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# An Investigation of the Determinants of Investment Risk Behavior in Employer-Sponsored Retirement Plans

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*This paper presents the results of an investigation of the determinants of investment risk behavior in employer-sponsored retirement plans. Using a field survey of 795 college and university employees, I examined the significance of demographic and attitudinal/dispositional variables on employees' risk behavior in selecting among investment allocation options provided by defined contribution pension plans. The results identified primary causes of risky investment behavior including income, age, other retirement plan participation, self-efficacy, knowledge of investment principles and general risk propensity.* 

A majority of public and private sector companies in the US provide their employees with pension plans as a form of indirect compensation (Kramerich, 1999). The salience of employer-sponsored retirement plans to American employees has grown in recent years as a result of a number of factors including the graying of the labor force and the increasing concern regarding the future solvency of social security (Dulebohn, Murray & Sun, 2000). Widespread agreement exists today among scholars and public policy makers that the retirement income security of future retirees will increasingly depend on their participation in employer-sponsored retirement plans and their own savings, rather than on social security (Bajtelsmit, 1996; Kramerich, 1999).

Defined contribution (DC) pension plans represent a major type of employer-sponsored pension plans. DC pension plans are similar to savings plans and provide a benefit based on annual contributions, as a percentage of pay made on behalf of the employee, and accumulated investment earnings on the employee's account. Since the early 1980s, there

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has been tremendous growth in the use of employer-sponsored DC plans by public and private sector organizations (Gustman & Steinmeier, 1993; Kruse, 1995). This growth has been driven by employer efforts to reduce pension liability and to attract employees who desire the portability and investment choice features of DC plans (Mitchell & Rappaport, 1993; Sollinger, 1993).

DC pension plans often place the investment decision responsibility on the individual participant. Participants in these plans may be required to make choices among investment alternatives, representing varying levels of risk and potential investment return, that will largely determine the amount of their final retirement benefit. Concern exists regarding the investment choices DC plan participants are making because overly conservative pension investment by plan participants may have extreme consequences for retirement income security by providing smaller investment returns and savings accumulations than riskier investment choices (Bajtelsmit, 1996). This concern is consistent with a major premise of the classical approach to risk taking that contends that risk and return are positively correlated, and therefore if an individual wants to obtain higher returns, he/she should, on average, choose investments with higher risks (Levy & Sarnat, 1984; Shapira, 1995).

The purpose of this paper is to report the results of an investigation of causes of risk taking behavior in the investment decision process of DC pension plans. A field survey was conducted that involved the administration of surveys to college and university employees. The objective of the research was to identify determinants of risky behavior in the individual investment allocation process of DC pension plans. Towards this end, the direct effect of a number of hypothesized risk determinants were tested.

## Background, Conceptual Model, and Hypotheses

A large amount of research attention has been given to risky decision-making among various groups such as managers and executives (MacCrimmon & Wehrung, 1986, 1990; Shapira, 1995; Sullivan & Kida, 1995), negotiators (Ghosh, 1992); gamblers (Rhoda, Olson & Rappaport, 1999); financial planners (MacGregor, Slovic, Berry & Evensky, 1999), entrepreneurs (Brockhaus, 1980), and students (Sitkin & Weingart, 1995). In addition, research on risk taking has primarily focused on issues including preferences for risk (Arrow, 1965; Pratt, 1964; Ross, 1981), perceptions of risk (cf., Geweke, 1992), the reflection effect (cf., Lewin, Schneider & Gaeth, 1998) and individuals' determination of probable outcomes in risky decisions (cf., Shapira, 1995; Slovic, 1967). Less research attention has been given to the individual investment decision process and a dearth of research exists that has focused on identifying determinants of risky decision-making in the investment allocation process among DC plan participants.

The importance of examining risky decision-making behavior among retirement plan participants is underscored by a general conclusion among researchers that risk behavior does not necessarily generalize across situations and may vary across individuals (Bromiley & Curley, 1992). Specifically, research has found that individuals may be risk-takers in certain situations (e.g., making financial decisions at work) while risk-averse in other situations (e.g., making investment decisions with personal assets) (MacCrimmon