

**A Pension Rosetta Stone:
Reconciling Actuarial Science and Pension Accounting
With Economic Values**

**Sound and Workable Pension Actuarial, Accounting, and
Funding Approaches for Those Interested in the
Health of Public and Private DB Plans**

M. Barton Waring

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Comments on Waring

By Robert C. North, Jr., EA, MAAA, FSA, FCA, FSPA

In this paper, the author calls upon all parties including, especially, the accounting and actuarial professions, to utilize financial economics theory in the measurement of pension plan obligations, and to use that information to determine employer contributions, pension expense and the value of benefits (especially benefit changes) and to develop investment policies.

The author argues that the valuation of pension plan obligations should begin with the determination of the full economic liability (FEL) that consists of:

- the present value of all future benefits
- for all current and future employees
- determined using discount rates consistent with those available on risk-free securities (e.g., U.S. Treasury securities in the United States)

The author contends that FEL should be used without smoothing.

The author speaks positively of the pension actuarial funding methodologies that were employed and developed decades ago, primarily by actuaries working in insurance companies. He notes that those methodologies were originally employed using discount rates derived from yields on bond portfolios. Those discount rates were closer to risk-free rates and the underlying assets were often somewhat matched with the expected benefit payment streams.

Thus, the original implementation of many pension actuarial funding methodologies produced results that were not all that inconsistent with those that would be produced today using the principles of financial economics.

The introduction of equity-like securities into asset allocations has resulted in asset/liability mismatches. Smoothing techniques were developed in an attempt to help the pension actuarial funding methodologies continue to achieve their original objectives, including providing a relatively level percentage of payroll employer contributions over time.

The author presents the case that discounting benefit streams using the expected rate of return on assets creates:

- obfuscation of risks
- insufficient information for making informed decisions
- moral hazard

Overall, the author sets forth his belief that employing the principles of financial economics would strengthen and help insure the long-term success and viability of defined benefit pension plans, although with the following, likely consequences:

- lesser benefit levels
- less risky investment policies

- better funded pension plans

In summary, this paper, although lengthy and at times challenging, is very well written and provides a solid roadmap for how all interested parties could utilize and benefit from applying the principles of financial economics to pension plan benefit design, funding, expensing and investment.

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