

# Financial Fragility of Household Economies in the Context of Income, Poverty, and Education: The Case of Turkey (2009–2024)

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Gelir, Yoksulluk ve Eğitim Bağlamında Hanehalkı Ekonomilerinin Finansal Kırılganlığı: Türkiye Örneği (2009-2024)

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## Öz

Bu çalışma, Türkiye’de 2009–2024 döneminde hanehalkı finansal kırılganlığını çok boyutlu bir çerçevede incelemektedir. Gelir yoksulluğu, konut sahipliği, eğitim düzeyi, tüketim yoksunluğu ve borç yükü gibi göstergeler kullanılarak finansal kırılganlığın kalıcı yapısı ortaya konmuştur. Bulgular, kırılganlığın özellikle kadınların liderlik ettiği ve çocuklu hanelerde daha yüksek olduğunu; düşük eğitilmiş bireylerin yoksulluk riskinin daha fazla olduğunu göstermektedir. Ayrıca, konut sahibi olma oranındaki düşüş ve beklenmedik harcamaları karşılama kapasitesindeki yetersizlik de dikkat çekmektedir. Çalışma, ekonomik büyüme temelli yaklaşımların yetersiz kaldığını ve finansal kırılganlıkla mücadelede hak temelli, çok boyutlu politika setlerine ihtiyaç duyulduğunu vurgulamaktadır.

## Abstract

This study examines household financial fragility in Turkey between 2009 and 2024 using a multidimensional framework. Drawing on indicators such as income poverty, housing tenure, education level, consumption deprivation, and debt burden, it identifies the structural persistence of fragility over time. The findings reveal heightened fragility among female-headed households, families with children, and individuals with low educational attainment. Declining homeownership and limited capacity to cope with unexpected expenses further illustrate the erosion of household resilience. The results suggest that growth-oriented policies have fallen short in addressing entrenched vulnerabilities. Accordingly, the study underscores the need for rights-based, multidimensional policy interventions. These should integrate income, education, care responsibilities, and housing as interrelated pillars of household economic security.

**Anahtar Kelimeler:** Finansal kırılganlık, gelir yoksulluğu, eğitim düzeyi, hanehalkı kırılganlığı, Türkiye

**Keywords:** Financial fragility, income poverty, educational attainment, household vulnerability, Turkey

**Makale Türü:** Araştırma Makalesi

**Paper Type:** Research Article

## 1. Introduction

Poverty is a persistent and multifaceted issue that extends beyond income deficiency to include various forms of material deprivation and limited access to opportunities. Financial fragility is increasingly conceptualized not merely as a function of low income but as a household's inability to

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cope with financial shocks due to insufficient liquid assets, limited credit access, or a lack of emergency savings. Lusardi, Schneider, and Tufano (2011) define financially fragile households as those unable to raise \$2,000 within 30 days, a metric that reveals vulnerability even among middle-income groups. Brunetti, Giarda, and Torricelli (2016), analyzing Italian households, emphasize the role of illiquidity, insecure housing conditions, and material deprivation in shaping financial fragility. Similarly, Gorbachev and Luengo-Prado (2019) highlight how limited credit access and financial illiteracy exacerbate fragility, especially when income volatility persists. Unlike conventional income poverty, which relies on static thresholds, financial fragility reflects dynamic risks and structural constraints that undermine long-term economic resilience.

In Turkey, the complexity of poverty has been shaped by regional disparities, labor market segmentation, and unequal access to education and healthcare, as evidenced by empirical findings that highlight persistent geographic inequalities, especially in the southeast, alongside the concentration of informal employment among low educated households (Ergin & Kunst, 2015; Karaalp Orhan, 2022). While macro-level indicators suggest a fluctuating trend in poverty rates, these figures often fail to capture the deeper, structural vulnerabilities that many families face. Over the last decade, changing social policies, inflationary pressures, and shifts in employment patterns have been closely associated with changes in the lived experiences of poverty in Turkey, particularly among low-income and less-educated households, as shown in studies documenting the wage penalties and geographic sensitivity of informal employment (Baltagi & Başkaya, 2022; Cakir & Ergul, 2019).

Although a growing body of literature has addressed income poverty and social exclusion in Turkey, most studies emphasize short-term trends or rely heavily on aggregate measures, limiting the ability to capture household-level financial fragility over time (Buğra & Keyder, 2006; Özdemir & Şahin-Dikmen, 2009). There remains a significant gap in understanding how poverty interacts with education level, gender, and household structure in shaping long-term financial fragility. Recent studies have shown that female-headed households, lower education levels, and household composition are significantly associated with persistent poverty and multidimensional vulnerability in Turkey (Tekgüç & Akbulut, 2021; Yıldırım, Bakır, & Savaş, 2018). Few analyses have employed multidimensional approaches using time-series microdata to explore how economic vulnerability evolves over time, though studies have begun to address this gap by using longitudinal and regionally disaggregated data to reveal the persistence and spatial variation of deprivation in Turkey (Acar, 2014; Acet Dönmez & Eriş Dereli, 2024).

This study aims to fill that gap by investigating the relationship between household income, education, and financial fragility in Turkey from 2009 to 2024. Drawing on nationally representative data from the Turkish Statistical Institute's Income and Living Conditions Survey, the research examines how various household types experience poverty, how education levels influence vulnerability, and how material deprivation indicators reflect shifts in resilience. The study takes a multidimensional perspective to identify which social and economic factors most significantly contribute to persistent poverty and weakened household stability, thereby offering insights for targeted policy interventions

## **2. Literature Review**

Financial fragility, broadly defined as the inability of households to cope with economic shocks due to limited resources, has become an increasingly relevant concept in light of shifting macroeconomic and social dynamics over the last two decades.

Calcagnini et al. (2025) modeled the dynamics of interaction between financial literacy and financial fragility, pointing out that less financially literate households respond in a pro-cyclical manner to

income shocks and are therefore more vulnerable in times of downturn. In turn, Kim et al. (2022) empirically validated that there is an inverse association between knowledge of finances and financial fragility and furthered the significance of learning interventions reducing household vulnerability.

Brunetti et al. (2016) framed financial fragility in terms beyond debt status, seeing portfolio composition and the ability to absorb unforeseen expenses as fundamental determinants. Supplementing this, Baldini et al. (2020) demonstrated that historical income scarcity has enduring impacts on self-reported fragility that are modulated by the welfare system of which an individual is a part. This supports the role that structural support systems play in insulating vulnerability at the household level.

West & Mottola (2016), based on data in the US, found renters, minorities, and those with lower levels of financial knowledge to be disproportionately vulnerable, consistent with the pattern seen in Turkey's city and rural areas. Similarly, regional differences in Spain were detected by Espiño et al. (2023), based on which education level and access to finance strongly mediate financial fragility.

Domma & Giordano (2012) created a new copula-based model of the probability of consumption exceeding household income, a statistical concept directly correlated with financial distress. In Italy, in an analogous manner to Turkish reforms in the 2010s, Jappelli et al. (2014) established pension reforms as drivers of changes in saving behavior for those entering the workforce after macro pension policy changes. This counterpart is mirrored in Turkish reforms in the 2010s.

Wang & Mao (2023) explored financial vulnerability among aging families in China and highlighted the mitigating role of digital inclusive finance in promoting household resilience—a concept that can be extended to Turkey's growing elderly population. In a similar technological vein, Li et al. (2024) linked AI adoption to reduced energy consumption but also noted its adverse effects on income and financial fragility in lower-income households, suggesting potential trade-offs between innovation and inequality.

Over-indebtedness in Italy was considered by Cavalletti et al. (2020), with increased use of consumer credit found to be highly correlated with household financial distress. This is in line with research in the Turkish setting, in which growing use of credit has coincided with increased household economic distress among lower-income deciles.

Koomson et al. (2024) researched caregiving as an unacknowledged cause of financial vulnerability in Australia and learned that informal caregiving increases financial vulnerability disproportionately in specific demographic segments. The findings align with Turkish evidence indicating greater vulnerability in those households that provide care for the elderly and disabled, especially in poor areas.

Dudek & Landmesser-Rusek (2024) highlighted the difference between financial distress and classical income poverty in Poland. Education, high levels of unemployment, and debt burden are demonstrated by them as the major determinants of household fragility, with findings backed by Kaya et al. (2020), which highlighted education and demographic determinants in the Turkish TRA1 sub-region as important in driving income distribution.

Olayele & Goel (2022) added a gendered lens with their emphasis on older urban women's economic vulnerability in the U.S. Their work that illustrated the influence of work in the labor market as well as demographic variables is in close harmony with Aisenbrey's work of 2009 that highlighted that changes in family types influence women's economic status in an immediate way compared to men's—a relevant point when considering gendered vulnerability in Turkey.

Iftikhar & Vergil (2024) explored intergenerational economic mobility in Turkey and found stronger family background-career outcome associations in daughters than in sons. Mid-career stages emerged as key windows of divergence in their work, with these based on education and occupational persistence.

Makhlouf & Lalley (2023) and Munir & Kanwal (2020) both delved into the multifaceted relationship between inequality in education and income. The former concluded that educational expansion actually increases inequality in the long run unintentionally, while the latter demonstrated mixed outcomes based on level of education as well as sex, indicating that policy making has to look beyond mere access measurements.

Lee & Lee (2018) and Saglam (2021) further noted that in those countries with high education achievements, income inequality can continue to exist based on the uneven return to education and trade openness, emphasizing that education is complemented with deeper labor market reforms. In affirmation of this, Sehrawat & Singh (2019) saw education quality rather than quantity as playing an important role in inequality decline in India, a finding that is applicable to Turkish policy-makers.

Amara & Jemmali's (2018) analysis based on multilevel modelling demonstrated that occupation, household size, as well as levels of education are predictors of poverty status in Tunisia. Their findings and methodology align with Turkish household surveys, particularly those of rural provinces with high dependency rates.

Gesthuizen & Scheepers (2010) countered that differences in economic vulnerability among the less educated are rooted in both individual resources and institutional contexts that support the role of welfare state regimes in creating vulnerability. Likewise, Singh & Mengesha (2023) emphasized that policies of innovation and human capital need to be adapted to national environments to effectively reduce inequality in the long run.

Collectively, these works offer empirical and conceptual evidence in support of analyzing the Turkish household's financial fragility across multiple dimensions. They stress the need to bring education policy, access to the labor market, technological transformation, and social protection into any strategy targeting household vulnerability.

### **3. Data and Methodology**

This study investigates the economic vulnerability of Turkish households over the period 2009–2024, with a focus on relative poverty, persistent poverty, income inequality, and multidimensional deprivation. The empirical basis is the Income and Living Conditions Survey (ILCS), conducted annually by the Turkish Statistical Institute (TurkStat). The ILCS employs a nationally representative probabilistic sampling design and utilizes Computer-Assisted Personal Interviewing (CAPI) to ensure data reliability. The statistical unit is the household and its members, excluding the institutional population such as dormitories, prisons, military barracks, and care homes.

The sample consists of all individuals residing in private households. Institutionalized populations are excluded. No additional sample trimming or exclusion based on age, income levels, or other characteristics is applied. All valid observations are retained in the official ILCS statistics, and representativeness is ensured through person-level cross-sectional weights applied by TurkStat. This approach is consistent with standard practice in Turkish poverty research and allows comparability with official statistics.

The ILCS is harmonized with the EU-SILC methodology and adopts internationally standardized classifications, including NACE Rev.2 (economic activity), ISCO-08 (occupation), and ISCED 2011 (education), ensuring comparability across countries (Eurostat, 2023; TurkStat, 2024). The analysis is

based on official statistics derived from annually repeated cross-sectional data provided by TurkStat for each year between 2009 and 2024. No raw microdata processing or re-weighting is performed by the authors; instead, all poverty indicators are drawn directly from TurkStat’s published outputs, which already incorporate appropriate weighting.

### 3.1 Poverty Measurement

Relative poverty is measured using equivalized disposable household income, consistent with the Eurostat and OECD standards. The poverty threshold is defined as 60% of the national median equivalized income. Robustness checks using alternative thresholds (e.g., 40%, 50%, or 70%) are not conducted in this study, in line with the practice in TurkStat’s official poverty statistics (TurkStat, 2024).

Equivalization is based on the OECD-modified equivalence scale, which assigns a weight of 1.0 to the first adult, 0.5 to each additional adult, and 0.3 to each child in the household. Accordingly, equivalized income is calculated as follows:

$$DY_i^{eq} = \frac{Y_i}{1 + 0.5(A_i - 1) + 0.3C_i} \quad (1)$$

where  $Y_i$  denotes total disposable household income,  $A_i$  the number of adults, and  $C_i$  the number of children.

Two key indicators are used to quantify poverty incidence and intensity: the poverty headcount ratio (PR) and the poverty gap (PG). Both are derived from the Foster–Greer–Thorbecke (FGT) class of decomposable poverty measures (Foster, Greer, & Thorbecke, 1984):

$$PR = \frac{1}{N} \sum_{i=1}^N I(Y_i^{eq} < z) \quad ; \quad PG = \frac{1}{N} \sum_{i=1}^N \left( \frac{z - Y_i^{eq}}{z} \cdot I(Y_i^{eq} < z) \right) \quad (2)$$

Here,  $z$  is the national poverty threshold, and  $I(\cdot)$  is an indicator function equal to 1 if the household falls below the threshold and zero otherwise.

All poverty thresholds and related indicators used in this study are taken directly from officially published TurkStat tables. No raw microdata manipulation or author-side recalculation has been applied. This ensures full consistency with national statistics and reflects standard empirical practice in Turkish poverty research (Yıldız, 2025).

In line with TurkStat’s methodology, a simplified poverty gap indicator is also reported. This alternative formulation, consistent with the FGT(1) structure, calculates the average shortfall from the threshold based on the median income of the poor

$$PG = \frac{z - \text{Median income of poor}}{z} \times 100 \quad (3)$$

All indicators used are based on nationally representative cross-sectional data produced by TurkStat. No raw microdata processing or custom computation is performed by the authors; instead, values are directly drawn from TurkStat’s published statistical tables.

Persistent poverty is defined in accordance with Eurostat standards as falling below the poverty line in at least three out of the last four years. However, the study does not use panel data to track individuals over time. Instead, it adopts a descriptive approach based on repeated cross-sectional statistics.

In this context, the term “one-year poverty rate” refers to the share of individuals below the poverty line in a given year, while the “two-year” or “four-year” poverty rates refer to the proportion of the population classified as poor in at least one of the past two or four years, respectively. These measures

do not track the same households longitudinally, but provide an approximation of cumulative poverty exposure based on consecutive cross-sectional snapshots. This non-panel-based method is widely used in descriptive poverty research when longitudinal data are not available, and is consistent with previous ILCS-based studies in Türkiye (Yıldız, 2025).

### **3.2 Price Treatment in Relative Poverty Measures**

All income figures are expressed in current Turkish Lira (TL). Since relative poverty is a scale-free concept derived from within-year income distributions, no deflation or purchasing power parity (PPP) adjustment is applied. The focus is strictly on relative positioning within the income hierarchy for each survey year.

### **3.3 Material Deprivation and AROPE Indicator**

This study adopts a descriptive longitudinal approach to monitor vulnerability trends across time. Rather than aiming for causal inference, the objective is to map distributional changes during three distinct macroeconomic episodes: the aftermath of the 2009 global financial crisis, the 2018 currency shock, and the post-2022 high-inflation period. The analysis is fully non-parametric and based on repeated cross-sectional data, without using regression modeling. It highlights structural disparities across socio-demographic groups such as age, gender, education, and household type. The multidimensional approach reflects the conceptual foundations of poverty as outlined by Alkire and Foster (2011). While the term “longitudinal” is used to describe the temporal scope of the analysis, it should not be interpreted as panel analysis. The study relies entirely on annually repeated cross-sectional data from ILCS, rather than tracking the same households across years.

### **3.4 Analytical Strategy**

This study’s analytical framework is entirely descriptive and exploratory. The objective is to detect distributional shifts in economic vulnerability rather than identify causal mechanisms. Key indicators are disaggregated by socio-demographic subgroups and examined over time to assess structural patterns of deprivation. No multivariate models are employed, and the analysis refrains from imposing parametric assumptions on the data. The empirical strategy aligns with previous research in Türkiye that uses ILCS-based summary indicators and FGT metrics to track evolving poverty dynamics (Yıldız, 2025). This study adopts a descriptive and non-parametric framework, consistent with prior ILCS-based literature. Given the exploratory nature of the research and the use of cross-sectional data repeated annually rather than a longitudinal panel, regression-based inference is not feasible. The aim is to document structural patterns in financial fragility over time rather than identify causal mechanisms.

## **4. Findings**

In this section, the empirical evidence on Turkish family financial fragility between 2009 and 2024 is discussed. The analysis is based on official microdata of the Turkish Statistical Institute, TurkStat, highlighting temporal trends in poverty status, material deprivation, and differences between household types and education levels. Far from making a pure econometric analysis, the research takes a descriptive and multi-dimensional perspective to emphasize the way fragility occurs in different demographic and socio-economic categories. The findings are structured thematically into five subsections, each capturing a distinct dimension of household fragility: time trends in poverty, multidimensional deprivation, educational disparities, household composition, and income-based positioning.

### **4.1. Temporal Trends in Poverty and Financial Fragility (2009–2024)**

Between 2009 and 2024, one-year poverty rates fluctuated but remained relatively high, with a notable peak in 2023 (12.3%) and a sharp decline in 2024 (10.6%). Long-term poverty (4 years) peaked

in 2011 (12.3%) and 2012 (11.0%), then declined gradually until stabilizing around 8.3%–8.4% by 2023–2024. This pattern suggests that short-term poverty tends to co-vary with cyclical shocks (e.g., inflation surges in 2022–2023), whereas long-term poverty is associated with structural vulnerabilities and sustained financial fragility, particularly among households characterized by limited coping capacity and weak asset buffers (Alkire & Foster, 2011; Brunetti et al., 2016). These trends are consistent with previous findings that macroeconomic instability, especially during crises like the 2018 currency devaluation and post-2021 inflation, is associated with heightened poverty exposure among vulnerable groups (Baltagi & Başkaya, 2022; Karaalp-Orhan, 2022).

One-year poverty rates consistently exceeded those of longer durations, suggesting that temporary shocks affect a broader segment of the population. However, four-year poverty rates, ranging between 8.4% and 12.3%, reflect a persistent group unable to escape deprivation over time. This chronic fragility represents a key aspect of household-level financial vulnerability and is frequently observed in conjunction with insufficient social protection mechanisms and limited upward mobility. These two factors are consistently highlighted in multidimensional poverty research (Alkire & Foster, 2011). Notably, the gap between short- and long-term poverty narrowed after 2015, implying a rise in sustained financial precarity relative to temporary hardship.

**Table 1.** Distribution of the Non-Institutional Population by Duration of Poverty and Gender (%)

Total	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1 year	11,3	8,7	11,6	9,7	10,6	10,9	10,5	10,0	10,6	10,4	11,1	10,6	11,1	11,2	12,3	10,6
2 year	8,8	8,5	8,2	7,0	7,4	6,7	8,0	7,6	7,1	7,2	6,8	6,7	7,1	7,0	8,1	7,5
3 year	8,3	9,2	7,5	6,5	6,0	6,5	7,0	7,4	6,2	7,0	6,2	6,1	6,4	6,7	6,9	7,6
4 year	10,7	12,3	11,0	11,7	9,2	10,7	11,5	9,8	9,9	7,8	8,6	9,6	9,5	9,6	8,3	8,4
Male	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1 year	11,4	8,4	11,5	9,4	10,4	10,7	10,5	10,1	10,6	10,7	11,4	10,3	11,1	11,0	12,5	10,4
2 year	8,4	8,2	8,0	7,1	7,0	6,9	8,1	7,6	7,3	7,0	6,5	6,7	7,2	7,1	8,1	7,3
3 year	8,0	9,2	7,1	6,1	5,9	6,4	7,2	7,2	6,3	6,6	6,0	6,2	6,3	6,7	6,4	7,3
4 year	10,4	12,5	10,5	11,6	8,9	10,4	10,9	9,6	9,4	7,6	8,4	9,4	9,3	9,0	7,8	8,1
Female	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
1 year	11,2	9,0	11,6	10,0	10,8	11,2	10,6	9,9	10,7	10,1	10,9	11,0	11,2	11,4	12,2	10,7
2 year	9,1	8,8	8,4	7,0	7,7	6,6	7,9	7,7	6,9	7,3	7,0	6,8	6,9	6,9	8,2	7,6
3 year	8,6	9,2	7,8	6,8	6,1	6,6	6,8	7,6	6,1	7,3	6,4	6,0	6,4	6,6	7,4	7,8
4 year	11,1	12,2	11,5	11,9	9,4	11,0	12,0	10,1	10,4	8,0	8,8	9,9	9,6	10,1	8,8	8,7

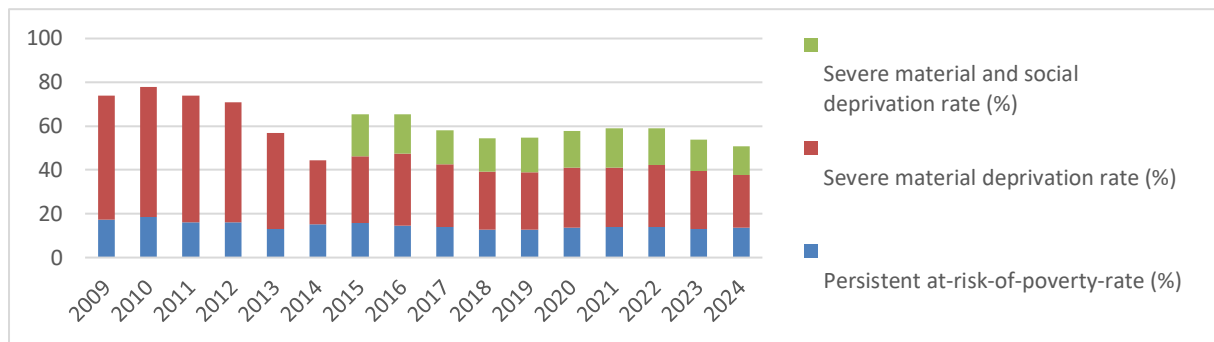
Note: This table is based on four-year rotating panel microdata from the Turkish Statistical Institute (TurkStat), Income and Living Conditions Survey (ILCS). The unit of analysis is the non-institutional population at the individual level (not households). Percentages show the share of individuals who experienced poverty for one to four years within the panel window, separately for males and females. The income reference period corresponds to the previous calendar year.

Throughout the entire period, females exhibited consistently higher poverty rates than males across all durations. The gender gap was particularly stark in four-year poverty rates in 2015 and 2016, where female rates exceeded male rates by more than two percentage points. For instance, in 2015, the rate for women was 12.0%, while it was 10.9% for men. These gendered patterns of financial fragility are in line with literature emphasizing the compounded disadvantages of female-headed households, driven by lower labor force participation, care responsibilities, and wage disparities (Aisenbrey, 2009; Tekgüç & Akbulut, 2021).

The years following the 2009 financial crisis, the 2018 currency shock, and the 2022 inflation wave coincide with observed increases in both short- and long-term poverty, particularly among women. These inflection points are associated with asymmetric outcomes for financially vulnerable populations and underscore the importance of designing targeted public policy responses, including income stabilization, gender-sensitive employment programs, and enhanced social safety nets. The limited

resilience of female-headed households during such periods underscores an ongoing structural failure in mitigating intersectional financial fragility (Iftikhar & Vergil, 2024; Yıldırım et al., 2018).

Figure 1 presents three key indicators of household financial fragility in Turkey between 2009 and 2024: persistent at-risk-of-poverty, severe material deprivation, and severe material and social deprivation. Persistent at-risk-of-poverty is defined as living in a household with equivalised disposable income below 60% of the national median for at least two of the previous four years, following Eurostat (2017) and OECD (2011) standards. Severe material deprivation refers to the enforced inability to afford at least four out of nine basic items such as adequate food, clothing, housing, and durable goods, while severe material and social deprivation extends this to at least seven out of thirteen items, capturing broader social participation constraints; this indicator has been collected in EU-SILC since 2015 (Eurostat, 2020). Based on these measures, the persistent poverty rate declined moderately from 18.5% in 2010 to 13.7% in 2024, whereas severe material deprivation decreased more sharply, from 59.4% to 23.9%. By contrast, severe material and social deprivation remained relatively high, indicating broader exclusion from societal standards. These findings resonate with the literature emphasizing that financial fragility is not solely income-based but multidimensional, encompassing structural deprivation and limited resilience to shocks (Alkire & Foster, 2011; Brunetti et al., 2016; Iftikhar & Vergil, 2024).



**Figure 1.** Persistent and Severe Poverty Indicators in Turkey (%), 2009–2024

Note: Severe material deprivation is defined as the enforced inability to afford at least 4 out of 9 basic items; severe material and social deprivation as the enforced inability to afford at least 7 out of 13 items (collected since 2015). Persistent at-risk-of-poverty rate is calculated as income below 60% of the national median equivalised disposable income for at least two out of the previous four years. Source: TurkStat, Income and Living Conditions Survey. Author’s own compilation.

Table 2 presents the evolution of relative poverty thresholds, the number of poor individuals, poverty rates, and the poverty gap in Turkey from 2009 to 2024.. Despite the substantial rise in the poverty threshold, particularly after 2021 due to accelerating inflation, the poverty rate remained relatively constant at around 20%. This stability reflects the methodological definition of relative poverty, which anchors the threshold at 60% of the national median equivalised income rather than absolute changes in real purchasing power (OECD, 2011; Eurostat, 2020). However, recent studies show that inflation does not affect all households equally. Poor households face higher effective inflation rates because their expenditures are more concentrated in food and housing, where price volatility is greater. Evidence for Turkey confirms this unequal burden: low-income groups are disproportionately affected by rising prices (Akkoc & Kizilirmak, 2021; Özüdoğru, 2020), and World Bank findings emphasize the erosion of their real incomes (Baez, Inan, & Nebiler, 2021). Research from other economies also supports this view, showing that household-level inflation inequality is a widespread phenomenon (Kaplan & Schulhofer-Wohl, 2016).

The absolute number of poor individuals fluctuated between 15 and 17 million, reflecting persistent socioeconomic vulnerability. This outcome is closely linked to income disparities and labor market

segmentation in Turkey, where informal and insecure employment continues to limit upward mobility for large portions of the working poor (Akarçay Gürbüz & Ulus, 2011; Eroğlu, 2017). Importantly, the poverty gap narrowed only slightly, from 27.6% in 2009 to 22.8% in 2024, indicating that while some improvements were made, a significant portion of the poor still live far below the poverty line. This result is consistent with findings that although social transfers in Turkey reduce poverty incidence, their impact on poverty depth remains limited (Cuevas et al., 2022; Selim & Küçükçifçi, 2024). While Table 2 does not directly capture household saving behavior, the persistence of relative poverty suggests limited financial buffers, which aligns with findings indicating that saving capacity among Turkish households is significantly low—even across income quintiles—and that informal borrowing remains a prevalent financial coping mechanism (Ceritoğlu et al., 2022; Azevedo & Atamanov, 2016).

**Table 2.** Relative Poverty Measures in Turkey (2009–2024)

Year	Poverty threshold (TL)	Number of poors (Thousand person)	Poverty rate (%)	Poverty gap
2009	4.103	16.409	23,3	27,6
2010	4.330	16.274	22,8	27,7
2011	4.750	15.903	22,0	27,6
2012	5.272	16.041	21,8	28,3
2013	5.845	15.990	21,5	25,5
2014	6.468	15.801	20,9	25,9
2015	7.238	16.024	21,0	24,9
2016	8.275	16.034	20,8	24,4
2017	9.249	15.318	19,4	24,2
2018	10.377	16.375	20,5	24,3
2019	12.531	16.299	20,2	25,5
2020	14.431	17.176	21,0	25,8
2021	16.326	16.859	20,4	26,2
2022	20.663	17.205	20,6	24,4
2023	37.205	16.960	20,2	22,0
2024	79.197	16.739	19,9	22,8

Note: Poverty thresholds and poverty gap values are calculated using equalized household incomes adjusted for regional price differences via Level 2 PPP, as specified by TurkStat's official methodology in the Income and Living Conditions Survey (2009–2024).

When analyzed collectively, Figure 1, Table 1, and Table 2 provide a multidimensional perspective on the persistence and depth of financial fragility in Turkey between 2009 and 2024. Figure 1 highlights that while severe material deprivation has declined significantly, persistent poverty and social deprivation remain notably high, suggesting that income-based improvements have not been accompanied by proportional social inclusion. This aligns with findings that multidimensional poverty in Turkey, particularly in education, health, and living standards, has remained regionally persistent despite overall income growth (Karahasan & Bilgel, 2021; Tekgüç & Akbulut, 2019).

Table 1 adds further nuance by showing that long-term poverty, particularly four-year poverty, is both widespread and gendered, with women consistently experiencing higher rates across the entire period. This finding is consistent with prior research indicating that women in Turkey face persistently higher poverty risks due to labor market exclusion, wage inequality, and disproportionate care responsibilities, especially among female-headed households (Acar, 2014; Aslan, 2020; Domit & Kesimal, 2024). This sustained exposure points to chronic financial fragility among female-headed or care-burdened households.

Table 2 reinforces this picture by revealing that the number of poor individuals has remained virtually unchanged over 15 years, while the poverty gap has narrowed only slightly. This stagnation is

consistent with evidence suggesting that although social transfers in Turkey reduce the headcount ratio of poverty, they are far less effective in addressing the depth and persistence of poverty (Cuevas et al., 2022; Selim & Küçükçifçi, 2024). Although the poverty threshold has increased dramatically (especially after 2021), many households still fall far below this line. Together, these data sets confirm that financial fragility in Turkey is not a transient or cyclical issue, but a structural and deeply entrenched condition. It is driven by limited household savings capacity, widespread dependence on informal financial tools, and constrained access to formal credit systems. Empirical studies reveal that Turkish households often rely on informal mechanisms such as rotating savings and credit associations (ROSCAs), while structural savings limitations hinder their ability to build resilience against income shocks (Eroğlu, 2010; İpek & Sekmen, 2016).

#### 4.2. Multidimensional Deprivation and Living Standards

While multidimensional poverty trends over time have been addressed in Section 4.1, this section focuses on cross-sectional disparities in living standards across income groups to further explore the non-monetary dimensions of household financial fragility.

As shown in Table 3, the proportion of individuals perceiving housing costs as a heavy burden declined substantially from 47.8% in 2009 to 22.9% in 2024. During the same period, the share of those experiencing only a slight burden increased from 47.3% to over 70%. Although this suggests an overall improvement in housing affordability, it is noteworthy that the share of people experiencing no burden at all remained low (only 6.3% in 2024), indicating that a significant portion of the population still allocates a considerable part of their income to housing.

These results imply that while financial strain related to housing has decreased in intensity, housing vulnerability remains a widespread and chronic component of household financial fragility. This is an issue documented in recent research showing that Turkish households continue to face affordability challenges due to rising urban housing costs, inadequate affordable rental supply, and regionally uneven price-to-income ratios (OECD, 2021; Özdemir Sarı & Aksoy Khurami, 2023).

**Table 3.** Perceived Housing Cost Burden in Turkey (%), 2009–2024

Year	A heavy burden (%)	A slight burden (%)	Not burden at all (%)
2009	47,82	47,28	4,9
2010	45,6	48,8	5,7
2011	41,2	50,1	8,7
2012	40,4	52,3	7,2
2013	39,1	54,1	6,7
2014	32,4	58,4	9,3
2015	35,9	53,8	10,3
2016	31,4	58,6	10
2017	22,7	61,1	16,2
2018	23,6	57,8	18,6
2019	25,4	58	16,7
2020	25,7	58,9	15,4
2021	33,78	55,14	11,08
2022	27,64	62,64	9,72
2023	26,24	66,72	7,04
2024	22,89	70,86	6,26

Note: Data are drawn from the Turkish Statistical Institute (TurkStat), Income and Living Conditions Survey (ILCS), annual microdata releases from 2009 to 2024. Percentages reflect individuals' self-reported perceptions of housing cost burden among households below 60% of the median income. Figures are compiled by the author directly from official tables, with no additional weighting or recalculation applied.

As shown in Table 4, the proportion of individuals reporting a heavy burden from installments or loans (excluding housing) declined from 33% in 2009 to just 13.3% in 2024. This downward trend suggests a relative easing of perceived debt pressure. However, this change must be interpreted cautiously, as it coincides with a rising share of the population who report having no installments or loans at all—up from 51.2% in 2009 to 56.7% in 2024.

While this may signal reduced indebtedness, it could also indicate limited access to formal credit, especially among low-income households, which is another dimension of financial fragility. This concern is supported by evidence showing that low-income households in Turkey often lack access to affordable and formal credit mechanisms, relying instead on informal borrowing or remaining entirely excluded from credit markets (Demirgüç-Kunt et al., 2022; Eroğlu, 2010).

In essence, a household without debt is not necessarily financially secure; it may simply be excluded from credit markets altogether. This concern is substantiated by empirical evidence showing that in Turkey, many low-income households remain financially excluded due to lack of collateral, insufficient financial literacy, and institutional barriers, rather than a voluntary avoidance of credit (Beck et al., 2008; Doğan et al., 2021). The increase in the population without any installment debt may reflect both financial caution and structural exclusion from financial services, highlighting a dual vulnerability: debt dependency on one side, and financial exclusion on the other.

**Table 4.** Perceived Burden of Non-Housing Installments or Loans in Turkey (%), 2009–2024

Year	A heavy burden (%)	A slight burden (%)	Not burden at all (%)	Haven't any installment/loan (%)
2009	33	15,01	0,81	51,24
2010	31,9	19,7	0,7	47,8
2011	28,7	21,7	0,5	49,1
2012	27,6	19,8	0,7	51,9
2013	30,1	22,7	0,8	46,4
2014	26,9	26,2	0,9	46,1
2015	27	27,5	1,6	43,9
2016	25,3	28,8	1,8	44,1
2017	19,3	36,3	2,4	42
2018	18,3	35,8	3,1	42,9
2019	25	34,1	2,1	38,8
2020	21,1	23,4	2,2	53,3
2021	29,59	25,56	1,73	43,12
2022	21,13	27,49	0,97	50,42
2023	16,76	28,23	1,5	53,51
2024	13,25	29,23	0,78	56,74

Note: Percentages reflect self-reported perceptions of non-housing installment or loan burdens among households below 60% of the median income in Turkey between 2009 and 2024, based on data from the Income and Living Conditions Survey conducted by the Turkish Statistical Institute (TurkStat). Author's own compilation.

Table 5 presents the evolution of households' ability to meet basic consumption and emergency needs in Turkey between 2009 and 2024. While substantial improvements are observed in the ability to afford one-week holidays, nutritious meals, and unexpected expenses over the period, a considerable portion of the population still remained unable to meet such costs, with 59 percent unable to cover unexpected expenses in 2024. The data reflect deep-rooted financial fragility, particularly among lower-income groups who remain unable to absorb minor financial shocks or secure basic well-being, a pattern corroborated by global evidence showing that low-income households frequently lack savings buffers and are forced to rely on informal support networks to manage unexpected expenses (Demirgüç-Kunt et al., 2022; Doğan et al., 2021). These patterns indicate that even in years of relative macroeconomic stability, household fragility to consumption insecurity

remains structurally high. This is consistent with findings showing that income inequality, inadequate social support, and volatile consumption dynamics persist in Turkey even during periods of economic growth, disproportionately affecting low-income households (Albayrak, 2020; Can et al., 2025). The inability to afford even modest expenses, such as a short holiday or emergency repair, is a hallmark of persistent household financial fragility, one that monetary poverty rates alone fail to capture, as multidimensional deprivation studies emphasize the importance of incorporating non-monetary indicators to reveal deeper, structural aspects of poverty and insecurity (Atkinson & Marlier, 2010; Roshani & Cihangir-Çamur, 2023).

**Table 5.** Inability to Afford Basic Consumption and Emergency Needs in Turkey (%), 2009–2024

Yaer	Capacity to afford paying for one week annual holiday away from home		Capacity to afford a meal with meat, chicken or fish every second day		Capacity to afford unexpected financial expenses	
	Can afford (%)	Cannot afford (%)	Can afford (%)	Cannot afford (%)	Can afford (%)	Cannot afford (%)
2009	0,67	99,33	15,49	84,51	13,93	86,07
2010	0,7	99,3	14,1	85,9	11,9	88,1
2011	0,8	99,2	13,6	86,4	8,6	91,4
2012	0,8	99,2	17	83	13,9	86,1
2013	1,5	98,5	17,8	82,2	17,2	82,8
2014	4,7	95,3	33,4	66,6	42,6	57,4
2015	5,2	94,8	29,1	70,9	33,5	66,5
2016	6,7	93,3	37,1	62,9	39,6	60,4
2017	8,4	91,6	38,6	61,4	37,9	62,1
2018	9,1	90,9	39,5	60,5	38,8	61,2
2019	11	89	38,2	61,8	40,8	59,2
2020	12,8	87,2	35,8	64,2	40,3	59,7
2021	11,26	88,74	30,05	69,95	39,56	60,44
2022	9,6	90,4	27,3	72,7	41	59
2023	13,52	86,48	32,51	67,49	41,92	58,08
2024	12,36	87,64	31,58	68,42	40,97	59,03

Note. This table reports the inability to afford basic consumption items (such as food, clothing, and utility bills) and emergency needs (such as unexpected expenses) among households below 60% of the median income in Turkey from 2009 to 2024. Data are based on the Income and Living Conditions Survey conducted by the Turkish Statistical Institute (TurkStat). Author’s own compilation.

Table 6 illustrates the share of households unable to afford adequate heating and furniture replacement between 2009 and 2024. While the ability to keep homes adequately warm improved from 43.4% in 2009 to 60.7% in 2024, over 39% of households still lacked this capacity. More critically, the proportion of those unable to replace worn-out furniture showed a notable decline from 96.2% in 2009 to 84.7% in 2024, yet it still remained very high. These persistent deficits in basic household maintenance indicate deep financial fragility, particularly among lower-income groups who lack both income buffers and the capacity to sustain decent living conditions, an association confirmed by studies on energy poverty and maintenance deprivation, which find that inability to afford adequate heating or household upkeep is a clear marker of structural financial fragility (Doğan et al., 2021b; Günay & Kayacan, 2023). The inability to sustain a minimally acceptable living standard, such as keeping homes warm or replacing worn furniture, is not a temporary hardship but a sign of chronic financial precarity embedded within household economies, as empirical studies in Turkey have shown that energy poverty and the inability to afford basic home-related expenditures are strongly associated with long-term income insufficiency and adverse health outcomes (Doğan, Madaleno & Taşkın, 2021; İpek & İpek, 2024).

**Table 6.** Inability to Maintain Adequate Housing Conditions in Turkey (%), 2009–2024

Year	Capacity to afford keeping home adequately warm		Capacity to afford replacing worn furniture	
	Can afford (%)	Cannot afford (%)	Can afford (%)	Cannot afford (%)
2009	43,41	56,59	3,82	96,18
2010	42,7	57,3	3,4	96,6
2011	42,1	57,9	3,6	96,4
2012	39,1	60,9	3,6	96,4
2013	38,6	61,4	4,6	95,4
2014	62,9	37,1	7,5	92,5
2015	53,5	46,5	7,7	92,3
2016	49,3	50,7	10,6	89,4
2017	51,9	48,1	10,7	89,3
2018	53,5	46,5	12,3	87,7
2019	55,3	44,7	14,3	85,7
2020	54,9	45,1	14,7	85,3
2021	53,32	46,68	12,02	87,98
2022	53,79	46,21	8,78	91,22
2023	56,76	43,24	11,95	88,05
2024	60,74	39,26	15,31	84,69

Note. This table reports the inability to afford basic consumption items (such as food, clothing, and utility bills) and emergency needs (such as unexpected expenses) among households below 60% of the median income in Turkey from 2009 to 2024. Data are based on the Income and Living Conditions Survey conducted by the Turkish Statistical Institute (TurkStat). Author's own compilation.

Table 7 illustrates a significant structural shift in housing tenure in Turkey between 2009 and 2024. The proportion of owner-occupied households declined steadily from 60.5% to 45.8%, while the share of tenants rose sharply from 22.1% to 36.7%. It indicates an increasing dependence on rental accommodation, possibly resulting from decreasing real incomes, increasing house prices, and credit access restrictions, a dynamic that is backed by empirical evidence that increased housing prices as well as constrained mortgage access in Turkey led considerable numbers of low- and middle-income householders to engage with rental markets that saw renters bearing disproportionately higher cost burdens in respect of housing (Bulut et al., 2023; Sarioglu-Erdogdu, 2014). The rise in non-owner household status captures an intensification of household financial fragility in that renters are generally more exposed to market uncertainty, risk of displacement, and absence of tenure-based long-term dwelling assurance, a dynamic that is backed by empirical evidence that rented-out householders in Turkey experience increased exposure to macroeconomic fluctuations as well as dwelling insecurity in terms of facing limited legal protection in terms of tenure status as well as higher cost burdens compared to owners (Bulut et al., 2023; Sarioglu-Erdogdu, 2014). The erosion of home ownership rates signals not only a shift in housing markets but also a weakening of household economic resilience and asset-based security, an association supported by research showing that declining homeownership, particularly among low- and middle-income households, undermines long-term wealth accumulation, increases financial fragility, and limits intergenerational economic security in countries like Turkey (Sarioglu-Erdogdu, 2014; Turk & Gurden, 2022).

**Table 7.** Housing Tenure Status of the Non-Institutional Population in Turkey (%), 2009–2024

Year	Non-institutional population (Thousand person)	Tenure status			
		Owner (%)	Tenant (%)	Lodging (%)	Other (%)
2009	17.123	60,53	22,11	0,06	17,3
2010	16.963	58,8	23,2	0,2	17,8
2011	16.569	58,4	23,9	0,3	17,4

2012	16.741	59,8	22,3	0,2	17,8
2013	16.706	59,3	22,8	0,4	17,4
2014	16.501	57,8	24,5	0,5	17,1
2015	16.706	57,2	25,8	0,3	16,7
2016	16.328	52,9	29,4	0,5	17,2
2017	15.864	52,1	28,9	0,3	18,7
2018	16.889	52,1	29,1	0,2	18,5
2019	17.207	51,2	30,3	0,1	18,3
2020	17.921	52,5	29,3	0,1	18,1
2021	17.636	49,35	32,28	0,26	18,12
2022	18.030	49,38	31,53	0,19	18,89
2023	17.873	48,1	34,7	0,2	17,1
2024	17.821	45,8	36,69	0,08	17,43

Note. This table shows the housing tenure status of the non-institutional population below 60% of the median income in Turkey between 2009 and 2024. Data are derived from the Income and Living Conditions Survey conducted by the Turkish Statistical Institute (TurkStat). Author's own compilation.

Table 8 presents a comprehensive view of residential and environmental deprivation among the non-institutional population in Turkey between 2009 and 2024. While gradual improvements are observed in indicators such as roof leakage and inadequate heating, the prevalence of infrastructural deficiencies, pollution exposure, and security concerns remains significant. In 2024, nearly half of the population still reported roof or dampness issues (48.1%), and over 47% experienced heating problems due to poor insulation. Alarmingly, more than 10% continued to report intense crime or vandalism in their area. These persistent deficits in housing quality and safety reflect entrenched financial fragility among households that are structurally unable to relocate, repair, or escape precarious living environments, a condition clearly linked to household income and consumption inequality, as shown by Albayrak's (2020) microeconomic analysis of Turkey. Residential deprivation is not just a symptom but a structural mechanism that reinforces financial fragility, locking households into a cycle of spatial exclusion, vulnerability, and long-term socioeconomic immobility, as observed in Turkish urban centers where inadequate housing conditions and persistent infrastructural deficits disproportionately affect low-income groups and perpetuate their economic marginalization (Adaman & Keyder, 2006; Buğra & Keyder, 2006).

**Table 8.** Residential and Environmental Deprivation Indicators in Turkey (%), 2009–2024

Year	Leaking roof, damp walls, floors or foundation, or rot in window frames of floor and etc.		Inability of heating the dwelling due to insulation		Rooms: too dark or not enough light		Noise from neighbours or from the street		Pollution, grime due to traffic/industry or other environmental problems		Crime violence or vandalism intensively in the area	
	Yes (%)	No (%)	Yes (%)	No (%)	Yes (%)	No (%)	Yes (%)	No (%)	Yes (%)	No (%)	Yes (%)	No (%)
2009	64,7	35,3	61,73	38,27	34,57	65,43	16,03	83,97	29,59	70,41	9,32	90,68
2010	66,1	33,9	61,4	38,6	34,7	65,3	14,9	85,1	28,3	71,7	10	90
2011	63,4	36,6	59,4	40,6	35,3	64,7	15,9	84,1	25,4	74,6	10,1	89,9
2012	64	36	65,9	34,1	32,6	67,4	13,9	86,1	26,2	73,8	7,6	92,4
2013	61,4	38,6	60,3	39,7	33,7	66,3	15,2	84,8	23,8	76,2	8,7	91,3
2014	58,4	41,6	58,1	41,9	33,4	66,6	15,3	84,7	29,9	70,1	10	90
2015	61	39	64,8	35,2	28,3	71,7	14,9	85,1	26,4	73,6	11,9	88,1
2016	60,3	39,7	63,9	36,1	30,3	69,7	13,1	86,9	26,6	73,4	11,4	88,6
2017	59,5	40,5	61,4	38,6	27	73	12,8	87,2	24,7	75,3	10,5	89,5
2018	58,2	41,8	61,9	38,1	26	74	14	86	25,4	74,6	9,7	90,3

2019	57,8	42,2	60,5	39,5	24,9	75,1	13,6	86,4	26,5	73,5	9,7	90,3
2020	54	46	55,9	44,1	22,2	77,8	12,5	87,5	22,1	77,9	8,3	91,7
2021	52,88	47,12	54,2	45,8	22,22	77,78	13,66	86,34	24,76	75,24	9,93	90,07
2022	51,11	48,89	52,17	47,83	21,55	78,45	13,45	86,55	23,01	76,99	11,11	88,89
2023	48,7	51,3	50,6	49,4	22,1	77,9	13,8	86,2	22,9	77,1	10,2	89,8
2024	48,1	51,9	47,79	52,21	20,33	79,67	14,22	85,78	26,04	73,96	10,92	89,08

Note: This table presents selected indicators of residential and environmental deprivation among households below 60% of the median income in Turkey between 2009 and 2024, based on data from the Income and Living Conditions Survey conducted by the Turkish Statistical Institute (TurkStat). Author's own compilation.

Table 9 reveals the persistent inability of low-income households in Turkey to acquire basic durable goods between 2009 and 2024. Although ownership of washing machines and fixed telephone lines improved significantly over time, nearly 20% of households still could not afford a computer in 2024. This pattern underscores the continued exclusion of certain groups from digital access and domestic utility infrastructure. The evidence points to a structural pattern of financial fragility in which families are asset-poor in spite of relative macroeconomic recovery, a dynamic captured in Albayrak's work of 2020 that finds income inequality and restricted consumption ability in Turkey systematically prevent asset building among poorer segments of society. The deprivation of basic durables sacrifices not just comfort but also productivity, connectivity, and resilience in the long term. Durable good deprivation is an insidious but ongoing pattern of financial fragility, one that stifles immediate consumption as well as prospective social and economic mobility, as is reported by Brunetti et al. (2016), which has found that illiquidity of assets in the household along with asset deprivation severely restrain shock resilience as well as impede mobility forward.

**Table 9.** Inability to Afford Basic Durable Goods Among Households Below the Median Income in Turkey (%), 2009–2024

Year	Not Having			Computer	Not Having		Washing machine	Not having	
	Fixed telephone line	Cannot afford (%)	Other reason (%)		Cannot afford (%)	Other reason (%)		Cannot afford (%)	Other reason (%)
2009	35,2	46,16	18,64	10,39	73,45	16,15	78,69	20,1	1,21
2010	27,5	45,9	26,6	13,3	71,8	14,8	80,3	18,8	0,9
2011	24,8	45,3	29,9	17	70,2	12,9	83,4	15,6	0,9
2012	18,7	44	37,3	16,3	67,9	15,9	84,7	14,1	1,2
2013	13,7	42,7	43,5	18,8	63,6	17,6	89,6	9,6	0,8
2014	10,8	32,1	57,1	19,8	59,4	20,7	91,5	7,5	1
2015	8,8	27,5	63,8	22,5	57,4	20,1	94,7	4,8	0,5
2016	7,4	17,6	75	23	54,9	22	95,6	3,9	0,5
2017	5,7	11	83,3	20,3	47,1	32,6	96,1	3,3	0,6
2018	4,3	8,4	87,3	18,6	45,4	36	96,1	3	0,9
2019	3,7	5,8	90,6	17,8	44,7	37,4	96,6	2,6	0,8
2020	3,5	4,6	91,9	16,6	44,9	38,5	97,1	2,2	0,8
2021	2,5	5,96	91,54	22,75	49,21	28,04	97,46	2,09	0,45
2022	1,98	2,75	95,27	19,82	44,35	35,83	97,78	1,84	0,38
2023	1,74	1,85	96,41	21,76	42,88	35,36	98,49	1,17	0,34
2024	1,24	1,15	97,6	19,71	36,66	43,62	97,88	1,75	0,37

Note: This table presents the inability to afford selected durable goods (e.g., fixed telephone, computer, washing machine, refrigerator, dishwasher, automobile) among households below %60 of the median income in Turkey between 2009 and 2024. Data are drawn from the Income and Living Conditions Survey conducted by the Turkish Statistical Institute (TurkStat). Author's own compilation.

Table 10 presents data on changes in low-income families' possession of durable goods from 2009 to 2024. The distribution of access to such basic items as refrigerators is almost universal, but there

are substantial differences in the possession of dishwashers and motor vehicles. In 2024, 65% of homes lacked access to a dishwasher, and 27% lacked access to an automobile, with more than half citing affordability as the main constraint. These patterns reflect entrenched financial fragility, as the inability to afford or accumulate durable assets restricts not only household functionality but also long-term mobility, productivity, and well-being, a mechanism also identified by Lusardi et al. (2011), who argue that households lacking asset buffers are more vulnerable to unexpected expenses and long-term income shocks. The absence of key durable goods due to affordability issues is not merely a reflection of restricted consumption; it constitutes a structural barrier to upward mobility, as low-income households lacking essential assets face compounded disadvantages in productivity, job access, and social participation (Brunetti et al., 2016; Cavalletti et al., 2020).

**Table 10.** Inability to Afford Key Durable Goods Among Low-Income Households in Turkey (%)

Year	Refrigerator	Not having		Dish washer	Not having		Automobile	Not having	
		Cannot afford (%)	Other reason (%)		Cannot afford (%)	Other reason (%)		Cannot afford (%)	Other reason (%)
2009	94,48	5,33	0,18	5,79	83,35	10,86	13,01	82,29	4,7
2010	95,3	4,6	0,1	7,9	80,3	11,8	12,9	81,7	5,4
2011	95,3	4,6	0,1	11,9	79,7	8,4	13,2	80,6	6,2
2012	95,8	4	0,2	13,1	77,8	9,1	14	78,1	7,9
2013	96,6	3,2	0,1	17,4	72,6	10	17,2	76,8	6
2014	96,9	2,8	0,2	23,1	66,1	10,8	19,7	73,3	7,1
2015	97,8	1,9	0,4	29,9	60,9	9,2	21,1	70,8	8,1
2016	97,9	2	0,2	34,2	54,8	11,1	22,1	69,6	8,4
2017	98,2	1,7	0,2	37,4	46,8	15,9	25,1	64,1	10,7
2018	98,2	1,3	0,5	42,9	41	16,1	26,5	60,6	12,9
2019	98,2	1,5	0,4	47,1	37,9	15,1	27,2	59,6	13,2
2020	98,5	1,3	0,3	49,5	35,8	14,7	24	58,4	17,5
2021	98,41	1,36	0,23	51,65	37,13	11,22	24,56	59,64	15,8
2022	98,87	1,05	0,08	57,94	31,46	10,6	25,05	59,32	15,63
2023	99,33	0,59	0,08	63,78	26,39	9,83	27,96	55,33	16,71
2024	99,11	0,79	0,1	65,04	23,57	11,39	27,34	53,05	19,61

Note: This table presents the inability to afford selected durable goods (e.g., fixed telephone, computer, washing machine, refrigerator, dishwasher, automobile) among households below 60% of the median income in Turkey between 2009 and 2024. Data are drawn from the Income and Living Conditions Survey conducted by the Turkish Statistical Institute (TurkStat). Author’s own compilation.

Table 11 highlights the evolution of access to essential housing infrastructure among households below the median income level between 2009 and 2024. While access to bathrooms, kitchens, and piped water systems improved significantly, reaching over 98% by 2024, hot water availability remained relatively lower, with 10.6% of households still lacking such systems. More concerning, access to indoor toilets improved from 66.8% in 2009 to only 94.3% in 2024, meaning more than 1 in 20 low-income households still live without this basic facility. These infrastructural gaps indicate underlying financial fragility, specifically in terms of housing sufficiency, as empirical analysis indicates that low-income households are substantially less likely to make dwelling improvements or move to better dwellings, thus reinforcing structural territorial disparities and institutionalized deprivation (Buğra & Keyder, 2006; Yıldırım et al., 2018). Inadequate housing infrastructural access is not only an indicator of deprivation, it is an observable reflection of household financial fragility and territorial disparity since chronic regional and socioeconomic disparities in infrastructural availability continue to perpetuate multi-dimensional poverty in Turkey (Adaman & Keyder, 2006; Karahasan & Bilgel, 2021).

**Table 11.** Access to Basic Housing Infrastructure Among Low-Income Households in Turkey (%)

Year	Bathroom		Toilet (indoor)		Kitchen		Piped water system		Hot water system	
	Having (%)	Not having (%)	Having (%)	Not having (%)	Having (%)	Not having (%)	Having (%)	Not having (%)	Having (%)	Not having (%)
2009	83,73	16,27	66,83	33,17	86,51	13,49	91,25	8,75	44,4	55,6
2010	83,5	16,5	67,1	32,9	86,7	13,3	91,3	8,7	42,8	57,2
2011	90,4	9,5	77,1	22,9	89,6	10,4	92,4	7,6	46,9	53,1
2012	90,9	9,1	75,7	24,3	89,8	10,2	93	7	50,5	49,5
2013	91,9	8	76,8	23,1	91,3	8,7	93,7	6,3	57,2	42,8
2014	93,1	6,9	79,9	20,1	93,6	6,4	95	5	61	39
2015	93,5	6,5	82,3	17,7	95,2	4,8	95,4	4,6	65,4	34,6
2016	95	5	85,6	14,4	97,2	2,8	96,8	3,2	72,1	27,9
2017	95,4	4,6	86,7	13,3	97,8	2,2	96,8	3,2	73	27
2018	95,8	4,2	87,1	12,9	97,5	2,5	97,2	2,8	77,1	22,9
2019	96,9	3,1	89,6	10,4	98,3	1,7	97,6	2,4	81,8	18,2
2020	97,1	2,9	90,6	9,4	98	2	98,2	1,8	83,5	16,5
2021	97,35	2,65	91,4	8,6	98,36	1,64	98,64	1,36	86,1	13,9
2022	97,51	2,49	92,97	7,03	98,64	1,36	99,01	0,99	87,97	12,03
2023	97,7	2,3	94,07	5,93	98,77	1,23	99,24	0,76	88,45	11,55
2024	98,29	1,71	94,29	5,71	98,6	1,4	99,36	0,64	89,4	10,6

Note: This table reports access to basic housing infrastructure (e.g., bathroom, indoor toilet, kitchen, piped water, hot water system) among households below 60% of the median income in Turkey from 2009 to 2024. Data are taken from the Income and Living Conditions Survey conducted by the Turkish Statistical Institute (TurkStat). Author's own compilation.

Collectively, these findings in this section illustrate that the household-level financial fragility in Turkey is far greater than income poverty. In spite of some measurable gain, most notably in access to infrastructure and perceived burden of housing cost, millions of households remain in multidimensional deprivation. Inability to buy basic goods, sustain proper living standards, or engage in social consumption is indicative of not just economic inadequacy but structural exclusion as well. Weak asset ownership, declining tenure security of housing, and limited tolerance to monetary shocks point to an intensified vulnerability that cannot be captured by income-based metrics alone. The compound constraint of these indicates that financial fragility is rooted in material, locational, and institutional aspects of day-to-day life, a tenet that is substantiated by considerations that point out that multidimensional poverty in Turkey is constructed in terms of inter-locking gaps in health, education, housing, and infrastructure that will need to be addressed in terms of integrated policy interventions that engage multiple policy communities (Acar, 2014; Buğa & Keyder, 2006).

### 4.3. Education Level and Financial Fragility

Educational attainment is widely recognized as a fundamental determinant of economic resilience and household well-being. In the context of financial fragility, higher levels of education are generally associated with increased income stability, better employment opportunities, and enhanced access to financial resources. This section examines the relationship between education level and poverty risk in Turkey between 2009 and 2024 to assess whether educational advancement continues to serve as a protective buffer against economic vulnerability.

Table 12 demonstrates a strong inverse relationship between educational attainment and poverty risk in Turkey from 2009 to 2024. Individuals without formal education consistently exhibited the highest poverty rates, ranging from over 33% in 2009 to 39.7% in 2022, while those with higher education maintained significantly lower levels, between 2% and 5% across the entire period. This

pattern affirms the role of education as a key buffer against household financial fragility. This is consistent with studies showing that higher educational attainment in Turkey is associated with lower poverty risk and better labor market outcomes, likely due to improved skill accumulation and employability (Lee & Lee, 2018; Saglam, 2021). However, the slight uptick in poverty rates across all education groups after 2020, especially among the better-educated, suggests that macroeconomic shocks such as inflation, job market instability, and declining real wages can erode even education-based resilience, as evidenced by recent microsimulation analyses showing that the cost-of-living crisis has disproportionately affected middle-income and educated households in Turkey (Albayrak, 2020; Can et al., 2025). While education substantially reduces the likelihood of falling below the poverty line, it does not render households immune to systemic vulnerabilities embedded in the broader economic environment.

**Table 12.** Poverty Rates by Educational Attainment Among Individuals Aged 15 and Over in Turkey (%)

Year	With no degree	Less than high school	High school or equivalent	Higher education
2009	39,8	21,5	8,5	1,8
2010	38,5	20,9	7,8	1,8
2011	37,3	20,0	8,9	2,0
2012	37,0	20,0	9,3	1,9
2013	35,9	20,0	9,1	2,7
2014	36,5	19,6	9,3	2,2
2015	35,4	20,3	10,2	2,7
2016	34,6	19,6	10,4	3,2
2017	33,4	18,5	9,6	3,3
2018	35	19,8	10,3	3,7
2019	34,2	20,4	11,9	4,2
2020	35,8	21,2	12,9	5,1
2021	34,4	20,89	12,61	4,54
2022	37,2	21,44	12,96	4,43
2023	37,79	21,64	12,4	4,82
2024	38,52	21,77	12,5	4,41

Note: This table is compiled by the author using TurkStat Poverty and Living Conditions Statistics, 2024 microdata. The reference period of income is the previous calendar year. Poverty rates are calculated based on 60% of the national median equivalised household disposable income. Educational attainment covers individuals aged 15 and over. Poverty rates reported here refer to the percentage of individuals, not households.

In total, education continues to be an important driving force behind household financial security in Turkey, with recurring evidence continuing to point to its poverty-mitigating role. Still, external shocks continue to test this protective role whose need is reflected in structural guarantees complementing individual capabilities, a point well supported through research which indicates that macroeconomic uncertainty and inequality in income can deplete the resilience that education in isolation has to offer in the absence of inclusive social protection arrangements in place (IMF, 2001; Buğra & Keyder, 2006). The following section builds on this analysis in investigating the ways in which household composition in terms of family size and dependency ratios interacts with financial fragility to further influence vulnerability in terms of demographic profiles.

#### 4.4. Household Composition and Vulnerability

The composition of the household determines the significance of exposure to poverty and economic vulnerability to a large degree. Alternations in household form, in terms of one-person households, single-parent households, or extended families, influence earning capacity along with the load of consumption. This section will look at poverty differences between household types in Turkey

from 2009 to 2024, using the 60% of median equivalised income benchmark to determine if some family structures are economically more vulnerable in nature.

Table 13 shows continued inequalities in risk of poverty between household types in Turkey from 2009 to 2024. Lone-parent families and couples with children experienced consistently above-national average poverty rates of 22.2% and 22.4%, respectively, in 2024. The numbers reflect the structural risk of caring versus limited diversification of income inherent in such homes, a finding supported by evidence suggesting that single-parent families and large extended-family homes in Turkey experience cumulative fiscal stresses as a consequence of caring obligations, restricted labor market engagement, and disproportionate access to welfare benefits (Buğra & Keyder, 2006; Tekgüç & Akbulut, 2021). Multi-generational extended-family homes further exhibited above-normal poverty rates (26.8% in 2024), an indicator of the fiscal burden associated with multi-generational or crowded living, a trend supported by evidence that these types of homes combine low per capita income with increased dependency ratios so that such homes are increasingly vulnerable to fiscal shocks as well as having limited access to social protection systems (Amara & Jemmali, 2018; Yıldırım et al., 2018). In contrast, childless couples exhibit considerably lower poverty rates, an indicator that child expenses play an important role in conditioning household-level vulnerability to fiscal weakness. The overall pattern is that household composition is an important predictor of financial fragility and supports the necessity of social policy addressing both income sufficiency as well as caring burdens within the home, to be in accord with findings that assert that poverty hazards intensify in caring homes with children, elderly dependents, or sole caregivers based on caring obligations as well as decreased exposure to the formal economy (Aisenbrey, 2009; Buğra & Keyder, 2006).

**Table 13.** Poverty Rates by Household Type in Turkey Based on 60% of Median Equivalised Income

Year	Total	One person household	One-family households	Couple without resident children	Couple with at least one resident child	Lone parents with at least one resident child	Extended-family households	Multi-person no-family households
2009	24,3	11,3	22,4	9	24,3	22,7	32,2	14,1
2010	23,8	10,1	21,6	7	23,6	21,6	32,8	12,3
2011	22,9	10,5	20,5	7,3	22,3	20	32,3	9,1
2012	22,7	13,4	20,4	7,2	22,5	18,1	31,8	17,1
2013	22,4	11,6	20,5	7,7	22,6	18	30,6	13,1
2014	21,8	11,8	20,1	7,8	22,2	17,8	28,9	11,2
2015	21,9	12,4	20,3	8	22,5	17,6	28,4	18,3
2016	21,2	12,4	19,6	6,7	21,8	17,2	28,1	15,1
2017	20,1	12,2	19	6,2	21,1	17,8	25,9	18,6
2018	21,2	12,8	20,2	7,2	22,6	17,1	26,9	13
2019	21,3	12,3	20,3	6,7	22,8	17,4	27,7	14,1
2020	21,9	14,2	21,2	10,5	23,1	19,3	27,4	15,4
2021	21,3	10,4	20,9	6,28	23,6	17,9	27,1	16,5
2022	21,6	10,9	21,0	7,4	23,7	17,8	28,9	15,4
2023	21,2	10,7	21,1	11,9	22,9	19,1	26,6	13,6
2024	21,1	11,7	20,9	11,8	22,4	22,2	26,8	15,2

Note: This table presents relative poverty rates by household type in Turkey from 2009 to 2024, based on 60% of the median equivalised household disposable income. The data are obtained from the Income and Living Conditions Survey conducted by the Turkish Statistical Institute (TurkStat). The reference period of income is the previous calendar year. Author's own compilation.

These findings underscore that household structure is not a neutral demographic characteristic but a major axis of financial fragility, especially in settings like Turkey, where limited institutional support for caregiving and affordable housing exacerbates the economic vulnerability of families with

dependents, as evidenced by research highlighting structural poverty among single-parent and multi-generational households (Acar, 2014; Buğra & Keyder, 2006). The following section builds on this discussion by examining how income inequality and a household's relative position within the broader income distribution further shape economic vulnerability and perceived deprivation.

#### 4.5. Income Inequality and Relative Positioning

Income inequality is a critical dimension of household financial fragility, as it shapes not only the distribution of resources but also the depth of deprivation experienced by different income groups. This section examines poverty rates, the number of poor individuals, and the poverty gap between 2009 and 2024 using equivalised household disposable income data. By focusing on these measures, we aim to reveal how relative positioning within the income distribution affects households' vulnerability to poverty, and whether macroeconomic dynamics have altered this relationship over time.

As seen in Table 14, although the poverty threshold (60% of median income) rose significantly, from TL 4,227 in 2009 to TL 81,742 in 2024, poverty rates remained remarkably stable, fluctuating around 21–24%. This persistence reflects the methodological nature of relative poverty, which anchors the threshold to the national median income rather than absolute purchasing power. At the same time, evidence suggests that income gains were distributed unevenly, with large segments of the population failing to rise above the poverty line, an observation echoed by Cuevas et al. (2022), who emphasize that fiscal policies in Turkey have produced limited redistributive effects, allowing structural inequality to persist despite macroeconomic expansion.

The poverty gap, which indicates how far the average poor household falls below the poverty line, narrowed only modestly, declining from 29.6% in 2009 to 24.0% in 2024. This slow contraction highlights that, while relative poverty rates did not worsen, the intensity of poverty remained high. These findings point to persistent structural disparities in income distribution and constrained upward mobility for poorer segments, as also emphasized by Kaya et al. (2020). In this sense, rather than inflation per se, it is the combination of weak redistribution, labor market segmentation, and limited social transfers that has maintained inequality and left households chronically vulnerable to macroeconomic shocks.

**Table 14.** Income-Based Poverty Measures in Turkey (%), 2009–2024

Year	Poverty threshold (TL)	Number of poors (Thousand person)	Poverty rate (%)	Poverty gap
2009	4.227	17.123	24,3	29,6
2010	4.457	16.963	23,8	28,7
2011	4.883	16.569	22,9	29,2
2012	5.418	16.741	22,7	29,2
2013	6.012	16.706	22,4	26,7
2014	6.665	16.501	21,8	27,2
2015	7.495	16.706	21,9	26,8
2016	8.539	16.328	21,2	26,5
2017	9.532	15.864	20,1	25,8
2018	10.670	16.888	21,2	25,4
2019	12.952	17.207	21,3	26,3
2020	14.873	17.921	21,9	26,9
2021	16.841	17.636	21,3	26,9
2022	21.296	18.030	21,6	25,6
2023	38.531	17.873	21,3	23,4
2024	81.742	17.821	21,2	24,0

Note: Turkish Statistical Institute (TurkStat), Income and Living Conditions Survey. The reference period for income is the previous calendar year. Poverty gap is calculated using the following formula:  $((\text{Poverty threshold} - \text{Median income of poor}) / \text{Poverty threshold}) \times 100$ . Poverty measures are based on 60% of the median equivalised income. This table is organized by the author.

Together with the continued existence of relative poverty, narrow closing of the poverty gap, and mobility stagnation between income groups, these findings indicate that Turkey's financial fragility is no transient ordeal but rather an entrenched condition, one that is borne out by Cuevas et al. (2022), who establish that fiscal policy has had limited redistributive effects, as well as by Yıldırım et al. (2018), who emphasize the state-dependent nature of poverty as an entrenched phenomenon. The findings thus emphasize the insufficiency of exclusively growth-induced or income-based solutions to poverty alleviation. The final section thus discusses the multidimensional nature of household vulnerability and formulates policy implications to meet the rooted vulnerabilities uncovered over the 2009–2024 period.

## **5. Results**

In this research, the financial fragility of Turkish households between 2009 and 2024 is analyzed in a multi-dimensional manner using income-based poverty indexes along with material deprivation, education level, and family composition indexes. The findings show that Turkish financial fragility is neither an ephemeral phenomenon based on cyclical effects but rather an entrenched structural reality based on socio-demographic imbalances as well as institutional inadequacies.

First of all, though one-year poverty rates followed cyclical patterns – reaching highs in times of macroeconomic turmoil like the 2009 global financial crisis, 2018 currency shock, and 2021 inflation wave – prolonged poverty was consistently high for female-headed and less-educated persons. This is an indicator of the weak ability of short-term income increases to dispel deeply entrenched vulnerabilities in line with earlier findings of reinforcing the gendered and structural nature of poverty in Turkey (Tekgüç & Akbulut, 2021; Yıldırım et al., 2018).

Secondly, material deprivation measures such as affordability of basic goods, cost burden of housing, and access to proper infrastructure improved marginally over the years, but exposed pervasive deprivation among large segments of the population. Despite a declining share of individuals perceiving housing costs as a heavy burden, nearly 60% of households still reported being unable to cover unexpected expenses in 2024. These patterns mirror global findings by Brunetti et al. (2016) and Lusardi et al. (2011), who argue that limited savings and asset buffers significantly undermine household resilience.

Third, education emerged as a key protective factor against poverty. Individuals with higher education consistently displayed poverty rates below 5%, compared to rates above 35% among those without formal schooling. However, the erosion of this educational buffer during high inflation years indicates that even middle-income and educated groups are not immune to macroeconomic shocks—an observation supported by recent analyses of the middle-class squeeze in Turkey (Albayrak, 2020; Can et al., 2025).

Fourth, household composition plays a decisive role in shaping vulnerability. Lone-parent families, extended households, and couples with children exhibited significantly higher poverty risks than nuclear families without dependents. This aligns with previous research indicating that care burdens, high dependency ratios, and reduced female labor force participation exacerbate fragility among specific household types (Buğra & Keyder, 2006; Aisenbrey, 2009). Moreover, declining homeownership, from over 60% in 2009 to 45.8% in 2024, reflects asset erosion and growing housing insecurity among low- and middle-income families, reinforcing long-term financial instability (Sarioglu-Erdogdu, 2014; Turk & Gurden, 2022).

Finally, the persisting stability in relative poverty rates in the wake of heavy increases in poverty levels shows that income rise has not been equitably shared. The slight reduction in the poverty gap shows minimal advancement in closing the depth of deprivation, as argued by Cuevas et al. (2022), whose analysis concluded that fiscal policy in Turkey has produced minimal redistributive effects. This entrenched inequality is instead perpetuating limited mobility for vulnerable households.

In total, the research shows that Turkish financial fragility is an interlocking, multi-layered phenomenon built of mutually reinforcing disadvantages in income, education, female status, household composition, and asset ownership. The results clearly support the argument that policies need to reach beyond short-term poverty relief to attack the roots of household vulnerability that are embedded in underlying structural issues..

## **6. Discussion & Conclusion**

The empirical findings of this paper illustrate that household financial fragility in Turkey is neither an ephemeral product of cyclical disruptions in the economy but a multi-faceted and chronic phenomenon that is driven by convergent structural disadvantages. While the traditional poverty rates for the period in question remained relatively constant, this surface stagnation conceals an underlying and chronic fragility experienced by certain demographic categories to a greater degree, specifically, female-headed families, those with limited educations, and those with dependents in the form of children or elderly relatives.

These results accord with earlier research pointing to the structural nature of vulnerability in Turkey. For instance, Yıldırım et al. (2018) and Tekgüç & Akbulut (2021) point to the double disadvantage of female-headed households with regard to access to the labor market and caregiving responsibilities. Similarly, Buğra & Keyder (2006) point to the differential impacts of household composition and informal work in perpetuating income insecurity. This research adds to this literature in that it shows that these vulnerabilities crystallize over time and are influenced by variables such as tenure status, education level, and access to basic goods and services.

Specifically, the findings indicate that tertiary education remains a protective influence against poverty, but its endurance has recently been challenged by inflationary pressures as well as by labor market fragmentation. This is in consonance with the observation of Albayrak (2020) and Can et al. (2025) that even relatively high-income and educated householders are becoming increasingly exposed in times of unstable macroeconomic climates. In addition to this, the decrease in home ownership as well as the increase in material deprivation in the wake of nominal increases in income are reminders of overall household vulnerability that income-based measures tend to fail to pick up.

Based on this research, household financial fragility in Turkey exists as an embedded structural situation that takes both income-based and monetary forms. Ranging from chronic poverty and credit inaccessibility to insecurity in ownership of dwellings and consumption poverty, the household is confronted with an interlocked set of difficulties beyond temporary differences in income. The fact that these vulnerabilities persisted over 15 years, despite efforts at policy interventions and experiences of economic expansion, reflects the insufficiency of current mechanisms of redistribution as well as the necessity of an in-depth policy response based on multiple dimensions.

Notably, the work demonstrates that vulnerability is systematically distributed within the population. The data show that women-headed households, those with limited education levels, having dependent children or elderly adults, or living in rental accommodations, are systematically exposed to financial vulnerability. Over the course of an individual's life cycle, these structural disadvantages are reproduced, which constrain mobility and perpetuate social inequality.

The results of this research flag several policy priorities that are critical to reducing household financial fragility in Turkey. First, there is an immediate need to broaden social protection programs that target specifically those household heads with caregiving responsibilities, most notably headed by women or single parents, and experience compounded financial fragility from caregiving loads and limited access to the labor market. Second, education policy urgently needs to be better coordinated with access to the labor market, with specific scrutiny of addressing skill mismatches and improving job quality for less-educated working-age adults. Third, the increased financial burden associated with housing requires stronger affordable housing policies, such as greater rental protection and targeted subsidized home programs for low-income families. Moreover, enhancing access to credit is important, as is building the use of formal savings instruments and establishing broad-based, comprehensive financial education programs targeting economically vulnerable segments of society. Also important is the introduction of better data systems to monitor the comprehensive nature of multidimensional poverty that incorporates material and social deprivation metrics beyond income data alone. Redressing these areas in total will need a shift in paradigm from narrow, narrowly focused on growth policies to one that is rights-based and inclusive in its recognition of the interdependence of income, education, housing, and caregiving in constructing household economic well-being.

#### **Research and Publication Ethics Statement**

Ethics committee approval was not required for this study. Therefore, no ethics approval has been obtained.

#### **Author Contributions**

The author contributed 100% to the preparation of this manuscript.

#### **Conflict of Interest Statement**

There are no conflicts of interest arising from this study.

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### EXTENDED SUMMARY

Financial fragility among households is an escalating concern in both developing and developed nations in terms of the failure of families to withstand income shocks, balance debt, and live in stable living standards. Fifteen years of Turkey's history have seen remarkable macroeconomic changes along with social changes that include global crisis impacts, pandemic disruptions, and domestic inflation pressures that disproportionately hurt vulnerable sections of the population. Even with some years of GDP growth and extensive social programs, numerous Turkish families remain under constant economic insecurity. The current analysis locates within this larger context the examination of the structural and multi-faceted nature of Turkey's household financial fragility between the years 2009 and 2024.

The primary aim of the study is to examine the evolution, determinants, and persistence of household-level financial fragility over a fifteen-year period using nationally representative data. It focuses on the intersection of income, poverty, education, and housing conditions to assess how structural inequalities shape economic vulnerability. The research addresses three key questions: (1) How has financial fragility among Turkish households changed between 2009 and 2024? (2) What household characteristics—such as gender, education level, or housing status—are associated with increased fragility? (3) To what extent have public policies and macroeconomic trends mitigated or exacerbated this fragility?

The empirical analysis draws on the Turkish Statistical Institute's (TurkStat) Income and Living Conditions Survey (SILC), a rich dataset that provides annual microdata on household income, consumption, education, housing, and subjective well-being. The study utilizes both descriptive statistics and regression techniques to map the long-term trends and identify factors associated with fragility. A multidimensional index of financial fragility is constructed based on key indicators: relative poverty (using equivalised disposable income), housing tenure (ownership vs. rental), educational attainment of household head, subjective deprivation (e.g., ability to afford heating, protein-rich meals, emergency expenses), and household debt burden. Subgroup analyses by gender, family structure, and urban-rural residence are also included.

The findings indicate that relative poverty has remained structurally persistent over the study period, fluctuating within a narrow range of 21–23%. Although macroeconomic growth during certain intervals led to slight improvements in average income levels, the poverty gap remained largely unchanged. This suggests that income gains were unevenly distributed, failing to reach the lower strata of the income distribution. The Gini coefficient also shows limited variation, reflecting entrenched income inequality. These patterns reveal that growth has not translated into equitable improvements in household welfare and that poverty reduction strategies have had limited redistributive effects.

Educational attainment is shown to play a crucial role in reducing financial fragility. Households headed by individuals with tertiary education experience significantly lower levels of poverty and subjective deprivation. In contrast, those with only primary or lower secondary education are much more likely to report an inability to cover basic needs or cope with unexpected expenses. The analysis supports the notion that education enhances labor market outcomes, income stability, and access to better housing and credit, thus serving as a key determinant of household resilience.

Housing status is an important aspect of financial fragility. Home ownership is declining in a linear fashion overall, with sharper drops in ownership among younger householders and those living in core cities. Concurrently, the proportion of renters is growing with elevated rental-income ratios and decreasing tenure protection. Tenants are additionally vulnerable to overcrowding as well as to cost burdening with respect to housing, all of which sharpen their risk of deprivation in other dimensions. This trend reflects both structural barriers to homeownership and the increasing commodification of housing in urban areas.

Another key outcome regards the increasing debt burden of middle- and low-income families. As access to credit has widened, families use debt to fund provision for basic consumption, contributing to over-indebtedness. Debt servicing as a proportion of income has grown over the years with it becoming increasingly challenging for families to save or weather economic shocks. Over-indebtedness is strongest in those families that are already living in income poverty or with insecure housing tenure, suggesting an interaction effect along multiple dimensions of fragility.

The data further exhibit a pattern of gendered vulnerability. Households headed by women are systematically more in poverty, less educated, and reporting higher subjective deprivation. They are less likely to be property owners and are more dependent on informal or insecure work arrangements. These differences mirror overall structural disadvantage in access to social protection as well as in the labor market. The burden of caregiving work, single parenthood, and limited access to finance resources further perpetuate the cycle of fragility among female-headed households.

Together, the data point to the deeply rooted and multi-faceted nature of Turkish financial fragility. The existence of endemic poverty, increasing disparities in education, exclusion from the housing market, and growing debt loads all indicate that fragility is an entrenched rather than transient or transitional state for numerous families. The macroeconomic signals of improving performance do not register the lived realities of fiscal insecurity. The results bolster a skeptical perspective of policies rooted in income or driven by growth that frequently neglect the origin of family vulnerability.

The analysis highlights the necessity of an integrated rights-based policy approach to tackling household financial vulnerability. Targeted interventions in education particularly among disadvantaged youth and women can break the intergenerational traps of poverty. Second, improved access to secure and affordable shelter in the form of social rental programs and reforms in urban planning can alleviate vulnerabilities in the housing sector. Third, consumer credit market regulation as well as debt relief interventions need to be strengthened to avoid over-indebtedness. Lastly, social protection programs need to be restructured so that the interlinkages of income, care, education, and shelter are framed as interdependent pillars of household security.

In summary, the current research is based on firm evidence that Turkish banking sector vulnerability is a chronic, lasting pattern that is driven by convergent economic, educational, and housing disadvantages. The multi-dimensional perspective demonstrates that macroeconomic development is not enough to create household resilience or alleviate poverty in an enduring manner. Rather, it requires a policy shift to comprehensive, inclusive, and coordinated public policy aimed at making sure that no household is left behind in the quest for economic development.