

## FINANCIAL RISK TOLERANCE AND ADDITIONAL FACTORS THAT AFFECT RISK TAKING IN EVERYDAY MONEY MATTERS

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**ABSTRACT:** The purpose of this research was to extend the investigative line of inquiry, as initiated by Carducci and Wong (1998), regarding risk taking in everyday money matters by examining demographic, socioeconomic, and attitudinal characteristics that may be used either individually or in combination as determinants of financial risk tolerance. Discriminant analysis results indicated that risk tolerance was associated with being male, older, married, professionally employed with higher incomes, more education, more financial knowledge, and increased economic expectations. Findings suggest that the achievement of financial success can be explained, at least in part, by a combination of someone's personality characteristics and socioeconomic background.

Financial risk tolerance, defined as the maximum amount of uncertainty that someone is willing to accept when making a financial decision, reaches into almost every part of economic and social life. Although the importance of assessing financial risk tolerance is well documented, in practice the assessment process tends to be very difficult due to the subjective nature of risk taking. Carducci and Wong (1998), in a recent issue of this Journal, reported the findings from a study that attempted to identify personality factors that determine financial risk taking in everyday money matters. Carducci and Wong concluded that persons fitting the Type A personality trait tended to take greater risks than those more closely aligned with the Type B personality profile. They suggested that socioeconomic factors, such as income, might have played a part in explaining their findings. Specifically, it was determined that persons identified as Type A personalities were likely to maximize their achievements through additional risk taking in the attainment of increased incomes,

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higher status occupations, and increased educational attainment (Strube, 1991; Thoresen & Low, 1990).

The results of research conducted by investigators such as Carducci and Wong (1998) and Grable and Joo (1997) suggests that the investigation of factors that determine financial risk taking and risk tolerance can be expanded beyond the testing of purely psychological factors. Specifically, demographic, socioeconomic, and attitudinal characteristics need to be examined to determine how these factors influence a person's willingness to take financial risks in "everyday money matters."

A review of current risk-taking and risk-tolerance research indicates that factors such as gender, age, marital status, occupation, income, and expectations may influence a person's level of risk taking in everyday money matters. For example, according to Slovic (1966), a "prevalent belief in our culture is that men should, and do, take greater risks than women" (p. 169). This assumption is consistent with the literature (Bajtel-smit & Bernasek, 1996; Blume, 1978; Hawley & Fujii, 1993-1994; McDermott, 1979; Rubin & Paul, 1979; Sung & Hanna, 1996). Increasing age has been linked to decreasing levels of risk tolerance (Bakshi & Chen, 1994; Brown, 1990; Dahlback, 1991; McInish, 1982; Morin & Suarez, 1983; Palsson, 1996). Increasing levels of risk tolerance also have been associated with being single (Baker & Haslem, 1974; Lazzarone, 1996; Roszkowski, Snelbecker, & Leimberg, 1993; Sung & Hanna), and being employed in a professional occupation (Grey & Gordon, 1978; Haliassos & Bertaut, 1995; Lee & Hanna, 1995; Leonard, 1995; Masters, 1989; Meyer, Walker, & Litwin, 1961; Quattlebaum, 1988). Increased levels of income and educational attainment also are considered to be associated with increased levels of risk tolerance (Baker & Haslem, 1974; Cicchetti & Dubin, 1994; Cohn, Lewellen, Lease, & Schlarbaum, 1975; Masters, Riley, & Chow, 1992; Schooley & Worden, 1996; Shaw, 1996; Zhong & Xiao, 1995). Additional factors such as superior knowledge of personal finance issues (Cutler, 1995; Grable & Joo, 1997; Snelbecker, Roszkowski, & Cutler, 1990) and positive economic expectations (DeVaney & Su, 1997; Grable & Lytton, 1997; Sung & Hanna, 1996).

Researchers and practitioners have suggested that demographic, socioeconomic, and attitudinal factors can be used to differentiate individuals into risk-tolerance or risk-taking categories. While there are research data to support these beliefs, there is a need to examine these assumed relationships in more detail (Botwinick, 1984; Sung & Hanna, 1996). The purpose of the research presented here was to extend the research line of inquiry regarding risk taking in everyday money matters by investigating which of the above mentioned demographic, socioeconomic, attitudinal characteristics may be used either individually or in combination as determinants of financial risk tolerance.

## METHOD

Data were obtained from a random sample of faculty and staff working at a large southeastern university in 1997 ( $N = 1,075$ ). Participants included 591 women and 484 men ranging in age from 20 to 75 years with a mean of 43.50 years.

For the purposes of this study, it was hypothesized that (a) men would be more risk tolerant than women, (b) younger persons would be more risk tolerant than older persons, (c) single individuals would be more risk tolerant than married individuals, (d) people employed in higher ranking occupations (i.e., professionals) would be more risk tolerant than those employed in lower ranking occupations, (e) increased levels of income would be associated with increased levels of risk tolerance, (f) increased levels of attained education would be related to increased levels of risk tolerance, (g) individuals with higher levels of investment knowledge would be more risk tolerant than others, and (h) people with positive economic expectations would be more risk tolerant than people with less positive expectations.

Survey respondents received a financial risk-tolerance assessment questionnaire.<sup>1</sup> A respondent's risk tolerance was determined by combining responses to 20 financial risk situations into a risk-tolerance index. Answers to each question were given a weight according to the riskiness of the response. Higher weightings indicated a riskier choice, while lower weighting indicated a less risky choice. The reliability of the measure was calculated to be .78 using the Spearman-Brown formula. This level of reliability represented an acceptable level of consistency for an attitudinal measure (Pedhazur & Schmelkin, 1991). Index scores were similar to those reported by Carducci and Wong (1998). Specifically, scores ranged from a low of 19 to a high of 63 ( $M = 37$ ;  $SD = 6.40$ ). Approximately 52% of respondents were classified as having an above-average risk tolerance, while 48% were classified as having a below-average risk tolerance.

## RESULTS AND DISCUSSION

Descriptive discriminant analysis was used to test the research hypotheses. Univariate test statistics were generated for the purpose of measuring the significance of the demographic, socioeconomic, and attitudinal factors in differentiating between levels of risk tolerance. F-test results indicated that gender, age, occupation, income, education,

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<sup>1</sup>A copy of the 20-item financial risk-tolerance assessment instrument can be obtained by writing to the author.

financial knowledge, and economic expectations were significant in differentiating between levels of risk tolerance. It was concluded that (a) males were more risk tolerant than females, (b) older respondents were more risk tolerant than younger respondents, (c) married respondents were more risk tolerant than single respondents, (d) professionals (occupational status) were more risk tolerant than those with lower incomes, (e) respondents with higher incomes were more risk tolerant than those with lower incomes, (f) respondents with higher attained education were more risk tolerant than others, (g) respondents with higher levels of financial knowledge were more risk tolerant than respondents with less knowledge, and (h) those with greater economic expectations were more risk tolerant than respondents with lower expectations.

In all but two cases, the pattern of association between socioeconomic factors and financial risk tolerance was as expected. The association between age and risk tolerance and marital status and risk tolerance were opposite of the hypothesized relationships. Specifically, older individuals were found to be, on average, more risk tolerant in relation to financial issues than younger persons. Additionally, married individuals were found to be more risk tolerant than single individuals, on average.

A second stage of the analysis was conducted to determine which of the statistically significant socioeconomic factors could best be used to differentiate between levels of financial risk tolerance. Taking into account possible interactions between and among the demographic, socioeconomic, and attitudinal variables, it was determined that a combination of education, financial knowledge, income, and occupation explained the most between-group variability in risk tolerance. Overall, the model developed to test the research hypotheses explained about 22% of an individual's financial risk tolerance.

The findings of this research tend to support the conclusions presented by Carducci and Wong (1998) who indicated that Type A individuals are not only more risk tolerant than Type B individuals, but that Type A individuals also tend to have greater levels of attained education, financial knowledge, income, and occupational status. The achievement of financial success appears to be explained, at least in part, by a combination of a person's personality characteristics and socioeconomic background.

Researchers and practitioners are encouraged to replicate and expand this study using different sample frames, multiple risk assessments, and as Carducci and Wong (1998) suggested, within different domains of risk taking. Recall that the demographic, socioeconomic, and attitudinal factors used in this study explained only 22% of an individual's risk tolerance. Given this relatively low amount of explanation, a rigorous and systematic investigation of other demographic, socioeconomic, attitudinal, and psychological factors that might be used to differentiate among levels of risk

tolerance more effectively, either individually or in combination, should be undertaken. As the results of this study indicate, understanding a person's financial risk tolerance is a complicated process that goes beyond the exclusive use of socioeconomic factors. More research is definitely needed in this domain of business and psychology.

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