
THE RELATIONSHIP BETWEEN FINANCIAL SECTOR DEVELOPMENT AND SAVINGS MOBILISATION IN ZIMBABWE (1990-2018)

MR. JONATHAN SHOKO

Ministry of Industry & Commerce, Harare, Zimbabwe

Email: jonathanshoko5@gmail.com

MR. STANFFORD DUMISILE GOBODI DUBE²

Department of Economics, Great Zimbabwe University

Email: estandg@gmail.com

ABSTRACT:

This study seeks to investigate the relationship between savings and financial sector development in Zimbabwe using the Autoregressive Distributive Lag (ARDL) approach. The study used annual data from 1990 to 2018. The F-Bounds tests showed that there is a long run relationship between savings and financial sector development in Zimbabwe. The ARDL presented a bi-directional causality relationship between savings and financial sector development in both short and long run periods in Zimbabwe. The study also noted a stable long run relationship between credit to the private sector and domestic savings. Domestic savings indicated a positive impact on credit to the private sector. Current savings has a positive effect on future savings in Zimbabwe and therefore, the level of current savings determines the magnitude of growth of future savings. Real exchange rate has found to have a negative effect on private sector credits. In both periods, the real exchange rate was found to be statistically significant in explaining variations in the credit to the private sector. However, in the other periods, the real exchange rate showed a positive effect on credit to the private sector. The study also revealed that interest rate deposits has a positive effect on credit to the private sector in the previous period and is statistically significant at 10% levels. This

implies that if the rate of return on savings is higher, savers are willing to save more hence, financial institutions might have the capacity to lend to the private sector in the future. However, on the hand interest rates deposits shows a negative relationship with domestic savings in other periods though not statistically significant. This implies that policy makers should not heavily rely on financial reforms to boost domestic savings hence emphasis should be put on maintaining high growth rate through agricultural development. The study also implies that in order to stimulate savings, there is need to implement appropriate financial reforms. The policy implication is that a stable exchange rate regime is critical in stabilizing the financial sector.

KEYWORDS: Domestic savings; financial sector development, ARDL model.

INTRODUCTION:

Savings mobilization plays a significant role in facilitating pro-poor growth and has attracted the attention of researchers and policy makers in recent times. IMF (2014) highlighted that savings act as a precautionary motive to help to mitigate future uncertainty in the economy. Previous studies have shown that savings mobilization has an influence on financial sector developments in developing countries such as Zimbabwe (Tsaaurai, 2017; Chigumira and Makochekeanwa, 2013). On the

other hand, financial sector development has a positive and significant impact on economic growth by providing a conducive environment for the private sector business to operate (Bist, 2018). Thus a well-developed financial sector could provide incentives for individuals to save and act as an efficient intermediary to convert these savings into credit for borrowers. Hence, the complementary effect of financial sector development and savings mobilization had mixed results. The evidence on the link between financial sector development and savings mobilization shows that both variables influence each other. Most studies, for example, Tsauroi (2017); Ewetan et al. (2015); Baya (2014) and, Raheem and Oyinlola (2016); noted that there is a positive relationship between the two variables, arguing that financial sector development could provide a conducive environment for harnessing savings. On the other hand, other studies have found a negative relationship between these two variables (Chowdhury, 2001; Khan and Hye, 2010).

BACKGROUND TO THE STUDY:

History of Savings Mobilizations in Zimbabwe:

The history of savings mobilization in Zimbabwe can be traced to the emergency of burial societies from the early years of the colonial occupation after 1890. The first savings club was started by a Catholic missionary, Brother F. Waddelove, in 1963. The burial societies were developed by migrant workers, often from outside of what was known as Rhodesia, namely Portuguese East Africa and Nyasaland. This was meant to both assist migrants with funeral arrangements. The average size of these societies was between 10 and 100 (Raftopoulos and Lacoste, 2001).

Savings Mobilisation Post-Independence:

Raftopoulos and Lacoste (2001) noted that in the post-1980 period the numbers of

savings clubs increased remarkably, from 5000 in 1983 to 7000 by 1998, with membership moving between 125,000 and 100,000 during the same period. In addition, there were also savings clubs that were set up outside of this structure, or with help of extension officers. In 1990, saving mobilization movement developed new challenges, most notably the development of micro-finance, which has presented the organization with new successes, but also a range of formidable problems to confront.

Financial Sector Development of Zimbabwe:

The Financial Sector Development of Zimbabwe since 1980s went through four distinct periods namely: (i) explicit financial repression period (1980 to 1990) (ii) reform period (1991 to 1999); (iii) period of reform reversals (2000 to 2008); (iv) dollarization/multi-currency (2009 to 2013) and finally (v) adoption of the local currency. Within each period there are episodes of financial sector reforms. The financial reforms adopted in the 1990s caused emergence of indigenous banking institutions in Zimbabwe in line with the Economic and Structural Adjustment Programme (ESAP). In 2003, the Reserve Bank of Zimbabwe noted that the country had registered 40 banking institutions since these reforms were put in place. The First Banking Corporation (FBC) was the first indigenous commercial bank to be licensed in 1997 to bring the number of commercial banks to six from the traditional. The five commercial banks that were already in existence are; Barclays, Standard Chartered, Zimbank, ANZ Grindlays (now Stanbic) and The Bank of Credit and Commerce International (now Commercial Bank of Zimbabwe-CBZ). However, the banking sector was not spared by the economic meltdown that crystallized in late 1997 despite the efforts being taken by the government to reforms the financial sector. In 2004, some commercial banks (for example Trust bank, Royal bank, Time bank and Barbican

bank) were placed under curatorship and their banking licenses was withdrawn by the RBZ despite its efforts to set up a Troubled Bank Fund (TBF) to try and save banks whose collapse was imminent (RBZ 2004).

with the United States dollar. Although the bond note was pegged at par with the US\$ the economy continued to deteriorate. Savings and credit to private sector continued to declined significantly during this period.

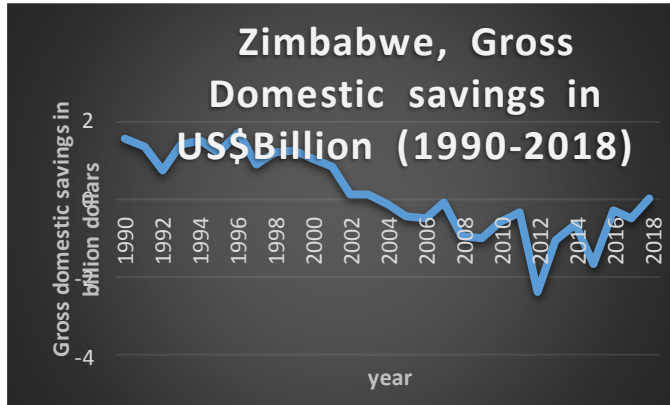


Fig 1. Zimbabwe GDS 1990-2018

Source: World Economic Indicators, 2019

Fig 1 shows the Gross Domestic savings for Zimbabwe from 1990 to 2018. The graph shows a downward trend in gross domestic savings for this period under review although the government put effort towards enhancing savings mobilization in the country.

Multicurrency & Post Multicurrency Era:

In 2009, the Reserve Bank of Zimbabwe (RBZ) introduced the multicurrency system to stabilize the economy after a hyperinflationary period that hit the country in 2008. The multicurrency era had registered a stable macroeconomic environment characterized by an upward trend in both savings and credit to the private sector from January 2009 to August 2015 (RBZ, 2017). The period between 2009 and 2013 indicated that credit to private sector and savings were in positive direction. However, in the last 8-month period between December 2014 and August 2015 savings had gone up by 0.55% whilst credit to the private sector plunged by 0.41%, from December 2014 to August 2015 (RBZ, 2017). In 2016, the RBZ introduced the bond coin and notes to ease the financial crisis in the country. The bond notes was pegged to a 1:1

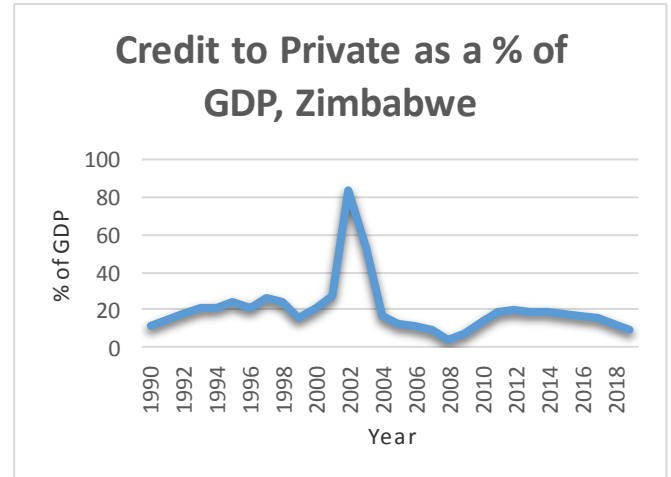


Fig 2. Credit to Private Sector as % of GDP in Zimbabwe (1990-2018)

Source: World Economic Indicator, 2019

The figure 2 above shows the credit that was issued to the private sector by financial institutions from 1990 to 2019. Generally, the graph shows a down ward trend in credit disbursed to the private sector during this period. From 1990 to 2001 credit to private sector was increasing while in 2002, it reached its peak and thereafter it declines continuously. The amount of credit allocated to the private sector depends on the soundness of the financial institutions and therefore, higher credit to the private sector implies a stable financial sector environment and vice versa.

OBJECTIVES:

The main objective of the study is to establish the relationship between savings mobilisation and financial sector development in Zimbabwe from 1990-2018.

The following are the secondary objectives

- i. To analyze the impact of savings on financial sector development in Zimbabwe.

- ii. To assess the effects of financial sector development on savings mobilization in Zimbabwe.
- iii. To test the causality relationship between savings and financial sector development.

PROBLEM STATEMENT:

In the past, developing countries were relying on Official Development Assistance (ODA) or foreign aid as an external source of development finance (Ocran, 2012). Over the past five decades, development assistance have grown steadily, capital flows increased from around US\$30billion in 1960 to over US\$90billion in 2005 (ibid). However, the trend had shifted towards mobilisation of domestic savings within developing economies because external finance have been proved to be ineffective in reducing credits constraints in these economies (Kapingura and Alagidede, 2016). In view of the above, developing countries however, embarked on financial sector development to mobilize domestic savings and Zimbabwe is amongst these countries. Since 1980, Zimbabwe have recorded four phases of financial sector development which are explicit financial repression period, reform period, period of reform reversals and multi-currency period (Chigumira and Makochekeanwa, 2013).

Despite these financial sector developments, savings mobilization has not been enough to stimulate the economy and this raises the question on the ability of the financial sector reforms implemented by the government in harnessing savings (Chigumira and Makochekeanwa, 2013). In 1991-1995 aggregate saving rate declined by 0.2 % points from the average pre-reform (1986-1990) of 17 % contrary to the pre-financial reform expectations that positive real interest rates would stimulate savings (ibid). Hence the study seeks to analyse the relationship between savings mobilization and financial sector development in Zimbabwe from 1990 to 2019.

LITERATURE REVIEW:

Theoretical Literature Review:

Early studies on the importance of financial developments in economic development was pioneered by Schumpeter (2011) and reinforced following the works of McKinnon and Shaw (1973). Sound financial system has a significant impact on economic growth as it creates a conducive environment for the business to operate (Levine, 1997; King and Levine 1993; Bist, 2018).

Theory of Economic Development (J. Schumpeter 1911):

Schumpeter (1911) developed a theory of economic development, explaining the importance of financial institutions in enhancing sustainable development of any nation. He argued that the service provided by financial intermediaries of mobilizing savings, evaluating projects, managing risk, monitoring managers, and facilitating transactions are essential for technological innovation and economic development. Empirical work by (Goldsmith, 1969 and McKinnon, 1973) illustrates the close ties between financial and economic development for a few countries (King and Levine, 1993). The theory believes that financial institutions especially bank is considered a useful instrument for improving the productive capacity of the economy and its important internal source of fund for any country especially in the birth stages of economic growth. An efficient financial institution is characterized by the desire of individuals to save for investment to smoothen future consumption. Therefore, the theory necessitated the role financial sector reforms to ensure that the financial system is sound enough to provide a conducive environment for savings mobilisation to sustain economic growth and development. The theory further highlighted that the growth of output in an economy is geared to the rate of innovations

as well as efficiency of the financial sector operations (King and Levine, 1993).

The Complementarity Hypothesis (McKinnon, 1973, Shaw, 1973):

The McKinnon-Shaw Hypothesis (1973), hypothesized that the liberalization of interest rates would end financial repression and cause financial deepening due to the resulting increased efficiency of the intermediation process, and the effects of higher interest rates on savings. The model postulated that a more liberalized financial system will increase competition, increase interest rates and induce an increase in savings and investment and consequently promote economic growth. McKinnon (1973) and Shaw (1973), critically examined the benefits of financial repression, in a move to reduce its negative effects on domestic financial systems in developing countries. It is noted that there is need to alleviate financial obstacles in developing countries by allowing the market forces to play to determine the real interest rates. The theory of financial liberalization was further developed by Campbell and Mankiw (1990) in which they concluded that it is reasonable to assume that not all households have access to credit markets, and hence, some households have no ability to smooth consumption over time. Thus, for such liquidity-constrained households, consumption decisions are entirely determined by current income. On theoretical grounds, it has been shown that a relaxation of liquidity constraints will be associated with a consumption boom and a decline in aggregate saving.

EMPIRICAL LITERATURE REVIEW:

Several cross country and individual country case studies have been done to establish the relationship between financial sector development and savings mobilisation. Largely results have pointed to a positive correlation between financial sector development and

savings mobilisation. While some studies have found a negative relationship. Hence the debate on the relationship between these two variable is a subject matter in empirical literature.

Tsaurai (2017), investigated the relationship between savings and financial development in Zimbabwe using both Autoregressive Distributive Lag (ARDL) and Vector Error Correction Model (VECM) approaches for comparison purposes with monthly time series data from January 2009 to August 2015. Both F-Bounds and Johansen co-integration tests showed that there is a long run relationship between savings and financial development in Zimbabwe. However, the study covered the multicurrency era and it ignores the other phases to which the Zimbabwean economy went through. This study incorporated the period before, during and after the multicurrency system and will also incorporate annual time series data to conclude this relationship. Therefore, Tsaurai's results are questionable from a policy perspective. Hasan et al. (2014) analyzed the nature of causality between financial development and private savings for the period of 1970 -2008 in Turkey. The study make use of a composite index of three alternative financial development measure. The study estimated the long run relationship using Autoregressive Distributed Lag (ARDL) method. To check the robustness of the model, the study employed the Modified Ordinary Least Squares (FM-OLS) and Dynamic Ordinary Least Square (DOLS). The study revealed that private savings have been positively and significantly affected not only by the composite index of financial development, but also by each one of the respective three components of this index.

Hussein et al. (2017) examined the relationship between real interest rate, financial development and private savings in Egypt using Vector Error Correction Model (VECM) with quarterly data spanning from 1991 to 2010. The study employed two series of tests namely the

Dickey Fuller test and the Engle and Granger (1987) as well as the Johansen (1988) multivariate cointegration techniques. Their study revealed that private savings were positively and significantly influenced by financial development and real interest rates in the long run in Egypt. Although, the use of the Johansen multivariate procedure is a powerful way of analyzing data, it has the challenge to identify cointegration vectors. In addition, the Johansen test tend to find spurious cointegration with probability approaching one asymptotically (Gonzalo and Lee, 1997).

Raheem and Oyinlola (2016), studied the interlinkages between financial development, savings and investment in 37 Sub-Saharan African (SSA) countries using the Generalized Methods of Moments (GMM) and data from 1999 to 2010. Their study found that improved financial development helped in the mobilization of more savings, which in turn accelerated the investment capacity of SSA countries. Ewetan et al. (2015), examined the long-run relationship between financial sector development and domestic saving in Nigeria for the period 1980 to 2012 using time series data. The study employs the Autoregressive Distributed Lag Estimation (ARDL). The study made use of a composite index constructed from the three alternative financial development indicators measures. The econometric results provided evidence of long run relationship between financial sector development and domestic saving in Nigeria. The study revealed that, the constructed composite index of financial development has found a positive and significant impact on domestic savings likewise each of the respective three components of this index has a positive impact on domestic savings. Although, these researchers converted their data into an index of financial development using principal component analysis to encounter for correlation, the principal component analysis causes difficulties in interpreting the independent variable and

requires the data to be standardized, hence have their results might be subjected to bias and wrong interpretation. Their results might be inadequate to inform policy makers.

Baya (2014) studied the linkage between savings and financial development in emerging Asian countries using panel regression analysis with data from 1992 to 2011. Financial development, real interest rate and economic growth were found to have had an independent positive and significant impact on domestic savings in emerging Asian countries. This study was done in Asian countries and therefore, cannot be used make conclusions in respect to countries in Sub Saharan countries like Zimbabwe. Kelly and Mavrotas (2008) investigated the link between financial development and gross domestic savings on 17 African countries for the period 1972-94 employing the Pedron panel co-integration test. They found a positive correlation between financial sector development and savings mobilisation. Although, a positive relationship was established in many countries, the results were inconclusive. The study revealed the need for strengthening the financial systems in Africa is of paramount importance.

Khan and Hye (2010) examined the relationship between the financial sector reforms and household savings in Pakistan. Their study employed the ARDL cointegration technique using annual time series data from 1988 to 2008. The study found a negative relationship between financial liberalisation index and household savings in both short and long run periods, suggesting that financial liberalization slipped down the savings instead of enhancing it. Therefore, their study concluded that policy-makers should not heavy rely on financial reforms to boost household savings. However, the study indicated that per-capital income, agriculture sector GDP and remittances positively affected the household savings in the

short-run, while the real deposit rate negatively affected the household savings in the long-run.

Beck and Levine (2004) analysed the relationship between financial development and changes in income distribution in 52 developing and developed countries over the period 1960-1999. The purpose of the study was to assess whether there is a direct relationship between financial development (measured by credit to private sector ratio) and changes in income distribution. The study revealed that the income of the poorest 20 per cent of the population grows faster than the average GDP per capita in countries with higher financial development, and that income inequality falls. The study also noted that financial development contributes to reductions in infant mortality. Kapingura and Alagidede (2016) examined the link between financial sector development and savings mobilisation in South Africa from 1980 to 2012. The study employed the Johansen cointegration approach using the Life Cycle Hypothesis as the theoretical framework. The study revealed a long-run relationship between savings, interest rates and financial development. Their results are consistent with a priori expectations and corresponds to the findings of Tsaurai (2017), Ewetan et al. (2015), Hasan et al. (2014), Baya (2014) and Raheem and Oyinlola (2016). Their findings might be differ from a methodological point of view.

METHODS AND MATERIALS:

In this study, we intend to apply the Auto Regressive Distributed Lag (ARDL) model to test for the presence of a long run relationship between financial sector development and savings mobilisation. The model used credit to the private sector as an independent variable, a proxy to financial sector development and domestic savings, exchange rate and interest rate deposits as explanatory variables. The model was specified as follows;

$$CPS_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} CPS_{t-i} + \sum_{i=0}^n \alpha_{2i} DS_{t-i} + \sum_{i=0}^n \alpha_{3i} EXCH_{t-i} + \sum_{i=0}^n \alpha_{4i} IRTD_{t-i} + \alpha_5 CPS_{t-1} + \alpha_6 DS_{t-1} + \alpha_7 EXCH_{t-1} + \alpha_8 IRTD_{t-1} + \mu_i \dots (1)$$

$$DS_t = \beta_0 + \sum_{i=1}^n \beta_{1i} DS_{t-i} + \sum_{i=0}^n \alpha_{2i} CPS_{t-i} + \sum_{i=0}^n \beta_{3i} EXCH_{t-i} + \sum_{i=0}^n \beta_{4i} IRTD_{t-i} + \beta_5 CPS_{t-1} + \beta_6 DS_{t-1} + \beta_7 EXCH_{t-1} + \beta_8 IRTD_{t-1} + \mu_i \dots (2)$$

where; *CR* = Credit to private sector, *DS* = Domestic savings, *IRTD*=Interest rate deposits, *EXCH* =Exchange rate, α = parameters, μ = error term.

RESULTS AND PRESENTATION OF FINDINGS:

Table 1. Descriptive Statistics: Sample Period 1990-2018

Variable (s)	DS	CPS	EXCH	IRTD
Mean	5.339630	28.33452	3396.057	47.07562
Median	2.340000	27.63839	6.935000	24.00000
Maximum	21.80000	55.71695	84587.57	340.0000
Minimum	-14.00000	7.217207	1.000000	8.000000
Std. Dev.	10.97038	11.88816	16263.52	70.03399
Skewness	0.020944	0.198156	4.868088	3.243806
Kurtosis	1.609039	2.444757	24.81038	13.16846
Jarque- Bera	2.178594	0.523528	641.7963	163.6724
Probability	0.336453	0.769693	0.000000	0.000000
Sum	144.1700	765.0321	91693.55	1271.042
Sum Sq. Dev	3129.082	3674.538	6.88E+09	127523.8
Observations	27	27	27	27

Source: Author Computations by Eviews 10

Table 1 above shows that the average domestic savings rate during the study period was 5.3 % while the financial sector allocated an average credit of 28.3 % of the GDP to the private sector during the period under review. The private sector include; individual companies usually financed through banks and microfinance institutions as well as the Industrial Development Corporation of Zimbabwe (IDCZ) among others. The table also shows an average exchange rate of 3396.1% during the study period, while the interest rate deposit shows an average of 47.1%. As shown on the table, the descriptive statistics shows a wide variation of the means, especially on the exchange rate. It also shows large variation on the maximum and minimum. The huge differences might be attributed to hyperinflationary period which took place between 2007 to 2008. The skewness

statistic shows that all the variables are positively skewed, which means that all the variables under consideration are not normally distributed. On the other hand, the kurtosis also confirms that the data is not normally distributed.

Table 2. Unit Root Results

Variable	ADF statistic in Levels	ADF statistic in first difference	Comments
CPS	-1.041277	-2.701103**	I (1)
DS	-1.797122	-3.699871*	I (1)
EXCH	-5.267899	-	I (0)
IRTD	-3.689194	-2.625121**	I (1)

Author's computation by Eviews 10

Note: *, **, *** show the level of significant at 1%, 5% and 10% respectively.

Table 2 above shows stationarity tests conducted. Credit to the private sector and interest rate deposits were found to be stationary at 10% level in their first difference while domestic savings was stationary at 5% level of significance at its first difference. Exchange rate was stationary in levels.

Table 3. Long run ARDL Model (1, 0, 3, 3): CPS is the Dependent Variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
CPS(-1)	0.317413	0.158341	2.004616	0.0634
DS	0.335603	0.156963	2.138110	0.0494
EXCH	-3.54E-05	7.60E-06	-4.659312	0.0003
EXCH(-1)	-2.13E-05	4.48E-06	-4.755264	0.0003
EXCH(-2)	3.95E-06	3.31E-06	1.192356	0.2516
EXCH(-3)	-5.07E-05	1.02E-05	-4.948477	0.0002
ITRD	0.030462	0.027194	1.120180	0.2803
ITRD(-1)	0.082832	0.030267	2.736696	0.0153
ITRD(-2)	-0.263463	0.042074	-6.261931	0.0000
ITRD(-3)	0.593317	0.117166	5.063906	0.0001
C	3.891895	4.622361	0.841971	0.4130

R-squared 0.863577	Mean dependent var 24.65960
Adjusted R-squared 0.772628	S.D. dependent var 13.23380
S.E. of regression 6.310337	Akaike info criterion 6.818363
Sum squared resid 597.3052	Schwarz criterion 7.350634
Log likelihood -77.63871	Hannan-Quinn criter. 6.971638
F-statistic 9.495220	Durbin-Watson stat 1.995706
Prob(F-statistic) 0.000079	

Source: Author Computations by Eviews 10

Table 3 shows that, in three periods (third, previous and current), real exchange rate has a negative coefficients and is statistically significant at 5% levels. This means that real exchange rate was found to be significant in explaining variations in credit allocation to the private business. The results were in line with the findings of Serve (2003). He found that real exchange rate has a stronger negative effect on investment in the private sector, financed through credit allocations. This implies that a competitive exchange encourages private sector business to borrow for investment from financial institutions. However, if the exchange rate is volatile, it signifies a decline in business activities and a distortion in financial markets. Hence, a negative relationship between real exchange and credit to the private sector. On the other hand, interest rate deposits has a positive effect on credit to the private sector in the previous period and is statistically significant at 10% levels. Assefa (2014) in his study confirmed these results in his study. This implies that if the rate of return on savings is higher, the private sector business save more and this will give leverage for financial institutions to lend more money to the private sector, hence a positive relationship.

Table 4. ARDL- Error Correction Term: CPS is the dependent variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.891895	1.420332	2.740131	0.0152
D(EXCH)	-3.54E-05	6.13E-06	-5.777494	0.0000
D(EXCH(-1))	4.67E-05	9.22E-06	5.070523	0.0001
D(EXCH(-2))	5.07E-05	7.39E-06	6.862853	0.0000
D(ITRD)	0.030462	0.021625	1.408610	0.1793
D(ITRD(-1))	-0.329854	0.071478	-4.614787	0.0003
D(ITRD(-2))	-0.593317	0.083388	-7.115126	0.0000
CointEq(-1)*	-0.682587	0.117862	-5.791408	0.0000

R-squared 0.832840	Mean dependent var -1.138990
Adjusted R-squared 0.767833	S.D. dependent var 11.95534
S.E. of regression 5.760523	Akaike info criterion 6.587593
Sum squared resid 597.3052	Schwarz criterion 6.974700
Log likelihood 77.63871	Hannan-Quinn criter. 6.699066
F-statistic 12.81161	Durbin-Watson stat 1.995706
Prob(F-statistic) 0.000008	

Author's computation by Eviews 10

Table 4 shows the error correction term of (-0.682587) was not only negative but also statistically significant. The results confirms both short run and long run causality since the ECT is statistically significant and has the expected negative sign. The ECT measures the speed of adjustment back to equilibrium following a shock in the system. This means that domestic savings, interest rate deposits and exchange rate Granger cause financial sector development in the long run. The coefficient also reconfirms the presence of a long run relationship. It shows that any deviation from the equilibrium in the current period will be corrected 68.3% in the next period. This was a moderate speed of adjustment.

Table 5. ARDL Long Run Model Selected (1, 4, 3, 2): DS dependent variable

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
DS(-1)	0.784175	0.315093	2.488711	0.0301
CPS	0.096283	0.159973	0.601867	0.5595
CPS(-1)	-0.347191	0.184511	-1.881680	0.0866
CPS(-2)	1.210481	0.563171	2.149404	0.0547
CPS(-3)	-1.484411	0.796809	-1.862944	0.0894
CPS(-4)	0.495248	0.420147	1.178749	0.2634
EXCH	8.71E-06	2.81E-06	3.095061	0.0102
EXCH(-1)	-8.88E-06	3.96E-06	-2.243816	0.0464
EXCH(-2)	1.30E-05	4.27E-06	3.032900	0.0114
EXCH(-3)	-4.15E-06	2.06E-06	-2.016711	0.0688
ITRD	-0.152462	0.068486	-2.226169	0.0478
ITRD(-1)	0.274739	0.110254	2.491865	0.0299
ITRD(-2)	-0.195244	0.085389	-2.286533	0.0430
C	4.638578	8.968812	0.517190	0.6153
R-squared				
0.899598	Mean dependent var			
Adjusted R-squared	1.719200			
0.780941	S.D. dependent var			
S.E. of regression	11.36143			
5.317570	Akaike info criterion			
Sum squared resid	6.478929			
311.0421	Schwarz criterion			
Log likelihood	7.161500			
-66.98662	Hannan-Quinn criter.			
F-statistic	6.668245			
7.581509	Durbin-Watson stat			
Prob(F-statistic)	2.433599			
0.000958				

Author's computation by Eviews 10

Table 6 shows that real exchange rate for the two periods (current and second) has a positive coefficient and statistically significant at 10% level. This implies that a competitive real

exchange rate have a positive influence to stimulate domestic savings as confirmed by authors such as Gala and Rocha (2009). However, other periods shows that interest rate deposits have a negative effect on domestic savings though not statistically significant. This results is in line with findings of Khan and Hye (2010). This implies that financial sector reforms will not always lead to an increase in savings mobilisations.

CONCLUSIONS AND RESULTS DISCUSSION:

Domestic savings has a positive relationship with credit to the private sector in the current period, although it is statistically insignificant in explaining the variations in credit to the private sector in the short run. This indicates that domestic savings in the short run have might have not stimulate credit to the private sector, hence current savings had more impact in successive periods. Credit to the private sector has a positive effect on domestic savings in the current period, although it is statistically insignificant in explaining the variations in the domestic savings in the short run. However, in the previous period, credit to the private sector negatively affect domestic savings. This might be due to credit rationing, lack of collateral security, non-performing loans and wrong channeling of the credits.

Real exchange rate negatively affects private sector credits in current and previous periods. In both periods, the exchange rate is statistically significant in explaining variations in the credit to the private sector. This might be due to exchange rate volatility especially during the hyperinflationary period from 2007-2008. However, in the other periods, the real exchange rate shows a positive effect in explaining the credit to the private sector. This is because a competitive exchange rate might stimulate private sector through improved competitiveness. This will give the leverage to the private sector to borrow and inject in their

business. On the other hand, exchange rate in the current period is positively affect domestic savings. A competitive exchange rate might influence domestic savings by attracting new players in the private sector business since the exchange rate is favorable.

The Error Correction Term of -0.682587 was statistically significant and it confirms the existence of long run relationship between credit to the private sector and its regressors are cointegrated. Therefore, approximately 68.3% of the disequilibrium caused by the shock in the previous year got corrected in the current year. This implies causality between credit to the private sector and domestic savings.

Interest rate deposits has a positive effect on credit to the private sector in the previous period and is statistically significant at 10% levels. This implies that if the rate of return on savings is higher, savers are willing to save more hence, financial institutions might have the capacity to lend to the private sector in the future. However, other periods shows that interest rate deposits have a negative effect on domestic savings though not statistically significant. This implies that policy makers should not heavily rely on financial reforms to boost domestic savings hence emphasis should be put on maintaining high growth rate through agricultural development. This results resonate with the findings of Khan and Hye (2010).

This study conclude that there is a causal relationship between credit to the private sector and domestic savings in Zimbabwe. This is shown by a negative and statistically significant ECT. Real exchange rate has a negative effect on private sector credits. Credit to the private sector in the previous period negatively affect domestic savings in Zimbabwe. This might be due to credit rationing, lack of collateral security, non-performing loans and wrong channeling of the credits. Credit to the private sector caused exchange rate. However, it does not caused interest rate deposits while domestic saving and

exchange rate caused interest rate deposits. The rate of return on savings is crucial in determining the level of future savings in an economy hence economic development.

Governments should not heavily rely on financial reforms to boost savings, focus should be also on attaining high level of growth.

POLICY IMPLICATIONS:

The results established a steady long run relationship between credit to the private sector and domestic savings. Domestic saving has a positive impact on credit to the private sector, a proxy to financial sector development, in the current period, although it is statistically insignificant. The policy implication is that, in the current period, the country might not expect a significant impact of savings but can be realized over a certain period of time. Hence, current savings determines the growth of future savings in an economy, thus there is need to for the government to implement policies conducive for savings mobilisation. On the other hand, credit to the private sector has a positive impact on domestic savings in the current period, although it is statistically insignificant in explaining the variations in the domestic savings. However, in the previous period, credit to the private sector negatively affect domestic savings. The negative sign shows some interventions to ensure a fair allocation of credits to the private sector such as credit rationing. Although credit rationing is important to ensure fair distribution of credits, it affect the level of savings in the long run. Therefore, there is need for the government to come up with strategies to curb issues on non-performing loans, collateral security and misallocation of credit to the private. These are some of the issues which might restrict the financial sector to allocate adequate credit to the private sector.

The real exchange rate has a negative impact on private sector credits in current and previous periods and is statistically significant.

However, in the other periods, the real exchange rate shows a positive effect in explaining the credit to the private sector. This might be as a result of a competitive exchange rate which the country had passed through and has an indirect effect on financial and economic stability. Sound financial institutions have the leverage to mobilize saving in an economy. The policy implication is that the government of Zimbabwe should come up with an appropriate exchange rate policy to create confidence in the financial sector. The study therefore, recommends that the government of Zimbabwe should adopt measures to increase savings mobilisation efforts in order to boost financial development, which is a catalyst for the growth of the economy. For the economy to mobilize savings, it is recommended that appropriate financial development enhancement policies should be put in place to mop up savings and these savings should be channeled towards the productive sectors of the economy.

In addition, the study recommends that the monetary authorities should implement strategies to instill the savings culture and forego current consumption for future economic development. To achieve this, the government should to pursue overall macroeconomic policies that provide for a stable economic climate, thereby fostering confidence among all economic agents who will become incentivized to increase their propensity to save. It is also the role of the monetary authorities to ensure the stability of the banking sector in order to re-gain confidence of a wary public. However, to instill confidence in the banking sector, the RBZ should exercise appropriate and timely oversight and enforce rules consistently and predictably.

The study also recommends the need for the government of Zimbabwe not to heavily rely on financial reforms to boost domestic savings. Zimbabwe has implemented a number of financial reforms since 1990 to date aimed at boosting savings through strengthening the

financial sector. However, the financial reforms failed to yield the expected results during this period, hence policy makers should not heavily rely on financial reforms to boost domestic savings hence emphasis should be put on maintaining high growth rate through various developmental projects. Finally, the study recommends that, the monetary authorities should ensure that, interest rate deposits are favorable such that it can attract savings. Zimbabwe has experienced a prolonged period of unfavorable interest rates deposits and this prompted many individual business people to put their money under the pillow.

REFERENCES:

- 1) Abdulraheem, F. et al. (2018). Determinants of Financial Sector Development in Nigeria
- 2) Antwi-Asare, T.O. and Addison, E.K.Y. (2000). Financial Sector Reforms and Bank Performance in Ghana: Overseas Development Institute.
- 3) Ayadi, R. et al. (2013). Determinants of Financial Development across the Mediterranean: MEDPRO Technical Report No. 29/February 2013
- 4) Belloumi, M. (2014). The relationship between trade, FDI and economic growth in Tunisia: An application of the autoregressive distributed lag model. *Economic Systems*. Accessed from: <http://dx.doi.org/10.1016/j.ecosys.2013.09.002>. (02 February 2018)
- 5) Bist, J.P. (2018). Financial Development and economic growth: Evidence from a panel of 16 African and non-African low-income countries, *Cogent Economics & Finance*, 6:1, 1449780, DOI:10.1080/23322039.2018.1449780
- 6) Chandraprakash, K. S. (2006). Financial Sector Reforms in India (FSRI): Institutional and Legal Aspects.
- 7) Chigumira, G. and Makochekanwa, A. (2013). Financial Liberalization and Crisis: Experience and Lessons for Zimbabwe
- 8) Gala, P and Rocha, M. (2008). Real exchange rates, domestic and foreign savings: The Missing link.

- 9) Gemech, F. and Struthers, J. (2003). The McKinnon-Shaw Hypothesis: A review of recent development in Financial Liberalisation Theory.
- 10) Gujarati, N.D (2003). Basic Econometrics, Mc.Graw-Hill: New York. 4th Edition.
- 11) Kapingura, F. M. and Alagidede, P. (2016). The relationship between financial sector development and savings mobilization in South Africa: An empirical study. Development Southern Africa: Vol 33, No 5
- 12) King, R.G and Levine, R (1993). The World Bank: Finance and Growth. Schumpeter might be right.
- 13) Kunofiwa, K. (2017). Savings Mobilization and Financial Development during the Multicurrency Regime Period in Zimbabwe, South Africa; Journal of Economics and Behavioral Studies (ISSN: 2220-6140)
- 14) Nkoro, E. and Uko, A.K. (2016). Autoregressive Distributed Lag (ARDL) Cointegration Technique: Application and Interpretation. Journal of Statistical and Econometric Methods, 5, 63-91
- 15) Law, M.F. and Hook, S. (2013). The Determinants of Financial Development: New Evidence from the Middle East and North Africa Region
- 16) Loayza et al. (2000). Saving in Developing Countries: An Overview. The World Bank Economic Review, Vol. 14, No. 3: 393-414,
- 17) Mankiw, N.G (2001). Macroeconomics; 5th Edition.
- 18) Mbu, S. A. (2016). An Analysis of the impact of financial sector reforms on economic growth in Cameroon; International Journal of Development and Economic Sustainability Vol.4, No.4, pp.1-11.
- 19) Mavrotas, G. & Munzele, M. S. (2003). Financial Sector Reforms and Savings Mobilization in Zambia. World Institute for Development Research. United Nations University.
- 20) Ocran, M. (2012). Issues in Development Finance: Mandela Metropolitan University, Africa Growth Institute.
- 21) Olabanji, O, Donald, N. and Ese, U. (2015). Financial Sector Development and Domestic Savings in Nigeria: A Bounds Testing Co-Integration Approach. International Journal of Research in Humanities and Social Studies Volume 2
- 22) Omoniyi, L. G. and Olawale, A. N. (2015). "An Application of ARDL Bounds Testing Procedure to the Estimation of Level Relationship between Exchange Rate, Crude Oil Price and Inflation Rate in Nigeria". International Journal of Statistics and Application, 5(2), 81-90
- 23) Owusu, T. P. and Kwesi, O.C. (2013). Determinants of financial development in Ghana: International Journal of Development and Sustainability Online ISSN: 2168-8662 – www.isdsnet.com/ijds Volume 2 Number 4 (2013): Pages 2324-2336
- 24) Raftopoulos, B. & Lacoste, J. (2001). Savings Mobilisation to Micro-Finance: A Historical Perspective on the Zimbabwe Savings Development Movement
- 25) Reserve Bank of Zimbabwe. (2017). database on www.rbz.co.zw
- 26) Romer, D. (1996). Advanced macroeconomics, Mc.Graw-Hill Companies
- 27) Sghaier, I. M. and Abida, Z. (2013). "Foreign direct investment, financial development and economic growth: Empirical evidence from North African countries". Journal of International and Global Economic Studies, 6(1), 1-13.
- 28) Sloman, J. (2006). Economics, 6th Edition
- 29) Sogut, E. (2008). The Determinants of Financial Development and Private Sector Credits: Evidence from Panel Data