

# Government Welfare Grant and Low-Income Households Investment Behaviour in South Africa



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**Abstract** This study delves into the socio-economic factors influencing the investment patterns of low-income households, often termed non-Ricardian households (NRHs), in South Africa. These NRHs predominantly rely on governmental welfare benefits for their daily needs. The main research question is to empirically investigate if government welfare grant crowd-out low-income household investment in South Africa. Utilizing data from the first five waves of the National Income Dynamics Study (NIDS), we explored the socio-economic traits of NRHs. Analysis methods included pooled ordinary least squares (OLS), fixed and random effects, IV-GMM approaches to address the problem with endogeneity. A significant finding was that household grants appeared to deter investments, suggesting that welfare benefits might inadvertently suppress the investment initiatives of these households. This underscores the adage that merely giving fish might weaken a household's drive to learn fishing. Moreover, socio-economic variables explained roughly 48% of the investment tendencies of these South African households. The persistent nature of poverty establishes a detrimental cycle wherein one issue amplifies another, potentially leading to issues like reverse causality, which could question the validity of pooled OLS estimates in this study. Nevertheless, the study's results and implications are vital for policymakers. To address this, the government should prioritize fostering entrepreneurship, particularly among historically marginalized communities, to combat inequality. This approach has the potential to generate lasting wealth, reducing the number of families that fall into the low-income category in future generations.

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## 1 Introduction

The importance of households' investment in boosting economic growth cannot be over-emphasised in the literature (Ahuja & Pandit, 2020; Gizaw, 2020; Rahman & Ferdaus, 2021; Chinwoke & Victor, 2022; Akay & Oskonbaeva, 2022). Investment plays a vital role in developed and developing countries economic development (Gizaw, 2020; Rahman & Ferdaus, 2021; Chinwoke & Victor, 2022). The need for domestic private investment provided by the household to boost a sustainable economy is well documented in the literature (Bakari & Sofien, 2019; Baral et al., 2019; Rahman & Ferdaus, 2021; Kayhan, 2022). Household investment and savings are big push to break the vicious circle of poverty. Despite the numerous benefits of investment as a way out of poverty, several low-income South Africa is still trapped inside the vicious circle of poverty. The vicious circle of poverty is the precariousness of household conditions where low savings precede earning low, which leads to low investment, generating low productivity and making poverty self-perpetuated (De Vos et al., 2020). However, a historical undertone exists in South Africa's poverty trap deeply rooted in the apartheid era, as Zwane et al. (2016) revealed. A regime that stripped the historically black people of their economic rights and productive engagement in factors of production which created generational poverty for some and generational wealth for others. This antecedence creates inequality and contributes significantly to South Africa as one of the most unequal societies in the world.

De Vos et al. (2020) provided empirical evidence on the importance of fiscal stimulus provided through government welfare grants to boost household consumption and savings in South Africa. However, the growth in the South African populace entering the population of dependent households on social safety net is alarming. Almost 40% of South African households depend on government social grants to survive. South Africa is always receiving praise in the literature as the largest safety net provider in Africa (De Vos et al., 2020). The literature is skewed towards the importance of providing social grants to the most vulnerable people. However, the consequence is the burden on government spending, funded by taxpayers. The consistent increase in the number of people entering the threshold of receiving government grants reveals the number of people becoming unemployed or underemployed, which invariably means they are entering the poverty threshold, apart from the fact that South Africa's economy is struggling in and out of recession. The recent report on the decay of infrastructural facilities, the government needs resources to revitalise. There is a need to grow low-income households into middle-income and affluent households that will participate in the financial market and build the country's depleting tax base.

This paper examines socio-economic determinants of investment behaviour of low-income households (non-Ricardian households (NRHs)), in South Africa. NRHs comprise low-income households, depending largely on government welfare benefits for sustenance. The research utilises the National Income Dynamics Study

(NIDS) dataset, waves one to five. The longitudinal survey was analysed to determine the socio-economic characteristics of NRHs in South Africa. The estimators that were used are pooled ordinary least squares (OLS) method and fixed and random effects methods. The household grant contributed negatively to the level of investment, which indicates that social grants have a crowding-out effect on the investment behaviour of low-income households. Thus, handing out fish indeed enhances the inability of low-income households to fish.

Furthermore, social-economic determinants account for 48% of the investment behaviour of low-income households in South Africa. The self-perpetuating nature of the poverty problem leads to a vicious cycle by which every factor in this cycle causes and affects another factor, possibly leading to reverse causality and threatening the reliability of pooled OLS estimates for the research. However, the consistency of the results and the research implication should warrant attention by policymakers. The government should create an environment focusing more on entrepreneurship development in low-income households, generally and specifically within the historically disadvantaged group. This will reduce inequality and create generational wealth with the capacity to reduce future inequality by reducing the number of households that cross the low-income threshold.

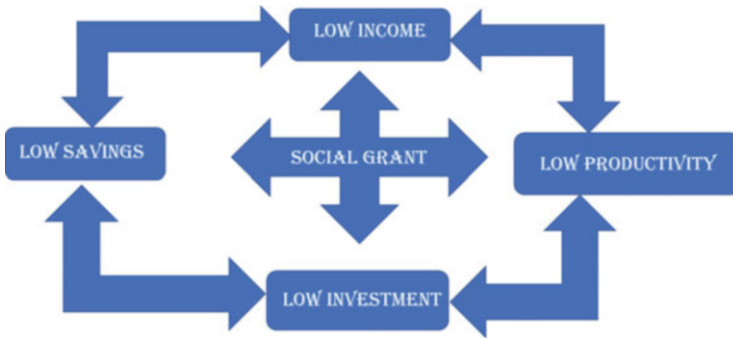
The rest of this paper is presented in the following sections: section 2 discusses the theoretical overview and review of relevant literature, followed by Section 3, which explains the adopted model and estimation techniques employed in this study. The second to the last session, session 4.0, presented the data analysis and discussion of the result while the last session concluded and provided the policy implications for the findings.

## 2 Theoretical Overview and Literature Review

From a theoretical perspective, economists often depict savings as a deduction from a two-sector circular economic flow, while investment represents an infusion into this system. The prevailing belief is that savings and investment balance each other out over time — withdrawals (savings) equate to injections (investment).

The persistent cycle of poverty illustrates the interconnected factors that maintain an individual or household within the confines of poverty. A challenge with this cycle is its cyclical nature: each element is both a result of and a contributor to the situation, perpetuating the state of poverty. For instance, the limited income experienced by non-Ricardian households results from low productivity, leading to minimal savings. These scanty savings, while a consequence of limited income, further cause inadequate investments. This insubstantial investment then translates to reduced human and material resource productivity, eventually looping back to limited income and reinforcing the cycle of poverty.

Social grants aim to elevate individuals out of poverty by addressing basic needs and offsetting household expenses. They are designed to alleviate the financial strains on households, particularly those associated with children and the elderly,



**Fig. 1** The vicious cycle of poverty

allowing households to allocate a more significant portion of their earnings for present or future investments.

Figure 1 portrays this relentless poverty cycle, emphasizing the need for a substantial intervention—or a “big push”—to break free. This push could be strategically structured support: Social grants might be envisioned either as a means of providing immediate sustenance (akin to giving fish) to stimulate self-sufficiency or as an investment in expanding productive capabilities (akin to offering fishing nets or equipment) to augment income. However, the effectiveness of such interventions hinges on individuals’ willingness to work and the presence of essential skills. Absent these factors, the grants risk becoming a crutch, reinforcing the cycle of poverty rather than alleviating it.

A core objective of this study is to decipher whether social grants act as catalysts (push factors) or hindrances (pull factors) in influencing the investment behaviours of non-Ricardian households.

Numerous studies have explored the influence of socio-economic elements on savings and investment patterns (Achar, 2012; Sabri et al., 2020; Alex & Chungath, 2021). Key among these factors are age (Nie et al., 2019; Hauff et al., 2020; Worasatepongsa & Deesukanan, 2022), education levels (Nandini, 2018; Lusardi, 2019; Sabri et al., 2020), and locational aspects such as urban versus rural settings.

The noticeable decline in investments is a matter of concern, more so when weighing its crucial function in fostering economic expansion, as underscored in contemporary research (Nguedie, 2018; Nguyen & Trinh, 2018; Yeboua, 2021). Empirical data points to the idea that nations with elevated household savings rates amass larger reserves for investments. This not only bolsters industrial progression but also curbs unemployment, stabilizes prices, and lays a foundation for sustained growth (Xu, 2012; Suppakitjarak & Krishnamra, 2015; Ogbokor & Samahiya, 2014; Chen et al., 2021; Tan et al., 2022).

Aruna and Rajashekar (2016) delved into the determinants influencing individual investment choices within the framework of behavioural finance theory. Their findings underscore the absence of a singular determinant guiding individual investment decisions. Instead, the factors vary widely based on individual preferences,

timing, type of securities, and regional aspects. They advocate for investment decision-makers to holistically evaluate all variables and their potential impact. Concurrently, they stress the importance of recognizing other market investment avenues fuelled by individual savings, advocating for these to be effectively communicated to potential investors via the financial infrastructure.

Dahiya and Chaudhary (2016) contend that the financial system, encompassing financial institutions, markets, instruments, and services, plays a pivotal role in effectively channelling savings into investments. Therefore, financial markets significantly impact economic development, especially since such development is closely tied to savings and investment rates. The authors also highlight various imperfections within these markets, which can lead to mismatched expectations due to reasons like human greed, systemic flaws, or broader national challenges. Additionally, they emphasize the influence of demographic factors on an investor's decisions, as these can significantly shape individual purchasing choices, whether for goods or services.

This study relies on the proposition by Ucan (2014), that financial development facilitates the movement of resources from savers to the highest-return investment activities, increases the number of funds available for investment, and thus reduces the liquidity constraints. This means accumulated financial resources arising from domestic savings in the economic-financial system assist in reducing the overall costs and risks of investment that stimulate capital accumulation through investment financed by domestic savings. Despite the numerous benefits of investment, lack of saving and investment by low-income households characterises many of these households in the South African economy since the post-apartheid era (Simlet et al., 2011; Aron et al., 2012; Chipote & Tsegaye, 2014).

Aggregate investment in industrialised countries is aptly captured by conventional models like the flexible accelerator. However, a fitting paradigm for emerging nations remains elusive. Core assumptions of these models include flawless capital markets, an absence of liquidity constraints, and the omission of governmental roles. In recent decades, the role of financial factors in elucidating investment patterns over time and across nations has garnered significant research attention. Schumpeter's early assertion (Schumpeter, 1932) about the crucial role of financial systems in bolstering technological progress has been reaffirmed by studies highlighting the influence of financial determinants on investment in both emerging and industrialised countries. These studies also integrate the Keynesian notion that the "state of credit" sways investment decisions (Keynes, 1937, 1973; Ucan, 2014). A distinguishing feature between developed and developing nations is the sophistication and intricacy of financial intermediaries, which facilitate the movement of accumulated savings between savers and investors (Gurley & Shaw, 1955).

## 2.1 *Research Design and Methodology*

An extensive review of the literature was undertaken to establish a theoretical framework concerning the link between government welfare grants and the investment behavior of non-Ricardian households in South Africa. This study delved into the most recent classifications by Li and Spencer (2016) to identify the determinants of investment choices for low-income households. While such a comprehensive literature review provides a robust theoretical foundation, it might overlook the unique investment contexts of South African households, potentially missing key factors affecting their investment behaviors.

This research utilized secondary data sourced primarily from Data First to probe the determinants of savings and investment behaviors of low-income South African households. Data First offers curated cross-sectional data for African countries and is responsible for the National Income Dynamics Study (NIDS), South Africa's premier longitudinal national survey.

Initiated 15 years ago by the President's Policy Coordination and Advisory Services, with support from various governmental departments, especially Statistics South Africa, the NIDS's maiden survey in 2008 encompassed 7300 households, reaching over 28,000 participants nationwide (SALDRU, 2009). The study sheds light on the sustenance strategies of households and individuals. Managed by the South African Labour and Development Research Unit (SALDRU) and overseen by the University of Cape Town, the NIDS conducts a panel survey biennially, covering South African residents of all age groups. Participants from the 2008 survey are thus re-interviewed biennially, maintaining consistency in questions. For a more detailed understanding of NIDS, refer to [www.nids.uct.ac.za](http://www.nids.uct.ac.za). This longitudinal survey is consistently repeated biennially, re-engaging with the same respondents to gather evolving demographic and socioeconomic insights.

## 2.2 *Model Specification*

The objective of this section is to design models to achieve the primary and specific aims of the research. The open model formulated by Adegbite and Adetiloye and Adegbite (2013) is adapted in this study to include variables like household income, expenditure, race, household size, head of household's education, investment, and other relevant elements. The equation is as follows:

Equation (1) represents investment (HHI) for a selected South African household:

$$\text{HHI} = F(\text{HHIC}, \text{HHEXP}, \text{HHSZ}, \text{HHHE}, \text{RACE}, \text{AGE}, \text{GENDER}) \quad (1)$$

On the right-hand side are variables representing household income, expenditure, size, race, gender, age, and age squared (envisioned as a quadratic function). All

these variables are derived from the NIDS data made publicly available by Data First.

An econometric depiction of the model is as follows, while Eq. 1 presents a functional outline of the elements affecting the investment behavior of non-Ricardian households in South Africa:

$$\begin{aligned} \text{HHIt} = & \alpha_0 + \beta_1 \text{HHICit} + \beta_2 \text{HHEXPit} + \beta_3 \text{HHSZit} + \beta_4 \text{HHEit} + \beta_5 \text{RACEit} \\ & + \beta_6 \text{GENDERit} + \beta_7 \text{AGEit} + \beta_8 \text{AGE2it} + \mu_i + \epsilon_{it} \end{aligned} \quad (2)$$

In Eq. 2, ‘i’ signifies the number of low-income households in South Africa included in the model, and ‘t’ indicates the time periods. This equation aims to assess the direct impacts of household socio-economic factors. The regression coefficients are symbolized by  $\beta$  and 0, where the latter denotes the unique effect specific to each household and the regression disturbance term, with all variables in Eq. 2 remaining as earlier specified. Ultimately, it is projected that investment levels will react positively to all the explanatory variables representing various external influences within the model.

Baltagi (2008) contends that panel data analysis provides deeper insights into many economic phenomena, predominantly dynamic in nature. Hence, the dynamic imbalanced panel was deemed the most suitable approach for this study. In the panel estimation, a lag of the dependent variable was introduced as an independent variable, categorizing it as a dynamic panel model in econometric terms.

In the econometric model, the endogenous variable is the household level of investment. This refers to the combined productive expenditures made by all members of the same household, aimed at generating immediate or future income.

As for the explanatory or independent variables: HH-Income: This represents the combined income of all members living in the same household. HH-Size: This denotes the total count of individuals residing in a single household. HH-Age: This reflects the age of the head of the household, measured in years. HH-Employed: This variable indicates the employment status of the household’s head, with “1” signifying employed and “0” indicating unemployed. HH-Male: This variable captures the gender of the household’s head, where “1” stands for male and “0” for female. HH-Province: In this model, the baseline is households that are located in the Western Cape. HH-Rural: Households situated in rural areas are designated with a “1”, while those not in rural areas are marked “0”. HH-Urban: Households situated in urban areas are given a “1”, whereas those outside urban areas receive a “0”. HH-Farms: This variable indicates households that are located on farms, with “1” signifying they are and “0” indicating they aren’t. HH-Black: For the purposes of this study, the baseline was set at black households.

### 2.3 *Sample Method*

For this analysis, we relied exclusively on data collected by NIDS, which reportedly employed a stratified sampling technique. Stratified sampling divides the population into several homogeneous, non-overlapping groups or strata. This approach is used to cater to non-homogeneous populations, aiming to provide a representation that is more accurate than what simple random sampling might achieve (Maree et al., 2016, p. 195).

### 2.4 *Estimation Technique*

This study follows the recent work of Chen et al. (2023) on the effect of financial literacy as a determinant of market participation: new evidence from China using IV-GMM. The study argues that financial literacy determines household participation in the market. The estimation of Eq. 2 with pooled ordinary least squares (POLS) will create a biased estimate. De Vos et al. (2020) adopted fixed effect panel regression in their determinant of savings model, which control for unobserved heterogeneity across households. The fixed effect is limited in addressing all the sources of endogeneity as the endogeneity problem. In this context, the issue of endogeneity is prevalent. It stems from the theoretical concept of the poverty cycle, which suggests that low-income results in low savings. In turn, low savings lead to minimal investment, which then causes low productivity. This cycle eventually circles back to the onset, with low productivity resulting in low income. This self-sustaining cycle of poverty means each element within it both influences and is influenced by another, leading to a phenomenon known as reverse causality. Such a dynamic compromises the validity of pooled OLS estimates. However, the assumption of endogeneity from the reverse causality, given the explanation of the vicious circle of poverty, may likely result in biased estimates. This study adopted the model of Chen et al. (2023) since IV-GMM will address the endogeneity issues inherent in estimating Eq. 2, which was not discussed explicitly in De Vos et al. (2020). The IV-GMM adopted here makes most of the opportunity of panel data by using the lag of the endogenous variable as an instrument to address the endogeneity problem as explicitly explained in the literature (Chen et al., 2023). Therefore, this model was estimated with pooled OLS, random effect, fixed effect and IV-GMM. The models are robust to heteroscedasticity and distributional assumptions with a framework that accommodates unbalanced panels and multiple endogenous variables.



### 3 Data Analysis and Discussion of Findings

This section introduces the graphs that explain the relationship between the variables under consideration. The following sub-section presents the socio-economic determinants of the investment model, followed by the interpretation of the results, the conclusion and the discussion of the findings. The conclusion and recommendations are in the last section.

Table 1 showcases the findings from our exploration of how government welfare grants influence the investment behaviours of low-income households in South Africa. The study operates on the premise that, at the time the NIDS data was collected across all five waves, every household receiving government grants was categorized as poor. The set of explanatory variables encompasses household income from diverse avenues such as earnings from the labour market, income generated from subsistence farming, and earnings from other part-time endeavours by household members. Other variables include household expenditure, the quantum of government grants received, the racial composition of household members, provincial location, and the geographical categorization of their residence.

To ensure a comprehensive analysis and robustness, eight different estimations were executed. These are: pooled OLS (1), random effects (2), fixed effects models (3), general household income (4), replacing general household income with household wages (5), substituting household income with household expenditure (6), results specific to non-Ricardian (low-income) households (7), and finally, Ricardian households for a comparative perspective (8).

Based on the pooled OLS estimation and the Ramsey RESET test for potential omitted variable bias, the findings suggest the absence of unobserved individual effects. This is derived from the test statistic of 1.92, which isn't significant at a 10% threshold, implying that the hypothesis of no omitted variable is accepted. For a more rigorous validation, other variations of panel data models were analysed. Notably, both the F-test (with a value of 7.02) and the Wald test (with a value of 470.71), significant at 1%, affirmed a consistent impact direction concerning the primary variable of interest: the household's receipt of government welfare grants and its effect on investment behaviours. However, the Hausman test produced a value of 3.023, which was not significant. As a result, the null hypothesis supporting the validity of GLS estimates couldn't be negated, suggesting the random effects model as the most fitting.

Moreover, since endogeneity and biasness of the pooled OLS, random effect and fixed effect can arise from various sources which is beyond statistical power of those three estimates. We further estimate instrumental variable general method of moment (IV-GMM) to address the endogeneity concern and double sure that our estimates are reliable for policy recommendations. The results IV-GMM estimate number (4) indicate that household income had a positive and significant impact on household investment as expected but the household size had a significant negative impact on household investment, and the government welfare grants received by a household has a negative and significant impact on household investment, all other

**Table 1** Effect of Government Welfare Grant on Non-Ricardian Household Investment Behaviour

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
VARIABLES	POLS	RE	FE	INCOME	WAGE	EXP	NR	R
Income	0.732*** (0.0582)	0.655*** (0.0681)	0.407** (0.175)	1.103*** (0.193)	1.045** (0.412)	1.059*** (0.158)	1.023*** (0.219)	1.409*** (0.420)
Grant	-0.144*** (0.0430)	-0.140*** (0.0401)	-0.106 (0.0756)	-0.126** (0.0559)	0.0581 (0.149)	-0.0718 (0.0679)	-0.117* (0.0600)	-0.0427 (0.134)
Household size	-0.0312** (0.0129)	-0.0268** (0.0130)	0.0433 (0.0678)	-0.0623*** (0.0209)	-0.0503 (0.0493)	-0.0291 (0.0183)	-0.0528** (0.0219)	-0.144* (0.0842)
Coloured	0.452*** (0.138)	0.495*** (0.137)		0.103 (0.164)	0.180 (0.426)	0.0714 (0.192)	0.0679 (0.180)	0.651* (0.367)
Asian/Indian	0.557** (0.225)	0.754*** (0.259)		0.0418 (0.374)	-1.540 (0.986)	-0.380 (0.432)	0.0422 (0.462)	0.174 (0.496)
White	0.933*** (0.143)	1.041*** (0.148)		0.318 (0.245)	0.140 (0.703)	0.266 (0.270)	0.323 (0.276)	1.078 (0.676)
Male	-0.0564 (0.0711)	-0.0463 (0.0720)		-0.0568 (0.0856)	0.214 (0.186)	-0.0282 (0.0991)	-0.0466 (0.0885)	0.113 (0.279)
Urban	-0.366*** (0.111)	-0.364*** (0.109)	-0.489** (0.229)	-0.203* (0.123)	0.123 (0.399)	-0.471*** (0.150)	-0.143 (0.129)	-0.971** (0.427)
Farms	-0.673** (0.288)	-0.604** (0.292)		-0.294 (0.316)	-0.360 (0.682)	-0.347 (0.339)	-0.214 (0.314)	-1.458** (0.721)
Eastern cape	0.583*** (0.185)	0.627*** (0.179)		0.415* (0.249)	1.060* (0.592)	0.436 (0.297)	0.335 (0.280)	1.103*** (0.395)
Northern cape	0.380*** (0.130)	0.386*** (0.126)		0.317** (0.155)	0.491 (0.351)	0.311 (0.198)	0.298* (0.164)	0.914 (0.588)
Free state	0.305 (0.211)	0.337 (0.211)		0.0823 (0.231)	1.219** (0.556)	0.160 (0.262)	0.0599 (0.244)	0 (0)
KwaZulu_Natal	0.533*** (0.185)	0.547*** (0.185)		0.491*** (0.185)	0.957** (0.468)	0.468** (0.262)	0.390** (0.244)	1.852*** (0.676)

	(0.155)	(0.152)		(0.184)	(0.463)	(0.228)	(0.195)	(0.438)
Northwest	0.0619	0.143		0.00326	0.810	-0.151	0.0408	-0.104
	(0.171)	(0.169)		(0.207)	(0.522)	(0.266)	(0.213)	(0.734)
Gauteng	0.267*	0.329**		-0.0909	-0.0622	-0.102	-0.0911	0.513
	(0.138)	(0.139)		(0.179)	(0.538)	(0.211)	(0.192)	(0.389)
Mpumalanga	0.150	0.232		0.0138	-0.272	-0.0120	-0.0700	1.453***
	(0.171)	(0.171)		(0.213)	(0.518)	(0.239)	(0.221)	(0.461)
Limpopo	0.582***	0.658***		0.323	1.267*	0.238	0.295	1.039**
	(0.181)	(0.181)		(0.216)	(0.679)	(0.261)	(0.228)	(0.513)
Wave2	0.401***	0.412***	0.479***					
	(0.117)	(0.0980)	(0.123)					
Wave3	0.267**	0.312***	0.457***	-0.181	-0.438	-0.190	-0.188	-0.404
	(0.114)	(0.112)	(0.168)	(0.123)	(0.296)	(0.135)	(0.135)	(0.354)
Wave4	0.386***	0.363***	0.382*	-0.122	-0.188	-0.00455	-0.165*	0.300
	(0.112)	(0.115)	(0.197)	(0.0950)	(0.266)	(0.117)	(0.0976)	(0.342)
Wave5	0.589***	0.631***	0.734***					
	(0.115)	(0.129)	(0.258)					
Constant	1.375***	1.896***	4.059***	-1.226	-1.873	-0.692	-0.614	-4.476
	(0.508)	(0.556)	(1.483)	(1.631)	(3.605)	(1.389)	(1.859)	(3.107)
Observations	866	866	866	496	176	497	449	47
R-squared	0.403		0.321	0.400		0.156	0.411	0.613

Robust standard errors in parentheses  
 \*\*\* p < 0.01, \*\* p < 0.05, \* p < 0.1

things being equal. The control variables such as gender and race are not significant determinant of household investment behaviour. More so, the result revealed that urban household investment was less than the rural households. This became evidence in the province variables that revealed that households in eastern cape, Northern Cape and Kwazulu Natal invested more than households in western cape.

The household wage and household expenditure are an important determinant of households' investment with 1% increase in household wage leads to 1.045% increase in households' investment all other factors remain fixed as revealed in the estimate number (5). Similarly, a 1% increase in household expenditure leads to a 1.059% increase in household investment *ceteris paribus* as revealed in the estimate number (6). The analysis of non-Ricardian household and Ricardian household in estimate number (7) and (8) respectively, revealed that household grant negatively affect the investment behaviour of low-income households, but the welfare grant is not a significant determinant of Ricardian household behaviour while other explanatory variables like income and household have maintain their direction with previous estimate. The effect of government welfare grant on household investment behaviour presents a surprising result. The negative relationship was not anticipated as the literature revealed that household welfare grant enhances household savings behaviour. Therefore, the assertion that low-income south Africa household saves for future consumption not necessarily to invest maybe true in this case. The observed relationship was negative, which contrasts with the expected positive association with savings. A likely explanation is that these households receiving grants are typically low-income and often don't participate in investment activities. Instead, they tend to direct any accumulated savings towards expenses. This underscores the observation that Non-Ricardian Households exhibit negative savings and limited investment. In essence, government grants seem to suppress household investment because these non-Ricardian households not only lack the means to invest but also lack the incentive, given their dependence on the government for both current and future income.

These findings align with the research by Zwane et al. (2016), who discovered that factors like income, age distribution, and employment status heavily influence South African household savings. Their assessment showed a negative connection between household size and investment, highlighting the potential drawback of larger families on household investment. While their research utilized only the initial three waves of the NIDS data and wasn't specifically centered on NRHs, our findings resonated with theirs, albeit with varying degrees of impact.

## 4 Conclusion and Policy Recommendations

This section concludes the study with a summary of the findings and provide policy recommendation based on the result generated from the study.

## **4.1 Conclusion**

The findings revealed that pooled OLS technique was most appropriate for isolating the socio-economic determinants of investment. This simple static model was thus most appropriate, primarily due to the invariance of many socio-economic variables and due to the fact that it produced an unbiased result, as detected by the Ramsey-RESET test. The two results follow the economic expectations of the two equations in sect. 2.2. They show that household income, household size, household geographical location and household grants, among others, are major socio-economic determinants of investment behaviour in South Africa. Government grants received by households negatively impacts investment behaviour. The result that government grants crowd out household investment as households over-depend on the government for both present and future income. Urban and farm households save less than rural households, the reason being that farm workers earn very low incomes and lack the financial capacity to invest. In the same vein, urban low-income households faced with urban spending and high living expenses, exhibit behaviour as described by Ando and Modigliani (1963) that household consumption pattern does not only depend on income but also neighbours' pattern of spending. The urban spending lifestyle includes from accommodation rental and expenses related to urban social amenities.

This research offers valuable insights into the challenging landscape of household investment among low-income families in South Africa. Such households often grapple with substantial debt and are burdened by escalating interest rates and the demands of debt repayment. With rising household debt and disposable income growth lagging behind inflation rates, many South African families resort to utilizing their retirement savings to meet daily living expenses, rendering investment increasingly improbable or unattainable.

## **4.2 Recommendation**

The research suggests that the government should foster an environment that grants non-Ricardian households' greater access to assets such as land, capital, and affordable quality education. This would empower them to partake in productive endeavours and elevate the likelihood of transitioning from non-Ricardian to Ricardian households. Furthermore, there should be an emphasis on generating more employment opportunities for low-skilled workers. Additionally, the government should actively promote campaigns to decrease birth rates among low-income families. Doing so would substantially cut expenses for these households, enhance their capacity to save for investments, and provide an avenue out of the entrenched cycle of poverty.

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