

# Commentary

BUFFIN PARTNERS INC.

ECONOMIC INVESTMENT AND ACTUARIAL RESEARCH

## Economics and Pensions

**D**o economic theories really work in practice? That question is very relevant to the current debate on pensions. An interesting paper was presented in London in January entitled "Pensions and Economics—The Way Ahead." In this paper, the authors present a brief history of financial economics and the economic rationale for company pensions. The authors also discuss the macroeconomics of pension risk. The aim of the paper is to achieve a reconciliation between the relevant economics and actuarial practice in pensions.

Financial economics is concerned with the study of capital markets, corporate finance and portfolio theory. Defined benefit pension plans involve all three of these areas. Pensions also involve the topic of labor economics. Financial economics applies modern neoclassical microeconomic theory to financial markets and financial transactions. The foundations of corporate finance are found in the Modigliani-Miller theorem that states that the value of the underlying assets of a corporation does not depend upon the mix of equity and debt used. In practice corporate finance is affected by the theory of asymmetric information (the same information not equally available to all parties) and may result in a preference for internal finance over external finance. Research in the field of behavioral finance also supports the view that the preference structures assumed by neoclassical economic theory do not reflect decision-making in practice.

The main argument of labor economics for employment-related pension plans is the wage-tilt hypothesis that is based on the premise that employers wish to encourage the long-term tenure of employees and will tilt the compensation-tenure profile accordingly. The economic theory of labor markets indicates that pension arrangements should be considered and evaluated

in the context of total compensation arrangements and that the risks associated with pensions should be identified. Pension risk may be attributable to actual or potential under-funding of a defined benefit pension plan, the investment risk inherent in the pension fund's investment strategy, the extent of employer discretion in setting and maintaining future pension levels and the potential risks of job loss and pension default. Asymmetric information and lack of transparency regarding pension risks may result in significant differences between the economic theory and practice with respect to labor and pensions. The efficient market concept in financial theory has its counterpart in the theory of labor market economics. But, with regard to recognizing the nature and extent of pension risk, the evidence is strong that the labor market is not efficient.

Pension financing arrangements have become a focus for debate in recent years with input from economists, actuaries, accountants, investment managers and regulators. Traditional actuarial models for valuing pension liabilities and assets have been re-examined and appeals made for greater transparency and disclosure and, in particular for modifications of methodology to accommodate the precepts of financial economics. Critical to this debate are the purposes of actuarial valuations, whether for long-range funding purposes, current accounting for pension cost allocation, solvency measurement, disclosure to shareholders or communication to pension plan participants. The choice of the discount rate at which to value pension liabilities, the choice of valuation methodology for assets, whether market value or a non-market "smoothed" value, and the appropriate roles for bonds and equities in pension fund investment management strategy, have all been actively debated and are influencing the future direction of actu-

arial practice, accounting standards and asset allocation strategy.

One of the most contentious points in the ongoing debate concerns the use of market values of assets. Some proponents of fair value accounting claim that market values should be used. While it may be appropriate to disclose a comparison of the market value of assets to the value of the plan discontinuance liability in terms of a solvency measure or benefit security ratio, it is quite another question to consider market values of assets in the context of a valuation for long-term funding of the pension plan of a company on an ongoing basis. The equity market, in particular, does not always exhibit rational values in relation to earnings and balance sheet values and, in reality, reflects the tendencies of market participants to engage in speculation that may range from irrational exuberance to irrational despondence.

Another point of debate concerns the selection of the appropriate discount rate for valuing the future stream of expected cash flows to provide pension benefits. A strict matching of liabilities and assets would require a risk-free rate to be utilized at each point along the projected payout period, namely, the zero-coupon treasury bond rates. A non-risk-free approach would advocate a pattern of discount rates that differs from the zero coupon yield curve. When a non-matched position exists, the appraisal of pension risk necessitates a careful interpretation of the results since they may involve interest rate risk, credit risk and equity premium risk.

### Buffin Partners Inc.

P.O. Box 1255  
Sparta, NJ 07871  
Phone: (973) 579-6371  
Fax: (973) 579-7067  
Email: k.g.buffin@worldnet.att.net

