



# Illinois Municipal Retirement Fund

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## Briefing Paper

**Topic: Financial Economics**

**Subtopic: Its Impact on Pension Plans – Private and Public**

### **What is Financial Economics?**

Financial economics is a subset of microeconomics and is primarily devoted to studies of capital markets. It examines why people invest, how investments should be valued, and how investment risk and return should be measured. One particular interest for the financial economist is how markets determine current values or prices of items that involve future cash flows.

### **How does Financial Economics Impact Pension Plans?**

Proponents of financial economics argue that unless an entity's pension assets and liabilities are measured at market value and presented on the entity's balance sheet, the entity's value is distorted in its financial statements. For pension liabilities and other items that do not trade in open markets, financial economics holds that the best estimate of their market value is the price of similar, openly-traded items of the same amount, timing, tax-treatment, liquidity, probability of payment, etc. From this perspective, pension liabilities most closely resemble debt. Therefore, the market value of pension liabilities should be determined in the same way that bond prices are determined, i.e. by discounting the future cash flows by a risk-free rate of return, e.g. high grade bond yields. From the financial economist's view the measurement of pension liabilities at a point in time excludes future service and salary from the calculation.

Financial economics views pension plans as pass-through entities, not stand-alone entities. It does not support the concept that a pension plan is a long-term enterprise nor that pension plans should take a long-term view of risk and reward. For example, discounting the pension liability using a rate that includes a risk premium (e.g. the long-term expected return of a diversified investment portfolio) is viewed as shifting risk to future generations. From this perspective, financial economics concludes that for most plans the market value of pension liabilities should be funded with a duration matching portfolio consisting of risk-free bonds. A logical extension of this position is that funding should also strive to prevent intergenerational cost shifting and thus funding should not consider any risk premium in setting current funding obligations.

In a nutshell, financial economics for pension plans is founded on market based measurements of assets and liabilities. On the asset side there is no actuarial smoothing. The market value or fair value is determined, for the most part, by transactions in the market. Pension liabilities would be measured as the cost to terminate the plan as of the measurement date. There is no consideration of future service or future salary increases. This leads to discounting the stream of cash benefit payments that make up the pension liability at a risk-free bond yield.



## **What Are the Advantages of Using Financial Economics for Pension Plans?**

According to the proponents of applying financial economics to pension plans, the market value approach to pension liabilities (MVL) provides a standardized market measure of pension liabilities which, when compared with the market value of assets, would give a consistent measure of the funded status of a pension plan. Since the MVL approach would generally be higher than the accrued actuarial liability under conventional actuarial approaches due to the lower discount rate, the temptation to increase pension benefits when plans appear to be over funded based on conventional approaches would be reduced. Given the lower funded ratios under the MVL approach, contributions would need to be higher thus reducing the temptation to defer contributions to the future. In summary, better reporting, i.e. market based, of pension assets and liabilities would help stabilize funding and promote long-term stability.

## **Is Financial Economics Right for Public Pension Plans?**

While the above advantages may be true for pension plans in the private sector, there are a number of people who do not believe that financial economics is the correct answer for public plans. Sponsors of private pension plans are in the business of adding economic value for their shareholders and need a “market” value for their pension plans in order to allocate resources efficiently. These private plan sponsors can go bankrupt which would require a “market” value of plan liabilities. Private plans can also be terminated so the “market” value of accrued benefits at a specific date can be useful. These issues do not readily apply to public sector entities.

The Governmental Accounting Standards Board stated in a white paper that public and private sector entities exist for significantly different purposes and are accounted for differently as a result. In addition, governments generally exist longer than businesses and are not typically subject to bankruptcy and dissolution. Accordingly governmental and business accounting standards are different with regard to pensions. The governmental accounting approach supports allocating long-term benefit costs to periods of service as a level percentage of payroll thus spreading the costs smoothly among different generations of taxpayers, promoting intergenerational equity. Discounting pension benefits at the expected long-term investment return of a diversified portfolio is intended to reflect likely future investment earnings. It has been estimated that the financial economics approach produces a measure of the pension liability that would be roughly 15% higher than the liability under conventional actuarial approaches. It would also result in contribution rates that would be significantly higher.

Unlike private entities, public sector entities are not created to add economic value to shareholders but rather to provide services to its stakeholders. The goal is to provide these services as cost efficiently as possible. A significant purpose of employer sponsored pension plans is to deliver this valuable benefit as efficiently as possible, including managing both cost and risk. Financial economics, with its focus on calculating a termination liability and its bias against risky (equity) investments, substitutes risk aversion for risk management. This bias comes at high cost to the ultimate providers of public sector pensions, the taxpayers.

Financial economics is bad for taxpayers since it leads to higher contribution rates.

$$\mathbf{C + I = B + E}$$

Contributions + Investment Income  
equal  
Benefit Payments + Expenses



In the short term, lower investment income means higher contributions. In the long term, lower investment income means higher contributions or lower benefit payments.

The financial economist's belief that pension plans are pass-through entities and not separate and, in the case of public sector entities, not long term leads to the conclusion that the use of any risk premium associated with risky assets results in inappropriate intergenerational risk shifting. The financial economist clings to this position since the acceptance of the probability of a risk premium would necessitate its recognition in setting current and prospective contribution levels. The financial economist is adamant that no risk premium be considered in setting current contribution levels and, by ignoring that risk premium, willingly shifts additional costs to the current generation of taxpayers.

### **How does Financial Economics Impact IMRF?**

The Illinois Municipal Retirement Fund (IMRF) is the administrator of an agent multiple-employer public employee retirement system for over 3,000 units of local government. It is not a pass-through entity but separate and distinct from those governments. These units of government have no expectation that they will be terminated. If one were to terminate (or merge with another unit of government), there are statutory mechanisms in place to satisfy any unfunded liabilities.

With a 100% funding goal, sound actuarial principles, sound investment policies and effective employer rate setting authority, IMRF is able to fulfill its mission to efficiently and impartially develop, implement, and administer programs that provide income protection to members and their beneficiaries on behalf of participating employers in a prudent manner. Funding benefits for career employees is carried out over their working lives – achieving intergenerational equity for all taxpayers.

In order to achieve intergenerational equity, IMRF embraces the need to invest prudently in “risky” assets. A risk premium is incorporated into employer contribution rates and can be adjusted as warranted by financial market developments. That risk is managed through a portfolio diversified by investment types, investment locales and investment managers. Asset allocation is reviewed annually and rebalanced consistent with established investment policies and procedures.

### **Summary**

While the focus of Financial Economics on market based valuations and a termination-based funded status may be of interest, its underlying message that the risk premium associated with investing in “risky” assets should not be considered when administering a defined benefit plan such as IMRF is very detrimental to sustaining defined benefit plans in the public sector. A “risk-free” investment portfolio would result in increasing the cost to current taxpayers of providing retirement benefits to public employees since the logical result of the Financial Economics position is higher contributions today. Whether intended or not, it increases the attractiveness of defined contribution plans to public officials vis-à-vis defined benefit plans.