



Investment

Management

Reflections

**THE DEATH OF THE RISK PREMIUM:
CONSEQUENCES OF THE 1990'S**

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The Death of the Risk Premium: Consequences of the 1990's

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One of the most striking developments of the 1990's is the evaporation of the forward-looking risk premium for stocks, measured relative to bonds.

The objective of a Pension Fund is (1) to pay or fund the pension liability, (2) at the lowest cost to the Plan Sponsor, (3) subject to sensible risk. This means that, ideally, returns on the pension assets should be the primary source to fund these liabilities, rather than a pension contribution coming from the employer, the employees or, in the case of Public Funds, current or future taxpayers. For university endowments, the same logic applies, typically over an even longer span than most pension portfolios.

One of the most striking developments of the 1990's is the evaporation of the forward-looking risk premium for stocks, measured relative to bonds. This development is new enough that it is not yet widely accepted as fact. Whether fact or mere hypothesis, it is useful to consider the implications of a negative risk premium for stocks. The implications are far-reaching and sobering, affecting funding policy, investment return expectations and asset allocation planning, not to mention lesser aspects of institutional asset management.

What If Equities Don't Beat Bonds Long-Term?

If long-term sustainable future returns for a balanced portfolio are only around 7%, how well funded is your pension fund? What are the policy allocation implications if equities don't beat bonds over the next 10 or 20 years? These are questions that should be asked in the wake of today's record valuation levels and relatively high real yields for government bonds. Yet, they aren't being explored in any meaningful way.

This may seem an alarmist perspective, since stocks have *always* been priced to offer a material risk premium to bonds. During the lifetime of each and every one of us, this has been a truism. And, investors have enjoyed that risk premium: stocks have outpaced bonds by about 5% per annum for a 74-year span, and have produced real returns north of 7% for an entire century.

Indeed, a very good case can be made for the notion that the party is *not* over. Dividends have been replaced with stock buy-backs, mergers and acquisition activity, and ordinary reinvestment to fund future growth. Furthermore, as even a casual market observer could easily see, the technology revolution is real, delivering faster economic growth and more wealth creation than we have *ever* seen so late in an economic expansion. However, the key question here is how much of this good news is *already* reflected in market prices?

Is the party over? It would be foolish to say that markets can go no higher. Of course they can go higher. However, there is a tradeoff. The higher the markets go, without underlying fundamentals keeping pace, the lower the *future* rates of return must fall. This is a simple truism that has some rather alarming implications. Few would reject the notion that future real returns on stocks cannot, from current market levels, match the past. Interestingly, we *can* put a number on it. One path to estimating future returns is to examine the past.

Over the past 74 years, stocks have produced a real return of 8.4% per annum. Wonderful! Let's now dissect this 8.4% real return to see what it tells us of the future equity potential.

The quadrupling in the value that investors assign to \$1 of dividends contributed 2% of the real return over the past 74 years.

We know that 2% of the 8.4% real return has come as a direct consequence of dividend yields falling to their lowest levels in US history and P/E multiples now at their highest levels in modern US history. Only the great depression saw higher P/E multiples, but these were based on severely depressed earnings, where today's multiples are based on near-peak profit margins. In 1925, investors paid 18 years' worth of current dividends to buy stocks; today's investors willingly pay 80 years' worth of current dividends to buy stocks, more than quadruple the 1925 levels. Measured against earnings, investors are now willing to pay three times what they paid in 1925.

This trend would be *very* dangerous to extrapolate: will dividend yields fall four-fold to 0.3% in the next 75 years, with P/E ratios tripling again to north of 100? While this is not impossible, nor is a return to historical norms (or worse), which would lead to truly dreadful real returns in the years ahead. Accordingly, the 2% of the historical real return which is attributable to market revaluation cannot be extrapolated into the future. Absent this revaluation of the price investors will pay for a dollar of dividends, real returns would have been 2.0% lower, or 6.4%

The advocates of "regression to the mean" would argue that this part of the real return, which has contributed 2% of the 8.4% earned in the past 74 years, is far more likely to be negative in the years ahead than positive. The "new paradigm" crowd would argue that valuation levels can and should go far higher still. The naïve "efficient markets" view would suggest that current pricing is fair and, therefore, that the best estimate for this part of the real return is zero. As we will see, even the efficient markets view leads to a negative risk premium in the years ahead.

The starting dividend yield was 5.4%.

Today's stock market dividend yield of around 1.2% is 4.2% below the dividend yield of 1925. To be sure, part of the reason for today's low yields is that dividends have been supplanted, in part, by stock buybacks, reinvestment to improve future growth, and merger and acquisition activities. But, it is just as appropriate to view these reinvestments on behalf of the shareholder as sources of faster real dividend growth, rather than as "hidden dividends" per se. Accordingly, this drop in dividend yields represents a 4.2% reduction in prospective real equity returns, partly offset by faster growth. This brings us down to 2.3%, a dismal and shockingly bad real return.

Real dividend growth over the 74 years was 1%.

Real dividend or earnings growth cannot exceed real economic growth in the very long run. Else, eventually, earnings and dividends grow larger than the economy itself. Furthermore, since a material part of economic growth is derived from new enterprises which are not yet investable (indeed, many of which do not yet exist), real growth in dividends and earnings are effectively capped *well below* the real growth of the economy. This is the primary reason that real dividend growth has been 1% per annum over the past 74 years, in an economy which has growth at 2.5% per annum.

Accordingly, while it is very easy to make a case for future real dividend growth which is faster than past growth, it remains very difficult to make a case for sustainable future real dividend growth which is faster than the growth of the economy at large. Are stock buybacks likely to boost real dividend growth? Of course. Is the higher level of earnings reinvestment likely to boost real dividend growth? Of course. Is the “tech revolution” likely to increase productivity and thus faster economic growth, and can that contribute to faster real dividend and earnings growth? Of course. But, unless one wishes to postulate real economic growth above 5%, with less than 40% of that growth coming from new enterprises, it is difficult to justify *long-term* real dividend growth above 3%.

**Exhibit 1
How Long Is Long-Term?
Revisiting the Ibbotson Data**

	74 Years Since Dec 1925	74 Years Starting Jan 2000
Starting Dividend Yield	5.4%	1.2%
Growth in Real Dividends	1.0%	2.0%?
Change in Valuation Levels ^(a)	2.0%	?????
Cumulative Real Return	8.4%	3.2?
Less Starting Bond Real Yield	3.7% ^(b)	4.1% ^(c)
Less Bond Valuation Change ^(d)	-0.4%	?????
Cumulative Risk Premium	5.1%	-0.9%±

(a) Yields went from 5.4% to 1.2%, representing a 2.1% annual increase in the Price/Dividend Valuation Level.
 (b) A 3.7% yield, less an assumed 1926 inflation expectation of zero.
 (c) The yield on US government inflation-indexed bonds.
 (d) Bond yields went from 3.7% to 6.5%, representing a 0.4% annualized drop in long bond prices.

If we assume faster economic growth and assume that more of this growth reaches *today's* shareholders than in the past, we can justify real dividend and earnings growth of two or three times the 1% growth that history has delivered. The result is 2% to 3% real dividend growth. A faster growth, on a long-term sustainable basis, requires assumptions that must be viewed as very aggressive, even “heroic.”

Summing these, as we do in Exhibit 1, brings the real return up to the 3.2% range, *assuming that current valuation levels hold*. Particularly aggressive growth assumptions could stretch this to perhaps 4.2%; but, again, a case can be made for the other direction as well. This is a far cry from the historical real return of 8%. More important still,

this falls short of the real return available in bonds. For the first time in US capital markets history, the equity risk premium is negative, barring some very aggressive assumptions regarding economic growth and the share of that growth which makes its way to the investor.

Do Returns Really Matter?

It goes without saying that pension fund assets do not exist in a vacuum. What is often overlooked is that liabilities have returns too, and that these returns move with the capital markets, most notably with bonds. Exhibit 2 suggests that 1999 was an extraordinary year for pension funds, because assets went up materially and the net present value of liabilities went down. By the same token, 1995, which most people thought was a wonderful year for returns, was a dreadful year for funding ratios, due to the tremendous increase in the net present value of liabilities.

What of the decade of the ‘90’s? As Exhibit 3 suggests, the decade was very good, but not as good as most people think. With interest rates falling during the course of the decade, liabilities rose in value by enough to offset much of the gain in asset values.

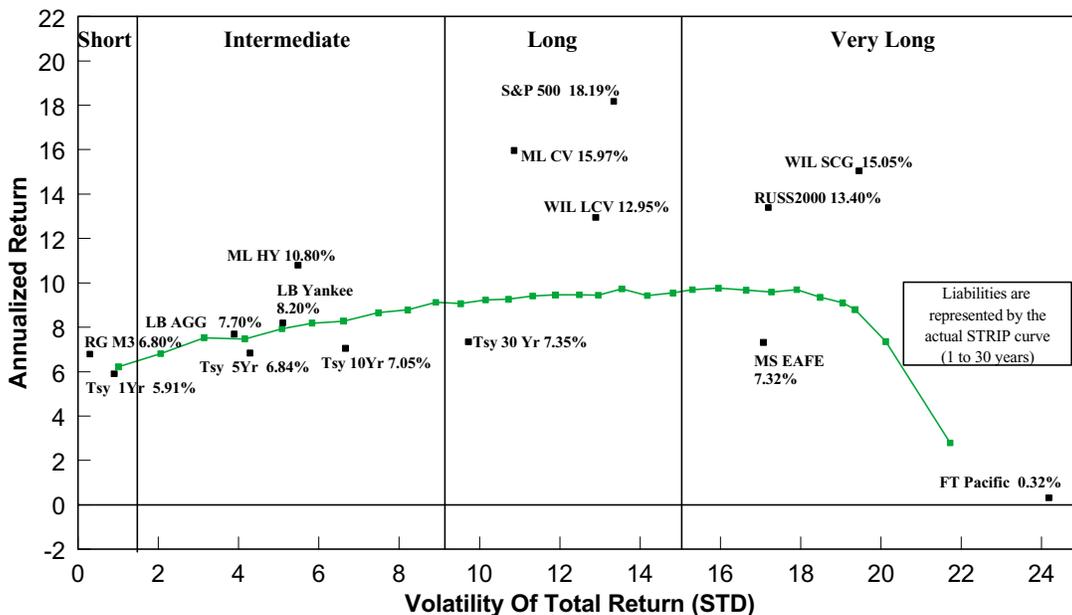
There is another subtle and often overlooked nuance to this asset/liability puzzle, relating to the actuarial return assumption, as compared with the actuarial inflation assumption. Most actuaries are currently recommending 8%-10% as a return assumption and roughly 3% as an inflation assumption. What's wrong with this? Ten years ago, there was nothing wrong with this. Today, this suggests 5%-7% real returns on the portfolio, when we have already demonstrated that it is not plausible that future long-term real returns can be so lofty. Real returns on bonds are in the 4% range. We believe that real returns on stocks are in the 3%-4% range. This provides a real return for the typical balanced portfolio of perhaps 3.5%. What happens to funding ratios if the return assumption is reduced from, say, 9% to 7%? The typical funding ratio falls by 20%-30%. This means if the ABO funding ratio seems healthy at 150%, the *reality* is probably in the 105%-120%.

**Exhibit 2
Average Pension Fund: Typical Experience in 1999**

Using a typical, if not conservative, asset allocation ratio, here is what the average pension fund should have experienced in 1999:

	1999	1995
Liabilities (Ryan Labs Liability Index)	-12.70%	41.16%
Asset Allocation:		
5% Cash (Ryan Labs Cash Index)	4.24%	7.11%
30% Bonds (Lehman Aggregate)	-0.82%	18.47%
60% Equity (S&P 500)	21.53%	37.57%
5% Intl (MS EAFE)	27.35%	11.56%
TOTAL ASSETS	14.25%	28.67%
ASSETS - LIABILITIES =	26.95%	-12.49%

**Exhibit 3
Asset/Liability Monitor
(Ten Year Period Ending 12/31/99)**



Courtesy of Ryan Labs, © 2000

Conventional Wisdom of the 1990's

The decade of the 90's was, in some ways, a continuation of the decade in the 80's. Markets delivered robust returns, this time from starting valuation levels at or above long-term historical norms. The consequence has been a panoply of "lessons learned," some sensible, some flagrantly flawed.

"The 1990's Have Left Us Well-Funded"

Many Pension Plans believe they have built a reservoir of actuarial pension surplus such that the Plan does not have to make contributions for a very long time. On closer examination, these Plans tend to have a real return assumption for assets that resembles, or is explicitly based upon, the past. A 5%-8% real return is not uncommon (even considered conservative by some): most pension plans use return assumptions between 8% and 10%, some even higher, with inflation assumptions typically around 2% to 3%. This is typically considered defensible, since most institutional portfolios have achieved consistent real returns comfortably above 10% for the last 5, 10, 15, 20 and even 25 years. Yet, as we have already seen, real returns of 3% to 4% are a more realistic expectation, in today's markets.

What if a 3% to 4% real return assumption is used for the funding ratio? Many pension plans would be materially underfunded. The typical pension fund has a "duration" of 12-15 years, meaning that a 1% change in the discount rate or in the return assumption leads to a 12-15% change in funding ratios. Yet, we have already seen that 3% to 4% is a reasonable real stock market return expectation from current market levels, and that 5% or more requires some rather aggressive assumptions. If real return assumptions are cut by 2% or 3% from current levels, then most funds would find their ABO funding ratio drops by 25% to 40%. For example, a fund that has a lofty "official" ABO funding ratio of 160% might find the true ratio is 96% to 120%.

"Stocks Are the Best Investment For Long-Term Investors"

Stocks have outperformed government bonds by over 5% per annum over the past 74 years, and by a far wider margin over the past 10 to 25 years. Stocks have exceeded inflation by over 8% a year for the past 74 years, and, again by a far wider margin during the 1990's. Extrapolating the past is one of the most common and dangerous ways to forecast the future. Past is not prologue. In fact, there is a modest, but significant, negative correlation between long-term past returns and subsequent future long-term real returns.

Any student of history can point to extended periods in which stocks have not produced an excess return. From the end of 1961, an investment in Treasury Bills outpaced both stocks and bonds through mid-1982, a span of 20½ years. From the 1929 market peak, stocks underperformed bonds over the subsequent seventeen years and needed 25 years to outpace Treasury Bills. For the investor in 1801, by some measures, stocks merely matched bonds over the subsequent seventy years!

The consequence of the 1990's has been a panoply of "lessons learned," some sensible, some flagrantly flawed.

“To Boost Funding Ratios, Boost Returns: Invest More in Stocks”

Given that the long-duration inflation-linked bonds (TIPS) are yielding over 4% today, there is a government-insured “risk-free” real return vehicle that not only could beat stocks over the next 20 years, but probably *will*. It is our view that extrapolations of the past have been used to justify a shift in asset mix for the average pension fund from roughly a 50/50 stock/bond mix in 1980 to roughly a 75/25 mix in 2000. The evaporation of the risk premium lays a foundation for a legitimate reexamination of the appropriate policy asset mix, and of the key assumptions for that mix.

The traditional asset allocation approach is to seek the highest possible absolute return at an acceptable level of volatility (risk). This view of risk and reward appears in the graph which plots the asset returns on the vertical axis and the variability of returns (Standard Deviation) on the horizontal axis. Most asset allocation models tend to be silent on the subject of pension liabilities. That is, it tells pension management nothing about where the pension plan should be positioned vis-a-vis the liabilities. Organizations with mature work forces (shorter liabilities) should hardly want the same asset allocation as organizations with young work forces (longer liabilities).

One way to think about the correct role of liabilities in fund management is to redefine risk relative to those liabilities. In so doing, the risk-minimizing portfolio is *not* t-bills, but is the mix of assets that offers the best fit with the liabilities (Liability Index Fund). And, the optimal portfolio is the portfolio which offers the best increment of return *above* the return of the liabilities, with acceptable risk *relative to* the liabilities. If the shape of pension liabilities shapes the asset allocation process, then a fully-funded risk-minimizing plan for an older mostly-retired work force, with 20% in long-term liabilities (liabilities longer than 10 years), would allocate only 20% to long assets, while another risk-minimizing plan, with a young work force, with 80% in long liabilities, would allocate 80% to long assets. Indeed, we would argue that asset allocation should strive to optimize the *relative* return of assets (asset growth) to the growth in liabilities.

Exhibit 3 shows a line that represents the annual growth rate of liabilities for each year of liabilities up to 30 years over the 10 year period ending 12/31/99. Please note the risk/reward behavior of assets (the black boxes) versus the points on the liability line. Vertical lines separate the short, intermediate, long and very long assets and liabilities. Notice that Cash Equivalents behave like very short liabilities; Bonds behave like intermediate liabilities; long “STRIPS” (Treasury zero-coupon bonds) and stocks behave like long liabilities; and international securities behave like very long liabilities. MSCI EAFE is a case in point. Even though it outperformed the one year T-Bill, it severely underperformed the very long liabilities that it behaves most like (volatility). At least during the 1990's, EAFE would not have been a good asset allocation choice to fund very long liabilities. In fact, very long Treasury STRIPS would have outperformed EAFE by a considerable margin, and would have funded the liabilities without risk.

Asset allocation is a risk/reward decision between the low-risk liability-matching asset (Treasury STRIPS) and an asset class(s) that will outperform this liability area with similar volatility (risk). It is not a contest to find the highest absolute return. You would not buy stocks to fund short liabilities, because their risk/

Until the growth rate and volatility of liabilities are correctly measured and analyzed, pension risk can never be understood and managed properly.

reward behavior is not appropriate. Nor should you buy cash equivalents to fund long liabilities. Asset allocation is the process of matching the volatility of liabilities with assets that can generate the same or greater growth. The S&L crisis is still a vivid lesson of what happens when you mismatch assets to liabilities by risk or volatility patterns.

“Liability Matching Is Less Important Than Asset Returns”

Pension fund assets have grown to a point where they often make up the bulk of a company’s or public sponsor’s total assets. The variability and rate of return of the pension assets affect company profitability and budgets, and public sponsor’s tax rates. In both cases, pension “success” has enormous (even if smoothed) impact on competitiveness with one’s peers, company against company or state against state. So pension sponsors have an obligation to give the pension fund as much attention as any significant operating division.

Traditionally, actuaries provide low asset/liability volatility (smoothing) by adjusting return assumptions on the assets and discount rates for the liabilities with only modest change from year to year. Reality is much different. Appropriate discount rates for liabilities move every bit as quickly as bond yields change. Appropriate return assumptions move every bit as quickly as bond yields and stock earnings yields (the reciprocal of the price/earnings ratio, itself a crude proxy for forward-looking real stock market returns) change. The difference between these forecasts and reality is then amortized over some long average life. As a result, pensions have misunderstood the true objective of pensions thinking that the actuary estimate is their target growth rate for assets.

Enter FASB 87, which ruled that the interest rate risk employed to calculate the present value of the liabilities is no longer the actuary’s province. Market interest rates must now serve that purpose such that liabilities are priced as if they were a portfolio of high quality zero-coupon bonds whose maturities match the liability payment dates and whose par values match the liability payment amounts. While there is a certain latitude available to the actuary in selecting a rate which is *near* this market rate, liabilities are now more correctly calculated and are now seen as a volatile, and extremely interest rate sensitive, part of the pension puzzle.

But, even as liability discount rates are forced to be more strongly based on market yields, actuaries have wide latitude in inflation assumptions and in the return assumption for the assets. This latitude is liberally used to provide a very steady real return assumption, at a level which is *not* altered to reflect market valuation levels.

The “Right Way” to View the Asset/Liability Puzzle

The way we deal with risk depends on how we define it. This is often a more complicated task than appears. In pensions, risk is not funding liabilities correctly. Since pension assets are the primary source of funding liabilities, risk here can only be measured when you compare the risk/reward of assets vis-a-vis the liabilities they are funding. *The no-risk asset is the asset that funds the liability with certainty.* A risky asset is one that has much uncertainty about its risk/reward behavior vis-a-vis the liability(s) it is funding. The risk free asset to fund a 10-year fixed liability would be a 10-year Treasury zero-coupon bond (STRIP). That is why FASB ruled that liabilities are to be priced as high-quality zero-

coupon bonds because they represent the no-risk portfolio. Assets are to be compared to this zero-coupon liability portfolio to understand the relative risk and reward such assets produced in their goal to fund liabilities.

Until the growth rate and volatility of liabilities are correctly measured and analyzed, pension risk can never be understood and managed properly. Since all pension liabilities are different and unique to each Plan, only a custom liability index could represent the true pension liability objective. Ryan Labs launched the first “Liability Index” in 1991.¹ Once a custom liability index is designed then, and only then, can we make the policy asset allocation decisions, notably the appropriate departures from the risk-minimizing portfolio. The risk-minimizing asset allocation depends on a custom liability index for its shape of liabilities.

Proper asset management and performance measurement should be a constant monitoring of assets vis-a-vis liabilities. Generic market indices may help us to understand the risk/reward behavior of certain markets, but they can never tell you the risk/reward behavior of our portfolio *relative to the liabilities*. As basic as it sounds, the pension industry has operated with the wrong objective since birth. Outperforming a generic market index is not the objective...*outperforming liabilities with acceptable volatility, relative to those liabilities, is the objective.*

Surplus Management in the Years Ahead?

1999 was a stellar year for the pension industry, just as 1995 was truly awful. How can this be, when returns in 1999 were less than half the returns of 1995? The problem in 1995 was that liability returns were spectacular as a consequence of falling interest rates. 1999 was stellar because assets for most funds rallied while liabilities actually tumbled, as a consequence of rising interest rates. The capital markets have granted the pension industry a “reprieve,” an opportunity to reexamine the basic assumptions that form the basis for their policy allocation decisions, at a time when liabilities have fallen sharply and funding ratios have soared.

Given that the asset/liability ratio should have improved by about 25% in 1999, it is timely to reappraise the asset/liability strategy. If there is a meaningful pension surplus, it would be wise to separate the surplus assets into a distinct and separate objective portfolio. This portfolio could welcome almost any type of asset allocation since the investment time horizon is in perpetuity and there are no liabilities funded from this portfolio. More aggressive investments that have great potential but need time to develop would be ideally suited to this portfolio. It would seem practical to have a long-term growth rate target as the proper benchmark here rather than the traditional “beat thy neighbor” peer group contest run traditionally in pension land.² There are several ways to manage fund surplus, in the context of liabilities.

Strategy I: Surplus Portfolio (Ongoing Plan)

The strategy here is to secure the pension surplus and facilitate surplus growth through the surplus portfolio not the A/L portfolio. To secure the pension surplus requires the asset/liability portfolio to be strictly managed to pay liabilities when due. This would suggest a cash flow matching strategy. The retired lives liability is an obvious candidate for this strategy since these liabilities

¹ Trademarked by Ryan Labs in 1992.

² The decisions of one’s peers and competitors should not be the key determinant of asset allocation policy, although it often tacitly is. That said, we would readily acknowledge that “maverick risk” (the risk of underperforming one’s peer group or competitors) is not without import or merit. It is important, if only because of the “career risk” that accompanies large departures from one’s peer group. It has merit if only because underperforming one’s peers means higher future pension costs than one’s peers, hence a lower profit margin (or, for public funds, higher taxes) than one’s peers, assuming the liability structures are comparable.

are the most important and the most certain. The active lives liability is less certain and has some volatility. However, it too needs a strict asset/liability strategy since that is the objective of these assets. The idea is to make funding liabilities properly the objective instead of some generic market indexes that may have no correlation at all to the clients' liability schedule.

A "custom liability index" that best fits each client's unique liability schedule(s) represents the liability objective. Once calculated and maintained, a "custom liability index fund" would be the best strategy to fund this liability at the lowest cost and the lowest risk to the Plan.³

The assets that are *not* required to match the known liabilities comprise the pension surplus. These assets can then be managed in a fashion that matches the plan sponsor's appetite for returns and tolerance for risk.

Strategy II: Liability Defeasance (Terminated/Converted Plan)

Under IRS Section 417, a company can defease liabilities in a plan termination or conversion by pricing them at the average of the bond-equivalent yield (BEY) of the 30-year Treasury for the month of December prior to termination. This rate is locked in for one full calendar year. Currently, the calendar year 2000 will enjoy the highest rate (lowest cost) since 1996 (1996: 6.55%, 1997: 6.00%, 1998: 5.05%, 1999: 6.35%).

Defeasement means that a company matches its portfolio of liabilities with assets of equal value, dedicated to meeting the projected payouts and thereby securing the pensions for the retirees. By doing this, the law permits the company to remove the liability from the balance sheet, thereby improving its financial ratios. In addition, the company is permitted to take a reversion and remove any surplus assets from the pension plan for its own use, paying taxes and, in some cases, modest penalties for access to these assets. Defeasement, by definition, requires a 100% bond portfolio, with heavy emphasis on zero-coupon bonds cash flowed matched to the liability payout schedule. Once defeased, surplus is now the property of the employer rather than the employees. This can be used for any corporate purposes, as it is now part of retained earnings. Financial ratios are also enhanced thereby reducing debt ratios and improving credit worthiness.

It should be noted that there are costs and consequences of defeasement that make this an unappealing alternative for any but the most mature and risk-averse sponsors. In the act of defeasing and removing surplus from the fund, the sponsor is walking away from an opportunity to shelter current and future income from taxes, and an opportunity to invest on a tax-deferred basis. Funds invested in a pension fund avoid current tax, and accumulate on a tax-exempt basis. A pension fund, managed on a going-concern basis, can reduce *future* pension funding costs; accordingly, asset returns in excess of liabilities serve to reduce future pension contributions dollar-for-dollar on tax-exempt earnings.

Asset Management in the Context of Liabilities

For the going concern, an *exact* match of assets to liabilities is clearly not necessary. It is merely one of many interesting alternatives. Even if an exact match is selected as an interesting means of managing pension risk, the residual assets above those required to defease the liabilities (the surplus) is a very

³ Some words of caution are necessary about traditional immunization (cashflow matching). Immunization tries to match the present value of assets to the present value of liabilities. Too often this is implemented by matching the average modified duration of the asset portfolio to the liability portfolio. Duration-matched immunization models do not fit the cash flows with precision. The risk-match is good, but distinctly less than exact: if the slope of the asset pricing yield curve or the liability pricing yield curve changes its shape, immunization models will usually fail. Only when the entire term structure is matched (all liability payments) is cash matching optimal. This is why a custom liability index fund represents a better fit since the entire term structure is matched not just the average duration.

interesting vehicle for tax-deferred and tax-exempt investing of company resources. But, those decisions should be made in the context of the liabilities; frequently they are not. If nothing else, the fund sponsor should be well aware of (1) the nature of the liabilities, (2) the mismatch between the assets and the liabilities, and (3) the corresponding risks taken with what, in truth, is a company asset, the surplus.

A Call For Action?

Suppose that we are correct that the equity risk premium is gone. Suppose that we are correct, that real returns on stocks are likely to be in the 3%-4% range for the foreseeable future (10-20 years). Suppose that we are correct that the real returns the actuaries assume are no longer sensible. What does this all mean?

1. It is more appropriate now than ever before to revisit the policy asset mix for a portfolio. Funds have drifted to a 70%-80% equity stance as the accepted norm, at a time when the equity excess return over bonds appears to have vanished, up from 50%-60% twenty years ago.
2. Funding ratios are probably not as healthy as they appear. This presents companies (and states and counties) with a choice: do we continue to make assumptions that are no longer realistic, in order to keep pension contributions down? This implies that future funding must cover not only the future costs of pension obligations, but also “catch up payments” for today’s arrears. Or, do we move in the direction of more realistic assumptions in order to improve our *future* competitive position by fully funding current obligations and enjoying the tax-exempt returns that can save us substantially on future contributions? There is no “right” answer to this question. However, it is a question that must be asked and, of late, has not received much attention.
3. If returns don’t necessarily improve pension health and wealth, due to the subtle interplay between asset and liability returns, what is the return objective? We would posit that a 10% market rally boosts fund “wealth” by a small fraction of 10%, due to the reduction in subsequent prospective rates of return; on the other hand, 10% earned through alpha is a *true* 10% improvement in fund health, by any measure. Accordingly, the quest for alpha is a key aspect of the fund management puzzle.

Following the decade of the 1990’s, which took the forward-looking real returns available from stocks to all-time lows, and the experience of 1999, which improved funding ratios to the best seen since 1996, fund sponsors owe themselves a careful reexamination of their asset allocation policies, beginning with a reevaluation of their key assumptions.

It is more appropriate now than ever before to revisit the policy asset mix for a portfolio.

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