CHAPTER 1

Are Pension Funds "Irrelevant"?

"The reasonable man adapts himself to the world; the unreasonable one persists in trying to adapt the world to himself. Thus all progress depends on the unreasonable man . . ."

George Bernard Shaw

". . . a propensity to dabble in unproductive financial risks inside pension funds can crowd-out investors with appetites for genuine entrepreneurial risk-taking . . ."

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AN "UNREASONABLE" ACTUARY?

We had never met Jon Exley, but greatly looked forward to the occasion. The occasion turned out to be the first-ever Colloquium sponsored by the Rotman International Centre for Pension Management, University of Toronto, in October 2004, where we invited Exley to present his "unreasonable" views. He did so, based on an earlier paper presented to the U.K. Faculty of Actuaries Finance and Investments Conference titled "Pension Funds and the U.K. Economy." It is an intellectual tour de force not often associated with members of the actuarial profession. More importantly, it thoroughly trashes almost every piece of conventional wisdom that the global pension finance and investment industry has accumulated over the last 25 years.

This chapter tells the tale of Exley's trashing, and then proves the wisdom of Shaw's observation that there is indeed much to be learned from the "unreasonable man." Specifically, we show how Mr. Exley's nihilisms

light up the path toward more productive pension schemes that can enhance economic welfare.

EXLEY'S FOUR IRRELEVANCE PROPOSITIONS

In the 1958 mother of all "irrelevance" propositions, Franco Modigliani and Merton Miller showed that the total value of a firm should not be affected by its capital structure. Similarly, Exley argues the value of pension debt is unaffected by whether it is secured by a portfolio of bonds or of shares. The impact of a pension fund's asset mix is on the riskiness of the securities issued by the pension plan sponsor. The more mismatching risk on the pension balance sheet, the riskier these sponsor securities become, and the higher the expected return that will be required for individual investors to hold them. This higher required return (i.e., higher cost of capital/lower security price) offsets any gain that might be earned on the pension balance sheet by undertaking mismatching risk. Therefore, asset mix is irrelevant.

Many observers see pension funds as natural long-horizon investors because pension liabilities typically have long durations. However, Exley argues that is the wrong focus. What matters are the horizons of the investors holding the securities of the pension scheme sponsors. It has already been noted that it is they who bear the pension plan balance-sheet mismatching risk. If the investment horizons of these investors are short, then so are the investment horizons of the pension funds they have indirectly invested in.

Can an equities rationale be developed for pension funds by arguing that equity returns "match" the liabilities of final-earnings pension schemes over the long run? Exley says "no" for two reasons. First, there is no statistical basis for the "match" assertion. Second, there is also no logical basis for prefunding possible future salary increases. Liability increases arising from salary increases should be funded in the year they occur, thus leaving it to new funding rather than investment policy to hedge these liability increases.

What about the impact of pension funding on economic activity argument? Again irrelevant, according to Exley. His argument here follows that of the irrelevance of asset allocation argument made earlier. Companies can retain their earnings, pay them out as dividends, or contribute them to their pension plans. Whatever they do, individuals determine their own life cycle consumption-savings plans. Whether they execute these plans by establishing their own retirement savings plans, or whether they do it by participating in employer-sponsored pension schemes is irrelevant.

SO WHAT IS RELEVANT?

Having slain some of the most sacred cows in pensiondom with his four irrelevance propositions, what does Exley think are relevant pension funding and

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investing considerations? He discusses six "second-order" considerations. Each of these considerations increases economic costs without offsetting benefits:

1. **Tax costs.** Certainly complicated, possibly irrelevant. However, to the degree that taxes on bond returns are higher than taxes on equity returns, bonds should generally be held inside tax-deferred vehicles and equities outside them.
2. **Agency monitoring costs.** Complex organizations are managed by agents, not the principals. This introduces agency costs, which are a drag on the economy and should be minimized. Higher financial leverage in companies reduces such costs. If mismatched pension schemes move the optimal amount of leverage downward, agency monitoring costs in the economy will increase.
3. **Signalling costs.** If insiders signal success or failure in a firm to outsiders through changes in dividend policy, a mismatched pension plan balance sheet could short-circuit this signalling process. A rising pension surplus could hide bad news in inefficient firms, while a rising pension deficit could hide good news in efficient firms.
4. **Specialization costs.** Modern organizations have specific core competencies. These should not be wasted on attempting to manage pension balance-sheet risks.
5. **Portfolio construction costs.** In building their own portfolios, individual investors want "pure plays." If companies have risky pension balance sheets, investors need to spend time understanding these additional risks, and will want to offset some of them in their own portfolios. Corporate employees face a related but different risk management challenge, as their jobs and pensions are linked to the default risk of the same firm.
6. **Direct pension fund management costs.** A typical pension fund pays 0.3 percent of assets per annum to a group of advisers and investment managers to trade portfolios of outstanding securities. Where is the economic value associated with these costs, when compared to the lower-cost alternative of simply matching accrued pension liabilities with a portfolio of default risk-free bonds?

And so Exley rests his case. Mismatching by pension funds adds significant costs to economic development through raising the cost of capital. Conversely, matching pension liabilities with assets with similar cash-flow characteristics would free the developed economies of a significant drag, reduce the costs of capital, and foster a higher rate of economic growth.

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RESPONDING TO EXLEY

So what should we do with Exley and his "unreasonable" and inconvenient message? Get mad? Or simply dismiss him as misguided and irrelevant? We are reminded of the O'Barr and Conley experience. In their 1992 book *Fortune and Folly: The Wealth and Power of Institutional Investing* (New York: Irwin Professional) these two anthropologists thoroughly trashed the behavior of the professional pension fund management community of the day as pseudoscientific, culture bound, blame deflecting, and fawning in their relationships with outside service suppliers.

The pension industry's response to O'Barr and Conley was interesting. Initial anger quickly gave way to dismissal: "Who are these people anyway?" "What do they know about our business?" However, with the passage of time, there was also a more constructive response in which we had some personal involvement. A pension industry leadership summit built around the question "Pension Fund Excellence: What Is It?" drew many industry leaders to New York in December 1994. One eventual outcome was the 1998 book titled *Pension Fund Excellence: Creating Value for Stakeholders* by Ambachtsheer and Ezra (New York: John Wiley & Sons), which turned out to be a best seller in its day. We believe that Mr. Exley's "unreasonable" message deserves a similar constructive response.

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RELEVANT PENSION FUNDS: BUILDING THE CASE

So how do we construct pension funds that are relevant rather than irrelevant? Funds that enhance economic welfare, rather than detract from it? We start with Exley's observation that the real issue here is about meeting the retirement income needs of real people in an economically efficient manner. It is not about protecting the status quo for today's institutions that attempt to do that.

This "real needs of real people" focus immediately raises three key questions:

1. What risks do individuals face as they attempt to articulate and meet their retirement income needs?
2. What potential barriers stand in the way of meeting these needs, and how might they be best overcome?
3. What are the macroeconomic consequences of the "correct" answers to questions one and two?

We show below that following these questions to their logical conclusions does indeed lead to pension arrangements that are both relevant to individuals and contribute positively to economic welfare.

MANAGING RETIREMENT INCOME RISKS

In addition to the fundamental question of lifetime earnings itself, individuals face two further uncertainties in articulating and meeting their retirement income needs. First, no one knows what the return on their retirement savings will be. Second, no one knows how long they are going to live.

How can we help the people who want to manage the risks of (a) an uncertain return on their retirement savings, and (b) possibly outliving these savings? The simple answer is: "By creating special-purpose financial institutions capable of pooling investment risks and mortality risks." Let us be clear that, at best, such institutions can only pool and manage these risks. They cannot eliminate them.

Are we not simply describing financial services firms with investment management and life annuity management capabilities? In a general sense, that is correct. In a more specific sense, that is not the whole story. There is another shoe to drop, and that other shoe is "informational asymmetry." The Nobel Prize for Economics this year went to three economists closely associated with the development of "the economics of information," and of the consequences of buyers and sellers of a good or service possessing unequal information about its attributes and/or quality. They show that in such situations, the party with the superior knowledge comes out on top, unless the other party is aware of the asymmetry and takes defensive steps to eliminate it.

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Why are we very pleased with the choice of the Nobel Prize for Economics Committee this year? Because we have long held the view that "real-world" investment and annuity management markets have serious informational asymmetry problems. When these asymmetry problems combine with the joint duties of the leadership of "for-profit" investment and annuity management firms to their customers on one hand, and to their owners on the other, a fundamental conflict arises. Research strongly supports the notion that it is very difficult for the leadership not to use their informational edge to increase profitability for the firm's owners, at the expense of the customers. The result is that most customers of for-profit investment and annuity management firms end up paying too much for too little.

LEVELING THE INFORMATIONAL PLAYING FIELD

Regulators have toiled mightily over the years to level the informational playing field between the buyers and sellers of investment and annuity management services, with only limited success. Fortunately, a far more powerful weapon is at hand. It is institutions that will use any informational asymmetries to be found in the financial markets to the benefit of the

customers rather than the owners. There is, of course, only one way that this can happen. The customers and the owners of such institutions must be the same people.

With the exception of Jack Bogle's investment fund Vanguard Group in the United States, the only "live" example of this kind of institution is pension schemes dedicated to serve the investment and life annuity risk-pooling needs of prespecified groups of private- and public-sector employees. This is not to say that all such existing institutions are perfect. Indeed, many suffer from the afflictions Exley has so painfully laid out for us. The point is that the idea is right, even if its execution leaves something to be desired.

GETTING THE EXECUTION OF THE IDEA RIGHT

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So how do we get the execution of the idea right? As part of our review of the Myners Review this past summer, we proposed an eight-point "legitimacy" test for pension schemes. That test addresses the key issues Exley raises, including the question of who bears the scheme's balance-sheet risks. Logically, there are only three choices: wholly by the employer, jointly by the employer and the employees, or wholly by the employees. Exley finds the first of these three choices problematic. He may well be right.

Regardless of how the risk-bearing question is sorted out, research shows that we have learned how to create "best-practice" investment organizations capable of generating superior investment results within predetermined risk budgets in a transparent manner. Such organizations have the proper scale and scope, have effective governance and executive structures, and have properly aligned the economic interests of the pension fund executive, and those of the pension balance-sheet stakeholders. As a bonus, they will do this for half of the 0.3 percent of direct assets–related operating costs cited by Exley. By contrast, individuals trying to assemble these services through the for-profit sector often pay 1 to 2 percent of assets or even more for the privilege.

One final thing: The kind of institutions we describe will make excellent long-term investors. They will hold the managements of investee corporations accountable for results in ways that individual share "punters" have not even dreamed of. Thus, these institutions will not only serve their own stakeholders well, they will in the process also reduce (rather than increase) many of the "second-order" costs cited by Exley. Thus, rather than being irrelevant or worse, such pension arrangements in fact represent the next stage in the evolution of democratic capitalism. All that is left for us to do is to build them.