

Risk and Responsibility

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Abstract – short

A common perception, particularly in economics and finance, is that an individual's propensity to engage in risky behavior, such as investing in the stock market, is driven largely by their risk preference. Emotions, however, have been shown to role to play in such behavior. In the context of the disposition effect (selling winning shares, holding losing shares), Summers & Duxbury (2012) show that behavior thought to be explained by the S-shape value function in prospect theory is actually driven by emotional response. A determining element of an individual's emotional response is the degree of responsibility they have for the decision leading to the outcome they encounter (Zeelenberg et al., 1998). Responsibility has been seen to play a role in emotional response, which in turn has been shown to influence risky behavior. What role then does responsibility play in shaping risky behaviour? Is such behavior a manifestation of an individual's attitude to responsibility rather than their risk preference? We examine this issue via an investment experiment in which individuals engage in risky behavior (holding shares) and report measures of risk preference and responsibility. We find that risk preference is a predictor of risky behavior, but this result is not robust to the inclusion of responsibility (controlling for gender and active/ passive choice). An individual's propensity to engage in risky behavior is found to be driven more by their attitude to responsibility, with lower feelings of responsibility associated with increased risk taking behavior, than their risk preference. Our findings have important implications for policy debate relating to default effects ('nudges' that may be seen as recommendations) in the context of pensions and saving for retirement.

Abstract – long

AIM

A common perception, particularly in economics and finance, is that an individual's propensity to engage in risky behavior, such as investing in the stock market, is driven largely by their risk preference. Emotions, however, have been shown to have a role to play in risky decision making. In the context of the disposition effect (selling winning shares, while holding losing ones), Summers & Duxbury (2012) show that risky investing behavior previously thought to be explained by the S-shape value function in prospect theory is actually driven by emotional responses to prior outcomes. A determining element of the emotional reaction an individual experiences is the degree of responsibility they have for the decision leading to the outcome they encounter (Zeelenberg et al., 1998). Responsibility has been seen to play a role in emotional response, which in turn has been shown to influence risky behavior. What role then does responsibility play in shaping risky behaviour? Is such behavior a manifestation of an individual's attitude to responsibility rather than their risk preference?

METHODS

We examine experimentally the difference in risky behavior of individuals who feel different levels of responsibility for their initial decision to hold risky shares. Coiffi & Garner (1996) show that people who make an active choice to pursue a course of action feel greater commitment than those who opt to pursue a course offered as default (passive choice), thus we include active and passive choice conditions.

Prior to the experiment participants complete a number of demographic questions, including a self-reported measure of risk preference. At the start of the experiment participants were endowed with £500 in cash (active) or in shares (passive). In the active choice condition

participants could exchange cash for shares, while in the passive choice condition they were given shares and could exchange some or all of these for cash. Participants were informed that in the next period the share price would change, thus holding shares represents risky behavior. The stock price movement during the period was then revealed to participants and they were asked to reflect on how they felt after experiencing the end of period outcome and indicate how responsible they felt on a 1 (low) - 9 (high) scale.

The measures of interest in this study are risk preference, responsibility and risky behavior (proxied by number of shares held). Summers and Duxbury (2012) demonstrate that responsibility is not a factor for winning investments, hence we focus on losing investments.

A total of 47 students at a university business school participated in the study. A monetary incentive mechanism was employed to motivate participants and to reinforce feelings of responsibility.

RESULTS

We find that in isolation risk preference is a predictor of the number of shares held (+1.248, $p < 0.05$). Adding active/passive choice (coded active=0, passive=1), which is a significant determinant of risky behavior (+1.518, $p < 0.05$), has the effect of enhancing the impact of risk preference (+1.414, $p < 0.05$). Turning to feelings of responsibility, we find in isolation that it is predictive of the number of shares held (-0.093, $p < 0.05$), with lower levels of responsibility associated with higher risk taking. Including all three predictors in a single model results in strong significant effects for feelings of responsibility (-0.430, $p < 0.01$) and active/passive choice (+1.317, $p < 0.05$), but only a marginally significant effect for risk preference (+0.936, $p < 0.1$), which is reduced to insignificance once a gender dummy variable is included.

In summary, we find that while risk preference is a predictor of risky behavior this result is not robust to the inclusion of responsibility, controlling for gender and active/ passive choice.

CONCLUSIONS

An individual's propensity to engage in risky behavior, while largely viewed as determined by their risk preference, may be a reflection of their attitude to responsibility, with lower feelings of responsibility associated with increased risk taking behavior. Our findings have important implications for policy debate in relation to the use of default effects ('nudges' that may be seen as recommendations) in the context of pensions and saving for retirement.