# Is Financial Economics the "Magic Bullet" for Pension Plans?

## Part II – Current Investment and Funding Practices

By James G. Paterson

Financial economics (FE) ignores the strengths of the current investment and funding practices in Canada and in many other Western countries. In particular, we currently have a structure that:

- Requires long-term funding on a going-concern basis (with 5-year smoothing and 15-year amortization of unfunded liabilities);
- Requires medium-term funding of solvency (similar to wind-up) liabilities (with 5-year smoothing permitted in most jurisdictions and with 5-year amortization of solvency liabilities);
- Includes margins against adverse deviations in most cases;
- Utilizes equity investments; and
- Anticipates at least part of the long-term benefit from the equity risk premium (the mathematical expectation minus a provision against adverse deviations), to reduce current contribution rates and provide benefit improvements from time-to-time.

Under our current structure:

- full funding is achieved over the long term for all ongoing plans and for most terminating plans; and
- the solvency ratio on most plans that terminate with less than 100% solvency ratio (other than those with specific difficulties - grow-in benefits, plant wind-up benefits or benefits significantly increased over the last 5 years before termination) is not unreasonably far below 100%.

I suspect, but have not attempted to demonstrate, that the current system also produces a smoother pattern of contributions over time than FE does. The September, 2003 Watson Wyatt Worldwide *Memorandum* entitled "Mark-to-Market Meddling" appears to support my suspicion.

This is not the only system of investment and funding practices that is possible, but it is a rational system and is not based on "actuarial myths" as some FE proponents have suggested.

The main weaknesses I see in the current system are:

- the grow-in benefits, plant wind-up benefits and benefits significantly increased over the last 5 years before termination noted in a preceding paragraph;
- the current low limits on pension surplus embedded in the Income Tax Regulations that prohibit accumulation in high markets of sufficiently large reserves for subsequent declines in asset values;
- the subjectivity (not enough discipline and disclosure in the development of valuation interest rates, and not enough science and disclosure in the development of margins) and the resulting opportunity for bias in the discount rates used for funding valuations; and
- not enough disclosure to plan members and beneficiaries of the risks of the plan and the benefits and funding policies of the plan.

These can all be addressed directly (the first by regulators, the second by the federal Cabinet, the third by the actuarial profession and the fourth by regulators and the actuarial profession) without the trauma

of a total system change to financial economics or any other new paradigm, and they should be so addressed. Policymakers would then determine the funding policy based on a clearer understanding of the expected risks and expected costs, and plan members and beneficiaries would have a clearer understanding of those risks.

In my view, the deliberate deviation from market values and the "front-ending" of a part of the expected equity risk premium are not fallacies or embarrassments to the current system. If applied with discipline and transparency they are both sensible elements of a rational system. What is needed is significant improvement in the discipline and the transparency. The equity risk premium has been with us for over 200 years. Despite its volatility, it is not likely to disappear. Assuming it to be zero distorts the estimates in a biased and unreasonable way.

I think the recommendations of the CIA Task Force on Public Policy Principles of Pension Plan Funding relating to funding objectives, funding policy, best estimates and provisions for adverse deviations will move us in the right direction.

## Conclusions

The balance of the strengths and weaknesses of the current system bring to mind the old saying, "*If it ain't broke, don't fix it.*" Perhaps that could be rephrased as "*If specific parts of a suitable system are broken, fix the broken parts, but don't change the whole system.*"

Where the investment practice follows FE principles, then the traditional actuarial funding practice will more or less produce the same funding results as the FE approach. However, I believe there is some confusion as to what is appropriate funding and accounting practice where the investments do not follow FE principles. I think the three practices should follow in order: first investment, then funding and, finally, accounting. If investments do not follow FE, I think funding should follow the traditional actuarial approach (but with improvements in discipline, science and disclosure). Moreover, I think that accounting should not reflect the benefits, but rather the current and expected future funding pattern. If the funding reflects best estimates and margins, and a combination of short- and long-term perspective, accounting should reflect that funding. Under a trusteed plan, the employer has no commitment to provide the benefits themselves, only to *fund* them in accordance with an appropriate funding scheme.

In the UK, the US and in Canada, defined benefit plans continue to invest substantial portions of their portfolios in mismatched equity investments, despite the strenuous exhortations of financial economists and their followers. I expect this will continue, and I believe it is a sound policy. We do not live in a risk-free world and for many, perhaps most, plans, the members and beneficiaries' best interests overall will be best met by accepting some risk and participating in the resulting opportunities. Moreover, who would bear the burden of the short-term and long-term increases in costs associated with a switch to FE? What portion, if any, of that burden would be borne through some forms of benefit reductions? How would all of this be negotiated between the employers and the members and beneficiaries?

The funding cost increases of making the change from the traditional investment and funding system to a financial economics system are so large that they will affect most people's assessment of which system is most appropriate. Those cost increases have not been quantified in most of the material I have seen extolling the virtues of FE. Those cost increases illustrate the fundamental economic difference between a system that relies on absolute safety and a constant focus on the short term and a system that looks for a balance of risk and return in the long term.

I think it is very likely that a switch to an FE system would result in fewer defined benefit pension plans (with more employees ending up in even riskier – to them – defined contribution arrangements) and with lower benefit levels than at present in many of the defined benefit plans that continue. I think the benefits of the FE system are not worth this pain, and the current system can be improved significantly to reduce the problems associated with it.

I think some FE protagonists tend to generalize the worst of current practice and to ignore the many examples of good practice, and the room that exists for improvement in the current system. FE can teach us to focus more on risk and objectivity, but I do not think it is the best answer to all pension investment, funding and accounting problems. We do not need to "reinvent pension actuarial practice," just improve it.

From what I have heard and seen so far, I think it is time to explain the strengths and possibilities for further improvement in the current system, get to work on those improvements, and explain to our publics why FE is not the "magic bullet" for most pension plans.

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