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Household Savings and Financial Market Dynamics in India: An ARDL Approach[1]

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ABSTRACT

This study investigates the long-run and short-run determinants of household savings in India using the Autoregressive Distributed Lag (ARDL) bounds testing methodology. The analysis spans the period 1987–2022, employing annual data on real interest rate, per capita income, stock market volatility, volatility in gold prices and terms of trade. The results show a significant long-run relationship among the variables, signifying that household saving behaviour is moulded by macroeconomic fundamentals, investment preferences, and risk perceptions.

KEYWORDS: Household savings, ARDL, Bounds test, Real per capita income.
JEL classification: E44, D14

1. INTRODUCTION

Savings are an important part of the macroeconomic framework in both developed and emerging nations. Saving is the portion of disposable income that is not spent on final consumption of goods and services. It represents the difference between disposable income and final consumption expenditure. The household saving rate is the share of household net disposable income that is not consumed. (OECD). For national saving**,** the OECD sums the saving of households, businesses, and government sectors. Economically, savings serve two important tasks. First, they contribute to long-term capital formation, which provides critical cash for investment and economic growth. Second, they contribute to financial market stability by providing liquidity and acting as a buffer against income swings and economic shocks Schmidt-Hebbel, Servén, and Solimano (1996). This dual role is particularly important in emerging nations, as households tend to rely on precautionary savings—holding back part of their current income to self-insure due to underdeveloped formal financial systems and incomplete public social insurance Maggio et al. (2020)

The relationship between savings and economic growth in India has been widely studied, revealing a multifaceted connection moulded by various determinants. Empirical research, such as that by Sahoo et al. (2001), has demonstrated the existence of a long-run relationship between the two, indicating that increased savings can contribute to economic growth over time. Conversely, studies like Sinha and Sinha (2008) have identified unidirectional causality running from economic growth to savings, suggesting that as the economy expands, households are more likely to increase their savings. These opposing results underscore the possibly bidirectional nature of the savings-growth association in India, wherein each variable may affect the other depending on prevailing economic conditions. The savings-growth nexus in India is dynamic and reciprocal: while higher savings can enable capital formation and drive growth, economic progress can, in turn, stimulate increased saving behaviour

In the context of India—a country showing a high marginal propensity to save Bhattarai et al (2021) and a deep cultural affinity for gold—understanding the behaviour and determinants of household savings becomes critically important. As the largest contributor to gross domestic savings, Indian households influence the availability of investible funds in the economy, impacting both public and private sector investment. Household savings historically constituted over 60 per cent of gross domestic savings[2]. However, recent trends show a gradual decline in household savings as a share of GDP[3], raising apprehensions about the future investment-led growth trajectories

[1] Views belong solely to the author and not to the institutions to which they belong.
[2] https://www.mospi.gov.in/publication/national-accounts-statistics-2025
[3] Reserve Bank of India. (2024). *Financial Stability Report, June 2024* (para. 2.1). Government of India.

(RBI, 2024). This shift requires a closer examination of the forces that shape household saving behaviour, especially in the context of financial market developments and macroeconomic uncertainty.

The Indian context offers a unique and insightful backdrop for studying household saving behaviour, owing to the coexistence of both formal and informal saving channels. Despite the noteworthy advancement in financial inclusion—particularly through initiatives such as the Pradhan Mantri Jan Dhan Yojana (PMJDY)—a substantial share of household savings continues to be held outside the formal banking sector[4] (RBI, 2022). These characteristics highlight the need to incorporate both formal financial indicators and alternative assets—such as gold prices—into any general analysis of household savings in India.

Against the above, the study investigates the dynamic relationship between gross household savings which includes both physical and financial savings and five key macro-economic variables which were chosen based on their theoretical and empirical relevance in explaining saving behaviour in economies characterized by both formal and informal financial sectors. This paper analyses data spanning from 1987 to 2022, a period that includes several key economic revolutions in India, including the 1991 economic liberalization, the propagation of financial instruments post-2000, the global financial crisis of 2008, and the more recent economic disruptions caused by the COVID-19 pandemic. These episodes are significant because they introduced both policy-driven and exogenous shocks to household financial behaviour, making the chosen period ideal for assessing the resilience and responsiveness of household savings to economic variables. An ARDL approach is adopted to understand the short and long run determinants of household saving in India and a significant long run relationship is found between household saving and the regressors indicating that household saving behaviour is shaped by macroeconomic fundamentals, investment preferences, and risk perceptions.

The findings of this study aim to contribute to the broader literature on household financial behaviour in emerging economies capturing uncertainty represented by gold and stock market prices.

The rest of the paper is organised as follows. The next section covers stylised facts followed by a review of literature on theory and empirical findings of household savings. Section 4 discusses data and methodology; Section 5 covers the empirical results and section 6 concludes the study.

2. HOUSEHOLD SAVINGS IN INDIA: STYLISED FACTS

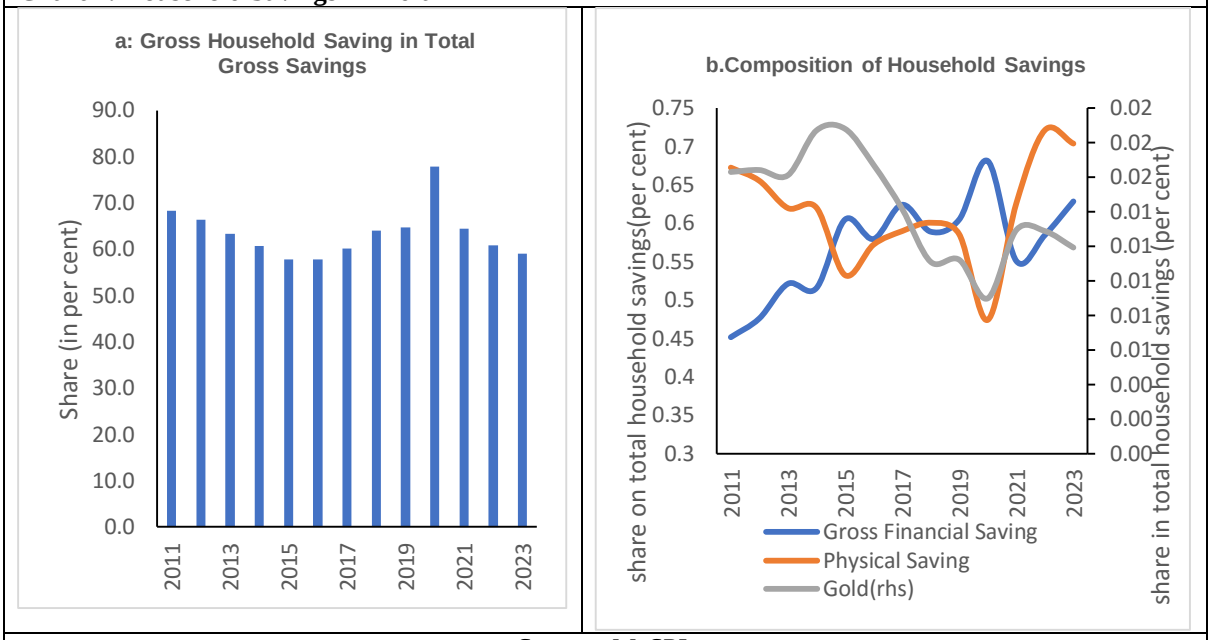
Saving is a critical macroeconomic indicator, helping as a source of funding for productive sectors within the economy. In the Indian context, the household sector accounts for over two-thirds of total gross savings (Chart 1a). Household savings rate, expressed as the ratio of household savings to GDP, stood at 18.6 per cent in 2022-23, down from 19.1 per cent in 2019-20. Within household savings, the National Statistical Office (NSO) splits data into three broad categories: savings in financial assets, physical assets (mainly real estate), and gold and silver ornaments. Households encounter a wide and increasing range of options when determining how to apportion their savings among instruments that vary in terms of liquidity and risk. Traditionally, Indian households have favoured physical assets for saving, but there has been a gradual transition towards financial assets over time. These financial assets include currency, bank deposits, debt instruments, mutual funds, insurance, pension schemes, and small savings (Sahoo et al, 2021). Notably, a compositional shift is apparent within financial assets: the share of bank deposits has been steadily declining, whereas holdings in insurance and mutual fund products have been on the rise, demonstrating a growing interest in more varied financial instruments (Prakash et al. 2020).

The composition of household savings has been evolving in India. Physical assets have dominated household savings, though their share has gradually declined in the recent years, with a turnaround after covid as returns on real estate surged[5]. This suggests a shift in household preferences as financial markets deepen. Financial assets have shown a steady rise, possibly due to improved financial literacy, access to banking, and availability of investment options. Gold savings**,** while a relatively minor component, have remained stable, suggesting social and precautionary motives rather than an alteration in trend (Chart 1b).

[4] Reserve Bank of India (RBI). (2022). Report on Currency and Finance 2021-22: Revive and Reconstruct. Mumbai: Reserve Bank of India. Retrieved from https://rbi.org.in

[5] CRISIL. (2024, May 21). *Quickonomics: Trends in household savings and debt after the pandemic*. CRISIL. Retrieved from https://www.crisil.com/content/crisilcom/en/home/our-analysis/views-and-commentaries/2024/05/trends-in-household-savings-and-debt-after-the-pandemic.html

Chart 1: Household Savings in India



Source: MoSPI,

Post pandemic there has been a shift in the composition of overall savings of the household sector. While the share of financial savings in total savings has declined, the share of physical savings has risen. This could have been because of rising financial liabilities of the households, which nearly doubled between 2019-2020 and 2022-23.

3. LITERATURE REVIEW

3.1 Theoretical Background

The factors influencing household savings have been widely studied across various economic theories, reflecting the complex nature of saving behavior. Understanding these theoretical frameworks is vital to contextualize the empirical analysis of household savings, particularly in developing economies where the interplay between formal financial markets and traditional saving mechanisms like gold is prominent (Loyaza et al, 2000).

One of the introductory theories in the study of household saving is the Life-Cycle Hypothesis (LCH), initially framed by Modigliani and Brumberg (1954). According to this hypothesis, individuals plan their consumption and savings behaviour over their lifetime to smooth consumption. During their working years, individuals accrue savings, anticipating that these funds will sustain consumption during retirement when income typically falls. The LCH assumes perfect capital markets and rational expectations, allowing households to borrow and save optimally over time. This framework elucidates long-term saving patterns but often oversees short-term precautionary motives and market imperfections that are particularly striking in developing countries. Supplementing the LCH, Friedman's Permanent Income Hypothesis (PIH) (1957) offers another critical perspective. The PIH postulates that individuals base their consumption and saving decisions not on current income but on their permanent income—an expected average income over time. Transitory fluctuations in income do not pointedly alter consumption patterns, leading households to save or borrow to maintain steady consumption. This theory also assumes access to perfect capital markets, allowing consumers to smooth consumption in response to income variability.

While the LCH and PIH offer strong frameworks for understanding saving behaviour in developed economies with well-functioning financial markets, their assumptions may fail to hold in many developing countries. Market imperfections, limited access to formal financial services, and inadequate social safety nets create an environment where households face higher income uncertainty and limited borrowing opportunities. In such contexts, precautionary savings become a dominant motive. Carroll (1997) emphasizes that households accumulate savings as a buffer against income volatility and economic shocks. This behaviour is particularly relevant in emerging economies where informal employment and income instability are common.

Gold acts as both a store of value and a form of informal insurance against inflation and currency fluctuations. Financial market development is also very important. The volatility of stock markets and the availability of financial instruments impact household risk-taking and portfolio allocation. Rising stock markets can enhance household wealth and confidence, encouraging consumption and reducing saving, whereas market volatility may spur precautionary saving (Guiso, Sapienza, & Zingales, 2005). Thus, financial market indicators, such as stock index levels and volatility, become imperative in household savings models.

Several macroeconomic factors drive household savings. Real income is a key determinant, as higher income generally means more capacity to save (Loayza, Schmidt-Hebbel, & Servén, 2000). However, how much savings respond to income changes depends on demographics and institutional factors. For instance, a larger working-age population tends to increase saving rates, while an aging population can decrease them as retirees use their assets (Kim and Lee, 2007).

Public policy also plays a role; increased public saving might lead households to reduce their own saving due to the Ricardian Equivalence Hypothesis, potentially resulting in no overall change in national saving. Real interest rates influence saving by impacting the returns on savings and borrowing costs (Loayza, Schmidt-Hebbel, & Servén, 2000). Additionally, external terms of trade can affect household saving, with positive shocks increasing current account surpluses through higher household saving (Otto, 2003). Lastly, macroeconomic uncertainty, like inflation and financial instability, often encourages precautionary savings (Dynan, 1993), whereas stable conditions can reduce the need for disproportionate saving and foster investment.

To conclude, demographics, policy frameworks, financial development, cultural preferences, and macroeconomic conditions all influence household saving behaviour A comprehensive approach could possibly capture the complex and interconnected factors influencing saving in countries like India.

3.2 Empirical Evidence

Empirical studies on household savings reveal a complex interplay of income, financial markets, cultural preferences, and macroeconomic uncertainty as discussed in the previous sub-section.

Income remains a primary driver; higher income levels and favorable demographics, such as lower dependency ratios, generally boost saving rates (Loayza, Schmidt-Hebbel, & Servén, 2000). This aligns with established economic models but also highlights the influence of institutional and demographic contexts. Gold holds a unique position as both a cultural and investment asset. It often acts as a "safe haven" during financial crises, moving inversely to stock markets and currencies, a crucial role in volatile markets (Baur and McDermott, 2010).

Financial markets influence saving in subtle ways. Stock market volatility can intensify precautionary saving (Dynan, 1993), while rising stock prices may boost perceived wealth and reduce saving needs (Guiso, Sapienza, and Zingales, 2005). However, this "wealth effect" can be moderated by financial market development and household behavior (Kim and Lee, 2007).

In India, research is evolving. Studies look at how income growth and financial deepening's impact on savings (Bhanumurthy and Kothari, 2013). Jain and Kumar (2019) observe that stock market booms reduce saving, while volatility increases precautionary saving. Using Indian data from 1960-2016, Ghosh and Nath (2021) find real income growth and bank access boost household saving; inflation and dependency lessen it. Short-run interest rate hikes raise savings, but long-run effects reverse. Post-2008 crisis, household savings dropped—portending that policies should focus on income, inflation, and banking. Mukherjee and Mukherjee (2018) confirm that gold price surges prompt middle-income households to increase gold holdings, affecting financial asset allocation. Finally, macroeconomic volatility in India elevates precautionary saving, possibly impacting economic growth (Dasgupta and Sengupta, 2016).

A bibliometric analysis of 16 papers on household saving in India was conducted, covering the period 2014 to 2024**.** This analysis was performed using Publish or Perish software**,** which extracted the relevant research from Google Scholar. The findings from this analysis are presented in Annex Chart 1**.** Essentially, it's a systematic review of a decade of research on Indian household savings, with the data gathered and analysed to provide a comprehensive overview. The chart shows the fluctuations in citations received from 2014 to 2024. There are notable peaks in 2017, 2019, and 2022, where citations reached roughly 1000 and 2000 respectively, intermingled with years of very little counts.

Despite these insights, studies often analyse income, gold, and financial market factors separately, missing the complex interrelations shaping Indian household savings. This paper aims to address this gap by applying an autoregressive distributed lag (ARDL) bounds testing approach to jointly examine real per capita income, stock market volatility, volatility in gold prices, real interest rate and terms of trade levels in explaining household savings in India, capturing both short-term fluctuations and long-run dynamics which is the subject of the next two sections.

4. DATA AND METHODOLOGY

4.1 Data

The dataset consists of annual data from 1987 to 2022. The dependent variable is total gross household savings as a percentage of GDP (HS) sourced from Ministry of Statistics and Programme Implementation (MoSPI). The study includes a list of 11 independent variables before arriving at the final parsimonious model based on the correlation matrix. The variables used are given in Table 1.

Table 1: Variable Definition

Variable	Definition	Source
Household Saving (HS)	Ratio of gross household saving to GDP	MoSPI
Age dependency ratio (AGED)	Ratio of dependent people younger than 15 or older than 65 to working age population	World Bank
Financial development (BC)	Domestic credit to the private sector as a per cent of GDP	World Bank
Inflation rate (CPI)	Annual growth in consumer price index	International Monetary Fund
Gold Prices (Gold _Prices)	International gold prices in US dollars	World Bank
Per capita income (constant prices) PCY_R	per capita income in USD	FRED (Federal Reserve Economic Data)
STOCK_INDEX (ST)	BSE Sensex data, annual average	BSE India
Public Saving (PS)	Public Saving as a per cent of GDP (ratio)	MoSPI
Real interest rate (RIR)	Interest rate adjusted for inflation	World Bank
Net barter terms of trade(TOT)	"Net barter terms of trade index is calculated as the percentage ratio of the export unit value indexes to the import unit value indexes, measured relative to the base year 2015" (World Bank)	World Bank
Volatility of Gold Prices (VGOLD)	Calculated using standard deviation of gold prices	World Bank and authors' calculations
Volatility of real per capita income (VRPCY)	Calculated using standard deviation of real per capita income	MoSPI and authors's calculations
Volatility of stock index (VSTOCK)	Calculated using standard deviation of the stock index	BSE India and authors' calculations

4.2 Model Specification and Methodology

This study employs the Autoregressive Distributed Lag (ARDL) bounds testing approach to cointegration, as developed by Pesaran, Shin, and Smith (2001). The ARDL procedure offers important advantages for macroeconomic analysis in emerging markets. First, it is supportive of variables integrated of different orders—specifically I(0) and I(1)—without necessitating pre-testing for unit roots in an unyielding framework. This plasticity is especially of advantage where macroeconomic time series data often display mixed integration characteristics due to structural breaks, policy shifts, and data limitations (Nkoro & Uko, 2016). Second, ARDL models are well-matched for small sample sizes as is the case here, which is critical given the limited availability of consistent long-term macroeconomic data in many developing economies. The bounds testing approach not only allows for robust testing of long-run relationships but also enables the estimation of short-run dynamics through the associated error correction model (ECM). Before applying ARDL, the correlation matrix as in Table 2, enables us to arrive at the parsimonious model.

Table 2: Correlation Matrix

Variables	**HS**	**AGED**	**BC**	**CPI**	**GOLD_PRICES**	**PCY_R**	**PS**	**RIR**	**STOCK_INDEX**	**TOT**	**VGOLD**	**VRPCY**	**VSTOCK**
HS	1.0	-0.5	0.5	-0.2	0.3	0.3	-0.4	-0.4	0.2	-0.2	-0.4	0.1	0.4
AGED	-0.5	1.0	-0.9	0.4	-0.9	-1.0	0.4	0.5	-0.9	0.0	0.1	-0.3	0.2
BC	0.5	-0.9	1.0	-0.2	0.9	0.9	-0.3	-0.6	0.8	-0.2	0.1	0.2	0.0
CPI	-0.2	0.4	-0.2	1.0	-0.1	-0.4	0.2	-0.3	-0.3	0.1	0.0	0.1	0.3
GOLD_PRICES	0.3	-0.9	0.9	-0.1	1.0	0.9	-0.4	-0.6	0.9	-0.1	0.0	0.4	-0.1
PCY_R	0.3	-1.0	0.9	-0.4	0.9	1.0	-0.4	-0.5	1.0	0.0	-0.1	0.3	-0.3
PS	-0.4	0.4	-0.3	0.2	-0.4	-0.4	1.0	0.0	-0.4	-0.3	0.2	-0.4	0.2
RIR	-0.4	0.5	-0.6	-0.3	-0.6	-0.5	0.0	1.0	-0.5	0.1	0.2	-0.4	-0.2
STOCK_INDEX	0.2	-0.9	0.8	-0.3	0.9	1.0	-0.4	-0.5	1.0	0.0	0.0	0.5	-0.4
TOT	-0.2	0.0	-0.2	0.1	-0.1	0.0	-0.3	0.1	0.0	1.0	-0.3	0.1	-0.4
VGOLD	-0.4	0.1	0.1	0.0	0.0	-0.1	0.2	0.2	0.0	-0.3	1.0	-0.1	0.1
VRPCY	0.1	-0.3	0.2	0.1	0.4	0.3	-0.4	-0.4	0.5	0.1	-0.1	1.0	-0.2
VSTOCK	0.4	0.2	0.0	0.3	-0.1	-0.3	0.2	-0.2	-0.4	-0.4	0.1	-0.2	1.0

Source: Authors' calculations.

Based on Table 2, variables like PCY_R (per capita income at constant prices), GOLD_PRICES**,** VSTOCK (stock market volatility), and VGOLD (gold price volatility) can be selected. These display small correlations with household savings[6] and have theoretical backing from literature on income effects, precautionary motives, and wealth substitution behaviour. However, we also use some other variables from Table I like real interest rate (RIR) and terms of trade (TOT) to arrive at the final model, while gold prices are excluded in the final model. Based on the Table 2, the long-term household saving function for India is given below:

HS= f(PCYR, VGOLD,VSTOCK,RIR,TOT)……..(1)

where, all variables were verified for stationarity using the Augmented Dickey-Fuller (ADF) test. Results established a mix of I(0) and I(1) processes, qualifying for the ARDL approach. We take log form of real per capita income (PCY_R). We include two dummies for liberalisation and banking sector issues for years 1991 and 1995, respectively. The summary statistics of the key variables of the above functional form is given in Table 3.

Table 3: Summary Statistics

Statistic	HS	PCY_R	RIR	TOT	VGOLD	VSTOCK
Mean	0.20	1035.9	5.5	93.2	0.04	0.12
Median	0.20	866.9	5.7	92.8	0.04	0.12
Maximum	0.25	2086.1	9.1	113.9	0.08	0.23
Minimum	0.13	451.0	-2.0	77.7	0.02	0.03
Observations	38	38	38	38	38	38

Source: Authors' estimates.

Thus, we employ the ARDL model; the empirical results are discussed in the next section.

5: EMPIRICAL RESULTS

We examine the long-term relationships among the variables using the bounds testing approach. The F-test results, which are significant at the 1% level (see Table 4), provide strong signal of a stable long-run association. This suggests that the selected variables meaningfully explain household savings in the long run.

Table 4: Bounds Test for Cointegration

F =11.14, Sample size 36						
	10 per cent		**5 per cent**		**1 per cent**	
Sample Size	**I(0)**	**I(1)**	**I(0)**	**I(1)**	**I(0)**	**I(1)**
36	1.8	2.9	2.14	3.34	2.82	4.21

Source: Authors' estimates.

After testing for the long-run relationship, we estimate the long-run relationship to find the long run coefficients. Table 5 gives the long-run values from the ARDL model.

Table 5: Long run estimates

Regressors	Coefficient	Std. Error	t-Statistic	Prob.
LOG(PCY_R)*	0.03	0.0	4.0	0.0
VSTOCK*	0.43	0.1	4.2	0.0

[6] As per Ghosh and Nath "There are variations in the definition of saving rates among previous studies. For example, Krishnamurty et al. (1987) use, like the current study,GNP share of saving; Loayza and Shankar (2000), and Athukorala and Sen (2004) use disposable income share; while Agrawal et al. (2010) use GDP share of various saving measures as the dependent variables. However, these different saving rates are highly correlated".

RIR*	0.01	0.0	2.9	0.0
VGOLD**	-0.82	0.3	-2.5	0.0
TOT	0.0	0.0	-0.7	0.5
*,**at 1 per cent and 5 per cent significance level, respectively with the ARDL (1,1,2,2,2 0) model. # Estimates are heteroscedasticity consistent and free from serial correlation				

Source: Authors' estimates.

For a graphic analysis of the presentation of the selected model, we plot the actual and fitted values of household saving rate in Chart 2 and the model appears to do a judiciously decent work of apprehending movements in the household saving rate during the sample period.

Chart 2: Actual, fitted values of household saving and estimated residuals

Source: Authors' estimates

The long-run equation shows that household savings (HS) increase with per capita income (PCY_R), stock market volatility (VSTOCK), and real interest rate (RIR), indicating positive linkages. Gold price volatility (VGOLD) and terms of trade (TOT) negatively affect HS, though TOT's effect is statistically insignificant, suggesting a feeble relationship. However, the inclusion of TOT in the above model reduces the error correction term. Thus, uncertainty incorporated in the model through volatility of gold prices and stock prices does have a significant impact, though with converse signs. Gold price volatility may lessen household savings as uncertainty discourages investment in gold, a traditional savings asset (Baur & Lucey, 2010). A positive sign between stock market volatility and household savings may specify precautionary behaviour—households save more amid market uncertainty to cushion against future risks (Carroll, 1997).

The error correction term(ECT) is -0.38 and highly significant ($p < 0.01$), indicating that 38.0 per cent of disequilibrium is corrected annually. This reflects a robust reversion to long-run equilibrium. Short-run coefficients are generally less significant, except for the dummy variables possibly indicating a structural shift. Most importantly, with a rise in per capita income in the short run, household saving falls, in a buffer-stock (precautionary) savings model, a temporary income rise often leads to a unduly large rise in consumption—hence a short-run drop in saving—until the "buffer" is rebuilt. (Annex Table 1). As a test of robustness, on dropping TOT as an explanatory variable, we find the long run relationship remains intact, though the ECT slightly increases to -0.32, though remaining significant indicating the model is robust.

6. DISCUSSION

This study's findings confirm the hypothesis that household savings are influenced by both economic fundamentals and behavioural responses to market conditions. This paper demonstrates the effectiveness of the ARDL approach in analysing the long-run and short-run determinants of household savings in India. The results confirm a stable long-run relationship between household savings and key macroeconomic variables, including gold prices, income, and financial market indicators. These findings emphasise the importance of designing holistic financial and economic policies that account for cultural saving preferences and market dynamics. By integrating macroeconomic variables that reflect both market-driven and culturally embedded saving preferences,

this research seeks to offer policy-relevant insights. The implications are far-reaching: understanding how financial volatility and gold prices influence household savings can help policymakers design more effective savings incentives, stabilise consumption cycles, and enhance financial deepening.

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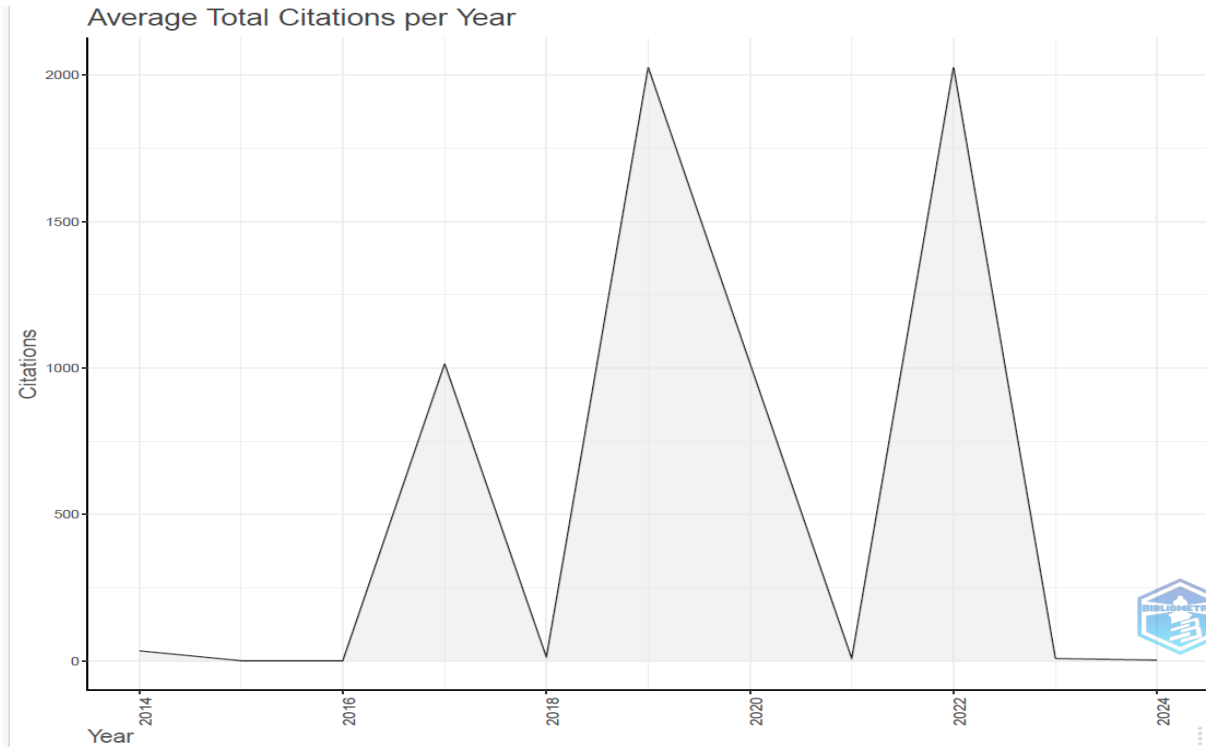
Annex Chart 1



Source: Authors' estimates (using R)

Annex Table 1

ARDL Error Correction Regression				
Dependent Variable: D(HS)				
Selected Model: ARDL(1, 1, 2, 2, 2, 0)				
Case 1: No Constant and No Trend				
Date: 06/12/25 Time: 16:34				
Sample: 1985 2022				
Included observations: 36				
ECM Regression				
Case 1: No Constant and No Trend				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DLOG(PCY_R)	-0.311032	0.042769	-7.272342	0.0000
D(VSTOCK)	0.256344	0.043415	5.904506	0.0000
D(VSTOCK(-1))	-0.080707	0.041229	-1.957542	0.0637
D(RIR)	0.000717	0.000643	1.115097	0.2774
D(RIR(-1))	-0.002297	0.000752	-3.055668	0.0060
D(VGOLD)	-0.404759	0.150931	-2.681757	0.0140
D(VGOLD(-1))	0.355793	0.148722	2.392335	0.0262
D91	-0.053738	0.009303	-5.776110	0.0000
D95	-0.031892	0.009387	-3.397600	0.0027
CointEq(-1)*	-0.381844	0.041972	-9.097531	0.0000
R-squared	0.831351	Mean dependent var		0.001389
Adjusted R-squared	0.772973	S.D. dependent var		0.017753
S.E. of regression	0.008459	Akaike info criterion		-6.477111
Sum squared resid	0.001860	Schwarz criterion		-6.037245
Log likelihood	126.5880	Hannan-Quinn criter.		-6.323586
Durbin-Watson stat	2.020049			

Source: Authors' estimates.