South East European Journal of Economics and Business

Volume 21 (1) 2026, 61-74
DOI: 10.2478/jeb-2026-0004

ARE ALBANIAN HOUSEHOLDS FINANCIALLY FRAGILE?

Elona Dushku

Abstract

This study investigates financial fragility among Albanian households, measured by their ability to cover unexpected expenses, while analysing the impact of socio-economic factors and asset portfolios. Using data from Albania's first Household Wealth Survey, we find that 59 % of households lack sufficient liquidity to withstand financial shocks, classifying them as financially fragile. Our multinomial regression analysis reveals three key findings: first, households with more educated heads show significantly lower fragility; second, access to formal financial services enhances resilience; and third, family support networks serve as an important buffer against financial vulnerability. These results demonstrate that both formal financial inclusion and informal family ties play crucial roles in household financial stability. These findings suggest that promoting financial education, expanding access to financial services, and supporting remittance channels can help reduce household vulnerability in Albania.

Key words: *household financial fragility, personal finance*

Jel Classification: *D11, D14*

I. Introduction

The global financial crisis of 2007–2008, followed by the COVID-19 pandemic, brought renewed attention to the short-term financial vulnerabilities of households. These crises have shown how many households are unprepared to cope with sudden income losses or unexpected expenses, underscoring the broader implications of financial fragility. Financial fragility poses serious risks not only to individual well-being through increased stress, consumption smoothing problems, or limited access to credit but also to overall economic stability, particularly when widespread household vulnerabilities amplify macroeconomic shocks.

While the concept of financial fragility has gained prominence in recent years, its definition remains fluid. Traditionally associated with over-indebtedness or difficulty in repaying loans, the concept has evolved to encompass a wider set of financial constraints. Today, financial fragility is increasingly understood as a multidimensional phenomenon, reflecting (1) the risk arising from debt and insolvency, (2) constraints in income and liquidity, and (3) limited capacity to absorb unexpected shocks. This broader framing better captures the realities faced by households, especially in times of crisis.

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Despite its growing relevance, there is still no universally accepted definition of household financial fragility. Researchers have used varying criteria to capture its different dimensions. For example, Lusardi, Schneider, and Tufano (2011) define financially fragile households as those unable to cover an unexpected expense, emphasizing their lack of liquid assets rather than their level of debt. Similarly, Brunetti, Giarda, and Torricelli (2016) define financially fragile households as those whose income is sufficient to cover regular expenses but insufficient to absorb unforeseen financial shocks. These definitions shift the focus away from traditional debt-based indicators and toward households' resilience in the face of unexpected events.

As Lusardi, Schneider, and Tufano (2011) highlight, assessing financial fragility is complex because it encompasses both objective and subjective dimensions of household finance. On one hand, fragility may stem from limited financial assets or low income; on the other, it may arise from high levels of debt relative to repayment capacity. This complexity has led scholars to adopt different empirical strategies. Objective measures typically rely on quantifiable indicators, such as asset and liability levels, debt ratios, or liquidity indicators (e.g., Holló and Papp 2007; Brown and Taylor 2008; Jappelli, Pagano, and Di Maggio 2008). In contrast, subjective measures focus on households' self-assessed ability to manage unexpected expenses or meet daily financial obligations, thus capturing perceived vulnerability alongside actual financial conditions (e.g., Lusardi, Schneider, and Tufano 2011; Albacete and Fessler 2010; Ampudia, Vlokhoven, and Żochowski 2016).

Each approach has its advantages and limitations. Objective indicators are grounded in measurable financial variables but may overlook behavioral or psychological dimensions of financial stress. Subjective indicators, while offering a more holistic view, rely on individual perceptions that may be biased or inconsistent. Brunetti, Giarda, and Torricelli (2016) note that despite these limitations, both approaches contribute to a richer understanding of financial fragility and are often used complementarily in empirical studies.

A growing body of research highlights the role of socioeconomic characteristics in shaping household financial fragility. Being female, having a low level of education, low income, limited assets, or high levels of debt are all associated with greater vulnerability (Lusardi, Schneider, and Tufano 2011; Anderloni, Bacchiocchi, and Vandone 2012; Hasler and Lusardi 2019). Other studies also emphasize the importance of behavioral and institutional factors, such as financial literacy (Hasler, Lusardi, and Oggero 2018; Clark, Lusardi, and Mitchell 2020), reliance on credit for consumption (Jappelli, Pagano, and Di Maggio 2008; Ampudia, Vlokhoven, and Żochowski 2016), and weak consumer protection frameworks or enforcement mechanisms (Jappelli, Pagano, and Di Maggio 2008). Morduch and Schneider (2017) further argue that fragility is often linked to the volatility of household income and expenses, rather than persistent poverty.

The aim of this paper is to analyze the financial fragility of Albanian households, using the framework developed by Brunetti, Giarda, and Torricelli (2016) Drawing on granular data from the first wave of the Albanian Household Wealth Survey, we estimate that nearly 60% of households are financially fragile meaning they lack sufficient liquid assets to cover an unexpected expense equivalent to the median household income. Our findings indicate that households with lower income and education levels are significantly more vulnerable, while receiving remittances and owning financial assets reduce the likelihood of fragility. These results highlight the importance of household networks and financial inclusion in enhancing resilience.

There is a notable gap in the Albanian literature regarding this topic. Most existing studies have focused on individual credit risk and its implications for banking sector stability (e.g., Kalluci 2011; Shijaku and Ceca 2012; Shijaku and Kalluci 2014), largely due to limited access to micro-level household data. This paper provides the first empirical assessment of household financial fragility in Albania, using detailed survey data to examine the relationship between household characteristics and the ability to withstand financial shocks.

The remainder of the paper is structured as follows: Section 2 reviews the relevant literature. Section 3 presents methodology followed by data in section 4. Section 5 discusses the main empirical findings, and Section 6 concludes with a summary of results and policy implications.

2. Literature review

The concept of household financial fragility has gained growing importance in the economic literature, especially after major crises such as the 2007–2008 global financial crisis and the COVID-19 pandemic. These events exposed how vulnerable many households are to sudden income shocks and unplanned expenses, underlining the broader macroeconomic risks such fragility can pose. Financial fragility at the household level affects not only immediate well-being leading to reduced consumption, missed payments, and reliance on informal networks

but also has wider implications for financial stability and the effectiveness of economic policy. Despite its relevance, the literature does not offer a unified definition of household financial fragility. Instead, it is commonly viewed as a multidimensional phenomenon that encompasses (1) debt-related risks, such as the inability to meet financial obligations; (2) income constraints that prevent households from meeting basic needs; and (3) limited capacity to absorb unexpected shocks, such as medical emergencies or job losses. This broader interpretation moves beyond traditional measures of indebtedness and includes liquidity constraints, financial literacy, and access to informal support systems.

A range of studies have attempted to measure household financial fragility using either objective or subjective indicators. The first approach, based on objective indicators, includes measures such as the debt-to-income ratio (DTI), the debt service-to-income ratio (DSTI), and the volatility of income or assets. Research by Hollo and Papp (2007), Brown and Taylor (2008), Jappelli, Pagano, and Di Maggio (2008), and Ampudia, Vlokhoven, and Żochowski (2016), among others, has shown that these indicators are helpful in identifying financial stress, but they often mask heterogeneity between households. Albacete and Fessler (2010) and Leika and Marchettin (2017) point out that aggregate figures may overlook the different levels of risk faced by households with similar DTI ratios but varying asset liquidity or access to credit. The second approach focuses on subjective indicators obtained from household surveys. These indicators capture households' self-assessed ability to cope with financial difficulties, meet ends need, or handle an unexpected expense. For example, Lusardi, Schneider, and Tufano (2011) introduced a widely used survey measure that defines a household as financially fragile if it is unable to come up with $2,000 in 30 days. This survey-based methodology was later developed by Brunetti, Giarda, and Torricelli (2016), who emphasized the importance of liquidity over total income, showing that some households may appear financially stable but are vulnerable due to low levels of liquid assets.

The literature emphasizes that relying exclusively on either objective or subjective indicators risks providing an incomplete picture of financial vulnerability. Brunetti, Giarda, and Torricelli (2016) and Hasler and Lusardi (2019) argue that an accurate assessment must consider both sides of the household balance sheet, assets and liabilities along with perceptions, preferences, and access to informal support. Subjective indicators capture behavioral and psychological dimensions of financial fragility, while objective indicators may fail to account for informal strategies households use to cope with financial stress. Bialowolski and Weziak-Bialowolska (2014) stress the value of integrating both types of indicators to capture the differences between households that stem from socio-economic characteristics, risk attitudes, and expectations about the future.

Several studies provide empirical evidence supporting these theoretical perspectives. Jappelli, Pagano, and Di Maggio (2008) examined financial fragility across European countries, assessing its determinants and the role of institutional factors such as legal efficiency and bankruptcy regulation. They found that households with higher debt are more likely to fall into arrears when facing macroeconomic shocks, but strong institutions can help mitigate this risk. Lusardi, Schneider, and Tufano (2011) revealed that many American households are unable to withstand even modest financial shocks, especially those with low income, limited education, or weak financial literacy. These findings align with the theory of precautionary savings, where risk-averse individuals aim to build financial buffers to withstand future uncertainty (Deaton 1992; Carroll 1997). Anderloni, Bacchiocchi, and Vandone (2012) using a similar framework, constructed a financial vulnerability index for Italian households and found that unsecured debt and high debt service burdens increase fragility, while higher education reduces it. Brunetti, Giarda, and Torricelli (2016) deepened this approach by analyzing the impact of portfolio composition, showing that families with low liquidity even if their income covers expected expenses are more likely to be financially fragile. Their study also highlights that informal borrowing from family members is associated with higher fragility compared to formal credit sources. Clark, Lusardi, and Mitchell (2020) examining American households after the 2008 financial crisis, found that roughly half of them were unable to cover a $2,000 emergency, with fragility more common among young, female-headed, and low-income households. Their findings also documented coping strategies such as borrowing from friends, working more hours, or selling possessions. More recently, Chen, Zeng, and Tam (2023) investigated the role of social networks in reducing financial fragility in China, showing that family and informal connections can lower vulnerability by facilitating informal credit and improving financial literacy, especially among highly indebted households.

While the existing literature offers valuable insights into the determinants and measurement of household financial fragility across a range of economic contexts, relatively little is known about how

these dynamics manifest in countries with distinct structural and institutional characteristics, such as Albania. The Albanian case is particularly notable due to its high rate of homeownership, low financial diversification, limited access to formal credit markets, and substantial reliance on informal support systems, including remittances (Dushku and Frasheri 2021). These features suggest that conventional indicators may not fully capture the complexity of financial fragility in this context and highlight the need for a tailored, multidimensional approach.

This study contributes to the literature by providing the first empirical assessment of household financial fragility in Albania, using data from the 2019 Albanian Household Wealth Survey. Adopting the multidimensional framework proposed by Brunetti, Giarda, and Torricelli (2016), the analysis integrates both objective and subjective indicators to better account for the diverse channels through which vulnerability can emerge. Thus, the aim of this study is to examine the extent of financial fragility among Albanian households and to assess how socio-economic characteristics, asset structures, and informal financial support mechanisms particularly remittances influence their capacity to cope with unexpected economic shocks.

3. Methodology

As outlined above, the aim of this paper is to analyse how the socio-economic characteristics of households are associated with financial fragility, particularly in cases where households may not face immediate financial hardship but remain vulnerable to unexpected shocks or expenditures. These households, although seemingly stable, can become financially fragile due to a lack of liquidity or financial buffers.

To investigate which factors are correlated with different household financial conditions namely financially unconditional households, financially fragile households, over-consumer households, and financially conditional households we estimate a multinomial logit model as follows:

$$\ln \Omega_{m|b}\,(x) = \ln \frac{Pr(y=m|x)}{Pr(y=b|x)} = x\beta_{m|b} \quad \text{for } m = 1 \; to \; J \tag{1}$$

Here, b denotes the base category used to normalize the model[2], allowing us to estimate parameters for the remaining three categories. The model allows us to calculate the expected probability of a household falling into each financial status category, defined as:

$$P(Y_i = m|X_i) = \frac{\exp\left(\beta'_{(m|b)}\, X_i\right)}{\Sigma_{j=}^{J}\, exp\left(\beta'_{(m|b)}\, (X_i\right)} \tag{2}$$

In this specification, the dependent variable Y_i captures the financial status of household i, with four possible outcomes: m=1, financially unconditional households, m= 2, financially fragile households, m=3, over-consumer households, m=4, financially conditional households

The explanatory variables X_i represent both household-level socio-economic indicators and characteristics of the reference person (household head). These include demographic variables such as household size, gender, age, education level, and employment status, all included as qualitative indicators to explore how financial conditions vary across different socio-demographic groups.

To account for household financial behaviour and inclusion, we incorporate qualitative variables indicating whether the household has a mortgage, consumer loan, informal debt (i.e., debt to others), owns a bank account, or holds real estate beyond the main residence. These indicators are intended to capture the role of financial inclusion and portfolio diversification in a household's ability to absorb financial shocks. The ownership of secondary assets also serves as a proxy for risk preference and investment behaviour.

Following Campbell (2006), the structure of household assets, particularly homeownership can influence portfolio choices through two competing effects. The wealth effect suggests that owning a home may encourage investment in riskier assets, as the perceived wealth enables greater risk-taking. In contrast, the crowding-out effect posits that households heavily invested in illiquid assets (like their primary residence) may avoid additional risky or illiquid investments due to limited remaining wealth (Chetty and Szeidl 2010; Chetty, Sándor, and Szeidl 2017; Li, Brounen, Li, and Wei 2022).

Furthermore, we include variables capturing family ties, specifically income received from migrants, to explore the relationship between remittances and household financial fragility. Remittances are an important component of household income in Albania and are known to reduce poverty and provide financial resilience at both the micro and macro levels (Dushku and Frasheri 2021). Including this variable allows us to assess whether remittance-receiving households are better positioned to withstand unexpected financial shocks.

4. Data

As mentioned above, one of the main issues related to household financial fragility is the lack of a uniform and standard definition, which has led to the examination of its various aspects. The assessment of financial fragility among Albanian households is based on the approach proposed by Brunetti, Giarda, and Torricelli (2016), who define financially fragile households as those unable to afford an unexpected expense. This approach has several advantages compared to others: first, it analyses all households without focusing on specific groups such as those with debt or belonging to certain age groups; second, it relies on quantitative data, thus avoiding biases related to household self-perception of their financial situation; third, it distinguishes between expected and unexpected expenses, thereby capturing short-term financial problems; and fourth, it takes into account how household portfolio composition influences financial behaviour.

Following Brunetti, Giarda, and Torricelli (2016), in this paper we define financially fragile households as those that can afford expected expenses but do not have sufficient liquid assets to cover unexpected expenses. According to this approach, household classification is based on two criteria: (i) whether household income is sufficient to meet expected expenses, and (ii) whether liquid assets are sufficient to meet potential unexpected expenses.

Based on these criteria, households are categorized into four groups: unconditional households, financially fragile households, over-consuming households, and conditional households.

1. Unconditional households have income equal to or greater than expected expenses and liquid assets equal to or greater than unexpected expenses.
2. Financially fragile households have income equal to or greater than expected expenses but liquid assets less than unexpected expenses.
3. Over-consuming but liquid households earn less than they consume but have liquid assets equal to or greater than unexpected expenses.
4. Conditional households earn less than they consume and have liquid assets less than unexpected expenses.

Household income refers to the total annual net disposable income. Expected expenditures include planned expenses such as household spending on goods and services, rent, maintenance, and insurance. Liquid assets encompass the total value of readily available financial resources. Unexpected expenses refer to unplanned costs, including maintenance of the house or car, medical emergencies, temporary income loss, or wage reductions.

The main data source for this analysis is the detailed dataset from 2,106 households collected in the first round of the Albanian Household Wealth Survey, conducted by the Bank of Albania in 2019. This comprehensive survey captures various aspects of household wealth, including real and financial assets, consumption, savings, investments, debt levels, income, and expenses. Its detailed information allows for a thorough classification of households into the four financial conditions described above, and facilitates profiling based on socio-economic characteristics. Further details on the questionnaire, methodology, and results are provided by Dushku and Cami (2022). The data sample is randomly selected and representative at the national and population levels.

Expected household expenses include monthly spending on food (both inside and outside the home), electricity, water, internet, and other utilities, which are converted into annual figures. According to estimates by Dushku and Cami (2022), expected expenses average approximately 80% of total household income. Consistent with Lusardi, Schneider, and Tufano (2011) and Brunetti, Giarda, and Torricelli (2016), unexpected expenses are defined as those resulting from shocks such as health problems or job loss, and are proxied by the median monthly household income, which in our sample equals ALL 59,862. Liquid assets consist of funds held in current accounts and time deposits, excluding cash holdings, which were not reported in the survey. Given the low reported incidence of liquid asset ownership, we approximate liquid assets as the difference between household income and total expenses for goods and services.

Table 1 presents general characteristics of Albanian households, including debt exposure, portfolio composition, and education levels. The average household size is 3.7 members; with a reference person whose average age is 58.5 years; 78% of these reference persons are male. Over half have only primary education, 36% have completed high school, and 11% hold a university degree or higher. Regarding employment status, 44% are employed or self-employed, 37% retired, and 13% unemployed. Considerable heterogeneity exists among households in terms of income and wealth: annual household income averages around 1 million ALL, while total wealth (real and financial) averages about 6 million ALL. Nearly 90% of households own their primary residence, which represents the most important household asset.

Financial inclusion is relatively low: only 4% and

Table 1. Descriptive statistics on household and their reference person

Variables	Average	Std. Dev.	Min	Max
Gender: Male	77.1%	0.4	0	1
Age (years)	56.2	14.7	19	92
Marital status, married	81.1%	0.4	0	1
Years of education	10.1	3.5	0	21
Levels of educations				
Primary education	51.5%			
Secondary education	35.9%			
Tertiary education	12.5%			
Occupation status (as % of total reference persons)				
Employed/Self-employed	46.9%			
Unemployed	15.0 %			
Retired &others	38.2%			
Household size	3.7	1.7	1	17
Total household income (ALL million)	1.0	0.9	0.0	12.9
Household wealth (ALL million)	6.2	3.9	0.6	39.8
Having a mortgage loan	0.039	0.2	0	1
Having consumer loans	0.058	0.2	0	1
Having debts towards others	0.14	0.3	0	1
Owning the main dwelling	0.93	0.3	0	1
Owning other real estate properties (house, land, apartment etc.)	0.36	0.5	0	1
Household receiving-remittances	0.23	0.42	0	1

Source: Albanian Household Wealth Survey (AHWS), 2019, author's calculations

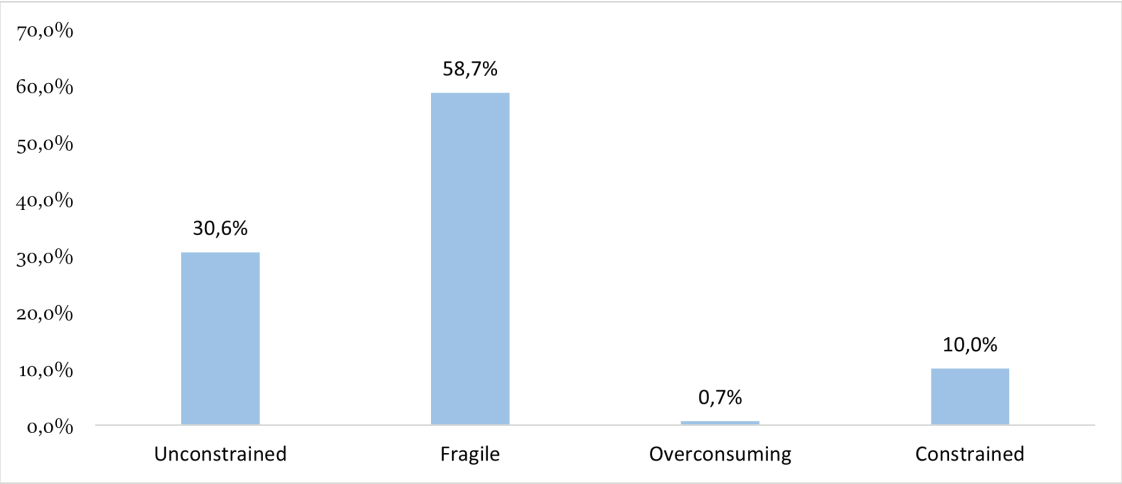
5% of households have mortgage and consumer loans, respectively, while 12.5% have borrowed from informal sources. These features make Albania an interesting case for studying financial fragility, characterized by low financial inclusion, limited debt exposure, lower education levels, and high rates of homeownership. Additionally, 23% of households receive income from immigrants, making remittances the second most important source of household income and highlighting their role in consumption and saving decisions (Dushku and Frasheri (2021)).

Based on household-level data and following the classification methodology proposed by Brunetti, Giarda, and Torricelli (2016), households in Albania are grouped into four categories (Graph 1). The data reveal that approximately 59% of households are financially fragile, 31% are unconditional, 10% are conditional, and less than 1% are over-consuming households. Financially fragile households are not inherently vulnerable, as they possess sufficient income to cover expected expenses; however, they lack adequate liquid assets to manage unexpected expenses. Consequently, any sudden shock such as job loss, unforeseen medical costs, temporary income reductions, or salary cuts can push these households into financial distress.

The second largest group consists of unconditional households, comprising 31% of the total sample. These households have sufficient income to cover both expected and unexpected expenses. Conditional households represent around 10% of the total and are characterized by insufficient income and liquidity to cover both expected and unexpected costs. Over-consuming households account for less than 1% of the population and are therefore excluded from the empirical analysis due to their minimal representation.

Table 2 presents key characteristics of the reference person and household composition for the three main groups: unconditional, financially fragile, and conditional households. Several similarities and differences emerge. Notably, financially fragile households exhibit higher exposure to all forms of borrowing.

Graph 1: Classification of household type



Source: Albanian Household Wealth Survey (AHWS), 2019, author's calculations

Their reference persons tend to be older on average and have lower levels of education compared to other groups. Additionally, financially fragile households show a greater propensity to own secondary real estate and receive income from immigrants, highlighting the significance of family ties and remittances in their financial strategies.

Table 2. Characteristics of the reference person and family by main groups

Household types	Unconstrained	Financially fragile	Constrained
Household size	3.36	3.24	3.23
Gender or reference persons (Male)	75.5%	78.1%	75.7%
Age of reference person	58.34	58.79	55.83
Level of education of reference person (years)	11.71	9.88	9.91
Percentage of reference persons by level of education			
Primary education	42%	56%	57%
Secondary education	39%	35%	36%
Tertiary education	20%	8%	7%
Labor status of reference person			
Unemployed	9%	13%	30%
Employed	46%	45%	38%
Retired	45%	43%	33%
Having debts towards others (as % all households that have a debt)	21%	65%	14%
Having a mortgage loan (as % of total households having a mortgage debt)	23%	54%	23%
Having a consumer loan (as % of total households having a consumer loan)	28%	61%	12%
Percentage of households having other real estate properties despite main residence	33%	57%	10%
Percentage of households receiving remittances	40%	52%	8%

Source: Albanian Household Wealth Survey (AHWS), 2019, author's calculations

5. Estimation results

Before estimating the model, we tested for multicollinearity among the explanatory variables. The correlation coefficients are generally low to moderate, and all VIF values are below the conventional threshold of 10, indicating that multicollinearity is not a concern and the explanatory variables can be reliably included in the multinomial logit model.

Table 3 presents the estimates obtained from the multinomial logistic regression, focusing specifically on the average marginal effects of each explanatory variable on the probability that a household is financially fragile. The results indicate that as the level of education increases, the likelihood of a household being financially fragile decreases. This finding aligns with previous studies (Lusardi, Schneider, and Tufano 2011; Halser and Lusardi 2019; Clark, Lusardi, and Mitchell 2020), which emphasize that individuals with higher education levels are generally better equipped to manage their finances and withstand unexpected financial shocks. Higher education is also associated with improved career prospects and higher income levels, contributing to greater financial stability against shocks (Lusardi and Mitchell 2008; Lusardi, Schneider, and Tufano 2011; Brunetti, Giarda, and Torricelli 2016; Halser and Lusardi 2019).

Regarding marital status, being married significantly reduces the probability of a household being financially fragile compared to other marital statuses. Interestingly, employment status shows that both employed and retired households have a higher probability of financial fragility, suggesting that in Albania, households are vulnerable to unexpected shocks regardless of whether the reference person is currently working or retired.

No significant relationship was found between having a mortgage loan, consumer loan, or outstanding debts to others and the likelihood of being financially fragile. Similarly, owning a second real estate property shows a negative correlation with financial fragility but lacks statistical significance.

In the second and third columns of Table 3, two dummy variables were included: one indicating whether the household receives income from immigrants (remittances), and another indicating whether the household has access to a bank or deposit account. The results show that households receiving remittances and those with financial access are less likely to be financially fragile. These findings underscore the importance of family ties and remittances in cushioning households from unexpected shocks, as well as the critical role of financial inclusion in enhancing household resilience. These conclusions are consistent with extensive literature on the subject (Chen, Zeng, and Tam 2023; Demirgüç-Kunt and Klapper 2013).

To verify the robustness of our results, we estimated a logistic regression model where the dependent variable equals one if the household is financially fragile and zero otherwise (Table 4). In the last three columns, we employed an alternative definition of household financial fragility proposed by Lusardi, Schneider, and Tufano (2011), which classifies households as financially fragile if they have less than three months' savings to cover their necessary expenses.

The results presented in the first three columns confirm the findings from the multinomial regression, emphasizing the significant role of the reference person's education level in reducing the probability of financial fragility. Additionally, the results reaffirm the positive impact of remittances in lowering the likelihood of households being financially fragile and improving their capacity to withstand unexpected financial shocks. This highlights the crucial role of family members and relatives living abroad, not only in poverty reduction (Dushku and Frasheri (2021)) but also in alleviating short-term financial vulnerabilities of Albanian households.

Table 3. Determinants of being financially fragile

	Average marginal effect	Average marginal effect	Average marginal effect
Household size	0.00776	0.00403	0.0113
p-value	(0.328)	(0.614)	(0.127)
Marital status: married	**-0.156****	**-0.155****	**-0.171*****
p-value	(0.016)	(0.019)	(0.008)
Cohabiting	-0.0564	-0.0785	-0.0785
p-value	(0.847)	(0.812)	(0.805)
Widow	**-0.139***	**-0.136***	**-0.153****
p-value	(0.056)	(0.064)	(0.033)
Divorced	-0.00538	-0.0245	-0.0975
p-value	(0.959)	(0.820)	(0.385)
Gender of reference person (Male)	0.0160	0.0155	0.0131
p-value	(0.625)	(0.636)	(0.677)
Age	-0.00204	-0.00192	-0.00110
p-value	(0.116)	(0.139)	(0.374)
Primary level of education (base: Secondary level of education)	**0.0738*****	**0.0756*****	**0.0375**
p-value	(0.002)	(0.002)	(0.101)
Tertiary level of education (base: secondary level of education)	**-0.178*****	**-0.182*****	**-0.116*****
p-value	(0.000)	(0.000)	(0.003)
Labor status: Employed	**0.0718****	**0.0649***	**0.0880****
p-value	(0.047)	(0.073)	(0.010)
Labor status: Retired& Others	**0.0933****	**0.0907****	**0.0808****
p-value	(0.024)	(0.029)	(0.040)
Having debts towards others	0.0409	0.0450	-0.000916
p-value	(0.236)	(0.195)	(0.978)
Having a consumer loan	0.0530	0.0493	0.0526
p-value	(0.330)	(0.370)	(0.371)
Having a mortgage loan	-0.0271	-0.0327	-0.00306
p-value	(0.667)	(0.601)	(0.962)
Having other real estate properties	-0.0381	-0.0328	-0.0306
p-value	(0.105)	(0.164)	(0.167)
Receiving remittances		**-0.0685*****	**-0.0680*****
p-value		(0.008)	(0.005)
Financial access			**-0.357*****
p-value			(0.000)
Pseudo R^2	0.0515	0.0602	0.1540
N	1971	1971	1971

p-values in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Albanian Household Wealth Survey (AHWS), 2019, author's calculations

Table 4. Robustness checks for households of being financially fragile

	Financially fragile households (Brunetti, Giarda, and Torricelli (2016),)			Financially fragile households (less than 3 months of saving		
	(I)	(II)	(III)	(IV)	(V)	(VI)
Household size	0.00576	0.00179	0.00850	-0.00329	-0.00854	-0.00645
p-value	(0.461)	(0.820)	(0.241)	(0.653)	(0.244)	(0.373)
Marital status: Married	**-0.112***	-0.113	**-0.127****	**-0.170****	**-0.185*****	**-0.189*****
p-value	(0.099)	(0.101)	(0.052)	(0.050)	(0.031)	(0.027)
Cohabiting	-0.0378	-0.0132	-0.0647			
p-value	(0.900)	(0.963)	(0.800)			
Widow	-0.0811	-0.0806	-0.0992	-0.107	-0.118	-0.122
p-value	(0.281)	(0.287)	(0.165)	(0.252)	(0.203)	(0.186)
Divorced	0.0416	0.0233	-0.0515	0.00966	-0.0431	-0.0696
p-value	(0.693)	(0.828)	(0.631)	(0.940)	(0.734)	(0.575)
Gender of reference person (Male)	0.0270	0.0262	0.0226	0.0176	0.0179	0.0183
p-value	(0.412)	(0.427)	(0.468)	(0.590)	(0.579)	(0.571)
Age	-0.00186	-0.00174	-0.000867	**-0.00423*****	**-0.00406*****	**-0.00379*****
p-value	(0.146)	(0.173)	(0.471)	(0.000)	(0.001)	(0.001)
Primary level of education (base: secondary level of education)	**0.0747*****	**0.0750*****	**0.0371**	**0.0773*****	**0.0785*****	**0.0649*****
p-value	(0.002)	(0.002)	(0.102)	(0.001)	(0.001)	(0.006)
Tertiary level of education (base: Secondary level of education)	**-0.188*****	**-0.191*****	**-0.110*****	**-0.117*****	**-0.120*****	**-0.105*****
p-value	(0.000)	(0.000)	(0.004)	(0.000)	(0.000)	(0.001)
Labor market status -Employed	0.0661*	0.0548	0.0776*	**-0.0968*****	**-0.114****	**-0.110*****
p-value	(0.066)	(0.128)	(0.022)	(0.009)	(0.002)	(0.003)
Labor market status -Retired& Others	**0.0860****	0.0804*	0.0701*	-0.0223	-0.0333	-0.0389
p-value	(0.039)	(0.053)	(0.075)	(0.607)	(0.448)	(0.371)
Having debts towards others	0.0351	0.0389	-0.00290	0.0206	0.0270	0.0130
p-value	(0.303)	(0.253)	(0.928)	(0.534)	(0.413)	(0.692)
Having a consumer loan	0.0503	0.0463	0.0450	0.0110	0.00735	0.00526
p-value	(0.350)	(0.391)	(0.407)	(0.826)	(0.883)	(0.916)
Having a mortgage loan	-0.0709	-0.0788	-0.0322	-0.0838	-0.0916	-0.0809
p-value	(0.224)	(0.176)	(0.580)	(0.187)	(0.147)	(0.198)
Having other real estate properties	-0.0443*	-0.0379	-0.0344	-0.00811	-0.000409	-0.0000309
p-value	(0.059)	(0.107)	(0.115)	(0.722)	(0.986)	(0.999)
Receiving remittances		**-0.0820*****	**-0.0851*****		**-0.109*****	**-0.110*****
p-value		(0.001)	(0.000)		(0.000)	(0.000)
Financial access			**-0.503*****			**-0.166*****
p-value			(0.000)			(0.000)
Pseudo R^2	0.0246	0.0284	0.1227	0.0358	0.0450	0.0570
N	1963	1963	1963	1715	1715	1715

Source: Albanian Household Wealth Survey (AHWS), 2019, author's calculations

6. Final remarks

Understanding household financial fragility is crucial not only for individual well-being but also for broader economic and social stability. Households that are unable to cope with unexpected expenses are more likely to experience long-term financial insecurity, reduced consumption, and downward mobility. This study, using data from the first wave of the Albanian Household Wealth Survey (2019) and following the framework proposed by Brunetti, Giarda, and Torricelli (2016), highlights that nearly 60% of Albanian households are financially fragile. The findings indicate that household vulnerability is strongly associated with lower levels of education, limited financial access, and the absence of income from remittances.

One of the most important implications of the analysis is the strong protective role played by education. Households led by individuals with higher levels of education are significantly less likely to be financially fragile. This suggests that financial fragility is not merely a function of income but also of how households understand and manage their financial resources. In this regard, enhancing financial literacy becomes a vital policy tool. Policymakers should consider embedding financial education within the national education system, starting from primary levels and extending to adult learning and community outreach programs. These efforts should focus on practical financial skills such as budgeting, managing debt, and building savings which are essential for navigating economic shocks. A financially literate population is more likely to engage with formal financial institutions, undertake long-term financial planning and avoid costly borrowing practices, thereby improving overall household resilience.

Another key finding of this study is the positive association between remittances and reduced financial fragility. Households that receive income from family members abroad are better positioned to withstand unexpected expenses, underscoring the vital role of migrant networks in supporting economic stability. Remittances serve not only as a buffer during crises but also to smooth consumption and invest in housing, education, or small businesses. To strengthen this channel, policymakers should aim to reduce the cost of remittance transfers and facilitate the formalization of these flows. Moreover, encouraging remittance-receiving households to use these funds for savings and investment possibly through targeted financial products or matched savings schemes can multiply their developmental impact and further enhance household resilience.

The results also show that access to formal financial services is associated with a lower likelihood of financial fragility. This reinforces the importance of financial inclusion as a policy priority. Promoting accessible banking, expanding digital financial infrastructure, and ensuring that low-income and rural households are not excluded from financial products can significantly improve the capacity of households to cope with unforeseen events.

In sum, this study provides evidence that education, remittances, and financial access are key pillars for building household financial resilience in Albania. With the forthcoming second wave of the Household Wealth Survey, future research will allow for a dynamic analysis of financial fragility over time and provide further insights into the stability of these relationships. Nonetheless, the current findings already offer clear guidance for policy interventions aimed at strengthening the financial security of Albanian households.

Endnotes

1. The multinomial logit model makes the so-called Independence of Irrelevant Alternatives (IIA) assumption, meaning that the odds do not depend on the other alternatives that are available. Performing both the Hausman and the Small-Hsiao tests, we found evidence against the IIA hypothesis. This hypothesis can be relaxed, but this generally leads to conceptually and computationally more complicated models so that, as a result, in applied work "the multinomial logit model is the most frequently used nominal regression model" (Long and Freese, 2006, p. 223). For additional details on the IIA and on the possible solutions in case of its rejection, see Long and Freese (2006), p. 243.
2. Since $\ln\Omega_{bb}\ (x) = \ln 1 = 0$, it must hold that $\beta b|b = 0$, therefore the log odds of an outcome or a condition compared to itself are 0, thus the effects of each variable random must also be 0.

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Annex

Table A1. Correlation summary

Household vulnerability	Household size	Marital status	Gender of reference person (Male)	Age	Education level	Labor status	Having debts towards others	Having a consumer loan	Having a mort-gage loan	Having other real estate properties	Receiving remitt-ances	Financial access
Household vulnerability	1											
Household size	0.0204	1										
Marital status	0.0112	-0.256***	1									
Gender of reference person (Male)	0.018	0.169***	-0.449***	1								
Age	-0.0840***	-0.310***	0.291***	0.0129	1							
Education level	-0.155***	-0.0229	-0.0970***	0.00529	-0.161***	1						
Labor status	-0.114***	-0.261***	0.207***	-0.0385	0.595***	-0.0880***	1					
Having debts towards others	0.0833***	0.140***	-0.0631**	0.0537*	-0.122***	-0.0550*	-0.0907***	1				
Having a consumer loan	0.00579	0.127***	-0.0391	0.00265	-0.0997***	0.0539*	-0.0829***	0.00757	1			
Having a mortgage loan	0.0558*	0.0526*	0.0066	0.00467	-0.0426	0.0440*	-0.0315	0.0203	-0.0056	1		
Having other real estate properties	-0.042	0.0868***	-0.0966***	0.121***	-0.0039	-0.157***	-0.0232	0.0514*	-0.0206	-0.0292	1	
Receiving remittances	-0.108***	-0.181***	0.0628**	-0.0599**	0.138***	-0.0624**	0.0753***	0.0163	-0.0417	-0.0629**	0.0689**	1
Financial access	-0.395***	0.0548*	-0.0520*	-0.0001	-0.0404	0.223***	-0.0391	-0.0685**	0.0266	0.0554*	-0.0056	-0.0435*

Table A2. Variance Inflation factor

Variable	VIF	1/VIF
Age	1.87	0.5339
Employment status	1.65	0.6054
Marital status	1.47	0.6814
Gender	1.34	0.7465
Household size	1.26	0.7939
Education level	1.11	0.9041
Access to bank account	1.06	0.9413
Receiving remittances	1.06	0.9421
Owns other real estate	1.05	0.9497
Has informal debt	1.04	0.9572
Has consumer loan	1.02	0.9767
Has mortgage loan	1.01	0.9903
Mean VIF	1.25	