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EXPLORING THE MODERATING ROLE OF FINANCIAL LITERACY IN THE NEXUS OF FINANCIAL FRAGILITY AND FINANCIAL OPTIMISM: POST COVID-19 ANALYSIS FROM PAKISTAN

Ayesha Gul[1], Jamshid ur Rehman[2*], Tahira Awan[3]

[1]*MS Scholar, Department of Accounting & Finance, International Islamic University, Islamabad*
[2*]*Deputy Controller of Examination, Khushal Khan Khattak university, Karak,*
[3]*Assistant Professor, Department of Accounting & Finance, International Islamic University, Islamabad*

[1]ayeshagul9173023@gmail.com, [2*]dr.jamshid@kkkuk.edu.pk
[3]tahira.awan@iiu.edu.pk

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Corresponding Author: *

Abstract

The primary goal of this study is to scrutinize the influence of financial fragility on financial optimism following the COVID-19 epidemic. The study also explores the moderating role of financial literacy in the nexus of financial fragility and optimism. We select 260 households residing in the urban area of Pakistan by using a simple random sampling technique. We collect primary data regarding variables through structured questionnaires. According to the multiple regression technique's results, there is a negative correlation between financial fragility and financial optimism, indicating that households with high levels of fragility are less optimistic. In addition, we also find that financial literacy significantly reduced the negative impact of financial fragility on financial optimism. The results of the study recommend that the government and policymakers initiate psychological counseling and financial literacy programs for people during financially vulnerable conditions. .

INTRODUCTION

Financial optimism is considered as a significant component of economic decision-making (Puri & Robinson, 2007) and has been linked to greater financial well-being (Garcia-Gomez et al., 2020). In addition, financial optimism is often based on the individual's perception of their current financial situation, their ability to manage their finances, and their expectations for the future (Klontz et al., 2011). Financial optimism, according to Das et al. (2020), is the way that investors and families view their financial and economic circumstances going forward. Moreover, financial optimism is an important factor that energizes household investment, saving, and consumption choices and assesses one to realize financial well-being (Stromback et al., 2017). Chhatwani & Mishra (2021) argued that people's decisions about consumption, saving and investments are influenced by their expectations for future macroeconomic and business conditions. The macroeconomic uncertainty leads to declined individuals and society' optimistic views about the future macroeconomic and business conditions.

The recent COVID-19 pandemic breakout create incredible disturbance in the global economy (Fu et al., 2022) and caused massive uncertainties at macroeconomic level that increased the financial vulnerabilities of individuals and Organizations (Ahir et al, 2019). Similarly, the pandemic has adversely affected the financial positions of people, society, and business organizations, where individuals are more financially fragile (Chhatwani & Mishra, 2021). Financial fragility is defined as the vulnerability of a financial system to shocks, which can lead to a sudden and large-scale disruption of financial services (Borio, 2018). Further, Hasler & Lusardi (2019) explained that the financial fragility of households is the incapability to readily handle emergency expenses like payment of medical bills or small legal expenses or bearing of home or car repair expenses or payment of educational expenses or any other expenses arises immediately. Moreover, the financial fragility of an individual is a result of certain factors including divorce, physical incapacity, temporary or permanent unemployment, fluctuations in loan interest rates, and the stock market (Leclaire, 2021).

Financial fragility affects households of all income levels (Gupta, et al., 2017) and lowers their optimistic views regarding future financial conditions of a country (Das et al., 2020). Several research studies reported the negative association of financial fragility with individuals' financial optimism (Chhatwani

& Mishra, 2021; Ramli et al. 2022; Mawad, 2023). Financially fragile persons are less likely than non-fragile people to be financially optimistic, according to research conducted during the COVID-19 epidemic by Chhatwani & Mishra (2021). Similarly, during Lebanon's severe crisis, Mawad (2023) investigated the negative correlation between financial optimism and financial fragility. The results confirm that financially fragile individuals are less optimistic. According to Lusardi and Mitchell (2014), households who have been struggling financially are more likely to encounter financial shocks, which might make them doubt their capacity to meet their financial objectives. Furthermore, financial optimism is closely associated with financial literacy, which is regarded as one of the most important components of financial well-being (Lusardi & Mitchell, 2011). The negative correlation between financial optimism and financial fragility is lessened by financial literacy (Das et al. 2020; Chhatwani & Mishra, 2021; Ramli, 2022). Because acquiring the information and abilities needed to make discreet and knowledgeable financial decisions is greatly aided by financial literacy (Lusardi & Mitchell, 2014).

The current literature claims that economic downturns adversely affect the future expectations of people (Das et al., 2020). Recently, the COVID-19 pandemic adversely affects individuals' life socially, psychologically, and economically. Despite this, there is a noticeable scarcity of literature that explores the impact of financial fragility on the financial optimism of people during and post-COVID-19 pandemic. However, we found one study conducted by Chhatwani and Mishra (2021) that examined the relationship of financial fragility and optimism during COVID-19 pandemic in USA. Similarly, Das et al. (2020) evaluated the impacts of education and income level on the optimistic views regarding their future macroeconomic circumstances. The socioeconomic conditions of Pakistan are very different from those of developed countries like the USA. Also, COVID-19 has hit adversely the economic and social life of people in Pakistan. In addition, higher debt burden, and political uncertainty are further worsening Pakistan's economy. Hence, this study is unique in several ways. First, we analyzed the impact of financial fragility on financial optimism in the post-COVID-19 situation in Pakistan. Second, we investigated if financial literacy lessens the adverse correlation between financial optimism and financial fragility. Third, we focused on the individuals and households and directly collected data through questionnaires from them.

The rest of the paper is structured in the following way. Section 2 provides a detailed literature review. Section 3 represents the research methodology that is followed by the results and discussion section. The last section describes the conclusion and recommendation.

LITERATURE REVIEW

According to Jacobsen et al. (2014), optimism is a person's relative expectation of the future at a particular moment in time. People's optimism is probably a reflection of how much they expect the future to be generally positive (Carver et al., 2010). In addition, financial optimism is the individuals' views regarding the financial situation of a country (Chhatwani & Mishra, 2021). Financial optimism is an important element to energies the consumption, investment, and saving decisions of households and consequently assist in obtaining financial well-being (Stromback, et al., 2017). Further, Bjuggren and Elert (2019) considered optimism as a significant factor in investment behavior. They stated that optimism regarding the economy is a dual-edged sword such as it may lead to inspiring valuable investments that in turn may enhance economic growth. Likewise, Jacobsen, et al., (2014) argued that perceived risk and optimism adversely correlated with each other. Further, optimism about future economic conditions may be influenced by the education of respondents about the current economy. In addition, the optimism of individuals is significantly affected by their socioeconomic conditions of individuals. Individuals with high income and education levels are more optimistic about the future economic condition than those who have lower income and education levels (Das et al., 2020).

Financial fragility is an issue that has harmful consequences and negative impacts on individuals, society, and the country (Ramli, 2022). According to Lusardi et al. (2011), financial fragility refers to a person's capacity to experience a financial shock brought on by an unforeseen circumstance, such as losing their job or having to cover unforeseen costs. Further, Financial Fragility is mostly related to a situation where a small financial shock leads to economic uncertainties and crises (Bolton, et al. 2021). Financial shocks, lead to financial fragility, occurred due to certain factors like temporary or permanent unemployment, variation in interest rates of loans, and the recession prevailing in the stock market (Leclaire, et al., 2021).

Financial instability affects households of all income levels and occurs not only in less developed and developing nations but also in wealthy nations (Gupta, et al., 2017). Global economic conditions have been disrupted by the recent epidemic, increasing individual financial vulnerability (Chhatwani & Mishra, 2021). Additionally, people are less equipped to handle financial shocks and have a lower tolerance for financial risk (Lusardi et al., 2020). As a result, people can experience financial instability and struggle to cover significant future obligations (Lusardi et al., 2011). Likewise, Chhatwani & Mishra, (2021) reported that COVID-19 further worsens the financial and economic conditions that further increase the financial fragility of individuals. The reason is that people do not possess enough funds during the crises to cover unforeseen health-associated expenses, causing an increase in debt and bankruptcy. Furthermore, many people have lost their medical insurance as a result of losing their jobs, and COVID-19 puts people's health at danger (Woolhandler & Himmelstein, 2020). A person who is financially literate, on the other hand, possesses the information and abilities necessary to make wise financial decisions. According to Krischea & Mislin (2020), financial literacy is related to a person's larger grasp of business and economic activities. It may also be used to identify people who are more likely to be able and willing to thoroughly research reported material before making judgments. The importance of financial literacy in improving financial inclusion and people's long-term financial security is acknowledged by both scholars and practitioners (Lyons & Kass-Hanna, 2021). Additionally, financial literacy lessens the possibility of financial errors, which lessens the detrimental consequences of behavioral biases (Baker et al., 2020).

THEORETICAL FRAMEWORK

This research study is based on two well-known theories: Social cogitative theory and Expectancy Value Theory. Social cognitive theory, developed by Wood and Bandura (1989), is the most significant theory, which explains changes in organizational as well as individual financial behavior. According to this theory, environmental, behavioral, and individual factors significantly contribute to behavioral changes (Ratten, 2012). Furthermore, according to the social cognitive theory, people's views, attitudes, and behaviors are influenced by their social interactions, cognitive processes, and personal experiences (Baranowski, et al., 2002). Concerning this theory, Xiao & Wu (2020) reported that individuals' beliefs, perceptions, and expectations play a critical role in determining their financial behavior, including their level of financial fragility and optimism. Likely, Abdul-Muhmin et al., (2018) found that individuals' financial literacy, or their understanding and knowledge of financial ideas and terms plays a significant and critical role in shaping their financial behavior and beliefs. Higher financial literacy increases the likelihood that people will engage in financially responsible behaviors and have more reasonable financial expectations, which will reduce financial fragility and increase financial optimism.

Another theory is the Expectancy Value Theory of motivation, proposed by Edward Deci and Richard Ryan developed this theory in 1985, is a psychological theory that suggests that people are motivated to pursue activities based on their perceived value and the expectation of a positive outcome. The theory states that the motivation to pursue an activity is determined by three factors: expectancy, value, and instrumentality. The Expectancy Value Theory of Motivation has been applied to many different areas of study, including finance. For example, researchers have used the theory to explain why people choose to invest in certain financial products (Gauthier & Tremblay, 2016). Considering this theory, financially fragile individuals have negative expectations of their future, have low motivation regarding their future performance, and are likely to be less optimistic about financial performance (Wigfield & Eccles, 2000). Moreover, financial literacy can act as a buffer and a motivating factor in such a crucial situation and strengthen the positive relationship between financial fragility and financial optimism (Klapper, et al., 2018).

FINANCIAL FRAGILITY AND FINANCIAL OPTIMISM

Chhatwani & Mishra (2021) reported that individuals’ choice of investment, saving, and consumption depend on expectations about future macroeconomic and business conditions. However, the COVID-19 pandemic had a significant impact on macroeconomic and commercial conditions, which reduced people's and society's optimistic expectations for these areas in the future. Moreover, they also documented that during the pandemic financially fragile people have a lower chance of being financially optimistic as compared to non-fragile people.

Furthermore, people who are financially fragile are less able to withstand the economic crisis brought on by the pandemic and are unable to deal with significant future bills, according to Lusardi et al. (2020). Financial fragile people have negative and bad experiences with their fund utilization and investment (Zullow, 1991). The reason is that financial difficulties and excessive debt can cause a variety of negative outcomes like housing uncertainty (Burgards et al. 2012), reduced economic well-being, and substantial social marginalization and poverty.

Moreover, past studies also maintain the claim of the negative effect of financial difficulties on psychological stress mental disorders, emotional health and psychological well-being, and depression and suicidal thoughts" (Białowolski et al. 2019). Hence, we expect that households currently exposed to Financial Fragility or suffering from Financial Fragility would have lesser financial optimism and develop the following hypothesis.

H_1: Financial Fragility is negatively associated with Financial Optimism.

FINANCIAL LITERACY AS A MODERATOR BETWEEN FINANCIAL FRAGILITY AND FINANCIAL OPTIMISM

People that are knowledgeable about finances are better able to calculate broad economic variables such as unemployment, inflation, and growth rate and assess how they may affect future financial circumstances (Krische & Mislin, 2020). To estimate the precise financial forecast, individuals essentially require minimizing their indecision in an impartial way. Hence, in the lack of domain explicit information i.e., literacy in the financial matter, it is probable to pander to the unjustified extrapolations of hostile trends.

Hasler et al. (2018) explore the connections between financial literacy and financial fragility and demonstrate that financial literacy reduces the likelihood of financial fragility. Despite having a strong explanatory power for financial fragility, financial literacy has not been studied for its moderating function in understanding the relationship between financial fragility and well-being, particularly in light of the current unusual situation. Furthermore, because of the lack of financial literacy, it is possible to exaggerate the current health of the economy and its ongoing impact, which results in overly optimistic expectations for the future. Thus, to reduce the detrimental impact of financial fragility on financial optimism, financial literacy is beneficial (Chhatwani & Mishra 2021). Several previous empirical studies examined the importance of Financial Literacy. For instance, financially literate individuals have higher wealth, save more for retirement have low debt, and have lower costs of borrowing better portfolio diversification, and returns.

Similarly, Financial Literacy is not exactingly limited to financial planning decisions but also decreases anxiety about financial matters. In addition, one of the basic advantages of financial literacy is to reduce financial mistakes and minimize financial biases. According to Krische & Mislin (2020) who stated that financial literacy individuals will have a better understanding of finance and economics and have the ability and potential to minimize financial risk. Hence, individuals having financial knowledge have the ability to better circumnavigate the complexities of modern financial life. Based on the above discussion, we develop the following hypotheses.

H_2: Financial literacy moderates the relationship between financial fragility and financial optimism in such a way that it weakens the relationship.

RESEARCH METHODOLOGY

POPULATION, SAMPLE, DATA COLLECTION AND ANALYSIS

This study used a quantitative research design to test the proposed hypothesis. The target population for the study is households of Pakistan. For this purpose, two major cities: Islamabad and Rawalpindi are selected. In the twin cities households belonging to different areas of Pakistan reside. From the population of twin cities, we selected 260 households of various backgrounds by utilizing simple random sampling techniques. According to Fischer's formula, 300 respondents are sufficient when the population is not exactly known. We collect primary data through structured questionnaires. We distributed 260 questionnaires among households. Where 100 questionnaires are distributed and collected in hard form while the rest are sent via email and WhatsApp in Google form. We received 220 filled questionnaires back that show a response rate of 84.6%.

The collected data are analyzed through descriptive and inflectional statistics tools. We determine the frequency and percentage of demographic variables included in the study. Additionally, the well-known Cronbach Alpha approach is used to verify the scale's reliability. Additionally, the KMO and Bartletts tests are used in factor analysis to confirm the sufficiency of the sampling and make sure that comparable items have been put on the same factor. Additionally, the association between the variables is tested using the Multile regression analysis.

SURVEY INSTRUMENTS

Questionnaire used in this study consist of two parts. Part A includes questions regarding demographic variables: gender, age, marital status, education and income group. Where gender is a dummy variable that assumes the value of 1 if the respondent is male and zero if the respondent is female. Further, age is an ordinal variable assuming the range of 20-30, 31-40, 41-50, 50-60, and above 60. Marital status is a dummy variable assuming the value of 1 for unmarried and 0 for married. Moreover, educational level is an ordinal variable ranging from no education to graduate-level education. Similarly, the income group consisted in 4 categories: Low, Lower-Middle, Upper-Middle, and High Income.

Part B consists of questions regarding the dependent variable (financial optimism), independent variable (financial fragility), and moderating variable (financial literacy). Where, the financial optimism measurement scale is adapted from the studies of Das et al. (2020), Chhatwani, and Mishra (2021). The scale includes 6 questions to measure the households' financial condition and overall business condition prevail in the country. This variable based on a five-point Likert scale (1= poor 2=Fair 3=Average 4=Good 5=Excellent). The independent variable' financial fragility is measured by the approach suggested by Montoya et al. (2022). The scale consisted 4 questions on a five-point Likert scale (Great difficulty, Difficulty, Neutral, Easily, Greatly easily). The financial literacy, a moderating variable, is captured through the scale used by Seraj et al. (2022). The scale contained 7 questions on five point Likert scale regarding financial knowledge of respondents.

REGRESSION MODEL

We generated the following equations in order to look into how financial fragility affects financial optimism along with how financial literacy influences the interaction between the two factors.

$$\boldsymbol{FOi = \alpha + \beta 1FFi + B2Xi + \mu} \text{ .... } (1)$$

Equation (1) represents the relationship between independent and dependent variables. Whereas, is the dependent variable' financial optimism for household. Similarly, shows the independent variable 'financial fragility for household. Moreover, the slope intercept of a regression model, 1 and 2 are the coefficients of variables, and is the standard error. Further, is the vector of control variables that include age, gender, marital status, education and income Group.

$$\boldsymbol{FOi = \alpha + \beta 1FFi + \beta 2FLi + \beta 3Xi + \beta 4FFi \times FLi + \mu} \text{ .... } (2)$$

Equation (2) is the augmented model by inserting the interaction term × in Equation (1). Where denote financial literacy for household. Financial Literacy ( ) is the moderator variable in the relation of financial fragility and financial optimism. All other terms are the same as described above in Equation (1).

RESULTS AND DISCUSSIONS

Table 1 shows the descriptive statistics information regarding the demographic variables included in the study. Where 166 (75.5%) are the male respondents and 54 (24.5%) are the female. Further, statistics show that most of the respondents are in the age range of 31-40 years while above 60 years respondents are few in numbers. Regarding the marital status, most of the respondents (75.5%) are married while the rest are unmarried. In addition, 67.7% respondents are graduate which signify that majority of the respondents are well educated. In term of income level, majority of the respondents belong to lower middle-income group. Whereas only 10.5% belong to high-income group.

TABLE 1: DESCRIPTIVE STATISTICS OF DEMOGRAPHIC VARIABLES

Demographic variables	Frequency	Percent
Gender		
Male	166	75.5
Female	54	24.5
AGE		
21-30	70	31.8
31-40	78	35.5
41-50	46	20.9
51-60	20	9.1
Above 60	6	6
Marital status		
Married	166	75.5
Single	54	24.5
Education		
No school	2	0.9
Secondary school	11	5
Higher secondary school	51	23.2
Graduation	149	67.7

Post-Graduation	7	3.2
Income level		
Low	45	20.5
Lower Middle	84	38.2
Upper Middle	68	30.9
High Income	23	10.5

Table 2 indicate the reliability of measurement scale. The reliability of a measurement scale is highly important for its overall precision and accuracy. Cronbach's Alpha is the well-known technique for the measurement of scale reliability. Cronbach's Alpha typically has a value between 0 and 1. The value closer to 1 signify greater reliability of scale while closer to 0 show less reliability. Cronbach's Alpha is defined as follows: greater than 0.9 indicates excellent, greater than 0.8 indicates good, greater than 0.7 indicates acceptable, greater than 0.6 indicates questionable, greater than 0.5 indicates poor, and less than 0.5 indicates unsatisfactory (George and Mallery, 2003). All of the measures utilized in our study had Cronbach's Alpha values more than 0.7, which is in accordance with this criterion. This confirms that the measurements utilized in this study have acceptable internal reliability.

TABLE 2: RELIABILITY TEST- CRONBACH'S ALPHA

S.No	Variable	No of Items	Cronbach's Alpha
1	Financial Optimism	6	0.830
2	Financial Fragility	4	0.720
3	Financial Literacy	7	0.750

The findings of the KMO and Bartletts tests, which were used to assess the sampling adequacy and confirm that comparable items were loaded on the same factor, are displayed in Table 3. Kaiser (1974) states that if the KMO value is greater than 0.5, it is acceptable; if it is less than 0.5, either the sample size or one or more variables are insufficient. In our study, the KMO value is (0.750) which validates the sampling adequacy. Further, Bartlett's test verifies the significance level and indicate that variables in our model are relevant.

TABLE 3: KMO AND BARTLETTS'S TEST

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.750
Bartlett's Test of Sphericity	Approx. Chi Square	1005.248
	Df	325
	Sig	0.000

In table 4, we indicate the regression analysis of model (1) and model (2). In model (1), we report the results of baseline equation. Our results support the notion that financial optimism and financial fragility are negatively correlated. The findings are consistent with the finding of previous empirical studies (like Hasler et al., 2018; Chhatwani & Mishra, 2021; Mawad, 2023). Additionally, the coefficient value shows that households in financial distress are 29.3% less likely to be optimistic about their financial future. This means that financially fragility reduced the financial optimism of households. Thus, the results validate our first hypothesis "Financial fragility is negatively associated with financial optimism."

In second model in Table 4, we report the results of augmented model. This show that the coefficient of financial literacy is positive and significant to financial optimism. This means that financial literacy enhance the optimistic view regarding future financial conditions. The reason may be that financial literacy enhance the attitude, behavior, knowledge, skill and awareness that are essential to make comprehensive financial decisions and consequently attain individuals' financial well-beings (OECD, 2015). Financial optimism is probably positively correlated with the interaction term (financial fragility * financial literacy). According to this research, those who are financially vulnerable and have a high level of financial literacy are likely to be more optimistic about their financial situation going forward. Our second hypothesis, that financial literacy lessened the negative effect of financial fragility on financial optimism, is thus supported by the results. Chhatwani and Mishra (2021) also reported the similar results during Covid-19 pandemic time. The possible reason may be that financially literate people have better forecasting about financial conditions and make essential planning accordingly.

Observe the effects of demographic variables, we found that gender have insignificant impact on financial optimism. However, age have positive influence on financial optimism. The positive coefficient mean that there is growing possibility of financial optimism with age and older people are more financially optimistic. It is normally consider that older people are mature and usually have more experience to manage various types of situations. Likewise, marital status are positively associated to financial optimism. This means that married individual are have positive view reading future financial conditions. In addition, the coefficient of education are positive and significant, this mean that financial optimism are increasing with the higher level of education. This finding are consistent with the results of Mawad (2023). Highly educated people have more knowledge and do effective forecasting about future situations. Further, the results also show that financial optimism increases with the income level. High-income people have positive views regarding the financial conditions.

TABLE:4 REGRESSION RESULTS

Variables	Model (1)	Model (2)
Financial Fragility	-0.293***(0.045)	-0.211***(0.078)
Financial Literacy		0.684***(0.180)
Financial Fragility * Financial Literacy		0.738***(0.036)
Gender	0.112(0.025)	0.024(0.021)
Age	0.027***(0.031)	-0.017*(0.021)
Marital Status	0.160***(0.032)	0.035***(0.026)
Education	0.043**(0.043)	0.030*(0.008)
Income Level	0.058***(0.030)	0.114***(0.015)
Observations	220	220
R-Square	0.193	0.219
Adjusted R-Square	0.233	0.307
F test	8.390	9.451
P-value	(0.001)	(0.04)
Constant	2.919	1.842

CONCLUSION

This study examine the relationship between financial fragility on financial optimism of household residing in the urban area of Pakistan. We utilize cross sectional research design where we collect primary data through adopted structured questionnaires after the Covid-19 pandemic. The study concluded that financial fragility reduced the financial optimism of households. Furthermore, the detrimental effect of fragility on financial optimism is lessened by financial literacy. Moreover, higher education and income level also play significant role in the enhancement of financial optimism. Further, the study concluded that older people are more optimistic about future financial conditions.

The results of this study provide vital recommendations and suggestions to policymakers and federal government. The policymaker may devised such strategy that encourage the optimistic view during financial fragile conditions. Because a lack of optimism over the future could induce those who are already struggling financially to avoid stock market investments, which would raise wealth inequality and impede economic growth during the pandemic. By coming up with short-term solutions, such as starting financial assistance and psychological counseling programs for those who are financially vulnerable to raise their aspirations, the government can lessen these detrimental effects. Additionally, this research provide suggest that financial literacy enhances the financial well-being of common populace and improve their optimism. Hence, policymakers and governmental bodies initiate such programs to enhance the financial literacy of households.

This study has a limitation to undertake only households residing in urban area. Future research can investigate how financial fragility affects financial optimism in rural and urban areas. Furthermore, the association between financial optimism and financial fragility may be moderated by psychological factors.

REFERENCES

Ahir, H., Bloom, N. & Furceri, D. (2022). The World Uncertainty Index, working Paper No. w29763, National bureau of economic research, http://www.nber.org/papers/w29763.

Baker, S. R., Bloom, N., Davis, S. J., & Terry, S. J. (2020). Covid-induced economic uncertainty (No. w26983). National Bureau of Economic Research. DOI 10.3386/w26983

Białowolski, P., Węziak-Białowolska, D., & VanderWeele, T. J. (2019). The impact of savings and credit on health and health behaviors: an outcome-wide longitudinal approach. *International Journal of Public Health, 64*, 573-584.

Bjuggren, C. M., & Elert, N. (2019). Gender differences in optimism. *Applied Economics*, 51(47), 5160

Bolton, P., Santos, T., & Scheinkman, J. A. (2021). Savings gluts and financial fragility. *The Review of Financial Studies, 34(3),* 1408-1444.

Borio, C. (2018). Financial fragility: What is it and why does it matter? BIS Quarterly Review, 1-14. Gorton, G., & Metrick, A. (2012). Financial crises, financial regulation, and financial globalization. *Annual Review of Financial Economics,* 4, 271-296.

Burgard, S. A., Seefeldt, K. S., & Zelner, S. (2012). Housing instability and health: findings from the Michigan Recession and Recovery Study. *Social science & medicine, 75(12),* 2215-2224.

Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical psychology review, 30(7),* 879-889.

Chhatwani, M., & Mishra, S. K. (2021). Does financial literacy reduce financial fragility during COVID-19? The moderation effect of psychological, economic and social factors. *Journal of Behavioral and Experimental Economics 94, 101751.*

Das, S., Kuhnen, C. M., & Nagel, S. (2020). Socioeconomic status and macroeconomic expectations. *The Review of Financial Studies, 33(1),* 395-432.

Fu, W., Sivajohan, B., McClymont, E., Albert, A., Elwood, C., Ogilvie, G., & Money, D. (2022). Systematic review of the safety, immunogenicity, and effectiveness of COVID-19 vaccines in pregnant and lactating individuals and their infants. *International Journal of Gynecology & Obstetrics, 156(3),* 406-417.

Garcia-Gomez, P., Pérez-Trujillo, M., & López-García, C. (2020). Financial optimism and financial well-being: The role of financial literacy and financial planning. *Journal of Economic Psychology,* 77, 101945.

Hasler, A., Lusardi, A., & Oggero, N. (2018). Financial fragility in the US: Evidence and implications. Global Financial Literacy Excellence Center, The George Washington University School of Business: Washington, DC, 478.

Hasler, A., Lusardi, A., & Oggero, N. (2018). Financial fragility in the US: *Evidence and implications. Global Financial Literacy Excellence Center*, The George Washington University School of Business.

Klontz, B. T., Klontz, T. C., & Britt, S. L.

(2011). Financial psychology: A framework for understanding clients. *Journal of Financial Planning, 24(7)*, 44–53.

Korhonen, P., Mano, H., Stenfors, S., & Wallenius, J. (2008). Inherent Biases in Decision Support Systems: The Influence of Optimistic and Pessimistic DSS on Choice, Affect, and Attitudes. *Journal of Behavioral Decision Making, 21*, 45-58.

Krische, S., & Mislin, A. (2020). The impact of financial literacy on negotiation behavior. *Journal of Behavioral and Experimental Economics, 87*, 101545.

Leclaire, J. (2021). Does household debt matter to financial fragility? *Review of Political Economy*, 1-20

Lusardi, A., & Mitchell, O. S. (2011). Financial literacy around the world: An overview. *Journal of Pension Economics and Finance, 10(4)*, 497-508.

Lusardi, A., Mitchell, O. S., & Curto, V. (2014). Financial literacy and financial sophistication in the older population. *Journal of pension economics & finance, 13(4)*, 347-366.

Lyons, A. C., & Kass-Hanna, J. (2021). A methodological overview to defining and measuring "digital" financial literacy. *Financial Planning Review, 4(2)*, 1113.

Mawad, J. L. (2023). Does good financial behavior reduce the negative impact of financial fragility on individuals' financial optimism? The never-ending Lebanese crisis case. International *Journal of Innovative Research and Scientific Studies, 6(3)*, 553- 561.

Organisation for Economic Co-Operation and Development (OECD). (2015). *OECD/INFE toolkit for measuring financial literacy and financial inclusion*.OECD Publishing.

Puri, M., & Robinson, D. T. (2007). Optimism and economic choice. *Journal of financial economics, 86(1)*, 71-99.

Ramli, Z., Anak Nyirop, H. B., Md Sum, S., & Awang, A. H. (2022). The Impact of Financial Shock, Behavior and Knowledge on the Financial Fragility of Singl Youth. *Sustainability, 14(8)*, 4836.

Strömbäck, C., Lind, T., Skagerlund, K., Västfjäll, D., & Tinghög, G. (2017). Does self-control predict financial behavior and financial well-being? *Journal of Behavioral and Experimental Finance, 14*, 30-38.

Woolhandler, S., & Himmelstein, D. U. (2020). Intersecting US epidemics:

COVID-19 and lack of health insurance. *Annals of internal medicine, 173(1)*, 63-64.

Zullow, H. M. (1991). Pessimistic rumination in popular songs and newsmagazines predict Economic recession via decreased consumer optimism and spending. *Journal of Economic Psychology, 12(3)*, 501–526.