3.69%	3.92%	1.76%	-5.26%
World Prop.	5.68%	-11.71%	-17.09%	-3.92%	2.46%	2.69%	0.53%	-6.49%
World Eqty	17.50%	0.11%	-5.27%	7.90%	14.28%	14.51%	12.35%	5.33%
Commod	13.69%	-3.70%	-9.08%	4.10%	10.47%	10.70%	8.54%	1.52%
Timber	17.02%	-0.36%	-5.74%	7.43%	13.80%	14.03%	11.87%	4.85%
EqMktNtrl	3.82%	-13.57%	-18.95%	-5.78%	0.59%	0.83%	-1.34%	-8.36%
Volatility	60.29%	42.91%	37.53%	50.70%	57.07%	57.30%	55.14%	48.12%
Currency								
AUD	17.39%	0.00%	-5.38%	7.79%	14.16%	14.40%	12.23%	5.21%
CAD	22.77%	5.38%	0.00%	13.17%	19.54%	19.78%	17.61%	10.59%
EUR	9.60%	-7.79%	-13.17%	0.00%	6.37%	6.61%	4.44%	-2.58%
JPY	3.22%	-14.16%	-19.54%	-6.37%	0.00%	0.24%	-1.93%	-8.95%
GBP	2.99%	-14.40%	-19.78%	-6.61%	-0.24%	0.00%	-2.17%	-9.19%
USD	0.00%	-17.39%	-22.77%	-9.60%	-3.22%	-2.99%	-5.15%	-12.17%
CHF	5.15%	-12.23%	-17.61%	-4.44%	1.93%	2.17%	0.00%	-7.02%
INR	12.17%	-5.21%	-10.59%	2.58%	8.95%	9.19%	7.02%	0.00%

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Asset Class Valuation Update

Our market valuation analyses are based on the assumption that markets are not perfectly efficient and always in equilibrium. This means that it is possible for the supply of future returns a market is expected to provide to be higher or lower than the returns investors logically demand. In the case of an equity market, we define the future supply of returns to be equal to the current dividend yield plus the rate at which dividends are expected to grow in the future. We define the return investors demand as the current yield on real return government bonds plus an equity market risk premium. As described in our May, 2005 issue, people can and do disagree about the "right" values for these variables. Recognizing this, we present four valuation scenarios for an equity market, based on different values for three key variables. First, we use both the current dividend yield and the dividend yield adjusted upward by .50% to reflect share repurchases. Second, we define future dividend growth to be equal to the long-term rate of total (multifactor) productivity growth. For this variable, we use two different values, 1% or 2%. Third, we also use two different values for the equity risk premium required by investors: 2.5% and 4.0%. Different combinations of all these variables yield high and low scenarios for both the future returns the market is expected to supply (dividend yield plus growth rate), and the future returns investors will demand (real bond yield plus equity risk premium). We then use the dividend discount model to combine these scenarios, to produce four different views of whether an equity market is over, under, or fairly valued today. The specific formula is (Current Dividend Yield x 100) x (1+ Forecast Productivity Growth) divided by (Current Yield on Real Return Bonds + Equity Risk Premium - Forecast Productivity Growth). Our valuation estimates are shown in the following tables, where a value greater than 100% implies overvaluation, and less than 100% implies undervaluation. In our view, the greater the number of scenarios that point to overvaluation or undervaluation, the greater the probability that is likely to be the case.

Equity Market Valuation Analysis at 31 October 07

Australia	**Low Demanded Return**	**High Demanded Return**
High Supplied Return	82%	121%

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Low Supplied Return	125%	170%

Canada	**Low Demanded Return**	**High Demanded Return**
High Supplied Return	108%	172%
Low Supplied Return	194%	276%

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Eurozone	**Low Demanded Return**	**High Demanded Return**
High Supplied Return	78%	122%
Low Supplied Return	128%	180%

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Japan	**Low Demanded Return**	**High Demanded Return**
High Supplied Return	92%	177%
Low Supplied Return	212%	333%

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United Kingdom	**Low Demanded Return**	**High Demanded Return**
High Supplied Return	53%	96%
Low Supplied Return	97%	147%

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United States	**Low Demanded Return**	**High Demanded Return**
High Supplied Return	114%	179%
Low Supplied Return	204%	288%

Switzerland	**Low Demanded Return**	**High Demanded Return**
High Supplied Return	98%	150%
Low Supplied Return	162%	303%

India	**Low Demanded Return**	**High Demanded Return**
High Supplied Return	125%	232%
Low Supplied Return	312%	481%

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Our government bond market valuation update is based on the same supply and demand methodology we use for our equity market valuation update. In this case, the supply of future fixed income returns is equal to the current nominal yield on ten-year government bonds. The demand for future returns is equal to the current real bond yield plus the historical average inflation premium (the difference between nominal and real bond yields) between 1989 and 2003. To estimate of the degree of over or undervaluation for a bond market, we use the rate of return supplied and the rate of return demanded to calculate the present values of a ten year zero coupon government bond, and then compare them. If the rate supplied is higher than the rate demanded, the market will appear to be undervalued. This information is contained in the following table:

Bond Market Analysis as of 31Oct07

	Current Real Rate	Average Inflation Premium (89-03)	Required Nominal Return	Nominal Return Supplied (10 year Govt)	Return Gap	Asset Class Over or (Under) Valuation, based on 10 year zero
Australia	2.71%	2.96%	5.67%	6.24%	0.57%	-5.24%
Canada	2.05%	2.40%	4.45%	4.30%	-0.15%	1.49%
Eurozone	2.15%	2.37%	4.52%	4.29%	-0.23%	2.25%
Japan	1.11%	0.77%	1.88%	1.61%	-0.27%	2.66%
UK	1.37%	3.17%	4.54%	5.00%	0.46%	-4.26%
USA	2.12%	2.93%	5.05%	4.46%	-0.59%	5.78%
Switz.	2.38%	2.03%	4.41%	2.98%	-1.43%	14.79%
India	2.27%	7.57%	9.84%	7.97%	-1.87%	18.73%

*Derived from ten year yield and forecast inflation

It is important to note some important limitations of this analysis. First, it uses the current yield on real return government bonds (or, in the cases of Switzerland and India, the implied real yield if those bonds existed). Over the past forty years or so, this has averaged around 3.00% in the United States. Were we to use this rate, the required rate of return would

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generally increase. Theoretically, the "natural" or equilibrium real rate of interest is a function of three variables: (1) the expected rate of multifactor productivity growth (as it increases, so to should the demand for investment, which will tend to raise the real rate); (2) risk aversion (as investors become more risk averse they save more, which should reduce the real rate of interest, all else being equal); and (3) the time discount rate, or the rate at which investors are willing to trade off consumption today against consumption in the future. A higher discount rate reflects a greater desire to consume today rather than waiting (as consumption today becomes relatively more important, savings decline, which should cause the real rate to increase). These variables are not unrelated; a negative correlation (of about .3) has been found between risk aversion and the time discount rate. This means that as people become more risk averse, they also tend to be more concerned about the future (i.e., as risk aversion rises, the time discount rate falls).

All three of these variables can only be estimated with uncertainty. For example, a time discount rate of 2.0% and risk aversion factor of 4 are considered to be average, but studies show that there is wide variation within the population and across the studies themselves. The analysis in the following table starts with current real return bond yields and the OECD's estimates of multifactor productivity growth between 1995 and 2002 (with France and Germany proxying for the Eurozone). We then try to back out estimates for risk aversion and the time discount rate that would bring theoretical rates into line with those that have been observed in the market. Lower risk aversion may also be associated with rising danger of overvaluations occurring in other asset markets. The real rate formula is [Time Discount Rate + ((1/Risk Aversion Factor) x MFP Growth)].

Real Interest Rate Analysis at 31Oct07

Real Rate Analysis	AUD	CAD	EUR	JPY	GBP	USD
Risk Aversion Factor	3.5	4.0	4.0	5.5	5.5	4.0
Time Discount Rate	2.00%	1.75%	1.75%	1.00%	1.00%	1.75%
MFP Growth	1.60%	1.20%	1.40%	0.60%	1.40%	1.40%
Theoretical Real Rate	2.46%	2.05%	2.10%	1.11%	1.25%	2.10%
Real Rate	2.71%	2.05%	2.15%	1.11%	1.37%	2.12%

Our bond market analysis also uses historical inflation as an estimate of expected future inflation. This may not produce an accurate valuation estimate, if the historical average

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level of inflation is not a good predictor of average future inflation levels. For example, if expected future inflation is lower than historical inflation, required returns will be lower. All else being equal, this would reduce any estimated overvaluation or increase any estimated undervaluation. For example, if one were to assume a very different scenario, involving a prolonged recession, accompanied by deflation, then one could argue that government bond markets are actually undervalued today.

Let us now turn to the subject of the valuation of non-government bonds. Some have suggested that it is useful to decompose the bond yield spread into two parts. The first is the difference between the yield on AAA rated bonds and the yield on the ten year Treasury bond. Because default risk on AAA rated companies is very low, this spread may primarily reflect prevailing liquidity and jump (regime shift) risk conditions (e.g., between a low volatility, relatively high return regime, and a high volatility, lower return regime). The second is the difference between BBB and AAA rated bonds, which may tell us more about the level of compensation required by investors for bearing credit risk. For example, between August and October, 1998 (around the time of the Russian debt default and Long Term Capital Management crises), the AAA-Treasury spread jumped from 1.18% to 1.84%, while the BBB-AAA spread increased by much less, from .62% to .81%. This could be read as an indication of investor's higher concern with respect to the systematic risk implications of these crises (i.e., their potential to shift the financial markets into the low return, high volatility regime), and lesser concern with respect to their impact on the overall pricing of credit risk.

The following table shows the average level of these spreads between January, 1970 and December, 2005 (based on monthly Federal Reserve data), along with their standard deviations and 67% (average plus or minus one standard deviation) and 95% (average plus or minus two standard deviations) confidence range (i.e., based on historical data, 95% of the time you would expect the current spreads to be within two standard deviations of the long term average).

	AAA – 10 Year Treasury	**BBB-AAA**
Average	.97%	1.08%

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Standard Deviation	.47%	.42%
Avg. +/- 1 SD	1.44% - .50%	1.51% - .66%
Avg. +/- 2 SD	1.91% - .03%	1.93% - .23%

At 31 October 2007, the AAA minus 10 year Treasury spread was 1.16%. This is above the long-term average compensation for bearing liquidity and jump risk (assuming our model is correct), and reflects a clear market reaction to the severe liquidity problems that roiled the markets during August and have yet to abate.

At the end of the month, the BBB minus AAA spread was .85%. This is still below the long-term average compensation for bearing credit risk, in spite of the tumultuous developments in the credit markets over the past month. We still believe that it is more likely that credit risk is underestimated rather than overestimated today, and that corporate bonds are overvalued rather than undervalued.

For an investor contemplating the purchase of foreign bonds or equities, the expected future annual percentage change in the exchange rate is also important. Study after study has shown that there is no reliable way to forecast this, particularly in the short term. At best, you can make an estimate that is justified in theory, knowing that in practice it will not turn out to be accurate. That is what we have chosen to do here. Specifically, we have taken the difference between the yields on ten-year government bonds as our estimate of the likely future annual change in exchange rates between two regions. According to theory, the currency with the relatively higher interest rates should depreciate versus the currency with the lower interest rates. Of course, in the short term this often doesn't happen, which is the premise of the popular hedge fund "carry trade" strategy of borrowing in low interest rate currencies, investing in high interest rate currencies, and, essentially, betting that the change in exchange rates over the holding period for the trade won't eliminate the potential profit. Because (as noted in our June 2007 issue) there are some important players in the foreign exchange markets who are not profit maximizers, carry trades are often profitable, at least over short time horizons. Our expected medium to long-term changes in exchange rates are summarized in the following table:

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Annual Exchange Rate Changes Implied by Bond Market Yields on 31Oct07

	To AUD	To CAD	To EUR	To JPY	To GBP	To USD	To CHF	To INR
From								
AUD	0.00%	-1.94%	-1.95%	-4.63%	-1.24%	-1.78%	-3.26%	1.73%
CAD	1.94%	0.00%	-0.01%	-2.69%	0.70%	0.16%	-1.32%	3.67%
EUR	1.95%	0.01%	0.00%	-2.68%	0.71%	0.17%	-1.31%	3.68%
JPY	4.63%	2.69%	2.68%	0.00%	3.39%	2.85%	1.37%	6.36%
GBP	1.24%	-0.70%	-0.71%	-3.39%	0.00%	-0.54%	-2.02%	2.97%
USD	1.78%	-0.16%	-0.17%	-2.85%	0.54%	0.00%	-1.48%	3.51%
CHF	3.26%	1.32%	1.31%	-1.37%	2.02%	1.48%	0.00%	4.99%
INR	-1.73%	-3.67%	-3.68%	-6.36%	-2.97%	-3.51%	-4.99%	0.00%

Our approach to valuing commercial property securities as an asset class is hindered by a lack of historical data about rates of dividend growth. To overcome this limitation, we have assumed that markets are fairly valued today (i.e., the expect supply of returns equals the expected returns demanded by investors), and "backed out" the implied future real growth rates for dividends (which over time should correlated with the real change in rental income) to see if they are reasonable in light of other evidence about the state of the economy (see below). This analysis assumes that investors require a 2.5% risk premium above the yield on real return bonds to compensate an investor for the risk of securitized commercial property as an asset class. The following table shows the results of this analysis:

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Commercial Property Securities Analysis as of 31Oct07

Country	Real Bond Yield	Plus Commercial Property Risk Premium	Less Dividend Yield on Commercial Property Securities	Equals Implied Rate of Future Real Dividend Growth
Australia	2.71%	2.50%	5.4%	-0.2%
Canada	2.05%	2.50%	4.3%	0.3%
Eurozone	2.15%	2.50%	3.2%	1.4%
Japan	1.11%	2.50%	1.4%	2.2%
Switzerland	2.38%	2.50%	4.0%	0.9%
United Kingdom	1.37%	2.50%	2.7%	1.2%
United States	2.12%	2.50%	4.1%	0.5%

If you think the implied real growth estimates in the last column are too high relative to your expectation for the future real growth in average rents, this implies commercial property securities are overvalued today. On the other hand, if you think the implied growth rate is too low, that implies undervaluation. Since we expect a significant slowdown in the global economy over the next few years, we are inclined to view most of these implied real growth assumptions as too optimistic (Australia and perhaps Canada excepted), and therefore to believe that the balance of business cycle and valuation evidence suggests that commercial property securities in many markets are probably overvalued today.

To estimate the likely direction of short term commodity futures price changes, we compare the current price to the historical distribution of futures index prices. Between 1991 and 2005 period, the Dow Jones AIG Commodities Index (DJAIG) had an average value of 107.6, with a standard deviation of 21.9. The 31 October 2007 closing value of 183.52 was nearly three and a half standard deviations above the long term average (assuming the value of the index is normally distributed around its historical average, a value greater than three standard deviations away from that average should occur less than 1% of the time). Given this, the probability of a near term decline in the spot price of the DJAIG still seems much higher than the probability of an increase. At any given point in time, the current price of a commodity futures contract should equal the expected future spot price less some premium (i.e., expected return) the buyer of the future expects to receive for bearing the risk that this forecasted future spot price will be inaccurate. However, the *actual* return realized by the buyer of the futures

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contract can turn out to be quite different from the expected return. When it occurs, this difference will be due to unexpected changes in the spot price of the contract that occur after the date on which the futures contract was purchased but before it is closed out. If the unexpected change in the spot price is positive, the buyer of the futures contract (i.e., the investor) will receive a higher than expected return; if the unexpected price change is negative, the buyer's return will be lower than expected. In a perfectly efficient market, these unexpected price changes should be unpredictable, and over time net out to zero. On the other hand, if the futures market is less than perfectly efficient – if, for example, investors' emotions cause prices to sometimes diverge from their rational equilibrium values – then it is possible for futures contracts to be over or undervalued.

Our approach to assessing the current valuation of timber is based on two publicly traded timber REITS: Plum Creek (PCL) and Rayonier (RYN). As in the case of equities, we compare the return these are expected to supply (defined as their current dividend yield plus the expected growth rate of those dividends) to the equilibrium return investors should rationally demand for holding timber assets (defined as the current yield on real return bonds plus an appropriate risk premium for this asset class). As is the case with equities, two of these variables are published: the dividend yields on the timber REITS and the yield on real return bonds. The other two variables have to be estimated. A number of factors contribute to the expected future growth rate of timber REIT dividends. These are listed in the following table, along with the assumptions we make about their future values:

Growth Driver	**Assumption**
Biological growth of trees	This varies widely according to the type and maturity a given timber property (and, indeed, biological growth doesn't directly translate into returns as different trees and growing arrangements also involve different costs. We assume 6% as the long term average.
Harvesting rate	In order to produce a timber REIT's dividend, a certain physical volume of trees must be harvested each year. This will vary over time; for example, when prices are high, a smaller volume will have to be cut to pay for a given level of dividends. As a long term average, we assume that 5% of tree volume is harvested each year.
In-growth of trees	This refers to the fact that as trees grow taller and wider, they are capable of

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	producing products with substantially higher values. This so called "grade change" will cause an increase in value (and hence return) of timber even when prices within each product category are falling. We assume this adds 3% per year to the return on timber assets.
Change in prices of timber and land on which the trees are growing	We assume that over the long term prices will just keep pace with inflation. In the U.S. some data shows real price increases of 2% per year over the past 20 years; however, IMF data shows real price declines on a world timber price index. Hence, we assume the contribution of real timber price changes to long term timber returns is zero.
Diversification across countries	As in the case of commodities, that an investor in an internationally diversified portfolio of timber assets should earn a diversification return, similar to the one earned by investors in a well diversified portfolio of commodity futures contracts. In the interest of conservatism, we assume that in the case of timber this equals zero.
Carbon credits	In the future, investors in timberland may earn additional returns from the receipt and resale of carbon credits. However, since the future value of those credits is so uncertain, we have assumed no additional return from this source.

This leaves the question of the appropriate return premium to assume for the overall risk of investing in timber as an asset class. Historically, the difference between returns on the NCRIEF timberland index and those on real return bonds has averaged around six percent. However, since the timber REITS are much more liquid than the properties included in the NCRIEF index, we have used four percent as the required return premium for investing in liquid timberland assets.

Given these assumptions, our assessment of the valuation of the timber asset class at 31 October 2007 is as follows:

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1. Forecast supplied return = 4.00% (Avg. Div Yld) + 4.00% (Long Term Growth Rate of 6% less Harvest Rate of 5% plus in-growth rate of 3%) = 8.00%
2. Return demanded = 2.12% (Real Bond Yield) + 4.00% (Risk Premium) = 6.12%
3. Return Demanded/Return Supplied = 77%
4. Conclusion: Timber is probably undervalued today.

Our approach to assessing the current value of equity market volatility (as measured by the VIX index, which tracks the level of S&P 500 Index volatility implied by the current pricing of put and call options on this index) is similar to our approach to commodities. Between January 2, 1990 and December 30, 2005, the average value of the VIX Index was 19.45, with a standard deviation of 6.40. The one standard deviation (67% confidence interval) range was 13.05 to 28.85, and the two standard deviations (95% confidence) range was from 6.65 to 32.25. On 31 October 2007, the VIX closed at 18.53. This is quite close to the VIX's long term average value. We believe this level is too low in light of rising uncertainty in the world economy and financial markets. Hence, we conclude that equity volatility is possibly still undervalued today.

Sector and Style Rotation Watch

The following table shows a number of classic style and sector rotation strategies that attempt to generate above index returns by correctly forecasting turning points in the economy. This table assumes that active investors are trying to earn high returns by investing today in the styles and sectors that will perform best in the next stage of the economic cycle. The logic behind this is as follows: Theoretically, the fair price of an asset (also known as its fundamental value) is equal to the present value of the future cash flows it is expected to produce, discounted at a rate that reflects their relative riskiness.

Current economic conditions affect the current cash flow an asset produces. Future economic conditions affect future cash flows and discount rates. Because they are more numerous, expected future cash flows have a much bigger impact on the fundamental value of an asset than do current cash flows. Hence, if an investor is attempting to earn a positive

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return by purchasing today an asset whose value (and price) will increase in the future, he or she needs to accurately forecast the future value of that asset. To do this, he or she needs to forecast future economic conditions, and their impact on future cash flows and the future discount rate. Moreover, an investor also needs to do this before the majority of other investors reach the same conclusion about the asset's fair value, and through their buying and selling cause its price to adjust to that level (and eliminate the potential excess return).

We publish this table to make an important point: there is nothing unique about the various rotation strategies we describe, which are widely known by many investors. Rather, whatever active management returns (also known as "alpha") they are able to generate is directly related to how accurately (and consistently) one can forecast the turning points in the economic cycle. Regularly getting this right is beyond the skills of most investors. In other words, most of us are better off just getting our asset allocations right, and implementing them via index funds rather than trying to earn extra returns by accurately forecasting the ups and downs of different sub-segments of the U.S. equity and debt markets. That being said, the highest rolling three month returns in the table give a rough indication of how investors expect the economy and interest rates to perform in the near future. *The highest returns in a given row indicate that most investors are anticipating the economic and interest rate conditions noted at the top of the next column* (e.g., if long maturity bonds have the highest year to date returns, a plurality of bond investor opinion expects rates to fall in the near future). Comparing returns across strategies provides a rough indication of the extent of agreement (or disagreement) investors about the most likely upcoming changes in the state of the economy. When the rolling returns on different strategies indicate different conclusions about the most likely direction in which the economy is headed, we place the greatest weight on bond market indicators. Why? We start from a basic difference in the psychology of equity and bond investors. The different risk/return profiles for these two investments produce a different balance of optimism and pessimism. For equities, the downside is limited (in the case of bankruptcy) to the original value of the investment, while the upside is unlimited. This tends to produce an optimistic view of the world. For bonds, the upside is limited to the contracted rate of interest and getting your original investment back (assuming the bonds are held to maturity). In contrast, the downside is significantly greater – complete loss of principal. This tends to produce a more pessimistic (some might say realistic) view of

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the world. As we have written many times, investors seeking to achieve a funding goal over a multi-year time horizon, avoiding big downside losses is arguably more important than reaching for the last few basis points of return. Bond market investors' perspective tends to be more consistent with this view than equity investors' natural optimism. Hence, when our rolling rotation returns table provides conflicting information, we tend to put the most weight on bond investors' implied expectations for what lies ahead.

Three Month Rolling Nominal Returns on Classic Rotation Strategies in the U.S. Markets

Rolling 3 Month Returns Through	***31Oct07***			
Economy	Bottoming	Strengthening	Peaking	Weakening
Interest Rates	Falling	Bottom	Rising	Peak
Style and Size Rotation	Small Growth (DSG) **8.05%**	Small Value (DSV) **3.77%**	Large Value (ELV) **5.38%**	Large Growth (ELG) **9.16%**
Sector Rotation	Cyclicals (IYC) **1.88%** Technology (IYW) **13.97%**	Basic Materials (IYM) **14.69%** Industrials (IYJ) **4.50%**	Energy (IYE) **10.20%** Staples (IYK) **8.89%**	Utilities (IDU) **12.00%** Financials (IYF) **2.49%**
Bond Market Rotation	Higher Risk (LQD) **4.10%**	Short Maturity (SHY) **2.08%**	Low Risk (TIP) **3.27%**	Long Maturity (TLT) **3.84%**

The following table sums up our conclusions (based on the analysis summarized in this article) as to potential asset class under and overvaluations at the end of October 2007. The distinction between possible, likely and probable reflects a rising degree of confidence in our conclusion.

Probably Overvalued	Commodities, Corporate Bonds/Credit Risk, Equity Markets (except U.K.)
Likely Overvalued	

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Possibly Overvalued	Commercial Property
Possibly Undervalued	Australian and UK Government Bonds; Real Return Bonds
Likely Undervalued	
Probably Undervalued	Non-U.S. Dollar Bonds (based on expected XR changes), Equity Volatility, and Timber

New Research on Investor Behavior

We are inveterate readers of new studies about different aspects of investor behavior, always looking for more insight into the traps that can negatively affect portfolio returns. The latest crop of papers offers some interesting insights.

In "All the News That's Fit To Reprint", Paul Tetlock (whose work is always worth reading) "investigates stock market responses to public news stories that may contain stale information." In contrast to stories that contain new information (and therefore often permanently change price levels), he finds that "market reaction to stale news stories partially reverse in the next week" and "are much larger in stocks that individual investors trade frequently." He theorizes that "an increase in information with ambiguous relevance for trading decisions could overload investors' finite cognitive resources", causing them to trade on stale information. As to why this occurs more with individual investors than with institutional investors, two German professors have offered a common sense answer. In "Portfolio Selection with Time Constraints", Dolzer and Nietert note that, even if an investor is supremely rational, a lack of time will produce the same less-than-perfect result as a lack of cognitive capacity. Of course, any mother could have told them this, but I digress.

Further evidence on the impact of informed versus uninformed trading comes from a paper by Anna Obizhaeva. In "Information versus Liquidity: Evidence from Portfolio Transition Trades", she analyzes a unique dataset – records of a transition manager that executes transfers of institutional funds from one professional investment manager to another. Obizhaeva hypothesizes that the buy side of these trades represents an informed trade (presumably because the institution has identified the underlying manager as skilled) while the sell side is a liquidity driven trade (i.e., the institution is selling assets managed by a poor performing manager to reinvest the funds with a manager thought to be more skilled). She finds that the informed trades result in permanent price changes, while the liquidity driven trades result in only temporary price changes that are soon reversed.

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However, in "How Do Markets React to Fundamental Shocks?", Weber and Welfens make an important point: positive and negative information are not just two sides of the same coin, at least in terms of the way that markets tend to react to them. "Following a positive shock to fundamental value, prices underreact strongly; following a negative shock, there is much less underreaction. And in both cases, prices drift towards the new fundamental value, leading to the characteristic momentum pattern." Finally, the extent of the underreaction and the momentum effect depends on the fraction of investors in the market for the asset who exhibit the so-called disposition effect, or a reluctance to sell losers.

Finally, a number of other papers highlight the ways that the meaning of information can be distorted. In "Are Men More Optimistic?" Ben Jacobsen of Massey University in New Zealand finds that they are. In "Do Social Biases Influence the Market's Interpretation of New Public Information?" Alok Kumar finds that "female and minority equity analysts provide bolder forecasts and that female analysts are relatively more accurate. The market, however, overestimates the abilities of both groups and reacts more strongly to their forecasts, even though they receive less media coverage." He concludes that "overall, the evidence indicates that social biases such as positive stereotypes and perception of discrimination influence the stock market reaction to public news." And in "Competition and Bias", Hong and Kacperczyk find that stock forecasts tend to be more optimistic when there are fewer analysts covering a stock.

As we have repeatedly noted, all of these factors help to make active management a very difficult game at which very few investors are consistently successful, or successful over the long term. Another paper which makes this point is "Predicting Stock Price Movements: Regressions versus Economists" by Paul Soderlind, who studies the results of the "Livingston Survey" of economists' predictions that began in 1952 and is now administered by the Federal Reserve Bank of Philadelphia. The paper makes some interesting and important points. The out of sample accuracy of many of the predictor variables suggested by other researchers (e.g., changes in dividend yields or price earnings ratios) is very limited. More important, a model that includes all the indicators is the least accurate of all out of sample, but the most accurate in sample. Soderlind explains that this is the practical consequence of what is known as "overfitting" a model to a set of data. However, the human forecasters fare just as badly as the overfitted model. Soderlind notes that since he is using the median of multiple

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forecasters' predictions, and that combining forecasts usually increases their accuracy, his conclusion actually represents a rather optimistic view of any single forecaster's likely accuracy.

Lest anyone think that these academic studies aren't relevant for real world investors, Goyal and Wahal have published a new paper with evidence to the contrary. In "The Selection and Termination of Investment Management Firms by Plan Sponsors", they review 3,400 plan sponsors' decisions between 1993 and 2003. Presumably these sponsors have access to the best thinking and advice when it comes to selecting active managers who are likely to deliver risk adjusted returns above a relevant benchmark. Unfortunately, even for these presumably most sophisticated investors, this turns out not to be the case. Instead, Goyal and Wahal find that "plan sponsors hire investment managers after [the latter have produced] large positive excess returns [i.e., returns above a benchmark]. However, this return chasing behavior does not deliver positive excess returns thereafter…If plan sponsors had stayed with the fired investment managers, their excess returns would be no different than those delivered by the newly hired managers." Finally, the authors find that so-called "headline risk-sensitive plan sponsors" are more "likely to chase investment styles with high returns in the last three years and to terminate managers for poor performance. Yet they have lower post-hiring returns than those plan-sponsors that are headline risk-resistant or neutral." So if this is the performance achieved by professional plan sponsors, what are the odds that an individual investor will be able to consistently identify active fund managers who will be able to deliver risk adjusted returns that are better than those on a similar index fund?

Thinking Clearly About Risk

With increasing frequency, investors are bombarded with stories about changing risk aversion, risk premia, volatility, correlation and expected returns. Too often, these stories fail to help investors develop logical views about what is happening (and likely to happen) in the world's financial markets, and instead seem to boost collective emotional sensitivity to the latest news byte. With this in mind, we thought it would be useful to briefly review some basic concepts and relevant research findings in three critical areas: risk aversion, volatility, and correlation.

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Let's start with some basic definitions. The risk premium on an asset is the additional compensation above the risk free rate (which we generally take to be the yield on an inflation indexed government bond) that an investor receives for holding a risky asset – that is, an asset whose final payoff is uncertain. As Pablo Fernandez has described at length in an excellent new paper ("Equity Premium: Historical, Expected, Required, and Implied"), the term "risk premium" has four different meanings that are often confused with each other. The historical (or ex-post) risk premium is what investors received in the past for holding a given risky asset. Some of this return may have been expected in advance, and some of it may have been a pleasant (or unpleasant) surprise. For this reason, historical risk premia are, at best, imperfect estimates of investors' true expected risk premia today. However, the risk premium that an investor expects to earn from holding an asset is not necessarily equal to the risk premium he or she requires to induce him or her to hold said asset. The expected risk premium is a function of the investor's forecast for multiple factors, including the future cash flows from an asset, changes in the real rate of interest, and changes in other investors' forecasts of the asset's cash flows, and in the risk premiums they require to hold it. In contrast, an investor's own required rate of return to hold a given asset is a function of his or her demand (e.g., appetite) for risk, which in turn is a function of both psychological factors (e.g., risk aversion, loss aversion, regret aversion, a desire to emulate or impress a peer group, overconfidence, over/under reaction, and many others) and economic factors (the capacity to bear risk, for example, when liquidity dries up, or job and housing value prospects become more uncertain). If an investor's required risk premium for an asset is higher than the expected risk premium, said investor will logically choose not to hold the asset in question.

Last but not least, the implied risk premium is an estimate of the average required risk premium of the investors who have chosen to hold the asset. However, it is by definition an imperfect estimate, because to derive it you need to make some assumptions that themselves are subject to quite a bit of uncertainty. For example, the Gordon model is a simple approach to valuing equities. It says that the price of an equity is equal to its dividend one year from now, discounted at (i.e., divided by) a rate equal to the real risk free rate, plus the required risk premium, less the real rate at which dividends are expected to grow in the future. As you can see, by rearranging these terms, the implied risk premium equals the dividend/price ratio (i.e., the dividend yield), less the risk free rate, plus the expected growth rate. Since the current

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dividend yield and risk free rates are known, if I assume a future growth rate I can derive an estimate of the implied risk premium. Of course, the problem is that future growth rates are notoriously difficult to forecast with any accuracy beyond luck (see, for example, "The Level and Persistence of Growth Rates", by Chan, Karceski, and Lakonishok).

A key point to keep in mind is that in the discussion thus far, we have made no attempt to precisely define "risk." At one level, we like to differentiate between "risk" (i.e., a situation in which the range of possible outcomes and their associated probabilities are reasonably easy to forecast); "ambiguity" (i.e., where the range of possible outcomes can be identified, but not their associated probabilities), and "uncertainty" (i.e., where neither the full range of outcomes nor their associated probabilities can be identified).

It is quite possible that an investor may employ more that one of these concepts in evaluating the "risk" and assessing the expected and required premiums for different assets in their portfolio. For example, when assessing a broad based bond index fund, an investor may focus on the standard deviation of historical returns when assessing risk. But for an investment in an early stage company, she may focus on uncertainties surrounding the company's technology, market growth, changing customer needs and future competitor actions. In sum, a key point to keep in mind when trying to digest the deluge of current articles about changing attitudes towards "risk" is that we are dealing with a very broad and not terribly well-defined concept, which can easily lead to a lot of muddled thinking and shaky conclusions.

Still, there are some basics to keep in mind. An easy way to think about the "riskiness" of an asset is to ask how it will payoff when conditions that affect your consumption start going to hell in a handbasket. Assets whose payoffs either don't change very much under any conditions (e.g. real return government bonds), or those whose payoffs improve when conditions deteriorate should be quite popular with investors. This should cause their prices to be high relative to their intrinsic value, and their expected returns to be relatively low. At the other end of the spectrum, demand for assets whose payoffs fall at the same time that everything else is going wrong should be relatively low. This means that the returns they offer need to be relatively high, in order to induce investors to own them. Keep this in mind the next time somebody offers you an investment with very high returns and very low risk. If it seems too good to be true, it isn't.

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However, the forward looking price of risk – i.e, expected, required and implied risk premia – are determined not only by the supply of assets with different payoff profiles, but also by investors' demand for them. Again, as noted above, this demand is determined by both individual and group psychological factors, as well as by changes in macroeconomic and market microstructure variables (the most important of the latter being changes in the availability of credit and liquidity).

As a practical example of this, think about the changes that have been roiling the world's credit markets through most of this year, and the changes in credit market risk premia that have occurred. What do you think caused them? On the one hand, there have been changes in economic variables (e.g., loan delinquencies and mortgage defaults) that affected the probabilities attached to different future states of the world (e.g., widespread mortgage problems), and therefore the likely payoffs of some securities (e.g., Collateralized Debt Obligations). At the same time, at least some institutional investors undoubtedly realized that their previous probability estimate for this state of the world had been too low, causing a loss of confidence in their forecasting models and a sharp increase in fear as they pondered the potential consequences of their mistake. And while their psychological aversion to risk was rising, their capacity for bearing it was falling, as lenders reassessed the value of the CDO collateral that backed their loans to the investors. This fall in liquidity in turn made prices even more volatile, and no doubt reinforced the change in psychology that was underway. In sum, at the same time there was an effective increase in the supply of securities with low payoffs in bad states of the world, the demand for said risky securities fell sharply, triggering a fall in their expected risk premium, a substantial increase in individual investors' required risk premiums to hold them, a fall in their market price, and a sharp increase in these securities' implied average required risk premium.

These basic principles have been further explored and new insights put forth in a recent series of quite interesting academic research papers. In "The Cross-Section of Volatility and Expected Returns" , Ang, Hodrick, Xing and Zhang find that stocks whose returns tend to rise when average market volatility rises have low returns, as theory predicts. However, the authors also identify an apparent anomaly, in that stocks which have high levels of idiosyncratic volatility (that is, variation in their returns that is not related to changes in average market returns) also have low returns. Existing theory says this should not be the

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case, as such company-specific volatility can be diversified away, and therefore should not affect returns. In a subsequent paper, ("High Idiosyncratic Volatilty and Low Returns: International and Further U.S. Evidence"), the authors find that the phenomenon they identified is not confined to U.S. data, but exists in a wide variety of markets. Equally as important, the variations in the returns of stocks with high levels of idiosyncratic volatility have a high degree of comovement, suggesting that there is a common factor involved. After ruling out many of the "usual suspects" (e.g., lower levels of volatility and information availability for the firms with high idiosyncratic volatility), they conclude that the cause of the anomaly remains a mystery.

But not for long. Alexander Barinov's recent thesis at the Simon School of Business at Rochester University offers an intriguing and plausible explanation for the anomaly identified by Ang and his co-authors. Barinov starts with the logical observation that the price of a stock reflects three factors: (a) the cash flows its current assets are expected to produce in the future; (b) the value of the unexercised growth options it holds; and (c) the prevailing risk premium and real bond yield. To put it differently, the market value of a stock equals the present value of its current cash flows plus the present value of its growth options. Barinov then notes that, all else being equal, the value of a growth option increases with its volatility – i.e., with the range of its possible payoffs. Hence, in a bad state of the world, the value of a firm with more high volatility growth options should decline by less (or perhaps even increase) compared to the value of a firm with fewer and/or less volatile growth options. Therefore, investors should prefer to own the firm with higher idiosyncratic volatility (rather than diversify it away), as it provides a better hedge against a forced reduction in the investor's consumption in bad states of the world – resulting in the observed lower level of return for these firms' stocks. It is a new paper, but its argument is plausible, and supported by the data Barinov uses to test it. That said, Barinov's findings raise some interesting questions with respect to the meaning of other stylized facts about stock prices and returns. For example, a number of authors have noted that wide dispersion in analysts' forecasts is typically associated with low subsequent returns on a stock (see, for example, "Market Reactions to Differences of Opinion" by Mari Hintikka). Could this reflect the difficulty inherent in forecasting the future performance of a company with a large number of highly volatile growth options? Time (and more research) should tell.

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Another important new paper is "Dynamic Estimation of Volatility Risk Premia and Investor Risk Aversion from Option-Implied and Realized Volatilities" by Bollerslev, Gibson and Zhou. The authors begin by noting the challenges in finding an appropriate way to measure risk aversion and the premium investors require to bear the risk of future changes in aggregate volatility (for more on this, see "Does Risk Aversion Drive Financial Crises: Testing the Predictive Power of Empirical Indictors" by Coudert and Gex). Bollerslev and his colleagues propose a new metric that seems to reflect quite well some stylized facts in the historical data – e.g., that volatility changes over time, that it tends to rise sharply and then only gradually decline, and that it has some weak relationships with macroeconomic variables. Using their new metric, the authors estimate that the average premium for bearing aggregate (i.e., equity asset class level) volatility risk is about 1.8% per year. In related paper, ("Volatility Risk Premium, Risk Aversion and the Cross-Section of Stock Returns"), Nyberg and Wilhelmsson find that adding the new volatility premium metric to the market return eliminates the predictive power of the Fama/French Value and Size factors, and eliminates most (but not all) of the predictive power of the momentum factor. In terms of risk aversion and the volatility premium's correspondence to changes in key economic variables, Bollerslev and his co-authors find that they are lower when (a) the spread between AAA corporate and U.S. Treasury Bond yields is low; (b) Housing starts are strong; (c) the P/E ratio on the S&P 500 is high; (d) Industrial production is high; and (e) PPI inflation is low.

Smart investors also know that it is not just changes in asset returns and volatilities over time that can affect their portfolios – the correlation of returns across assets is also important, and it too changes over time. Two other recent papers have found that, consistent with asset pricing theory, the risk presented by changes in correlation is also priced by the market. In "Correlation Risk", Krishnan, Petkova and Ritchken begin with the common observation that the correlation of returns between stocks tends to rise during market downturns – the familiar phenomenon of "diversification benefits disappearing when they are most needed." Their analysis of historical data finds that stocks with higher payoffs during these "high correlation" states have provided lower returns to investors, logically because their popularity causes their prices to be bid up.

A closely related paper ("Correlation Risk and Optimal Portfolio Choice") by Buraschi, Porchia and Trojani finds that over a multiyear horizon, and investor's demand for

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assets which hedge this correlation risk can be higher than his or her demand for assets that hedge the risk of changes in volatility, particularly when (a) the average level of correlation between portfolio assets is high, and (b) the number of assets in the portfolio (and hence the uncertainty associated with the correlation matrix) increases. To put this in practical perspective, our model portfolios have historically contained allocations to foreign currency bonds that were higher than those found in model portfolios proposed by other writers. One of our key arguments for this position has been that foreign currency bonds are one of the few asset classes whose correlation with domestic equities tends to decrease (not increase) when the return on equities falls. Recent experience has not caused us to change this view, and the introduction of more foreign currency bond funds suggests (at least to us) that more people may be seeing the same potential benefits.

Product and Strategy Notes

The U.S. Housing Market

With the future of the U.S. housing market on so many people's minds, Wheaton and Nechayev have just published a fascinating new paper: "The 1998-2005 Housing Bubble and the Current Correction: What's Different This Time?" They construct a regression equation that uses fundamental variables (e.g., population and income growth, and change in interest rates) to estimate equilibrium price levels for 59 U.S. markets. They conclude that "in all fifty nine markets, the growth in fundamentals from 1998-2005 forecasts price growth that is far below that which actually occurred." They also find that apparent overvaluations are "greater in large metropolitan statistical areas where second home and speculative buying was most prevalent, and in those MSAs where indicators suggest the sub-prime mortgage market was most active." In another recent paper ("Low Interest Rates and High Asset Prices: An Interpretation in Terms of Changing Popular Models"), Robert Shiller demonstrates that falling real interest rates could not be responsible for the sharp increase in asset prices we have seen. He posits that the bubble has been caused by a widespread ignorance of the real interest rate, and confusion about the impact of falling nominal rates (the so-called "money illusion") on asset prices.

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Three Interesting New Papers

Three recent papers may be of interest to our more technically oriented readers. In "Fiduciary Selection and Monitoring of Investment Managers Under Daubert", Ted Cackowski begins with the observation that the U.S. Supreme Court in the so-called Daubert Decision on the use of expert testimony in court cases. He notes that the Court, "adopted the proposition that 'scientific methodology should be based on generating hypotheses and testing them to see if they can be falsified'…and that the hypotheses should be supported by an articulation of credible principles." Cackowski concludes that applying the Daubert principles "to the context of investment advice effectively requires that the tools of statistical inference be employed when offering opinion testimony as to the adequacy of an [active] investment manager's performance or process." He then presents an example of a methodological approach that he believes will meet the Daubert test. Unfortunately, it seems unlikely that many active managers would pass it, in the sense of being able to demonstrate risk adjusted returns that are sufficiently different from those of a relevant benchmark that they would lead to a high confidence inference that the manager is truly skilled. If the U.S. equity market experiences a sharp and prolonged drop in the future, expect to see this methodology employed by more than a few plaintiff's litigators.

On a similar note, Noel Amenc and Veronique Le Sourd have published a stinging analysis of the fund rating systems used by Morningstar, S&P and Lipper. In "Rating the Ratings", they note that "numerous studies performed in the United States have shown that investors are widely influenced by fund ratings in making their [fund] choices." The authors conclude that the ratings do not deal adequately with three elements of fund evaluation: (1) risk; (2) performance persistence (or, more accurately, the lack thereof); and (3) the heavy impact of category definitions on fund rankings, and the negative implications for confidence in the result.

Finally, in "The Troves of Academe: Asset Allocatioin, Risk Budgeting, and the Investment Performance of University Endowment Funds", Brown, Garlappi and Tiu provide a fascinating and extensive look into a relatively unanalyzed part of the institutional investment world. Among many findings, here are a few we found quite interesting (but read

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the whole paper): (1) over time, asset allocation decisions accounted for the majority of variation in fund performance; however in any given year, cross-sectional rankings (e.g., "How did we compare to Yale and Harvard?") were heavily dependent on active manager selection skills (and those manager's timing and security selection skills). (2) Even though they gave different weights to different asset classes, most endowments had a very similar overall portfolio expected volatility, which suggests use of very similar underlying risk budgets. (3) "Somewhat surprisingly, there is only modest evidence that endowments that are heavily invested in private equity or venture capital benefit greatly from that decision. However, it appears a move towards hedge funds had a more positive impact on the cross-sectional performance." (4) Funds with heavy allocations to hedge funds do not seem to be the ones with heavy allocations to private equity and venture capital. (5) "Endowments that are leaders in moving their asset allocations toward alternative asset classes may also be capable of selecting the best managers within those asset classes. Hence, what might appear to be superior performance generated within these alternative asset classes could very well be a consequence of the first mover advantage [e.g., in hedge funds]." (6) "Market timing does seem to contribute much toward the production of total returns and is only statistically significant when viewed in conjunction with investments in alternative asset classes [e.g., global macro hedge funds]." (7) "The average endowment fund outperformed its policy portfolio [e.g., strategic allocation benchmark] by more than 100 basis points per year. However, on a risk adjusted basis such superior performance dissipates substantially once we account for momentum in past returns."

"Perform or Perish"

That was the title of Business Week's cover story on November 5, 2007. Its subject was the experience of a number of CEOs in companies that had been purchased by private equity firms. The first sentence of the article said it all: "For CEOs of private equity owned companies, the pressure to deliver is getting unbearably intense." Quite honestly, the article described either a horror show or a ticking time bomb, depending on your perspective. In the horror show corner we have CEOs who have spent years in different functional areas, slowly accumulating the knowledge and skills required to lead organizations to top performance.

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And as any one of them could tell you, that is a lot harder than it looks in a world of unpredictable technical and economic changes, intense competition and organizations still composed of less than perfect human beings. But these CEOs get to sit across the table from 30 or 40 something hotshots from private equity firms, most of who have little or no experience outside Wall Street. And, according to Business Week, they are never satisfied – if a CEO is good or lucky enough to beat his or her targets, their only response is to raise them. And why shouldn't they? Miraculous performance by these CEOs and their organizations is the only way a lot of these deals are ever going to deliver anything close to acceptable returns, thanks to the ridiculous prices that were paid by them (probably in anticipation of a quick recap and flip). And it that's not bad enough, experience tells us that in more than a few of these companies there may be time bombs ticking, in the form of intense pressures to cut safety spending or look the other way when unsafe shortcuts are taken. One day, those bills may well come due, with tragic consequences. Our only hope is that when they do, our young masters of the universe will find themselves in the dock as the ultimate authors of the consequences their policies are likely to produce.

To CUT or Not to CUT

Claymore Investors has recently launched a new ETF in the United States that tracks the Clear Global Timber Index. The Claymore/Clear Global Timber ETF has an expense ratio of .65% and its symbol is CUT. The index it tracks contains 27 names. About 26% of the index assets are in the United States, followed by Canada, Japan, Finland, Sweden, Brazil and Australia. Plum Creek and Rayonier, the two timber REITS we use to implement out allocation to the timber asset class, comprise about 15% of the new index. So, what do we think? On the one hand, we like the broader international diversification CUT provides compared to our mix of PCL and RYN. On the other hand, with holding like Weherhauser, MeadWestVaco and International Paper, a lot of this fund's return will be coming from industrial operations rather than a narrower exposure to timber. On balance, we'll stick with PCL and RYN because of what we expect to be a tighter linkage of their returns with the dynamics of the timber asset class.

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2006-2007 Model Portfolios Year-to-Date Nominal Returns

We offer over 2,000 model portfolio solutions for subscribers whose functional currencies (that is, the currency in which their target income and bequest/savings are denominated) include Australian, Canadian, and U.S. Dollars, Euro, Yen, Pounds-Sterling, Swiss Francs and Indian Rupees. In addition to currency, each solution is based on input values for three other variables:

- The target annual income an investor wants her or his portfolio to produce, expressed as a percentage of the starting capital. There are eight options for this input, ranging from 3 to 10 percent.

- The investor's desired savings and/or bequest goal. This is defined as the multiple of starting capital that one wants to end up with at the end of the chosen expected life. There are five options for this input, ranging from zero (effectively equivalent to converting one's starting capital into a self-managed annuity) to two.

- The investor's expected remaining years of life. There are nine possible values for this input, ranging from 10 to 50 years.

We use a simulation optimization process to produce our model portfolio solutions. A detailed explanation of this methodology can be found on our website. To briefly summarize its key points, in order to limit the impact of estimation error, our assumptions about future asset class rates of return, risk, and correlation are based on a combination of historical data and the outputs of a forward looking asset pricing model. For the same reason, we also constrain the maximum weight that can be given to certain asset classes in a portfolio. These maximums include 30% for foreign equities, 20% for foreign bonds, domestic and foreign commercial property, and commodities (including a sub-limit of 10% on timber), and 10% for emerging markets equities. There are no limits on the weight that can be given to real return and domestic bonds, and to domestic equities.

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Each model portfolio solution includes the following information: (a) The minimum real (after inflation) internal rate of return the portfolio must earn in order to achieve the specified income and savings/bequest objectives over the specified expected lifetime. (b) The long-term asset allocation strategy that will maximize the probability of achieving this return, given our assumptions and constraints. (c) The recommended rebalancing strategy for the portfolio. And (d) the probability that the solution will achieve the specified income and savings/bequest goals over the specified time frame.

We use two benchmarks to measure the performance of our model portfolios. The first is cash, which we define as the yield on a one year government security purchased on the last trading day of the previous year. For 2007, our U.S. cash benchmark is 5.00% (in nominal terms). The second benchmark we use is a portfolio equally allocated between the ten asset classes we use (it does not include equity market neutral). This portfolio assumes that an investor believes it is not possible to forecast the risk or return of any asset class. While we disagree with that assumption, it is an intellectually honest benchmark for our model portfolios' results.

The year-to-date nominal returns for all these model portfolios can be found here: http://www.retiredinvestor.com/Members/Portfolio/USA.php

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