Thesis for the Degree of Master of Arts

The Impact of Civil Conflicts on the Economic Development: A Case Study on Burundi

by

Zébonissa Nduwayezu

Department of International and Areas Studies, The Graduate School,

Pukyong National University

August 2016

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분쟁이 경제발전에 미치는 영향에 관한 연구: 부룬디를 중심으로

Advisor: Prof. Dr. Jong-Hwan Ko

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Zébonissa Nduwayezu

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Approved by:

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(Chairman) **Professor Dongso Kim**

_____ _____

(Member) **Professor Jong-Hwan Ko** (Member) **Professor Utai Uprasen**

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Zébonissa Nduwayezu

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Abstract

This study examines the nature of conflicts and the negative impact they have on the economic development of Burundi. In fact, having read a number of literature review, the position of conflicts has been identified as a factor that fast erases any progress of economic growth. Using the data on conflicts to highlight the possible future position for Burundi, this thesis examines the use of economics in modeling for Burundi. Here, the primary concerns are on the gross domestic products per capita (GDPPC), the population rate indices (Pop), Capital (K), the human capital (HC) and indices of international trade. Taking the study period into the years 1963 up to 2014, the Co-integration analysis has been used. With the interest focused on the possible negative effects on economic growth that Burundi will be having in the near future, this thesis provides a literature analysis on the use of theory to support this argument. Similarly, the empirical research and research design provide better details of the data collection and the analytical position of the effect of civil conflicts on Burundi and its economic development agendas. The analysis suggests that civil conflicts have negatively affected the economic growth of Burundi. Among the various variables that were used, the conflict is the most significant and major contributor in reducing the economic growth.

분쟁이 경제발전에 미치는 영향에 관한 연구: 부룬디를 중심으로

Zébonissa Nduwayezu

부경대학교 대학원 국제지역학부

한글초록

본 논문에서는 분쟁의 특성과 분쟁이 부룬디의 경제에 끼치는 영향에 대해서 분석하였다. 기존 문헌을 참고해보면 대부분의 분쟁의 경우, 분쟁이 발생한 대상국의 경제와 사회 생활을 파괴하는 원인으로서 확인되어 있다. 본 논문에서는 부룬디 분쟁 관련 데이터를 활용하여 분쟁이 부룬디의 경제에 어떠한 영향을 미치게 되는 지를 정량적으로 분석하였다. 우선적으로 분쟁이 부룬디의 GDP, 인구 (Pop), 자본 (K), 인적자본 (HC), 국제무역에 미치는 영향을 분석하였다. 연구 대상 기간은 1963 년부터 2014 년까지이며, Co-integration 분석방법을 사용하였다. 부룬디가 분쟁으로 인해 가까운 장래에 경제성장에 부정적인 효과을 격게 될 것이라는 것 사실에 초점을 두고, 이러한 논의를 지지하는 이론을 사용하여 분쟁이 경제에 미치는 영향에 관한 문헌 연구를 시행하였다 . 또한 본 논문에서는 실증적 연구와 연구 디자인을 활용하여 분쟁이 부룬디와 부룬디의 경제발전에 미치는 영향에 대한 데이터와 기존 연구들의 해석 방법을 소개하였다. 본 논문에서 추정한 결과에 따르면 분쟁은 부룬디의 경제발전 속도를 감소시키는 주요 변수로 파악되었으며, 통계적으로 유의한 것으로 분석되었다.

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List of Abbreviations

ACLED: Armed Conflict Location and Event Data Project

CNDD-FDD: National Council for the Defense of Democracy–Forces for the Defense of Democracy

ICC: International Criminal Court

IMF: International Monetary Fund

OLS: Ordinary Least Square

PALIPEHUTU-FNL: Party for the Liberation of the Hutu People- National Forces of Liberation

UCDP/PRIO: Uppsala Conflict Data Program/ Peace Research Institute of Oslo

UNESCO: United Nations Educational, Scientific and Cultural Organization

UNFPA: United National Population Fund

WDI: World Development Indicators

Chapter 1. Introduction

Burundi is among the poorest countries in the world. Even after a long time of devastating war, Burundi still experiences regular outbursts of violence, which bog down the country's economic growth. The country actually has no carrier or manufacturing industry and over 90 percent of the population depends on subsistence agriculture. As such, Burundi's financial system is notably depending on foreign useful resource, which accounts for over 50 percent of government budget. In the later years, international companies have been running to deal with large corruption, loss of protection, poor infrastructure, poor education and healthcare system. As a result, Burundi has been able to attract foreign direct investments to its coffee and tea industries which are expected to drive the boom.

Conflict is still an important demoralizing factor in many developing countries and has become an integral part of study in economic growth. The past few years have seen a boom in studies of conflicts. One finding that stands proud from this work is the terrible affiliation between conflict and economic development. From a theoretical and economical perspective, there is absolutely no consensus about the impact of conflict on economic development. The growth theory of economy predicts that at an overall, economy recovers relatively quickly and converges to its stable state after periods of conflicts. However, alternative models argue that the catch up may take quite a while especially because human capital recovers at a slower rate in comparison to other indices like infrastructure (Barro and Martin 2004).

An economic recovery depends on what has been damaged during conflict time. For example, the destruction of human capital may have different consequences

than that of physical capital destruction. The identity or the nature of conflict may also play a role in this case.

This research's main emphasis is on the nature of conflicts that occurred in Burundi, and seeks to find to what extent the economic development has been affected. It is really important to clarify the nature of conflicts that occur in Burundi.

From the outset, it ought to be mentioned that, notwithstanding the severity of the conflicts in Burundi, there are few studies on it. The few current studies are centered and ethnically biased which makes its credibility doubtful. This study comes at a time when conflict in Burundi has now not virtually attracted the attention of the worldwide network and is receiving more attention from the local East African set up. Moreover, on account that Nelson Mandela took over as a new mediator between the different parties to the conflicts, the rise of the conflicts has consequently been recognized more as political rather than ethnic as it was probably assumed. It is the Author's hope that this study will contribute on understanding the nature of the Burundian conflicts and its negative impact on the economy as well.

Under the research examination, the interest of this thesis is to establish the link between conflicts and economic development. This is an encouragement from the developing economies position in the global frontier that seem to have set aside and separated from conflict. Moreover, with the African agenda being discussed as the last in attaining some of the primary indices in development, it is important to identify with conflicts as one of the reason delaying the development agenda in this region. Arguments have been fronted on the association between conflict and development economy to be negative.

Notably, the traditional view suggests that conflict is the major potential cause of low economic performance in sub Saharan Africa. The indices of preference accountable for this statements is the lower growth levels of the GDP, the bad infrastructural networks in those struggle and conflict areas, and the very low metric of humanitarian welfare among others, the FDI levels and the population health indices also are deplorable in the conflict regions studies. Conflicts remain prone to developing countries. This perennial influx of conflict has become an integral part of the studies of economic development. The development studies therefore attempt to establish conflict as an unhealthy index to the growth and development of nations. This research's main emphasis is on the nature of conflicts that occurred in Burundi, why they occurred and to assess the extent to which the conflicts have affected Burundi's economic development. We will similarly examine the current situation in Burundi and also analyze the key facts and factors on conflicts management.

Therefore, the development that is taken into considerations might be inclusive of the need to take a look on the economic policies and those of conflict control. First, this study outlines in its literature overview the theories on conflict management and economic development. This section is interested with the highlighting of the possible cohesion that conflict management and economic development has. In fact, the literature theory modeling is basically part of the theoretical data collection on which the case study of Burundi is argued. The third chapter also details the empirical research that depends on the available literature debates on conflicts in Burundi and their effects on development economies.

This will be a check on the variables that the previous research items have been using and developing, and therefore making an understanding on how the variables have been used in the literature and empirical findings.

From this position, the interest has been increased in the highlight of the methodology that has been used to conduct our research. From this, the study move to the fifth chapter on which the findings of the analysis are discussed in very precise details. This analysis is an equivalent of the findings position that is usually attributed to the majority of the developed research studies. Consequently, with the interest areas of analysis, the following objectives and research questions for the research are developed.

1.1. Research Questions

The research questions are based on occurred political instability leading to civil conflicts with an impact on economic growth of Burundi. According to Bryman (2012, p. 12), research questions are assumed to be significant to have the research conducted. The specific questions of this research are as follows:

1. What is the nature of the conflict in Burundi?
2. To what extent has economic growth been affected by the conflict?

1.2. Research Objectives

The initial objective of a present research is to investigate and detect the type of the nature of a conflict in Burundi. Secondly the research aims to analytically explore and evaluate Burundi's economic performance owing to an occurred political instability leading to civil conflicts. Thirdly, by utilizing econometric models, the author intends to find the primary determinants of influences of conflicts on economic growth of Burundi.

Far more, the vital objective is the contribution to the existing literature of studies conducted on conflicts in a country.

In addition, the author looks forward to conducting a comprehensive economic paper on the impact of civil conflicts on the economic development of Burundi.

1.3. Hypothesis

It is the author's belief that political stability might possibly lead the country to increase economic growth with the influence on improvement of people's social life in Burundi. Otherwise, Political instability creates conflicts affecting negatively the economic performance with the consequence of destroying the development of the country.

Chapter 2. Background of Conflicts

There have been some spirited arguments on the exact role that influences these conflicts. Having been a colonial favorite majority, these conflicts are established within the African set up. The African conflict agenda involves not just a few countries but many more are seen headed the same way even in countries where relative peace had been enjoyed previously. Examples of conflict prone regions are the Republic of Burundi, which in this case forms the basic interest for this research report. Other nations are the Democratic Republic of Congo, and historical examples of Rwandan genocide and the newly formed nation of South Sudan.

Identifying with the last decade, there has been a boom in the studies of conflicts resolution and conflict management in African Universities. The University of Nairobi in Kenya as a fact has a bachelor's degree programs in conflict management as a major unit of study. This can be associated with the findings that stand out from the efforts of conflict management in the East and Central African regions. This is established as the strong negative association between conflict and economic development. From a theoretical perspective, there is approximately no consensus about the impact of conflict on economic development. Economic growth theory predicts that an economy recovers noticeably quickly, and converges to its solid state. However, the reality on the ground is that conflict is ended based on the humanitarian stress that fails to support the war. The statement provided identifies with the costs of funding wars and conflicts, majority of the ICC case proceedings in war torn zones have often identified with the financing of conflicts, thus this text suggests that the failures in financing of conflicts have been materiality bringing these wars to an end. In case resources are available, the conflicts are bound to continue.

According to Barro and Martin (2004), these conflicts are therefore planned hence the alternative models argue that catch up may take a long time, for instance because human capital recovers slowly.

The speed of economic recovery may for instance, depends on the type of the damage resulting from the conflict. As an example, the destruction of capital may also have different specific consequences than human capital destruction. It is expected that the paper will contribute to the debate on understanding the nature of the Burundian conflicts and its negative impact on the economy as well. The few existing credible sources on the struggle in Burundi will be used as much as possible. However, another source guiding us in writing this paper remains our personal experience since, as every Burundian, we have lived those conflicts and bore their consequences.

Before colonization, Burundi had been a strong, organized kingdom for centuries. The society is divided into three groups: the Hutus, the Tutsis and Twa. The Tutsi were mainly cow herders and the Hutu mostly cultivators. Society was a hierarchical network of patrons and client ties, with the princely Ganwa (a very minority considered as the fourth group) playing the best status, and the Twa the lowest. The misunderstanding between Hutu and Tutsi was not clear. However, the history of their relationship is much politicized. A rich Hutu could come to be regarded as a Tutsi, and an impoverished Tutsi as a Hutu. Hutu and Tutsi with merits and excessive achievements in the society could be extended at the Ganwa status. Intermarriages among the groups were tolerated. All groups spoke and still speak the same language, share the same culture, and practice the same religion till up to date.

Jean Berchmas (2005) affords the three components of the Burundian population by specifying the favored occupation of every group. The Tutsi as herders, while Hutu are farmers and the Twa as potters, and usually, those three professions are complementary, they were constantly in need of each other in their daily lives. Under these conditions, it is always difficult to understand what may be the causes of any struggle in such a society where life style indicates that they would live together in harmony. This study is very vital because, despite the fact that all three groups of Burundians have lived together in total harmony throughout the period that preceded colonization, there is no indication of ethnic conflict between Hutus and Tutsis according to the Arusha Peace and Reconciliation Agreement on Burundi.

The current situation of Burundi contributes a lot to a decline in economic growth. Burundi is governed under the constitution of 2005. The President, who is both head of state, commander in chief, and head of government, is popularly elected on five-year's term. The President is eligible for a second term. Though, on 25th April 2015, the ruling political party in Burundi, the National Council for the Defense of Democracy-Forces for the Defense of Democracy (CNDD-FDD), announced that the incumbent President of Burundi Pierre Nkurunziza, would run for a third term in the 2015 presidential elections. The announcement sparked protests by those opposed to Nkurunziza seeking a third term in office. Widespread demonstrations in the capital Bujumbura,lasted for over three weeks.

During that time the country's highest court approved Nkurunziza's right to run for a third term in office despite the fact that at least one of the court's judges fled the country claiming he had received death threats from members of the government. As a result of the protests, the government also shut down the country's internet and telephone network, closed all of the country's universities and government officials

publicly referred to the protesters as "terrorists". Since late April tens of thousands of people have fled the country, hundreds of people have been arrested and several protesters and police have been killed. On 13 May, a coup was announced, led by Major General Godefroid Niyombare, while President Nkurunziza was in Tanzania attending an emergency conference about the situation in the country. By the next day the coup collapsed and government forces reasserted control. On 11 December 2015, almost 90 people were killed in attacks on state targets. Hundreds of people have fled and continue to flee even now because the country is not safe. This situation had put the country down, leading to instability in the country with negative effects to the economy (African report, N° 235).

2.1. Historical Comparison of Conflict in Burundi

When we look back in history between 1994 and 2001, almost 200,000 people were killed, and most of them were civilians (UNFPA 2001). In order to understand the impact of conflict, we emphasize on some important points like: displacement, looting of household assets, theft and burning of crops. In its demographic and health Survey in 2002 over 50 percent of the rural population were displaced from their homes at least once between 1993 and 2000 because of conflict. The average displacement duration for the entire sample was just one year, meaning three agricultural seasons have been missed because households could not cultivate their fields (UNFPA 2004). Displacement also meant that individuals were more likely to contract diseases while hiding in the forest. Because people could not carry significant amounts of food when fleeing their villages, adequate nutrition was problem. Displacement also involved a lack of access to the market, health clinics, and schools because roads had dangerous and unsafe. During the war, civilians were

forced into local resettlement camps by the government yet the camp conditions were poor. The impact of displacement on aggregate production from 1993 to 1998 showed a decrease of 15 percent in cereals, 11 percent in roots and tubers, and 14 percent in fruits and vegetables, with particularly dramatic declines in 1994 and 1995.

When a conflict ended in a given province, displaced families returned to their homes and fields. However, humanitarian interventions by either the government or the nongovernment organizations after the war ended, were almost nonexistent because of the continued insecurity on all roads linking the capital city, Bujumbura, to the countryside. By early 1995, rebel groups had begun to target and kill foreign nongovernmental organization workers and journalists who left Bujumbura to visit struggle regions. International development assistance dropped sharply during the crisis, from almost $320 million before 1993 to below $ 100 million in 1999 (UNFPA 2007).

2.2. Ethnicity in Burundi Matters?

Many people and also Scholars agree and affirm that Burundi is composed of three ethnic groups namely the Hutu, Tutsi and Twa. Rene Lemarchand, a famous French political scientist who is known for his research on the concept of ethnic conflict and genocide in Rwanda, Burundi and Darfur and particularly known for his work on the concept of ethnicity is one of them.

Traditionally, there was merely a sociopolitical difference between these groups. However, through support of a racist ideology and ethnic hierarchy clearly biased against the Hutu, the German (1889-1918) and later Belgian (1918-1962)

colonialists transformed the division into more rigid identities (Lemarchand 1991). The colonizer had performed a crucial function in highlighting the ethnicity in Burundi by creating divisions within Burundian community. The Tutsi minority, were considered by the colonizer as slightly advanced and superior compared to the majority Hutu and Twa. Tutsis are generally tall, with a straight and sharp nose. Although these facts cannot be generalized because there are Hutus who have these same physical appearances, whereas there are Tutsi who are very short in size with large and big nose flattened. At that time the colonizer had promoted some of Tutsis by giving them access to administration and education, and this created frustration among the Hutu majority in Burundi. Thus, ethnic conflicts starts with this inequality of opportunities based totally on standards which might be part of the divisive policy of "divide and reign" of the colonizer.

The ethnic troubles have caught the attention of politicians in Burundi for a long time and have constantly been regarded as the nature of the conflict in Burundi since its independence. Arguably, all Burundians have this tribal conception in their mind. However, this is not really the nature of the conflicts in Burundi in history and the present setting. This is because the ethnic affiliation takes roots from the social inequalities setting.

In Burundi, the ethnic concern is so exaggerated to such an extent that it needs a detailed evaluation. It is essential to mention that even the definition of ethnicity does not apply to the case of Burundi. The most common definition of ethnicity in the dictionary of anthropology (1973:99) is: "It is a grouping of people owned by the same culture, same religion, same language, same customs, and same traditions and recognize them as such."

The new Oxford American Dictionary has almost the same description: “An ethnic group (or ethnicity) is a group of people whose members identify with each other through a common culture (often including a shared religion). “In general, it is a highly self-perpetuating group that biologically shares interest in a homeland connected with a specific geographical area, a common language, and traditions, including food preferences, and has common religious faith.

These definitions show some seven important elements that allow us to identify different ethnic groups based on their differences as being the fact that an ethnic group must have its own: language, culture and traditions, religious belief, ideology, special interests, territory and favorite meals. These characteristics haven’t been around and cannot be found today within the Burundian population. I personally have born and raised in Burundi for several years; I am in a good position to testify this reality. The Hutu, the Tutsi and Twa have always had the same language, same culture and they are found in every religion, ideologies and interests, no difference in food preferences, particularly not territory. The reality is that there is deep integration in Burundi such that they are together on the hills and communities as neighborhoods in the city.

Chapter 3. Literature Review

The literature review is interested in developing the ideas of several reports and articles on conflicts, wars, and economic development. Therefore, this summaries the main literature content that advising the debate and signaling the way forward for the conduct of this research. The literature review takes into consideration the use of most basic literature articles to the conduct of the literature analysis; having been the main though centers on effects of conflict on economic development.

Reading from the works of Kang and Meernik (2005), the interest is developed with estimating the civil war destructions and the prospects on economic growth.Some experts suggest that the wars can at time be beneficial in improving of efficiencies. This is argued from the perspective that reducing the powers of special interests. This looks like one very controversial position that the perspectives of war has on the economic growth. The second inquiry builds on the extent to which the policies and the choices have on the domestic and international levels of economic growth. Majority of instances in this article suggest that conflict arises from the onset of policy changes. These polices can either be motivated politically or instigated from the economic point of view. Kang and Meernik (2005), records that there have been 103 interstates wars from the year 1946 to the year 1997

Thus, devoting their time to seek the answers to these conflicts more emphasis is placed on the impacts that these wars have on the development. Cumulative knowledge has it that the conflicts are normally set off by the fractionalization or marginalization of communities based on ethnic affiliations, the deep levels of poverty that the communities have and similar to the Burundi case undemocratic policies on transition of power. In understanding the tradeoff that these conflict

regions make, little is understood on the decisions to go to war and focuses on the economic development later. This is based on the failure that the economic systems had in the periods prior to the wars. Reading into economics and political studies, the effects of war as presented by Kang and Meernik (2005) suggest on the focus of post-war economic growth. In fact, it is from the comparative position of post-war growth that the true effect of the war can be noted. The results however suggestively vary depending on the time the war took place and the economic progress that the country or region had had before the conflict.

Using OLS data, the article suggests that there can be no generalized theory on the timing, the duration, and the contributing factors of war and economic growth. In fact, the findings suggest that the effects of such conflicts depend more on the causes of the conflict. This suggests that to make any conclusion on the recovery, this will be a different research topic altogether. Kang and Meernik (2005) also suggested on the international community response to conflict. Surprisingly, reading into a number of cases the international community has had a role to play in many of the third world conflicts. This details the concerns and interests that they have in these regions. Arguments suggest that sometimes their response is limited based on law looking at the conflicts in regions like Somalia and Southern Sudan that have been going on for decades.

Another well put argument on conflict and economic development are by Ambrose Jusu (2005), the presentation is centered to the sub-Saharan regions where the review chooses to focus on the structural challenges that are inherent to the sub-Saharan economies. It specifically takes the other side of the coin for this discussions, this is because the analysis does present its findings based on the economic causes of civil wars. The variables of interest in this case are independent variables (income inequality and minimum democracy) which can be best models

for Burundi. Modeling using regression on the GDP per capita, the growth rates of GDP ratio of export, ethnic dominance, and other factors; the model having been used to estimate the civil war effect in Sierra Leone arrives at the following conclusions: The presence of natural resources cannot sufficiently explain the breakout of civil war.[1] This is to infer that civil war did not in this case arise based on unfair distribution of resources as the market was a capitalist and this was common to the population. Has this been a communist's state, the setting would have been different? In this case, the mismanagement of the natural resources was the cause of conflicts that amount to poor distribution leading to the inequalities modeled in the econometric model

Looking at the dimensions that are shared by Akram and Padda (2015) the integration of conflicts comes out with the Pakistan war on terror. More light is shed on the economic consequences of conflict and war. This is basically one that was instigated on a different position compared to those of the Sub-Saharan conflict of resources and politics, this conflict is waged on terrorism. Nevertheless, the significance that this study presents is the modeling made by the authors in associating the war to economic development. Using the Solow economic growth model, the integration analysis suggests the negative effect that terrorism has had on reducing economic growth in the country. In fact, the positive attributes here are also noted with the after war position where the shipping of aid, the increases in grants and debts rescheduling have been the major position from which the economic growth has been developed from. Identifying that terrorism is predetermined and organized the aftermath of this links to economic development seem to be higher placed compared to the simple developing effects of spontaneous

[1] This will be a valid point to consider in liking the onset of war to economic resources in Burundi. The conflict in Burundi is set to affect the country economically yet its onset is not ethnic but rather political.

one. Looking at the suggested effects of war the position that is described with the repercussions of the war on terrors is that majority of states that are affected are the developing ones. In that research, Pakistan is seen as a victim on the war on terror for the last three decades based on the participation of the war in Afghanistan. In essence, the managing models suggest on the economic losses that the nation of Pakistan took with the attacks from terror. This is a direct presentation of the impact of war based on data from 1981 to the year 2012. The studies are also supported by Bloomberg's finding on the empirical relationship between terrorism (conflict) and economic development. This is found as negative. The negative relationship is attached to the shifting of resources willingly to cater for the war, as protection of the population is the top interest that the county has in this period.

Civil war or internal and external conflict reduces the economic growth in the fact that they destroy human, private, and public capital. Conflicts like terrorism increase uncertainty therefore decrease investments. Conflict-torn developing countries may experience a decrease in economic growth from reduced aid as donor countries worry that help, may be channeled to finance military activity rather than alleviate poverty. Conflict can decrease economic growth by disrupting supply lines, creating refugee inflows as well (Gaibulloev and Sndler 2008).

Calkovic and Levine (2000) studied the relationship between FDI and Economic Growth in 72 countries both developed and developing countries over the period 1960-1995 and concluded to the absence of that relationship for both developed and developing economies even allowing for the level of education, economic development, financial development, and trade openness of the host country. Additionally, there are some well-developed literature that examined the relationship between political instability and FDI. Josef C. Brada. (2006) in his study, argued that political instability reduces the FDI and slows down the

economic development of a country. He also mentioned that the Political struggle is the outcome of the riots, civil unrest that is the case of our study too. He also added that when FDI increases, people get well paid, which means that there is a positive link between FDI and per capita incomes because there is a collinearity between wages and per capita GDP.

FDI can serve as supplement to domestic savings as well as the investment of a country. The FDI supports the developed and developing countries to raise the productivity and their living standards, added Josef C.Brada. Nevertheless, FDI has a positive relationship with domestic capital formation, because investors add capitalization to their acquisitions. Another advantage of the FDI is that it brings new skills and technology to the country; to mean that larger FDI inflows contributes to increasing in economic growth.

Some researchers like Lill Underson and Ronald Babula (2008), argued that the most important obvious approach used to define openness is to take a simple concept of the total trade volume (exports plus imports) relative to GDP. The interests of economists and policy makers are the fact that a trade volume of a country's economy is a significant contributor to growth. A higher level of exchange of good and services leads to an increase in economic growth.

Africa's development is threatened by conflict. Armed conflict has become one of the most important causes of poverty in Africa, leading to displacement of people, and the destruction of communities' livelihoods. The effects of war cut across all levels of the economy down to the level of the household. War has a direct and immediate economic impact through the physical disruption it creates, denying access to land, key resources or markets. Some of the effects of conflict are less tangible. Insecurity is the least conducive climate for domestic savings and internal

or external investment. Nor is the impact of war limited to the area of conflict. War damages regional infrastructure, markets and investment confidence across a wider region.

The World Bank estimates that conflict in Africa is causing a loss of 2% annual economic growth across the continent. Conflict in Africa has also created a substantial loss of opportunity. Lost either through the inability of states to invest in their own populations or through high military spending which has squeezed out effective investment in the economy. The continent as a whole is seen as a high risk by potential external investors because of armed conflicts (Jusu, 2005).

3.1. Theoretical Applications and Considerations for Conflict in Burundi

3.1.1. Solow's Theory of Growth

The Solow's theory on growth focuses on three deviations of conflict in the developing world. These conflicts resonate with the income variation that the households have in times of plenty and in time of low productivity. The low productivity is what this research seeks to focus on in terms of the conflicts affected seasons. The following conflicts are developed by the Solow's model on conflict and growth.

Conflict 1: the variation of income per capital is very much spread across the countries by the variation of the savings rate. The understating that this conflict ideology gets to the issue of conflict management is that with the season of conflict or during periods of war the savings functions that the company will be having are very low. The theory implies that a country entrenched in conflict is greatly affected

to the tune of more than 10 times on their average capacity of savings. Looking at the savings rate in conflict prone areas the magnitude of this can be felt in a period of post-war and the seasons of rebuilding. Peet & Hartwick (2015) suggest that all countries engaged in war and conflict will require donor aid and financial grants to rebuild after war. This brings sense to the situation that Burundi might be falling into, as it will be handled in the methodology. The savings for the country (S) are assessed with the capital formation (K) which will, in this case, be a function of the GDP. Rational agreements on the findings and the suggestions of Solow's first conflict are to be signed by a negative gradient on the savings propensity for the country.

Conflict 2: The poorest the country, the lower the rate of return in capital. According to Solow (1957) understanding the fundamental of economics developed more reason into the dependencies that populations will be having. Identifying with the consumption function will imply that we also put focus on the abilities that the economy will be having in their capital formation. This is to place the interest that conflict has as one of the reasons behind the dwindling of the economies productivity. Therefore looking to establish the link that conflicts has with economic development the gains that are established with the Solow's conflicts suggests that the productivity during times of conflicts is also very low. In fact, majority of recording is suggestive of the conflict periods having less time for concentration and more in interested in fear for security even with the national government.

Conflict 3: the third of the conflict for growth and economic development is brought about by the convergence of the Swan and Solow's model. First is the prediction of greater and increased flow of capital during periods of post-war, nevertheless, the

effects of war having been long felt the conflict that arises here are that if income gaps within the developing nations.

looking at the three development of conflict, Solow model comes into the economic development framework based on the understanding that the micro process that the perpetrators of conflict unknowingly or knowingly have with the keeping of the poor families in poverty. Looking at Burundi majority of the population is said to be living below the dollar rate on a daily basis. The family numbers also made this situation grave based on the average number of member in a family to feed, therefore household levels of poverty are high similar to the rates exhibited in a majority of the sub-Saharan African countries. Development is a macro process and can, therefore, be best influenced by the larger stakeholders in the economy. These are the governments and large industry stakeholders according to Caselli & Coleman.

The Solow's model therefore in summary is an elaborative discussion of the economic growth and the economic development considerations. In addition, Solow's theory shows that there is very low argumentation and increasing levels of the human capital building during periods of conflicts. These levels are at times at zero or negative levels identifying with the war in Iraq (Economics and Peace Report 2011).

Therefore rationally building on the Solow's theory: human capital (L) and productivity, a function of Capital (K). The main interest suggests and reveals that the main destruction to development in period of conflict is the productivity.

3.1.2. Neo-Classical Theory on Conflict and Development

Reading into the new classical theory of development and conflict management, there has been suggestive proof of the position that the state will be having in the management of conflict and the promotion of development. According to Francesco and Wilbur (2013), the role of the governments is the basis of stability. This is to assess the dos and the do not's in the economic and political field. In fact, this theory brings more relevance to the position that Burundi has with the role of the government in the conflict. Suggesting from Solow (1957) the government is the main supporter to economic development in the economy; this is followed by the study on the several government failures in the 1960s that cemented the role that the state had in the infrastructural support of the functions of the economy. The power that the government has, in this case, is leveled to the policy recommendations, the policy implementation powers that they have and the position that the government has in influencing policy to the population.

Identifying with the Burundi situation the position of change that was influenced by the states in their political interest for presidential terms was the entry point for conflict. This develops more emphasis on the onset of conflict, signals of the role of the governments had in influencing the onset of the conflict that they now have challenges in containing. Reading into the roles of states such as Pakistan with the literature of Akram and Padda (2015), the distillation of the government's role is developed as one that can be controlled. The control in this case is developed with the preparations that states have with the formation of conflict and the containing of the effects of the conflicts.

3.2. Literature and Theoretical Findings

3.2.1. Education and Conflict in Burundi

Access to education has been a long-standing source of inequality, anxiety, tension, and conflict. In the cohorts under study, only 20 percent completed primary school. This situation can be worse with the conflicts experienced currently making less access school with the return rate after conflict often being very poor and low. Education is associated to jobs in the public sector, for which degree holders have the monopoly. The education system and jobs in the administration were dominated by Tutsi from the southern region of Bururi. Nkurunziza and Ngaruko (2002) suggest that in 1972, almost all educated Hutu were killed by the Tutsi army.

At that time, education was clearly a liability. In a new report on education and violent conflict, UNESCO (2011, p.51) calculates that the onset of conflicts in Burundi marked an abrupt change in school enrollment. The decade before the conflict (1981-1991) saw an expansion of enrollment for each new cohort, male and female. Such advancements are based on this research's concern that human capital development is hampered in Burundi.

3.2.2. Conflicts and Human Capital

There are several impacts of conflict. During conflicts there is a general slowdown on people and the spending that are recorded under national consumption levels. A reduction in physical or human capital will result in a less accumulation of physical or human capital that can be noted after the conflict, and the economy will converge to a state of crises. On the other hand, Barro and Martin (2004) predict that the speed of recovery depends on the type of capital that is destroyed, with a slower

recovery if human capital, rather than physical capital is destroyed. This is because human capital has a higher adjustment cost. Previous endogenous growth models and poverty trap models, predict that conflict has a direct effect on an economy's steady-state. Therefore, as a result, economies of countries that have experienced conflicts face challenges in converging their indices on capital formation (Azariadis and Drazen, 1993).

3.2.3. Political Parties and Conflicts

Burundi has known a political instability since independence in 1962. It has a multi-party system. There are more than thirty political parties in a small and poorest land like Burundi. Among them, less than five are strong parties. Political parties are not based on ethnic background as many people think; this is no longer an issue in Burundi. It is just an instrumental pretext for some to govern. It is true that in some parties Hutu are dominants and in other, Tutsi. This is not an issue. The problem is that people have different political views or don't agree on some points and decide to create parties, even those who belong to the ethnic group (Juvenal Hatungimana, 2011).

Additionally, the ACLED provided a clear view of the conflict events, the event dates, the actors, the type of conflicts as well as the location. The table below explains clearly that the conflicts that are devastateting the country are due to political instability. The CNDD-FDD represents the dominated and the ruling political party and as actor 1 which is fighting against civilians. This was the time when the party was seeking for the power, opposing a Hutu President NDAYIZEYE Domitian in 1997.

The PALIPEHUTU-FNL and the Hutu Rebels stand for the opponents of the power. The head of the party and almost all the members are Hutu, who are opposing the Hutu president. The provided table summarizes a series of conflicts over the last 19 years presenting the picture of the Burundi political conflicts and a series of repeated events. As we can see from the table, the data provides two different periods which show no indication of ethnic conflicts.

Table 1. Political Conflicts History

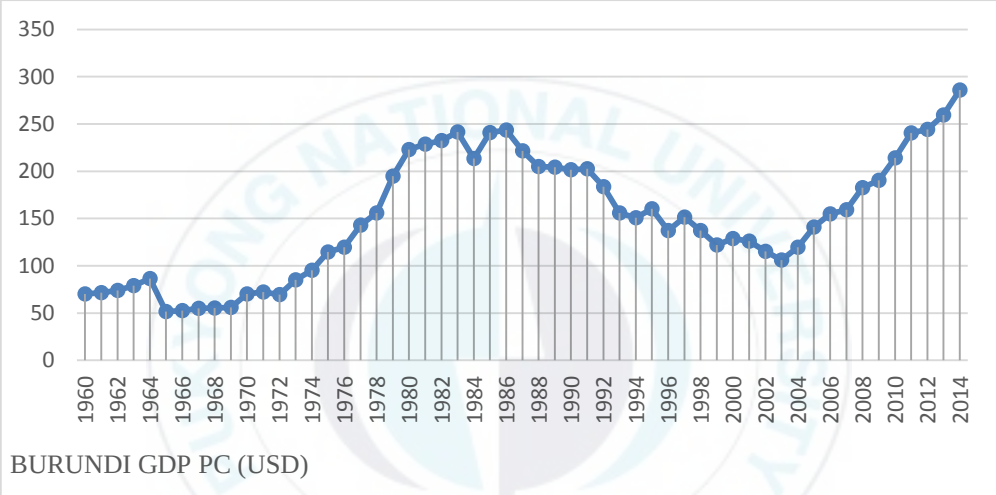
EVENT DATE	YEAR	EVENT TYPE	ACTOR 1	ACTOR 2	LOCATION
05/01/1997	1997	Violence against civilians	Military Forces of Burundi	Civilians (Burundi)	Muramvya
10/01/1997	1997	Violence against civilians	Military Forces of Burundi	Civilians (Burundi)	Kobero
10/01/1997	1997	Violence against civilians	Military Forces of Burundi	Civilians (Burundi)	Muyinga
13/01/1997	1997	Violence against civilians	CNDD-FDD	Civilians (Burundi)	Cibitoke
15/01/1997	1997	Battle-No change of territory	Military Forces of Burundi	Hutu Rebels	Kibira
16/01/1997	1997	Battle-No change of territory	Military Forces of Burundi	Hutu Rebels	Kibira
17/01/1997	1997	Battle-No change of territory	Military Forces of Burundi	Hutu Rebels	Kibira
17/01/1997	1997	Violence against civilians	Hutu Rebels	Civilians (Burundi)	Rumonge
17/01/1997	1997	Violence against civilians	Hutu Rebels	Civilians (Burundi)	Rumonge
18/01/1997	1997	Battle-No change of territory	Military Forces of Burundi	Hutu Rebels	Kibira
18/01/1997	1997	Violence against civilians	Hutu Rebels	Civilians (Burundi)	Minago
14/03/2005	2005	Violence against civilians	Civilians (Burundi)	PALIPEHUTU-FNL	Lake Tanganyika
12/04/2005	2005	Violence against civilians	Civilians (Burundi)	PALIPEHUTU-FNL	Mubimbi
21/04/2005	2005	Battle-No change of territory	Military Forces of Burundi	PALIPEHUTU-FNL	Mutimbuzi
21/04/2005	2005	Violence against civilians	Civilians (Burundi)	PALIPEHUTU-FNL	Mutimbuzi
24/04/2005	2005	Remote violence	Military Forces of Burundi	PALIPEHUTU-FNL	Gihosha
08/05/2005	2005	Violence against civilians	Civilians (Burundi)	PALIPEHUTU-FNL	Mubimbi
13/05/2005	2005	Battle-No change of territory	Military Forces of Burundi	PALIPEHUTU-FNL	Isale
13/05/2005	2005	Strategic development	PALIPEHUTU-FNL	PALIPEHUTU-FNL	Buyenzi

Source: Data from Armed Conflict Location and Event Data Project (ACLED)

3.2.4. Economic Growth Trend

The given diagram below, indicates the fluctuations of indices of the trend based on GDP PC (Gross Domastic Product per capita)

Figure 1. Time Series on GDP per capita Trends in Burundi



Source: Calculations based on data from World Development Indicator (WDI)

The rise that is noted with the GDP prior to the year 2014 is expected to be seen as reducing with the current challenges as advised by the literature and the theoretical reviews. This is based on the riots and the violence against civilians celebrating more on the urban population that will in this case be the actively involved in employment and economics of the industry. The scene that is identified with the history of the country on the late 1990s and the early 2000 and 2001 may be

repeated plunging the country into periods of very low productivity. Suggestively, it describes that this will lead to the onset of humanitarian crises in the country.

3.2.5. Current Situation of Burundi

Burundi is facing a serious political and security crisis. In announcing his presidential bid April 25, 2015, after two terms of five years at the head of the Burundian government, incumbent President Pierre Nkurunziza has chosen to ignore the Arusha Accords and the Constitution. Faced with this violation of the rule of law, part of the Burundian civil society, which had organized early February 2015 under the campaign "stop the third term," called for the first time, February 26, 2015, to peacefully protest at the announcement of the said application. Other protests followed until, faced with growing opposition, the Burundian authorities repress by force large peaceful demonstration of April 26, 2015. Several weeks of murderous repression marked the start of a cycle violence which cost more than a hundred lives. Violations of human rights were committed during this period especially in this form:

First, violence caused by the police and the youth movement of the ruling party (CNDD-FDD), the Imbonerakure, during the demonstrations caused the death of about 80 people. The next is the cases of torture, arbitrary arrests and ill-treatment: Human Rights Watch documented more than 148 cases of torture or ill-treatment between April and July 2015 in four provinces and in the capital, Bujumbura. This despite Burundi's membership in several international and regional treaties prohibiting torture and other cruel, inhuman or degrading: International Covenant on Civil and Political Rights (ICCPR), African Charter on Human and People’s Rights (ACHPR), United Nations Convention against torture (CTPTCID). Finally,

a series of assassination attempts (against the defender of human rights Pierre-Claver Mbonimpa August 3) and assassinations targeting personalities symbolic role (against Adolphe Nshimirimana August 2, 2015, Jean Bikomagu August 15, 2015, Pontian Barutwanayo August 23).

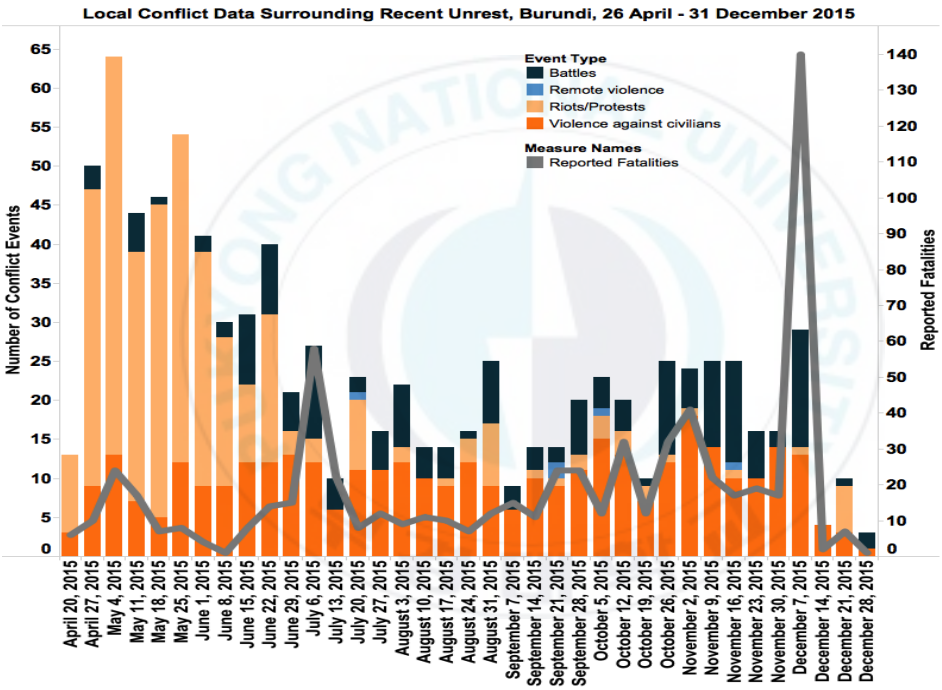
In March 2015, the Internal Displacement Monitoring Center already fell 77,600 displaced people inside the Burundi11 (IDPs - internally displaced persons), mainly in the central regions (Gitega and Ngozi), while the UN High Commissioner for refugees (UNHCR) counted 186,045 refugees for the period 1 April to 17 august. Tanzania is the country most affected by the influx of refugees (45.5%), followed by Rwanda (39, 2%) and the DRC (7.9%). The "Revised Burundi Regional Refugee Response Plan" UNHCR plans a significant increase of Burundian refugees, with the number up to 320,000 refugees by the end of September (Africa report N° 235).

The president Pierre Nkurunziza is now in power controlling the military, the police forces and all the political system of Burundi. But still people are dying by inches, especially young people who demonstrated in the street and politicians who don’t share the same view with the President.

The continued deterioration of the situation in Burundi caused by the determination of the President to reject calls for dialogue issued by the High Commissioner of the United Nations Human Rights, by the UN Secretary General, and by the heads of major donors led to a very large influx of refugees in neighboring countries. This could justify a characterization of internal tensions in Burundi. Already, the African Union spokesman Jacob Enoh Eben called to decode the Burundian crisis as a "tragedy that affects Burundians but also the sub-region as a whole" stressing that "if there is peace in Burundi this will have a stabilizing effect on the rest of the countries of the sub-region. But if the contrary instability as we have seen in recent

months, this will have a negative impact on peace, security, the humanitarian situation in the rest of the region ". The history of this region has already shown the risks posed by the massive influx of refugees into the country under tension. In this context, "the security risks to not just hover on refugees but also threaten the peace and regional stability.The graph below explains the current situation of Burundi in terms of the conflict recorded from April to December 2015.

Figure 2. Local Conflict Data in Burundi (April to December 2015[2])



Source: Burundi Local Data on Recent Unrest, from ACLED Database

[2] Categories of conflicts spotted over the last 6 months of 2015 in Burundi; the higher of the records are with the riots and protests, and the violence against civilians. This brings a wider perspective of the nature of the conflict being political rather than ethnic.

3.2.6. Political Instability and Growth

According to Alberto Alesina (1992), the political instability is defined to be a change in the executive, either by constitutional or unconstitutional means, also the disagreement on some political policies. A government with these issues has no attraction to the investors, because investors prefer a safe and stable political environment. If we look at the political history of Burundi, and the current situation, this comes to confirm that Burundi is facing a political instability and its consequences.

This is consistent with most of the findings of the economic literature on the effects of instability on growth (Fosu, 1992; Alesina et al, 1992 and 1996; Aisen and Veiga, 2011). However, it differs in the short term from one country to another according to the degree of vulnerability of their economy.

As we all know, the Neo-classical theory emphasizes more on the role of state in supporting on economic growth. Alesana also argued that a country can face a long effect of political instability within models where there is a positive per capita growth obtained through technological progress. Tesfay (2014) in his article said that Burundian conflict is linked to politics. The most common view of instability in Burundi by International community is an ethnic conflict, due to the majority Hutu against the dominant minority Tutsi and also with the Twa who are the most marginalized. But this view of the conflict in Burundi failed to capture the attention of the important nuances in Burundian history and the way ethnicity has been used as an instrument by many Burundian Elites. Many of researchers point out the cause of conflict in Burundi. They disagree about the ethnicity being the major source of conflict in Burundi and strongly argue that it is about power sharing (Hatungimana, 2011; Ndikumana, 2005).

In many countries, the system of justice does not work well. Contracts are hard to enforce, and fraud often goes unpunished. In more extreme cases, the government not only fails to enforce property rights but actually infringes upon them. To do business in some countries, firms are expected to bribe powerful government officials. Such corruption impedes the coordinating power of markets. It also discourages domestic saving and investment from abroad. One threat to property right is political stability. When revolutions coups are common, there is doubt about whether property right will be respected in the future. If the revolutionary government might confiscate the capital of some business, as was often true after communist revolutions, domestic residents have less incentive to save, invest and start new business. At the same time, foreigners have less incentive to invest in the country. Even the threat of revolution can act to depress a nation's standard of living.

Thus, economic prosperity depends in part on political stability. A country with an efficient court system, honest government officials and a stable constitution will enjoy a higher economic standard of living than a country with poor court system, corrupt officials, and frequent revolutions and coups (Mankiw,2009).

Chapter 4. Analysis of the Impact of Conflicts

4.1. Theoretical and Model Specification

In theoretical context, conflicts have adverse effects on the economic development, these effects are transmitted through different channels. The conflict decimates physical and human capital of a nation. Conflicts that occur in Burundi are actually caused by a disagreement between ideas, feeling most likely the struggle for power. In this study the conflict is defined as a political conflict. It is measured taking into account the number of conflict events within a year. The Armed Conflict Location and Event Data project (ACLED) provided the data of conflict, which helped to compute the impact that it has to GDP per capita. ACLED releases a new version of dataset annually.

The Physical capital here stands for machinery, buildings, and computers that change the raw materials into final or finished products or services. It is all the equipment and all the physical things that industry owners invest money into to produce something or to come up with a benefit. Sometimes people get confused about Physical and Human capital which are quite different. Human capital indicates of people with knowledge or educated and therefore works in the industries that produce and manufacture goods. Low enrollment rate known as the education index has a negative implications for economic development. It limits trade and business activities leading to financial development. This means that when people are not educated because of the conflict, this might affect the economy of a country in terms of productivity.

Because of the increased dangers, conflict may reduce the inflows of Foreign Direct Investment (FDI) and as FDI is an important part of the investment activities in most of developing countries any decrease in FDI, will reduce the financial development. Other than FDI, Instability in a nation will reduce the investment and will cause the capital flight.

Foreign Direct Investment into Burundi is not stable. The political instability, the high cost of public services, ambiguous trade regulations and policies, the poor condition of infrastructure corruption, a low-skilled workforce, a limited privatization program and the lack of foreign currency are many of the factors that limit the influx of FDI into the country. Hydroelectric dams are planned to be constructed, specifically with the aid of the World Bank and the Netherlands. This should attract foreign investment, while also improving the country's attractiveness in terms of infrastructure (Dr Thomas Kigabo, 2009).

According to Kosuke (2000), Civil wars impose substantial costs on the domestic economy. The paper empirically measures the economic impact of such internal wars. It contributes to the existing literature both theoretically and methodologically. First, it explores the economic channels through which civil war affects growth. Using the fixed and random effect to the panel data, the evidence gives strong support that the driving force of behind the negative effects of civil war on economic growth is decreasing in private investment.

The Solow (1957) new classical model gives the very necessary foundations to this study. However, this theory has ignored the role of Human capital in the determination of economic growth. To overcome this, Mankiw (1992) has adopted the Human Capital in the growth models.

The Neoclassical growth model explains how Capital accumulation and technological change affect the economy. The approach of this Growth Model is to use a tool known as the Aggregate production function (APF). The basic underling principle of the Neoclassical Model is when an economy is called a Capital Deeping which means the process of increasing the amount of capital per worker. Examples of capital Deeping are more farm machinery and irrigation systems in farming, more computers and communication system in banking etc.

Theory outlines how constant economic growth rate may be carried out with the proper amounts of the three driving forces: labor, capital, and technology. The theory states that by varying the amounts of labor and capital in the production function, an equilibrium state can be accomplished. When a new technology becomes available, the labor and capital need to be adjusted to maintain or to keep the growth equilibrium.

The economy growth (Y), is assumed as the function of the stock of physical capital (K), labor force (Pop), Human Capital and a vector of other variables (Z) including conflict.

$Y=f\ (K, POP, HC; Z)$

Because of the theory and other previous studies on conflicts, the reduced form equation can be derived as follows:

$$Y_t=\alpha+\beta_1 pop_t+\beta_2 k_t+\beta_3 hc_t+\beta_4 op_t+\beta_5 fdi_t+\beta_6 conf_t+\varepsilon_t$$

where

Y: Per capita GDP

POP: Population

K: Physical capital

HC: Human capital

OP: Openness

FDI: Foreign Direct Investment

ε: Error term

In the Study, data has been used for the period 1963-2014. The detailed description of the variables and their data sources is presented in table 3 in the Appendix.

4.2. Empirical Analysis and Results

Before estimating the model, the first step is to check for stationary. According to Newbold (1974) in case the model is not stationary (or the presence of unit root), it means that the OLS (Ordinary Least Square) estimations yield spurious results. To make the variables stationary, Augmented Dickey Fuller (ADF) has been applied. This test must satisfy three models to come to a decision that the variables in the series are stationary. Those three models are: Intercept, Intercept& Trend and None.

A stationary time series is one with statistical properties such as mean, variance, autocorrelation, etc. that are all constant over time. A stationarized series is relatively easy to predict: you simply predict its statistical properties will be the same in the future as they have been in the past. The prediction for the stationarized series can then be untransformed, by reversing whatever mathematical

transformation were previously used for the original series. Stationarize a time series through differencing is an important part of fitting the model.

Another reason for trying to stationarize a time series is to be able to obtain meaningful sample statistics such as means, variance, and correlations with other variables. Such statistics are useful as descriptions of future behavior only if the series are stationary. For example, if the series are consistently increasing over time, the sample mean and variance will grow with the size of the sample, and they will always underestimate the mean and variance in future periods. And if the mean and variance of a series are not well defined, then neither are its correlations with other variables. For this reason, we should be cautious about trying to extrapolate regression models fitted to nonstationary data (Harvey, 1985).

Looking at the identified results from the ADF test, we applied the stationary test for each variable and found that all the variables are not stationary at level. When the probability is more than 5%, it means we accept the null hypothesis of unit root at level and reject the alternative hypothesis which agrees the stationary. After that, we also applied the first difference for each variable. The results show that all the variables became stationary. The null hypothesis of unit root is rejected and the alternative hypothesis is accepted meaning that all the variables are integrated for order 1. The probability and the t-statistic can also tell it. When the probability is less than 5%, and the absolute value of the t-statistic higher than the absolute value of the critical value, then we can conclude that the variables are stationary. This is the case for our model.

The first differencing series forms a new time series that is important in its own right. The first differencing reduces the autocorrelations nearly to zero. The first differences are predicated upon the belief and arguments that a change in an

independent variable from last year to this year should be related to a change in a dependent variable from last year to this year. Mostly, time series data are not stationary, that is why we apply different test to make it stationary. There in nothing we can do with nonstationary data.

However, the model can seem to be stationary whereas it is not, what we call spurious results. To handle the spurious regression, the appropriate way is to use the co-integration test. There is two main approach that we can use to check for co-integration; Engle and Granger (1987) and Johansen (1988) test. In this study, we used the Johansen approach because the number of variables is more than two.

To check the co-integration test, all the variables must be stationary at the same level or order. After simulations, the series became stationary at first difference. Therefore, the co-integration test can be developed between the variables. The co-integration indicates that causality exists between the variables (Johansen, 1988). The next step is to choose the number of co-integration vectors. Using the Trace statistic and Eigen value statistic, we found three co-integrating vectors which means that the variables are co-integrated or have the long run relationship.

The main interest that the Max-Eigen values test seeks to identify is the existence of a drift on the variables therefore significantly looking to assert the position that the factors affected by conflict simulate with economic development. With the interval of confidence well set at 95%, the significance test predicts that the co-integration equations provided for the effect that the economic development has taken under the influence of conflicts. Looking into the validation that this data methodology will be having in the future, the opportunity for research is obtained based on the indication of population by census seen to be highly likely as the most valid way of expressing the effect of the conflict on the population numbers. In fact,

this can be compared to the Rwandans position where the mortality was even more of gender based according to the infiltration of the nature of the war being tribal.

Therefore the proxy for the intensity that is seen with the conflict in Burundi as developed by the variables suggests on the high probabilities when the correlation seeks to identify with three or more related factors influenced form the conflict in terms of economic stability. The results revealed more on the devastation that the conflict in Burundi has presented to the future of the country. Therefore to breakdown the complex statistical results developed by the co-integration as approved with the help of e-view software, the following subchapter develops a simple detail in terms of the data and estimations findings.

The Empirical Results (OLS)

The following table demonstrates the OLS results obtained from the Eview Software indicating positive and negative significance of variables.

Table 2. OLS Results

Dependent Variable: DGDPPC				
Method: Least Squares				
Sample (adjusted): 2 52				
Included observations: 51 after adjustments				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.014210	0.010400	2.214564	0.0002
DPOP	-1.956421	0.058416	-37.12365	0.0065
DK	0.332145	0.042354	3.125461	0.0074
DHC	0.201454	0.002345	4.236548	0.0412
DCONF	-0.044112	0.005774	-12.32145	0.0231
DOP	0.135464	0.064722	3.123548	0.0031
DFDI	0.050861	0.000213	11.23654	0.0012
R-squared	0.631436	Mean dependent variable		0.014504
Adjusted R-squared	0.0582294	S.D. dependent variable		0.075792
S.E. of regression	0.176744	Akaike info criterion		-2.295475
Sum squared resid	0.228542	Schwarz criterion		-2.030323
Log likelihood	65.53462	Hannan-Quinn criteria		-2.194153
F-statistic	1.882941	Durbin-Watson stat		2.321084
Prob(F-statistic)	0.105203			

Source: Author's own calculations using Eviews

The results reveal that in the long run population growth is a big issue to economic growth in Burundi as the results show that its coefficient is the largest among all the variables. According to Malthusian theorem, high population growth reduced GDP per worker because rapid growth in the number of workers forces the capital stock to be spread more thinly. In other words, when population is rapid, each worker is equipped with less capital. A smaller quantity of capital per worker leads to lower productivity and lower GDP per worker (Mankiw, 2009). Other studies

including Naqvi (2010), the negative sign to population coefficient means that a decrease in population leads to an increase in GDPPC. Malthus said that the only negative index that can come to population is the fact that population grows so faster than food supply in developing countries. Consequently, there is no way the GDPPC can keep up with population growth. This highlights the importance of the extended efforts to cap the ever- growing population in Burundi. Although the gross capital formation positively affects the economic growth of Burundi. If the gross capital formation increases by 1%, the GDPPC increases by 0.3%. The significance of the coefficient of gross capital formation means that when conflict occurs, it destroys schools, hospitals, machinery, therefore reducing the formation of capital. In short, physical capital increases the output. The marginal product of Capital describes how much additional output is produced with each additional unit of capital. The secondary school enrollment is found to have a positive relationship and a significant effect to the per capita GDP. The results are consistent with the theory of Mankiw and many researches that come to the same conclusion that Human capital is an important factor in the economic growth (Mankiw, 1992). Openness has a positive sign and is significant. When the country imports more, the per capita GDP goes up, and the same way, when the productivity of a country is getting well, then the country's export is high. This contributes to an increase in GDP per capita. This is supported by the findings of Akram (2010), Pattilo (2002), Coe (1995), and Lucas (1988). The coefficient for indicator of conflict shows a negative sign and has statistically significant impact on economic growth. Therefore, an economy struggles through crisis. The results show that an increase of 1% in conflict decreases the GDP per capita by 0.04%. Therefore, developing an early conclusion that Burundi has been devastated by conflict

4.3. Conclusion

According to the suggestive development of Iyoboyi (2014), the nature and the extent of political instability can have a huge negative impact on the economic development of a country. Additionally, looking at the interpretations that have developed by Iyoboyi (2014), the future of such a population is what seems to be the eroding factor in reducing the performance of the economy at any one time. Identifying with the suggestion of the future outlook that Burundi will be having, the present and the continuous sporadic and spontaneous conflict on civilian populations will create an enmity of the population with the preset day government.

Psychologically this is entrenched into the human values and the suggestive descriptions of validly in reason for conflict. Looking at the conflict proxies that were modeled in a number of the literature used, the interest was developed with the intensions of having a more ethnically based estimation on the losses on the GDP per capita, the losses on civilian population and the losses on the human capital in Burundi which have all around been struggling. The following table summarizes the literature and the theoretical findings.

Index measure	Findings
The population growth levels	The civilian population growth has been noted to be on the decline already. This is occasioned by the loss of lives together with the loss of human traffic into the neighboring countries as refugees. This is a position that will be very expensive for the country in the coming future. This is seen with the resources that will be used in resettlement and the resources that will also be used on raising the growth or population rates in the future.
The infrastructure	Infrastructure development is paralyzed based on the lack of an enabled environment for investments. This will be a very expensive position that the country will be placed in based on the changes that the population development bases will have been eroded. Comparatively the rebuilding exercise will again be expensive. Having come from a civil unrest in the recent decade, the donor aid and the support from other development partners might still be very limited based on the skeptics on the occurrence of conflict all over again.
GDP productivity and growth	GDP productivity acts as the measure of the increase in wealth for a nation. Literature has severed to show the positive influence and the positive growth that Burundi has achieved up to the year 2014 where the conflict and protests on Nkurunziza's reign began hampering the same. Additionally, it will be true to note that very few economies can record such positive and sustained growth of the economy. This eroded implies of the loss of momentum that the country as a whole has suffered in the fight against poverty. Thus, it leaves lot to be desired with the present day regime seeking to rule over a population that will have been seen to the financial constraint based on singular interests of a presidential figure.
Political and economic freedoms	Based on the human rights positions that this research sought to have as the major influence to its preparations, the political freedoms in Burundi have been hampered similar to the freedom of integrations since the killing that have been seen going viral are all under political motivations but seem to have some ethnic affiliations on the suppress and the opposing communities to the rule of the incumbent president.

Source: Author's findings

Looking at the empirical results, the coefficients that have been provided with the 1st difference tests, the influence that is seen in this case is noted with the positive and the negative influence that the estimation on the empirical results have. The

coefficients of Conflict and population are noted as negative, and those of capital, human capital, openness and foreign direct investment are positive. Considering the fact that all the variables became stationary at the first difference, the model was estimated using all the variables in the first difference form; meaning that the "D" in front of each variable shows that the variable is in " first difference". The estimated function can be addressed as follows:

$$DGDPPC_t = 0.014 - 1.956\ DPOP_t + 0.332\ DK_t + 0.201\ DHC_t + 0.135 DOP_t + 0.05 DFDI_t - 0.044 DCONF_t$$

The relationship in this is identified as significant based on the simulations. With the above presentation, the position that might seem to suffice a positive performance of the GDP per capita will be the physical capital, the human capital, the openness and also the foreign direct investment. As I mentioned before, these are the essential facts in raising the economic growth.

Chapter 5. Conclusion and Recommendations

5.1. Conclusion

The most literature on civil conflicts focuses on its causes. The present contribution instead looks at the impact of civil conflicts on the economic development. This thesis has developed two research questions, which are attached to the nature of the conflict in Burundi and the effects that the economic growth are having for the Burundi future. Using the literature review that has been developed in this case, the results show that the country is suffering with a political instability which slowdown the economic growth of Burundi.

Over the years,continued conflicts in Burundi are causing many damages to the country in the aspects including economic aspect which was the main focus of our study. Besides the non measurable loss to humans, other major economic costs of the conflict include capital flight, destruction of the infrastructure, reduction in FDI, exports and other business activities. All these economic costs have significant impact on economic growth. Another contributor of the low economic growth is the recent violence in Burundi which happened last year(2015) as detailed above.

Our study reveals that one percent increase in terrorist incidents is resulting in reducing the per capita GDP by 0.04 percent. The significance in FDI also means that the reduction of international trade and business activities is due to the fear of conflict. With this background, it is very clear that conflicts have significantly affected the economy of Burundi and for sustainable economic growth, Burundi needs political stability, peace and harmony. So it is important that all sort of action

should be taken to curb the conflict. This will lead to the development of better business and civil living.

The government of Burundi is also in this case seen to be the main factor in deteriorating growth of GDP in Burundi. This is supported by the debate initiated by Fosu (1992) and Alesina and Perotti (1994) on the role of political instability in the economic decay process. The empirical analysis based on different tests also revealed that the physical capital remains the motor of economic activity and the human capital has a crucial role in the development process of the economy of Burundi. This is also supported by the Neo-classical theory as presented above.

When we look at the period before and after the agreement of Arusha peace accord, we realize that the political disagreement has been one of the main causes of conflict in Burundi. Ethnicity is no longer an issue as some still think.

With these findings, it is very clear that conflicts slowdown the economic growth. Many lives have been lost, houses have been destroyed, people have been displaced, many shops and markets have been destroyed, and investors have fled the state. Burundi needs political stability for the economy to grow.

As conflicts are growing in developing countries such as Burundi and other developing countries, there is a need to actively work on these fragile countries to avoid this political crisis which has a huge effect on the economic growth. Experts say that the key to sustaining growth remains the need to build political stability to more easily attract the investment.

5.2. Recommendations

This study analyses the impact of civil conflicts on Burundi's economic development over the period 1963-2014 and finds that it has been catastrophic. The usual economic factors determining growth are endogenous to political objectives, suggesting that politics explains the dismal performance. When cronies rather than qualified managers are running the economy, when priority is given to investment projects in function of their location rather than the objective needs of the economy, economic models lose their power. Economic performance has been shaped by the occurrence of violent conflicts caused by factions fighting for the control of the state and its rents. The capture of rents by a small group has become the overarching objective of the governments that have ruled the country since the mid-1960s.

In this regard, economic performance will not improve unless the political system is modernized from a dictatorial regime playing a zero-sum game to a more democratic and accountable regime. It would be naïve to advocate economic reforms as a way of boosting the country's economy if they are not preceded or at least accompanied by political reforms. One central message of this study is that Burundi's growth failure is the result of specific identifiable factors evolving around governance. There is nothing fundamentally wrong with Burundi: Development failure may be reversed if the problems identified in this study are properly addressed.

The researcher has faced problems while collecting data. It was impossible to get data for some variables and the use of proxy was the only option to circumvent to this problem. Accordingly, physical capital has been replaced by gross capital formation and human capital by secondary school enrollment data.

Furthermore, the researcher has faced a challenge of getting the primary data because of being far away from Burundi and the lack of experts on the subject nearby for the interview. Thus, the use of secondary data for this research.

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Appendix

Table 3. Variable Description

No	Name of variable	Data source	Detail
1	Per capita GDP(Yt)	WDI	Per capita Gross domestic product
2	Physical capita(Kt)	WDI	Gross capital formation used as proxy for Physical capital
3	Population(POP)	WDI	Population Growth rate
4	Openness(OP)	WDI	(Export +Import)/GDP*100
5	Foreign Direct investment(FDI)	WDI	…….
6	Human Capital(HC)	Barrow& Lee	Secondary School Enrolment used as Proxy for Human Capital
7	Conflict(Conf)	ACLED UCDP/PRIO	Number of conflict events in year

3

[3] WDI: World Development Indicator/Data – The World Bank
ACLED: Armed Conflict Location & Event Data Project
UCDP/PRIO: Uppsala Conflict Data Program/ Peace Research Institute of Oslo

Table 4. ADF Test Results

Level(Intercept)
***Conf**

Null Hypothesis: CONF has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.865221	0.0566
Test critical values:	1% level	-3.565430	
	5% level	-2.919952	
	10% level	-2.597905	

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

***FDI**
Null Hypothesis: FDI has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.429253	0.1391
Test critical values:	1% level	-3.568308	
	5% level	-2.921175	
	10% level	-2.598551	

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

***GDPPC**
Null Hypothesis: GDP has a unit root
Exogenous: Constant
Lag Length: 4 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.561303	0.9871
Test critical values:	1% level	-3.577723	
	5% level	-2.925169	
	10% level	-2.600658	

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

1st difference(Intercept)
***Conf**
Null Hypothesis: D(CONF) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.899077	0.0000
Test critical values:	1% level	-3.568308	
	5% level	-2.921175	
	10% level	-2.598551	

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

***FDI**
Null Hypothesis: D(FDI) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.124484	0.0000
Test critical values:	1% level	-3.571310	
	5% level	-2.922449	
	10% level	-2.599224	

*MacKinnon (1996) one-sided pvalues.

***GDPPC**
Null Hypothesis: D(GDP) has a unit root
Exogenous: Constant
Lag Length: 4 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.514688	0.0185
Test critical values:	1% level	-3.577723	
	5% level	-2.925169	
	10% level	-2.600658	

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

Level (Intercept) Cont.

***HC**

Null Hypothesis: HC has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.679655	0.2204
Test critical values:	1% level	-3.568308	
	5% level	-2.921175	
	10% level	-2.598551	

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

***K**

Null Hypothesis: K has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.665082	0.0871
Test critical values:	1% level	-3.565430	
	5% level	-2.919952	
	10% level	-2.597905	

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

***OP**

Null Hypothesis: OP has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.353716	0.1598
Test critical values:	1% level	-3.565430	
	5% level	-2.919952	
	10% level	-2.597905	

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

1st difference (Intercept) Cont.

***HC**

Null Hypothesis: D(HC) has a unit root
Exogenous: Constant
Lag Length: 1 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.167686	0.0003
Test critical values:	1% level	-3.568308	
	5% level	-2.921175	
	10% level	-2.598551	

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

***K**

Null Hypothesis: D(K) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.840618	0.0000
Test critical values:	1% level	-3.568308	
	5% level	-2.921175	
	10% level	-2.598551	

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

***OP**

Null Hypothesis: D(OP) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.821952	0.0000
Test critical values:	1% level	-3.568308	
	5% level	-2.921175	
	10% level	-2.598551	

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

Level (Intercept) Cont.

***POP**

Null Hypothesis: POP has a unit root
Exogenous: Constant
Lag Length: 3 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.401559	0.2158
Test critical values:	1% level	-3.577723	
	5% level	-2.925169	
	10% level	-2.600658	

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

1st difference (Intercept) Cont.

***POP**

Null Hypothesis: D(POP) has a unit root
Exogenous: Constant
Lag Length: 3 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.907028	0.0072
Test critical values:	1% level	-3.577723	
	5% level	-2.925169	
	10% level	-2.600658	

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

Level(Trend and Intercept)

***Conf**

Null Hypothesis: CONF has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.766900	0.2158
Test critical values:	1% level	-4.148465	
	5% level	-3.500495	
	10% level	-3.179617	

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

***FDI**

Null Hypothesis: FDI has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 2 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.589141	0.7830
Test critical values:	1% level	-4.156734	
	5% level	-3.504330	
	10% level	-3.181826	

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

1st difference(Trend and Intercept)

***Conf**

Null Hypothesis: D(CONF) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.870271	0.0000
Test critical values:	1% level	-4.152511	
	5% level	-3.502373	
	10% level	-3.180699	

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

***FDI**

Null Hypothesis: D(FDI) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 10 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.177593	0.0000
Test critical values:	1% level	-4.205004	
	5% level	-3.526609	
	10% level	-3.194611	

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

Level (Trend and Intercept) Cont.

***GDPPC**

Null Hypothesis: GDP PC has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 4 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.455139	0.3480
Test critical values:	1% level	-4.165756	
	5% level	-3.508508	
	10% level	-3.184230	

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

***HC**

Null Hypothesis: HC has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 1 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.158113	0.2216
Test critical values:	1% level	-4.152511	
	5% level	-3.502373	
	10% level	-3.180699	

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

***K**

Null Hypothesis: K has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.611089	0.2774
Test critical values:	1% level	-4.148465	
	5% level	-3.500495	
	10% level	-3.179617	

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

1st difference (Trend and Intercept) Cont.

***GDPPC**

Null Hypothesis: D(GDP PC) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 6 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.292791	0.0075
Test critical values:	1% level	-4.180911	
	5% level	-3.515523	
	10% level	-3.188259	

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

***HC**

Null Hypothesis: D(HC) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-4.555091	0.0098
Test critical values:	1% level	-4.152511	
	5% level	-3.502373	
	10% level	-3.180699	

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

***K**

Null Hypothesis: D(K) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.812322	0.0000
Test critical values:	1% level	-4.152511	
	5% level	-3.502373	
	10% level	-3.180699	

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

Level (Trend and Intercept) Cont.

***OP**

Null Hypothesis: OP has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.330297	0.4106
Test critical values:	1% level	-4.148465	
	5% level	-3.500495	
	10% level	-3.179617	

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

***POP**

Null Hypothesis: POP has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 4 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.328715	0.0741
Test critical values:	1% level	-4.165756	
	5% level	-3.508508	
	10% level	-3.184230	

MacKinnon (1996) one-sided p-values.

1st difference (Trend and Intercept) Cont.

***OP**

Null Hypothesis: D(OP) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.741308	0.0000
Test critical values:	1% level	-4.152511	
	5% level	-3.502373	
	10% level	-3.180699	

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

***POP**

Null Hypothesis: D(POP) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 6 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.251783	0.0051
Test critical values:	1% level	-4.165756	
	5% level	-3.508508	
	10% level	-3.184230	

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

Level(None)

***Conf**

Null Hypothesis: CONF has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.578466	0.4619
Test critical values:	1% level	-2.611094	
	5% level	-1.947381	
	10% level	-1.612725	

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

1st difference(None)

***Conf**

Null Hypothesis: D(CONF) has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.981141	0.0000
Test critical values:	1% level	-2.612033	
	5% level	-1.947520	
	10% level	-1.612650	

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

Level (None) Cont.

***FDI**

Null Hypothesis: FDI has a unit root

Exogenous: None

Lag Length: 2 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.367715	0.5470
Test critical values:	1% level	-2.613010	
	5% level	-1.947665	
	10% level	-1.612573	

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

***GDPPC**

Null Hypothesis: GDP PC has a unit root

Exogenous: None

Lag Length: 4 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.770827	0.9801
Test critical values:	1% level	-2.615093	
	5% level	-1.947975	
	10% level	-1.612408	

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

***HC**

Null Hypothesis: HC has a unit root

Exogenous: None

Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.355318	0.5518
Test critical values:	1% level	-2.612033	
	5% level	-1.947520	
	10% level	-1.612650	

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

1st difference (None) Cont.

***FDI**

Null Hypothesis: D(FDI) has a unit root

Exogenous: None

Lag Length: 1 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.176504	0.0000
Test critical values:	1% level	-2.613010	
	5% level	-1.947665	
	10% level	-1.612573	

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

***GDPPC**

Null Hypothesis: D(GDP PC) has a unit root

Exogenous: None

Lag Length: 4 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.780519	0.0014
Test critical values:	1% level	-2.615093	
	5% level	-1.947975	
	10% level	-1.612408	

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

***HC**

Null Hypothesis: D(HC) has a unit root

Exogenous: None

Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-2.972703	0.0078
Test critical values:	1% level	-2.612033	
	5% level	-1.947520	
	10% level	-1.612650	

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

Level (None) Cont.

***K**

Null Hypothesis: K has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.089457	0.6480
Test critical values:	1% level	-2.611094	
	5% level	-1.947381	
	10% level	-1.612725	

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

***OP**

Null Hypothesis: OP has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.509943	0.4907
Test critical values:	1% level	-2.611094	
	5% level	-1.947381	
	10% level	-1.612725	

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

***POP**

Null Hypothesis: POP has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.688123	0.0862
Test critical values:	1% level	-2.611094	
	5% level	-1.947381	
	10% level	-1.612725	

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

1st difference (None) Cont.

***K**

Null Hypothesis: D(K) has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.922260	0.0000
Test critical values:	1% level	-2.612033	
	5% level	-1.947520	
	10% level	-1.612650	

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

***OP**

Null Hypothesis: OP has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-0.509943	0.4907
Test critical values:	1% level	-2.611094	
	5% level	-1.947381	
	10% level	-1.612725	

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

***POP**

Null Hypothesis: D(POP) has a unit root
Exogenous: None
Lag Length: 0 (Automatic - based on SIC, maxlag=10)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.326811	0.0000
Test critical values:	1% level	-2.612033	
	5% level	-1.947520	
	10% level	-1.612650	

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

Table 5. Results of ADF Test

Name of the variables	level			1st difference		
	Intercept	Trend & Intercept	None	Intercept	Trend & Intercept	None
GDPPCt	-0.561303	-2.455139	-1.770827	-5.514688	-4.292791	-3.780519
Kt	-2.665082	-2.611089	-0.089457	-7.840618	-7.812322	-7.922260
Popt	-1.401559	-3.328715	-1.688123	-3.907028	-7.251783	-7.326811
Hct	-2.679655	-0.158113	-0.355318	-4.167686	-4.555091	-2.972703
Conft	-2.865221	-2.766900	-0.578466	-7.899077	-7.870271	-7.981141
Opt	-2.353716	-2.330297	-0.509943	6.821952	-6.741308	-6.876970
Fdit	-2.429253	-1.589141	-0.367715	-6.124484	-6.177593	-6.176504

Table 6. Cointegration Test 1

Unrestricted Co integration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigen value	Statistic	Critical Value	Prob.**
None *	0.675021	142.3668	95.75366	0.0000
At most 1 *	0.526536	86.16712	69.81889	0.0014
At most 2 *	0.486443	48.78317	47.85613	0.0408
At most 3	0.170035	15.46346	29.79707	0.7493
At most 4	0.111546	6.144878	15.49471	0.6784
At most 5	0.004614	0.231244	3.841466	0.6306
Trace test indicates 3 co integrating eqn (s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				

Null Hypothesis: Existence of unit root*, and**denotes the rejection of Null at 1% and 5% level respectively

Table 7. Cointegration Test 2

Unrestricted Co integration Rank Test (Maximum Eigenvalue)				
Hypothesized		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.675021	56.19968	40.07757	0.0004
At most 1 *	0.526536	37.38395	33.87687	0.0183
At most 2 *	0.486443	33.31970	27.58434	0.0082
At most 3	0.170035	9.318586	21.13162	0.8059
At most 4	0.111546	5.913634	14.26460	0.6243
At most 5	0.004614	0.231244	3.841466	0.6306
Max-eigenvalue test indicates 3 co integrating eqn(s) at the 0.05 level				
* denotes rejection of the hypothesis at the 0.05 level				
**MacKinnon-Haug-Michelis (1999) p-values				