

HOUSEHOLD DEBT AND INTEREST RATES: A CASE STUDY OF SOUTH AFRICA

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ABSTRACT

South African households have increased their debt uptake, even during periods when the cost of credit has increased, which runs counter to theory. The purpose of the study is to determine both households' borrowing reactions to interest rates and the impact of credit demand on interest rates in South Africa. A quantitative approach was followed by econometric analysis of the data. The study employed the autoregressive distributive lag and vector error correction model to analyse the time-series data for the period from 1990 to 2019. The results of the study indicate both a long-run relationship and short-run causality between household debt and interest rates in South Africa. These results support theory as they confirm claims that a low interest rate environment encourages borrowing and vice versa. Policy makers and credit regulators should be alert to the effects of policy-induced changes in interest rates, which are slow to reflect on household debt and can only be witnessed in the long run. The recommendation is that households should be advised to speed up debt repayments rather than stretch themselves during periods of low interest rates. The theoretical contribution of this study is to the loanable fund's theory and the channels of the monetary transmission mechanism. The period analysed captured most important periods, such as the end of the Apartheid era, the National Credit Act and the financial crisis.

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1. INTRODUCTION

Household debt is considered an important part of an economy, as it contributes positively to economic growth and improves consumption (Lombardi, Mohanty, & Shim, 2017). Household debt can stimulate the economic system by improving economic development and stability (Mian, Sufi, & Verner, 2017). However, high levels of household debt can have a negative impact on the economy, as indicated by their role in financial crises and recessions (Lombardi et al., 2017). Moreover, high household debt levels pose a threat to the stability of the macroeconomy and to financial institutions and households (André, 2016). The liquidity constraints on households affect future consumption and their ability to service existing debt obligations (Price, Beckers, & La Cava, 2019).

Household debt has increased in developed and emerging economies since the early 2000s (Zabai, 2017). Developed countries such as the United States and the United Kingdom have increased interest rates to combat rising debt levels by reducing the demand for debt. This has forced households to focus on paying off existing debt and reducing consumption (Zabai, 2017). Emerging economies such as Brazil have experienced significant increases in their aggregate household debt. Brazil passed a new law that regulated payroll loans by allowing banks to deduct debt payments directly from individuals' income (Garber, Mian, Ponticelli, & Sufi, 2019). Coelho, De Mello and Funchal (2012) argue that this law led not only to an increase in payroll lending but also to a substantial increase in household debt and a drop in interest rates.

In South Africa, significant increases in household debt began before the 2007/8 financial crisis and debt levels have remained high. During this period of high indebtedness, efforts have been made by the National Credit Regulator (NCR) to help lower the uptake of debt by households. According to the NCR (2019), debt obligations include mortgage debt, other secured credit granted, credit card debt, short-term credit transactions, and unsecured lending. Unsecured lending refers to debt for which the lender does not require security to guarantee the repayment of the loan and is referred to as an unsecured debt (NCR, 2019). The increase in unsecured lending was the result of improper affordability checks by credit providers (de Wet, Botha, & Booyens, 2015). These credit providers relaxed access to credit to extend it to previously disadvantaged households (Owusu-Sekyere, 2017).

The NCR urges consumers and members of households to make sure that they understand the credit agreements they commit to, and that they do not borrow from unregistered credit providers, as these tend to charge excessive interest rates that are not in line with the National Credit Act (NCA) of 2005 (NCR, 2018). The

regulator points out how consumers have been stretched and have become deeply indebted since the 2008/9 financial crisis, and the high cost of living has forced households to rely on debt. In their 2018/2019 annual report, the NCR notes that high levels of consumer debt resulting from these macroeconomic factors remain a challenge. This situation highlights the importance of good credit protection standards and sound macroeconomic policies, especially monetary policies.

Monetary policy decisions in South Africa are made by the Monetary Policy Committee (MPC). The aim of the MPC is to achieve and maintain price stability through an inflation-targeting framework ([South African Reserve Bank \[SARB\], 2019](#)). Decisions taken ensure that monetary stances regulate the rate of inflation, accommodate temporary shocks, and sustain economic growth. A monetary tightening stance increases interest rates and restricts economic growth ([SARB, 2019](#)). During a tightening phase, increased interest rates discourage household borrowing and the repayment of existing debt. The MPC chooses this stance to depress credit supply by reducing the pool of loanable funds.

A monetary expansion stance includes reduced interest rates, which lead to cheaper borrowing, increased spending and increased loanable funds. However, the MPC needs to consider the economic effects of interest rate changes on household debt levels. According to [SARB \(2019\)](#) South Africa's history of a combination of low growth and higher long-term interest rates is an indicator of deeper issues. During the same period South Africa experienced high levels of debt. Theoretically, the relationship between interest rates and debt has been negative ([Koivu, 2009](#)) but recent interest rate hikes, coupled with high levels of household debt, have highlighted the need for a deeper look at this relationship. The aim of this paper is to examine the relationship between household debt and interest rates by testing theory.

Previous studies, such as those by [Meniago, Mukuddem-Petersen, Petersen & Mongale \(2013\)](#), [de Wet et al. \(2015\)](#) and [Mutezo \(2014\)](#) have focused on household debt in South Africa. A study by [Mutezo \(2014\)](#) examined the relationship between household debt and consumption, while [de Wet et al. \(2015\)](#) focused on the effect of the National Credit Act on household debt. [Meniago et al. \(2013\)](#) researched determinants of household debt and found a negative insignificant relationship between household debt and interest rates. Therefore, the objectives of this study are to explore households' borrowing behaviour during changes in interest rates and to determine whether such changes affect households' borrowing behaviour.

2. LITERATURE REVIEW

The theories applicable to this study are the interest rate channel of monetary transmission mechanisms and the loanable funds theory.

2.1. Theoretical Background

2.1.1. Loanable Funds Theory

The theory of loanable funds was originally developed by Swedish economist Wicksell in 1907. It is known as the neoclassical theory of credit as it is an extension of the classical theory (Gootzeit, 1988). The loanable funds theory proposes that the interest rate is determined by the demand and supply of loanable funds (credit) (Ohlin, 1937). In more recent work, Brandl (2017) simplifies the loanable funds theory as a loanable funds model that involves a discussion between savers and borrowers who determine the price of loanable funds (the interest rate). When the interest rate is higher than the equilibrium interest rate, the quantity of funds supplied increases while the quantity demanded decreases. This creates a surplus of funds that are not borrowed, lower interest rates and a demand for loanable funds (Brandl, 2017). In the same vein, when the interest rate is lower than the equilibrium interest rate it creates a shortage of funds. The demand for funds increases while the quantity supplied decreases; however, surplus units want to lend at a higher interest rate (Brandl, 2017). Therefore, this theory suggests that there is a negative relationship between household debt and interest rates.

2.1.2. Interest Rate Channel

The interest rate channel is the main channel in a transmission mechanism, and it is also considered more dominant than other channels (Mishkin, 1996). This channel focuses on short-term interest rates which affect the prime overdraft rate and eventually consumption and debt uptake by households (Gumata, Kabundi, & Ndou, 2013). Gumata et al. (2013) conclude that the changes in short-term interest rates affect households' balance sheets through debt servicing costs and the demand for credit. Similarly, Igan, Kabundi, Nadal-De Simone and Tamirisa (2013) found that the household demand for credit is differently affected by the various monetary policy stances. During monetary tightening, the demand for credit declines, while it increases during monetary loosening (Ciccarelli, Maddaloni, & Peydro, 2015). The demand for credit results in increases in household debt.

2.2. Empirical Literature

The empirical literature reviewed concerns the influence of household debt and interest rates on each other.

2.2.1. Household debt

Household debt is defined as the total amount of loans and other credit granted to households (Kim, 2016). A loose monetary policy, characterised by low interest rates encourages households to take on more debt, as Stockhammer and Wildauer (2016) found. They investigated determinants of household debt in eleven countries within the Organisation for Economic Co-operation and Development (OECD) during the period 1980-2011. The results of the long-run estimations by Stockhammer and Wildauer (2016) indicated that interest rates had a negative significant influence on household debt. Even though Granger causality was mentioned in the study, it does not mention the results. Similar findings have been made by other researchers, such as Bhutta and Keys (2016), who used panel data from 1999 to 2010 to analyse borrowing behaviour in response to variations in policy-driven interest rates. The findings of their study indicated that lower interest rates were strongly associated with high levels of household debt, leading to equity withdrawal from mortgage loans. A study in Malaysia used time series data to identify selected macroeconomic variables as determinants of Malaysian household debt (Azmin, Zaidi, & Mohamad, 2019). The results of the study indicated that interest rates had a positive and significant relationship with household debt using the Ordinary Least Squares method for regression during the period 2012-2016. Findings by Azmin et al. (2019) indicated that increases in interest rates led to increases in household debt. The results of this study are consistent with those of Khan, Abdullah and Samsudin (2016). The two studies used Malaysian household data but used different econometric models. The study by Khan et al. (2016) analysed data from 1999 to 2014, using the Auto Regressive Distributive Lag (ARDL) model and divided household debt into two categories. They found a positive relationship with consumer debt and a negative relationship with mortgage debt. The findings of both studies imply that households use credit facilities to sustain their household consumption during periods of higher interest rates but consider purchasing property during low interest rate periods to take advantage of the lower cost of debt. A South African study found interest rates, particularly the prime rate, to be a major factor in the level of over-indebtedness of households as it yielded a negative significant relationship. De Wet et al. (2015) found that their results implied that households take up new debt to pay for old credit commitments during periods of low interest rates.

2.2.2. Interest rate

The interest rate is the price that a lender of funds charges the borrower for using the borrowed funds. The supply and demand of funds regulate market interest rates (SARB, 2015). An increase in interest rates is driven by a demand for loanable funds, while keeping the supply of funds constant (Ekwe, Ogbonnaya, & Omodero, 2017). Mian et al. (2017) made a similar finding: if the supply of funds remains constant with an increase in the demand for credit, interest rates will drop. Jakab and Kumhof (2015) disagree; they found that the demand for funds had no influence on the interest rate. McLeay, Radia and Thomas (2014) argue that a low demand for funds by households leads to lower interest rates being offered by individual banks. A study by Alpanda and Zubairy (2019) examined the effect of household debt on the monetary transmission mechanism in the US economy. They found that high levels of household debt had a negative effect on the success of a monetary policy that operates through interest rate changes.

3. MATERIALS AND METHODS

Secondary data were extracted from the South African Reserve Bank (SARB) and the World Bank. The quarterly time-series data are from the first quarter of 1990 to the fourth quarter of 2019. The household debt to disposal income ratio from SARB was used as proxy for the household debt (HHD) variable. The prime overdraft rate from SARB was used as proxy for the interest rate (IR) variable, and the monthly data were converted to quarterly data. The total Consumer Price Index for urban areas was used as proxy for the inflation (INFL) variable and the Gross Domestic Product growth rate was used as proxy for the GDP (GDPG) variable. The inflation and gross domestic product annual data were adjusted to quarterly data. Household debt and interest rate were the focus variables of this study, and the inflation and GDP variables were used as control variables, as the stability of the economy affects household decisions.

3.1 Estimation Techniques

3.1.1 Auto Regressive Distributed Lag (ARDL) Bounds Testing Approach

The ARDL bounds testing approach was originally proposed by Pesaran and Shin (1995) and later extended by Pesaran, Shin and Smith (2001). The ARDL integrates short-run dynamics with long-run equilibrium. The technique can be used when variables are integrated at the order of zero, one or a combination

of both (Pesaran & Shin, 1995). Unit root tests are not compulsory but assist in ascertaining that no variable is integrated at the order of two. This technique has superior sample properties and fairer estimates than the long-run model. The model is efficient when using a small sample size. The procedure is based on the joint F-statistic (or Wald statistic) for co-integration analysis.

ARDL model estimation:

$$\Delta HHD_t = a_0 + b_1 HHD_{t-1} + b_2 IR_{t-1} + b_3 INFL_{t-1} + b_4 GDPG_{t-1} + \sum_{i=1}^n \partial_{1i} \Delta HHD_{t-1} + \sum_{i=1}^n \mu_{2i} \Delta IR_{t-1} + \sum_{i=1}^n \mu_{3i} \Delta INFL_{t-1} + \sum_{i=1}^n \mu_{4i} \Delta GDPG_{t-1} + \varepsilon_t \quad [1]$$

$$\Delta IR_t = a_0 + b_1 IR_{t-1} + b_2 HHD_{t-1} + b_3 INFL_{t-1} + b_4 GDPG_{t-1} + \sum_{i=1}^n \partial_{1i} \Delta IR_{t-1} + \sum_{i=1}^n \mu_{2i} \Delta HHD_{t-1} + \sum_{i=1}^n \mu_{3i} \Delta INFL_{t-1} + \sum_{i=1}^n \mu_{4i} \Delta GDPG_{t-1} + \varepsilon_t \quad [2]$$

$$\Delta INFL_t = a_0 + b_1 INFL_{t-1} + b_2 IR_{t-1} + b_3 HHD_{t-1} + b_4 GDPG_{t-1} + \sum_{i=1}^n \partial_{1i} \Delta INFL_{t-1} + \sum_{i=1}^n \mu_{2i} \Delta IR_{t-1} + \sum_{i=1}^n \mu_{3i} \Delta HHD_{t-1} + \sum_{i=1}^n \mu_{4i} \Delta GDPG_{t-1} + \varepsilon_t \quad [3]$$

$$\Delta GDPG_t = a_0 + b_1 GDPG_{t-1} + b_2 IR_{t-1} + b_3 INFL_{t-1} + b_4 HHD_{t-1} + \sum_{i=1}^n \partial_{1i} \Delta GDPG_{t-1} + \sum_{i=1}^n \mu_{2i} \Delta IR_{t-1} + \sum_{i=1}^n \mu_{3i} \Delta INFL_{t-1} + \sum_{i=1}^n \mu_{4i} \Delta HHD_{t-1} + \varepsilon_t \quad [4]$$

Where: Δ is the first difference operator, a_0 is the constant, ∂ and μ are coefficients and ε_t is a white noise error term, b_1 , b_2 , b_3 and b_4 correspond to the long-run parameters. In equation [1] HHD = household debt is the vector, in equation [2] IR = interest rates is the vector, in equation [3] $INFL$ = inflation is the vector and in equation [4], $GDPG$ = gross domestic product is the vector. The F-test or Walt test was conducted to investigate the existence of a long-run relationship among the variables. Based on its numerous advantages, the ARDL technique was the preferred approach to co-integration in this study.

3.1.2 Error Correction Model (ECM)

The association between co-integration and the error correction mechanism was first introduced by Granger (1981); it was later extended by Engle and Granger (1987) to develop the ECM approach. If a series has one or more cointegrating vectors, then ECM is the appropriate estimation technique as it adjusts to short

and long-run deviations from equilibrium in variables (Andrei & Andrei, 2015). The ECM approach was used to test the short-run causality of HHD and other variables and to establish the speed of adjustment to equilibrium when there is a disturbance in the model.

ECM model estimation:

$$\Delta HHD_t = a_0 + \sum_{j=1}^p a_1 \Delta HHD_{t-j} + \sum_{j=1}^q a_2 \Delta IR_{t-j} + \sum_{j=1}^q a_3 \Delta INFL_{t-j} + \sum_{j=1}^q a_4 \Delta GDPG_{t-j} + \delta ECT_{t-1} + \varepsilon_t \tag{5}$$

Notes: δ is the speed of adjustment parameter, ECT is the error correction term, a_{1-4} are short-run dynamic coefficients.

4. EMPIRICAL RESULTS AND DISCUSSIONS

In this section, we examine the empirical relationship between household debt and interest rates, using results from the Auto Regressive Distributive Lag (ARDL) and Vector Error Correction Model (VECM) techniques obtained from E-views 10 software.

4.1 Unit Root Results

Table 1. Unit root results

Variables	Intercept	Trend & Intercept	None
Household debt (HHD)	3.535946*** I(1)	3.569492*** I(1)	3.481090*** I(1)
Interest Rate (IR)	6.766405*** I(1)	3.416945* I(0)	6.743990*** I(1)
Inflation (INFL)	7.675364*** I(1)	7.836759*** I(1)	7.521718*** I(1)
GDP growth (GDPG)	10.19842*** I(1)	10.22626*** I(1)	10.24695*** I(1)

Source: Authors’ compilation using EViews 10

Notes: Notes: *, **, *** show that the Augmented Dickey-Fuller test statistic are significant at 10%, 5%, and 1% respectively. I(0) denotes stationary at level, while I(1) denotes stationary at first difference.

Unit root tests are performed to examine whether a variable is stationary or not stationary. Although unit root tests are not compulsory for the ARDL bounds test, it is important to verify that none of the variables are integrated at the order of more than one. If any of the variables are integrated at order 2, this will prohibit the use of the ARDL technique. The results from the Augmented Dickey Fuller

(ADF) test in Table 1 indicate that the series are all integrated at the order of one. These results confirm the use of the ARDL technique for cointegration.

4.2 ARDL Bounds Test Results And Discussion

Table 2. ARDL results

Dependent variables	F-stats value	Lower bound I(0)	Upper bound I(1)	Decision
Household Debt (HHD)	9.8606***	5.17	6.36	Cointegrated
Interest rate (IR)	7.1463***	5.17	6.36	Cointegrated
Inflation (INFL)	7.9670***	4.4	5.72	Cointegrated
Gross Dom. Product (GDPG)	10.2873***	5.17	6.36	Cointegrated

Source: Authors’ compilation using EViews 10

*** denotes significance at 1%

Long-run relationship was examined using the ARDL bounds test. Table 2 reports a summary of ARDL results using the long-run form and bounds test on an unrestricted constant and unrestricted trend. The null hypothesis is that there is no level relationship, meaning that there is no long-run association. The f-statistic value is compared to the I(0)/ lower bounds and the I(1)/ upper bounds values at 0.05 level provided by bounds test and also given in Pesaran et al. (2001:303). The model used case III, meaning that it is unrestricted and has indicated an intercept and no trend. When the f-statistic value is higher than the upper bound value, we can reject the null hypothesis. When the f-statistic is lower than the lower bound value, we fail to reject the null hypothesis, and if the f-statistic is between the upper bound and the lower bound then the results are inconclusive. The summary of the bounds test results provided in Table 2 indicates that the series are cointegrated and exhibit a long-run relationship. The bounds test indicated a structural break when inflation was a dependent variable; the equation was corrected by adding a time dummy (TD). The Cusum test was also run to test for stability and to ensure that there were no structural breaks. This implies that the series are related and can be combined in a linear manner. The results also indicated that the series would eventually converge in the long run, despite disturbances by shocks in the short run. However, only the relationship between household debt and interest rate was the focus of this study.

These results indicate that household debt and interest rate move together over time and the distance between them is stable. These results confirm the loanable funds theory of Wicksell (1907) as well as the interest rate channel of monetary transmission mechanism. The results also confirm claims that a low interest

rate environment encourages borrowing, and vice versa. The cointegration relationship affirms that household borrowing tends to increase during periods of cyclical upturn when the cost of debt is lower. These low borrowing costs also make existing debt cheaper to repay. However, access to credit during these times contributes to an increase in household debt. Conversely, during economic downturns, when borrowing is expensive, households are discouraged from borrowing. From these results, we can conclude that an upsurge in household debt can be linked to reduced interest rates in the long run. These results are consistent with other studies, for example [Meng, Hoang and Siriwardana \(2013\)](#) also deduced that interest rates have a negative impact on household debt. They also found that households are discouraged from borrowing during rises in interest rates as borrowing becomes expensive and repayment costs increase for those with flexible interest on their existing debt. [Bhutta and Keys \(2016\)](#) agree that a decrease in the interest rate induces an increase in household debt.

4.3 ECM Results And Discussion

The ECM results provide estimates of the long-run relationship and the short-run causal relationship between our two main variables.

Table 3. VECM long run results

Dependent variable: DHHD					
Independent variables	Lags	Probability	Std. Error	t-Stats	Coefficient
Error Correction Term	1	0.0000	0.0076	-6.37768	-0.04854
Interest rate (DIR)	1	0.0072	0.11872	2.74792	0.32624
Dependent variable: DIR					
Error Correction Term	1	0.0000	0.100306	-5.65986	-0.567719
Household debt (DHHD)	1	0.0000	0.11491	-3.71466	-0.426866

Source: Authors’ compilation using EViews 10

Unit root results indicated that all the variables in the series were integrated at first difference, while the probability value should be less than 0.05 for a significant long-run relationship to exist. The coefficient of the error correction term indicates that the previous quarter deviation from long-run equilibrium is adjusted in the current quarter at a speed of 4.85 percent. The long-run results presented in Table 3 reveal a significant bidirectional long-run relationship between interest rates and household debt. The long-run negative influence of interest rate on household debt confirms the results found by the ARDL model. The outcomes reveal that one percent increase in interest rates will result in

0.32 percent increase in household debt. The implication of these results is that changes in interest rates have an influence on the borrowing of households in the long run. The positive changes in interest rates discourage consumers from borrowing while negative changes encourage borrowing in the long run. These results are consistent with other studies such as the one by [Zimunya and Raboloko \(2015\)](#), who found a significant long-run relationship; however, the relationship was positive.

These results further indicate a long-run relationship from household debt to interest rates. The results also confirm the ARDL results and indicate that when households increase their debt uptake, the economy is affected in the long run, and interest rates are alleviated. The outcome further indicates that one percent increase in household debt will result in 0.43 percent decrease in interest rates. Even though these results coincide with theory, there are very few studies other than [Jakab and Kumhof’s \(2015\)](#) that focus on the influence of household debt on interest rates.

Table 4. VECM Short-run results

Dependent variable: DHHD	Probability	Coefficient
Interest rate (DINT)	0.2618	1.2593
Dependent variable: DINT	Probability	Coefficient
Household debt (DHHD)	0.0091	6.7980

Source: Authors’ compilation using EViews 10

The results of the ECM short-run causal relationship between household debt and interest rates are presented in Table 4. These results indicate a short-run causal relationship running from household debt to interest rates; however, no relationship running from interest rates was found. The results also indicate that one percent change in household debt is associated with 6.79 percent increase in interest rates. The results imply that household debt appears to contribute marginally towards interest rates. This means that when households take up more debt, it boosts the economy but shortly after that the monetary policy committee lowers or stabilises interest rates to stabilise inflation.

5. IMPLICATIONS AND RECOMMENDATIONS

The ARDL and VECM results indicated a long-run relationship between household debt and interest rates. The VECM also indicated short-run causal relationship from household debt to interest rate. These results imply that

policy makers should consider household debt while inflation targeting through monetary policy. Households should be advised to speed up debt repayments rather than overstretch themselves during periods of low interest rates. Policy makers and credit regulators should be alert to the effects of policy-induced changes in interest rates, which are slow to reflect in household debt and can only be witnessed in the long run. For future research, we recommend a comparative analysis with another emerging economy. This analysis would be significant for the interpretation and comparison of complex relationships in similar economies.

6. ETHICAL CONSIDERATIONS

The study discussed in this article adhered to all ethical standards for research without direct contact with human or animal subjects.

7. CONCLUSIONS

The aim of the study discussed in this paper was to examine the relationship between household debt and interest rates in South Africa, using the ARDL and VECM approaches. The results from both approaches indicated a long-run relationship, meaning that changes in interest rates have an influence on household debt in the long run. The results imply that households increase their borrowing during periods of low interest rates when the cost of debt has decreased. The short-run causal relationship indicates that the demand for credit boosts the economy and eventually results in lower interest rates. The results confirm the suggestions made by both the loanable funds theory and the interest rate channel of monetary transmission mechanism. The implication of this study is that policy makers and credit regulators should be vigilant of the effects of inflation-targeting, in both the short run and the long run.

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Conflict of Interests

The authors declare there is no conflict of interest.

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ДУГ ДОМАЋИНСТАВА И КАМАТНЕ СТОПЕ: СТУДИЈА СЛУЧАЈА ЈУЖНЕ АФРИКА

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САЖЕТАК

Домаћинства у Јужној Африци повећавала су своје задужење, чак и током периода када су трошкови кредита расли, што је у супротности са теоријом. Сврха студије јесте да се утврде реакције задуживања домаћинства на каматне стопе и утицај потражње за кредитима на каматне

стопе у Јужноафричкој Републици. Праћен је квантитативни приступ кроз економетријску анализу података. Студија је користила ауторегресивно дистрибутивно заостајање и модел корекције векторске грешке за анализу података временске серије за период од 1990. до 2019. године. Резултати студије указују на дугорочну везу и краткорочну узрочност између дуга домаћинства и каматних стопа у Јужноафричкој Републици. Ови резултати подржавају теорију јер потврђују тврдње да окружење ниске каматне стопе подстиче задуживање и обрнуто. Креатори политике и кредитни регулатори треба да буду свјесни ефеката промјена каматних стопа изазваних политиком, које се споро одражавају на дуг домаћинства и могу се посматрати само у дугорочном периоду. Препорука је да домаћинства треба савјетовати да убрзају отплату дуга умјесто да се периоди отплате кредита растежу током периода ниских камата. Теоријски допринос ове студије јесте допринос теорији кредитног фонда и каналима механизма монетарне трансмисије. Анализирани период обухватио је већину важних периода, као што је крај ере апартејда, Закон о националном кредиту и финансијску кризу.

Кључне ријечи: *дуг домаћинства, каматне стопе, потражња за кредитима.*