THE IMPACT OF SAVINGS IN ECONOMIC GROWTH: ANALYSIS ON MYANMAR ECONOMY

By

THAW, Zin Win

THESIS

Submitted to

KDI School of Public Policy and Management

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Abstract

The present study investigates long-run equilibrium relationship between real economic growth, foreign direct investment, and domestic savings in Myanmar, which has a developing economy. Bounds tests confirm that foreign direct investments and domestic savings are in long-term equilibrium relationship with real GDP growth. Domestic savings and FDI have positive, statistically significant, and inelastic impact on real GDP both in the long term and short term of the Myanmar economy. Error correction model reveals that real GDP of Myanmar converges to its long-term equilibrium level by 74.7% (which is high) by the contribution of foreign direct investment and domestic savings. Furthermore, domestic savings and foreign direct investments are driven in the long term of the Myanmar economy.

Keywords: Domestic Savings, Foreign Direct Investment, Economic Growth, Myanmar, Co-integration test ARDL.

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CHAPTER ONE: INTRODUCTION

Myanmar, according to the World Bank data, the total population was 52.89 million, GDP was $67.43 billion, and the GDP growth rate was 6.5 percent respectively in 2016. In 2011, Myanmar Launched fundamental political and economic reforms aimed at increasing openness, empowerment, and inclusion. The Central Bank of Myanmar takes the important role in Myanmar's Economic Reforms. Since late 1988, pursuing a market-oriented economic system. Myanmar has made an effort to raise its available financial capital through various ways and means, including attracting FDI, liberalizing trade and banking sectors, encouraging private and public savings, taking steps to create a securities market, etc.

Myanmar is an agricultural country and also a developing country. The efficient and effective banking system is essential for economic development and other social development. Too much money supply leads to inflation, and too little money supply can cause deflation. Both inflation and deflation can hinder the economic development. After opening up the economy, Myanmar Banking Sector developed. The number of private and state-owned banks increased and encouraged the savings in spite of being interest rate decreased. So Gross Domestic Savings is the year to year increase. Myanmar's people still need sound banking habits in saving and investment. Most of the economists are believe that savings have a major engine of economic growth in the long run. Investment is an important role for economic growth and aggregate wealth. But the investment cannot raise without increasing the amount of domestic savings. So Savings is an important role for the national economy building.

Moreover, Myanmar is essential to have more efficient banks to channel the saving from the savers to the people who need the money to invest. So, this paper aims to investigate the effect of saving on Myanmar economy growth

1.1 Rationale for the study

At the present Myanmar adopted the market-oriented economic policy and laid down the twelve political, economic and social objectives. To develop the country, economic and social reforms are also made.

The financial sector is also reformed according to the new Financial Institutions Law, 1990. But, Banks still needs to meet the needs of people and to implement their functions fully. Myanmar is essential to have efficient and sound banking for development. Most of the Myanmar people are not intimate saving structure and investment. They use traditional methods for saving and investment. Myanmar interest rate is high, so people willing to save is high. But this highest interest rate is enormous obstacles for local business and investment. This paper aims to investigate increase domestic saving rate is how much effect on Myanmar economic growth or not.

As promoting Gross domestic savings and investment is important for the economic and social development, this paper intends to analyze gross domestic savings and investment with Foreign direct investment.

1.1 Objectives of the Study

The purpose of this article is to trace on how much effect of domestic saving on Myanmar economy growth and investment. And then to apply Harrod-Domar growth theory and Solow growth theory in Myanmar economy.

1.2 Method of Study

This paper applied quantitative methods and time series analysis. Model is ADF test and ARDL long-run cointegration test on Eviews 9.0.

1.3 Scope of the Study

The data is used in 1995 to 2015time series data. Data from World Bank Group and Asia Development Bank Asia Pacific Key indicators.

1.4 Organization of the Study

This paper is organized into five chapters.

Chapter-1 mentions the introduction, rationale for the study, objective of the study, the scope of the study, a method of the study and the organization of the study.

Chapter-2 provides information about History of Gross Domestic Savings and Myanmar gross domestic saving structure and Foreign Direct Investment.

Chapter-3 Literature review for related with domestic saving, FDI, and economic growth.

Chapter-4 Econometric framework includes describing the definition and types. Describe ADF test and ARDL approach.

Chapter-5 Empirical Results including test ADF test results, ARDL long run test results, and short-run test results.

Chapter-6 is the conclusion and which summarize the analysis of domestic savings in economic growth and policy recommendations.

CHAPTER TWO: IMPORTANCE OF GROSS DOMESTIC SAVINGS

2.1 What is Gross Domestic Savings

Gross Domestic Saving can be defined as Gross Domestic Product minus final Consumption expenditure. GDS can be expressed as a (%percentage of GDP). GDS include household saving, private savings, and public saving.

2.2 How to relate Savings and Economic growth

The economic growth and sustainable development is the essential goal for all nations. Most of the people want to stay more convenient, higher standard of living and more comfortable than ever before.

The government in each country is targeting to reduce poverty rate and increasing people income. Therefore, the government needs to be aiming economic develop. So governments may prepare various kinds of policies such as encourage monetary policies and fiscal policies as well as promote saving, formulating investment and production in the domestic economy.

Savings and investment are essential for economy growth in the long run. Every nation needs to promote their economy. Investment can be an increase in capital and aggregate income. But the investment cannot increase without increasing the amount of saving and foreign direct investment. Thus, Savings and FDI inflow are important for investment and production, which will affect the potential of economic growth. Developing countries facing constraints and obstacle to achieving economic development because of the low rate of saving and low rate of foreign direct investment. According to previous growth theory, increasing aggregate savings can promote investment and GDP. The country economic growth is higher people per capita income also increase. Increasing income can be created higher savings and investment. Therefore, Savings, investment, and economic growth are related each other.

2.3 Conditions of Myanmar Gross Domestic Savings and Foreign Direct Investment

Myanmar is developing the country. Although, we need more capital and investment. The important investment of capital comes from Foreign direct investment and domestic saving. Therefore, Myanmar domestic savings can be categorized into two groups; there are internal savings and external savings. Internal savings includes private savings, state own enterprise savings, and public savings.

Table 1: Gross Domestic Saving, Foreign Direct Investment and Real Gross Domestic Product in Myanmar

Years	RGDP($million)	FDI($million)	GDS (% of GDP)
2000	15984.7	255	12.3
2001	17798.0	211	11.5
2002	19938.4	190	10.2
2003	22698.6	250	11.0
2004	25777.6	269	12.3
2005	29275.4	239	13.1
2006	33103.4	277	15.2
2007	37073.0	715	14.9
2008	40875.0	872	17.4
2009	45187.3	1,077	15.8
2010	49540.8	1,492	32.7
2011	52310.9	2,539	37.0
2012	56146.7	1,342	36.6
2013	60877.6	2,244 |	33.8
2014	65742.5	2,190	32.6
2015	70537.7	3,142	31.8

Saving as one of the primary sources of capital and investment which can be smooth to run the economic procedure and sustain financial stability should be studied. Higher saving rate

and higher FDI leads to increase investment and then leads to higher economic growth, or most empirical results will provide evidence of causality from economic growth to saving and investment.

2.4 Myanmar Household Savings

Households saving is comprise saving deposits, time deposits, and certificates of Savings Division at the Myanmar Economic Bank(MEB), Myanmar Investment Bank and Domestic commercial Banks accept savings deposits and time deposits

Households Savings (Kyat Million)

FY	Total	Saving Deposits		Saving Certificates		Time Deposits		Other Deposits	
		State Owned Banks	Private Banks	State Owned Banks	Private Banks	State Owned Banks	Private Banks	State Owned Banks	Private Banks
2005	698208	408250	266142	16628	-	3577	3611	-	-
2006	903722	464966	412061	16713	-	4772	5210	-	-
2007	1172251	611716	530533	16834	-	4909	8259	-	-
2008	1569955	792749	734381	17212	-	7929	17684	-	-
2009	2226508	1180251	998850	17651	-	14324	15432	-	-
2010	3295008	1486532	1676995	18701	-	23304	89476	-	-
2013	9382106	2303315	5328154	34789	-	30928	177223	1378240	129457
2014	13469787	2575602	7339148	46117	-	42506	798821	2474833	192760
2015	16687337	2853678	8394781	46189	-	54962	2666842	2271343	399542

Source: Central Bank of Myanmar

The total people's savings increased by 23.89% 2014-15 over the previous year. Private Banks represented 74% of total savings deposits and 95% of total time deposits in 2013-2014. These shares have increased in 2014-2015, where private banks represented 75% of total deposits and 98% of total time deposits. Expect of "Other deposits," savings in Private Banks are higher than in State-owned banks. Most people choose saving deposits.

For many decades, Myanmar economy has been destroyed by its institutional failures and mismanagement. Under Military Regime, Myanmar's gross domestic saving as a percentage of GDP was only 12.01% from 1990 to 2010 on average. Myanmar domestic savings and investment structure had passed through many difficulties. Military government abandons some currency. This fact can case 8888 revolution and riots. After the 8888 revolutions Myanmar economic and political structure was transformed with many challenges. In 2011, when Democracy government came to power under President U Thein Sein, Myanmar formulate on a major policy of reforms including the anti-corruption, Banking sector, foreign investment laws and foreign currency exchange rate, etc. Foreign Direct Investments (FDI) increased from US$300 million in 2009-10 to a US$20 billion in 2010-11 by about 65.67%.That's the better chance for Myanmar economy and capital. This foreign direct investment inflow result is promoted Myanmar gross capital formation.

Myanmar's gross domestic saving as a percentage of GDP was only 12.01% from 1990 to 2010 on average. In the New Democracy government, the gross domestic saving rate gradually increases. We also saw that gross domestic saving seems to grow 15.8% of GDP in 2009 to 32.7 % of GDP in 2010 gradually raise 16.9% of GDP which indicates that the average gross domestic savings rate in Myanmar increase compared with other ASEAN countries.

The trend of Myanmar GDP growth rate has been dramatically decline and shutdown since 1987 and 1988. Because of that time has suffered riots and unstable political conditions. The growth rate of GDP is negative (-11.352%). However, the unsmooth and unbalanced of GDP pattern of Myanmar casts doubts on the status of the growth process in the countries. Myanmar's growth over the period 1999 to 2012 is particularly impressive with the average real output growth of around 11%, which brings social and political stability to the country. After the recession, recent economic recovery of Myanmar economy seems to increase gradually and economic strength by achieving

GDP growth rates of 7.3%, 8.43%, and 7.99% in 2012, 2013, and 2014. In this research paper aims to investigate the effect of domestic saving on Myanmar economic growth and the effect of capital formation or investment on Myanmar economy. Myanmar is developing the country, so our nation investment needed domestic saving and foreign direct investment.

Thus, it uses the data between the years 1995 and 2015 Myanmar saving rate and Foreign direct investment effect on economic growth by applying Augmented Dickey-Fuller test and Auto Regressive Distribution Lag Test.

The Auto Regressive Distribution Lag Test method was used to test in this research to know long run and short run impact between domestic saving and (RGDP) Real Gross Domestic Product of Myanmar.

CHAPTER THREE: LITERATURE REVIEW

Literature Review

Many theoretical kinds of literature can be proved that economic growth depends on savings. Including Harrod and Domar and other famous economist are discovered increases in saving can raise investment and capital.

If the country wants to be higher capitals for the investment, we need to be the higher saving rate. The more capital goods a nation has, the more goods and services it can produce. In this condition, it can be assumed that a higher level of savings rate leads to increased capital stock, which in turn leads to a high level of output. This assumption has also been assumed in many empirical kinds of literature to conduct whether a positive relationship between the economic growth and savings. Most research has been finding out on the impact of saving and economic growth in all over the world, but it is not known whether saving plays a significant role in promoting growth in Myanmar economy.

Many famous researchers have been used to conduct relationship between domestic savings, Foreign direct investment, and economic growth. There have also been some country specific tests done in different parts of the world on the relationship between savings and economic growth. For example, Dhanya Jagadeesh (2015) can find out the impact of domestic savings on Botswana economy. Using ARDL co-integration model and Dynamic OLS methods. The results indicate that domestic saving is positively significant on Botswana Economy. And then he proved that Harrod-Domar theory on Botswana Economy.

Similarly, Güngör Turan and Olesia Gjergji(2014) to investigate the causality between saving rate and economic growth in Albania between 1992 to 2012.They are using Johansen

Cointegration Test. The empirical results show that savings and economic growth are long-run relationships between each other. In the short run, the results are stable. They suggested that government should promote savings policies and to attract foreign direct investment.

Bassam AbuAl-Foul (2010) this paper examines long-run relationship between real GDP and real GDS. The analysis in Morocco and Tunisia from 1961 to 2007time series data. This paper using newly Pesaran approach. The results prove that Morroco economy growth depends on domestic saving in the long run and Tunisia economy growth is not depend on domestic saving in the long run. So that Morocco economy growth and saving growth has supported the bidirectional Granger Causality test and Tunisia economy growth and savings growth has unidirectional Granger Causality test.

And then, Yılmaz Bayar(2014) this paper show that the relationship between savings FDI and economic growth in Asian countries. This paper using 1982 to 2012 time series data. And then applying Pedroni, Kao, Johansen and Fisher co-integration tests for panel data and vector error correction model. The empirical results conduct GDS, and FDI inflow is positively significant on Asian economy growth.

Although these studies establish a causal relationship between savings to economic growth, other empirical studies demonstrate the opposite views such as Seng Sothan(2014) to find out cause and effect relationship between Cambodia economic growth and domestic saving.Cambodia is one of the ASEAN countries. This paper applied to test Granger Causality model. The empirical test indicates that does not imply causality between domestic saving and Cambodia economic growth. Finally, he found that domestic savings and economic growth are independent of each other in the Cambodia economy. This paper result is opposite from other literature.

Carrol and Weil (1994) apply survey data and cross-country analysis. They show that only economic growth can cause increasing savings, but savings rate increase does not effect on

economic growth. According to survey data, if increasing household income saves more money. This finding is savings are overstated.

It is important to note, however, that the relationship between savings and economic growth may vary from country to country. For example, Pinchawee Rasmidatta (2011) show that the relationship between domestic saving and economic growth. This paper using Convergence hypothesis and a case study of Thailand. The empirical results found that the direction of causality between domestic saving and economic growth.

However, the causality of these individual variables can change depending on the country and may also vary in the short and long term. For example, analysis of short-run dynamics revealed that only Singapore had a high causality between foreign capital inflows and domestic savings, unlike the four other countries studied. Additionally, long run dynamics showed that all countries exhibited a positive relationship between savings and economic growth, except for Thailand.

The theoretical literature shows varying results about the relationship between savings and economic growth. A significant number of studies demonstrated that these two variables are dependent on each other. However, there are also some empirical findings which indicate that this theory does not hold true for all countries. In other words, findings regarding the causal relationship between savings and economic growth are still inconclusive. Results may depend on the quality of data or the estimation techniques that were used. Nonetheless, these studies provide relevant insights in investigating the relationship between domestic savings and economic growth in Myanmar in the long run. As a developing country, studying the case of Myanmar would contribute to the research on this issue.

CHAPTER FOUR: ECONOMETRIC FRAMEWORK

4. METHODOLOGY

4.1DATA Structure

In this research paper, the real gross domestic product is Dependent variable and GDS, FDI is independent variables. The annual data are using from 1990 to 2015. Data are taken from World Bank data and ADB Asia Pacific Key indicators. Real GDP US dollar and FDI amount are massive so changed into a natural logarithm.

The model target to conduct the effect of gross domestic saving on GDP. The model is econometric forms;

$$lRGDP=\beta_0+\beta_1 GDS+\beta_2 LFDI+\mu$$

where;

LRGDP	=	Natural log of Real GDP (constant price 2010US$)
GDS	=	Gross Domestic Saving (% of GDP)
LFDI	=	Natural log of Foreign Direct Investment (US$)

4.2 Co-integration test

This paper aims to apply ARDL bound testing approach to co-integration to conduct the long run relationship between Gross Domestic Product, Gross Domestic Saving and Foreign Direct Investment (FDI).

The ARDL method was discovered by Pesaran and Shin (1999). ARDL model is famous for the following reason; first, The dependent and independent variables are not required same lag or same order in ARDL model, but the order of integration or lag does not exceed one.Second, the long run

and short run relationship can be estimated at the same time.Finally, the ARDL model cane is working for a small sample size (Kim, 2017).

The assumption of ARDL approach

An ardl is a least squares regression containing lags of the dependent and independent variables

The first assumption is we cannot run ARDL if we have any variablesI(2). Second, lags must be appropriate.Third, the error must be serially independent; the model must be dynamically stable if variables are stationary at the level or first difference we can apply ARDL, and then finally variables are stationary at the same time first difference and level also we can use ARDL. Advantages of ARDL model one of the significant advantages of ARDL procedure was that the estimation is possible even when the explanatory variables are endogenous (Alam and Quazi,2003). Furthermore, as long as the ardl model is free of residual correlation, endogeneity is less of a problem. Pesaran and Shin (1999) showed that the appropriate lags in the ARDL model are correlated for both residual correlation and endogeneity. The important advantage of ARDL against the single equation cointegration analysis such as Engle and Granger (1987) is that Engle and granger suffer from problems of endo gently while the ARDL method can distinguish between dependent and explanatory variables. According to Pesaran and Shin (1999), the ARDL method has the additional advantage of yielding consistent estimates of the long run parameters that are asymptotically normal irrespective of whether the variables are l(0),l(1) or mutually integrated. Description of hypothesis is, the null hypothesis of cointegration can be defined as

H_0: $\beta_1\beta_2\beta_3\beta_4=0$

In bond test result if F-statistic is greater than the upper critical value, the null hypothesis is rejected, meaning the variables are cointegrated in long term or short term.

Formula drive for the long term and short run:

$$Lgdpt=\beta_0 + \sum_h \beta_1 lgdp_{t-I} + \sum_p \beta_2 lgds_{t-I} + \sum_q \beta_3 lFDI_{t-I} + £_{1t}$$

The short-term form:

$$Lgdpt=\beta_0 + \sum_h \beta_1 lgdp_{t-i} + \sum_p \beta_2 lgds_{t-i+} \sum_q \beta_3 lFDI_{t-I} + \theta ect_{t-1} + £_{1t}$$

In the short run, the result is significant and has a positive sign if there is no co-integration among the variables. Finally, we can check normality and goodness of fit through diagnostic tests.

CHAPTER FIVE: EMPIRICAL RESULTS

5. Summary Statistics

Table 5 provides basic summary statistics information for the four variables over the sample period and sample size.

	LRGDPUS	LFDIADB	GDS_
Mean	10.01408	6.087680	17.74338
Median	9.965231	5.625098	13.03615
Maximum	11.16390	8.052678	36.96282
Minimum	8.982159	4.650851	10.22768
Std. Dev.	0.737875	1.015276	9.314653
Skewness	0.097011	0.647039	1.222375
Kurtosis	1.560763	2.063852	2.691894
Jarque-Bera	2.284801	2.763597	6.577705
Probability	0.319052	0.251127	0.037297
Sum	260.3661	158.2797	461.3278
Sum Sq.Dev.	13.61149	25.76962	2169.069
Observations	26	26	26

Calculation: E-views 9.0

5.1Unit root or Stationary test apply ADF test

ARDL test is needed to check all variables are stationary or unit root. ADF test can be check unit root or stationary. The null hypothesis of ADF test is β=0 that means the variables has a unit root. If test statistics is greater than the critical value, we can reject the null hypothesis. That means variables have stationary. Note that the direction of the sign will be negative (Kim, 2017).

Table5.1 Augmented Dickey-Fuller (ADF) test result

Variables Symbol	**Without trend at constant**		**With trend at constant**		**Order of integration**
	Level	First Difference	Level	First Difference	
lRGDP(US)	-0.730073	-3.795912***	-2.254354	-3.303417*	I(1)
LFDI	-0.093143	-4.957351****	-1.79767	-5.174831***	I(1)
GDS	-0.49562	-4.336677***	-1.653074	-4.403311**	I(1)

Note: *, ** and *** denote significance level at 10%, 5%, and 1% respectively

Calculation: E-views 9.0

The ADF test shows that GDP, GDS, and LFDI are only stationary after taking the first difference, so they are I (1) variables. We can be applied ARDL approach.

Bond test results are; F- Statistics=6.818826

Optimal Lag Length= ARDL (1,0,0) Critical bound=

I(0) Lower bound	I(1) Upper bond
5.15	6.36
3.79	4.85
3.17	4.14

Calculation: E-views 9.0

F-statistics is (6.818226) greater than upper critical bound (4.14) at 1% significant level. The results indicate that long-run relationship between real GDP and explanatory variables. Using optimal lag is (1,0,0)

Table5-2. Long run Cointegration Form

Long -Run Cointegration Dependent variable is LRGDP				
Independent Variables	Coefficient	Std. Error	t-Statistic	Prob.
GDS_	0.027368	0.009083	3.013008	0.0066*
LFDIADB	0.454157	0.086465	5.252524	0.0000*
Constant	5.528843	0.457718	12.079140	0.0000*

Source: Applied Eviews 9.0 ***,**, * indicates significant at 10% and 5%,1% critical value .

The Long-run results indicate that domestic savings are positively affect on real GDP in the long run Myanmar economy at 1% critical value. The coefficient of Gross Domestic Savings is 0.027368. Indicates that 1% increase in GDS (domestic savings) is approximately 0.03% increase in real GDP. This rate is meager because Myanmar is developing country, so gross domestic saving rate effect is very low on Myanmar Gross domestic product. The coefficient of LFDI is a positive relationship with GDP at 1% significant level. That means 1% increase in Foreign Direct Investment (FDI) causes Gross Domestic Products to increase by 45%. We can see the result increasing FDI inflow is more effective than increasing gross domestic savings. We conclude that Myanmar is developing country, so need to higher capital investment from increasing domestic saving and increasing foreign direct investment inflow.

The short run model (VECM) result shows that the short-run effects of domestic savings on Myanmar economic growth. From the table 5, the short-term model is significant, and directions are the positive sign. We can interpret the coefficient of cointegration equation is 0.075 or 7% with statistical significance. And then, two explanatory variables have statistically significant and adverse effect on Myanmar economic growth in the short run.

Table5-3. Short-run model estimates

Error Correction Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GDS_)	-0.002046	0.000664	-3.079939	0.0057
D(LFDIADB)	-0.033949	0.008121	-4.180345	0.0004
CointEq(-1)	0.074751	0.010502	7.117541	0.0000
Cointeq = LRGDPUS - (0.0274*GDS_ + 0.4542*LFDIADB + 5.5288				

Source: calculation E-views 9.0

The diagnostic table indicate that this ARDL model is no serial correlation, no specification, and normal distribution. Firstly, Checked Heteroskedasticity or not using Breusch-Pagan-Godfrey test. The null hypothesis is variable has heteroskedasticity. The results of p-value are greater than 0.05. We can reject the null hypothesis. And then LM test result is 0.56. We assume that there is no serial correlation. Barquera Normality test p-value is 0.37. All the variables are a normal distribution.

Table5.5 Diagnostic Test table

	Test Statistic	**P-value**
Heteroskedasticity	F-statistic = 2.84	0.0654
Jarquebera Normality	1.95	0.37
SerialCorrelation LM test	F-statistic = 0.54	0.56

Calculation: E-views 9.0 .

CHAPTER SIX: CONCLUSION

6CONCLUSION

In this paper applied to test Auto Regressive Distribution Lag test approach to cointegration to investigate in the short run and long-run effect on savings, foreign direct investment and economic growth in Myanmar. Using annual data from the 1990 to 2015 period are taken from the World Bank and ADB. This paper results in a cointegration relationship between Gross domestic product, gross domestic savings, and Foreign Direct Investment. In the long run, Myanmar domestic savings rate and Foreign Direct Investment have a significantly positive effect on Myanmar economic growth. This result is similar to (Kim, 2017) and (Jagadeesh, 2015).But the result shows that increasing of gross domestic saving effect is less than increasing of FDI on the Myanmar GDP. Because of Myanmar is one of the developing countries, so our nation investment depends on Foreign Direct investment than domestic savings. In the short run, Foreign Direct investment and gross domestic savings do not significantly impact on economic growth. Myanmar government encourage savings habits in the local citizens and then to attract foreign direct investment. As much as making a saving, of more, develop working capital in the Myanmar economy.

6.1RECOMMENDATION

We could analyze by this paper Domestic savings, and foreign direct investment can be useful and efficient to promoted Myanmar economic growth in the long run. As a result, the effect of increasing domestic saving is lower than the effect of growth Foreign Direct Investment on Myanmar economic growth. Because of Myanmar is developing the country, so foreign direct investment inflow is powerfully effective in Myanmar economy. FDI inflow and rising domestic saving rate can increase domestic investment and capital. Myanmar Government needs to reform

Foreign Investment law and monetary sector. Government is targeting to issue actively policies for promoting domestic savings and investment especially foreign direct investment. Now, our new Democracy Government tries to reform foreign investment law and financial sector.

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APPENDIX

ARDL Co-integration test results

ARDL Bounds Test
Date: 09/17/17 Time: 17:10
Sample: 1991 2015
Included observations: 25
Null Hypothesis: No long-run relationships exist

Test Statistic	Value	k
F-statistic	6.818826	2

Critical Value Bounds

Significance	I0 Bound	I1 Bound
10%	3.17	4.14
5%	3.79	4.85
2.5%	4.41	5.52
1%	5.15	6.36

ARDL Cointegrating And Long Run Form
Dependent Variable: LRGDPUS
Selected Model: ARDL(1, 0, 0)
Date: 09/17/17 Time: 20:14
Sample: 1990 2015
Included observations: 25

Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.

D(GDS_)	-0.002046	0.000664	-3.079939	0.0057
D(LFDIADB)	-0.033949	0.008121	-4.180345	0.0004
CointEq(-1)	0.074751	0.010502	7.117541	0.0000

Cointeq = LRGDPUS - (0.0274 *GDS_ + 0.4542*LFDIADB + 5.5288)

Long Run Coefficients

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDS_	0.027368	0.009083	3.013008	0.0066
LFDIADB	0.454157	0.086465	5.252524	0.0000
C	5.528843	0.457718	12.079140	0.0000

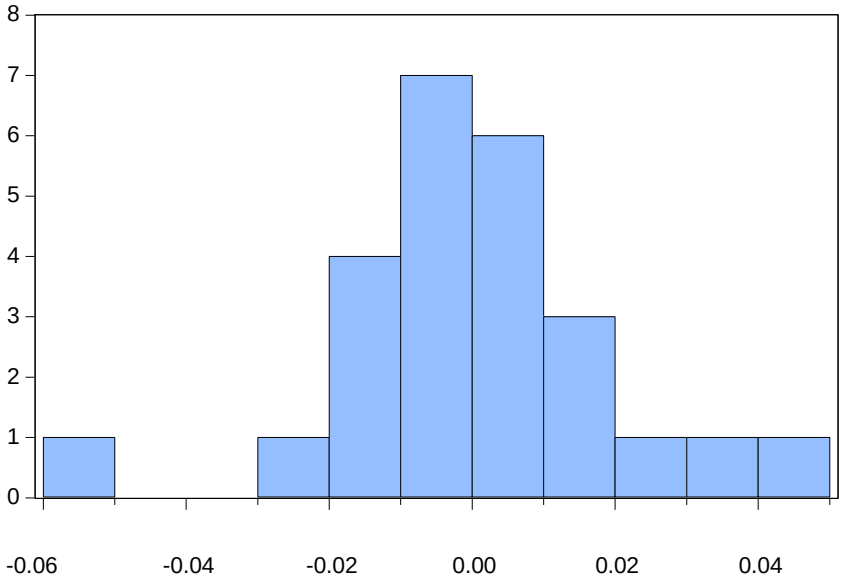
Descriptive Statistic results

Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	2.838126	Prob. F(3,21)	0.0627
Obs*R-squared	7.212060	Prob. Chi-Square(3)	0.0654
Scaled explained SS	8.550277	Prob. Chi-Square(3)	0.0359

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.537177	Prob. F (3,18)	0.6628
Obs*R-squared	2.054317	Prob. Chi-Square (3)	0.5612



Series: Residuals
Sample 1991 2015
Observations 25

Mean	1.57e-15
Median	-0.003085
Maximum	0.041524
Minimum	-0.050682
Std. Dev.	0.018648
Skewness	-0.077602
Kurtosis	4.360410
Jarque-Bera	1.952921
Probability	0.376642

	LRGDPUS	GDS_	LFDIADB
Mean	10.01408	17.74338	6.087680
Median	9.965231	13.03615	5.625098
Maximum	11.16390	36.96282	8.052678
Minimum	8.982159	10.22768	4.650851
Std. Dev.	0.737875	9.314653	1.015276
Skewness	0.097011	1.222375	0.647039
Kurtosis	1.560763	2.691894	2.063852
Jarque-Bera	2.284801	6.577705	2.763597
Probability	0.319052	0.037297	0.251127
Sum	260.3661	461.3278	158.2797
Sum Sq. Dev.	13.61149	2169.069	25.76962
Observations	26	26	26

ADF test results

Null Hypothesis: D(LRGDPUS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.795912	0.0088
Test critical values:	1% level	-3.737853	
	5% level	-2.991878	
	10% level	-2.635542	

*MacKinnon (1996) one -sided p -values.

Null Hypothesis: LRGDPUS has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on S maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		1.144125	0.9967
Test critical values:	1% level	-3.724070	
	5% level	-2.986225	
	10% level	-2.632604	

*MacKinnon (1996) one -sided p -values.

Null Hypothesis: LRGDPUS has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey statistic	-Fuller test	-2.643576	0.2660
Test critical values:	1% level	-4.374307	
	5% level	-3.603202	
	10% level	-3.238054	

*MacKinnon (1996) one -sided p -values.

Null Hypothesis: D(LRGDPUS) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob .*
Augmented Dickey statistic	-Fuller test	-3.303417	0.0896
Test critical values:	1% level	-4.394309	
	5% level	-3.612199	
	10% level	-3.243079	

*MacKinnon (1996) one -sided p values. - xlag=0)

Null Hypothesis: LFDIADB has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, ma

		t-Statistic	Prob.*
Augmented Dickey statistic	-Fuller test	-0.093143	0.9399
Test critical values:	1% level	-3.724070	
	5% level	-2.986225	

10% level	-2.632604	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(LFDIADB) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.957351	0.0006
Test critical values:	1% level	-3.737853	
	5% level	-2.991878	
	10% level	-2.635542	

*MacKinnon (1996) one -sided p -values.

Null Hypothesis: LFDIADB has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.779767	0.6840
Test critical values:	1% level	-4.374307	
	5% level	-3.603202	
	10% level	-3.238054	

*MacKinnon (1996) one -sided p -values.

Null Hypothesis: D(LFDIADB) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey -Fuller test statistic		-5.174831	0.0018
Test critical values:	1% level	-4.394309	
	5% level	-3.612199	
	10% level	-3.243079	

*MacKinnon (1996) one -sided p-values.

Null Hypothesis: GDS_ has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob .*
Augmented Dickey -Fuller test statistic		-0.494562	0.8766
Test critical values:	1% level	-3.724070	
	5% level	-2.986225	
	10% level	-2.632604	

*MacKinnon (1996) one -sided p -values.

Null Hypothesis: D(GDS_) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

	t-Statistic	Prob .*
	-4.336677	0.0025

Augmented Dickey -Fuller test statistic		
Test critical values:	1% level	-3.737853
	5% level	-2.991878
	10% level	-2.635542

*MacKinnon (1996) one -sided p - values.

Null Hypothesis: GDS_ has a unit root
Exogenous: Constant, Linear Trend xlag=0)
Lag Length: 0 (Automatic - based on SIC, ma

		t-Statistic	Prob .*
Augmented Dickey -Fuller test statistic		-1.653074	0.7417
Test critical values:	1% level	-4.374307	
	5% level	-3.603202	
	10% level	-3.238054	

*MacKinnon (1996) one - sided p -values.

Null Hypothesis: D(GDS_) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob .*
Augmented Dickey -Fuller test statistic		-4.403311	0.0098
Test critical values:	1% level	-4.394309	
	5% level	-3.612199	
	10% level	-3.243079	

*MacKinnon (1996) one -sided p-values.