**Review of Economics and Econometrics Studies**
Vol. 3, No. 2, 2024, pp. 91-102 • ISSN: 2583-3111

*URL: http://www.blackroseindia.com/rees*

# An In-Depth Exploration of How Household Savings and Income Dynamics are Connected: A Comprehensive Literature Review

**Netravathi, P. and Gopalappa, D.V.**
*Research Scholar and Professor of Economics, Department of Studies in Economics and Cooperation, University of Mysore, Mysuru. E-mail: Netravathishobha@gmail.com and gopalappa666@rediffmail.com*

***To Cite this Article***

Netravathi, P. & Gopalappa, D.V. (2024). An In-Depth Exploration of How Household Savings and Income Dynamics are Connected: A Comprehensive Literature Review. *Review of Economics and Econometrics Studies,* 1: 2, pp. 91-102.

**Abstract:** This paper thoroughly reviews existing literature on the interplay between income and savings functions in developing countries(DCs). It critically assesses prominent theories that underlie the relationship between income and savings, emphasizing the conceptual nuances of savings. The paper also examines empirical studies conducted in the field of savings-income dynamics, highlighting their findings and discussing the economic implications that arise. The significance of this paper lies in acknowledging the vital role of domestic savings, with a particular focus on household savings, in driving economic transformation. The well-explored determinants of such savings underscore the importance of comprehending the theoretical foundations of savings-income relationships. This understanding serves as a foundation for future studies in India and other developing nations, seeking to replicate successful economic transformations. A nuanced comprehension of the saving-income relationship contributes to the formulating of effective policies for mobilizing savings, thereby enhancing local capacity for capital formation. Furthermore, gaining insights into the savings-income phenomenon, especially at the rural household level in India, provides monetary authorities with valuable information on the functioning of the rural economy. This knowledge can inform strategies for improvements in the sector, facilitating its integration into the mainstream financial system.

## Introduction

Many researchers and schools of thought have delved into the significance of savings as a driving force behind economic growth and countries development. They often examine savings alongside consumption, considering the decision to save as the counterpart to the decision to spend. In simpler terms, savings can be understood as the money

**Received :** 14 September 2024 • **Revised :** 10 October 2024 • **Accepted :** 19 October 2024 • **Published :** 30 December 2024

one doesn't spend from their income (Goyal, 2007; Family Economics & Financial Education, 2010; Fisher, 2010; Mbuthia, 2011).

The concept of household savings holds significant importance in economics, representing the money retained by households after accounting for taxes and consumption expenditures. This pool of savings serves as a fundamental source of domestic loanable funds, alongside savings from businesses and the public sector. A country's domestic savings, comprising public and private savings, relies on the surplus money from both the government and private entities, including households.

In the context of capital markets, funds from household savings flow into the business sector through investments in corporate debts or stocks. This financial influx is crucial for companies to finance capital investments, thereby enhancing their productive capacity. The household savings, invested in various assets like deposits, stocks, and bonds, generate returns such as interest income, dividends, or capital gains.

The intricate interplay of supply and demand unfolds in the financial market as households invest in corporate bonds, directing money toward the business sector. This financial support enables companies to undertake essential investments in new equipment and capital assets, fostering economic growth. Increased production capacity, driven by capital asset investments, allows the economy to produce more goods and services without triggering inflation.

Furthermore, household savings contribute to wealth accumulation, a key determinant of consumption. As households save, they build a financial cushion that proves invaluable during challenging times, allowing them to prioritize future well-being over immediate consumption. This concept of saving can be traced back to primitive agricultural economies, where setting aside the best crop as seed for the next planting season ensured sustained agriculture.

## Motives for Savings

While the socio-economic benefits derived from savings are diverse, the motivations or reasons behind individuals' decisions to save are equally varied. This diversity in savings motives aligns with research in psychology, which has identified a saving motives. These range from more concrete and immediate goals, such as consumption, to intermediate goals like security needs, retirement planning, debt avoidance, and precautionary savings. The spectrum extends to more abstract aspirations, including self-esteem and self-gratification (Canova, Rattazi & Webley, 2005).

Keynes (1936), one of the early economists to delve into the analysis of savings motives, outlined eight motivations that have stood the test of time:

1. Precaution: In unforeseen circumstances a portion of their income will be earmarked.
2. Foresight: Creating Human resources, social ceremonies like marriages, etc.
3. Calculation: Earning some extra income for their hard-earned money like interest.
4. Improvement: Enhancement of the status in the society
5. Independence: To achieve self-sufficiency in terms of needs in the future.
6. Enterprise: To invest resources in the business to make profits.
7. Pride: To say that I am independent and not dependent on anybody
8. Avarice or miserliness: The people who do not want to spend money

Expanding on Keynes' (1936) original eight savings motives, Browning and Lusardi (1996) introduced a 9th motive known as the down payment motive. This pertains to accumulating savings for purchasing houses, cars, and other durable goods. Katona (1975) contributed six additional general motives for saving, including preparing for emergencies, having reserve funds for necessities, saving for retirement or old age, providing for children's needs, saving to buy a house or durable goods, and saving for holidays.

Fisher and Anong (2012) argue that these saving motives are not necessarily mutually exclusive but rather complementary. According to Browning and Lusardi (1996), there exists significant heterogeneity among saving motives, implying that a single motive is unlikely to suffice for all individuals in a population at any given time, or even for the same person over an extended period.

Within these various saving motives, the precautionary savings motive is considered particularly significant. Empirical studies, including research by Hurst et al. (2008), suggest that precautionary savings may constitute up to 50 percent of aggregate wealth for individuals under the age of fifty. For example, Mastrogiacomo and Alessie (2012) conducted a study involving 2448 respondents in the Netherlands, which reveals that precaution plays an important role in motivating the people to save more.

## Empirical Review of the Factors Influencing Savings Behaviour

While Alamgir (1976) suggests that available evidence doesn't allow for generalizations regarding precise functional forms and variables in savings habits, it is acknowledged that savings behaviors are notably influenced by various socio-economic, demographic, cultural, and institutional factors. Therefore, it becomes crucial to comprehend and

assess the significance of these determinants, especially in the context of studies related to farm households in developing countries.

## Gender of the Household Head

Several studies highlight significant differences in economic well-being and savings behaviours between men and women (Fisher, 2010; Jain-Chandra, 2015). In most of the developing countries women are not earning or owning more resources compared to men and therefore, the rate of saving among women is lower when compared to the men (IMF, 2015). In South Saharan African rural areas the women's ability to save or create assets depends on the kind of family setup and also the community norms. All these are very much favourable to men rather than women hence the men overtake women in terms of accumulating assets and saving (Kameri-Mbote, 2005 and Chowa, 2006).

Fisher (2010) in his study he has expressed that there is a substantial knowledge in relation to the differences in income, risk aversion, investment behavior, and wealth levels between the men and women but there is little knowledge with respect to the variation and also the factors, which are responsible for that. It is observed that the women will be saving more conservatively as they need more resources after their retirement as their life expectancy is more than the men (Gottschalck, 2008; U.S. Bureau of the Census, 2007 and Bajtelsmit & Van Derhei, 1997). Sung (1997 and Pearce 1989) in their study they have revealed that the women have lower participation rates in retirement plans compared to men and therefore they experience poverty at the far end of their life.

Despite these challenges regarding women's financial aspects and the crucial role of savings in household financial security, relatively few studies have explored gender differences in household-level saving (Fisher, 2010). However, Chowa (2006) has reported that women exhibit better saving behaviour than men when provided with the opportunity to save.

## Age Structure of the Household

The life cycle hypothesis delineates a distinct correlation between an individual's consumption plans, income, and expectations about future income throughout their life stages—from childhood, through the working years, into retirement, and eventual decease (Spio & Groenewald, 1996). This suggests that household savings tend to peak during the working years of the household head, and when income diminishes in retirement, households utilize their accumulated savings to sustain their standard

of living (Saint-Pierre, 1996; Wilson, 2000). Therefore, savings play a crucial role in reallocating resources over time, facilitating the smoothing of consumption across the household's life span, particularly during the retirement age of the household head. There are good number of empirical studies, which have discovered some kind of relationship between the age structure of the head of the household and the income savings linkage.

Irving Fisher (1956) has tried for the first time independently to examine the life cycle hypothesis. Fisher used a cross-sectional analysis of savings for about 2000 households by categorizing the data. The age of the head of the HH by socio-economic group as a proxy for income stability, with current income and liquid asset holdings as independent variables. The study revealed the bahavior of lower savings in case of the young people and a peak in marginal propensities to save in higher age working groups and a depletion of assets during retirement years. Even the authors like Spio & Groenewald (1996 also revealed the same.

Kelley and Williamson (1968) had taken up a more comprehensive analysis of the hypothesis and their findings indicated that the income per family member decreases up to the age ranging between 40-49 and stabilizes or experiences only marginal increase then onwards.

## Household Size

Household size plays a significant role in shaping purchasing and spending bahaviors, particularly in the context of savings-income relationships (Jerome & Perreault, 1991). All else being equal, it is commonly assumed that households with larger family sizes tend to allocate more of their budget towards goods and services compared to smaller households. This tendency is associated with larger budget shares dedicated to housing and education, often leaving fewer resources available for savings, leading to cyclical poverty, particularly pronounced in rural areas where essential needs consume a substantial portion of the household budget (Arthur, 2005). In a life cycle perspective, children may contribute to the household's productive resources by providing additional labour and potentially more assets (Chernichovsky, 1978). Alamgir (1976) has mentioned that household size is generally expected to reflect the expenditure pull on household income, with the usual expectation being a negative correlation with savings.

Grinstein-Weiss, Zhan & Sherraden (2004) in their study they have said that the marital status of the head of the HH is another influential factor in savings-income dynamics. Studies suggest that being married significantly reduces the risk of poverty

and is associated with a higher likelihood of achieving affluence over the life course compared to being unmarried. Unmarried individuals, in contrast, tend to save smaller portions of their income and accumulate fewer assets as they spend lavishly before the marriage.

Waite (1995) in his study he has revealed that marriage introduces may characteristics that can enhance wealth accumulation in many families. Grinstein-Weiss et al. (2004) outline six economic perspectives underlying wealth accumulation in married households: First, the total product of a married couple is often larger than the sum of the outputs of each produced separately. Second, marriage involves long-term commitment and a division of labour that allows each spouse to specialize, increasing household productivity and efficiency. Third, economies of scale in consumption suggest that a married couple may achieve the same utility with less combined expenditure than the sum of their individual consumption if living apart. Fourth, the expectations of married life may encourage investments in assets such as houses and savings for children's education. Fifth, there is consistent evidence that married men tend to earn more than unmarried men. Sixth, marriage expands one's social network and support system, leading to additional opportunities and benefits that contribute to savings. Lastly, married individuals may access benefits like health and life insurance through their spouse's employment, easing the financial pressure on the household and enhancing the ability to save.

## Dependency Ratio

Age-dependency ratios serve as a metric for gauging the age distribution within a population, specifically measuring the number of individuals reliant on others for daily support—comprising youths and the elderly. This ratio considers the percentage of the depended population like the population below 15 and the population above the age of 65 are the dependents. When the percentage of the depended increase the savings rate gets declined and vice versa, because this proportion of population consume more but save less and moreover the family has to sacrifice their savings for these categories of the population (OECD, 2007).

The life cycle model posits that a substantial burden of dependents, such as children or the elderly, leads to relatively low aggregate savings rates. Conversely, a larger proportion of the aged people consisting of 65 years and above in case their percentage of population is more the family savings rate will be higher as they want to save more and spend less. This model can be expanded to incorporate the hypothesis that household dependents create a burden on savings-income relationships. In this scenario, households allocate resources for the consumption of dependents, particularly

in the early stages of household formation, and subsequently save at a higher rate during the empty-nest stage to prepare for retirement (Wilson, 2000).

Gedela (2012) in his study he has emphasized that the savings rate directly depends on the kind of population, which exists. If the dependents under aged and over aged are more than the savings rate is less as they have to spend more on consumption. However, Amaz, et al. (2009) has highlighted that in the developing countries of the world the children are considered as assets therefore, spending on them itself they consider as an asset/saving and also they engage themselves in household and also the farm activities. Therefore, the impact of the dependency ratio on household savings can be more meaningfully examined by explicitly considering the earning status of household members rather than imposing a restriction based solely on their age.

## Educational Level of the Head of the Household

By Analyzing longitudinal data from the 1983 and 1986 Surveys of Consumer Finances in the United States, Avery and Kennickell (1991) have revealed that the Educational level of the head of the HH plays a significant role in the level of earnings, consumption and savings. Because as the formal education increases the income level will be more and automatically, they plan to save more for future needs . The same outcome has been found by Solmon (1975) in his study with comparative education levels of the head of the HHs and he observed that both the marginal and average propensities to save tend to increase with the number of years of education.

There are instances where the highly educated (technically degree) they have the habit of spending more and saving less when compared to the people with low or less education like high school education/diploma (Rha, Montalto, and Hanna 2006). This finding has been very much opposite to many studies. However, the overall consensus is that an increased level of education for the head of the HH plays a substantial role in the growth of economic output and increased incomes of households, both in developed and developing countries (Johnson, 1990).

## Income Levels of the HHs

Alamgir (1976) in his study he has found that in the rural areas the savings rate depends on the aggregate household income generated by the members of the family involved in various economic activities like agricultural wages, over a specified reference period, typically an accounting year. These economic activities encompass agricultural wages from crops, livestock, and related enterprises; non-agricultural wages, remittances, and receipts from property rentals, both in cash and in kind.

As mentioned above the income is widely recognized as a crucial determinant of savings not only in the rural areas but also at the national level. Numerous empirical studies, employing diverse methodologies across different regions, consistently establish a positive relationship between income and savings not only in the developing world but also in the most developed countries of the world. Both Keynesian and non-Keynesian savings functions theorize a positive correlation between savings and income, and this postulation has been substantiated through various empirical investigations. For instance, many studies conducted in African countries between 1980 to 2006 confirmed that an increase in income has a positive effect on household savings. Fisher and Anong (2012) in their study involving 3,822 non-retired households in the United States, all corroborated the notion that an increase in income positively influences household savings. Kudaisi's (2013) study of West, similarly, Guma and Bonga-Bonga (2016), in their empirical work on corporate and household savings in South Africa have revealed the same. However, the extended information is that it is the proportion of their income, which is being saved. If we take the proportion of their savings the savings rate in the developed world it is less compared to the developed world. But when we look at the absolute figure either in terms of rupees or in dollars definitely the rural households in the developed world have more savings compared to the developing world. The same argument holds good even in case of the educated, illiterate, normal or formal education and technical education. The savings depends on their level of income. Since the highly educated people get high income in terms of salary, their savings will be more when compared to the other category of the HHs in the rural areas.

## Constraints to Promote Savings Habits Among Rural HHs.

Savings, particularly for rural households in developing countries like India, holds immense importance, yet translating this concept into practice faces various challenges. These challenges, intricately linked and often complex, can be broadly categorized into demand-side and supply-side constraints.

On the demand side, where the focus is on the bahavior and decisions of rural households, evidence suggests that planning and implementing savings pose difficulties. Many rural households grapple with forming a consistent savings habit, often diverting limited income to non-essential items like alcohol and tobacco. Bauer, an expert in this field, identifies two main reasons behind this challenge.

Firstly, there's the psychological phenomenon of loss aversion, where individuals need more incentive to give up something they possess than they'd pay for it. To address this, Bauer suggests labelling savings accounts for specific purposes like emergencies or

retirement, making the gains more tangible. This visual reminder can help overcome the reluctance to part with existing possessions.

Secondly, since these challenges are rooted in bahavioral patterns, forming new savings habits requires displacing old non-saving habits. Bauer proposes automating savings deductions whenever income is earned, mimicking the automatic process of habit formation and facilitating the development of a consistent savings habit.

On the supply side, institutional support and policy-driven factors play a pivotal role in shaping savings bahavior. Policy makers, especially overseeing formal financial institutions, have a crucial role in this landscape. Adams emphasizes the need for policies that encourage financial institutions to cater to the specific needs of rural households. Restrictive policies that limit access to savings facilities based on assumptions about the poverty of rural households hinder savings mobilization.

Issues like high inflation rates and governance transparency also impact stability in earnings, affecting savings mobilization in developing countries like India. Adams stresses the importance of easy access to savings facilities for rural households, considering their sensitivity to transaction costs involved in making small deposits.

Microfinance institutions face challenges, with many lacking authorization to accept deposits, limiting opportunities for rural individuals to save. Additionally, the presence of cheap outside funding discourages these institutions from promoting savings habits, a phenomenon known as Shaw's Law.

Despite these challenges, both rural and urban households, especially those in farming communities, can achieve financial stability by relying on their savings. Amid economic uncertainties and external assistance dependencies, savings emerge as a crucial resource for weathering unexpected financial challenges and fostering independence.

## Conclusion

A critical examination of the theories discussed earlier, along with their associated savings and income functions, reveals their limitations when applied to developing countries. These theories were primarily developed with industrial economies in mind, and their applicability to developing nations is questioned for several reasons (Ashraf et al., 2003). Deaton (1990), cited in Ashraf et al. (2003), identified four main reasons for the limited usefulness of these theories in developing nations.

First, households in developing countries tend to be larger and more likely to contain multiple generations, reducing the need for retirement savings or intergenerational transfers. Second, income in many developing economies is characterized by uncertainty

and cyclical patterns, making it challenging to estimate longer-term income flows. Third, individuals in these economies are often credit-constrained, making borrowing in early years difficult. Finally, these factors collectively suggest that savings in developing economies often serves as a crucial buffer between income and consumption, with individuals saving small amounts at frequent intervals to smooth income rather than accumulating savings for retirement.

Conversely, studies focused on developing economies have typically relied on aggregate national-level data, neglecting micro-level data that could offer valuable insights for policy considerations. Macro-level studies often assume a representative household agent, ignoring the heterogeneity among households and failing to address the real-world diversity of savings-income relationships, especially among rural households.

In contrast, micro-data analysis, particularly in developing countries like India, is more desirable. Micro-data analysis allows for the estimation of important economic variables, highlighting differences among various household income groups in savings-income relationships. Utilizing micro-data provides more accurate information and valuable insights, leading to substantially greater precision in estimating relevant parameters compared to estimates based on aggregate data. This precision is essential as some explanatory variables at the micro level may not readily aggregate.

Moreover, in developing countries, savings often take an informal form, making it difficult to apprehend through national accounts. This is in contrast to developed countries where savings predominantly consist of property investments, monetary and financial investments (Abdelkhalek et al., 2009). The focus on micro-data analysis provides a more nuanced understanding of savings bahaviors, especially in the context of developing economies.

## *References*

Adams, D. W. (2002). Filling the Deposit Gap in Microfinance. Notes for the WOCCU Conference on Best Practices in Savings Mobilization, Nov. 5-6, 2002. Washington D.C.

Anthony, W. P., & Nosari, E. J. (1973). A test of the permanent income hypothesis. *Journal of Business Research,* 4(1).

Aryeetey, E., & Gockel, F. (1991). Mobilizing domestic resources for capital formation in India (African Economic Research Consortium, Research Paper No. 3). Nairobi, Kenya.

Carroll, C.D. (2001). Precautionary saving and the marginal propensity to consume out of permanent income, NBER Working Paper series, 8233.

Choudhury, U. D. R. (2005). Income, consumption and saving in urban and rural India", *Review of Income and Wealth,* 14(1), 37-56.

Choudhury, U. D. R. (2005). Income, consumption and saving in urban and rural India", *Review of Income and Wealth,* 14(1), 37-56.

Fisher, M. R. (1956). Exploration in saving bahavior. Oxford University Institute of Statistics Bulletin, 18, 201-277.

Fisher, M. R. (1956). Exploration in saving bahavior. Oxford University Institute of Statistics Bulletin, 18, 201-277.

Freund, I. (1966). The propensity to consume and save in Argentina. Buenos Aires, Argentina: Documento de Trabajo, Centro de Investigaciones Economicas, Instituto Torcuato Di Tella.

Goyal, A. (2007). Data and definitions: underestimating savings and investment in an open economy. Indira Gandhi Institute of Development Research, Mumbai.

Goyal, A. (2007). Data and definitions: underestimating savings and investment in an open economy. Indira Gandhi Institute of Development Research, Mumbai.

Hoogeveen, J., Tesliuc, E., Vakis, R. & Dercon, S. (n.d.). A guide to the analysis of risk, vulnerability and vulnerable groups. Web Source: Retrieved August 29, 2017, from siteresources.worldbank.org/INTSRM/Publications/20316319/RVA.pdf.

Hoogeveen, J., Tesliuc, E., Vakis, R. & Dercon, S. (n.d.). A guide to the analysis of risk, vulnerability and vulnerable groups. Web Source: Retrieved August 29, 2017, from siteresources.worldbank.org/INTSRM/Publications/20316319/RVA.pdf.

Kahneman, D., Knetsch, J., & Thaler, R. (1991). Anomalies: the endowment effect, loss aversion and status quo bias. "The Journal of Economic Perspectives," 5(1), 193-206.

Kahneman, D., Knetsch, J., & Thaler, R. (1991). Anomalies: the endowment effect, loss aversion and status quo bias. "The Journal of Economic Perspectives," 5(1), 193-206.

Kelman, A. C., & Williamson, J. G. (1968). Household saving behavior in the developing economies: The Indonesian case. "Economic Development and Cultural Change," 16(3), 385-403.

Leff, N. H. (1969). Dependency rates and savings rates. "The American Economic Review," 59(5), 886-896.

Leff, N. H. (1969). Dependency rates and savings rates. "The American Economic Review," 59(5), 886-896.

Leff, N. H. (1969). Dependency rates and savings rates. "The American Economic Review," 59(5), 886-896.

Miracle, M. P., Miracle, D. S., & Cohen, L. (1980). Informal savings mobilization in Africa. "Economic Development and Cultural Change," 28(4), 701–724.

Modigliani, F. (1986). Life-cycle, individual thrift, and the wealth of nations. "American Economic Review," 76, 297-313.

Musgrove, P. (1954). Determination and Distribution of Permanent Household Income in Urban South America. "Ph.D. Massachusetts Inst. Tech".

Obwona, M. B., & Ssentamu, J. D. (1996). Nature and determinants of domestic savings in Uganda. "Economic Policy Research Centre, Research Series No. 2".

Romer, D. (2006). "Advanced Macroeconomics". New York, NY: McGraw-Hill.

Saint-Pierre, Y. (1996). Do earnings rise until retirement? "Perspectives on Labour and Income, 8(2), 32-36.

Shaw, E. S. (1973). "Financial Deepening in Economic Development". New York, NY: Oxford University Press.

Singh, S. K. (1972). Determinants of aggregate savings. "Economic Working Paper No. 127, World Bank".

U.S. Bureau of the Census. (2007). "Current Population Reports". Washington, D. C: U.S. Bureau of the Census.

Vogel, R. C. (1984). Savings mobilisation: The forgotten half of rural finance. In D. Adams (Ed.), "Undermining Rural Development with Cheap Credit". Boulder, Co: Westview Press.

Zeller, M., & Sharma, M. (2000). Many borrow, more save and all insure: Implications for food and micro-finance policy. "Food Policy, 25(2), 143–167.