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Overconfidence and portfolio return expectations: The mediating role of option trading behavior

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Abstract

This paper investigates the role of overconfidence in investment knowledge on higher investment portfolio return expectations, with a focus on the mediating role of option trading behavior among individual American investors. The findings show that overconfidence, assessed using two methods derived from investment knowledge, namely, the z-score difference between subjective and objective investment knowledge and the residuals from regressing subjective investment knowledge on objective investment knowledge, was consistently associated with an increased likelihood of engaging in option trading behavior and holding the belief that one's investment portfolio returns were superior to the market average. The mediation analysis further reveals that overconfidence mediated by actively participating in options trading, may result in investors' positive perception of their portfolio performance. This study provides valuable insights for financial practitioners and researchers about the association between individual investor characteristics and option trading behavior, as well as potential explanations for why some investors believe they will outperform the market.

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1. Introduction

The complexity of options markets and the requirement for advanced investment knowledge present constraints, thereby enhancing their appeal to informed investors (Chen & Sabherwal, 2023). Investment knowledge entails a comprehensive examination of sophisticated financial concepts, emphasizing complex financial instruments within the investment domain (Gallery et al., 2011; Zhang et al., 2025). The behavioral finance literature suggests that a comprehensive understanding of investors' decision-making necessitates independently examining investment knowledge through objectively measurable and subjectively assessed perspectives (Hadar et al., 2013; Choung et al., 2023). A positive relationship was identified between investors' objective knowledge and the level of portfolio diversification, which was reflected in the variety of financial instruments invested (Mouna & Jarboui, 2015). Subjective knowledge was associated with an increased propensity to engage in risky investments, evidenced by increased stock trading activity and a higher proportion of option traders among these investors (Bellofatto et al., 2018; Hadar et al., 2013; Zhang et al., 2025).

Financial overconfidence, defined as a miscalibration between subjective and objective financial knowledge (Moore & Healy, 2008; Ouyang et al., 2025), reflects an inflated belief in one's ability beyond actual knowledge. According to Moore and Healy (2008) the three commonly recognized forms of overconfidence are overplacement (perception of a specific domain superiority over others), overprecision (extreme certainty about being accurate in one's judgment and beliefs), and overestimation of one's ability. Financial overconfidence is the overestimation of one's capability in making financial and investment decisions. Building on the framework of cognitive miscalibration and motivated reasoning perspectives (Kunda, 1990; Taylor & Brown, 1988), it is proposed that overconfidence distorts risk perception (Glaser & Weber, 2007), reduces incentives for information search (Biais et al., 2005), and increases trading propensity (Gervais et al., 2011). In speculative markets, these distortions lead investors to underestimate the risks of options trading (Chen & Sabherwal, 2019; Choi et al., 2010) while inflating return expectations (Fernandes et al., 2014; Xia et al., 2014). Empirical studies further demonstrate that overconfidence predicts greater risky asset ownership (Xia et al., 2014) and a greater probability of options trading (Chen & Sabherwal, 2019). Because options serve hedging, income, and speculative purposes, and have leverage that magnifies both gains and losses, understanding whether financial overconfidence is associated with options participation is important for practitioners and policymakers. This study proposes that financial overconfidence is associated with options trading behavior, and higher expected returns from such investments. Moreover, by engaging in options trading, overconfident investors not only act on their miscalibrated speculative expectations but also reinforce them through selective interpretation of outcomes, further inflating their expected returns. Hence, options trading behavior possibly mediates the relationship between financial overconfidence and higher return expectations.

2. Methodology

2.1. Data

This study combined the 2021 NFCS State by State with the Investor Survey cross-sectional datasets. The current study's final analysis sample included 869 American investors who

were identified as investing decision-makers in their households, invested outside retirement accounts, and provided full information on key variables.

2.2. Variable Construct

- 2.2.1. ***Perceived Better Investment Return.*** Investors were requested to express their expectations regarding the anticipated performance of their investment portfolios in relation to the overall market over the coming 12 months. If investors conveyed a strong positive outlook regarding their own portfolio and confirmed that their investments were expected to outperform the market overall, the variable was assigned a value of 1. If investors perceived that their investment portfolio would perform similarly to or worse than the market, the variable was assigned a value of 0.
- 2.2.2. ***Option Trading.*** Only investors with accounts that permitted option trading were included. These investors were then asked whether they had ever bought or sold options within their accounts. The variable was coded as 1 if they confirmed having either purchased or sold options and 0 if they had not.
- 2.2.3. ***Overconfidence.*** Overconfidence was obtained through the two aspects of investment knowledge, which include both objective and subjective components. Objective investment knowledge was assessed by correctly answering 10 multiple-choice questions covering topics including stocks, bonds, securities risks, investment returns, index funds versus actively managed funds, margin trading, and short selling. Subjective investment knowledge was measured with one self-assessment question. Response values range from 1 (very low) to 7 (very high). Overconfidence was then measured using two methods for robustness: (1) by calculating the difference between standardized z-scores of subjective and objective investment knowledge (see Equation (1)),

$$\begin{aligned} \text{Overconfidence}_1 \\ = z(\text{Subjective Knowledge}) - z(\text{Objective Knowledge}) \end{aligned} \quad (1)$$

and (2) by deriving it from the residuals of a regression of subjective investment knowledge on objective investment knowledge (see Equation (2)).

$$\begin{aligned} \text{Overconfidence}_2 = \hat{\varepsilon}, \\ \text{from Subjective Knowledge} = \gamma_0 + \gamma_1 \text{Objective Knowledge} + \varepsilon \end{aligned} \quad (2)$$

- 2.2.4. ***Control Variables.*** Investors' investment risk tolerance (1=not at all willing to take risks, 10=very willing) and socio-demographic variables, such as age, gender, race, educational attainment, marital status, homeownership, annual income, and investment account balance, were controlled in all analyses.

2.3. Analysis

To address potential selection bias after restricting the analysis to retail investors whose investment accounts were eligible for option trading, this study first employed the Heckman two-step model to analyze actual behaviors of option trading, using non-retirement investment account tenure as an exclusion restriction. The results indicated that the inverse Mills ratio was not statistically significant, suggesting that selection bias was not a concern in the analysis.

This study then conducted a mediation analysis, positioning option trading behavior as the mediator, as shown in Figure 1. Equation (3) specifies the mediator path, while Equation (4) specifies the outcome path. The analysis explored both the direct relationship between overconfidence and perceived better investment returns and the indirect relationship through the mediating effect of option trading behavior. Due to the binary nature of both the mediator and dependent variable, this study employed logistic regression with the bootstrap resampling technique. The mediation analyses utilized 1,000 bootstrap replications, yielding robust estimates of the model's coefficients and standard errors, enhancing the effect measures' accuracy and reliability. In this approach, repeated samples are drawn with replacement from the original data, and the mediation model is re-estimated for each resample.

Mediator path:

$$\text{logit}(P(\text{OptionTrading} = 1)) = \alpha_0 + \alpha_1 \text{Overconfidence} + \alpha_2 X \quad (3)$$

Outcome path:

$$\begin{aligned} \text{logit}(P(\text{Perceived Better Returns} = 1)) \\ = \beta_0 + \beta_1 \text{Overconfidence} + \beta_2 \text{OptionTrading} + \beta_3 X \end{aligned} \quad (4)$$

where: X = vector of control variables (e.g., risk tolerance, demographics, etc.)

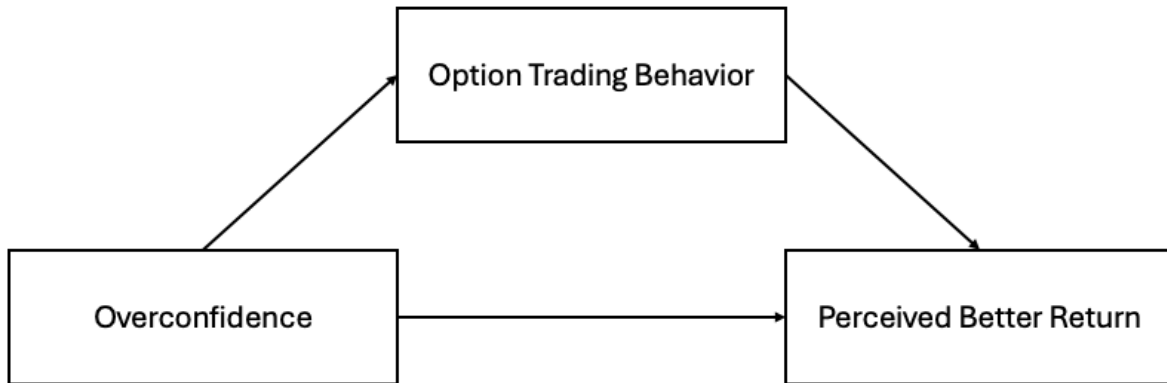


Figure 1. Mediation model with option trading behavior as mediator.

3. Results

Descriptive statistics are presented in Table 1. A total of 43.9% of eligible retail investors engaged in option trading. On average, these investors correctly answered five out of 10 multiple-choice questions assessing investment knowledge. Their subjective investment knowledge had a mean score of 5.40. The mean overconfidence score, calculated as the difference between standardized scores of subjective and objective investment knowledge, was 5.58, ranging from -2.85 to 3.25. In comparison, the mean overconfidence score derived from the residuals was 5.42, with values ranging from -3.74 to 3.01.

Table 1. Descriptive summary (N = 843)

Variable	Mean/%	Std. dev.	Min	Max
Perceived better return	36.65%			
Options trading behavior	43.89%			
Objective investment knowledge	5.584	2.545	0	10
Subjective investment knowledge	5.421	1.155	1	7
Overconfidence (z-score)	0.276	1.246	-2.846	3.252
Overconfidence (residuals)	0.574	1.201	-3.738	3.012
Control variables:				
Risk tolerance	7.104	2.036	1	10
Male	70.58%			
White	74.26%			
College degree and higher	74.97%			
Has financial dependents	37.72%			
Married	67.38%			
Age categories				
Age 18 to 24	5.34%			
Age 25 to 34	15.18%			
Age 35 to 44	19.57%			
Age 45 to 54	15.07%			
Age 55 to 64	20.64%			
Age 65 and older	24.20%			
Income categories				
less than \$35,000	9.37%			
\$35,000 - \$50,000	7.95%			
\$50,000 - \$75,000	15.78%			
\$75,000 - \$100,000	18.98%			
\$100,000 - \$150,000	26.93%			
\$150,000 and above	21.00%			
Homeownership	83.51%			
High investment balance	54.21%			

Table 2 highlights the impact of overconfidence, measured by the z-score difference between subjective and objective investment knowledge, on option trading behavior and perceived better investment return. The findings indicate that overconfidence in investment knowledge is positively associated with option trading activity. Furthermore, both overconfidence and option trading behavior are positively linked to investors' perceptions of achieving better returns

compared to the overall market. The analysis also incorporates a mediation analysis to explore how option trading behavior mediates the relationship between overconfidence and perceived superior returns. The results reveal significant direct (0.060) and mediation (0.009) effects of option trading behavior, with mediation thus accounting for approximately 13.5% of the total effect in the association between overconfidence and perceived better returns across the bootstraps performed.

Table 2. Logistic Regression and Mediation Analysis Results Utilizing Overconfidence Measured via z-Score Method

	Option Trading Behavior				Perceived Better Return			
	Odds Ratio	Bootstrap Std. Err.	z	Sig.	Odds Ratio	Bootstrap Std. Err.	z	Sig.
Option trading behavior					1.984	0.197	3.48	***
Overconfidence (z-score)	1.523	0.076	5.52	***	1.336	0.080	3.62	***
Risk tolerance	1.162	0.054	2.77	**	1.134	0.043	2.89	**
Male	1.444	0.222	1.66		1.540	0.152	2.83	**
Whites	0.899	0.198	-0.54		0.895	0.190	-0.58	
College degree and higher	1.003	0.179	0.02		0.820	0.177	-1.12	
Has financial dependents	1.428	0.190	1.88		0.809	0.195	-1.09	
Married	1.249	0.247	0.90		1.103	0.197	0.49	
Age categories (ref: Age 65+)								
Age 18 to 24	1.703	0.411	1.30		1.560	0.363	1.22	
Age 25 to 34	1.366	0.289	1.08		1.208	0.294	0.64	
Age 35 to 44	0.928	0.298	-0.25		1.871	0.263	2.38	*
Age 45 to 54	0.821	0.264	-0.75		1.401	0.263	1.29	
Age 55 to 64	0.810	0.236	-0.89		1.052	0.252	0.20	
Income level (ref: \$150,000+)								
less than \$35,000	0.832	0.438	-0.42		0.679	0.375	-1.03	
\$35,000 - \$50,000	0.755	0.393	-0.71		1.036	0.361	0.10	
\$50,000 - \$75,000	1.483	0.318	1.24		0.828	0.283	-0.67	
\$75,000 - \$100,000	0.995	0.244	-0.02		0.679	0.238	-1.63	
\$100,000 - \$150,000	0.904	0.206	-0.49		0.639	0.213	-2.10	
Homeownership	0.929	0.275	-0.27		0.823	0.207	-0.94	
High investment balance	1.461	0.163	2.32	*	1.245	0.176	1.24	
Intercept	0.128	0.545	-3.76	***	0.151	0.528	-3.58	***
Pseudo R2 = .110					Pseudo R2 = .103			
Effect	Mean	[95% Conf.	Interval]					
Average Mediation	0.009	0.003	0.018					
Average Direct Effect	0.060	0.026	0.094					
% of Total Effect mediated	0.135	0.093	0.250					

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Table 3 demonstrates a consistent association between overconfidence and an increased likelihood of engaging in option trading behavior and perceiving better returns among investors. Option trading behavior consistently exhibited a positive and significant direct relationship with perceived better returns when accounting for overconfidence, aligning with the findings in Table 2. The mediation analysis identified a significant direct effect (0.051) and a mediation effect of 0.012 through option trading behavior, with the mediation representing approximately 18.6% of the total effect of overconfidence on perceived better returns across all simulations. The graphical visualizations of the mediation model and path coefficients are listed in Figure 2.

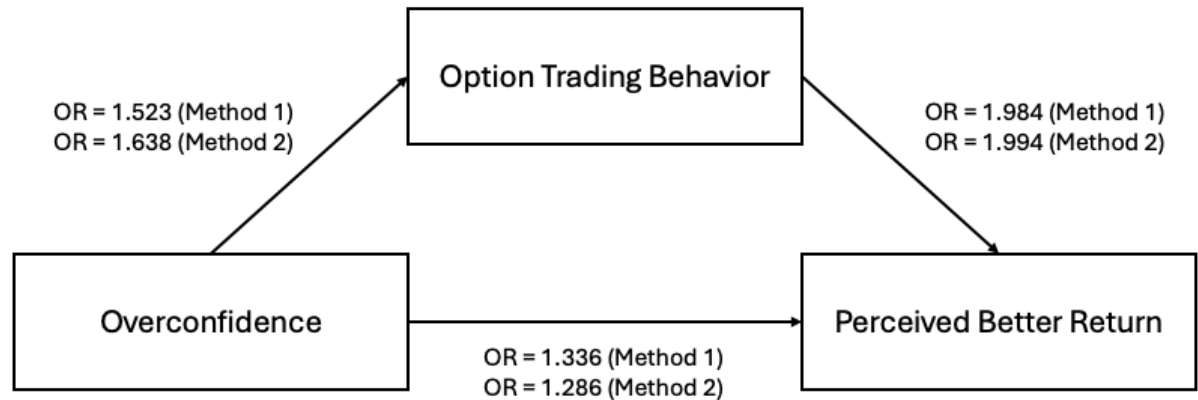


Figure 2. Mediation model results with option trading behavior as mediator.

Risk tolerance was significantly associated with participation in the options market across the result tables. Male investors and those aged 35 to 44, compared to the reference group aged 65 and older, were more likely to perceive better investment returns. When overconfidence was measured using the z-score method, having a high investment account balance of \$100,000 or more was positively associated with option trading behavior. When overconfidence was measured using the residual method, investors with an income level of \$100,000 to \$150,000 were less likely to believe their investment portfolio would outperform the market.

For robustness checks, additional analyses were conducted using two approaches: (1) recoding the perceived better return outcome as a three-category variable (see Appendix Aa – Ab), and (2) redefining overconfidence based on objective and subjective general financial knowledge that captures a broader domain of financial understanding (see Appendix Ba - Bb). While the exact significance levels varied, the direction and overall significance of the mediation effects were consistent with the main results.

Table 3. Logistic Regression and Mediation Analysis Results Utilizing Overconfidence Measured via Residuals Method

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4. Conclusion

This study addresses a gap in the existing literature by examining the influence of both objective and subjective investment knowledge on the likelihood of options market participation. Utilizing a nationally collected dataset, this study contributes to the literature by examining the role of overconfidence using both the differences between standardized scores of objective and subjective investment knowledge and the residuals approach, enabling a more refined measurement of overconfidence. The findings offer robust evidence that overconfidence in investment knowledge positively correlates with options trading. These findings align with Chen and Sabherwal (2019) and extend beyond the primary exploration of overconfidence in the stock market (Xia et al., 2014). However, the analyses were based on a sample of 843 investors, which may restrict the generalizability of the findings to the broader investor population. Future research may also consider employing multi-item scales to capture subjective knowledge more comprehensively. While overconfidence bias could result in perceived higher investment returns, the potential to also result in suboptimal investment performance in reality is due to the investors' involvement in riskier investment activities without being fully aware of their underlying knowledge gaps. This study is based on perceived rather than realized investment returns. Future work linking subjective expectations with realized portfolio performance would provide a valuable extension. It can be concluded from this study that financial advisors should ascertain clients' actual level of investment knowledge by utilizing formal assessments and obtaining the clients' self-assessed investment knowledge before they provide financial advice. Additionally, they should educate clients who are overconfident regarding the complexity of option trading and assist their clients in developing a more realistic expectation of their specific portfolio returns, given the expected risks of its underlying investable assets. Moreover, financial advisors could deploy dual-assessment tools that compare objective knowledge with subjective confidence to identify miscalibrated clients and use structured feedback to recalibrate expectations. Policymakers can similarly consider exploring targeted education programs, plain-language behavioral disclosures, and suitability assessments that incorporate confidence measures to reduce the risks of overconfident derivative trading without curtailing access. Overall, these interventions highlight the potential for behavioral insights to enhance both individual outcomes and systemic resilience in retail options markets. One limitation is that the measure of option trading was based on self-reported responses and did not capture actual transaction records of option trading. Future research utilizing longitudinal data or matched performance records could more conclusively evaluate the temporal dynamics and psychological pathways.

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Appendix Aa. Mediation Analysis Results Utilizing Generalized Overconfidence Measured via z-Score Method

	Option Trading Behavior				Perceived Better Return			
	Odds Ratio	Bootstrap Std. Err.	z	Sig.	Odds Ratio	Bootstrap Std. Err.	z	Sig.
Option trading behavior					1.208	0.086	2.20	*
Overconfidence (z-score)	1.345	0.087	3.40	**	2.182	0.161	4.85	***
Risk tolerance	1.171	0.043	3.67	***	1.139	0.044	2.93	**
Male	1.333	0.174	1.66		1.428	0.184	1.94	
Whites	0.859	0.176	-0.86		0.892	0.187	-0.61	
College degree and higher	0.884	0.187	-0.66		0.785	0.194	-1.25	
Has financial dependents	1.540	0.192	2.25	*	0.877	0.204	-0.64	
Married	1.370	0.202	1.56		1.175	0.209	0.77	
Age categories (ref: Age 65+)								
Age 18 to 24	2.507	0.418	2.20	*	1.856	0.418	1.48	
Age 25 to 34	1.770	0.283	2.02	*	1.455	0.307	1.22	
Age 35 to 44	1.298	0.268	0.97		2.375	0.282	3.06	**
Age 45 to 54	0.971	0.271	-0.11		1.518	0.278	1.50	
Age 55 to 64	0.835	0.238	-0.76		1.116	0.242	0.45	
Income level (ref: \$150,000+)								
less than \$35,000	1.105	0.368	0.27		0.928	0.363	-0.21	
\$35,000 - \$50,000	0.898	0.353	-0.31		1.171	0.366	0.43	
\$50,000 - \$75,000	1.699	0.278	1.91		0.989	0.279	-0.04	
\$75,000 - \$100,000	1.077	0.244	0.30		0.765	0.251	-1.07	
\$100,000 - \$150,000	0.946	0.215	-0.26		0.674	0.222	-1.78	
Homeownership	0.903	0.235	-0.44		0.867	0.235	-0.60	
High investment balance	1.477	0.182	2.14	*	1.274	0.180	1.35	
Intercept	0.100	0.509	-4.53	***	0.105	0.528	-4.27	***
Pseudo R-square = .090					Pseudo R-square = .093			
Effect	Mean	[95% Conf.	Interval]					
Average Mediation	0.009	0.002	0.017					
Average Direct Effect	0.038	0.003	0.073					
% of Total Effect mediated	0.188	0.105	0.601					

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Ab. Mediation Analysis Results Utilizing Generalized Overconfidence Measured via Residuals Method

	Option Trading Behavior				Perceived Better Return			
	Odds Ratio	Bootstrap Std. Err.	z	Sig.	Odds Ratio	Bootstrap Std. Err.	z	Sig.
Option trading behavior					1.197	0.075	2.39	*
Overconfidence (residuals)	1.409	0.074	4.64	***	2.141	0.162	4.70	***
Risk tolerance	1.171	0.042	3.78	***	1.145	0.044	3.10	**
Male	1.434	0.176	2.05	*	1.483	0.184	2.14	*
Whites	0.905	0.178	-0.56		0.917	0.186	-0.46	
College degree and higher	0.936	0.189	-0.35		0.810	0.194	-1.08	
Has financial dependents	1.508	0.194	2.12	*	0.873	0.204	-0.66	
Married	1.397	0.203	1.64		1.185	0.209	0.81	
Age categories (ref: Age 65+)								
Age 18 to 24	2.086	0.426	1.73		1.668	0.417	1.23	
Age 25 to 34	1.465	0.285	1.34		1.307	0.309	0.87	
Age 35 to 44	1.062	0.273	0.22		2.126	0.284	2.66	**
Age 45 to 54	0.891	0.271	-0.43		1.433	0.277	1.30	
Age 55 to 64	0.796	0.239	-0.96		1.083	0.241	0.33	
Income level (ref: \$150,000+)								
less than \$35,000	1.003	0.370	0.01		0.874	0.360	-0.37	
\$35,000 - \$50,000	0.842	0.362	-0.48		1.129	0.364	0.33	
\$50,000 - \$75,000	1.563	0.278	1.61		0.939	0.278	-0.23	
\$75,000 - \$100,000	1.038	0.244	0.15		0.750	0.250	-1.15	
\$100,000 - \$150,000	0.931	0.216	-0.33		0.663	0.222	-1.85	
Homeownership	0.904	0.240	-0.42		0.867	0.235	-0.61	
High investment balance	1.492	0.183	2.18	*	1.291	0.181	1.41	
Intercept	0.123	0.511	-4.11	***	0.116	0.532	-4.04	***
Pseudo R-square = .098					Pseudo R-square = .094			
Effect	Mean	[95% Conf.	Interval]					
Average Mediation	0.012	0.005	0.021					
Average Direct Effect	0.038	0.006	0.071					
% of Total Effect mediated	0.242	0.144	0.613					

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Ba. Mediation Analysis Results Utilizing Overconfidence Measured via z-Score Method

	Option Trading Behavior				Perceived Better Return			
	Odds Ratio	Bootstrap Std. Err.	z	Sig.	Coef.	Bootstrap Std. Err.	z	Sig.
Option trading behavior					0.141	0.037	2.61	**
Overconfidence (z-score)	1.523	0.076	5.52	***	0.049	0.019	3.82	***
Risk tolerance	1.162	0.054	2.77	**	0.027	0.009	2.94	**
Male	1.444	0.222	1.66	*	0.095	0.036	2.68	**
Whites	0.899	0.198	-0.54		-0.013	0.040	-0.34	
College degree and higher	1.003	0.179	0.02		-0.032	0.049	-0.66	
Has financial dependents	1.428	0.190	1.88		-0.086	0.062	-1.39	
Married	1.249	0.247	0.90		0.033	0.046	0.72	
Age categories (ref: Age 65+)								
Age 18 to 24	1.703	0.411	1.30		0.131	0.106	1.24	
Age 25 to 34	1.366	0.289	1.08		0.044	0.087	0.51	
Age 35 to 44	0.928	0.298	-0.25		0.184	0.078	2.35	*
Age 45 to 54	0.821	0.264	-0.75		0.089	0.062	1.45	
Age 55 to 64	0.810	0.236	-0.89		-0.016	0.064	-0.25	
Income level (ref: \$150,000+)								
less than \$35,000	0.832	0.438	-0.42		-0.122	0.086	-1.42	
\$35,000 - \$50,000	0.755	0.393	-0.71		0.021	0.083	0.25	
\$50,000 - \$75,000	1.483	0.318	1.24		-0.055	0.070	-0.79	
\$75,000 - \$100,000	0.995	0.244	-0.02		-0.120	0.062	-1.94	
\$100,000 - \$150,000	0.904	0.206	-0.49		-0.111	0.050	-2.22	*
Homeownership	0.929	0.275	-0.27		-0.064	0.064	-1.01	
High investment balance	1.461	0.163	2.32		0.057	0.051	1.12	
Intercept	0.128	0.545	-3.76	***	2.062	0.150	13.71	***
Pseudo R-square = .110					R-square = .100			
Effect	Mean	[95% Conf.	Interval]					
Average Mediation	0.009	0.002	0.016					
Average Direct Effect	0.048	0.011	0.084					
% of Total Effect mediated	0.152	0.093	0.406					

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix Bb. Mediation Analysis Results Utilizing Overconfidence Measured via Residuals Method

	Option Trading Behavior				Perceived Better Return			
	Odds Ratio	Bootstrap Std. Err.	z	Sig.	Coef.	Bootstrap Std. Err.	z	Sig.
Option trading behavior					0.037	0.019	2.61	*
Overconfidence (residuals)	1.638	0.087	5.66	***	0.146	0.041	3.82	***
Risk tolerance	1.124	0.042	2.81	**	0.027	0.010	2.94	**
Male	1.266	0.162	1.45		0.080	0.045	2.68	
Whites	0.844	0.193	-0.87		-0.019	0.042	-0.34	
College degree and higher	0.931	0.221	-0.32		-0.042	0.043	-0.66	
Has financial dependents	1.447	0.230	1.61		-0.079	0.042	-1.39	
Married	1.214	0.224	0.87		0.034	0.046	0.72	
Age categories (ref: Age 65+)								
Age 18 to 24	1.841	0.411	1.48		0.152	0.113	1.24	
Age 25 to 34	1.539	0.307	1.40		0.062	0.068	0.51	
Age 35 to 44	1.097	0.299	0.31		0.210	0.059	2.35	*
Age 45 to 54	0.901	0.274	-0.38		0.098	0.076	1.45	
Age 55 to 64	0.848	0.180	-0.92		-0.013	0.052	-0.25	
Income level (ref: \$150,000+)								
less than \$35,000	0.873	0.365	-0.37		-0.110	0.086	-1.42	
\$35,000 - \$50,000	0.852	0.421	-0.38		0.033	0.095	0.25	
\$50,000 - \$75,000	1.620	0.316	1.52		-0.046	0.073	-0.79	
\$75,000 - \$100,000	1.097	0.245	0.38		-0.111	0.073	-1.94	
\$100,000 - \$150,000	0.939	0.204	-0.31		-0.108	0.050	-2.22	*
Homeownership	0.921	0.239	-0.34		-0.064	0.060	-1.01	
High investment balance	1.336	0.222	1.30		0.052	0.050	1.12	
Intercept	0.156	0.597	-3.11	**	2.059	0.135	13.71	***
Pseudo R2 = .110					R-square = .096			
Effect	Mean	[95% Conf.	Interval]					
Average Mediation	0.011	0.005	0.015					
Average Direct Effect	0.034	0.012	0.045					
% of Total Effect mediated	0.217	0.182	0.459					

Note. * $p < .05$, ** $p < .01$, *** $p < .001$.