IMPACT OF GLOBAL CONFLICT AND TERRORISM ON SOME SELLECTED MACROECONOMIC VARIABLES: THE CASE OF NIGERIA

By

Ezra Umaru Kure

A Thesis

Submitted to the postgraduate school, Ahmadu Bello University Zaria, in partial fulfillment of the requirements for the award of degree of Doctor of Philosophy (PHD) in Economics

June 2011

Supervisors:

Professor Abdul–Ganiyu Garba

Professor (Mrs.) Patricia S Aku

Dr. Mike Duru

DECLARATION

I hereby declare that this research is a product of an original work done by me, and has never, to the best of my knowledge, in part or whole, been submitted anywhere for any degree examination. That all materials used have been dully acknowledged by either footnoting or by way of referencing.

Ezra Umaru Kure ----------

Signature Date

CERTIFICATION

This thesis titled "*The Impact of Global Conflict and Terrorism on Some Selected Macroeconomic Variables: the Case of Nigeria*" by *Ezra Umaru Kure*, meets the regulations governing the award of degree of Doctor of philosophy (PHD) in Economics, Ahmadu Bello University and is approved for its contribution to knowledge and literary presentation.

Professor Abdu-Ganiyu Garba
(Chairman supervisory committee ----------

Professor Patricia. S. Aku
(Member supervisory committee) ----------

Dr. Mike Duru
(Member, Supervisory committee) ----------

Dr Ishaya Audu
(Head of Department) ----------

Professor Joshua Adebayo
(Dean Postgraduate School) ----------

DEDICATION

This is dedicated to the memory of my late wife, Monica and late father, Rev. Umaru Kure-two very important people in my life who believed so much in my capacity to pursue my dreams but did not live long enough to witness this day.

ACKNOWLEDGEMENT

My thesis titled, "*The Impact of Global Conflicts and Terrorism on Some Selected Macroeconomic Variables in Nigeria"* benefited immensely from the wisdom and Grace of God the Almighty. It was also a great privilege to have worked with the best supervisory team, comprising Professor A.G. Garba, Professor (Mrs.) P.S. Aku and Dr. Mike Duru. My lead supervisor, Professor Garba is a personal academic mentor, and it is indeed interesting to get to this level under his supervision. The academic leadership of Professor Mike Kwanashie and his uncompromising stance on quality, in particular, immeasurably helped to shape this research outcome. Professor G.D. Olowononi and the Head, Department of Economics, Ahmadu Bello University (ABU), Dr. Ishaya Audu worked tirelessly to make sure that this program was completed on time. Professor John Paden of George Mason University (GMU), Virginia U.S.A. provided pertinent advice on the right steps to conduct effective economic research on this field. Special thanks also to Professor Laurence R. Iannaccone of GMU for expanding my interest and thoughts on an important aspect of this research, namely, economics of religion and clubs. The constant reminders from Mr. M.Y Dogo of the Monetary Policy Department, Central Bank of Nigeria (CBN), Dr. A. Englama, Mr. C.I. Enendu both of Research Department, CBN, Dr. O. Mailafia of the Centre for Economic Research and Policy (CERP), Abuja and Mrs. Veronica Aliyu, facilitated the completion of this work. Dr. Abdulsalam Abidemi, Dr. Mohammed Muttaka and Dr. Yusuf Bulus Dauda have been great school mates and colleagues at the Department of Economics, ABU, and it is interesting to know also that we all made it to this level. Special thanks to my Head of office at the Central Bank of Nigeria, Mallam Mohammed Abba, for condoning my absence from the office at a time I was needed the most. Mrs. M. Hilili Johnson, Mbutor O. Mbutor and Phebian Omanukwe, all of the Research Department, Central Bank of Nigeria have been great friends and colleagues. Mr. Yunana Adamson provided all the administrative work required for the completion of this exercise and I am most grateful. Lastly but certainly not the least is my gratitude to my mother, Mrs. Maryam U. Kure, my brothers and sisters, and friends too numerous to mention...and, much love to the greatest kids on earth- Joakim, Janice and Jason. Emily Ikhide remains an integral part of my life. While you have all played your parts, I take responsibility for any other errors.

ABSTRACT

Globalization makes societies permeable to global turbulence and raises their vulnerability to transnational public goods that impact them in accordance with available fault lines. Like the recent global financial and economic crises, Nigeria is exposed to global violent conflict, with economic consequences that need to be explored. Assessing these costs is even more pertinent with the increased utilization of terrorism in conflict that increases the economic risks associated with the phenomenon, evidencing from the uniqueness of terrorism: its choice by the weak in the society; its non-exclusiveness and proclivity for targeting large numbers of innocent people (for the purpose of killing or harming them). Obviously, the search for economic truths on violent conflict and Nigeria is necessitated by the persistence and depth of the events over time, along with the paucity of studies devoted to quantitative assessment of economic impact of violent conflict in the country. Nevertheless, dealing with the issue requires an expanded review of conflict literature to clarify unfamiliar concepts, while the application of economic tools extends the discourse beyond the realm of politics, which aid the consideration of violent conflict for optimal policy options in the country. To that extent, a mid-size macro econometric model, estimated and simulated, using a diverse set of data base on global violent conflict and terrorism revealed mixed consequences for global violent conflict and terrorism in Nigeria: domestic conflict are largely negative on the economy, including the direct destruction of productive capital, which tend to widen with the spread of the events across the country; regional conflicts impose fiscal stress on the government in the form of arming that shift resources away from social and economic sectors; transnational conflict and terrorism produce two broad impacts: (1) it influences domestic violent conflict and so reinforces the negative consequences of the events on the economy, and (2) induces foreign exchange inflows through its impact on global oil production and oil price volatility. However, the net impact on the economy depends on the efficiency of domestic economic resource use as well as the strength of domestic institutions for conflict management. While the research outcome is non-supportive of transnational terrorism, which is obviously exogenous to Nigerian system in any case, it nonetheless calls for judicious use of the opportunities that such conflicts bring through effective savings and management of foreign exchange inflow attributable to it. That way, the country is better placed to narrow domestic conditions that could instigate the propagation of domestic violent conflict in the country.

LIST OF APPENDIXES

Appendix 1. Unit Root Test
Appendix 2. Model Structure
Appendix 3. GADF Test for long run co integration among the variables in the equations
Appendix 4: Estimate results of the parsimonious Equations
Appendix 5: Performance of the endogenous variables in the Baseline Simulation
Appendix 6: Root Mean Square Percentage Error (RMSPE) and Theil's Statistics for the In-sample Forecast
Appendix 7: Simulation result for the endogenous variables

LIST OF TABLES

Table 1: Nigeria: Government spending on some selected variables as % of GDP
Table 2: Patterns of conflicts in Nigeria

LIST OF CHATS

Chart 1: Nigeria: Defense spending and violent conflict
Chart 2: Global Violent Conflict

LIST OF BOXES

Box 2: Definition of Variables
Box 3: Data on terrorist activities and conflicts in Nigeria

TABLE OF CONTENTS

Title page----------1
Declaration----------2
Certification----------3
Dedication----------4
Acknowledgement----------5
Abstract----------6
List of Appendices----------7
List of tables----------8
List of Charts----------9
List of Boxes----------10
Table of Contents----------11
CHAPTER ONE----------13
1.1 Background----------13
1.2. Statement of problem----------15
1.3 Objectives of the study----------20
1.4. Justification for the study----------20
1.5. Hypothesis----------21
1.6. Scope and limitations of the Study----------21
1.7. Work plan----------22
2.0 CHAPTER TWO----------24
2.1 Review of the literature----------24
2.1.1 Review of key concepts----------24
2.1.1.1 Terrorism----------25
2.2 Economic Analysis of Conflict----------33
2.2.1. Typologies of Conflict----------41
2.2.2. Temporary links between Internal and External violent conflict----------45
2.3. Economic Consequences of Violent conflict----------53
2.4. Analytical Framework----------59
2.5. Empirical Literature Review----------75
2.6 Violent Conflict and Terrorism in Africa----------94
2.6.1. Colonia influence and violent conflict in Nigeria----------96
2.6.1.1 Patterns of violent conflict and terrorism in Nigeria----------102
3.0 CHAPTER THREE----------110
3.1. Research Methodology----------110
3.2. Some Stylized Facts----------111
3.3. The model----------119
3.4. Data and Estimation Techniques ----------138
3.4.1. Data requirements and sources----------138
3.4.2. Estimation Technique----------141

4.0. CHAPTER FOUR----------143
4.1 Empirical evidences and analysis of result----------143
4.1. Estimation Result ----------145
4.2. Baseline Simulation Analysis ----------149
4.2.1. Baseline Simulation----------149
4.3. Summary of Findings----------156
5.0 CHAPTER FIVE----------158
5.1. Summary, conclusion and recommendation----------158
5.1. Summary----------158
5.2. Conclusion----------163
5.3. Recommendations----------163
5.4. Suggestions on path of future research----------164
Appendix 1. Unit Root Test----------143
Appendix 2. GADF Test for long run co-integration ----------144
Appendix 3: Estimate results of the parsimonious Equations----------145
Appendix 4: Baseline Simulation----------150
Appendix 5: Root Mean Square Percentage Error (RMSPE) and
Theil's Statistics for the In-sample Forecast----------153
Appendix 6: Simulation result for the endogenous variables----------154
Appendix 7: Model Structure----------166
Table 1: Nigeria: Government spending on some selected variables as % of GDP----178
Chart 1: Nigeria: Defense spending and violent conflict----------179
Chart 2: Global violent conflict----------179
Box 1; Definition of Variables----------180
Box 3: Terrorist Activities in Nigeria----------181
References----------189

CHAPTER ONE

1.0 Background

For various political, economic and social reasons, conflict and terrorism can erupt[1]. Conflict is a situation in which people, groups or countries are involved in disagreements or arguments[2]. The synonyms are clash, squabble, dispute, fight, divergence, variance, quarrel, inconsistency-all tending to connote negativity. Nevertheless, conflict could also be "creative" (Sombart, 1913, Schumpeter 1975)[3], especially when a violent revolt, for instance, destroys a growth retarding dictatorial or kleptocratic regime (Degroot, 2009) and creates the pathway for rapid economic transformation. This means, in essence, that conflict has some unique characteristics that should be of interest to policy makers, including its initiation, motivation, duration, typologies, techniques and macroeconomic consequences. It is more pertinent to do this under conditions of globalization, where countries are linked and permeable to global turbulence, making it possible for the transnationalization of violent conflict. Being part of that global economic system means Nigeria will not be insulated from the impact of global public goods, which may come in the form of economic crises, policies, conflict or peace. Attempt is made in this study to assess the macroeconomic impact of violent

1In Garba and Garba (2002), the antithetical forces that trigger conflict are summarized to include friction between passion/pleasure-prudent/forethought; mind and matter; duty to God and duty to the state; good-evil; state-citizens; social cohesion and individual liberty; order and anarchy; church- King; Catholicism and Protestantism; Christians-Moslems; slave- master; aristocrats-commoner; colonized-colonizer; western values- other values; tradition and modernity; science and religion; North-south; East-west, rich-poor; military- civil; socialism–communism; capitalist- worker; debtor-creditor; unlimited wants-limited resources.

2 Oxford Advanced Learner's Dictionary 6th edition.

3 Joseph A. Schumpeter (1975): "Capitalism, Socialism and Democracy", New York, Harper; Sombart, W., 1913, *Krieg und Kapitalismus,* (War and Capitalism) Leipzig: Duncker & Humblot, p. 207

conflict in a global context, as a step towards appreciating the country's growth dynamics. In doing that, the interaction of domestic and transnational violent conflict is taken into consideration, hence the adjective term in the topic. Without a doubt, the nature of the Nigerian economy makes the quest even more necessary: the economy is small, open and newly liberalizing-a characteristic that poses significant challenge to effective domestic policy (fiscal, monetary and commercial (e.g. trade) coordination in an increasingly turbulent world (Garba, 1999, 2002). Such characteristic also suggests that the country may not have sufficient institutions to deal with exogenous shocks arising from major externalities, making the impact to be large on the domestic economy. Undeniably, as a net exporter/importer of oil products, the country's internal and external macroeconomic balances would be sensitive to disturbance(s) (internal or external) to crude oil production, sale and revenue. Invariably, the joint interaction of domestic violent conflict and external conflict would potentially define the persistence of the country's economic growth process, its response to volatility in the external environment and the magnitude of the growth collapse/ boost that may follow a negative/positive external shock. While this seems to suggest a positive and negative impact of global violent conflict on Nigeria, the net effect is anchored largely on the economy's domestic absorptive capacity, which is in turn dependent upon pre-existing social and political frontiers and tension as well as the efficiency of domestic institutions for conflict resolution and economic resource management.

The application of economic tools directly to the analysis of violent behavior as it affects Nigerian was intended to broaden the horizon of our understanding of the phenomenon beyond the purview of politics, and by so doing, expand the frontier of the knowledge already gained[4]. Essentially, by incorporating the equilibrium consequences of global violent conflict in a macroeconometric model for Nigeria, the study potentially creates a platform for consideration of violent behavior in the strategic options for domestic macroeconomic policies and programs in the country.

1.2. Statement of Problem

The role of violent behavior on macroeconomic performance is long recognized. However, estimating the various costs is often constrained by the choice of techniques along with other choices that would need to be made with respect to (1) the elements of conflict to consider among the various typologies; (2) data availability and (3) classification problems, especially between domestic and transnational conflicts, given that both types are closely linked (Blomberg 2004). Indeed, the relationship between transnational and internal conflicts suggests that the two types can act to affect the internal coherence of the institutional structures on which economic performance rests. One case of such interconnection can be seen from the intra-religious conflicts that ended Nigeria's relative peace of the 1970s[5], arising from the successes of the Iranian revolution in 1979. As demonstrated in Best (2001), one of the derivatives of that revolution-

4 Important resources would include, Garba and Garba,(2002): Best (2001); N. D. Danjibo (2010);
5 Prior to the period, Nigeria was relatively peaceful with minimal religious conflicts in the country

the "Maitatsine conflict", combined with the radical teachings and actions of the Islamic cleric El Zak Zaky, provoked violent intra-religious conflicts among Muslims in the early 1980s, laying the infrastructure of what would later turn into a harvest of violent ethno-linguistic/religious conflicts among different religious groups in the years to come. It is possible to find the connection between the 9/11th transnational terrorist attacks in the US 2001 combined with the War on Terror (WOT) that followed those attacks and the violent conflicts provoked shortly in many developing countries. Without a doubt, the large scale anti-American/Western crusades that followed the war on terror in some Nigerian cities, notably in Kano, Borno, and Bauchi States by the self-styled "Nigerian Talibans" Albert (2007)[6], should produce some important economic consequences on the economy.

Available data[7] revealed that episodes of intra-and inter-religious conflicts as a proportion of total violent conflicts in Nigeria increased from 5 in 1980 to fifteen (15) cases in 1990 and averaged about 5 episodes per year between the periods. By 2008 however, the intensity of violent inter-religious conflicts increased further by 5% to 22 (twenty-two) episodes from 1980, about the same time that transnational terrorism in the country's oil producing region intensified as revealed by the number of attacks (e.g. kidnapping of foreign nationals, bombing of oil installations e.t.c), which increased collectively by 12 percent between 2000 and 2006 (Nigerian Newspapers reports), from a modest growth of 2 percent on

6 In Albert (2007), the reasons for the extreme violence by some islamists include the opposition of some Christians to the introduction of sharia legal system in some parts of northern Nigeria in 1999 and 2000, the decision of the US to invade Afghanistan in 2001, the effrontery of a Danish newspaper, Jyllands- Posten, to publish some cartoons on Prophet Mohammed in 2005. Their dissatisfaction with the quality of governance in Nigeria have been referred to in local communities by a myriad of names but many Nigerians call them "Nigerian Talibans" on the account of their uncompromising rejection of western civilization and fondness for brutal violence.

7Global Terrorism Data (GTD) base (http://www.start.umd.edu/gtd/about/) and corrected by data available from other local sources, such as the Nigerian press and police reports, between 1980 and 1990.

average between 1980 and 1990. Evidently, the addition of other related violent acts in the country-chieftaincy conflicts, political, ethno-linguistic conflicts and many other cases of domestic terrorism, such as the letter bomb that killed Dele Giwa in 1985, or the conscious brutal killings of prominent persons in the country, should produce a robust data set upon which analysis of the economic consequences of violent conflict can be conducted in the country.

Aside the direct influence on domestic violent conflict, the consequences of transnational violent conflict can be gleaned from available data Central Bank of Nigeria (CBN). For instance, the Arab-Israeli conflict and many others after it caused significant disruptions in global crude oil production by major oil producers around the time, leading to an oil price surge that induced other changes in oil exerting/importing countries. This can be seen from the behavior of oil export revenue and Nigeria's external reserves in the mid- 1970s. As it were, the growth of 794.4 per cent and 3131.5 per cent, observed respectively between 1970 and 1975 was in response to the 1973 global energy crisis induced by the 1973 Yom Kippur war, while the collapse of external reserves (a decline of 63.7 per cent) on average in 1981-1983 periods followed the oil glut that emanated from the poor reading of the Middle-East wars by oil exporters[8]. Correspondingly, the Balance of Payments (BOP) fluctuated in line with the earnings from oil trade, with surpluses, especially in 1974 constituting 16.5 per cent of GDP, and was in deficit in the late seventies and in most years in the 1980s. The return of surpluses in the 1990s

8 The inability to correctly predict the outcome hostilities in Iran and oil price movement starting from the late 1970s caused cause the 1980 oil glut that threw most oil dependent economies like Nigeria into severe economic crises and had to be corrected with structural adjustment programs.

coincided with periods of intensive transnational hostilities in most oil producing countries around these times, ranging from the gulf war in 1991 to terrorism war and the war on terrorism in the 2000s. Interestingly, as the federal Government revenue rose on annual basis by 167.6 percent in 1974, and fell by 8.3 per cent in 1979 following the energy crisis, Federal government expenditure rose and fell accordingly such that from an annual growth of 62.5 per cent in 1970, government expenditure rose by 116.8 per cent in 1975 but fell by 0.8 per cent on averaged between 1981-85. Indeed, the sudden crash in crude oil price during the closing part of the 1970s was arguably causal to the contract of the USD$2 million jumbo loan in 1978 from the international capital markets (ICM) by the general Obasanjo's military regime-a decision that is largely acknowledged to have jump-started Nigeria's foreign debt problems and complemented factors that induced the austerity measures of the early 1980s by the Buhari/Idiagbon military regime. As it where, the measures did not tame the economic distortions of the period in the early 1980s until an IMF-supported market-based structural adjustment program (SAP) was initiated and implemented between 1986-1993 with varying economic consequences.

It seems clear that Nigeria's federal government expenditure responds positively to the trend in oil revenue flow, regimes changes (Garba, 1999) and the integrity of the governments in power. Nevertheless, violent conflict provides yet an additional explanation. Thus, it is possible to see the 35.6 percent average growth in military expenditure during the period (1989-2003) as a product of the peace keeping

operations in the Liberian civil war at the time along with the fight against terrorism in the oil producing Niger Delta region of Nigeria around that time. Mohammed (2002) holds that increased expenditure on defense under condition of violent conflict is consistent with war economics that associates security expenditure with societal instability-a view also shared by Adejumobi (1999). The impact of military expenditure and the economy, as shown in Omitoogun [2003], is via its crowding out effects on social and economic expenditures. Table 2 shows this as the positive difference between the relative shares of defense expenditure and social/economic services in total government expenditure, which could stand-in for the losses due to collective violent conflicts-domestic, regional and transnational conflict around the time. Thus, while a need exists to account for the *temporary links between domestic and transnational violent conflict, considering in particular, their joint impact on oil production and revenue*, three related questions would require answers: a) to what extend is violent conflict an important determinant of Nigeria's macroeconomic performance? b) Is there any relationship between domestic violent conflict and transnational violent conflicts? And (c) how does the interaction between external and internal violent conflicts accelerate domestic macroeconomic outcomes attributable to violent conflict in Nigeria?

While answer (s) to the first question is essentially the main motivation for the study, answers to the second and the third questions are also subject to empirical investigation.

1.3 Objectives of the study

There is an observed sensitivity of the Nigerian economy to internal and external influences as demonstrated by the recent global financial economic crises. Global violent conflict is equally expected to play a role in influencing domestic macroeconomic outcomes given perceived channels that range from deep social divisions, domestic violent conflict both at home and economies of neighbors. Thus, it makes sense to establish the various transmission channels of this potential source of shock in order to fully understand the growth dynamics of the Nigerian economy. Expectedly, the knowledge acquired would extent the frontier of our understanding on conflict analysis in the country. Accordingly, the broad objective of the study is to identify and discuss the relative contribution of global violent conflict on some selected macroeconomic variables in Nigeria. Essentially, the study aims to establish possible links between domestic conflicts to transnational conflicts and shows how the interaction between them defined their joint impact on the domestic economy.

1.4 Justification for the Study.

Persistent violent conflict is an unhealthy situation for any country striving to achieve economic development. Accordingly, understanding the the economic consequences of violent conflict contributes to analysis of economic growth of the country, which could help in effective economic planning. Thus, while transnational violent conflict is projected to induce revenue inflow (through oil export) but which could, at the same time, reinforce the negative consequences of domestic violent conflict, the overall dynamics of collective violent conflict and macroeconomic

behavior apparently provides opportunity for appreciating the true growth path of the country. In addition, the proliferation of violent conflict globally, and, in particular, the change in its motivation for violent (e.g. terrorism) from the fight against inequality, social justice and low economic growth e.t.c to motivations that are based on fundamentalist principles[9] makes analysis of economic consequences of violent conflict and terrorism study even more necessary.

1.5 Hypothesis

The research is built on one broad null hypothesis:

- Ho: Nigerian economy is inert to domestic, external and transnational violent conflict.

1.6 Scope and Limitations of the Study.

The period 1970-2009 is considered to be debatably suitable for analysis of economic impact of violent conflict and terrorism in Nigeria. In many respects, this period cuts across well–known domestic as well as transnational violent events that have, to a significant extent, influenced major macroeconomic outcomes in the country. The choice of this period also means that the study excludes all violent conflicts proceeding this period, including "extra-systemic wars"[10] and colonial conflicts[11] (except where such views provide relevant background information),. It also excludes the pre-1970 political conflicts such as the civil war

9 Our definition of fundamentalism avoids specific reliance on issues such as religion, violence, irrationality and other characterizations that can misrepresent or too narrowly define what is a wide spread phenomenon.
10 Popular among this group of conflict are colonial resistance movements
11 The colonial administration was characterizes by violent conflicts while anti colonial movements rationalized terrorism in weak states, seen then as struggle for economic justices (Muzrui,2004)

of the late 1960s, not necessarily because these events are less important, but because achieving the research objective is still possible without them.

The study basically focused on global violent conflict, defined as a combination of domestic, external and transnational conflict, and how they individually and collectively define key macroeconomic variables in Nigeria. For analytical convenience however, a narrow set of these events were used based on their trends and potential for mass impact.

The limitations to this study are restricted to the core problems of data-availability and reliability- which is standard constrain to social and economic research in low developing countries. While such constrains imposed some challenge to the presentation of the research's core mandate, they nevertheless, failed to prevent the realization of the objectives of this research.

1.7 Work plan

The research report is presented in five essays. The first introduces the work and also identifies some research gaps in conflict literature. It further states the research problem, hypothesis and objectives. The second essay defines some basic concepts used in the study and reviews some relevant literature on violent conflict, including conflict onset and economic consequences, which provided the analytical framework for the medium sized macroeconomic model discussed in the third essay. The last part of the second essay is an overview of the nature of violent conflict and terrorist activities in Africa and Nigeria. The third essay presents

methodological issues, including a description of the macro econometric model used for discussing the economic consequences of violent conflict on Nigeria. It also discusses data, measurement issues and the econometric procedure. The fourth essay discusses the economic implications of the econometric evidences arising from the model. Finally, the last essay is the summary of the work, containing also the conclusion and recommendations. It also contains some suggestions for future work in the research area.

CHAPTER TWO

2.1 REVIEW OF THE LITERATURE

2.1.1 Review of Key Concepts

Beside the direct consequences of weak institutions in economic progress (North 1970), violent conflict is also considered to be a factor that can have important repercussion on economic performance. The emphasis on violent conflict in the development process is largely underscored by the increasingly evidences that wars have high costs that can severely impede economic progress (Knight et al. 1996; Collier, 1999; Collier et al 3002; James et al, 2006). In the choice of conflict variables for the study however, the ferocity of the events was a critical element since conflict could also be suppressed or latent. Thus, peaceful demonstrations and all other non-violent organized crimes such as cyber theft, money laundering, gambling, prostitution e.t.c. were not explicitly modelled in the analysis, based essentially on their relatively non-violent disposition, even though they remain global activities that affect growth in various ways and in which the threat and (sometimes) use of violence are an integral part. But it was important to consider violent terrorism, violent ethno religious conflicts, civil wars, violent revolution, violent demonstrations, political violence, violent changes in government and all deliberate acts e.g. political assassination of prominent citizens, violent suppression of rebellion by governments. This is essentially because these violent events, in various ways, could offset the balance of economic structures.

2.1.1.1 Terrorism

Terrorism is considered in the study because of its uniqueness: its choice by the weak in the society; the non-exclusiveness of its effects and, in particular, its proclivity towards targeting innocent people who probably do not have anything to do with the issues they (terrorists) try to address. The uniqueness of terrorism apparently shows in the conflict surrounding its conceptualization, which is largely influenced by the exigencies of the time, the nature of the organisation defining the phenomenon or the state and its functions.

The Organization of African Unity (OAU)/African Union (AU) Convention on the Prevention and Combating of Terrorism (Algiers, 1999) defines terrorism in the African context (Article 1 (3) (a) as

> "any act which is a violation of the criminal laws of a State Party and which may (i) endanger the life, physical integrity or freedom of, or cause serious injury or death to, any person, any number or group of persons or causes or may cause damage to public or private property, natural resources, environmental or cultural heritage and is calculated or intended to intimidate, put in fear, force, coerce or induce any government, body, institution, the general public or any segment thereof, to do or abstain from doing any act, or to adopt or

abandon a particular standpoint, or to act according to certain principles; or (ii) disrupt any public service, the delivery of any essential service to the public or to create a public emergency; or (iii) create general insurrection in a State".

Article 3 of the definition, however, exempts "the struggles waged by peoples in accordance with the principles of international law for their liberation or self-determination, including armed struggle against colonialism, occupation, aggression and domination by foreign forces"[12] . Seen this way, terrorism could be useful as the familiar statement "one man's terrorist is some else's freedom fighter" still holds, a view that was popular during the violent struggle against colonial rule in many post-colonial societies.

Hoffman (1998) defines terrorism broadly as "the deliberate creation and exploitation of fear through violence or the threat of violence in the pursuit of political change"[13]. Hoffman attempts to differentiate his definition of terrorism from criminal and lunatic violence by emphasizing the "altruistic" and "intellectual" qualities of terrorist motivation. To this author, "terrorism is a pejorative term. It is a word with intrinsically negative connotations that is generally applied to one's enemies and opponents, or to those with whom one disagrees and would otherwise prefer to ignore. Hence the decision to call someone or label some

12OAU/AU Convention on the Prevention and Combating of Terrorism (Algiers, 1999)

13Bruce Hoffman, *Inside Terrorism* (New York: Columbia University Press, 1998), p.43. Hoffman lists three other defining traits that, for some unknown reason, are not incorporated explicitly in his definition: 1) conspiratorial and 2) clandestine agents representing a 3) sub national group or non-state entity. It is this more narrow definition that actually informs his analysis.

organization 'terrorist' becomes almost unavoidably subjective, depending largely on whether one sympathizes with or opposes the person/group/cause concerned. If one identifies with the victim of the violence, for example, then the act is terrorism. If, however, one identifies with the perpetrator, the violent act is regarded in a more sympathetic, if not positive (or, at the worst, an ambivalent) light; and it is not terrorism"[14]

Schmid and Jongman (1998) provide a definition of terrorism which, due ironically to their attempt to increase definitional specificity, is far too complex (and, at once, too broad) to be applied systematically in research when they define as "an anxiety-inspiring method of repeated violent action, employed by (semi-) clandestine individual(s), group(s), or state actors, for idiosyncratic, criminal or political reasons, whereby – in contrast to assassination – the direct targets of violence are not the main targets. The immediate human victims of violence are generally chosen randomly (targets of opportunity) or selectively (representative or symbolic targets) from a target population, and serve as message generators. Threat- and violence-based communication processes between terrorist (organizations), imperiled victims, and main targets are used to manipulate the main target (audience(s)), turning it into a target of terror, a target of demands, or a target of attention, depending on whether intimidation, coercion, or propaganda is primarily used"[15].

[14] Hoffman (1998), p. 32, See review in The New York Times Inside Terrorism

15 Alex P. Schmid and Albert J. Jongman, *Political Terrorism: A New Guide to Actors, Authors, Concepts, Data Bases, Theories, and Literature* (New Brunswick, NJ: Transaction Books, 1988).

Caleb Carr (2002) equates terrorism with conventional warfare, with one very important distinction: "[Terrorism is] warfare deliberately waged against civilians with the purpose of destroying their will to support either leaders or policies that the agents of such violence find objectionable."[16] For Carr, terror is established through the unrestrained demonstration of violence; it is an induced emotional state intended to disable the will in individuals to resist, or seek rectification for, a perceived injustice through the credible threat (fear) of unspecified, unbearable consequences.

Marshal (2007)[17] feels that "contemporary analyses of terrorism have usually foundered between the perceptual extremes that are inherent in the amorphous ideas of terror: conceptualizations of terrorism are either too broad to be analytically useful, too narrow to be analytically meaningful, or too complex to be applied systematically"...too often politically motivated as the analyst attempts to rationalize a distinction between civil and uncivil applications of violence (useless) terror and (useful) enforcement, (undisciplined) terrorism and (disciplined) war, and (dishonorable) terrorists and (honorable) "freedom fighters". Conceptual confusion is further exacerbated by the often cavalier usage of the pejorative term "terrorist" to refer to any political opponent, much as "communist" was used for political effect in the West during the Cold War. Apparently, all acts of terrorism are criminalized acts that are made particularly effective because they are

16 Caleb Carr, *The Lessons of Terror; A History of Warfare against Civilians: Why It Has Always Failed and Why It Will Fail Again* (New York: Random House, 2002), p. 6, emphasis added.
17 Monty G. Marshal (2002): *Global terrorism: An overview and Analysis*. Centre for systemic peace, Occasional paper series No3

unconventional (extra-legal or non-rational) applications of violent or coercive behavior- bombings (letter bombs, car bombs, etc.), hostage taking (hi-jackings or kidnappings at sea, in the air, or on the ground), assassinations, threats and hoaxes.

Enders and Sandler (2002) provide a definition of terrorism that is most widely quoted in conflict literature. They define terrorism as "*the premeditated use or threat of use of extra-normal violence or brutality by sub-national groups to obtain a political, religious, or ideological objective through intimidation of a huge audience, usually not directly involved with the policymaking that the terrorists seek to influence*". The three main elements of this definition are: (a) the use of extreme violence, (b) the "underground" nature of terrorist acts, individuals, and organizations, and (c) publicity, i.e., the intended effect on a broad audience, possibly through the media.

While there appears to be no universally accepted definition of terrorism, Frey and Luechinger (2003) opines that for an act of terrorism to occur, the event must possess the following elements: The perpetrators (i) use force on civilians; (ii) act in an unofficial capacity; they are in particular, not part of the national army and do not wear any national uniform;(iii) want to achieve political goals; (iv) aim to have far-reaching effects beyond the immediate victims, particularly through the media, and (v) target a large audience and mostly civilians who may not have anything to do with the political, socio cultural or economic issues of interest to perpetrators.

In this study however, Enders and Sandler's (2002) definition of terrorism is appealing and is accordingly adopted for the study. The only snag with it however, as in most other definitions of terrorism, is the non-inclusion of state actions in the definition of terrorism, which obviously limit the scope required for effective analysis of terrorist events in Nigeria. Indeed, it makes sense to have a more encompassing definition of terrorism that incorporates state actions against its citizens, especially since the phenomenon could be part of a larger conflict (e.g., Palestinian-Israeli conflict or more generally the Middle-East versus western alliance); can be internal to a country (like in Sri Lanka, Spain's Basque region, Iraq, Afghanistan, Nigeria); or transnational in scope (like the al Qaeda worldwide terrorist network or the war on terror (WOT)). Thus, when *retail* terrorism, i.e., terrorism conducted by private, non-state actors is combined with *wholesale* (or state) terrorism, the joint effects on the economy would be more illuminated.

Whereas the French Revolution (1793-99) is arguably associated with the first official application of terrorism in politics[18], states, groups and individuals have, in many ways, made extensive use of this technique to achieve a diverse set of objectives[19]. Therefore, whether terrorism is a curse or a desirable tactic in conflict clearly depends on the believes systems and /or the agenda being pursued by the perpetrator; it may be useful if leads to the overthrow of growth retarding

18The word "terrorism" first appeared in English language in reference to the reign of terror associated with the rule of France by the Jacobins (1793-94) (ttp://www.terrorism-research.com/history/early)

19 In anti- colonial struggle (e.g. Ireland and the United kingdom, Algeria and France, Vietnam and France, Vietnam and France/United States and in many African states); in dispute between different national groups over possession of contested home lands (e.g. Palestine and Israel); in conflicts between different religious denominations and groups (catholic and protestants in northern Ireland, Shiite and Sunni Moslems, Hindu and Muslims in India, Christians and Muslims worldwide); in internal conflicts between revolutionary forces and established governments(e.g. Malaysia, Indonesia, and the Philippines, Iran, Nicaragua, elsalvador, Ethiopia, Argentina, Angola , Mozambique, the Congo, Sierra Leone, Liberia); among ethno linguistic groups and contest over natural resources (e.g. Nigeria).

kleptocratic regimes which was the view shared about terrorism of the late 1960s right through the 1970s, which was largely motivated by nationalism, separatism, Marxist ideology, anti-racism, nihilism and the desire for economic equality (Wilkinson 1986). However, the change in motivation for violent terrorism, following the emergence of "obscure, idiosyncratic millennium movements" (Hoffman 1997, 2; 1998, 185-99), with inclination to changing the world based on fundamentalist principles[20], and the nature of their tactics tends to heighten the uniqueness of the events as well as the associated economic risks, as evidenced by the readiness of some terrorists to die for their course (the 9/11 terrorist attacks) and many other events in Iraq (since the over throw of late president Saddam Hussein), Afghanistan, Pakistan, in the Arab-Israeli conflicts and lately in Nigeria.

Attempts to explain the motivation for violent terrorism are replete in the conflict literature. Andrews (2010) categorizes these motivations into the need for change[21,] religious[22], social[23], political[24], revenge[25], attention[26] and symbolism[27]. In

[20] Our definition of fundamentalism avoids specific reliance on issues such as religion, violence, irrationality and other characterizations that can misrepresent or too narrowly define what is a wide spread phenomenon.

21 Although using violence as a means of coercion may be judged to be wrong by many people, the terrorist's mind is able to rationalize a violent acts against innocent people, in order to further their cause; the terrorist believes that he is justified in his violent acts in order to accomplish a more important religious, social, or politically motivated reform.

22 The series of attacks by Osama bin Laden and the Al-Quida group is motivated by religious convictions. This group believes it is justified because of religious commands found in the Koran, and they use these same religious beliefs to recruit more followers. The Al-Quida group sees Americans as being a self-righteous, power hungry and prideful nation. According to Shahar, 1998, al-Qa'ida (The Base) 2001, Geocities, 2001), the group disagrees with what they see as a Hollywood centered, immoral, and perverted society. Their hope is not so much to convert the U.S. to Islam, but more to destroy the offending parts of US society in order to please Allah

23 The Unabomber mail-Ted Kaczynski wanted to change the structure of society and its dependence on technology. In his own words he wrote, "This is not to be a political revolution. Its object will be to overthrow not governments, but the economic and technological basis of the present society" (Robinson, 1997). The Unabomber believed that it would have been impossible to get his message across, and have a lasting impression on the public's mind, without some kind of violent act.

24 Traditionally, terrorism has been used by people who do not believe their voice is being heard as a means to disrupt an oppressive government. The leaders of the given idea or movement come together, in the form of a militia or rebel group, and bring about political change in order to rid society of an undesired ruling power. In some cases they can take over as the political power themselves. If this rebellious terrorist group is able to gain the support of the general public, then they are more likely to take control because they will have support from the people in the way of money and resources (Robinson, 1997).

25 There have been many instances where terrorism has been used as a means to avenge what is considered an unjust or offensive act. Timothy McVeigh used violence as a means to get back at the American Government for its handling of the Waco, Texas incident. Bid Laden seems to have a personal vendetta against America, at least in part, for its actions during and at the end of the War with Afghanistan and Russia (Shahar, 1998). The Unabomber targeted some of the people that he associated with in his former life, such as college professionals, and coworkers, perhaps because he was so ostracized by everyone he went to school with and worked around.

26 The more random a terrorist act seems, the more attention it will receive as more individuals perceive it as a possible threat.

addition, in a summary of a decade of existing research on the economics of terrorism[28] (Schneide, et al, 2010) find that terrorists are rational actors[29]; that they are more or less *homo economicus*, considering their response to incentives, their narrow self-interest and the rationality of their expectations. As rational actors therefore, terrorists commit terrorist actions in order to maximize their utility, given certain benefits. Nonetheless, the motivation for suicide terrorism remains puzzling. However, the "emergence of obscure, idiosyncratic millennium movements" or religious-based groups (Hoffman 1997, 2; 1998, 185-99) increases the involvement of religion in terrorism. Increased religious- based terrorism as shown in Iannaccone, 1998 1992, Sacerdote and Glasser, 2001; Akerlof, 1991 and 2000; Becker, 1996; Putnam, 2000; Wintrobe, (2002) is influenced largely by religious markets[30] and the radicalism that such markets breed worldwide. There are a lot of reasons that make religion a superior factor in violent conflict generation. Huntington's 1996 theory about the cultural fragmentation of the world initiated a large debate on the relevance of religion in violent conflict when he proposes a model to interpret the new reality of the world, based on cultural considerations. Consequently, religion has had to be granted a fundamental role in world politics: it is a central force, in many situations the primary, which motivates

---

27 Every terrorist act is designed to convey a specific message. The attacks on September 11th had very specific symbolic messages. The attack on the World Trade Center was designed to weaken the confidence in the American economy. The attack in Washington D.C. (whether it was intended to hit the Pentagon or the Capital building) was intended to weaken the confidence in government security. Even randomly seeming terrorist acts are conveying a specific message.

28 The source of this is doubtful. Nevertheless, the 9/11 terrorist attacks has popularised the discourse on terrorism using economic tools, explore the terrorist mind, or its causes, asking such questions as whether terrorism is rooted in poor political and economic conditions (i.e., in repression and poverty)

29 Even if it all seems to make little or no sense to the rational mind for a human being to consciously carry and explosive and detonate to kill himself and others for someone else's cause.

30 Larry Iannaccone has defined religious markets as those, which trade religious products. The need for social and economic protection accentuates this practice. Participants in the markets include religious leaders who market products- heavenly rewards for example, while members of the congregation constitute demanders of these products. The author also shows that the observance of certain minimum religious stander by religious leader has often lead to violent behaviors that involve extreme personal sacrifice...

and moves humans. In such situations what counts is not political ideology or economic interests. The faith and the family, the blood and the beliefs are the aspects with which people identify themselves: the characteristic for which they fight and die. People belonging to different religions have different visions of many relations among individuals and authorities. And more than ethnicity, religion discriminates and differentiates humans in a sharp and exclusive way, even more than belonging to a country would do. Thus, given that religious differences may be more important than language differences as a social cleavage that can develop into a conflict, the motivational change for terrorism from non-religious to religious considerations, would, as Hoffman (1997, 1998) and Juergensmeyer (1997) view, pose potentially more deadly threats to affected societies than terrorism of some classical sort. There are many reasons for this: perpetrators of religious based terrorism are ready to die for their course; do not fear death, may even welcome it as a purifying act. Some religious based terrorist are therefore insensitive to cost.

2.2 Economic Analysis of Conflict

There are a lot of ideas about the sources of violent conflict within the broad schools of development theory. Though there are contrasts between some of the ideas, they mostly share a sense of conflict arising from friction in social relations, and of this friction being generated by the processes of development, scarcity, snags and contradictions. Class cleavages sharpen this drive because it polarizes

segments of the population along economic and social frontiers, while the negative effects of poverty, economic deprivation, unemployment and ethnic discrimination sharpen this divide; aggravate its scope and intensity. Adam Smith [1776] states that

> "the wealth of nations…which always allows the improvements of agriculture and manufactures…provokes the invasion of all their neighbors. An industrious, and upon that account a wealthy nation, is of all nations the most likely to be attacked" [Book V, chap1, part 1]

Apparently, a wealthy agent is more likely to be attacked by the poor agent either by violent means or through economic sabotage, Hirshleifer [1991]-the probability of which attack directly linked to the economic distance between the rich and the poor in the society[31]. Violent conflict seen this way appears to be a rational activity that is based on self-interest. That is to say that in contrast to traditional economics, in which economic agents produces and trade economic goods to make a living; violent rapacious activities provide yet another option for allocation of time (Chassangy and Miguel (2009). Landes' (1978) model explains the behavior of a group of aggrieved (or greedy) persons, contemplating an attack on another group for political and/ or economic objectives. The simplified version of the model considers three states of the world: a state of peace (no contest or conflict), the state where conflict or contest is successful and three, the state of a

[31] Violent terrorism however, is an exception to this rule, as "the typical suicide bomber is neither poor nor ignorant; he has no history of mental illness or attempted suicide; he is not especially aggressive or desperate; and he has no special reason to hate his victims" (Iannaccone, 2004).

failed contest. The model assumes that utility in the no contest scenario is certain; that is, if the group decides against engaging in any form of violent activity, utility is given by U^n. If however, it decides to strike, the outcome is an uncertain probability function:

$$e(u)^c = \emptyset u^f + (1-\emptyset)u^f; 0 \leq \emptyset \leq 1 \text{ - } 1$$

Where $e(u)^c$= expected utility if there is any contest.

$\emptyset$= the subjective estimate of the probability of a successful contest;

$1-\emptyset$= the subjective estimate of the probability of a failed effort

u^s= utility if the event is successful;

u^f= utility if the event fails.

An important implication of the model is that a group that contemplates an insurgency will likely be more interested in it if the expected utility from the act exceeds the utility level U^n, i.e.

$$U^n < e(u)^c = \emptyset u^s + (1-\emptyset)u^f \text{ - } 2$$

Given then that in a conflict situation, utility from success is expected to be an increasing function of effort [i.e., $u^s > u^f$], it follows that an increase in the probability of a success will make it more likely that violent conflict will occur. Hence, for an aggrieved (greedy) group, if the perceived cost of a conflict engagement is high, the model predicts that the group will be more likely to forego the effort, change a target or destination in the case of a terrorist campaign. Otherwise, insurgency will be preferred. Clearly, the level of utility from

violent conflict would obviously be determined by the cost, which is in turn influenced by the unpeaceful behavior of opponents, or the success contest function[32].

Five non-mutually exclusive economic hypotheses have been put forth to explain motivation for the choice of violent conflict in developing countries. These factors relate to *group motivation, i.e.,* when groups identity-geographical, religious, tribal-forms the basis for organizational conflict or when deprived groups seek (or are persuaded by their leaders to seek) redress through violent means (Gurr,1993; Horowitz,1985;Stewart, 2001; Cohen, 1974; Horowitz,1985); *private motivation, i.e.,* when the young, uneducated and unemployed gain *employment* in organized groups in which case war provides opportunities for personal enrichment through, for instance, looting, illicit production and trade in drugs, diamonds, timber, and other primary commodities; (Keen 1994; Hirshleifer,1994; Collier and Hoeffler (2000); *foreign interests,* linking violent conflict in developing countries to the cold war, colonial policies and practices, e.g. the amalgamation of autonomous societies in colonial territories for political control through the indirect rule or assimilation policies that resulted, inevitably, to conflicts of interests as groups struggle for power to prioritize their own agenda through violent means (Onuorah,2010; Garba and Garba 2002); *environmental degradation,* pointing to the negative consequences of environmental degradation in violent conflict generation

[32] A key ingredient of conflict has been, and still is, the use of weapons: swords, pikes, cannons, bombs, guns, and so on. From an economic perspective, weapons can be thought of as inputs into conflict. However, unlike the case of ordinary economic production, in which inputs are combined cooperatively in order to produce useful output, the inputs of conflict are contributed by each party in an adversarial fashion against other parties. Instead of useful production, the output of conflict can reasonably be thought to be wins and losses. How inputs in conflict—weapons—translate into wins and losses for the different parties involved in conflict depends on the conflict technology. Hirshleifer (1989) was first to call such functions "technologies of conflict,"

(Homer Dixon, 1994;Kaplan (1994); and *failure of the social contract,* linking conflict directly to state failure (Garba and Garba, 2002; Nafziger EW, Auvinen, 2000). The State fails when it no longer discharges its duties of effectively enforcing the rules that govern the distribution of resources; when it fails to protect lives and properties across the various components of the society or to ensure equity in resource allocation among competing private agents33. Markets fail when they are unable to allocate resources efficiently as predicated by neoclassical theory, a state that guarantees [1] individual and societal material optimum and [1] perfect coordination of individual plans. Institutions [e.g. the courts, the military, police, the parliament, e.t.c.] fail when they are unable to ensure that both the state and markets perform their respective tasks. As human beings are yet to evolve perfect market systems, states and institutions, it is possible that markets could fail, states could fail and institutions could fail. The consequences of the failure of these three elements, as extensively shown in Garba and Garba, (2002) would be open conflicts. Evidently, if groups should resort to violence acts, it is not that it is disposed to it, but because the proclivity toward normal competitive life have been blocked such that violence becomes more of an emotional outburst than a rational, cost benefit, or coolly calculated behavior.

[33] The maintenance of different kinds of militia by the various conflicting groups in Nigeria is a result of states' incapacity to supply these public goods. Different kinds of conflicts have taken place in the form of clashes between the country's police forces and militia.

An influential work on violent conflict in recent times has been the World Bank's "Economics of Civil War, Crime, and Violence" project edited by Paul collier and Fearon 2000. The popularity of this project is not just because it has produced a number of controversial findings with respect to violent conflict motivation, onset, duration and economic consequences, but it, and in particular the work of Paul Collier and his disciples[34], has produced substantial innovative research, opened up new areas of inquiry and stimulated academic researchers to explore a wide range of relationships between economics and civil war. Among the key claims of the project is the view of conflict in terms of opportunities that make the event possible. In Collier [1998; Collier, 2000a, 2000b; Collier and Hoeffler, 2001, 2002], opportunities for success in violent conflict, such as civil wars, include financing options available, which can be in the form of primary commodities exports, contributions from Diaspora or subvention from hostile governments[35]. Cheap conflict-specific capital [military equipments][36], hasten the ability to mobilize mercenaries and/or kinsmen for fighting. Addison et al (2000) suggested that natural resources based conflict is associated with the type of resources: Point

[34] A substantial part of this analysis can be found in the following works: Collier, Paul. 1999a. "On the Economic Consequences of Civil War." Oxford Economic Papers. 51, pp. 168-83; Collier, Paul. 1999b. "Doing Well Out of War." Conference Paper. World Bank; Collier, Paul. 2000a. "Economic Causes Of Civil Conflict and their Implications for Policy" World Bank. Working Paper. Forthcoming in Crocker, Chester A. and Fen Osler Hampson with Pamela Aall (eds.) Managing Global Chaos. Washington DC: US Institute of Peace; Collier, Paul. 2000b. "Doing Well out of War: An Economic Perspective." in Berdal and Malone (2000); Collier, Paul. 2000c. "Rebellion as a Quasi-Criminal Activity." Journal of Conflict Resolution. 44: 839-53; Collier, Paul and Jan Gunning. 1995. "War, Peace and Private Portfolios." World Development, Vol. 23, No. 2, pp. 233-241; Collier, Paul and Anke Hoeffler. 2000a. "**GREED** and Grievance in Civil Wars." Working Paper. World Bank. WPS 2000-18; Collier, Paul and Anke Hoeffler. 2000b. "Aid, Policy and Peace." Working Paper. World Bank; Collier, Paul and Anke Hoeffler. 2002a. "On the Incidence of Civil War in Africa" Journal of Conflict Resolution. Forthcoming; Collier, Paul and Anke Hoeffler. 2002b. "Greed and Grievance in Civil Wars." Working Paper, Centre for the Study of African Economies, Oxford. WPS 2002-01; Collier, Paul and Anke Hoeffler. 2002c. "Aid, Policy and Growth in Post-Conflict Countries." Working Paper, World Bank; Collier, Paul, Anke Hoeffler and Måns Söderbom. 2001. "On the Duration of Civil War." World Bank, Working Paper.

[35] History reveals that significant conflicts in third world countries have been sustained by super power contributions- determined to maximize rent. The United States of America and its CIA have been implicated in such terrorist organizations as the UNITA in Angola, Renamo in Mozambique, Contras in Nicaragua and the Mujahideen in Afghanistan [Mamdani, 2000]. The Lord's Resistance Army [LRA] and the Allied Democratic forces in Western in Uganda are believed to have the strength of their operations derived from foreign governments and organizations.

[36] In Afghanistan and Somali, centuries of localized low intensity conflict ignited into widespread carnage- the result of initial military assistance from the cold war superpowers and, eventually, the collapse of their cliental regimes leading to the release of advanced weapons onto the local market, Addison et al, [2001]

resources are non-renewable and geographically concentrated (e.g. diamonds and oils), whereas diffuses resources are renewable and geographically spread (e.g. soils and water), being most valuable if they are used to produce marketable crops and livestock (Auty, 1998). Exactly how point–resource endowments increase the possibility of conflict among competing agents depend on (i) the difficulty in managing the resource windfall from the export of such resources [the resulting boom and burst cycles] that ultimately lower the rate of economic growth-where low (or declining) growth in employment and living standards becomes a factor in conflict generation (Nafziger et al, 2000), and (ii) the nature of the environmental pollution and degradation which such mineral exploitation makes possible (Aaron, 2003). Natural [primary] resource–conflict nexus is heightened by high state finance from its export, which [a] makes state capture attractive and [b] also raise government's capacity to contain insurgency, the combination of which increases overall predatory activities and insecurity in the country.

Besides, states that depend on point natural resources for revenue tend to invest less on domestic institutions for peace-the police, the court, the overall social system etc, ultimately producing conditions for episodic repression by political leaders, while also creating the climate for perpetrators of conflicts and criminals to run parallel gangster security groups (as in the case of Nigeria with the vigilante groups) that only heighten conflict engagements in the country[37]. Primary resource exporters are, in addition, characterized by corruption, manifested through

[37] This was so clearly demonstrated in Nigeria between 1988 and 2002

actions that deliberately undermine state institutions [e.g. budgetary systems] in a manner that cause its collapse from within, together with its ability to exercise social cohesion and its defense against usurpers. Clearly, it is on the basis of this platform that scholars (e.g. Collier [1998; Collier, 2000a, 2000b; Collier and Hoeffler, 2001, 2002) found a positive relationship between primary commodities export and the probability of appropriative conflict engagements by insurgents, "bandits," or "pirates" (Grossman 1999, 269), "quasi-criminal" (Collier 2000a) in developing, natural resource-rich countries.

However, in a criticism of greed and grievances conflict literature, Humphreys (2003) challenged the rational for the use of the morally charged terms-greed and grievances-in conflict given that such claims criminalizes conflict without a room for checking the logical consistency of the claims of actors. It, in effect, fails to recognize possibilities for "creative conflicts" (Sombart, 1913), i.e., when violent conflict leads to the destruction and/or alteration of development hindering structures that releases energies that can bring economic progress; it overtly diminishes the important roles of nationalist struggles that earned political independence for colonies (Muzrui 2004).

Karl Marx[38] viewed violent revolutions to be inevitable in the society because of the "very nature of the structure of the society-that because the existing social system reflects the vested interest of those who own and control resources, and in a way that exploit those who do not, the entire society, consequently becomes

[38] Marx is often referred to as the "godfather of conflict"[soule, 1984]

alienated or is psychologically separated from those in power-materially through monopolistic control over the economic system, and socially through stratification in the form of class systems". Under the arrangement, violent conflict becomes a viable option "to solve the basic contradictions that are built into the social arrangements, as a way of achieving equity and social unity, and to end the economic and social separation between the powerful haves and the powerless have-nots, to achieve equity for all". Thus, sustained grievances over class, ethnic inequality and/or generalized economic hopelessness that such system generates are an important platform for violent conflict.

2.2.1. Typologies of conflict

Broadly, two distinct types of violent conflict can be identified. The first is internal conflict, and has its origins in domestic rather than external or systemic factors, producing concentrated outcomes within the domestic economy, but which can also spill to economies of neighbours (Murdock and Sandler 2004). In Nigeria, domestic violent events relate to ethno-linguistic or religious conflicts, riots, resource-based conflict, political violence, violent regime changes (military coups), domestic (private /state sponsored) terrorism and all other forms of internal arm struggle involving national ethnic or internal struggles among communal nationalities themselves and/or minorities seeking changes to their status. Thus, for a domestic conflict or a terrorist event, the perpetrators, victims, and audience must be from the host country with no foreign connections. Typically, this is the case with a violent religious war or a hostage taking event that involves Nigerian

citizens by Nigerians for ransom demand, or the killing, via a letter bomb in 1985, of Nigeria's foremost Journalist Dele Giwa, the October 1st and/or the December 31st 2010 Abuja bombings or the bomb blasts at the various political rallies leading up to the 2011 elections, except if any of the victims of those events or the perpetrators are established to be foreign nationals or have external links.

Domestic conflict is clearly distinct from conflicts that take place in a foreign country or where the victims or perpetrators of such conflict are nationals of more than one country, or that perpetrators crossed from another country to Nigeria. Brecher, Wilkenfeld and Moser, (1988) define an external conflict as a "a specific act, event or situational change which leads decision-makers to perceive threat to basic values, time pressure for response and heightened probability of involvement in military hostilities... initiated by an adversary state, a non-state actor or a group of states (military alliance)". Such events include the following variants: inter-state wars, inter-state revolution, regional conflict or tension[39] . Transnational terrorism is a special kind of external conflict because the perpetrators and victims transcend more than on country. It is defined in Mickolus, Sandler, and Murdock (1989) as the "use, or threat of use, of anxiety-inducing violence for political purposes by any individual or group, whether acting for or in opposition to established government authority, when such action is intended to influence the attitudes and behavior of a target group wider than the immediate victims, and when, through the nationality or foreign ties of its perpetrators, through its location, through the

39 Good examples of regional wars in this context would include the wars in Liberia and Sierra Leone, which required Nigerian peace keeping operations

nature of its institutions or human victims, or through the mechanics of its resolution, its ramifications transcend national boundaries". This captures domestic conflicts or terrorism that have global consequences, such as the suicide terrorist attacks in Afghanistan and Pakistan; the Bali bombing of tourists in 2002 and 2005 and the kidnapping of foreign workers in Iraq since the dethronement of the Iraqi president Saddam Husain by the United States led forces in 2004. It also includes the use of explosives on oil pipe installations and the kidnapping/hostage taking of foreign oil workers in the Nigeria's oil producing region[40]. The 9/11 terrorist attack on two of the core symbols of the world's most powerful political actor-the United States of America-is considered among the most successful transnational terrorist events in history. The targeting of the World Trade Center in New York City-the symbol of the United States' enormous global economic power, and the Pentagon Building in Washington, DC-the symbol of the United States' overarching military superiority was well planned, coordinated and executed. The attack itself attained symbolic stature as an affront to the established global order, a challenge to the world's dominant power, and an announcement that the prevailing US-led global order was not viewed, or valued, equally by all those whose daily lives are increasingly caught in the vortex of post-Cold War change (Marshal (2004). Thus, "Spill-over terrorism" is transnational when, for example, political grievances in the Middle East motivate terrorists to stage attacks on European cities e.g. the bombing of Madrid commuter trains and stations where

40 These are coded among transnational terrorists events in the ITERATE data base

191 died and more than 1,200 were injured on March 11 2004 (3/11); or as indicated by the violent global response in 2006 by some Moslem faithfuls over the provocative cartooning of the Holy Prophet Mohammed (SAW) by a Danish cartoonist. Clearly, the impact of transnational terrorism just like any other form of external conflict will likely not be confined to a single spot. Transnational terrorism is apt to influence 'spillover terrorism,' where domestic grievances in other countries result in terrorist incidents being staged where the attack captures the most publicity. Throughout the 1970s and 1980s, Western Europe experienced spillover terrorism from the Middle East as terrorist groups staged incidences in major European cities (US Department of State, 1988). In contrast, domestic terrorism is generally driven by country-specific separatists and issue-specific goals (e.g., ending an unpopular war or social justice issues).

Though some researchers (e.g. Becker and Murphy, 2001) would controversially argue that transnational terrorism, such as the 9/11 events, did not have any significant effect on the US economy, relative to the size of the country's GDP, it should be remembered that the events instigated the war on terror (WOT) that resonated violent reactions around the globe, thereby propagating the equilibrium consequences of the events, just as the case was following the Arab-Israeli wars, the war of conquest[41] and proxy wars during the cold war. Indeed, the possibility that transnational conflicts could have global consequences is the core issue investigated in two separate studies by Abadie and Gardeazabal, (2003 and 2007).

41 An example of this kind of war would include the Iraqi invasion of Kuwait and the American war on Iraq.

According to the authors, transnational terrorism, by influencing capital mobility across the world, shifting it from regions of conflict to regions of peace provides an avenue for the propagation of the equilibrium consequences of transnational conflict. Clearly, the most important transmission channels of transnational conflict to the domestic economy would be (1) through the influence on domestic conflicts/terrorism; (2) through its influences on the distribution of investments across the globe and 3) through its role in tradable global commodity price volatility, while the net change in these effects for a typical oil producing county depends on the domestic absorption capacity of the revenue windfall or the costs derivable from it, which further depend on the strength of domestic institutions for conflict management and domestic resource management.

2.2.2. Temporary links between Internal and external violent conflict

Understanding the importance of post world war II violent conflict and terrorism requires a review of some critical global conflicts, which are generally thought to have influenced the evolution of violent conflicts in many weak states. There are many of such conflicts but the two that stand out, which also make great sense to this study, are the Arab–Israeli wars and the cold war conflicts, necessarily because these have some few unique features that distinguish them from other types of transnational conflicts. To say the least, these conflicts, in a lot of ways, enjoyed superpower support that accordingly defined their contours, as was, for

instance, seen in the western influences during the Afghan war[42] and the in the Arab-Israeli wars. It is worth noting that one visible impact of the Arab-Israeli wars, like the 1973 Yom Kippur war and many others after it, was that it caused disruption to crude oil production, which caused an oil price surge that induced other changes in oil exerting/importing countries. Thus, while oil consumers felt the brunt at gas stations, in the factories and at home as the oil price jumped and the pump price soared with each passing war, oil exporters wished the wars had lasted because they befitted from them through increased export earnings. On the other hand, the oil glut in the closing part of the 1970s, emanating from the poor reading of the Arab conflicts by major oil exporters, induced corresponding impact on the growth prospects of oil exporters, as the crash in international oil prices induced sustained economic problems in oil exporting countries.

It is also interesting to note that the support of the United States for the Mujahedeen against the Soviet Union during the Afghan war, as in many other proxy wars in developing countries, was causal to the Soviet retreat that eventually gave the western alliance victory over the Soviet Union. It was thus expected that the end of the war would end military hostilities and proxy wars in developing countries. But reality proved otherwise. The preponderance of post-cold war violence in Balkans shortly after the breakup of Soviet Union imposes limits to the

[42] The Soviet War in Afghanistan (1979-89)was a nine-year conflict involving the Soviet Union supporting the Marxist-Leninist government of the Democratic Republic of Afghanistan against the indigenous Afghan Mujahedeen and foreign "Arab-Afghan" volunteers. The mujahedeen found military and financial support from a variety of sources including the United States, Saudi Arabia, the United Kingdom, Pakistan, Egypt, China and other nations. The Afghan war became a proxy war in the broader context of the late cold war.

Fukuyama's Democratic peace[43] anticipated from post–communist countries. In addition, the cold war left a dangerous residue, popularly called the weapon of mass destruction (WMD) Panofsky (1997), defined as a combination of nuclear, chemical and biological weapons that can "kill and bring significant harm to a large number of humans (and other life forms) and/or cause great damage to man-made structures (e.g. buildings), natural structures (e.g. mountains), or the biosphere in general"[44]. Indeed, the Soviet retreat from the war in Afghanistan shortly before the end of the cold war, coupled with advances in democracies and globalization, easier access to nuclear know-how, and illegal sales of narcotics, fundamentally transformed the nature of international terrorism, changing its motivation from the fight against inequality and freedom, characteristic of anti-colonial movements, to motivations that are driven by desire to change the world based on fundamentalist principles. Indeed, the withdrawal of the soviet Red Army from Afghanistan was a crucial factor in influencing this change. Nine years after the Soviet retreat, the Mujahedeen gorillas developed a consolidated impression that their faith, Islam, could triumph over any enemy as it felt it had done with the Soviet Union. Consequently, the conflict left battle-hardened soldiers who could be deployed to terrorist cells worldwide, and provided abandoned Soviet military material for their use (Shughart 2006:29). Importantly, Mujahideen connections with Saudi Arabia also projected Osama Bin Laden to 'entrepreneurial terrorism'. Bin

43 In "The End of History and the last man" Francis Fukuyama (1992) envisions democracy as the last form of government that humans would ever evolve, seeing democracy as capable of guaranteeing the basic rights that are necessary for a peaceful human existence.
44http://en.wikipedia.org/wiki/Weapon_of_mass_destruction

Laden used traditional elements of Wahabbicislam- such as requesting Abu Qutada's fatwa- to ensure support from fundamentalists like the Taliban, whilst simultaneously utilizing contemporary Islamic political strategies (Burke 2004:184) to legitimize his new approach to terrorism: 'New Terrorism' (National Commission on Terrorist Attacks upon the United States 2004:55).

The success of Al-Qaeda in its global Jihad also created another significant threat to international security: 'Homegrown' terrorists (Kohlmann 2008:1) whom, although independent from the Al-Qaeda organization itself, organize and commit terrorist acts (such as the London bombings of 2005) in its name (Kirby 2007:415). The security implications of these independent cells are immense; they force states to divide their intelligence and security resources, since even if an attack is predicted, these cannot guarantee that new cells are not meanwhile planning their first strike (Farley 2003).Crucially, the rise of global Jihad and the collapse of the Soviet Union also added the dangerous possibility of nuclear terrorist attacks. For years, it has been Al-Qaeda's aim to acquire a nuclear weapon (Albright 2002), a threat of great significance considering the various flaws in the international system which could make this possible. Undoubtedly, globalization has played a crucial role in the development and funding of international terrorist organizations, thus exacerbating the international security threat. With terrorist cells throughout the globe (Reinares 2003, Kohlmann 2008), Al-Qaeda is a prime example of how global interconnectedness, and in particular the emergence of the internet as a tool, has aided these organizations. Through it, terrorist networks perform vital

operations such as communication between cells or groups, recruitment, money transfers, and diffusion of their message to the general public (Sanchez-Medero 2010). By using the internet, terrorist organizations act alongside the traditional media networks, thus conveying their message quickly and inexpensively to the world (Nacos 2002:103).

It is important to note that international terrorism has, to an extent, achieved various objectives. Not only has it disseminated a seed of fear in the societies in which it acts, but has also succeeded in influencing governments, forcing them to compromise between individual freedom and the collective security of their citizens (E.U. Network of Independent Experts in Fundamental Rights 2003, Freedman 2002). This effect has been especially strong since the September 11th 2001 attacks upon the US, which evidenced the high degree of skill and brutality that global terrorism has reached (Enders & Sandler 2005). Despite a desire to counter terrorism, states are often held back by lengthy legislation, political rivalries and slow, bureaucratic state apparatuses unsuitable for countering faster, increasingly innovative armed terrorist groups (Reinares 2010:96).

During the periods of Cold War nuclear tension, the Soviet Union and the US were aware of the threat of mutually assured destruction, leading Kantian rationalism to prevail in their ideological conflict. The international community has yet to devise appropriate protective measures against perpetrators of terror, who often act irrationally when judged by Western values. Well armed, independent, and able to abuse the power of the Internet and globalization, terrorists have changed the

nature and significance of international terrorism, harnessing the power to cause destruction globally, *infiltrate weak states*, and influence government decisions around the globe.

The purpose of the above narrative is to bring out the possible transmission channels of global conflicts to the Nigerian economy. As it is revealed, the Arab wars produced two major effects: they caused disruption in crude oil production, which caused oil price volatility that swelled balance sheets of oil exporters and induced high production costs in oil consuming countries. In addition, they induced religious based conflicts around the world (e.g. the Iranian revolution in 1979 and the rise of intra-religious conflicts in Nigeria in the early 1980s). Similarly, the cold war promoted proxy wars in developing countries, while the end of it unleashed terrorism across the globe, inducing changes to its motivation from the fight against social and economic inequality to motivations that are based religious principles. Clearly, it is possible to put up a hypothesis that terrorism is imported into Nigeria, hence the indirect influence of transnational terrorism on domestic violent conflicts in Nigeria, seen from (1) domestic violent reactions to the global war on terror, (2) increased application of terrorist techniques in domestic conflicts-bombing, hostage taking, threats and hoaxes, collectively reinforcing the negative consequences of violent conflicts in the country, (3) influence on world oil production and oil price volatility. Chart 2, showing the trend in transnational and domestic violent conflict indicates some positive correlation between the two types of violent conflict especially from the mid-1990s. Prior to this period, Nigeria was

relatively peaceful for reasons which included the civil war experience in the late 1960s, an oil boom that aided post-war reconstruction, raising incomes and living standards that generated hope of peaceful coexistence. However, from 1980, violent conflict intensified in the country and became worst toward the close of the 20th century. Indeed, in the Global Terrorism Data base used for this study, Nigeria recorded it's for case of a terrorist attack in 1980, following the killing of a government diplomat in Kaduna by Zimbabwean Patriotic Front. By the year 2001 however, violent conflicts became intense and more sophisticated in line with the global trends. Given the observed correlation, it becomes important to demarcate domestic conflicts or terrorism from transnational conflicts or terrorism for the purpose of assessing their economic consequences. Nevertheless, while correlation might not necessarily mean causation, a simple causality test between transnational/external violent conflict and Nigeria's domestic violent conflict produce the following result.

Pair wise Granger Causality Tests
Date: 06/29/11 Time: 04:26
Sample: 1970 2009
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
LEXCONF does not Granger Cause LDCONF	38	3. 25229	0.0014
LDCONF does not Granger Cause LEXCONF	2.38062	0.1082	

As is revealed from the test result, causality runs from external violent conflict to domestic violent conflict but not the other way round, which is contrary to

researches (e.g. Hess, and Orphanides (2001a), which see external conflicts responding to domestic economic conditions, especially in the United States when elections are approaching. Further empirical experiments show that external violent conflict is indeed an important factor in the evolution of domestic violent conflict in Nigeria as shown by the test result below:

Dependent Variable: LDCONF
Method: Least Squares
Date: 06/29/11 Time: 05:45
Sample: 1970 2009
Included observations: 40

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.313522	0.939398	-3.527281	0.0011
LEXCONF	0.504910	0.095630	5.279802	0.0000
LOILEX	0.242755	0.299986	4.142713	0.0002
R-squared	0.547254	Durbin-Watson stat		1.976180
F-statistic	33.94569			
Prob (F-statistic)	0.000000			

As is revealed, with a standard deviation of 0.735 for the external violent conflict and 2.99 for oil export, a coefficient of 0.50 for external violent conflict and 0.242 for the log of oil export would induce a rise of 0.371 (0.50x0.73) percentage points or a 37.15 per cent and 0.71 (0.242 x 2.99) percentage points or 71.76 per cent rise in domestic violent conflict with a one standard deviation rise in the log of external violent conflict and oil export, respectively. Clearly the result suggest a strong influence of the external violent conflict and natural resources export on the evolution of domestic violent conflicts in Nigeria.

2.3. Economic Consequences of Violent Conflict

The idea that society is harmed by an activity is always the motivation behind the restriction or concern over such activity. Violent conflict is considered to be among those harmful events (Knight et al. 1996; Collier 1997; Staines 2004; Collier 1997; Easterly and Levine (1997). Estimating the economic consequences of violent conflict is however, not so straight forward as is common with conventional measurable economic variables (Abadie and Gardeazabal (2010). This is partly because of the choices that would have to be made, e.g., between latent or open conflict, domestic or external conflict, full scale conflict or pockets of violent events. Skaperdas (2009) sums up the problem with estimating the economic consequences of violent conflict in the following words:

> "Studying the effects of conflict and violence from an economic perspective are perhaps more difficult than studying the effects of ordinary economic activities. This is because the basic theoretical framework of economics—and, as a result, much empirical research—assumes that property rights are perfectly and costless enforced. Conflict and violence directly contradict this assumption. Furthermore, engaging in conflict and violence against others is an adversarial activity, not a socially cooperative or productive one, as economic activities typically are. Identifying what is a cost (and what is a benefit) of conflict, then, can be confusing and potentially controversial".

In addition, since conflict is an unobservable magnitude, statistical inference on it is often problematic and constantly compels conflict researchers to resort to proxy

indicators[45] in an attempt to identify their economic consequences. Nevertheless, the theoretical consequences of violent conflict can be inferred from the form of the conflict-local or transnational, full scale war, guerrilla war or terrorist acts.

A regional conflict or tension for instance, induces fiscal strain in the economies of neighbours in the form of refugees, arming or peace keeping operations. External conflict such as transnational terrorism typically produces mixed effects: It has been argued that terrorism should not have a large effect on economic activity, because terrorist attacks destroy only a small fraction of the stock of capital of a country (see, e.g., Becker and Murphy, 2001).Other studies (see, e.g., Abadie and Gardeazabal, 2003), hold a contrary view when they suggest large effects of transnational terrorism on economic outcomes. The main argument is anchored on the mobility of productive capital in an open economy as the main channel that may account for much of the difference between the direct and the equilibrium impact of terrorism. According to the authors, terrorism has a large impact on the allocation of productive capital across countries, even if it represents a small fraction of the overall economic risk. That in addition to increasing uncertainty, terrorism reduces the expected return to investment. As a result, changes in the intensity of terrorism may cause large movements of capital across countries if the world economy is sufficiently open, so international investors are able to diversify other types of country risks, which suggests that the open-economy channel" impact of terrorism may be substantial. Nevertheless, if

[45] These include the number of casualties, number dead or injured, episodes, strikes or the number of political assassinations, e.t.c.,

such violent conflict becomes part of the factors that can cause volatility in international prices of export commodities, the effects could be positive for exporters in terms of the large foreign exchange inflows that could complement domestic resource constrains for investments and growth when properly utilised. Otherwise the real appreciation of the domestic exchange rate consequent upon a massive inflow of foreign exchange would have negative consequences on the trade balance, money supply and the inflation. Yet, to the extent that transnational violent conflict influences domestic violent conflict as demonstrated in the export of violent terrorism, chance are that such conflicts could reinforce the negative consequences of domestic violent conflict on the economy.

Generally, Skaperdas (2009) classified the effects of domestic violent conflict into direct and indirect. Violent conflict has a direct economic cost equal to all property and lives destroyed plus an indirect element that includes the production loss attributable to the destruction of associated social capital; the cost to replace a house that has been destroyed during warfare, and the loss of the benefit of its services; the cost of lost tourism in a volatile region, or the effects of post-traumatic stress disorder (PTSD) on its residents; destroyed public infrastructure; destroyed factories and machinery; destroyed housing, autos, and other personal property; budgetary appropriations for cost of war and cost of lost equipment; deaths; physical and mental injuries; future costs of disability; future costs of physical and mental health care. Essentially, through the reduction in capital formation, violent conflict can reduce economic output (Bourguignon, 1999;

Skapedes 1992; Humphrey 2003). Destroyed capital during conflict is defined in Orero et al (2007) to included human, financial, physical, natural and social capital, which is applicable to both domestic and international conflicts[46]. A fall in investment (especially private rather than public investment) has also been found to be associated with persistent violent conflict (Knight et al., 1996; Imai and Weinstein, 2000). And rather than having money coming into a country for investment, war is likely to produce capital flight (Collier (1999a). The magnitude of these effects depends on how severe the war is and on how much of a country is affected. Researchers, such as Kosuke Imai and Jeremy Weinstein (2000), find that the share of investment in GDP falls by over 4 percentage points when conflicts extend to about half the territory of a country.

Population levels change during violent wars largely due to battle deaths. Frances Stewart and other researchers at Oxford University record that between 1960 and 1995, approximately 18.5 million people died from internal conflicts with almost half of these occurring in Africa and over 80% occurring in low-income countries generally (Stewart et al, 2001a p. 71). Beyond demographics, however, conflict may affect the role of labour in production through the distortions of labour markets. In Mozambique for example, Mozambican National Resistance (RENAMO) used forced labour (Brooke, James. 1988), and in Sierra Leone "civil commanders" in the Revolutionary United Front (RUF) forced labour into "state farms" (Abdullah,

[46]During the Gulf War, for example, US forces, employing a strategy referred to as "Bomb Now, Die Later," targeted an estimated one third of all cruise missiles at electrical power infrastructure. This destroyed not just grids (which may have a short run effect of benefit to US strategy) but power plants (whose destruction has more long term humanitarian implications). See Washington Post, 1998. "The Fog of War: Bomb Now, Die Later."

Ibrahim and Patrick Muana, 1998).In the extreme, slavery may be introduced, as for example in Germany during the Second World War[47]and also reported in Burma, Liberia and Sudan[48] as well as human suffering; the undermining of labor markets is likely to have adverse effects on economic efficiency.

Through the destruction of human capital, the skills and abilities of a labour force alter as a result of conflict. As with physical capital, human capital flees a country during a conflict through migration. This could be because educated workers may have more means to quit a country, or it may be because they specifically are targeted over ideological differences (as in Cambodia under Pol Pot, NADECO members under the General Abacha's administration in Nigeria) or for tactical reasons (as for example in Sierra Leone)[49]. Human capital is also lost through declines in health through the spread of diseases such as malaria and tuberculosis. Worsening health conditions, like declines in investment, affect economies well after war ends. In addition, closure or destruction of schools reduces investment in human capital.

Similarly, by contributing to social disorder and promoting the destruction of social capital, violent conflict is likely to increase transaction costs involved in economic exchange, thereby either forcing households into autarky or reducing the size of their trading networks, consequently shifting economic activities from war

[47]According to the Nuremberg Judgment, not only did German authorities force labor in occupied territories, they deported "at least 5,000,000 persons to Germany to serve German industry and agriculture" Steiner and Alston (2000, p. 119).

[48]In using forced labor these groups are repeating practices established under colonial rule (Mamdani 1996) and used by post-independence governments (such as at present by the Burundian army (See for example Human Rights Watch, June 2000, "Burundi: Emptying the Hills." Human Rights Watch Report, Volume 12, Number 4(A)) and often indeed by the governments they are fighting against (such as by FRELIMO in Mozambique).

[49]Keen (2001, p. 161) for example reports accounts of targeting of white-collar workers in Sierra Leone for tactical reasons. In one interviewee's account : "They (the RUF) were only brutal to those they thought were a threat – if you looked intelligent, a post office worker, a bank clerk, a policeman. But those people left. The government people left."

vulnerable to war in invulnerable sectors (Collier, 1999). As the freedom of movement is blocked, people become less productive, especially when they are displaced or unable to access their workplaces due to threats. Expectations of looting have implications for economic production, much like taxation; and the responses to looting, such as reduced travel, the closure of markets or the imposition of curfews hit production and trade. Trade also requires trust and social institutions which, for many, may be destroyed by violent conflict.

More evidences that political instability depresses economic activities are documented in Alesina et al. (1996), where the authors show how economic growth slows down when government collapses following a violent conflict. Similarly, Barro (1991) finds measures of political unrest, such as number of assassinations and the occurrence of violent revolutions and military coups to significantly affect the average growth level in cross section regressions on a large sample of countries. In addition, political rights are positively correlated with growth while a lack of it, often very common during a large scale violent conflict, retard growth (Kormendi and McGuire 1985; Barro (1989).

2.4 Analytical framework.

It is obvious from the foregoing that the implication of violent behavior on the supply side can analytically be inferred from the production function. The expected

impact on physical capital, the labor force and "human capital"[50], is obviously negative. Yet, violent conflict can affect economic performance through an additional route, namely through the "total factor productivity" (TFP) [51]. Total factor productivity includes disparate features such as the level of technology, culture, the efficiency of markets and institutions, climatic characteristics of an economy as well as the character of social instability (Rodrik 1998). At any moment, an economy has some quantity of each of these sources of growth. Typically, these quantities change over time, with each one having a rate of accumulation and a rate of destruction. Together, these quantities and their rates of change determine both the expected wealth and the growth rate of an economy.

The fixed proportional Keynesian, Harrod-Domar (HD) growth model, recognizing the dual purpose of investment, can form an important starting step for analyzing the consequences of violent conflict on the supply side of the economy. The HD model relates output to some capital stock via the capital-output ratio. That is, if K and Y were to represent capital and output respectively, the average capital output ratio, K/Y, and the change in the ratio, ΔK/ΔY would reveal how much additional capital is necessary to produce a specified addition to that flow of output under condition of constant technology. The reciprocal of the capital output ratio 1/ ΔK/ΔY [or ΔY/ΔK] thus measures the "potential social average productivity of capital".

[50]Human capital, broadly, is meant to capture the productivity of workers and not simply the number of workers. It typically includes, at the least, levels of education and health

[51]This formulation is represented in the empirical literature by the work of Mankiw, Romer and Weil (1992). Recently Bernanke and Gürkaynak (2001) showed that the Mankiw, Romer and Weil framework can be used for any growth model with a balanced growth path.

Since change in investment (I) is the same as ΔK, if the productivity of capital is represented by s, and ΔK=I, ΔY/ΔK=s may also be represented as ΔY/I= s or ΔY =sI, which transforms the analysis into a basic theory of growth. Simply stated, the average change in income [or capacity output] is equal to the average productivity of capital and net investment. In this formulation, slow growth is a product either of a low investment ratio or low productivity or both-a conclusion that makes faster growth in less developing countries a function of resources for investment, which can only come though savings and debts. Therefore, all factors that constrained saving, investment or the productivity of capital would, in this case, negatively affect economic growth.

While capital is mostly considered the only factor of production in the model, as the amount of labor is indicated by the amount of capital in use, the fixed proportional factor model does assume away the possibility of labor changing away from the warranted growth, given such demographic factors as birth rates, death rates, sudden disastrous occurrences etc, in which case the labor – capital ratio might increase/decreases to impact full employment of the labor force. Dropping the fixed proportional assumption of the model of output growth shifts the explanation of economic growth in terms of propensity to save and the productivity of capital alone to an analysis that brings in the contribution of the labor variable more explicitly. Clearly, a variable factor growth model marks the point of departure of the exogenous or neo classical growth models from the strict Keynesian based HD growth model.

Neoclassical growth theory stands somewhat at an opposite extreme from the HD model. In place of a Harrod-Domar assumption of a single production process that imposes a fixed ratio between capital and labor is an assumption of an indefinitely large number of production processes, one shading off from another in a way that permits any combination of labor and capital to be employed in the production process. Capital is regarded as a unique, abstract agent of production that can be adjusted at any time to absorb into employment of labor force of any size. With the combination of labor and capital capable of varying in this way, it follows that, instead of a fixed ratio between output and capital employed by the HD model, the output-capital ratio can vary continuously. Therefore, the larger the labor force absorbed into employment with a given stock of capital, the greater will be the output-capital ratio, or the productivity of capital, and the smaller will be the labor-output ratio or the productivity of labor and vice versa.

Though not the first to make an explicit decomposition of the sources of growth into contributions from factor inputs and from output per unit of total input[52], the work of Solow [1957], put the growth economics into growth accounting, making clear its interpretation in terms of the distinction between shifts of and moves along the aggregate production function. Although the models contains few variables, it embodies certain key distinctive elements, including constant returns to scale, diminishing returns to capital and labor, technological growth, population growth, depreciation of capital and constant factor shares of national income over

[52] This though had existed since the pioneering paper by Jan Tinbergen (1942)

time, that seem to characterize capitalist economies. Its uniqueness and flexibility permits experimentation with different explanatory variables to growth. Thus, the Cobb-Douglas representation of this model for which diminishing returns (i.e., decreasing marginal productivities) apply to two inputs: labor (L) and physical capital (K), is the most popularly used for the exposition of the economic properties of the Solow's neoclassical economic growth model. A constant return to scale implies that the same proportional increase in all inputs would result in an identical proportional increase in output. And along the steady-state growth path, savings equal total investment in physical and human capital.

Since the model is specifically structured in such a way that explicitly considers economic growth to be sensitive to its determinants, it provides also a good basis for simulating the sensitivity of economic growth to political and social environment present. To point out its characteristics more formally, the original Solow model of economic output is cast in the following form:

$$Y_t = A_t(K_t^{\alpha} L_t^{\beta}) \quad \text{---------- 2.1}$$

where Y_t stands for aggregate output at time t, K_t and L_t are the two factors of production respectively representing the stock of capital and labor units. A_t stands for world technological progress with which labor and capital operate. β and α are production function parameters. L and A are assumed to grow at the rates n and g, respectively.

$$L_{(t)} = L_{(0)} e^{nt}$$

$$A_{(t)} = A_{(0)} e^{gt}$$

The number of effective units of labour, $A_{(t)}L_{(t)}$ thus grows at the rate ***n+g***

The model assumes that a certain fraction of output, ***s*** is invested. Defining ***k*** as the stock of capital per effective units of labour, k=K/AL, and ***y*** as the level of output per effective units of labour, y=Y/AL, the evolution of k is governed by

$$k_{(t)} = sy_{(t)} - (n + g + \delta)k_{(t)}$$

$$= sk(t)^{\alpha} - (n + g + \delta) ---------------------- 2.2$$

Where δ is the rate of depreciation. Equation 2.2 implies that k converges to a steady-state value k^* defined by

$$sk^{*\alpha} = (n + g + \delta)k^*$$

or

$$k^* = [\frac{s}{n + g + \delta}]^{1/(1-\alpha)} ---------------------- 2.3$$

The stead-state capital- labour ration is related positively to the rate of saving and negatively to the rate of population growth.

The central prediction of the Solow model concerns the impact of saving and population growth on real growth in real income. So substitution of equation 2.3 into the production function and taking logs, produces the steady- state income per capita

$$\frac{LnY(t)}{L(t)} = LnA(0) + gt + \left(\frac{\alpha}{1-\alpha}\right)Lns - \frac{\alpha}{1-\alpha)}Ln(n + g + \delta) --------- 2.4$$

The inherent limitations of Solow model especially in explaining differences in per capita growth across regions had been largely causal to what Klenow and Rodriguez-Clare (1997) refer to as the neoclassical revival including work on

endogenous growth theories (Romer 1987, 1989a; Lucas's, 1988) and the augmented-Solow growth equations. Romer's (1987,1989a) suggestion that saving has too much an influence on growth, taking this to be evidence for positive externalities from capital accumulation and Lucas's(1988) assertion that variation in population cannot account for any substantial variation in cross country income, provided the fulcrum for Mankiw, Romer and Wiels's (1992), hereafter to be referred to as (MRW)) augmentation of the Solow growth equation, along with other refinements (Durlauf, Steven N. and Danny T. Quah (1999)Barro and Sala-i-Martin 1995; Aghion and Howitt 1998; Islam 1995, Bernanke and Gurkaynak 2001). MRW for instance added that under the assumption of constant $g+\delta$ across countries, with g reflecting primarily the advancement in knowledge andδ, the rate of depreciation, the authors suggested that the only variables that may vary across countries are the stock of resource endowments, climatic conditions, institutions, social and political instability. Hence the term $LnA(0)$ in 2.4 will include along with the given level of technology a residual term μ summarizing a coterie of factors- tangible and intangible- and which can shift the production function, including shocks, luck, institutions, quality of leadership, culture, social and political instability.

$LnA(0) = a + \mu$, where a is a constant and μ reflects a country-specific term. Thus, a log of income per capita at a given time (t) will be given by

$$Ln\frac{Y}{L} = a + \mu + (\frac{\alpha}{1-\alpha})Lns - (\frac{\alpha}{1-\alpha})ln\,(n+g+\delta) \text{ - - - - - - - - - - - - - - - } 2.5$$

which can be estimated.

Furthermore, the authors are of the view that addition of a human capital term, H, analogous to the physical capital term in the production function can provide more explanation to cross-country difference in per capita growth across countries. This would imply an underlying aggregate production function of the form:

$$Y_t = K_t^{\alpha} H_t^{\beta} [A_t L_t]^{1-\alpha-\beta} \quad \text{---------- 2.6}$$

where Y, A, L and $(A_t L_t)$ are as already defined. H is the human capital term, α and $ß$, are as already defined and $(1-\alpha-ß)$ represents the output elasticity of effective units of labour $(A_t L_t)$.

Given the assumption of constant returns to scale, equation (2.6) is expressed in effective labour units as

$$y_t = A^{1-\alpha-\beta} k_t^{\alpha} h_t^{\beta} \quad \text{----------2.7}$$

where $y_t = \frac{Y_t}{A_t L_t}, k_t = \frac{K_t}{A_t L_t}$ and $h_t = \frac{H_t}{A_t L_t}$

k_t and h_t change over time according to the functions:

$$\frac{\delta k_t}{\delta_t} = s_k y_t - (n + g + \partial) k_t \quad \text{----------2.8}$$

$$\frac{\delta h_t}{\delta_t} = s_h y_t - (n + g + \partial) h_t \quad \text{----------2.9}$$

and since at a steady state, $\delta k_t/\delta_t = \delta h_t/\delta_t = 0$, k_t and h_t converges to a steady-state value defined as k^* and h^* and 2.7 and 2.8 are solved for k^* and h^* as follows:

$$k^* = s_k^{1-\beta} s_h^{\beta} / (n + g + \partial)^{\frac{1}{1-\alpha-\Pi}} \quad \text{----------2.10}$$

and

$$h^* = s_k^{1-\alpha} s_h^{\alpha} / (n + g + \partial)^{\frac{1}{1-\alpha-\beta}} \quad \text{---------- 2.11}$$

which are substitituted into the production function 2.4 expressed in growth rates, that underpines the steady-state percapita income growth estimate as follows

$$\dot{g}\frac{Y_t}{L_t} = \dot{g}\,A(0) + gt - \left(\frac{\alpha}{1-\alpha-\beta}\right)\dot{g}[n + g + \delta] + \left(\frac{\alpha}{1-\alpha-\beta}\right)\dot{g}sk\left(\frac{\beta}{1-\alpha-\beta}\right) \quad \text{----- 2.12}$$

In equation 2.12, the shares of income invested in physical or human capital have a positive influence on steady-state percapita real income, whereas the growth of labor, labor embodied technical change and deprecition have a negative influence on steady-state percapita income to the extent that any augmentation to labor increases the denominator of $\frac{Y_t}{L_t}$. The coefficients in front of the income shares and the labor term are both ratios of the output elasticities with respect to the inputs. A_t reflects not just technology but other variables-resources endowments, climate, institutions embodied in μ which are independent of changes in A_t but can explain productivity differences among countries (Klenow and Rodriguez-Clare (1997). Apparently, the steady per income growth of an economy can be attributed to a lot of factors, including technological progress, capital accumulation, and employment growth, stock of human capital as well all other factors that determine the productivities of these factors. Thus, within a channel accounting framework, economic growth could be broken into changes due to factor inputs and changes due to total factor productivity (TFP) embodied in A_t. Clearly, violent conflict could affect domestic growth though its influence on total factor productivity as well as via the evolution of factors.

Letting $\dot{g}Q$, $\dot{g}C$, $\dot{g}H$ and $\dot{g}A$ to represent respectively, the growth rate of output per worker or $(\frac{Q}{L})$, the contribution to growth from physical capital accumulation, the contribution to growth from human capital, labour services and productivity growth, the growth equation can be rewritten as

$$\dot{g}Q = \dot{g}L + \dot{g}C + \dot{g}H + \dot{g}A \quad \text{---------- 2.13}$$

Equations 2.5 and 2.13 are two ways of expressing the same thing. A substitution of 2.13 into the formula of a linear estimator of β generates the identity:

$$\frac{\dot{Q}}{L} \equiv \sum \beta L + \sum \beta H + \sum \beta C + \sum \beta A \quad \text{---------- 2.14}$$

where $\sum \beta$, for example, stands for a vector of coefficients obtained from regressing the reference factor on their determinants. Furthermore, the identity tells us that the effects of the determinant of the growth rate of output per worker $\frac{Q}{L}$ are additive and can be decomposed into the effect through the TFP growth $\sum \beta A$ and the effect through factor contributions $\sum$ ($\beta C, \beta H$ and βL). Essentially, the relative importance of the various channels would be measured by the product of the standard deviation of the variables A, C, H and L and their respective coefficients as shown in different studies summarized in Abadie et al (2010). Apriori, we would expect the effects of domestic violent behavior to be largely negative on the supply side of the economy, its effect on factors, their productivity or both.

The influence of external violent conflicts on the economy is mixed: if external conflict influences domestic violent conflict as discussed above, the consequences

would be negative for the economy. And if, on the other hand, the conflict emanates from the domestic economy or is a regional war, the consequences would also be negative to the extent that resources are spent on refugees, arming or for peace keeping operations constitute a drain on the national purse. Perhaps this is the basis for the use of defense spending during war situation as the representative cost of the events. Nevertheless, net exporters of oil and precious metals generally tend to gain with a rise in external violent conflict, especially if such a conflict is a global threat as it is the case with international terrorism (Rodrik, 1998). Under the scenario therefore, the level of economic openness is a potential transmission channel for external violent conflict to the domestic economy. More specifically, the interaction of external conflicts with external shocks [as in the case of a drastic change in the price of an export commodity], logically provides an important platform for establishing the long run relationship between external violent conflict, export revenue and domestic economic performance.

Apparently, the New Open Economy Macroeconomics (NOEM) models pioneered by the "Redux" model of Obstfeld and Rogoff (1995), is a suitable workhorse model to show the interaction of the external violent conflict and the domestic macroeconomy, because it is flexible enough to accommodate different kinds of capital inflows-now available in an increasingly globalized world (Huang 2010). It is a dynamic general equilibrium models that embrace the modern elements of the developments in open macroeconomics, such as nominal rigidity and monopolistic

competition, its predecessor, the Mundell-Fleming model. The M-F model is an outcome of researches conducted by Robert Mundell and J.M. Fleming since the early 1960s, the model is an open macro application of the standard IS-LM analysis that originally aims to show the response of domestic policies to exchange rate shocks under condition of capital mobility, thus providing a framework for linking domestic economic performance with external shocks. The basic building blocks of the M-F model are derived from the following conditions.

(1)Aggregate demand (IS and LM curves, representing goods and money markets, respectively)

(2)Aggregate supply (production function and labor market)

(3) Balance of payments (current account and capital account)

The basic closed macro model combines (1) and (2), with a downward sloping AD (aggregate demand) curve and an upward-sloping AS (aggregate supply) curve.

The Mundell-Fleming model combines (1) and (3). This means that the Mundell-Fleming model (in its simplest version) has no supply side constraint. And as in most elementary Keynesian models, it implicitly assumes that capital and labor are generally underemployed so that any demand stimulus will expand real GDP (rather than cause inflation).

Aggregate demand is composed of two parts: absorption (D), namely, domestic demand) and the trade balance (T).

$Y = D + T$; and

$$Y = \overbrace{C + I + G}^{D} + \overbrace{E - M}^{T} \quad \text{(GDP by expenditure decomposition)}$$

where

$D = C + I + G$ (Definition of absorption)

$= D(Y, i; G)$; $D1 > 0, D2 < 0, D3 > 0$;

$E = f\left(\frac{qp^*}{p}, Y^*\right); E = E(q)\ f1 < 0$; (under the assumption that foreign income and price are fixed)

$M = g\left(\frac{qP^*}{p}, Y\right); M = z_0(q) + z_1 Y$ (foreign price assumed constant

$T = E(q) - z_0(q) - z_1 Y$ (definition of trade balance,)

T (q, Y); T1>0, T2>0; foreign income Y^*, foreign price and domestic prices are assumed fixed

(Y: income C: private consumption I: private investment G: government spending M: imports E: Exports, $i =$ domestic interest rate i^*=Foreign Interest rate, q =nominal exchange rate)

If A and T are defined in real terms, the real exchange rate q is defined thus:

$q = EP*/P$ (a rise in q means real depreciation of home currency and vice versa)

$T_1>0$ means that the Marshall-Lerner condition is satisfied, so a rise in q will improve the trade balance (when other variables remain unchanged) and vice versa.

The LM curve shows the condition for money market equilibrium.

Without currency substitution, the LM curve is simply:

$\frac{Ms}{P} = m(i,Y);\ m_1 < 0,\ m_1 > 0$ (M^s: money supply P: price level)

Balance of payments

The balance of payments (B) is the sum of current account (T) and capital account (K). The flows of service, factor income and transfers are assumed constant so that the current account is identical with the trade balance.

$$B = T + K = 0$$

$$= T(q, Y) + \mathrm{K}(\mathrm{i} - \mathrm{i}*);\ \mathrm{T1} > 0,\ T2 < 0;\quad K1 > 0$$

Under flexible exchange rate regime and perfect capital mobility, $i = i*$. In other words, if $\mathrm{i} > \mathrm{i}^*$, there will be a massive capital inflow into the home country, causing real appreciation in the exchange rate and vice versa, so the only way K can remain finite is when i = i^*. When that happens, K can take any value (positive or negative) to offset T, so that $T + K = 0$ holds.

Under a freely floating exchange rate and perfect capital mobility, the following three equations derived above determine the equilibrium position.

$$\mathrm{Y} = \mathrm{f}(\mathrm{i}, \mathrm{q};\ \mathrm{G});\qquad \mathrm{f1} < 0,\ f2 > 0,\ f3 > 0 \qquad \text{(IS)}$$

$Ms/P = LD(i,Y); \quad m1 < 0, m2 > 0$ (LM)

$i = i*$ (BOP)

Comparative statics

An increase in G shifts the IS curve upward and to the right, putting an upward pressure on the domestic interest rate ($i > i^*$) that in turn attracts capital inflow. Consequently, the exchange rate appreciates if it is flexible and the trade balance worsens until the initial increase in G is completely offset. The IS curve is pushed back to the original position, and Y cannot increase at all. Thus, in a $Y = D + T$, as D is increased by fiscal spending, T is reduced by exactly the same amount. Y is unchanged, and only the relative composition of Y is changed.

The conclusion is that under a floating exchange rate and perfect capital mobility, fiscal policy is ineffective. In a closed economy, expansionary fiscal policy crowd out private investment through a rise in interest rates. It also crowd out net export in an open economy through exchange rate appreciation.

An increase in money supply reduces interest rate in a closed economy and exchange rate in a small open economy.

One area the M-F model is relevant in our scheme is via the export function. Increased export raises the level of income and so shifts the IS curves to the right. Similarly, increased export earnings would cause domestic economic expansion when properly utilized. Otherwise, the Dutch disease could set in. The Dutch disease is a situation where an expansion of the natural resource sector leads to the shrinkage of other tradable industries through overvaluation. The Dutch disease is caused by a large injection of new purchasing power into the economy. It occurs because domestic factors of production (labor, capital) are limited while a new discovery creates an additional demand for these factors. So some existing industries must shrink to make way. The Dutch disease is most often associated with oil, gas and other minerals, because they tend to be discovered suddenly and in large amounts. In reality however, all natural resource-based industries such as agriculture, forestry and fishery can also cause the Dutch disease.

2.5. Empirical literature review

Analysis of the economic violent conflict and peace dates back many decades ago. In the aftermath of World War I and leading up to World War II, for example, several leading economists, among them Keynes (1919), Pigou (1940), Meade (1940) and Robbins (1942), sought to trace through the interactions between war, peace and the economic situation of their day, applying economic reasoning to offer pertinent policy advice. The investigation process has deepened over time

following changes in the incidences, motivations, patterns of violent conflict as well as the techniques of analysis. We review some of studies, which have investigated the economic consequences of violent conflict. Indeed, the economics of terrorism became popular following the 9/11 terrorist attacks in United States of America in 2001, covering such issues as the motivation, patterns and economic consequences of violent terrorism. Mohammed [1997] found a tendency for defense spending to increase in the period of civil war, as was the experience in Sri Lanka, which experienced a surge in its defense burden in the 1980s and 1990s following the separatist civil wars of the period, and in Sudan, since the 1960s, following the outbreak of war between the north and the southern parts of the country. In Gupta etal [2001] and Mauro [1998], high military expenditure is likely to be associated with public corruption with negative consequences on the fiscal balance and economic growth performance. High military spending potentially blocks the improvement of budgeting and planning institutions, which consequently raise external debts and resource outflows. Nevertheless, the effects of increased military expenditure on economic growth are postulated to work both positively and negatively. Positive effects work through increase in production as more funds are spent on the economy to prosecute the wars, and particularly so when the war is external, Brunch [2002]. Accordingly, low income countries are more affected by the negative channels, in the form of reduced private capital accumulation and economic growth. In a study of 54 conflicts summarized in Dune [1996], the evidence of a positive spin-off from military expenditure to economic

growth is minuscule and even those spin-offs were found to be weak and statistically insignificant in many cases. However, the rest of the studies confirm the existence of a negative relationship between military expenditures and economic growth in developing countries.

Fischer (1993) argues that a stable macroeconomic framework is not only sufficient but also necessary for sustainable growth, and it is possible that civil war could block this as it causes poor macroeconomic policy, high inflation, distort foreign exchange markets, and large budget deficits.

In Collier [1998] the effects of civil wars are classified into destructive and diversionary effects: using *conflict count*, the author found that civil wars hurt the economy through [1] the destruction of resources, including labor [2] disruption of social infrastructure [4] substitution of assets- liquid investments and labor. Both resource destruction and depreciation of the installed capital as well as diversions lead to income losses and savings that reinforce the negative effects of conflicts on economic growth. Murdoch and Sandler's [2001] applied regression analysis to estimate the effects of civil war on percapita income growth. Using conflict episodes, they found civil conflict to have both national and regional effects through the negative spillovers they induce, in the form of trade disruptions, heightened risk perception by would-be investors, severance of input supply, and resources spent on refugees, ultimately taking away resources meant for other [productive] sectors.

Abadie and Gardeazabal (2003) note however that an important problem with estimating the overall effect of collective violence on the economy has to do with the determination of how the economy would have developed if there had been less violence or no violence at all. Accordingly, in an attempt to calculate the effects of terrorism, the authors construct a counterfactual for the Basque region of Spain, with a "synthetic" controlled region made up of other Spanish regions, but in many ways resembling the relevant economic characteristics of the Basque country before the onset of political terrorism by the ETA in the 1970s. The subsequent economic development of this counterfactual synthetic region is compared to the actual experience of the Basque country, enabling the authors to estimate that, after the outbreak of terrorism, the per capita GDP in the Basque country fell by about 10 percentage points relative to the control region. And the gap tends to widen when terrorist activities are on the increase. They found negative effects of terrorism in the region to be both in terms of reduced GDP growth, substitution of investment destinations and, via the Event Study Methodology [ESM] suggested in Fama el al [1999], also money market volatility. Clearly this study follows Enders and Sandler (1991), which had essentially aimed to determine the relationship between international terrorism and tourism in Spain. Using *monthly data on terrorist incidents* in conjunction with the number of foreign visitors in Spain between 1970 and 198, and applying VAR methodology, the authors found that a typical terrorist act in Spain scares away over 140,000 tourists, when all the monthly impacts are combined. In 1988, 5.392 million

foreigners visited Spain and 18 international terrorist incidents took place. Hence without these incidents, 1.5 times as many tourists would have visited Spain in 1988. According to the authors, causality is unidirectional, i.e. terrorism affects the inflow of tourists, but not the reverse. The figures presented measure how the tourism industry in a particular country (or region) is affected by terrorist attacks taking place in that country (or region). However, two interdependencies between different countries' tourism industries and their terrorist campaigns are possible. On the one hand, the deterrent effect of terrorism on tourists in a particular country may benefit the tourism industries in alternative destinations. On the other hand, tourists may fear that terrorism could spill over into countries previously not involved and, therefore, abstain from visiting neighboring countries. Though the substitution effect and the contagion effect (or negative externality) are countervailing, they can be simultaneously present. Such regional interdependencies are explicitly modeled in the analysis of Drakos and Kutan (2001). Using monthly data for the period 1991 to 2000, an autoregressive model and employing the Seemingly Unrelated Regression methods [SURE] method, they investigate the effect of terrorism in Greece, Israel and Turkey on each other's market share, with Italy serving as a control country, representing the rest of the Mediterranean region. Their findings found evidences of significant substitution effects of terrorism on tourism. But there is even more empirical evidence for the contagion effect: only around 11% of aggregate loss in market shares is directed

toward other destinations within the group of countries under consideration, whereas around 89% flows out of the region

Similarly, in a time –series analysis based on quarterly terrorism data and the ARIMA technique, Enders et, al. (1992) study on the effects of terrorism for a series of European countries found the aggregate losses in revenue for Austria, Greece and Italy to amount to $ 4.467 billion. Although they find no significant effect of terrorism in other continental European countries on the tourism revenues, the loss of tourism revenues due to terrorism for continental Europe as a whole is estimated to be $16.145 billion. Therefore, continental Europe as a whole is much more negatively affected by terrorism than the sum of the country-by-country effects would imply- a result evidencing once again the contagion effect or negative externalities due to terrorism. Such temporal pattern however depends on the type of attacks in a particular country, and the market structure as well as the type of time-series data used by researchers (Frey; Luechinger; and Stutzer 2004). Time-series on the number of actual visits are likely to respond more quickly to a terrorist incident than time-series on tourism revenues, due to long-term contracts between tourist destinations and tour operators.

In an extensive VAR study of the macroeconomic effects of terrorism, Blomberg[53] uses a panel set with annual observations for 177 countries from 1968 to 2000. Controlling for the interactions between terrorism and other forms of internal and external conflict, the authors are able to differentiate between similar types of

[53]Blomberg et al. 2004a; and also Blomberg et al. 2004b)

political disruptions. On average, terrorism (captured by the ITERATE data) is found to depress economic growth in a marked, and in a statistically significant way. However, this effect is considerably smaller and less persistent than that exerted by external wars and internal conflicts. Interestingly enough, the negative association between terrorism and economic growth is small and statistically insignificant for advanced (OECD) economies, which are most affected by terrorism. The depressing effect of terrorism on economic growth appears to be most significant for developing countries, which exhibit serious country fixed effects that are found to be very significant in exposing the negative effects of collective violence in the economy.

Eckstein and Tsiddon (2004) focus on one dimension of terrorism, the insecurity that manifests in daily life and contend that increasing terror makes life less certain and shorter. Using a *closed-economy-infinite-horizon* model, the government in charge of public security as a public good reduces the death toll by stepping up defense expenditures when terrorism increases. If it acts optimally, it does not fully offset the tide. A long-run equilibrium with an optimizing government is characterized by lower output, going with a higher intensity of terror.

Fleischer and Buccola (2002) estimate a supply and demand model of the Israeli hotel industry to assess the impact of terrorism and estimated that the annual revenue shortfalls between 1992 and 1998 in the market with foreign visitors sum up to approximately $50 million (1998 present value discounted at 5%) or 1.27% of total.- 8 - revenues in this period. Though these revenue losses are relatively

modest, they increase with a deterioration of the situation. In 1996, a year of Middle East unrest, the revenue shortfall amounted to 2.55%. Further, it is claimed that, due to inelastic local demand, hotels could not easily compensate these losses by cutting prices.

Two studies look at the effect of an intensification of extraordinary terrorist events on US tourist receipts and US airline demand. Sloboda (2003) uses ARMAX methodology to analyze annual time series of the *number of terror attacks* on US interests and US tourism receipts for the period 1988 to 2001, and estimates the effect of the Gulf War in 1991 and the accompanying increase in anti-American attacks on tourism revenues. In 1991, the number of incidents on US interests roughly doubled; this shock had a temporary negative impact on the tourism industry, which lasted until 2000. Aggregating the annual impacts of this initial shock (i.e. the impact of the increase in terrorism in later years is not included), total losses in revenue are approximately $57 billion (1996 present value discounted at 5%).

Ito and Lee (2004) assess the impact of the September 11 attacks and the imposition of stringent new security requirements on domestic airline demand in the USA. The authors estimate a reduced form model of demand for air services with monthly time-series data since 1986 and model the post-September 11 period as an attenuating shock process that has both a transitory and an ongoing component. After controlling for cyclical, seasonal and other unique events impacting the industry, the initial demand shock is estimated to be more than

30% measured in revenue passenger miles (RPMs), and 7.3% measured in yields. The decline in yield is smaller because a large number of airline tickets are purchased well in advance. In addition to the transitory shock, there is an ongoing downward shift in the demand of 7.4% measured in RPMs and of 10% measured in yields. The decline in demand is especially pronounced in the short-haul market, where more substitution possibilities are available. On the basis of a counterfactual demand prediction the authors conclude that the terror attacks and security measures account for roughly 94% of the decline in RPMs from the historical peak.

Estimated impacts of terrorism on tourism vary considerably, because the structure of the tourism industry and terror campaigns differs, not only across countries, but also over time. This hampers comparisons between studies. Instead, it emphasizes the importance of differentiating between different types of attacks, e.g. the location of an attack (i.e. whether it takes place in an urban or a rural area) and the number of casualties (e.g. Drakos and Kutan 2001).

The effect of terrorism on aggregate consumption and savings is important as it influences the investment level and, hence, economic growth. Investments in non-traded capital goods, or non-residential construction, are particularly risky in an environment of political instability. Such investments may, therefore, be reduced more than investments in machinery and equipment if political violence increases. Fielding (2003b) investigates the impact of political instability on the level and composition of investments. To analyze the impact on the composition of

investments, two investment equations, one for non-traded capital goods and one for machinery and equipment, are estimated. As an increase in investment in one category has a positive effect on investments in the other category, the dynamic effect between these two categories is important in calculating the total effect. The indicators of political instability are the *number of Jews killed, the number of Palestinians killed* and the *rate of growth of the Jewish settlements in the West Bank and Gaza areas*. The study finds both the number of Israelis killed and the rate of growth of Jewish settlements to have a significantly negative impact on investment in non-residential construction. Manufacturing and equipment investment is significantly lowered by an increase in the total number of deaths and the rate of growth of settlements. Again, a "peace dividend", or the implicit increase in investment from a complete cessation of the conflict, can be estimated. The authors found that were the number of deaths to drop to zero, construction investment would be 27.9% higher and machinery and equipment investment would be 14.6% higher in the steady state.

The different magnitude of these two effects confirms that investment composition is affected by political violence. In comparison to the impact of fatalities, the likely impact of a cessation of the expansion of settlements would again be small: the respective figures in their study are 2.77% and 1.10%. Overall, these effects are huge and would be even larger if second order effects were taken into consideration. For example, a stabilization of the political situation is likely to accelerate economic growth and, therefore, raise investment demand even further.

The negative consequences of collective violence on domestic economic structures are no less important than their effects on foreign trade. Collective organized violent activities can affect foreign trade in several ways. First, there is a rise in the costs of doing business and a general increase in insecurity as a result of conflicts. Second, augmented security measures in response to the events increase transaction costs. Third, there is the risk of a direct destruction of traded goods. The repeated attacks on oil pipelines in Iraq after the fall of Saddam Hussein has similar effects in terms of reduction in production and exports with the persistent attacks on Nigeria's oil pipe lines by ethnic militia. In many countries one of the largest export industries is the tourism industry. As already discussed, this industry is directly affected by terrorism.

Nitsch and Schumacher (2004) use an extended gravity model, containing the conventional determinants and the annual number of international terrorist attacks in a country to assess the impact of terrorism on trade between more than 200 countries for the period 1968 to 1979. The Authors find that the incidences of terrorism have an economically significant negative effect via the trade channel. The study finds evidence of high social conflicts in open economies. There is empirical support for the negative effects of economic openness on proxies for collective violence- terrorism, assassination, guerrilla activities, the number of systematic elimination, jailing or elimination of political opposition, the number of violent demonstrations or clashes of more than 100 citizens, the number of any illegal forced change at the top government level; successful or unsuccessful;

armed rebellion whose aim is total independence from central government or revolutions. In a related study, Blomberg and Hess [2004], Blomberg, Hess and Orphanides [2004] consider the economic cost of violence on trade in relation to the economic cost of other trade barriers to see which is larger in magnitude and found the impact of peace [defined as a reciprocal of conflict] to be greater than the impact of bilateral agreement emanating from either WTO membership or from generalized set of preferences [GSP]. In their words, "... the negative impact of conflict is greater than language and border effects, and the results are found to be robust across regions, time and country income groups". Clearly what is explicit in the analysis is the idea that both internal and external conflict and international terrorist events could cause a reduction in trade and a decline in output whose growth, trade serves as an instrument.

Lapan and Sandler (1988, 1993), Enders, Sandler and Cauley (1990) and Enders and Sandler (1993) assess the effectiveness of terrorist-thwarting policies on reducing the incidence of terrorism and found evidences of substitutions among tactics and destinations of terrorist attacks: terrorists substitute their targets and modes from less safe to high safe destinations following terrorist thwarting policies, causing "prisoner dilemma" on countries with low cost of terrorism or in countries, which condone terrorists. Garfinkel (2003) considers the interactions between terrorism and other types of conflict and found internal conflicts to be closely linked with terrorism especially when terrorism is used as foreign policy tool. Work by Enders, Sandler and Parise (1992) examining the joint effects of

terrorism and/or external conflicts on the economy indicate that internal conflict causes economic depression but the effects are deeper when they are combined with external conflict, taking the form of regional war or transnational terrorism.

Glaeser and Shapiro (2002) regress a dummy variable that indicates whether a country experienced terrorism in the period 1968 to 1977 and, alternatively, the log number of terrorist incidents in this period on the extent of urbanization in 1978 and the number of skyscrapers built and found out that while evidence of a positive relationship between terrorism and the extent of urbanization exists, the authors assert that "this link is small, statistically weak, and causally dubious" (p. 223). No evidence is found for an effect of terrorism on the number of tall buildings built in a country.

Beside these indirect costs, the effects of conflicts on non- market values have also been recognized. The fear of individuals and the grief of the victims and the bereaved are disregarded, just as the opportunity costs of conflicts- cost of relocation, including new rents and wage losses arising from job shifts, high taxation that might be called upon to finance conflict prevention e.t.c. It accordingly follows that the damage perpetrated by conflicts may be considerably underestimated. The implication is that the disutility from the public bad, collective violence would be difficult to measure. A wide variety of different approaches for the measurement of preferences of economic agents faced with persistent conflicts are proposed in Freeman [2003], where the techniques are used to value environmental quality and the cultural heritage. Frey; Luechinger; and Stutzer

[2004] discuss the approaches and show how the technique could be extended to terrorism as well. The authors found that generally, impact studies are confronted with a major problem, namely the non-inclusion of non-market values in the measure of cost of conflicts: option, existence, bequest, prestige and educational values not reflected in market transactions are not counted, though they may be substantial. It follows that the damage done by conflicts may be considerably underestimated.

The two approaches suggested are based on actual behavior, or revealed preferences, in contrast to stated preferences, as is the case with contingent valuation. The logic of the model is that when choosing between different (public and private) goods, individuals make a trade-off that reveals something about the value they place on these goods. In the case of either a complementary or substitutive relationship between the public good or a private good, individuals' Willingness-to-Pay (WTP) for the public good (or the marginal Willingness-to-Accept (WTA) in the case of a public bad) can be inferred from market transactions in the private good. The prominent approaches, based on these relationships that are applicable for evaluating the WTP for security from terrorism are the hedonic market approach (based on complementarity) and the averting behavior method (based on perfect substitutability).

1. The Hedonic Market Approach

Private markets to some extent reflect the indirect utility losses imposed on individuals by terrorist activity. A pertinent market value is the higher wages to be

paid to compensate employees for the disamenities incurred by working in an environment affected by terrorism. Another is the rent for housing and land to be paid, which is negatively affected by terrorism. The wage and rent differentials due to terrorist activities reflect the implicit compensations for the disamenities. In equilibrium, the marginal implicit compensations associated with working or housing in a region plagued by terrorism must be equal to the corresponding marginal WTA. In both cases, the effect of the extent and intensity of terrorism must be isolated from other influences on wages and rents. But the hedonic market approach is faced with four major problems:

(i) The hedonic market approach is based on the assumption that the market is in equilibrium. This would require individuals to be informed regarding all housing prices and wages, as well as attributes of the jobs and houses and require that transactions and moving costs are low. Price distortions due to market imperfections and illiquid markets may seriously bias the estimates (Pommerehne 1987, pp. 73-74, and Freeman 2003, p. 393). Sadly, in many countries affected by terrorism, markets do not work well, partly due to the impact of terrorism. In that case, the hedonic market approach may at best provide some general idea on the gravity of terrorism.

(ii) The adjustment that people are likely to make in response to changes in intensity of a terrorist campaign, as well as changes in the supply side of the hedonic property market, needs to be accounted for (Freeman 2003, pp. 373 and 381).

(iii) Similarly, it might be difficult to isolate the effects of terrorism from those caused by government reactions. Government imposed curfews and curtailing of civil liberties entail utility losses that, if not accounted for, bias the estimated utility losses due to terrorism upwards.

(iv) Only reductions in terrorism in one region compared to another, but not an overall reduction in terrorism, can be measured. The two last mentioned problems, however, also apply to other methods of valuing utility losses.

2. Averting Behavior Method

This method measures the expenditures incurred to avoid, or mitigate, the effects of terrorism and hence are a substitute to government policies. An increase in security leads to a reduction of these expenditures; the marginal change in spending due to improved security reflects the marginal WTP for the change in security. Two costs may be identified.

a. Cost of Exit

Individuals are prepared to undertake expenditures in order to leave a region or country where conflicts make life unattractive. These exit costs may be substantial. They involve monetary costs, such as losing one's job and having to sell one's property at a low price and may, moreover, include bribes to secure an exit permit. These costs indicate a minimum only. It may well be that the monetary cost of exit may be low, but that the utility loss suffered by conflicts may nevertheless be high.

This measure relies on two assumptions:

(i) The cost figures only reflect the (minimum) utility loss if the exit is solely caused by terrorist activity. In case other factors are relevant also (for example, that the employment prospects elsewhere are much better) their size must be evaluated and deducted, which is difficult to do. This implies that

(ii) All barriers to mobility must be reflected in market prices, i.e. in monetary costs. But emigration also imposes psychic costs, most importantly the loss of one's social environment of family and friends, but also the great uncertainty accompanying the act of leaving one's country.

b. Security Expenditures

In environments characterized by terrorism, individuals spend money in order to reduce the impact of terrorist acts on themselves. They invest in tightening the security of their homes, employing private bodyguards, using fortified cars, and sending their children to specially protected schools. Private enterprises spend considerable amounts of money on protecting themselves against terrorist attacks, particularly by establishing their own police forces and safeguarding their buildings by electronic means (Hobijn 2002). The premiums paid for insurance (if they exist at all) against terrorist attacks provide another indicator of the perceived probability of a terrorist attack occurring, and of the monetary evaluation of the insured objects, including persons.

Three requirements must be satisfied for the averting behavior method to provide reliable estimates:

(i) Decisions regarding the optimal amount of a particular averting behavior are governed by the risk-reduction capability of a particular averting behavior, as perceived by the individuals and firms. This implies that either the risk-reduction capability is generally known or the researcher knows individuals' and firms' perceptions (Freeman 2003, p. 337). Both premises are highly questionable in the case of defense expenditures against terrorism.

(ii) The averting behavior method relies on the assumption of perfect substitutability between a public good (or a government programme that provides that good) and the private good. According to Pommerehne (1987, p. 25), privately provided security services are substitutes for the police in the case of property crimes, but by no means perfect substitutes; this is likely to be even truer in the case of terrorism.

(iii) Averting behavior should not affect utility directly, neither positively nor negatively.

The government undertakes similar expenditures. Public money is spent on the police, the army and the secret service in order to fight terrorism and to protect public buildings, politicians and public officials. If terrorism is dealt with by a positive approach (see Frey and Luechinger 2003, Frey 2003), in particular when offering incentives to leave terrorist groups, the respective outlays are also reflecting the utility loss due to terrorism. In the case of public expenditures, the dead weight loss occurred due to additional distortions in the allocation of resources must also be counted. But care should be taken when these

expenditures are used as reflections of the (minimum) WTP of the population. This implicitly assumes a perfect political market in which the government adjusts to citizens' preferences. This is, of course, not generally so, in particular in countries torn by terrorism. Normatively, measuring the government expenditures to fight terrorism should not be taken as an indicator of the WTP, because the aim of a benefit-cost analysis exactly is to establish what these expenditures should be.

Evidently, the Hedonic Market Approach and Averting Behavior Method are obviously complicated methods for quantifying the economic consequences of violent conflict given the various assumptions that would have to be made on human behavior, which might be realistic. Consequently, *event* or *count* methodology appears to be flexible and more straight forward, hence its popularity in conflict analysis. Accordingly, the count method is adopted for this study.

2.6 Violent Conflicts and terrorism in Africa

Actual and potential violent conflict exists in most regions of the world, with Africa increasingly perceived as a major zone of violent conflict. Angola, Senegal, Rwanda, Somalia, Sudan, the democratic Republic of Congo, Liberia, Nigeria, Sierra Leone and Ivory Coast represent only a fraction of the major hotspots. The protracted nature and intractability of struggles in Africa continue to promote chaotic, established atmosphere both within and across borders. The consequence is often the stifling of economic progress, the weakening of the state's political

structure, and the deterioration of human health and welfare. Bates (1983) indicated that many of the African civil wars are merely consequences of ethnic groups forming coalition in a rational attempt to compete for scarce resources: ethnic conflicts in Africa are in part, conflicts between clientalist networks, defined ethnically, over the distribution of economic goods by the states. Some of the underlying factors revolve around consolidation of power within a state by dormant groups, and discrimination resulting from such power consolidation.

Five non-mutually exclusive economic hypotheses have been put forth to explain motivation for civil wars in developing countries Steward (2002). These factors relate to group motivation, i.e., when groups identity-geographical, religious, tribal-forms the basis for organizational conflict or when deprived groups seek (or are persuaded by their leaders to seek) redress through violent means (Gurr,1993; Horowitz,1985;Stewart, 2001; Cohen, 1974; Horowitz,1985); private motivation, i.e., when the young and uneducated gain employment in organized groups in which case war provides opportunities for personal enrichment through, for instance, looting, illicit production and trade in drugs, diamonds, timber, and other primary commodities; (Keen 1994; Hirshleifer,1994; Collier and Hoeffler (2000); foreign interests, linking violent conflict in developing countries to the cold war, colonial policies and practices, e.g. the amalgamation of autonomous societies in colonial territories for political control, the indirect rule or assimilation policies that resulted, inevitably, to conflicts of interests as groups struggle for power to prioritize their own agenda through violent means (Onuorah,2010; Garba and Garba

2002); environmental degradation, pointing to the negative consequences of environmental degradation in violent conflict generation (Homer Dixon, 1994; Kaplan (1994); and failure of the social contract, linking conflict to state failure, i.e., when states fail to provide opportunities for maximization of social, political and economic gains and conflict ensures (Garba and Garba, 2002; Nafziger EW, Auvinen, 2000).

The World Bank's "Economics of Civil War, Crime, and Violence" project, edited by Paul collier and Fearon 2000 has been very influential in conflict analysis. Not only has this project produced a number of controversial findings with respect to violent conflict motivation, onset, duration and economic consequences, it, and in particular, the work of Paul Collier and his disciples[54], has produced substantial innovative research, opened up new areas of inquiry and stimulated academic researchers to explore a wide range of relationships between economics and civil war. Among the key claims of the project is the observed association of violent conflict, and, in particular, civil wars with the greediness and /or the grievances of perpetrators, with low or declining economic growth, population size, religious or ethnic fractionalization, primary commodity exports, subvention from hostile governments and/ or diaspora population shaping the contours of such conflicts.

54 A substantial part of this analysis can be found in the following works: Collier, Paul. 1999a. "On the Economic Consequences of Civil War." Oxford Economic Papers. 51, pp. 168-83; Collier, Paul. 1999b. "Doing Well Out of War." Conference Paper. World Bank; Collier, Paul. 2000a. "Economic Causes Of Civil Conflict and their Implications for Policy" World Bank. Working Paper. Forthcoming in Crocker, Chester A. and Fen Osler Hampson with Pamela Aall (eds.) Managing Global Chaos. Washington DC: US Institute of Peace; Collier, Paul. 2000b. "Doing Well out of War: An Economic Perspective." in Berdal and Malone (2000); Collier, Paul. 2000c. "Rebellion as a Quasi-Criminal Activity." Journal of Conflict Resolution. 44: 839-53; Collier, Paul and Jan Gunning. 1995. "War, Peace and Private Portfolios." World Development, Vol. 23, No. 2, pp. 233-241; Collier, Paul and Anke Hoeffler. 2000a. "GREED and Grievance in Civil Wars." Working Paper. World Bank. WPS 2000-18; Collier, Paul and Anke Hoeffler. 2000b. "Aid, Policy and Peace." Working Paper. World Bank; Collier, Paul and Anke Hoeffler. 2002a. "On the Incidence of Civil War in Africa" Journal of Conflict Resolution. Forthcoming; Collier, Paul and Anke Hoeffler. 2002b. "Greed and Grievance in Civil Wars." Working Paper, Centre for the Study of African Economies, Oxford. WPS 2002-01; Collier, Paul and Anke Hoeffler. 2002c. "Aid, Policy and Growth in Post-Conflict Countries." Working Paper, World Bank; Collier, Paul, Anke Hoeffler and Måns Söderbom. 2001. "On the Duration of Civil War." World Bank, Working Paper.

Nevertheless, in a criticism of this work, Humphreys (2003) challenged the rational for the use of the morally charged terms-greed and grievances-in conflict given that they tend to criminalized conflict without a room for checking the logical consistency of the claims of actors. In effect, the analysis fails to recognize possibilities for "creative conflicts" (Sombart, 1913), i.e., when violent conflict leads to the destruction and/or alteration of development hindering structures that releases energies that can bring economic progress; or even the important roles of nationalist struggles that earned political independence for colonies (Muzrui 2004).

2.6.1 Colonial Influence and Violent Conflict in Nigeria.

One most important role of colonial administration in the formation of Nigerian conflicts is the Amalgamation of the various communities in 1914 by Lord Lugard- an officer of the British Crown to form Nigeria (Garba 2002, Onuorah, 2010). Given its structure, the laws of Nigeria, which enabled the amalgamation, clearly created the path for violent conflicts in the country in the future. First, the laws of Nigeria [1914] willed all Nigerian lands to the British crown and all other subsequent colonial constitutions [1922, 1946, 1951, and 1960] simply endorsed the provisions. Thus, if the land use act of 1978 is in any way linked to land-based conflicts in Nigeria, then the laws of Nigeria of 1914 provided the lead. Furthermore, an important problem with the amalgamation of Nigerian nationalities is that Nigerians were not consulted and were thus at no time given the opportunity to ratify these constitutions in the form of a social contract between the state and the subjects. By implication, the constitutions were therefore nor

fully unrepresentative of the wishes and the aspirations of the Nigerian people[55]. Secondly, the laws of Nigeria for instance provided for indirect rule; a system of governance with two fundamentally and inherently asymmetrical relations (1) colonial state-traditional rulers and (2) traditional rulers – ethnic groups. In areas which had a relatively organized political structure, the colonial administration encouraged and worked with it, while attempts were made to create traditional rulers in areas which lacked organized political structures. Working with traditional institutions was politically and economically beneficial to the colonial administration as it enhanced the colonial process of extraction of local surpluses. However, by the imposition of traditional institutions on the people that lacked them for the purpose of control, colonial rule reversed the historical sequence of the evolution of states in Europe and in the United States of America, and evidently laid the basis for conflicts in the country. Traditional rulers in many cases, chosen by the colonial government were colonial agents and hence subordinate to it. They accordingly ensured that the indirect rule system was successful. Thus, if the indirect rule made the colonial exploitation of the colonized territories to be successful, traditional rulers were collaborators. Accordingly, colonial administration would do everything possible to encourage them[56]. In colonial Nigeria, the state allowed traditional rulers to retain significant prestige in traditional rulers - ethnic group level even after independence, with the creation of native authorities and

55 Much of this historical documentation is extracted from Garba and Garba [2002]

56 The Queen of England at some point Knighted some traditional rulers- the Sultan of Sokoto, Oni of Ife and leaders of the most receptive political parties – the Sardauna of Sokoto, AbubakarTafawaBalewa and Sir Kashim Ibrahim. It was obvious the less malleable traditional chiefs like the warren chiefs in the eastern Nigeria would not be encouraged.

courts, police and civil servants. The structure lasted, especially in northern Nigeria until 1976 when they were dismantled but not until these institutions had laid conditions that would ensure political victory at elections to only ethnicised political parties. Apart from this, colonial Nigeria actually encouraged expansionist activities by creating provinces that enlarged the domain of many traditional rulers to include hitherto free polities. The effect of this expansionist behavior turned out to have serious implication on the demand for both local and states creation, which had become the platforms for revenue allocation in the country. Agitation for states and / or local government's creation in the country has been a serious source of conflicts for many years[57].

The Richard's constitution for colonized Nigeria similarly followed the colonial constitution that preceded it to complicate matters for the Nigerian people. It divided Nigeria into three abnormal regions: the northern region was larger than the eastern and western regions put together. This abnormality and the implications for Nigeria stability of the federal structures as demonstrated in Garba and Garba [2002] could be visualized in that of a three-legged table with " (1) one leg longer and thicker than the other two put together and (2) each of the three legs made of wood of different densities with the less dense [the minorities] at the base" .The abnormal federal structure produced for the colonized Nigeria (1) majority- minority divides in all the regions, (2) struggle between ethno political triads (3) struggle by ethnic minorities for emancipation from internal colonialism.

57

Thus, the unhealthy competition among the country's ethnic groups and the system of asymmetries it had created for the Nigerian people can be seen from (1) colonial state- traditional rulers (2) traditional rulers- citizens (3) North-south (4) ethnic majority-ethnic minority along which lines most conflicts have been fought. With the collapse of colonial administration in 1960 and the transfer of power to a coalition of two ethnically based political parties [NCNC-NPC], with the Action group [AG] as the main opposition, the ethno-political parties were not only entrusted with power to produce government at the federal level but were also responsible for drafting the constitution that would guide future political behavior in Nigeria. Not surprisingly, the post colonial Nigeria was characterized by Majority-Marjory competition that took precedence over all other divides, which have on their own constituted a source of conflicts in the country. Coupled with governance that was not genuinely sensitive to the problems of the people of Nigeria, the ugly phenomenon would appear to have been responsible for the creation of the mid western region in 1961, principally to weaken the power of the opposition at the federal level that came mainly from the ethnic west. One manifestation of the ugly political behavior–the dissolution of the old western region- was the constitutional/ political crisis that engulfed the region, which led to the declaration of the first state of emergency in Nigeria in 1962[58]. The chain of violent events that followed clearly showed how bleak Nigeria's future was going be with conflicts: there were the Tiv riots in 1964, and two military coups by the

58 The second state of emergency declared in plateau state in 2004 also followed a major civil conflict.

ethnicised army in 1966, culminating into the civil war between Biafra and other parts of Nigeria.

It seemed perfect that after the war, the creation of regions or states would be a technique that would be used by subsequent military regimes for effective state control[59]. Accordingly, after the first military coup in 1966, the ethnically based perpetrators proposed a unitary system of government that would have had positive benefits to the eastern region but the counter coup of that same year which produced a northern head of state changed the plan, created more states and changed the revenue allocation formula from derivation principle to that which was based on population and land mass because it was politically and economically expedient for their region to do so. The creation of more states however still did not dismiss the abnormal federal structure[60]. Efforts by the Murtala/Obasanjo military administration [1976-1979] to increase the number of states from 12 to 19 still did not solve the problems either. The former western region expanded to five states and the former eastern region expanded to four states, the north expanded to ten. The demand for states creation continued and the successive military administrations simply played along until the total had increased to 36 by the year 1996 [nine in the former east, eight in the former west and nineteen in the former North]. By this arrangement, it became clear that the former north would continue to have an upper hand in the decision making processes in Nigeria for a very long time. For instance, in the 1999 elections, the

59 Unlike in the past, states creation is more of an opportunity for revenue allocation.
60 The north was broken into six states, the west into two and the east into three.

19 northern states produced 57 senators, the former western states produced 24 and the former eastern states produced 27. Not even the political redefinition of the country into six geopolitical zones would stem the competition among the ethnic groups along ethno-religious and /or regional lines. For instance, while the northern senators grouped themselves under the auspices of the Arewa Consultative Forum [APC] to advance or protect their cause, the east rallied around [OHANEZE] while the west formed the [AFENIFERE] from which dangerous militant organizations, the Arewa Youth Forum [AYF], Oodua people's congress [OPC], the Bakasi Boys, MASSOP, and the Egbesu Boys e.t.c., respectively obtained their foundations and continued existence. It should be recalled that these unconstitutional paramilitary groups have played major roles in the formation and execution of violent conflicts in all parts of Nigeria.

2.6.1.1 Patterns of violent Conflict and Terrorism in Nigeria.

Nigeria has a population of approximately 150 million people, making the country the most populous Black Country on earth. The population is divided into nearly three hundred unequal ethnic groups. However, the Yoruba, Igbo and Hausa nations are the most officially recognized in the press[61], while the others are lumped into either of these three, depending on geographical location or historical affiliations.

About 70% of the Nigerian current most important economic resources [especially oil resources] are found in the south-southern part of the country while the north

61 School kids are currently compelled to learn one of these languages in secondary schools

and the west, which are yet to find oil deposits in their regions, have dominated the political scene, collectively producing 9 out of the 12 heads of Nigerian government since independence, 7 of which (military men) came from the north and 3 from the west, one from the south east and one from south- south] as at end-2010. Clearly, Nigeria inevitably faces a problem of balanced governance, which occasionally becomes a foundation for open conflicts in the country. Attempt to ensure power balance through a federal structure has been marred by political tensions, military coups and conflicts-ethnic, communal, political, and religious.

Often, the use of force by the military administrations to ensure peace only led to more bloodshed and grievances while leaving institutions that would have made good governance possible-the judiciary, the police and the legislature to decay, paving way for more political tension and collective violence.

The decade of the 1970s is considered to be the most peaceful in Nigeria's post independent political history. The decade started shortly after the end of the civil war, enjoyed an oil boom that facilitated massive post-war government spending for post-war reconstructions. It also ended with a peaceful transfer of power from military to civilians. Although the decade was turbulent globally with the collapse of the gold standard, and the shift to flexible exchange rates, the Arab-Israeli wars, oil price shock and stagflation etc, Nigeria was relatively peaceful as no serious violent civil conflict was reported. But just like the preceding decade, it had its own share of military coups. On July 29 1975, Gowon's government which

toppled the government of Major Kaduna led group in 1966 and prosecuted a civil war between Nigeria and Biafra (1966-70) was toppled by General Murtala Ramat Mohammed. General Mohammed himself was assassinated six months later in an attempted coup that equally claimed the lives of many military officers, leaving General Olusegun Obasanjo to guide a peaceful transfer of power to a democratically elected government in 1979. However, towards the end of the decade, the General Obasanjo's military administration planted a seed for open conflict via two policies: the Jumbo loan it contracted and the land use act of 1978, paving the way respectively for debt crises and land-based conflicts in the years to come. In addition, the success of the Iranian Islamic revolution in 1979 motivated a change in violent conflict patterns in the country, introducing for the first time, a religious dimension to it[62]. Consequently, the 1980s was both volatile and repressive. The decade witnessed the return of the military in 1983 when the Shagari-led democratic government was over thrown. It appeared the unresolved political problems surrounding the 1979 and the 1983 elections had generated power struggle within the political class that produced wide spread and intermittent violence manifesting as communal, resource based and ethno-religious. Table 2 indicates that this period also witnessed the beginning of terrorist activities in the country. And for the first time, a case of serious intra-religious conflict (the Maitatsine conflict) was witnessed in some northern parts of the country in 1980 that would later give way to a harvest of violent inter-religious conflicts in different

62 Prior to this period, Religious conflicts was not significant in any part of the country

parts of the country. Besides, political violence erupted following the conclusion of the 1983 presidential elections. However, unlike the pre-1970s political violence, the violence of the 1980s was not restricted to the West alone-the base of the main opposition then. Police reported violence in Oyo, Lagos, Niger, Plateau, Imo and Anambra states, almost all cases involving supporters of the ruling party at the center, National Party of Nigeria (NPN), federal election officers and the police. Consequently, less than four months in the administration of the reelected president, the administration was toppled by the military, which suspended the 1979 constitution and imposed strict limits on civil liberties (under the war against indiscipline campaign).

Obviously, the fourth military administration was highly autocratic and sought to obtain cohesion by force. Its actions created many divide among the various socio economic groupings in the country that subsequently motivated the overthrow of the regime in less than two years by a self-styled military president.

Under this new regime (the fifth military regime), political repression acquired a smiling face, and under it too that Nigeria witnessed the first use of a letter bomb for assassination (Dele Giwa in 1985), and still under this same regime that the Structural adjustment program (SAP) was imposed on Nigeria even after the military president had acknowledged that Nigerians overwhelmingly rejected it. Under the structural adjustment program, Nigeria was classified by the World Bank as a low-income country from its position a middle-income country prior to 1985. In addition, Nigeria officially joined the Organization of Islamic Council (OIC)

amidst protests by non-moslems in 1986[63]. As a consequence of these political decisions, by 1987, religious conflicts engulfed most part of Northern Nigeria and led to severe loss of lives and properties. In addition, other forms of conflicts manifesting as communal/ land, ethnic, resource-based, spurred in the south eastern parts of the county around the same time and was followed in 1989 with an explosion of anti-SAP riots in all parts of the country. The incidence of conflicts increased throughout the period and intensified following the cancellation of the June 12 presidential elections by the administration. Not even the diarchy that was imposed on the country and had Chief Earnest Shonekan as its head in 1992-1993 by the military president, could stop the violence until it was forced out by another military administration headed by the late General Sani Abacha.

The regime of General Sani Abacha was, as expected, overtly repressive, characterized by jailing and execution of political opponents. The death of Abacha and Chief Moshood Abiola-the acclaimed winner of the June 12 1992 presidential elections-and the subsequent assumption of duty by General Abdul Salami Abubakar did not stop violent behavior in the country. However, the regime handed over power to a democratically elected government in 1999 with the prospects of enhances democratic peace. Unfortunately, democracy made the matter worse as perpetrators of conflicts found freedom in the democratic order that had been suppressed under the military governments. This period also coincided with an intensification of transnational terrorist campaign both at home

63ThoughNigeria renounced its membership of the OIC in 1991, the organization has not recognized this decision (http://www.medea.be/index.html)

and from other jurisdictions, with serious consequences on the evolution of local conflicts and terrorism. For instance, the mass Anti-American protest that followed the WoT on terror especially in the Middle Eastern countries was replicated in some Nigerian cities, such as Kano in 2001 while hostage taking activities intensified in the Niger-Delta region of Nigeria around the same time. Indeed, religious conflicts rendered Jos, the Plateau state capital, practically ungovernable and led to the declaration of the second state of emergency in the county's history, while violent interreligious especially among Christians and Muslims in Nigeria rose, leading to political religious practices and extremists' behaviors. As shown in Albert (2007, the essence of the *Jama'atu Ahlis Sunna Lidda'awati wal-Jihad*- a terrorist group known locally as "Boko Haram" in Nigeria is summarized as follows:

> "whereas the "fundamentalist" Islamic sects in contemporary northern Nigeria demonize themselves by perpetrating violence against the people, the fact remains that many of them are merely responding to the failure of the sharia experiment as well as lack of political leadership in contemporary northern Nigeria...the "Islamic fundamentalists" often devote their sermons to the sharp practices of some of these political leaders. In the process they became demonized by the "Nigerian state" (pp6).

While this obviously summarizes the multidimensional motivations for violent conflicts in Nigeria, the economic objective remains key to conflict initiation and execution in the country. But most importantly, it appears that violent conflict is not restricted to a certain part of the country but spreads. So while Nigeria cannot be said to be in a civil war at the moment, characteristic of the wars in

Liberia and Sierra Leone in the late 1990s and early 2000s, in Cote d'viore in 2011, political revolution in some north African states of late or as experienced in the Balkan's during the wars of attrition in the 1990s, the fact remains that different forms of violent behaviors occur in all the six geopolitical zones of the country, permitting analysis of the economic consequences of the events as if the country was at war. And while it may be possible to prioritize, assessing the economic effects of the events would have to involve Nigeria as a whole. This is more so as all forms of conflicts are largely sensitive to similar problems that include global social and economic issues, domestic economic and socio- political problems. Moreover, the phenomenon is compounded by the "prebendal politics" in Nigerian conflicts64, where the various forms of conflicts are connected with one another. For instance, religious conflicts become more serious when they are linked to politics, but even more so when linked to ethnicity and/or north-south divisions; farm land disputes, border clashes among ethnic nationalities become more dangerous when the political system fails to regulate resource competition among the warring groups and may even become more violent when arms are allowed to flow freely. Similarly, the police institution is both corrupt and inefficient; policemen and women are ill equipped and poorly paid that they often find difficulties to resist attempts to corrupt them. Accordingly, offenders often get away with major crimes. It is largely the effect of these deficiencies that encourage

64 For example, the Ife-Modakeke conflict began as a territorial dispute in 1835, but has now generated a dynamic component based on human nature to political issues. The Niger delta problem has also gone from one about environmental degradation to compensation and now resource control, intertwined with the demands for political independence. The attacks of other nationalities [Igbo and Yoruba] in the north and non- Hausa/non Moslem northerners in southern and western states during religious conflicts defy logic. Infact the consistency with which Jos, the plateau state capital boils suggests the beginning of another dimension to conflict spot in the country.

the inclination to create alternative (parallel) security outfits (vigilante) for self-protection that only compound the security problems of the country.

Table 2: Nigeria- Conflict Manifestations and Actors.

MANIFESTATION	ACTORS
SECURITY-RELATED Proliferation of small arms Corruption of law enforcement officers Vigilante Groups Foreign Mercenaries an international terrorists Misuse of Military responses.	Security forces Ex-service men Mercenaries Vigilantes
POLITICAL MANIFESTATIONS Political conflicts Succession and dethronement conflicts Territorial Disputes	Political elite Government/state governors Political parties and internal factions Political thugs Traditional rulers and aspirants
ECONOMIC MANIFESTATIONS Poverty and inequality Resource competition- Sharing of Oil benefits, access to land etc, Unequal development Market competition	Transnational companies Labor organizations Herders and farmers
SOCIAL MANIFESTATIONS Ethnic and communal conflicts Religious conflicts Unemployment and Youth violence Psycho-cultural dispositions	Religious organizations Youth Students Nongovernmental organizations Women.

CHAPTER THREE

3.1 RESEARCH METHODOLOGY

This chapter describes the model for analyzing the economic consequences of violent conflict and terrorism in Nigeria. It is a mid-size macro model with both demand and supply sides and whose structural equations are chosen for effective representation of the variables of interest. Supply side equations are cast as neoclassical production functions, specifying the various sources of growth of the economy, while the demand side comprised domestic absorption that includes a private demand, government demand and the external sector. There is also a money side that connects the balance sheet of the monetary system with aggregate production and spending, debt instruments and prices. An important innovation of the study is the consideration of the role of violent conflict macroeconomic modeling for Nigeria, which is aimed to reflect the simultaneous role of violent behavior on the evolution of the macroeconomy economy. Besides, a *conflict spread index* is constructed for domestic conflict to show the national character of the events. Thus, it became possible to show that though the country is not in some kind of full scale war characteristic of the civil war in the late 1960s, or as experienced in some neighboring countries-Liberia, Sierra Leone or Cote'dviour, there is a possibility that Nigerian economy could be discussed as if it is in some kind of full scale war, given that since the early 1980s, violent conflicts of different dimensions have been recorded in virtually all the regions of

the federation. Following this introduction, an over view of the domestic macroeconomic environment is presented, and is followed by the description of the macro model. Section three discusses data collection methodology/analysis and also presents a full description of the variables used. Section three summarizes the chapter.

3.2 Some Stylized Facts

Nigeria is endowed with a variety of resources that range from human to precious metals. The economic structure however, remains typically mixed and open. Consequently, domestic economic developments are constantly influenced by both internal and external factors, which include policies, capital flows, financial and economic crises and violent behavior. Consequently, appreciating the evolution of the domestic growth process would require a documentation of the various channels as well as the magnitudes of the effects of these variables.

The export of commercial crude oil that began in the late fifties, becoming particularly important in the 1970s, replaced agriculture, which had, prior to this time, being the main stay of the economy, contributing significantly to the GDP, foreign exchange receipts and government revenue. The export of oil and the revenue derived from it since this time has, however, remain an important element in Nigeria's macroeconomic management, inducing distortions such as an overwhelming dependence on crude oil exports for development. Consequently, such development pattern accordingly make internal economic development

significantly vulnerable to developments in the oil sector: disruption in oil production affects export and hence government revenue, while external disturbances, influencing international oil price, can lead to increased oil revenue inflow that narrows domestic resource constraints for investment and growth. Global violent conflict is shown therefore to be a potential source of growth volatility in Nigerian economy. It will be recalled that the mid-1970s created unprecedented and unplanned wealth for Nigeria, creating in the process, an import-oriented consumption pattern that became difficult to drop even after the oil glut in the later part of that decade. The collapse of the oil price in late 1970s to mid-1980s following the poor reading of mid-east wars induced the structural adjustment program and other complementary policies that hit the economy in various ways.

Real Output Growth

Nigeria's real domestic output grew at an average of 5.3 per cent between 1970 and 2009. It averaged 10.5 percent between 1970-1974 but was 0.8 per cent before the structural adjustment program (SAP) 1981-1995 (CBN Statistical Bulletin 2009). Obviously, the increased importance oil production in the early 1970s explained the large GDP growth rate while the relatively low GDP growth rate in the mid-1980s could be linked to the collapse in oil prices, rise in global interest rates, domestic social problems and policy inconsistency. Indeed, the adoption of Structural Adjustment Programme (SAP) in (1986-1993) led to the reversal of the negative growth trend to an average of 4.1 per cent and 5.3 per cent between

1990 and 2003. Nevertheless, there was a rebound in output growth from 2004, driven largely by improved macroeconomic environment, relative stability in the goods and foreign exchange markets and enhanced investor confidence in the economy. In addition, export of oil revenue increased resource inflow following the hostilities in the Middle East that caused the surge in international oil price. The improved performance led to an average growth rate of 7.0 between 2004 and 2009. Output growth stood at 6.8 per cent at end-December 2010.

Fiscal Profile

Government revenues in Nigeria are classified into oil and non-oil revenue. The oil revenue includes proceeds from sale of crude oil, petroleum profit tax (PPT), rents and royalties, while the components of non-oil revenue are companies income tax, customs and excise duties, Value-Added Tax (VAT) and personal income tax. Since the 1970s, oil revenue has been the dominant source of government revenue, contributing on average over 70 per cent to federally-collected revenue. As indicated elsewhere above, the behavior of oil revenue and federal government expenditure overtime tend to mirror strategic choices of both oil producers and importers as well, especially during periods of violent conflict; oil production is disrupted with the violent vandalization of oil installations, kidnapping and other hostage taking events in the oil producing region of Nigeria. On the other hand, oil revenue is strengthened by oil export and global demand for the product, which are in turn functionally related to violent behavior as shown in the wake of advances in transnational

terrorism and the war on terror that followed the 9/11 terrorist attacks in 2001. It will seem that a combination of domestic violent behavior, regional conflicts, pushing up huge defense spending and transnational terrorism raising the oil revenue component could collectively could cause volatility in fiscal process and economic growth by extension.

However, Nigeria is historically linked with persistent fiscal deficits, derived from large fiscal presence in the economy, of about 40 per cent of GDP on average since the end of the structural adjustment program in 1993. Nonetheless, since 1999, fiscal deficit has consistently declined. Between 1999 and 2009, deficit went down from about 9 per cent of GDP to 3.3 per cent of GDP (CBN, 2009). The lower deficit reflected the twin factors of enhanced revenue from the oil sector and the strict observance of fiscal rule on oil benchmark which led to the accumulation of huge savings. At as this level, overall deficit surpassed the WAMZ convergence criterion target of 4.0 per cent of GDP.

Inflation

Inflation rate averaged 7 per cent during the 1970-75 periods but hit 43.5 per cent in 1975, attributable largely to large oil proceeds that needed to be "liquidated". Indeed, the Udoji award[65] had an important story to tell on the profile of inflation in the 1970s, reaching an all time high of 43.5 per cent at the end of 1975. Between 1980 and 1984 inflation average 21. 4 per cent, rising to 38.1 per

[65] General Gown, in wake of increased oil for Nigeria in 1974, unaware of what to do with the new found wealth decided to double the salary of every Nigerian worker, raising the minimum wage from 312 Naira per annum to 720 Naira per annum. Notable is the fact that the Naira was then more powerful than the dollar and 720 Naira was the equivalent of 1200 dollars. Adjusted for inflation, this had more purchasing power than the current national minimum wage.

cent on average during the period of structural adjustment program (1986-1993). The rate of inflation moderated after the election of 1999 but remain higher (14.8 per cent) in 2000 and 2005 attributable to rise in aggregate demand occasioned by the tempo of political activities, the depreciation of the naira, and increase in the pump prices of petroleum products. Inflationary pressure eased since 2006 hitting single digit briefly in 2007 when it closed at 6.6 per cent before rinsing to 15.1 and 12.1 percent respectively at end- 2008 and 2009.

Money Growth

Growth in monetary aggregates especially broad money (M2) generally mirrored the developments in liquidity flows, especially foreign exchange earnings. For instance, The growth of broad money was 54.5 per cent at end-1974 and 80.3 per cent the following year. The growth was 1.10 per cent and 7.03 per cent, respectively at the end of 1978 and 1981. The growth average 10.5 per cent, 27.9 per cent and 37.4 per cent at the end of 1981-86, 1993-2004 and 2005- 2009 periods, respectively. M2 grew at 7.04 per cent at the end-December 2010. The growth 48.1 per cent recorded in 2000 was substantially driven by the rapid expansion in the net foreign assets of the banking system driven by favorable global price of crude oil. Broad money growth rate reached the lowest ebb of 12.3 per cent in 2004 for the first time in more than a decade owing principally to the effectiveness of monetary policy complemented by the fiscal discipline of the federal government. Other contributory factors included the modest increase in aggregate banking system credit (net) to the domestic economy, especially the contractionary effects

of the fall in net credit to government and, other assets (net) of the banking system. Against the expectations of consolidating and sustaining the growth rate of the 2004, broad money growth, however, expanded significantly to about 43.1 per cent in 2006, rising further to 57.8 per cent of at the end of 2008. This development was attributed to the rise in quasi-money induced by the competition in deposit mobilization by the DMBs following the consolidation and subsequent boost in public confidence in the banking system.

Net Domestic Credit

Developments in the domestic credit to the economy have been mixed since the 1970s. Growth in net credit to the economy was negative for 1974 and 1975, 1989, 1996-7, 2000 and 2006, but positive for other years. While the decline in some of the years, e.g., 2000, was attributed to sharp decline in credit to the federal government, the respective decline of 123.6 per cent and 492.6 in 1974 and 1975, as in 2006 resulted largely from the high earnings from crude oil exports, which enhanced government's revenue profile, raising its deposits with and the banking system. Generally, however, the trend has been downwards since the recent time high of 276.4 per cent growth in NDC in 2007. Net credit to government has been growing over the years, even though government remains a net lender to the banking system.

Monetary Policy Rate

The monetary policy interest rate referred to as the Minimum Rediscount Rate (MRR) was changed to the Monetary Policy Rate (MPR) in 2006. Minimum Rediscount Rate which was the nominal anchor for interest rates in the economy trended downward during the review period proactively influenced by the CBN to ameliorate the cost of funds in the economy consistent with macroeconomic developments. The MRR averaged 15 per cent between 1999 and 2005 before it was replaced by the Monetary Policy Rate (MPR) in December 2006. The MPR is a variable transactions rate aimed at enhancing transmission of monetary policy actions. At inception, the MPR was fixed at 10.0 per cent with a band of 600 basis points range, thus repositioning the CBN as a lender of last resort. It is been reviewed several times ever since then and stood at 6.25 per cent at end-December 2010.

The Balance of Payments (BOP)

The overall BOP balance as a percentage of GDP has been volatile, fluctuating between deficit and surplus. The surplus was 16.5 per cent of GDP in 1975 while the deficit averaged 2.2 per cent in the 1976-78 period, mirroring the fluctuations in foreign resources flows, especially from the oil sector. Between 1981 and 1999, the balance of payments was in deficit with a highest GDP ratio of 26.3 per cent in 1993, due largely to the draw-down of external reserves and deferred payments of scheduled debt service obligations. There has however, some improvements in the current account in the recent years with the BOP surplus GDP ratio rising to 0.2 per cent at end-December 2009.

External Reserves

Being a mono-cultural economy, Nigeria's stock of external reserves depends critically on the exogenously determined international price of crude oil. From a modest US$156.58 million in 1970, external reserves rose to an average US$3billion in the 1974 - 77 period fell to 1.3 billion in at end-1978 and to lowest level ever ($224 million) at the end of 1983. Reserves rose persistently to US$7.5 billion in 1987 to US$10 billion in 2001. However, it declined to US$7.4 million in 2003, approximately six and half months of imports cover. In addition to foreign exchange receipt constraints, the fall was equally engendered by huge fiscal spending. post 2003 however, the stock of external reserves has consistently been on the increase, with a peak at US$42,4 million in 2009.

Crude Oil Price

Crude oil price volatility is a major determinant of Nigerian economic growth process. Variation in global production has been causal to oil price volatility since the oil became important in Nigeria, and particularly so since the early 1970s. Consequently, among other factors such as the buoyancy of Organisation for Economic Cooperation and Development (OECD) economies as well as the recovery of East Asian economies, violent conflict and terrorism have played significant role in influencing the behavior of international crude oil price. The rise in global energy demand, especially from China and India, and anxiety over supply disruptions in Nigeria, Iraq and Iran, Hurricanes Katrina and Rita that ravaged oil installations in the Gulf of Mexico, the prolonged face-off between

Iran and the United States as well as the general insecurity in the Middle East have all contributed significantly in one form or the other to the rising price of crude oil.

Nigerian Stock Exchange (NSE)

The Nigerian Stock Exchange has recorded significant developments over the last 8 years both in the new issues and secondary market The Exchange in a bid to improve the efficiency of the market has improved market infrastructure, such as upgrading of automated trading systems, expansion in investors, memorandum of understandings signed with stock exchange across Africa, revision of regulatory and operational guidelines, amongst others. There has been increased awareness of stock market activities locally and internationally. Investors now have increased confidence in the Nigerian stock market as is reflected by the greater recourse to the market by local investors (companies and government) as well as foreign investors. Stock market indicators show remarkable improvement.

3.3. The model

There are various approaches to the specification of a macro-econometric model. While some "system of equations" models are specified along the Keynesian macroeconomic theory, some are specified along neo-classical postulations. Yet others are specified in line with structuralist or Leontief value added approaches (Diebold, 1998). Among the class of models, the structuralist approach gives relatively adequate attention to the supply side and therefore recognizes important characteristics of developing economies. They are also more eclectic. However,

even with the eclectic approach, a number of blocks and equations require specific inclination to either the neo-classical or the Keynesian modeling approach. And since the aim is to mimic the Nigerian economy, such inclinations entail modification in approach to suit the specific characteristics of each block and to consider the peculiar characteristics of the Nigerian economy. Some of these peculiarities include economic dualism, poor quality of data, underutilization of resources, considerable unemployment with public sector as the largest employer of labour, dearth of capital and limited technology, high import dependence, weak linkages among sectors, ineffective taxation system, weak institutional arrangement and violent conflict. Indeed, most models in Nigeria have not taken into consideration the economic impact of shocks arising from sudden disastrous consequences, and so often fail to reflect the roles of global violent conflict, which has capacity to define, to a large extent, the evolution of the macroeconomy.

As in most macro models, the supply side is cast in terms of neoclassical production functions, specifying the various sources of growth of the economy. The demand side is represented by the proxies for domestic absorption, involving a private demand that comprise consumption and investment; the government demand and external sector. There is a money block that brings in the balance sheet of the monetary system into the relationship between aggregate spending, debt instruments and prices. The model is closed with the linkages among the various blocks of the model.

The model for the domestic economy is cast in 32 equations. Seventeen of which are either identities or definitions while sixteen are stochastic. The equations are chosen because they appear to be consistent with the necessary information required for analysis of violent conflict and the Nigerian economy.

The supply side is cast as neoclassical production function, recognizing the contribution of specified sources of growth in both the oil and non oil sectors, making possible the reflection of the simultaneous role of violent conflict on the macroeconomy. Data problems prevented the inclusion of the labour and human capital terms in the production functions perhaps that would have illuminated the contribution of violent conflict more explicitly. Nevertheless, the violent conflict variables came up with the expected results in the oil output equation. Non-oil output was postulated to be positively sensitive to the growth of the economy, which is represented by the gross domestic product but negatively related with the lending rates. The specification of the demand block is cast on assumption that supply is demand determined. The logic of the model is that violent conflict would impact the level of demand, which would in turn influence the production structure of the economy. Accordingly, measures of violent conflict are included among the explanatory variables of the models. For instance, conflict is hypothesized to impact the fiscal operations of government in various ways; through both the revenue channel and expenditure components. By influencing spending on national security, domestic violence could contribute to the structure and direction of government fiscal deficits, while such expenditure shifts resources away from social

and economic sectors and also defined the government's debt profile. The effects of conflicts on the revenue side are given by the product of the conflict variable in the revenue function and their standard deviation. While domestic violent expected to disrupt oil production as discussed above, external or transnational conflicts, are expected to influence the growth of export revenue through oil price or the world demand as they disrupt oil production. The high oil revenue is expected to influence external reserves, domestic monetary aggregates and prices. The description of blocks and identities are as follows:

PRODUCTION

The National Bureau of Statistics (NBS) classifies production activities in Nigeria into 33 sectors. Nevertheless, it makes sense to aggregate these sectors for analytical purposes. Thus, capacity output is simply split into primary and secondary production. From the perspective of an oil producer, the primary production sector comprised oil output $Oilq$ and non-oil output $Noilq$ so that the equation for total domestic national income making up the Gross Domestic production takes the form:

$$3.1\ GDP = Oilq + Noilq$$

Where GDP is capacity production.

Being a member of the Organization of petroleum exporting countries (OPEC) means that oil production in Nigeria would be controlled by the OPEC quota. Thus,

the fixed ***OPEC*** oil output is used for domestic production /consumption as domestic oil ***Doil*** and export ***Oilex*** for government revenue

$$3.2\ \mathrm{OILQ} = \mathrm{OPECq} = \mathrm{Oilex} + \mathrm{Doil}$$

Non-oil GDP ***Noilq*** comes from agriculture, mining, manufacturing, building and construction, whole sale/ retail services in accordance with national classification

$$3.3\ \mathrm{Noilq} = GDP_{A} + GDP_{MIN} + GDP_{MAN} + GDP_{BCNs} + GDP_{H\&RSRV}$$

The production sectors are assumed to employ a Cobb-Douglas production technology. In a typical Cobb-Douglas production function, the main input (labour and capital) should be reflected. Along with these, factors reflecting national characteristics and/or those which could influence the efficiency of the factors are considered for the purpose of the econometric exercise.

Oil Sector

This sector embraces oil and gas production. Production activity is capital-intensive, high-tech and import dependent. Thus, foreign capital in the sector should be an important driver of production in the oil and gas sector in Nigeria. Nevertheless a private capital term is added as one of the explanatory variables. In addition, violent conflict is used to reflect the persistent disruption in oil production by Niger-Delta militants over the years. Other factors are oil export and total export of goods and services and a variable for the spread of conflict in the country.

$$3.4.\ \mathrm{Oilq} = \mathrm{f}(\ \mathrm{conf}, \mathrm{oilex}, \mathrm{pi}, \mathrm{Tex},, \mathrm{fdi}, \mathrm{consprd}\ );\ f1 < 0, f2 > 0, f3 > 0, f4 > 0, f5 < 0, f6 < 0$$

Non-Oil Sector

The key components of the non-oil sectors are agriculture, manufacturing, building and construction, wholesale and retail services. Production function in the non-oil sector is as cast as a five-factor neoclassical function, augmented by a national efficiency parameter that accounts for the efficiency of other factors of production as specified in equation 3.5. Determinants of production are government consumption GC, the exchange $exer$ rate inflation $infl$, gross domestic product gdp, total export tex and a proxy for cost of production, the prime lending rate $prlr$

$$3.5.\ \mathrm{Noilq} = \mathrm{f}(\mathrm{exer}, \mathrm{infl}, \mathrm{gc}, \mathrm{gdp}, \mathrm{tex}, \mathrm{prlr}); \mathrm{f1} < 0, \mathrm{f2} < 0, \mathrm{f3} > 0, \mathrm{f4} > 0, \mathrm{f5} > 0, \mathrm{f6} < 0$$

In all, the supply side is represented in five equations, with five identities and two behavioral equations. The relative impact of behavior violent conflict on the supply side is captured by the violent conflict index broadly defined, which affect production directly or via the its influence on the specified factors when modeled in a channel accounting sense. Essentially, domestic violent conflict is expected to impact all sources of growth as well as via the restriction imposed on the application of world technology or total factor productivity.

AGGREGATE DEMAND

The specification of the demand side is based on the assumption that production of goods and services is endogenously determined by the demand for them.

Hence, while land based factors of production are fixed in the short run, both private and government capital are produced means of production that depend entirely on private and government capital expenditure. Human capital depends on research and educational development that are in turn determined by the level of expenditures on education. Labor supply is determined by the population size, its growth rate and [where there is perfect competition] the demand for the factor of production reflected by the wage structure.

However, the specification for the aggregate demand side measures total output [GDP] in terms of domestic absorption (DA), comprising private demand (private consumption (PC), private investment (PI)), government spending (GE) and net export ($NETEX$).

3.6. $\mathbf{GDP = DA + NETEX}$

3.7. $\mathbf{DA = PD + GE}$

3.8. $\mathbf{PD = PC + PI}$

PRIVATE DEMAND

Private consumption

Individuals have a finite horizon because of the constant probability of death per unit time, p, throughout their lifetime. This is equivalent to expressing the expectation of the variable, time-remaining-till-death, X as $(E/X) = \frac{1}{p}$, where the value of the parameter p is determined by factors, which either prolonged or shorten lifespan, such as conditions of public health, nutrition standards and social

and political conditions. The probability of death, p, thus represents a major source of individual uncertainty in the model. Violent behavior, such as violent conflict will affect consumption to the extent that it causes it to fall below the threshold level required for survival. A personal consumption function reflecting these is also expected to be sensitive to the growth of the economy or real disposable income Y_d, interest (lending) rates maxlr, government consumption gc, federal government capital expenditure fce , and the rate of price inflation cpi.

3.9. $PC = f(Y_d, maxlr, gc, fce, cpi); f1 > 0, f2 < 0, f3 < 0, f4 > 0, f5 < 0$

Private Investment Demand

Private investment comprised investment in oil and non-oil sectors. It is specified to be sensitive to government influences through government consumption gc which has the potential to crowd out private capital. In addition, private investment expenditure will be related to the output variability in the real sector gdp, interest rate $maxlr$, the exchange rate $exer$ and violent behavior $conf$.

3.10. $PI = f(maxlr, conf, exer, gc, gdp,); f1 < 0, f2 < 0, f3 < 0, f4 > 0, f5 > 0$

Government Consumption

The fiscal block is extracted from the Garba's [1998] model[66], and modified in order to reflect the sensitivity of the key government fiscal components to violent

[66] The broad framework of the Nigerian fiscal operation as reported in Garba, [1998] is presented below:

(i) FGE =FRR+ DB +EB
(ii) FRR= FCR- (a2FCR+a3FCR); a2+a3=1-a1
(iii) FCR=OR+NOR
(iv) FBD=FGE-FRR=DB+ED
(v) FGE= FCE+FRE

conflict. The modification is required in order to provide additional explanations to the behavioral pattern of the fiscal process in the country, reflecting in particular, the role of violent conflict in government expenditure.

Garba's model indicates that both estimated and actual federal expenditures, revenues and deficit financing are endogenous and sensitive to exogenous shocks. Second, indogenizing the key components of government's expenditure and revenues makes it possible to reflect the simultaneous character of the variables and their effects on the country's fiscal process. Accordingly, the impact of violent conflict on the revenue component is postulated to be both negative and positive: It is positive to the extent that it causes increased export revenue inflow especially via crude oil sale for government activities associated mainly with transnational violent conflict. On the other hand, a domestic threat, e.g. a terrorist event, affecting domestic production of goods and services would affect the export potential of the country especially non- oil export, with negative consequences of the export revenue. Furthermore, resources are shifted from economic and social sectors in to arming, during periods of violent conflict, in which case, the consequences is negative for the overall economy. Nevertheless, the consequences of domestic terrorism, which disrupts oil production, would be positive if it leads to shortages in global oil production that push up international

(vi) FRE=FPC+FOC+FCT
(vii) RE=FPC+FOC
(viii) FCT=DDC+EDC+EBE+ORT
(ix) FCE=CE+ECR+DCR

FGE=federal government expenditure; FRR=federal retained revenue; DB= internal borrowing; EB external borrowing; a1= share of federal government; a2= share of states; a3 share of local councils; OR =oil revenue; NOR= non-oil revenue.

oil prices and lead to a larger inflow of foreign exchange. Given all these, the fiscal block is represented by eight equations, five of which are identities and three are stochastic.

$$3.11.\ \mathrm{FGE} = \mathrm{FRR} + \mathrm{GDEBT}$$

$$3.12.\ \mathrm{FRR} = \mathrm{FCR} - \rho(\mathrm{FCR}_{S\&L})$$

$$3.13.\ \mathrm{FCR} = \mathrm{OR} + \mathrm{NOR}$$

$$3.14.\ \mathrm{BB} = \mathrm{FGE} - \mathrm{FRR}$$

$$3.15.\ \mathrm{FGE} = \mathrm{FCE} + \mathrm{FRE}$$

$$3.16.\ \mathrm{OR} = \mathrm{f}(\mathrm{noilq}, \mathrm{oilq}, \mathrm{oilex}, \mathrm{exer}, \mathrm{gdp}, \mathrm{wd},); \mathrm{fi} > 0, \mathrm{f2} > 0, \mathrm{f3} > 0, f4 > 0, f5 > 0, f6 > 0$$

3.17.

$$\mathrm{Noilrev} = \mathrm{f}(\mathrm{conf}, \mathrm{gdp}, \mathrm{noilex}, \mathrm{tex}, \mathrm{wd}, \mathrm{consprd},); \mathrm{f1} < 0, f2 > 0, f3 > 0, f4 > 0, f5 > 0, f6 < 0$$

Equation (3.11) is the federal budget constraint; equation (3.12) is the link between federally collected retained revenue, federally collected revenue and statutory allocation to states and local governments; equation (3.13) shows the composition or structure of federally collected revenue. Equation (3.14) shows the financing of the budget balance. Equation 3.15 shows the allocation of revenue between Federal Capital $\boldsymbol{FCR}$ and Federal Recurrent Expenditure $\boldsymbol{FRE}$. Equation 3.16 and 3.1 reflect the sensitivity of oil revenue and recurrent expenditure component to the conflict indices along with other correlates. Oil revenue is expected to be positively responsive to total oil production $\boldsymbol{oilq}$ and oil export $\boldsymbol{oilex}$, violent conflict $\boldsymbol{conf}$

should impact the revenue profile through its impact on domestic oil production as well as its export; the relationship of conflict as specified in equation 3.4 with domestic oil production is expected to be negative (albeit with respect to domestic conflicts) but should be positive with respect to external violent conflict that cause a surge in the international oil price.

Government recurrent expenditure is also endogenized, while capital expenditure could be treated as a policy variable. Variation in size and components of capital expenditure are important fiscal policy tools that complement private investment as well as determining deficits and financing options. Federal recurrent expenditure should rise with the level of insecurity in the country. Similarly, availability of alternative sources of revenue should boost federal recurrent expenditure.

The External Economic Sector

The external sector is represented by NETEX in equation 3.6. It is defined as the difference between export and import of goods and services. So it also defines the balance of payments. In Nigeria, export is disaggregated into export of oil ***Oilex*** and non oil export ***noilex***. Nonoil export includes export of other primary goods and manufactures. Oil exports accounts for a high proportion of Nigerian exports and its revenue. Revenue flow from this component has been found to innfluence Nigeria's domestic macroeconomic management (Ott,2003). Crude oil export is derived as a residual from total OPEC quota and the quantity meant for

domestic consumtion and waste[67]. So, oil export will be sensitive to domestic oil production, OPEC quota, global demand, incorporating the influence of transnational violent conflict on oil prices.

Some relevant aspects of the external sector, based on national classification are represented by the simplified trade block, cast in six equations, four of the equations are identities while two are stochastic.

$$3.18.\ TEX = oilex + noilex$$

$$3.19.\ Oilex = OPECq - Doil$$

$$3.20.\ Oilex = f(Oilq, gdp, wd, conf); f1 > 0, f2 > 0, f3 > 0, f4 > 0$$

$$3.21.\ TIM = CGim + OTHERim3$$

$$3.22.\ NETEX = TEX - TIM + RES$$

Equations [3.18] to [3.20) represent the country's exports block, while [3.21] defines the components of imports. Accordingly, equation [3.22] captures the balance of payments

External Reserves

Countries, particularly developing ones, use reserves as an insurance mechanism to hedge against adverse shocks emanating from the global financial system. Reserves also serve as a measure of a country's macroeconomic and financial

[67] This component is also affected by domestic import of refined petroleum and the amount of energy flared. Substantial amount of Nigeria's energy resources is flared during oil production.

strength. Given the country's export structure, foreign reserves in Nigeria will critically be determined by oil export, total export and foreign interest rate.

$$3.23.\ RES = f(netex, oilex, fir, noilex); f1 > 0, f2 > 0, f3 > 0, f4 > 0$$

The monetary sector

The standard approach of modeling money block adopts the supply approach. An advantage of the supply approach is that the components are measurable and consistent with the CBN accounting system.

$$3.25.\ M2 = NFA + NDC + OAN$$

$$3.26.\ NDC = CP + CG$$

The supply approach relies on the neo-classical identity of money supply as the sum of balance sheet of the banking system. The balance sheet consists of net foreign assets (NFA), net domestic credit (NDC) and other assets (net)(OAN). Other assets (net) are assumed to be a residual in the broad money supply (M2) identity, so, it is not explicitly modeled. One important determinant of the different components of money supply is money market interest rates. However, given the size of government in Nigeria and the consequent relevance of fiscal deficits in the determination of money supply, government deficit financing constititutes an important determinant of the money supply process in the country.

Net Foreign Assets

A net foreign asset (NFA) comprises the net foreign assets of the Central Bank of Nigeria (CBN) and those of deposit money banks (DMBs). Net foreign assets are driven by the stock of foreign reserves, net export and foreign interest rate.

$$3.27.\ NFA = f(res, netex, fir,); f1 > 0, f2 > 0, f3 > 0$$

Net Domestic Credit

Domestic credit is divided into credit to the private sector and credit to government. Among the determinants of credit to the private sector would be the total deposit liabilities of deposit money banks and the banks' lending rates. Furthermore, the dominance of the government sector in the credit market makes government consumption and domestic debt a critical determinant of domestic credit to the private sector.

$$3.28.\ CP = f(td, gc\ Maxlr, dd); f1 > 0, f2 < 0, f3 < 0, f4 < 0$$

Credit to Government sector

Credit to government comes primarily from the domestic banking sector. In Nigeria, public sector recourse to banking sector credit has a long history. However, outcomes from financing from either DMBs or the CBN differ significantly. The CBN is statutorily vested with the responsibility of funding government deficits. As such, it underwrites government issues and takes up the residual of private sector financing of public deficits. The size of CBN financing for any given year will therefore depend on the size of the deficit, total expenditure and the size of credit to government from other sources.

$$3.29.\ CG = f(gdebt, fcr, fge\ infl); f1 > 0, f2 < 0, f3 > 0, f4 > 0$$

Other Assets (Net)

The money supply function subset of the block is closed by introducing other assets net, derived as an accounting residual in the money supply accounting identity.

THE PRICE BLOCK

The price block comprises price indices (consumer and energy), exchange rate, interest rates, the stock price index and the international oil price to show how international oil price dynamics filter into Nigeria domestic macroeconomy.

Headline Consumer Price Index

Headline consumer price index captures the overall trend in prices of final demand products. Even though the National Bureau of Statistics splits the index into food (non-core) and non-food (core) CPI, the two consumer price indices are aggregated in the model. This is because most policy analyses are based on the overall index, rather than individual components of the index. Given Nigeria's high import dependency and the probable exchange rate pass-through, the exchange rate is considered an important variable in the determination of the headline consumer price index in the model. The contribution of Government to GDP is relatively high and so is the impact of its expenditure on consumer prices. Oil prices affect government expenditure as well as availability of foreign exchange

and domestic price level. Activities of trade unions in the oil industry especially refine oil marketers impact the direction of prices in the country. Though oil workers strike is often non violent, a proxy for oil workers strike is necessary in the price equation. Thus, headline CPI is specified as a function of exchange rate, the stock market index, money supply, domestic output and violent conflict.

$$3.30.\ CPI = f(exer, gdp\ m2, spindex, consprd); f1 > 0, f2 > 0, f3 > 0, f4 > 0, f5 > 0$$

Nominal Exchange Rate

Capital account liberalization makes the exchange rate an important determinant of domestic economic performance. Given that Nigeria's exchange rate policy has moved from fixed to a fairly liberalized regime, with occasional intervention by monetary authorities, the exchange rate will be affected by the money supply, net domestic credit, interest rate differential, shifts in domestic nominal variables such as and inflation.

$$3.31.\ exer = f(m2,\ (idr - fir), ndc, infl\ \ spindex); f1 > 0, f2 < 0, f3 > 0, f4 > 0, f5 > 0$$

Interest Rate

Theoretically and empirically, interest rates are affected by the factors determining the supply and demand for money. Thus, the relatively high cost of doing business, inflation rate, macroeconomic instability and other risk factors, would normally put pressure on banks to ensure that returns on loans and advances cover the net present value of funds as at the time of repayment. Consequently,

the margin between the policy rate or the savings rate and the lending rate is often very high. Monetary authorities usually raise policy rates in order to reduce excess liquidity and thereby curb inflation. Thus, domestic interest rates is specified as a function of inflation (INF), lending rates, government debt, the gross domestic product and a monetary policy variable (M_2)

$$3.32.\ idr = f(infl, gdebt, m2, gdp, maxlr); f1 > 0, f2 > 0, f3 < 0, f4 > 0, f5 > 0$$

Capital Market

Prices of individual stocks reflect investors' hopes and fears about the future. Stock price movements can generate a tidal wave of activity and tend to reflect overall economic behavior. It is therefore an informative measure of the economic responses to sudden disastrous occurrences because they reflect expected future gains of companies as well as the likelihood that these expected gains would materialize. Under conditions of perfect information, investors often would flee the market in search of safer financial instruments and panic could ensure. This initial panic has the potential to turn into chaos and a long-term bear market, or it can be reversed if investors' hopes return.

The all share index captures capacity for investment in the capital market. It is affected by the availability of investment options and the returns accruable from those options. Thus, the all share index is proposed to depend on domestic interest rates idr, interest rate differential ($idr - fir$), domestic violent conflict and gross domestic product.

$$3.33.\ SMINDX = f(m2, (idr - fir), gdp, consprd); f1 > 0, f2 > 0, f3 > 0, f4 < 0$$

International Oil price

The international oil price is postulated to be sensitive to world oil production, world oil demand and violent conflict

$$3.34\ Oilp = f(WD, Conf, \quad oilqw); f1 > 0 f2 > 0, f3 < 0$$

The Linkages

The three main blocks – production, aggregate demand and the monetary blocks answer some key issues raise in the model:

- The response of macroeconomic variables to oil price shocks and its correlates.
- The effect of fiscal shocks on macroeconomic variables
- The response of the economy to domestic violent conflict
- The relationship between the monetary variables, credit and the real sector of the economy.
- The overall sensitive of the Nigerian economy to global violent conflict

Government block is linked to the monetary block through the financing options of government spending. Also the government block is linked to the price block through the impact of government expenditure on the headline CPI, the exchange rate and the stock price index. In the same vein, government expenditure is linked

to key components of the demand blocks through the influence of government capital expenditure on investment across sectors.

The relationship between the monetary and external blocks can be explained by the influence of net exports on net foreign assets. Net foreign assets affect external reserves. The monetary block affects real variables through its impact on price block. Thus, there is a bi-directional relationship between the monetary and the price blocks. For example, money supply affects the exchange rate, which in turn influences interest rates that in turn affect investment and growth. A bi-directional relationship exists between the monetary and production blocks through the effect of domestic credit on private investment that is a factor in oil production.

External block is linked to demand block through the influence of foreign exchange inflows on government revenue and expenditure. In sum, the specification of the price block is connected with the supply, demand, external, government and monetary blocks. Shocks to the monetary block affect the supply and demand blocks through the price block. Also, shocks arising from the supply and demand blocks influence the price variables indirectly through monetary variables. Other important exogenous variables that determine the relationships among the five blocks in the model are foreign interest rate, oil price and violent conflict.

3.4 DATA AND ESTIMATION TECHNIQUE

3.4.1 Data Requirements and Sources: The economic data is obtained from a combination of sources: the National Bureau of Statistics (NBS), the Central Bank of Nigeria (CBN) and the Penn World Table[68].

The proxy for violent conflict used in the analysis comprised different typologies of violent behavior. In other words, no distinction was made between terrorism, civil wars, guerrilla warfare or even political assassination of prominent persons so long as the acts were carried out violently. Nevertheless, separate data set for the various categories of violent acts was recognized. For transnational terrorism, data was obtained from: *International Terrorism: Attributes of Terrorist Events* (ITERATE) (Mickolus et al. 2004). ITERATE records the incident date, type of event, casualties (i.e., deaths or injuries), host country, the terrorist group, and other variables. ITERATE however, does not classify incidents as transnational terrorism that relate to declared wars or major military interventions by governments, or guerrilla attacks on military targets conducted as internationally recognized acts of belligerency. But it classifies as terrorist acts guerrilla attacks against civilians or the dependents of military personnel when such attacks are intended to create an atmosphere of fear to foster political objectives. ITERATE derives from a chronology of terrorist events that are based on publicly available materials appearing in the world press. Key sources include the Associated Press, Reuters tickers, the Washington Post, New York Times, the Foreign Broadcast Information

---

[68]**PWT 7.0 Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 7.0, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, May 2011.**

Service (FBIS) Daily Reports, and ABC, NBC, and CBS evening news. Until 1996, ITERATE heavily relied on the regional FBIS Daily Reports, which drew from hundreds of the world's print and electronic media sources. ITERATE also draws incidents from annual Patterns of Global Terrorism reports, published by the U.S. Department of State.

Clearly, like any other event based data set, ITERATE poses a number of shortcomings, which are raised in Rosendorff and Sandler (2004) to include a seeming bias towards chronicling the actions of terrorists (e.g., number of terrorists in a hit squad or terrorists' actions during negotiations) *defined by the state*[69] than in recording those of the authorities. In essence, the data base does not record state sponsored terrorism or military coups, or guerrilla warfare. Nevertheless, it remains one of the most reliable sources of information on transnational terrorism at the moment, being also the most frequently used in analysis of transnational terrorism.

The deficiencies of ITERATE data set appears to be corrected by the Global Terrorism Database (GTD) (http://www.start.umd.edu/gtd/about/), which records different type of terrorist events and other forms of violent conflicts across the globe as well, making the data set more comprehensive and, therefore, a suitable proxy for global violent conflict data used in the research. This is because it quotes events that are also commonly recognized by the Nigerian press. so it was easy to correct the data based with omitted important incidences that took place

[69] Emphasis mine

in the country but are not found on the GTD records. Also an event based dataset, the GTD records the dates, city where the event took place, perpetrators, fatalities, injured type, attack type (armed assault, assassination, bombing explosions, facility infrastructure, hijackings, hostage taking(barricade), hostage taking (kidnapping) unarmed assault and even the unknown as shown in box 3. A total of 87,710 violent events are recorded between 1970 and 2008 globally in the dataset, 271 of which occurred in Nigeria.

One major drawback of this data set however, is the non separation of domestic violent conflicts or terrorism from transnational terrorist events, which is important given that the two typologies of conflict basically respond to different sets of motivation and so may not produce similar consequences on the economy. Such a distinction moreover is also necessary in order to trace out possible links among the various typologies. Following Enders et al 2010, attempt was made to sieve out transnational terrorism for Nigeria from the GTD base for use in the study based on the definition of transnational terrorism offered in ITERATE. That way, it was possible to have distinct series for the various categories of events in each of the typologies. It was also on the basis of such distinction that the conflict spread variable was constructed for Nigeria, based on observed spread of violent conflicts across the entire country, which means that within the sample period, there was no any safe place in the country, even though the country technically not in any major civil war. Thus, following Kosuke et al (2002), a 0 to 6 dummy variable was constructed to reflect the spread of the violent conflict

in Nigeria, with a maximum score of six quoted for a year if at least one type of violence act took place in all the six geopolitical zones of the country and 1 if only one type took place in all geo-political zone. A score of zero is assigned for a year if none is recorded in any zone.

3.4.2 Estimation Techniques

In estimating the model, all the variables, except the interest rates were log-transformed. OLS estimation was adopted, based on the robustness of its estimates. Annual data was used and the time series properties of the variables were examined. The Augmented Dickey Fuller tests were applied for the stationary test. Accordingly, the order integration of the variables was determined as reported in the appendix 1. As is indicated, the variables were non stationary at level but became stationary after the first difference. Hence, a two-step pedroni (Eagle–Granger) procedure was used to establish the long run co-integration relations among the variables. First, the equations were estimated and unit root test was conducted on the residuals, as reported in appendix 3. As revealed, the residuals appeared to be stationary at levels, which indicated possible long run relationship among the variables in the equations. Consequently an error correction term was added to the equations to track the short run dynamics of the model, with the coefficient of ECM term representing the speed of adjustment or the period required for the long rung equilibrium values of the system to be attained. Different specifications of the equations were experimented and only those found

with the most robust statistics are reported. The model was then solved as a block for the equilibrium values of the endogenous variables.

CHAPTER FOUR

4.1 EMPIRICAL EVIDENCES AND ANALYSIS OF RESULTS

All the stochastic equations were estimated, using the ordinary least squares method in E-views software version 7.1. Annual data was used and the time series properties of the variables were examined. The Augmented Dickey Fuller tests were applied for the stationary test (not shown) and for possible long run integration relationship among the variables. Accordingly, the order integration of the variables was determined as shown below (Appendix 1).

Appendix 1: Unit Root Test

Variable	ADF Stat	P.Value	Order of Integration
gdp	-7.67	0.0000	I(1)
fcr	-6.17	0.0000	I(1)
frr	-8.05	0.0000	I(1)
lrd-fir	-6.56	0.0000	I(1)
fre	-7.60	0.0000	I(1)
netex	-7.08	0.0000	I(1)
rer	-6.93	0.0000	I(1)
td	-4.27	0.0017	I(1)
m2	-4.38	0.0012	I(1)
cg	-5.48	0.0001	I(1)
fge	-7.71	0.0000	I(1)
oilp	-6.45	0.0000	I(1)
fres	-6.60	0.0000	I(1)
lrd	-7.46	0.0000	I(1)
oilqw	-7.50	0.0000	I(2)
Pi	-4.99	0.0002	I(1)
Tex	-6.74	0.0000	I(1)
Noilex	-6.35	0.0000	I(1)
Oilq	-6.46	0.0000	I(1)
Gdp	-5.31	0.0001	I(1)
Prlr	-9.68	0.0000	I(1)
Exer	-5.85	0.0000	I(1)
Infl	-5.39	0.0001	I(1)
Cpi	-6.76	0.0000	I(2)
Maxlr	-7.08	0.0000	I(1)
Cp	-4.69	0.0005	I(1)
Oilex	-6.79	0.0000	I(1)
Wd	-7.27	0.0000	I(2)
Conf	-8.32	0.0000	I(1)
Oilrev	-6.33	0.0000	I(1)
Consprd	-10.99	0.0000	I(1)
Fres	-6.608	0.0000	I(1)
Noilex	-6.35	0.0000	I(1)
gdpDef_oil	-10.15	0.0000	I(1)
Nfa	-6.11	0.0000	I(1)
fir	4.91	0.0003	I(1)
pc	-6.74	0.0000	I(1)
cg	-7.36	0.0000	I(1)

As is indicated, all the variables were non stationary at level but most became stationary after the first difference. Consequently, a two-step pedroni (Eagle–Granger) procedure was used to establish the long run co-integration relations among the variables. First, the equations were estimated and unit root test was conducted on the residuals, as reported below (appendix 2).

Appendix 2. GADF Test for long run Co-integration relationship among the variables in the equations

Function	ADF t-statistic	p-value
oilq	-5.99	0.0000
noilq	-6.46	0.0000
pc	-6.49	0.0000
pi	-4.312	0.0000
oilrev	-5.24	0.0000
noilrev	-6.029	0.0000
fre	-5.04	0.0002
oilex	-5.59	0.0000
fres	-5.92	0.0000
nfa	-5.48	0.0000
cg	-5.80	0.0000
cp	-3.88	0.0005
cpi	-6.71	0.0001
exer	-5.71	0.0000
ird	-5.70	0.0000
spindex	-4.496	0.0000
oilp	-6.34	0.00000

As revealed, the residuals appeared to be stationary at levels, indicating the possible for a long run relationship among the variables in the equations. Consequently an error correction term was added to the equations to track the short run dynamics of the model, with the coefficient of ECM term representing the speed of adjustment or the period required for the long rung equilibrium values of the system to be attained. Different specifications of the equations were

experimented and only results found with the most robust statistics are reported. The model was then solved as a block for the equilibrium values of the endogenous variables.

4.1 The Estimation Results

Empirical results (Appendix 3a and 3b) show generally that most of the relevant variables have the expected theoretical signs with robust statistics (t-ratios in parenthesis).

Appendix 3a: Estimated results of the parsimonious equations

Explanatory variables	Eq.1 (loilq)	Eq. 2 (lnoilq)	Eq.3 (lpc)	Eq.4 (lpi)	Eq.5 (loilrev)	Eq.6 (lnoilrev)	Eq,7 (lfre)	Eq.8 (loilex)
constant	1.28 (7.5)	-0.49(-2.1)	15.2(1.8)	7.7(1.1)	-3.1(-0.7)	29.6(0.3)	-0.3(-0.5)	1.1(1.6)
lgdp			0.2(0.8)	0.3(1.2)	1.3(1.8)	-1.2(0.4)	0.7(8.4)	0.1(2.2)
lgc			0.06(0.4)	0.06(0.5)				
lfce			-0.1(-1.2)					
loilp								0.9(18.8)
lgdebt							0.09 (1.9)	
lpi	0.3(2.9)							
ltex	-5.7(-2.7)	-0.2(-4.9)				0.9 (0.9)		
lnolq					-0.8(1.6)			
Lnolq(-1)					0.07(0.7)			
lfdi	-0.05(-1.4)							
prlr		-0.06(-2.08)						
lexer		0.01(0.9)		0.08(0.8)	-0.1(-1.6)			
infl		-0.001(-1.0)						
lcpi			0.4(1.5)					
maxlr			-0.0(-1.8)	-0.01(-1.17)				
loilex	6.5(3.1)				0.5(2.9)			
lwd					0.1(0.3)	-1.2(-0.2)		0.1(1.8)
lconf	-0.05(-3.0)			-0.02(-2.2)		0.3(0.7)	-0.08(-1.9	-0.0(-0.3)
loilrev							0.5(0.5)	
lconsprd	-0.05(-0.10)					-0.2(-0.6)	0.09(0.6)	
lnoilex						0.3(0.6)		
lcg		0.01(0.04)						
Ecm (-1)	-0.017(-0.1)	-0.3 (-1.1)	0.08(0.6)	-0.2(-2.7)	0.09(0.7)	-0.1(-0.2)	0.3(1.4)	-0.02(-0.1)
AR(1)	-0.8(-3.5)	-0.3(-1.3)	0.9(41.3)	0.9(32.3)	0.6(3.6)	0.7(1.8)		
r2	0.99	0.99	0.99	0.99	0.78	0.92	0.99	0.99
r-adj	0.99	0.99	0.99	0.98	0.76	0.77	0.99	0.99
dw	2.07	2.3	2.2	1.8	1.9	1.9	2.4	2.2
s.e	0.07	0.05	0.2	0.2	0.2	0.3	0.10	0.1
prob(f-stat)	0.000	0.000	0.000	0.000	0.000	0.04	0.000	0.000

Appendix 3b: Estimated results of the parsimonious equations (contd)

Variable	Eq.9 (lfres)	Eq,10 (lnfa)	Eq.11 (lgc)	Eq.12 (lcp)	Eq.13 (lcpi)	Eq.14 (lexer)	Eq.15 (lrd)	Eq.16 (Lspindex)	Eq,17 (loilp)
Constant	-0.8(-02)	0.3(1.0)	1.2(2.0)	-0.9(-3.5)	-3.1(-11.7)	11.5(0.4)	9.1(1.5)	-11.2(-8.1)	0.07(-0.2)
lgdp					0.03(0.9)		-2.0(-0.7)	1.9(10.0)	
lfcr			0.9(2.4)						
lfrr			-0.4(-1.7)						
ird-fir						0.01(1.0)		-0.08(-2.9)	
lnetex	0.1(0.3)	0.2(2.3)							
ltd				0.79(8.5)					
lm2					0.2(7.8)	-0.3(-0.7)	-0.2(-0.09)	-0.2(-1.8)	
Lgc				0.016(0.08)					
lfge			0.2(0.8)		0.04(0.7)				
Loilp[-1]									0.4(3.3)
lfres		0.7(9.2)							
lrd								0.1(3.9)	
loilqw									-0.7(-0.3)
lOilq									-0.1(-2.5)
lExer					0.5(7.1)			-1.5(-3.07)	
lspindex					0.07(3.8)	0.1(1.1)			
lnfl			0.002(0.5)				-0.09(-1.3)		
Maxlr				-0.006(-1.2)			0.9(3.3)		
lOilex	0.9(0.9)								
lWd									0.5(0.4)
ldd				0.2(2.3)					
lConf									0.04(0.4)
lgdebt			0.030.4)				1.7(1.4)		
lConsprd					-0.06(-2.7)			-0.1(-1.1)	
lndc						0.04(0.3)			
lNoilex	-0.03(-0.04)								
lNfa						0.1(1.4)			
fir	-0.05(-0.4)	0.01(0.05)							
Ecm (-1)	-0.12(-0.5)	-0.01(-0.0)	0.19(1.2)	0.05(0.2)	0.09(1.1)	-0.4(-2.6)	-0.04(-0.1)	-0.6(-3.9)	-0.1(-0.7)
AR(1)	0.6(2.5)	-0.0(-0.12)	0.5(3.3)	0.6(3.1)	-0.1(-3.5)	0.98(26.94)	-0.2(-0.7)	-0.8(-3.7)	
r2	0.95	0.98	0.98	0.99	0.99	0.98	0.63	0.98	0.98
r-adj	0.93	0.98	0.98	0.99	0.99	0.98	0.50	0.95	0.98
dw	2.2	1.8	2.0	2.1	3.8	2.0	2.3	3.1	2.1
s.e	0.77	0.36	0.3	0.1	0.01	0.2	3.8	0.1	0.3
Prob(f-stat)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Except for the domestic interest equation, the adjusted R^2 generally in the range of .76 and .99. implies the functions explain 76 percent of the linear behavior of

the dependent variables in the lower case and 99 percent in the upper case. In addition, the DW statistic does not show evidence of serial correlation among the variables' errors in most of the equations. Though the statistical evidences are not significant on some variables, they nevertheless produced the expected signs.

The determinants of domestic production (oil and nonoil), making up the GDP include economic, social and political variables. Result of the measure of violent behavior performed well in the models with statistical properties that are consistent with the expectations. Generally, the role of violent conflict on the supply side is negative and the coefficient of conflicts spread, though not significant, still has the expected sign. It however showed that where violent behavior is persistent and/or nationally spread, production of goods and services would be affected negatively.

Generally, the econometric evidence in appendix 3 supports the following propositions:

(i) Oil production responds negatively to violent conflict at home. In line with the work of Gupta (1986), Alesina and Pertti (1996), Barro (1991) and Abadie and Gardeazabal (2008), it is possible to detect the quantitative impact of violent conflict from the product of the variables' coefficients and their standard deviations. Thus, with a standard deviation of 2.96 for oil production, and a negative coefficient of 0.05 for the violent conflict variable in the oil output equation (oilq), a rise in conflict by one standard deviation would induce a fall of 0.148 (-0.05x2.96)

percentage points or a 14.8 percent drop in domestic oil production, but the fall is less 1.4 (0.005 x2.96) with respect to the conflict spread variable. This reflects the effects of transnational terrorist activities in the oil producing region of the country (bombing of oil installations, kidnapping of foreign oil workers, e.t.c), which serve as a disincentive to oil production in the country.

(ii) Similarly, there is a 0.51 (0.02x2.55) percentage or 5.1 per cent drop in private investment with a one standard deviation increase in violent conflict. GDP, the exchange rate, government consumption and lending rates have the expected signs in the private investment function, with some of them, e.g. lending rate also significant at the 5 per cent level.

(iii) Private consumption respond positively to government consumption, the price level and GDP

(iv) Oil revenue responds to oil export positively. Preliminary evidence on conflict spread did not produce any impressive results on the oil revenue, largely because oil revenue comes from oil export, which is influenced mainly by external conflicts. Nonetheless, non oil revenue is negatively affected when violent conflict spreads across the entire country as it restricts economic activities and the efficiency of revenue collection.

(v) Federal recurrent government spending responds positively to its revenue sources and the growth of the economy. It appears also that violent conflict contributes positively to this outcome especially when it spreads

to different locations in the country. A one standard deviation increase in the spread of violence in the country suggests that government recurrent expenditure will increase by 0.229 (.09 x2.55) percentage or 22.9 per cent. The evidence is obvious from the perspective of insecurity and security expenditure. As violent behavior spreads in all parts of the country, as the experiences have shown over the years in Nigeria, it becomes likely that to combat those hostilities will require increased defense expenditure.

(vi) The impact of violent behavior on foreign reserves is indicated by its role in the oil export sector, which is arguably positive. Thus, a boost in external reserves would have a corresponding influence on domestic monetary aggregates through the net foreign assets component of the broad money equation.

(vii) The price blocks respond favorable to the chosen determinants. Consumer price index rises with a rise in spread of violent behavior in the country; stock market response to violent behavior is negative as investors become more risk averse. International oil price increases with global cuts in oil production, violent conflict and world demand.

4.2. The Baseline Simulation Analysis

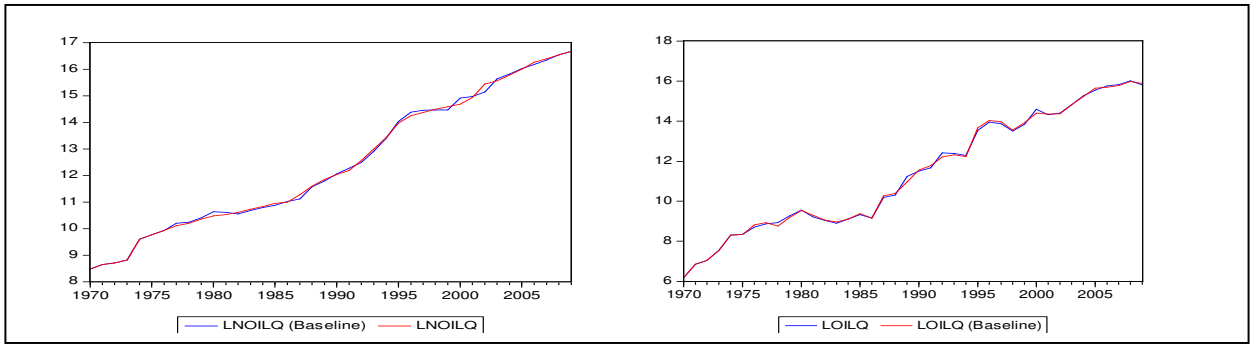
4.2.1 Baseline Simulation

We test the significance of our model by examining its equilibrium characteristics and predictive power of the various blocks of the model. First, the model is solved a block. And as indicated below, the model has some reasonable tracking powers with respect to the specified endogenous.

Within-sample simulations show that the simulated values of endogenous variables reasonable tract actual values of the variables with exception of the federal recurrent expenditure function, reproduces the trend but could not replicate the contours.

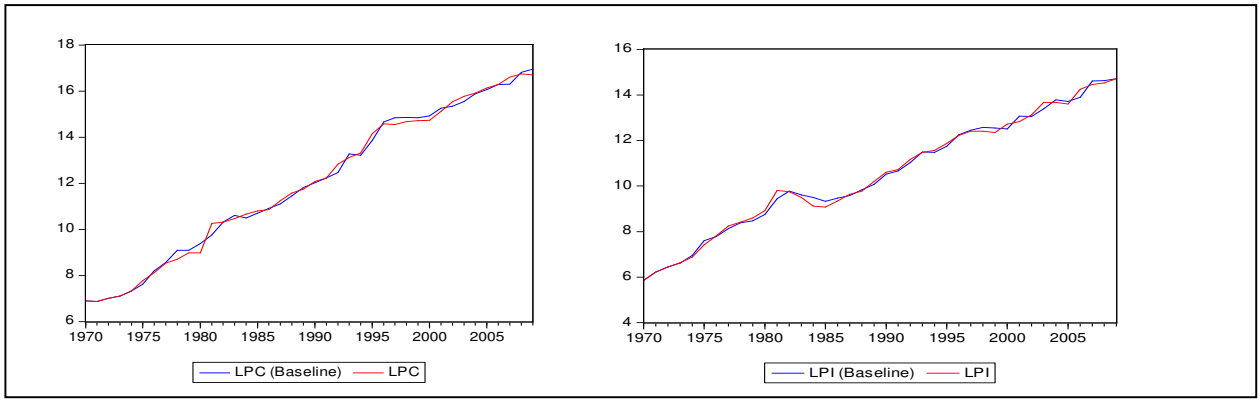
Appendix 4: Performance of endogenous variables in the Baseline Simulation

SUPPLY BLOCK

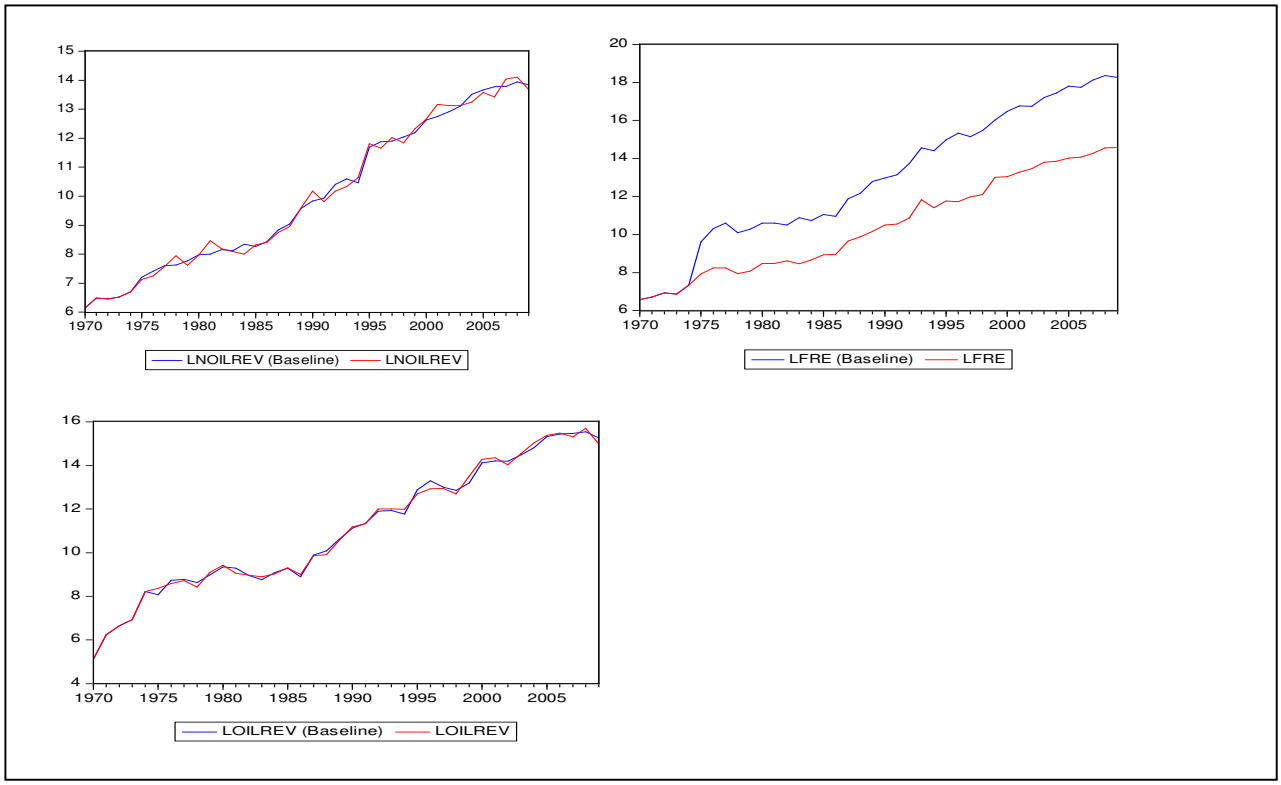


Private Demand

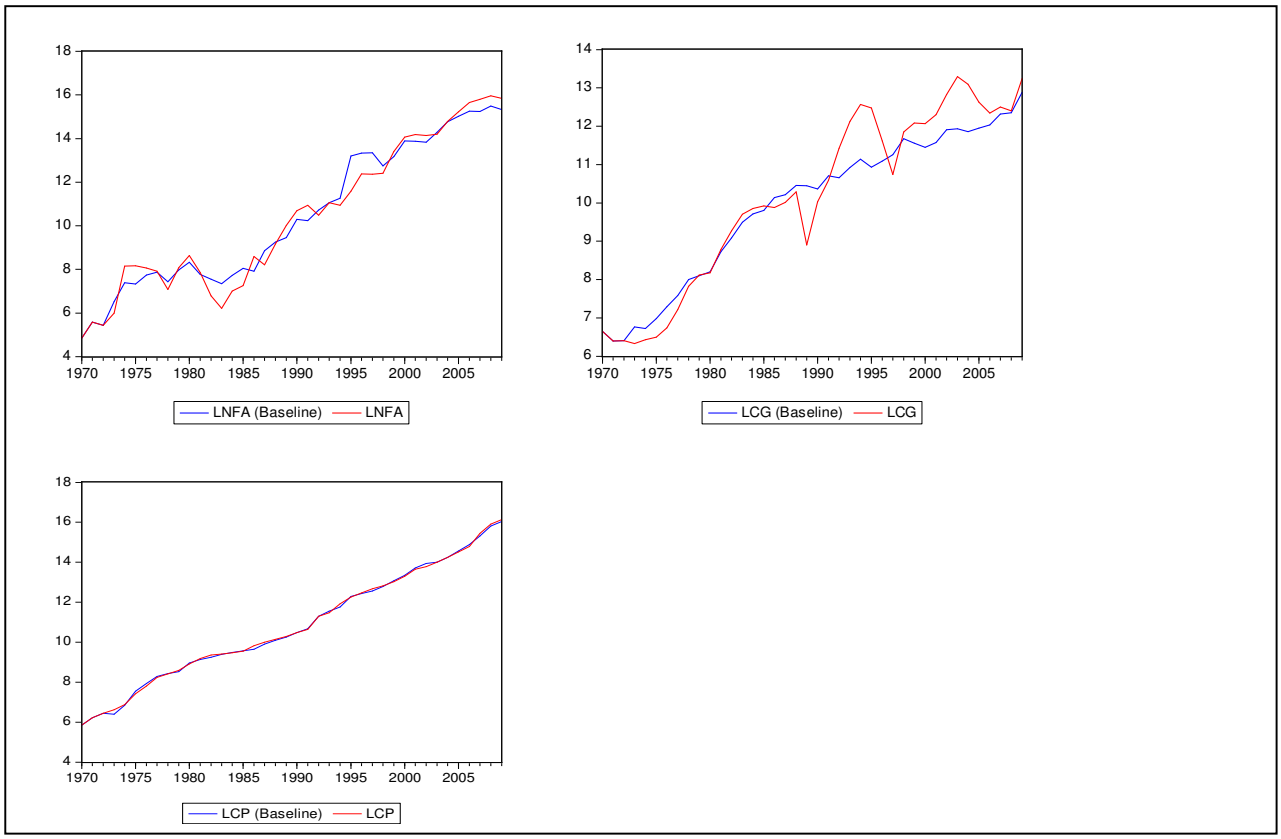
Private Demand



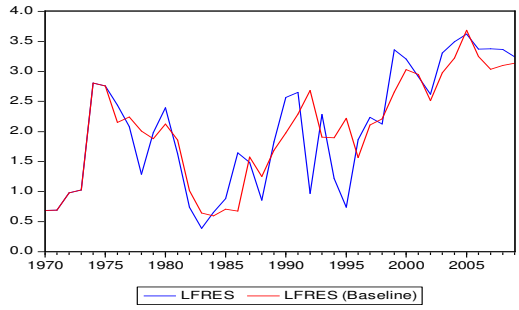
Government

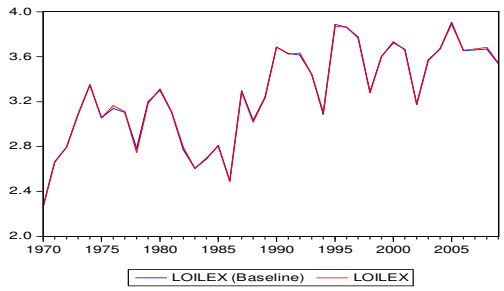


Money Block

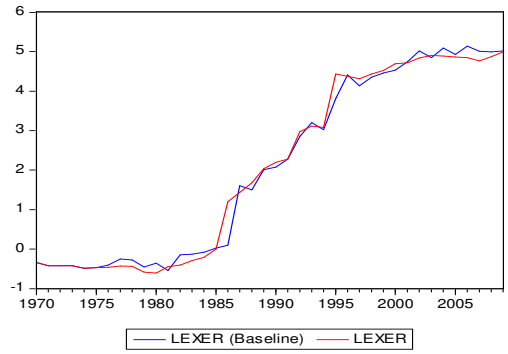


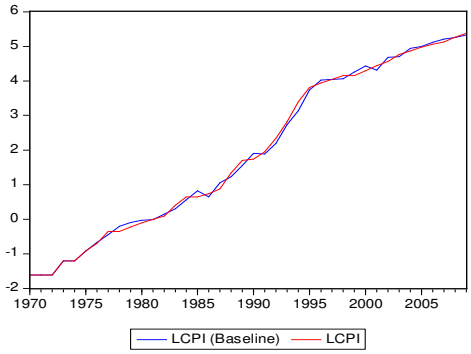
External Sector

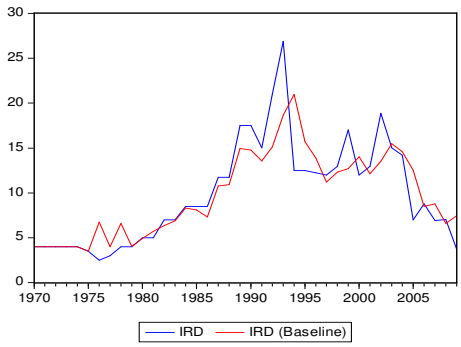


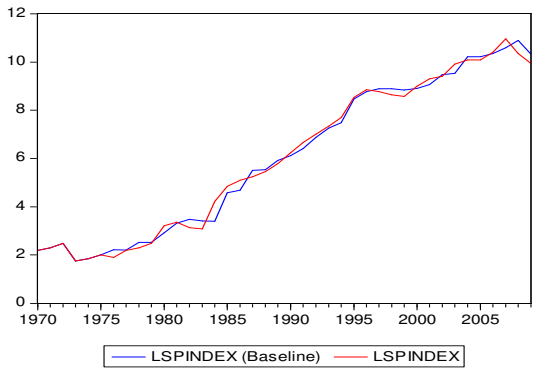


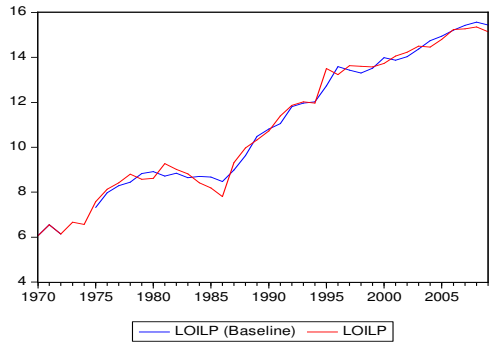
Prices











The relatively low theil inequality index (appendix 5) lends credence to the claims, suggesting that the model could be used for the prediction of futures course of our endogenous variables.

Appendix 5. Root mean square percentage Error (RMSPE) and Theil Statistics for the In-sample Forecast

Equation/ Variable	RMSPE	Theil Inequality Coefficient (U)
SUPPLY		
oilq	7.399	0.113
noilq	79.978	0.052
Private Demand		
pc	3.238	0.058
pi	14.437	0.055
Government Consumption		
oilrev	21.774	0.065
noilrev	17.167	0.456
fre	0.790	0.081
External Sector		
oilex	3.238	0.065
fres	14.437	0.056
Money Block		
nfa	5.433	0.065
cg	7.399	0.456
cp	79.978	0.081
PRICES		
cpi	13.187	0.052
exer	65.654	0.261
ird	11.317	0.007
spindex	14.895	0.102

Given the baseline test results, we tested the behavior of the variables in the model when exposed to some shocks. This is done under three scenarios. The results are presented in appendix 6:

(1) Global violent conflict grows by 18 per cent[70].

(2) There is 25 per cent rise in the spread of violent moments in the country[71]

[70] Obtained from 2002 and 2003 data, where global terrorist events rose from 998 to 1181.

(3) Violent conflict and conflict spreads rose jointly by 41 per cent[72].

Appendix 6: Simulation result for the endogenous variables

	Base line scenario	1. Violent conflict increases by 18 %		2. spread of violent conflict increases by 25%		Conf+spread increases by 41%	
Function (Endogenous variables)		Outcome	Changes	Outcome	Changes	Outcome	Changes
Oil output	2.094	1.602	-0.492	1.294	-0.8	1.134	-0.96
Non-oil Output	0.625	-1.956	-2.581	-1.411	-2.036	-1.963	-2.588
Private consumption	3.128	16.76	13.632	1.121	-2.007	4.893	1.765
Private Investment	5.41	3.335	-2.075	4.403	-1.007	4.634	-0.776
Oil revenue	3.12	14.602	11.482	3.031	-0.909	-0.625	-3.745
Non-oil revenue	5.82	-1.956	-7.776	4.911	-0.909	2.129	-3.691
Federal recurrent expenditure	1.2	16.76	15.56	1.43	0.23	9.46	8.26
Oil export	1.61	7.476	5.866	-1.015	-2.625	3.458	1.848
Foreign reserves	2.321	9.811	7.49	3.634	1.313	9.812	7.491
Net foreign assets	-1.31	0.415	1.725	4.321	5.631	1.293	2.603
Credit to government	5.37	-1.012	-6.382	5.512	0.142	0.614	-4.756
Credit to private sector	9.32	3.673	-5.647	8.109	-1.211	3.669	-5.651
Consumer price index	6.11	6.396	0.286	8.341	2.231	6.134	0.024
Nominal exchange rate	3.98	2.990	-0.981	1.595	-2.385	2.406	-1.574
Domestic interest rate	6.876	5.82	-1.056	2.625	-4.251	7.998	1.122
Stock Price Index	6.21	7.1	0.89	3.129	-3.081	5.396	0.814
Oil price	7.82	9.14	1.32	6.905	-0.915	8.711	0.891

[71] Data is for 1996 1997, when spread of violent behavior rose by 25 %
[72] Data is for 2008 and 2009

Scenario 01–global violent conflict increases by 18 per cent.

In scenario 1, an increase of 18 per cent in the conflict index is assumed to take place, which is equal to the change in global conflict count between 2002 and 2003. Following this, the model suggests that oil output declined by 0.49 percentage point following a 1.06 percentage declined in private sector investment. Oil export declines by 1.0 percentage while export revenue rose by 3.03 percentage point. The rise in oil export revenue is attributable to in 6.9 percentage points rise in oil price as induced by oil production shortages. Consequently, as foreign reserves increased by 3.6 percentage points, foreign assets (net) of the banking system also rose by 4.3 percentage points. The effect of a rise in net foreign assets is positive on money supply and inflation. The 1.5 percentage point depreciation of the nominal exchange rate reflects the impact of growth in monetary aggregates following the boost in foreign assets of the central bank.

Scenario 02 increase in the spread of violent conflict by 25 percent.

The consequence on domestic production is, as expected, negative for both oil and nonoil output. Furthermore, oil export declined by 2.6 percentage point. Federal government recurrent expenditure rose by 0.23 percentage point understandably, to increased protection of lives and properties. The consequences of a 25 per cent rise in the conflict spread in scenario 2 is negative for most prices such as domestic interest rates and the stock market index.

Scenario 03: increase in global violent conflict and the spread of violent behavior of 41 per cent.

As is shown, the consequences are mixed. Domestic production fell, oil revenue declined, federal government's recurrent expenditure rose by 8.3 percentage point. Both private and government credit fall. The increase in both oil export and revenue under the scenario could be attributable to the surge in oil prices associated with the global conflict index which had offsetting effects on the negative consequences on domestic oil production.

4.3. Summary of Findings

The test result generally supports the proposition that violent conflict has significant implications on Nigeria. Domestic conflict causes increased government expenditure through increased security spending. Given resource constraints, this translates into reduced spending on social and economic services. Both oil and non- production is impacted upon by violent conflict and the effects increases when the event spreads across the country. Indeed, the spread of violent conflict impact domestic revenue function negatively through the disruptions to economic transactions that in turn impacts on revenue administration. For a global threat, the effects are found to mixed: transnational terrorism influences domestic violent conflict and so reinforces the negative consequences of domestic conflicts. And by influencing international oil production, transnational terrorism contributes to volatility in international oil price that in turn influences inflow of foreign exchange for oil exporters. Thus, transnational terrorism would appear to produce

positive outcomes for Nigeria, at least via the revenue channel. Nonetheless, since transnational violent conflict is obviously exogenous to Nigeria, the net effect depends on the utilization of the conflict-induced revenue windfall. That way it would be possible to heighten the cost of domestic violent behavior.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS.

5.1 Summary

The study analyzed the macroeconomic impact of conflict in Nigeria between 1970 and 2009. In the study, conflict was conceptualized as a linear combination of internal, external, regional and transnational conflicts as reported in three data bases used for the study, namely *International Terrorism: Attributes of Terrorist Events* (ITERATE) (Mickolus et al. 2004); the Global Terrorism Database (GTD) (http://www.start.umd.edu/gtd/about/) and reports from Nigerian daily news papers. Part of the research motivation was the observed concentration of conflict research on motivation for violent conflict without much emphasis on their specific economic impact. Indeed, studies, analyzing the economic effects of conflicts in the country, are the scarcest in the conflict literature, hence the need to fill in the gaps. The period chosen for the analysis, 1970-2009, coincides with what might be termed a period of intensive global social and political crises both in the country and globally. In Nigeria, episodes of violent conflicts increased significantly during the period, while political terrorism equally become a popular technique in conflict worldwide. As it were, the utilization of terrorism in conflict obviously complicates the phenomenon, given its uniqueness: the careful choice of terrorist targets (mostly innocent people and in a way that will produce the greatest impact and, in particular, the proclivity for some terrorists (e.g. religious based terrorists) to die for their cause, which make the phenomenon difficult to control. In Hoffman

(1997), the change in the motivation for terrorism from the anti colonial fights and the fight against inequality and injustice that was dominant in the 1960s and the 1970s into motivations, which are based on the desire to build the world on fundamentalist principles, makes modern terrorism particularly dangerous for mankind. In Sandler and Enders, [2002], the effects of transnational terrorism cannot be confined to a single place; they effect changes on trade, revenue flow and tourism. These influences are specifically seen to be motivated by the globalization of societies and markets, which has made it impossible for any society to be impervious to global turbulence.

The second chapter opened with clarification of some of the basic concepts used in the study; it discussed terrorism and civil wars viewing them as rational choices that based on cost and benefits. An analytical framework for violent conflict is presented in this presented based on insight from the work of Landes (1978). The framework for analyzing the economic consequences of conflicts in Nigeria began with a static Keynesian based H-D growth model, which opened up discussion on the economic consequences of violent conflict on economic growth. Essentially, the channel accounting model is considered to be suitable for analyzing the economic consequence of violent conflict because (i) it provides an important platform for decompartmentalizing the economic growth process according to the contributions of the various sources and (ii) makes possible also the analysis of the various relations among the various sources of economic growth and their determinants. That way, it makes possible the identification of the explicit contribution of violent

conflict on the supply side of the economy. The demand side is captured by a basic Mundel-Fleming extension of the Keynesian macroeconomics, showing explicitly the likely impact of external resource inflows on domestic economic performance.

In the last part of the chapter, some relevance empirical result on economic effects of violent conflict is presented as well as description of the nature global some external violent conflict, with emphasis on their possible links and economic consequences. Specifically, the Arab–Israeli wars and the cold war conflicts appeared distinct. As it were, the Arab-Israeli wars and the cold war conflicts had similar characteristics, namely that both had some relationship with prior super power support; had a tendency to affect oil production that accordingly influenced oil price volatility and to a large extent, also causal to the change in the motivation for violent terrorism worldwide by the emphasis on mass impact. The chapter is closed with description of nature of violent conflict in Africa and Nigeria is summarized. In the discussion, it is observed that conflict engagements in Africa and Nigeria are derived from three broad forces, namely colonial influence, super power competition (the cold war) – factors which combined to cause bad politics and administration that block economic opportunities. Indeed, the disintegration of the Soviet Union in 1998, expanded the frontiers of violent conflicts, and increased the tempo of terrorism across the globe. Nevertheless, intrastate violence is more prevalent than interstate conflicts since the end of World War II and the subsequent establishment of the United Nations organization with oversight

functions on state frictions. More civil wars are found in poor countries e.g. in Africa where economic structures are expected to be more affected by their destructive effects of the wars. This is because they tend to pull other forms of violent acts [political assassinations, terrorist activities e.t.c.] along to raise their overall negative implications. In Nigeria for example, the study finds that conflicts have been experienced in most parts of the federation, becoming particularly more prevalent since the early 1980 and stretched from there on. Incidentally, this period stretches through the era of economic reforms and prolonged military administrations, largely believed to have been unsuccessful in the supply of basic needs for the Nigerian people. Accordingly, the observed trend in conflict could not be unexpected as it is consistent with empirical literature associating large-scale conflicts with blocked economic activities and oppressive governments. Ironically, more violent conflicts were witnessed under the democratic government that returned in 1999 than all episodes of conflicts prior to that time put together and the reason is not far fetch especially when considered from the perspective of the new found democratic freedom that had been constrained under the prolonged military administration.

In chapter three, a mid-size macroeconometric model for Nigeria is described. It is cast in five blocks in 32 equations and the second part of the chapter describes the econometric procedures, including modalities for data collection and analysis.

The fourth chapter presents empirical evidences arising from the estimated model. As indicated in the report, domestic violent conflict affects the supply side negatively as expected, narrowing the export capacity. Second, the threat of conflicts induces higher levels of uncertainty and fear among the population driving away potential investors into the country as bank credit to the private sector as well as government declines. Indeed, the negative consequences of conflict on the stock exchange market are clear when conflicts spread across the difference geopolitical zones of the country. Furthermore, it is found that domestic violent conflicts promote increases in defense expenditures, which draw resources away from productive sectors for use in security. Nevertheless, oil exporters gain with an increase in external conflicts, if such conflicts disrupt production oil that rises up the price, oil export revenue and government revenue, which might credit the growth of transnational terrorism. So it could safely be stated that the economic consequences of global conflicts on Nigeria's economic performance is mixed. The net effects however depend on the strength of domestic institutions for conflict and economic resources management. And several studies have revealed that over time, the management of oil resources windfall has not produced desired good for general population and it is advisable that efforts be made to change the pattern, since terrorism , as we have shown in the study is an instrument of the weak in society. Overall, our null hypothesis is rejected and we conclude that Nigeria is indeed sensitive global violent conflict.

5.2 CONCLUSIONS

The research found that Nigerian economy is sensitive to violent conflict, with the severity of the events more evident as it spreads in the country. But most importantly is the role of religion in conflicts, because it complicates mitigation measures. The export of primary commodities constitutes an important transmission channel of violent conflict, while the transmission of transnational violent conflict to the domestic conflict shows Nigeria is not immune to transnational public goods. Nevertheless, by inducing high oil price through the constraints on global oil production, violent conflict directly or indirectly increased revenue flow for government spending in oil producing countries, and high production costs on consumers. Clearly, while the impact of violent conflict is obviously mixed, the net effect for the economy depends on the strength of domestic institutions for conflict management and resource utilization.

5.3 Recommendations

Our recommendations are drawn from the empirical evidences. First, the results suggest sizeable economic gains for countries that end conflicts in terms of economic growth, macroeconomic stability, and the generation of tax revenues to support government spending.

Second, ending domestic conflicts would mean a reduction in military expenditure and a raise in the share of the budget allocated to social services. These results

confirm those found in earlier studies, which underscore the potential for this "peace dividend" transmitting to economic development.

External conflict is exogenous, and so there is a limited extend to which Nigeria can influence it. Nevertheless, it is necessary that the country makes good use of the opportunities that such conflicts bring, especially in terms of resources inflow. This implies effective management of the oil revenue generated for the growth, in order to narrow domestic conditions for violent conflict. Increased economic growth and/ or percapita income is essential for political stability in the country, since high percapita income makes recruitment for militancy more expensive. This also goes for increased opportunity for educational attainment and recreation, which collectively make violent conflict engagement unattractive.

Fourth, since ethnic and religious conflict only reinforce preexisting conditions for conflict in the country, which include 'destiny' in the form of resources and distance, it implies that policies, especially activities that aim to increase poor people's access to assets in a widest sense, may be more effective as a means to reduce the inclination to violence in the country.

5.4 Suggestions for future research.

Research findings show that the violent conflict may have long run negative consequences. Our approach to the analysis of conflicts is basically macro and highly aggregative in outlook, and may therefore hide the specific effects of other types of violent conduct. Accordingly, the use of household level information, rather than aggregate data, would allow opportunity to demonstrate empirically the

quantitative effects of the different types of violent behaviors in the country: civil strife and ordinary crimes- theft, rape, drug e.t.c., which is make a more representation of the economic effects of violent conflict on the economy. Until such a time, out research product would remain an important starting point.

APPENDIX 7. MODEL STRUCTURE

SUPPLY

3.1. $GDP = Oilq + Noilq$

3.2. $OILQ = OPECq = Oilex + Doil$

3.3. $Noilq = GDP_A + GDP_{MIN} + GDP_{MAN} + GDP_{BCNs} + GDP_{HS/RSERVs}$

3.4. $Oilq = f(\ conf, oilex, pi, Tex, , fdi, consprd\ );\ f1 < 0, f2 > 0, f3 > 0, f4 > 0, f5 < 0, f6 < 0$

3.5. $Noilq = f(exer, infl, gc, gdp, tex, prlr); f1 < 0, f2 < 0, f3 > 0, f4 > 0, f5 > 0, f6 < 0$

AGGREGATE DEMAND

3.6. $GDP = DA + NETEX$

3.7. $DA = PD + GE$

Private Demand

3.8. $PD = PC + PI$

3.9 $PC = f(Y_d, maxlr, gc, fce, cpi); f1 > 0, f2 < 0, f3 < 0, f4 > 0, f5 < 0$

3.10 $PI = f(maxlr, conf, exer, gc, gdp,); f1 < 0, f2 < 0, f3 < 0, f4 > 0, f5 > 0$

Government consumption

3.11. $FGE = FRR + GDEBT$

3.12. $FRR = FCR - \rho(FCR_{S\&L})$

3.13. $FCR = OR + NOR$

3.14. $BB = FGE - FRR$

3.15. $FGE = FCE + FRE$

3.16. $OR = f(noilq, oilq, oilex, exer, gdp, wd,); fi > 0, f2 > 0, f3 > 0, f4 > 0, f5 > 0, f6 > 0$

3.17.

$Noilrev = f(conf, gdp, noilex, tex, wd, consprd,); f1 < 0, f2 > 0, f3 > 0, f4 > 0, f5 > 0, f6 < 0$

3.18. $FRE = f(gdebt, fcr, oilrev, gdp, consprd, conf); f1 > 0, f2 > 0, f3 > 0, f4 > 0, f5 < 0, f6 > 0$

NETEX

3.19. $TEX = oilex + noilex$

3.20. $Oilex = OPECq - Doil$

3.21. $Oilex = f(Oilq, gdp, wd, conf); f1 > 0, f2 > 0, f3 > 0, f4 > 0$

3.22. $TIM = CGim + OTHERim3$

3.23. $NETEX = TEX - TIM + RES$

3.24. $RES = f(netex, oilex, fir, noilex); f1 > 0, f2 > 0, f3 > 0, f4 > 0$

MONEY

3.25. $M2 = NFA + NDC + OAN$

3.26. $NDC = CP + CG$

3.27. $NFA = f(res, netex, fir,); f1 > 0, f2 > 0, f3 > 0$

3.28. $CP = f(td, gc\ Maxlr, dd); f1 > 0, f2 < 0, f3 < 0, f4 < 0$

3.29. $CG = f(gdebt, fcr, fge\ infl); f1 > 0, f2 < 0, f3 > 0, f4 > 0$

PRICES

3.30. $CPI = f(exer, gdp\ m2, spindex, consprd); f1 > 0, f2 > 0, f3 > 0, f4 > 0, f5 > 0$

3.31. $exer = f(m2, \quad (idr - fir), ndc, infl\ \ spindex); f1 > 0, f2 < 0, f3 > 0, f4 > 0, f5 > 0$

3.32. $idr = f(infl, gdebt, m2, gdp, maxlr); f1 > 0, f2 > 0, f3 < 0, f4 > 0, f5 > 0$

3.33. $SMINDX = f(m2, (ir - fir), gdp, consprd); f1 > 0, f2 > 0, f3 > 0, f4 < 0$

3.34 $Oilp = f(WD, Conf, \quad oilqw); f1 > 0 f2 > 0, f3 < 0$

Appendix 8: Estimated results of the parsimonious equations

SUPPLY

Dependent Variable: LOILQ
Method: Least Squares
Date: 05/30/11 Time: 04:44
Sample (adjusted): 1992 2009
Included observations: 16 after adjustments
Convergence achieved after 13 iterations
Newey-West HAC Standard Errors & Covariance (lag truncation=2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.287638	0.171598	7.503786	0.0001
LOILEX	6.506707	2.058721	3.160558	0.0159
LPI	0.309210	0.105741	2.924226	0.0222
LCONF	-0.052372	0.017434	-3.003947	0.0198
LTEX	-5.793156	2.118799	-2.734169	0.0292
LFDI	-0.053450	0.035974	-1.485777	0.1809
LCONSPRD	-0.005044	0.048150	-0.104765	0.9195
ECM(-1)	-0.017435	0.094202	-0.185080	0.8584
AR(1)	-0.827314	0.232456	-3.559012	0.0092

R-squared	0.997761	Mean dependent var	14.59672
Adjusted R-squared	0.995201	S.D. dependent var	1.045996
S.E. of regression	0.072460	Akaike info criterion	-2.113235
Sum squared resid	0.036753	Schwarz criterion	-1.678654
Log likelihood	25.90588	Hannan-Quinn criter.	-2.090981
F-statistic	389.8409	Durbin-Watson stat	2.079599
Prob(F-statistic)	0.000000		

Inverted AR Roots	-.83

Dependable variable: Noilq
Method: Least Squares
Date: 05/30/11 Time: 04:25
Sample (adjusted): 1973 2005
Included observations: 23 after adjustments
Convergence achieved after 14 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.492422	0.230763	-2.133884	0.0510
LGDP	1.266279	0.073426	17.24559	0.0000
PRLR	-0.006028	0.002889	-2.086872	0.0557
LEXER	0.017128	0.018765	0.912767	0.3768
LCG	0.000105	0.021755	0.004837	0.9962
LTEX	-0.277141	0.055735	-4.972455	0.0002
INFL	-0.000700	0.000657	-1.064210	0.3052
ECM1(-1)	-0.346911	0.312036	-1.111765	0.2850
AR(1)	-0.389704	0.282890	-1.377579	0.1900

R-squared	0.999378	Mean dependent var	12.16877
Adjusted R-squared	0.999023	S.D. dependent var	1.800592
S.E. of regression	0.056284	Akaike info criterion	-2.630657
Sum squared resid	0.044350	Schwarz criterion	-2.186334

Log likelihood	39.25256	Hannan-Quinn criter.	-2.518911
F-statistic	2812.744	Durbin-Watson stat	2.309370
Prob(F-statistic)	0.000000		

Inverted AR Roots -.39

AGGREGATE DEMAND

Private Demand

Dependent Variable: LPC

Method: Least Squares

Date: 05/30/11 Time: 04:39

Sample (adjusted): 1973 2009

Included observations: 37 after adjustments

Convergence achieved after 53 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	15.21051	8.423255	1.805776	0.0813
LCPI	0.449077	0.281955	1.592727	0.1221
LGDP	0.202113	0.236056	0.856210	0.3989
MAXLR	-0.017092	0.009452	-1.808385	0.0809
LGC	0.069084	0.153132	0.451142	0.6552
LFCE	-0.146264	0.120214	-1.216698	0.2335
ECM2(-1)	0.088388	0.135801	0.650862	0.5203
AR(1)	0.971990	0.023511	41.34147	0.0000

R-squared	0.995019	Mean dependent var	12.41213
Adjusted R-squared	0.993817	S.D. dependent var	2.996229
S.E. of regression	0.235597	Akaike info criterion	0.135425
Sum squared resid	1.609677	Schwarz criterion	0.483732
Log likelihood	5.494638	Hannan-Quinn criter.	0.258219
F-statistic	827.6475	Durbin-Watson stat	2.223958
Prob(F-statistic)	0.000000		

Inverted AR Roots .97

Dependent Variable: LPI

Method: Least Squares

Date: 05/30/11 Time: 04:55

Sample (adjusted): 1973 2009

Included observations: 37 after adjustments

Convergence achieved after 34 iterations

Newey-West HAC Standard Errors & Covariance (lag truncation=3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.785322	6.549880	1.188621	0.2442
LGDP	0.359065	0.280547	1.279874	0.2107
LEXER	0.087498	0.101726	0.860130	0.3968
LCONF	-0.020629	0.008716	-2.366790	0.0089
MAXLR	-0.011407	0.009688	-1.177425	0.0486
LGC	0.065405	0.130115	0.502672	0.6190
ECM(-1)	-0.287187	0.105487	-2.722487	0.0108
AR(1)	0.957500	0.029559	32.39315	0.0000

R-squared	0.990918	Mean dependent var	10.90331
Adjusted R-squared	0.988726	S.D. dependent var	2.308017
S.E. of regression	0.245067	Akaike info criterion	0.214238
Sum squared resid	1.741674	Schwarz criterion	0.562545
Log likelihood	4.036590	Hannan-Quinn criter.	0.337033
F-statistic	452.0134	Durbin-Watson stat	1.840651

Prob(F-statistic)	0.000000
Inverted AR Roots	.96

Government consumption
Dependent Variable: LOILREV
Method: Least Squares
Date: 05/30/11 Time: 05:03
Sample (adjusted): 1973 2009
Included observations: 37 after adjustments
Convergence achieved after 14 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.118464	4.028417	-0.774117	0.4453
LNOILQ	-0.898720	0.544469	-1.650635	0.1100
LOILQ(-1)	0.076896	0.104233	0.737729	0.4668
LWD	0.129306	0.396008	0.326524	0.7465
LOILEX	0.560068	0.189455	2.956202	0.0063
LGDP	1.321141	0.713321	1.852098	0.0746
LEXER	-0.196396	0.117527	-1.671068	0.1059
ECM(-1)	0.089806	0.127211	0.705956	0.4860
AR(1)	0.649538	0.176523	3.679624	0.0010

R-squared	0.995466	Mean dependent var	11.47526
Adjusted R-squared	0.994170	S.D. dependent var	2.638995
S.E. of regression	0.201498	Akaike info criterion	-0.158302
Sum squared resid	1.136839	Schwarz criterion	0.233543
Log likelihood	11.92859	Hannan-Quinn criter.	-0.020159
F-statistic	768.3775	Durbin-Watson stat	1.995438
Prob(F-statistic)	0.000000		
Inverted AR Roots	.65		

Dependent Variable: LNOILREV
Method: Least Squares
Date: 05/30/11 Time: 05:08
Sample (adjusted): 1997 2009
Included observations: 13 after adjustments
Convergence achieved after 38 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	29.65066	83.01365	0.357178	0.7390
LWD	-1.278535	5.982210	-0.213723	0.8412
LGDP	-1.174756	2.650149	-0.443279	0.6805
LTEX	0.945483	0.955732	0.989276	0.3785
LCONSPRD	-0.240415	0.393213	-0.611413	0.5740
LCONF	0.362545	0.510536	0.710128	0.5168
LNOILEX	0.354318	0.562129	0.630314	0.5627
ECM(-1)	-0.147427	0.586839	-0.251223	0.8140
AR(1)	0.788665	0.423144	1.863819	0.1358

R-squared	0.924716	Mean dependent var	13.10198
Adjusted R-squared	0.774147	S.D. dependent var	0.714238
S.E. of regression	0.339435	Akaike info criterion	0.882891
Sum squared resid	0.460864	Schwarz criterion	1.274010
Log likelihood	3.261209	Hannan-Quinn criter.	0.802498
F-statistic	6.141477	Durbin-Watson stat	1.949041

Prob(F-statistic)	0.048616
Inverted AR Roots	.79

Dependent Variable: LFRE
Method: Least Squares
Date: 05/30/11 Time: 11:31
Sample (adjusted): 1985 2009
Included observations: 12 after adjustments
Newey-West HAC Standard Errors & Covariance (lag truncation=2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.379367	0.659292	-0.575416	0.5958
LGDEBT	0.095812	0.048935	1.957953	0.1218
LFCR	0.596483	0.913750	0.652785	0.5495
LOILREV	0.515913	0.880436	0.585975	0.5894
LGDP	0.755734	0.089703	8.424881	0.0011
LCONSPRD	0.091956	0.133988	0.686298	0.5302
LCONF	-0.083189	0.043673	-1.904821	0.1295
ECM(-1)	0.317445	0.222905	1.424128	0.2275

R-squared	0.998562	Mean dependent var	13.27154
Adjusted R-squared	0.996045	S.D. dependent var	1.611696
S.E. of regression	0.101356	Akaike info criterion	-1.505634
Sum squared resid	0.041092	Schwarz criterion	-1.182362
Log likelihood	17.03380	Hannan-Quinn criter.	-1.625320
F-statistic	396.7679	Durbin-Watson stat	2.413023
Prob(F-statistic)	0.000016		

EXTERNAL BLOCK
Dependent Variable: LOILEX
Method: Least Squares
Date: 05/30/11 Time: 11:11
Sample (adjusted): 1972 2009
Included observations: 38 after adjustments
Newey-West HAC Standard Errors & Covariance (lag truncation=3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.148034	0.684286	1.677711	0.1031
LGDP	0.136527	0.059477	2.295478	0.0284
LOILP	0.941344	0.049952	18.84479	0.0000
LCONF	-0.011847	0.032121	-0.368842	0.7147
LWD	0.167668	0.090746	1.847672	0.0739
ECM1(-1)	-0.025863	0.193467	-0.133682	0.8945

R-squared	0.998428	Mean dependent var	11.70447
Adjusted R-squared	0.998182	S.D. dependent var	2.847490
S.E. of regression	0.121403	Akaike info criterion	-1.235456
Sum squared resid	0.471641	Schwarz criterion	-0.976890
Log likelihood	29.47367	Hannan-Quinn criter.	-1.143460
F-statistic	4064.536	Durbin-Watson stat	2.274843
Prob(F-statistic)	0.000000		

Dependent Variable: LFRES
Method: Least Squares
Date: 05/30/11 Time: 05:31
Sample (adjusted): 1973 2009
Included observations: 24 after adjustments
Convergence achieved after 25 iterations
Newey-West HAC Standard Errors & Covariance (lag truncation=2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.845301	2.927940	-0.288702	0.7763
LNETEX	0.112957	0.365550	0.309005	0.7611
LOILEX	0.918213	0.969532	0.947068	0.3569
FIR	-0.054568	0.114872	-0.475033	0.6408
LNOILEX	-0.033288	0.769934	-0.043235	0.9660
ECM(-1)	-0.120504	0.207511	-0.580714	0.5691
AR(1)	0.618146	0.238661	2.590060	0.0191

R-squared	0.955618	Mean dependent var	11.35306
Adjusted R-squared	0.939953	S.D. dependent var	3.172842
S.E. of regression	0.777486	Akaike info criterion	2.572991
Sum squared resid	10.27624	Schwarz criterion	2.916591
Log likelihood	-23.87590	Hannan-Quinn criter.	2.664148
F-statistic	61.00596	Durbin-Watson stat	2.225970
Prob(F-statistic)	0.000000		

Inverted AR Roots	.62

MONEY BLOCK
Dependent Variable: LNFA
Method: Least Squares
Date: 05/30/11 Time: 05:36
Sample (adjusted): 1973 2009
Included observations: 24 after adjustments
Convergence achieved after 6 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.372447	0.358311	1.039452	0.3124
LFRES	0.772058	0.083167	9.283243	0.0000
LNETEX	0.206782	0.087617	2.360070	0.0298
FIR	0.017795	0.033741	0.527411	0.6043
ECM1(-1)	-0.015300	0.212213	-0.072097	0.9433
AR(1)	-0.028659	0.236919	-0.120967	0.9051

R-squared	0.988873	Mean dependent var	11.57340
Adjusted R-squared	0.985782	S.D. dependent var	3.044048
S.E. of regression	0.362971	Akaike info criterion	1.023330
Sum squared resid	2.371462	Schwarz criterion	1.317844
Log likelihood	-6.279961	Hannan-Quinn criter.	1.101465
F-statistic	319.9319	Durbin-Watson stat	1.864783
Prob(F-statistic)	0.000000		

Inverted AR Roots	-.03

Dependent Variable: LGC
Method: Least Squares
Date: 05/30/11 Time: 08:24
Sample (adjusted): 1973 2009
Included observations: 28 after adjustments
Convergence achieved after 55 iterations
Newey-West HAC Standard Errors & Covariance (lag truncation=3)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.256736	0.628178	2.000604	0.0592
LFCR	0.985316	0.409781	2.404496	0.0260
LGDEBT	0.034276	0.077751	0.440839	0.6641
LFGE	0.275017	0.319281	0.861364	0.3992
INFL	0.002674	0.005161	0.518164	0.6100
LFRR	-0.480543	0.271521	-1.769821	0.0920
ECM(-1)	0.194901	0.158532	1.229414	0.2332
AR(1)	0.540282	0.161262	3.350336	0.0032

R-squared	0.985361	Mean dependent var	10.70239
Adjusted R-squared	0.980238	S.D. dependent var	2.310790
S.E. of regression	0.324847	Akaike info criterion	0.824029
Sum squared resid	2.110506	Schwarz criterion	1.204659
Log likelihood	-3.536406	Hannan-Quinn criter.	0.940391
F-statistic	192.3204	Durbin-Watson stat	2.014818
Prob(F-statistic)	0.000000		

Inverted AR Roots	.54

Dependent Variable: LCP
Method: Least Squares
Date: 05/30/11 Time: 08:35
Sample (adjusted): 1973 2009
Included observations: 32 after adjustments
Convergence achieved after 23 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.958281	0.267526	-3.582012	0.0014
MAXLR	-0.006450	0.005109	-1.262476	0.2184
LGC	0.016170	0.087410	0.184993	0.8547
LTD	0.793922	0.092862	8.549487	0.0000
LDD	0.243035	0.103778	2.341876	0.0275
ECM(-1)	0.052982	0.181476	0.291953	0.7727
AR(1)	0.611180	0.194463	3.142917	0.0043

R-squared	0.998611	Mean dependent var	11.05802
Adjusted R-squared	0.998277	S.D. dependent var	2.777215
S.E. of regression	0.115268	Akaike info criterion	-1.292471
Sum squared resid	0.332169	Schwarz criterion	-0.971841
Log likelihood	27.67953	Hannan-Quinn criter.	-1.186191
F-statistic	2995.068	Durbin-Watson stat	2.105140
Prob(F-statistic)	0.000000		

Inverted AR Roots	.61

Dependent Variable: LCP
Method: Least Squares

Date: 05/30/11 Time: 08:35
Sample (adjusted): 1973 2009
Included observations: 32 after adjustments
Convergence achieved after 23 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.958281	0.267526	-3.582012	0.0014
MAXLR	-0.006450	0.005109	-1.262476	0.2184
LGC	0.016170	0.087410	0.184993	0.8547
LTD	0.793922	0.092862	8.549487	0.0000
LDD	0.243035	0.103778	2.341876	0.0275
ECM(-1)	0.052982	0.181476	0.291953	0.7727
AR(1)	0.611180	0.194463	3.142917	0.0043

R-squared	0.998611	Mean dependent var	11.05802
Adjusted R-squared	0.998277	S.D. dependent var	2.777215
S.E. of regression	0.115268	Akaike info criterion	-1.292471
Sum squared resid	0.332169	Schwarz criterion	-0.971841
Log likelihood	27.67953	Hannan-Quinn criter.	-1.186191
F-statistic	2995.068	Durbin-Watson stat	2.105140
Prob(F-statistic)	0.000000		

Inverted AR Roots	.61

PRICE
Dependent Variable: LCPI
Method: Least Squares
Date: 05/30/11 Time: 08:41
Sample (adjusted): 1995 2009
Included observations: 12 after adjustments
Convergence achieved after 6 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.128031	0.266502	-11.73735	0.0013
LGDP	0.032771	0.036117	0.907360	0.4311
LEXER	0.501907	0.070438	7.125498	0.0057
LSPINDEX	0.072475	0.018950	3.824622	0.0315
LM2	0.271695	0.034710	7.827551	0.0043
LCONSPRD	-0.062685	0.022531	-2.782154	0.0689
LFGE	0.042066	0.055227	0.761686	0.5017
ECM(-1)	0.094607	0.079050	1.196805	0.3173
AR(1)	-0.149907	0.042636	-3.516022	0.0390

R-squared	0.999814	Mean dependent var	4.902289
Adjusted R-squared	0.999320	S.D. dependent var	0.532207
S.E. of regression	0.013882	Akaike info criterion	-5.602730
Sum squared resid	0.000578	Schwarz criterion	-5.239050
Log likelihood	42.61638	Hannan-Quinn criter.	-5.737378
F-statistic	2020.574	Durbin-Watson stat	3.860860
Prob(F-statistic)	0.000017		

Inverted AR Roots	-.15

Dependent Variable: LEXER
Method: Least Squares
Date: 05/30/11 Time: 08:45

Sample (adjusted): 1978 2009
Included observations: 32 after adjustments
Convergence achieved after 17 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	11.53348	24.03269	0.479908	0.6356
LSPINDEX	0.193727	0.175684	1.102701	0.2811
IR_FIR	0.012060	0.011819	1.020365	0.3177
LNDC	0.046819	0.146599	0.319366	0.7522
LM2	-0.374904	0.486766	-0.770194	0.4487
LNFA	0.154291	0.109784	1.405413	0.1727
ECM(-1)	-0.415774	0.154075	-2.698514	0.0125
AR(1)	0.981541	0.036425	26.94684	0.0000

R-squared	0.985313	Mean dependent var	2.735475
Adjusted R-squared	0.981030	S.D. dependent var	2.145065
S.E. of regression	0.295444	Akaike info criterion	0.611646
Sum squared resid	2.094899	Schwarz criterion	0.978080
Log likelihood	-1.786341	Hannan-Quinn criter.	0.733109
F-statistic	230.0208	Durbin-Watson stat	2.048858
Prob(F-statistic)	0.000000		

Inverted AR Roots	.98

Dependent Variable: IRD
Method: Least Squares
Date: 05/30/11 Time: 08:48
Sample (adjusted): 1973 2009
Included observations: 28 after adjustments
Convergence achieved after 31 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	9.179937	5.839881	1.571939	0.1317
INFL	-0.095840	0.068881	-1.391392	0.1794
LGDEBT	1.750300	1.218894	1.435975	0.1665
LM2	-0.276275	2.837533	-0.097364	0.9234
LGDP	-2.023059	2.547922	-0.794004	0.4365
MAXLR	0.901679	0.273186	3.300598	0.0036
ECM(-1)	-0.040030	0.392849	-0.101896	0.9199
AR(1)	-0.226896	0.309863	-0.732247	0.4725

R-squared	0.635275	Mean dependent var	8.729673
Adjusted R-squared	0.507621	S.D. dependent var	5.524386
S.E. of regression	3.876448	Akaike info criterion	5.782672
Sum squared resid	300.5369	Schwarz criterion	6.163302
Log likelihood	-72.95740	Hannan-Quinn criter.	5.899034
F-statistic	4.976539	Durbin-Watson stat	2.396021
Prob(F-statistic)	0.002167		

Inverted AR Roots	-.23

Dependent Variable: LSPINDEX
Method: Least Squares
Date: 05/30/11 Time: 08:52
Sample (adjusted): 1997 2009
Included observations: 13 after adjustments

Convergence achieved after 7 iterations

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-11.23764	1.375767	-8.168273	0.0012
LCONSPRD	-0.165883	0.150209	-1.104342	0.3314
LGDP	1.976590	0.196821	10.04259	0.0006
LM2	-0.267681	0.146286	-1.829844	0.1413
IRD	0.148980	0.037900	3.930908	0.0171
IR_FIR	-0.081612	0.027250	-2.994892	0.0401
LEXER	-1.579364	0.514247	-3.071218	0.0372
ECM(-1)	-0.659432	0.164965	-3.997398	0.0162
AR(1)	-0.863071	0.227291	-3.797197	0.0191

R-squared	0.984656	Mean dependent var	9.649771
Adjusted R-squared	0.953968	S.D. dependent var	0.758438
S.E. of regression	0.162724	Akaike info criterion	-0.587561
Sum squared resid	0.105917	Schwarz criterion	-0.196442
Log likelihood	12.81915	Hannan-Quinn criter.	-0.667953
F-statistic	32.08576	Durbin-Watson stat	3.180377
Prob(F-statistic)	0.002283		

Inverted AR Roots	-.86

Dependent Variable: LOILP
Method: Least Squares
Date: 06/15/11 Time: 07:24
Sample (adjusted): 1973 2009
Included observations: 37 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.771729	3.636910	-0.212194	0.8334
LWD	0.599363	1.487768	0.402861	0.6899
LCONF	0.048147	0.103441	0.465459	0.6450
LOILQW	-0.731167	2.140578	-0.341575	0.7351
LOILQ	-0.144316	0.141811	-2.543496	0.0001
LOILP(-1)	0.402923	0.121991	3.302886	0.0025
ECM(-1)	-0.144149	0.197519	-0.729795	0.4712

R-squared	0.987285	Mean dependent var	11.26606
Adjusted R-squared	0.984742	S.D. dependent var	2.852721
S.E. of regression	0.352380	Akaike info criterion	0.920442
Sum squared resid	3.725140	Schwarz criterion	1.225210
Log likelihood	-10.02818	Hannan-Quinn criter.	1.027887
F-statistic	388.2316	Durbin-Watson stat	2.153838
Prob(F-statistic)	0.000000		

Table 1: Nigeria: Government spending on Defense and Socio economic sectors (₦Million)

	TOTDEFEX	SOC&ECOSERV	DIVIATION
1994	8601.8	10,085.42	- 1,483.59
1995	11855.2	13,820.80	- 1,965.60
1996	21982.7	15,989.18	5,993.51
1997	25268.9	22,060.13	3,208.76
1998	26745.2	21,441.43	5,303.77
1999	91819.4	71,371.20	20,448.21
2000	68557.0	84,785.05	- 16,228.07
2001	85922.3	79,630.41	6,291.89
2002	132369.9	152,185.38	- 19,815.51
2003	119444.0	102,607.58	16,836.42
2004	174117.5	134,385.34	39,732.11
2005	153618.1	151,642.87	1,975.25
2006	161966.5	159,883.89	2,082.60
2007	199510.2	196,944.89	2,565.34
2008	164500.0	332,900.00	- 168,400.00
2009	279213.4	346,071.95	- 66,858.59

Source: computed by Author from CBN statistical Bulletin 2009)

Chart 1: Nigeria: Defense Spending and violent conflicts

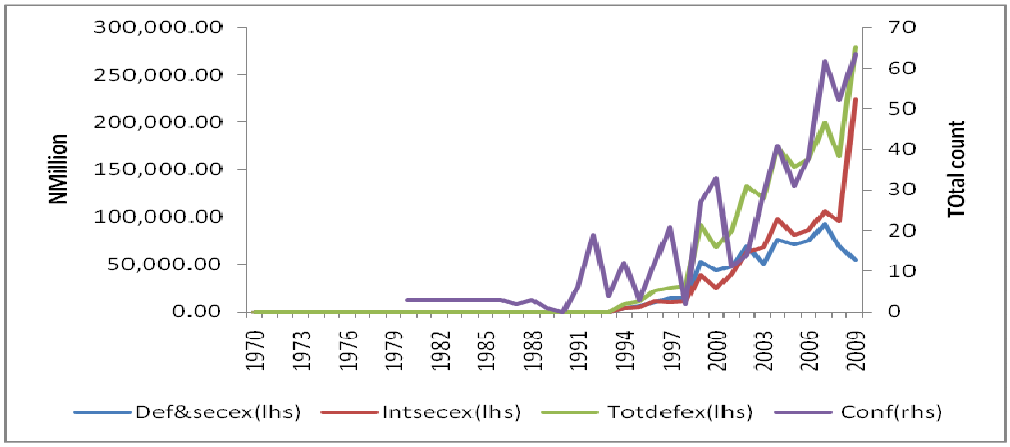
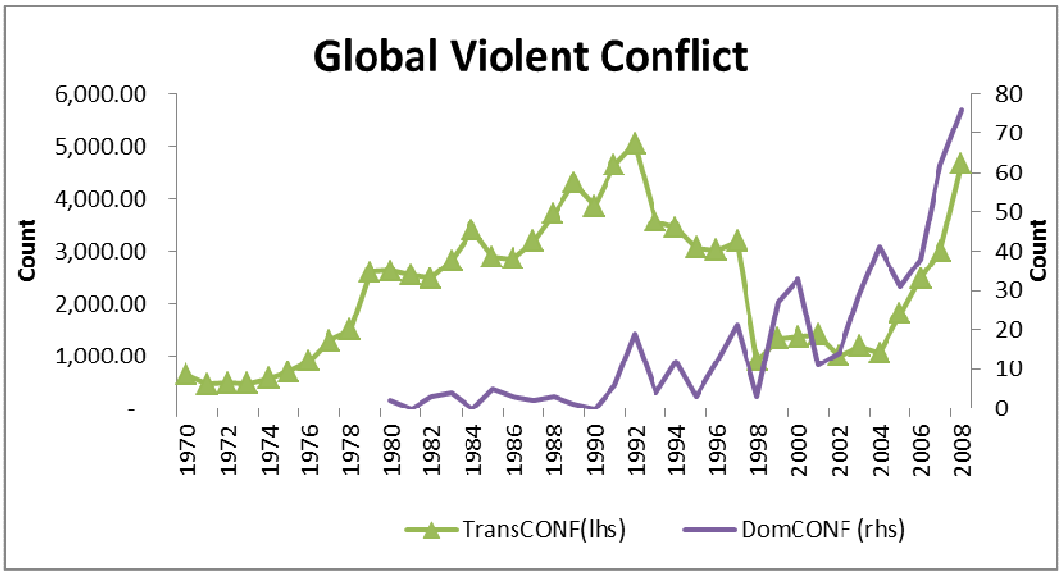


Chart 2: Global Violent Conflict



Box 2: Definition of Variables

GDP=Gross Domestic product; Oilq=Oil output; Noilq=Nonoil output; OPECq=OPEC Oil production quota; Oilex=Oil export; oil=Domestic oil consumption; IMK-Imported capital; FDI=Foreign direct investment; Conf=Violent conflict/Terrorism index; FGE= Federal government expenditure; PC= Private consumption; PI=Private investment; Yd=Disposable income; INf= Inflation; CP= Credit to the private sector; FCE=Federal capital expenditure; IRd= Interest rate; FRR=Federal Retained revenue; GDEBT =Government Debt; OilRev=Oil revenue; NOilrev=Non oil revenue; FRE= Federal recurrent expenditure; CG= Credit to government; FCR= federally collected revenue; TEX=Total export; WD=World demand; TIM=total import; RES=External reserves; NFA=net foreign asset; FIR=foreign interest rate; NDC=Net domestic credit; OAN=other assets net;RER=Real exchange rate; TD=Total bank deposit; MAXLR=Lending rate; BB= Budget balance; INfe= Inflation expectation; GDPgap= GDP gap; CONSPRD= Index of conflict speared; Open= Index for economic openness; NEXTEX- Net export; CPI= Consumer price index; Exer=exchange rate; Spindex= Stock price index

Box 3: Terrorist Activities in Nigeria

DATE	COUNTRY	CITY	PERPETRATOR 1	FATALITIES	INJURED	TARGET TYPE 1	REGION	ATTACK TYPE 1
31/12/2010	Nigeria	Abuja	Unknown	0	0	Religious Figures	Sub-Saharan Afri	Bombing/Explosi
29/12/2010	Nigeria	Yenagoa	Unknown	Sub-Saharan Africa				Explosives/Bombs/Dynamite
28/12/2010	Nigeria	Maiduguri	Boko Haram	3	0	Business	Sub-Saharan Afri	Armed Assault
24/12/2010	Nigeria	Jos	Boko Haram	0	0	Private Citizens &	Sub-Saharan Afri	Bombing/Explosi
24/12/2010	Nigeria	Jos	Boko Haram	38	74	Private Citizens &	Sub-Saharan Afri	Bombing/Explosi
24/12/2010	Nigeria	Maiduguri	Unknown	0	0	Religious Figures	Sub-Saharan Afri	Bombing/Explosi
24/12/2010	Nigeria	Maiduguri	Boko Haram	1	0	Religious Figures	Sub-Saharan Afri	Armed Assault
24/12/2010	Nigeria	Maiduguri	Boko Haram	5	25	Religious Figures	Sub-Saharan Afri	Armed Assault
17/12/2010	Nigeria	Unknown	Niger Delta Liber	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
17/12/2010	Nigeria	Unknown	Niger Delta Liber	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
17/12/2010	Nigeria	Unknown	Niger Delta Liber	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
03/12/2010	Nigeria	Jos	Unknown	7	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
01/12/2010	Nigeria	Unknown	Unknown	1	0	Business	Sub-Saharan Afri	Armed Assault
29/11/2010	Nigeria	Unknown	Boko Haram	1	0	Other	Sub-Saharan Afri	Armed Assault
22/11/2010	Nigeria	Brass	Unknown	1	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
21/11/2010	Nigeria	Warri	Movement for the	0	0	Utilities	Sub-Saharan Afri	Armed Assault
19/11/2010	Nigeria	Maiduguri	Boko Haram	3	1	Private Citizens &	Sub-Saharan Afri	Armed Assault
14/11/2010	Nigeria	Unknown	Movement for the	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
11/11/2010	Nigeria	Kolokuma/Opokur	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Assassination
07/11/2010	Nigeria	Unknown	Movement for the	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
03/11/2010	Nigeria	Lagos	Movement for the	0	0	Business	Sub-Saharan Afri	Armed Assault
28/10/2010	Nigeria	Ilorin	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
28/10/2010	Nigeria	Unknown	Unknown	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
26/10/2010	Nigeria	Jos	Fulani Militants	6	3	Private Citizens &	Sub-Saharan Afri	Armed Assault
22/10/2010	Nigeria	Ganuwa	Boko Haram	1	0	Other	Sub-Saharan Afri	Armed Assault
19/10/2010	Nigeria	Maiduguri	Boko Haram	1	0	Police	Sub-Saharan Afri	Armed Assault
13/10/2010	Nigeria	Eket	Unknown	2	0	Business	Sub-Saharan Afri	Armed Assault
09/10/2010	Nigeria	Maiduguri	Boko Haram	2	0	Religious Figures	Sub-Saharan Afri	Armed Assault
06/10/2010	Nigeria	Maiduguri	Boko Haram	1	0	Government (Gen	Sub-Saharan Afri	Assassination
06/10/2010	Nigeria	Maiduguri	Boko Haram	1	0	NGO	Sub-Saharan Afri	Assassination
01/10/2010	Nigeria	Abuja	Movement for the	4	13	Private Citizens &	Sub-Saharan Afri	Bombing/Explosi
01/10/2010	Nigeria	Abuja	Movement for the	7	27	Private Citizens &	Sub-Saharan Afri	Bombing/Explosi
21/09/2010	Nigeria	Maiduguri	Boko Haram	2	0	Government (Gen	Sub-Saharan Afri	Armed Assault
16/09/2010	Nigeria	Omuma	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
05/09/2010	Nigeria	Maiduguri	Boko Haram	0	2	Other	Sub-Saharan Afri	Armed Assault
05/09/2010	Nigeria	Maiduguri	Boko Haram	1	2	Government (Gen	Sub-Saharan Afri	Assassination
05/09/2010	Nigeria	Bama	Boko Haram	1	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
29/08/2010	Nigeria	Benin	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Hostage Taking (K
02/08/2010	Nigeria	Aba	Unknown	1	3	Private Citizens &	Sub-Saharan Afri	Armed Assault
27/07/2010	Nigeria	Yenagoa	Unknown	1	1	Government (Gen	Sub-Saharan Afri	Assassination
03/07/2010	Nigeria	Unknown	Fulani Militants	7	5	Private Citizens &	Sub-Saharan Afri	Armed Assault
13/06/2010	Nigeria	Port Harcourt	Unknown	2	5	Private Citizens &	Sub-Saharan Afri	Armed Assault
02/06/2010	Nigeria	Yenagoa	Unknown	0	0	Business	Sub-Saharan Afri	Bombing/Explosi
02/06/2010	Nigeria	Yenagoa	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
29/05/2010	Nigeria	Port Harcourt	Unknown	2	0	Government (Gen	Sub-Saharan Afri	Hostage Taking (K
10/05/2010	Nigeria	Warri	Movement for the	0	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
02/05/2010	Nigeria	Yenagoa	Unknown	0	0	Business	Sub-Saharan Afri	Bombing/Explosi
19/04/2010	Nigeria	Benin	Unknown	0	0	Other	Sub-Saharan Afri	Hostage Taking (K
18/04/2010	Nigeria	Unknown	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
11/04/2010	Nigeria	Jos	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Bombing/Explosi
11/04/2010	Nigeria	Jos	Fulani Militants	0	0	Private Citizens &	Sub-Saharan Afri	Facility/Infrastru

DATE	COUNTRY	CITY	PERPETRATOR 1	FATALITIES	INJURED	TARGET TYPE 1	REGION	ATTACK TYPE 1
09/04/2010	Nigeria	Port Harcourt	Unknown		0	0 Business	Sub-Saharan Afri	Hostage Taking (K
05/04/2010	Nigeria	Benin	Unknown		0	0 Educational Instit	Sub-Saharan Afri	Hostage Taking (K
23/03/2010	Nigeria	Asaba	Unknown		0	0 Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
19/03/2010	Nigeria	Bugama	The Joint Revoluti		0	0 Utilities	Sub-Saharan Afri	Bombing/Explosi
15/03/2010	Nigeria	Warri	Movement for the		3	2 Government (Gen	Sub-Saharan Afri	Bombing/Explosi
03/03/2010	Nigeria	Abonema	The Joint Revoluti		0	0 Utilities	Sub-Saharan Afri	Bombing/Explosi
02/03/2010	Nigeria	Warri	The Joint Revoluti		0	0 Utilities	Sub-Saharan Afri	Bombing/Explosi
11/02/2010	Nigeria	Lagos	The Joint Revoluti		0	0 Utilities	Sub-Saharan Afri	Armed Assault
10/02/2010	Nigeria	Abonema	The Joint Revoluti		0	0 Utilities	Sub-Saharan Afri	Armed Assault
10/02/2010	Nigeria	Abonema	The Joint Revoluti		0	0 Utilities	Sub-Saharan Afri	Armed Assault
25/01/2010	Nigeria	Unknown	Unknown		1	0 Government (Gen	Sub-Saharan Afri	Assassination
13/08/2009	Nigeria	Ughelli	Urhobo Revolutio		0	0 Utilities	Sub-Saharan Afri	Bombing/Explosi
08/08/2009	Nigeria	Utorogu	Niger Delta Peopl		0	0 Utilities	Sub-Saharan Afri	Bombing/Explosi
27/07/2009	Nigeria	Gambaru	Boko Haram	Unknown		0 Government (Gen	Sub-Saharan Afri	Armed Assault
27/07/2009	Nigeria	Gambaru	Boko Haram	Unknown		0 Religious Figures	Sub-Saharan Afri	Armed Assault
27/07/2009	Nigeria	Maiduguri	Boko Haram		75 Unknown	Educational Instit	Sub-Saharan Afri	Armed Assault
27/07/2009	Nigeria	Maiduguri	Boko Haram		76 Unknown	Religious Figures	Sub-Saharan Afri	Armed Assault
27/07/2009	Nigeria	Maiduguri	Boko Haram		76 Unknown	Police	Sub-Saharan Afri	Armed Assault
27/07/2009	Nigeria	Maiduguri	Boko Haram		0	0 Government (Gen	Sub-Saharan Afri	Facility/Infrastru
27/07/2009	Nigeria	Maiduguri	Boko Haram		0	0 Other	Sub-Saharan Afri	Facility/Infrastru
27/07/2009	Nigeria	Maiduguri	Boko Haram		0	0 Private Citizens &	Sub-Saharan Afri	Facility/Infrastru
27/07/2009	Nigeria	Maiduguri	Boko Haram		77 Unknown	Police	Sub-Saharan Afri	Armed Assault
27/07/2009	Nigeria	Gambaru	Boko Haram	Unknown		0 Police	Sub-Saharan Afri	Armed Assault
14/07/2009	Nigeria	Unknown	Movement for the		0	0 Utilities	Sub-Saharan Afri	Bombing/Explosi
12/07/2009	Nigeria	Tarkwa	Movement for the		5	0 Maritime	Sub-Saharan Afri	Bombing/Explosi
08/07/2009	Nigeria	Nembe Creek	Movement for the		0	0 Utilities	Sub-Saharan Afri	Bombing/Explosi
08/07/2009	Nigeria	Nembe Creek	Movement for the		0	0 Utilities	Sub-Saharan Afri	Bombing/Explosi
05/07/2009	Nigeria	Bonny	Movement for the		0	0 Utilities	Sub-Saharan Afri	Armed Assault
05/07/2009	Nigeria	Unknown	Movement for the		0	0 Utilities	Sub-Saharan Afri	Bombing/Explosi
05/07/2009	Nigeria	Escravos	Movement for the		0	0 Maritime	Sub-Saharan Afri	Armed Assault
29/06/2009	Nigeria	Forcados	Movement for the		0	0 Business	Sub-Saharan Afri	Bombing/Explosi
25/06/2009	Nigeria	Unknown	Movement for the		0	0 Business	Sub-Saharan Afri	Bombing/Explosi
21/06/2009	Nigeria	Unknown	Movement for the		0	0 Business	Sub-Saharan Afri	Bombing/Explosi
19/06/2009	Nigeria	Nembe Creek	Movement for the		0	0 Business	Sub-Saharan Afri	Bombing/Explosi
17/06/2009	Nigeria	Agoro	Movement for the		0	0 Business	Sub-Saharan Afri	Bombing/Explosi
07/06/2009	Nigeria	Ibandan	Unknown		2	2 Other	Sub-Saharan Afri	Armed Assault
05/06/2009	Nigeria	Benin	Unknown		0	1 Government (Gen	Sub-Saharan Afri	Hostage Taking (K
25/05/2009	Nigeria	Warri	Movement for the		0	0 Business	Sub-Saharan Afri	Bombing/Explosi
13/05/2009	Nigeria	Escravos	Movement for the		0	0 Business	Sub-Saharan Afri	Bombing/Explosi
13/05/2009	Nigeria	Unknown	Movement for the		0	6 Maritime	Sub-Saharan Afri	Armed Assault
05/04/2009	Nigeria	Yenagoa	Unknown		0	0 Business	Sub-Saharan Afri	Armed Assault
16/03/2009	Nigeria	Nembe Creek	Unknown		0	0 Business	Sub-Saharan Afri	Armed Assault
04/03/2009	Nigeria	Escravos	Unknown		0	0 Utilities	Sub-Saharan Afri	Bombing/Explosi
26/02/2009	Nigeria	Tebidaba	Movement for the		0	1 Private Citizens &	Sub-Saharan Afri	Armed Assault
17/02/2009	Nigeria	Nembe Creek	Unknown		0	0 Business	Sub-Saharan Afri	Facility/Infrastru
17/02/2009	Nigeria	Eket	Unknown		0	0 Business	Sub-Saharan Afri	Facility/Infrastru
07/02/2009	Nigeria	Utorogu	Movement for the		3	5 Business	Sub-Saharan Afri	Armed Assault
04/02/2009	Nigeria	Uyo	Unknown		0	0 Government (Gen	Sub-Saharan Afri	Hostage Taking (K
29/01/2009	Nigeria	Port Harcourt	Unknown		1	0 Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
27/01/2009	Nigeria	Warri	Unknown		0	0 Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
21/01/2009	Nigeria	Unknown	Movement for the		0	0 Maritime	Sub-Saharan Afri	Bombing/Explosi
18/01/2009	Nigeria	Bonny	Unknown		1	1 Business	Sub-Saharan Afri	Hostage Taking (K

DATE	COUNTRY	CITY	PERPETRATOR 1	FATALITIES	INJURED	TARGET TYPE 1	REGION	ATTACK TYPE 1
06/01/2009	Nigeria	Zaria	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Assassination
20/12/2008	Nigeria	Ikot Abasi	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
16/12/2008	Nigeria	Ughelli	Unknown	0	0	Educational Instit	Sub-Saharan Afri	Hostage Taking (K
16/12/2008	Nigeria	Port Harcourt	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
08/12/2008	Nigeria	Makurdi	Unknown	2	1	Police	Sub-Saharan Afri	Armed Assault
06/12/2008	Nigeria	Unknown	Unknown	2	0	Transportation	Sub-Saharan Afri	Armed Assault
03/12/2008	Nigeria	Eket	Unknown	1	0	Business	Sub-Saharan Afri	Armed Assault
01/12/2008	Nigeria	Unknown	Unknown	1	0	Government (Gen	Sub-Saharan Afri	Armed Assault
30/11/2008	Nigeria	Enugu	Unknown	1	0	Other	Sub-Saharan Afri	Assassination
28/11/2008	Nigeria	Port Harcourt	Unknown	Unknown	Unknown	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
21/11/2008	Nigeria	Opobo	Unknown	2	0	Government (Gen	Sub-Saharan Afri	Hostage Taking (K
20/11/2008	Nigeria	Escravos	Unknown	Unknown	Unknown	Business	Sub-Saharan Afri	Armed Assault
19/11/2008	Nigeria	Ibadan	Unknown	1	1	Government (Gen	Sub-Saharan Afri	Armed Assault
13/11/2008	Nigeria	Yenagoa	Unknown	0	0	Business	Sub-Saharan Afri	Facility/Infrastru
10/11/2008	Nigeria	Soku	Unknown	8	Unknown	Business	Sub-Saharan Afri	Facility/Infrastru
03/11/2008	Nigeria	Port Harcourt	Unknown	1	1	Business	Sub-Saharan Afri	Hostage Taking (K
03/11/2008	Nigeria	Enugu Ukwa	Unknown	Unknown	Unknown	Other	Sub-Saharan Afri	Hostage Taking (K
03/11/2008	Nigeria	Port Harcourt	Unknown	Unknown	Unknown	Other	Sub-Saharan Afri	Hostage Taking (K
16/10/2008	Nigeria	Uyo	Unknown	0	1	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
16/10/2008	Nigeria	Port Harcourt	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
19/09/2008	Nigeria	Owerri	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Armed Assault
19/09/2008	Nigeria	Bugama	Movement for the	0	0	Business	Sub-Saharan Afri	Bombing/Explosi
17/09/2008	Nigeria	Port Harcourt	Movement for the	0	0	Business	Sub-Saharan Afri	Bombing/Explosi
15/09/2008	Nigeria	Port Harcourt	Movement for the	1	4	Business	Sub-Saharan Afri	Bombing/Explosi
27/08/2008	Nigeria	Port Harcourt	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
24/08/2008	Nigeria	Bonny	Unknown	0	0	Maritime	Sub-Saharan Afri	Hijacking
21/08/2008	Nigeria	Kalaa	Unknown	0	1	Government (Gen	Sub-Saharan Afri	Armed Assault
12/08/2008	Nigeria	Port Harcourt	Niger Delta Vigila	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
03/08/2008	Nigeria	Unknown	Movement for the	0	0	Other	Sub-Saharan Afri	Hostage Taking (K
02/08/2008	Nigeria	Port Harcourt	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
30/07/2008	Nigeria	Rumuolumeni	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Hostage Taking (K
28/07/2008	Nigeria	Kula	Movement for the	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
26/07/2008	Nigeria	Unknown	Unknown	0	0	Other	Sub-Saharan Afri	Hostage Taking (K
25/07/2008	Nigeria	Port Harcourt	Unknown	0	0	Utilities	Sub-Saharan Afri	Hostage Taking (K
20/07/2008	Nigeria	Boji Boji	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
17/07/2008	Nigeria	Tebidaba	Unknown	Unknown	Unknown	Business	Sub-Saharan Afri	Bombing/Explosi
15/07/2008	Nigeria	Abakaliki	Unknown	0	3	Journalists & Me	Sub-Saharan Afri	Armed Assault
08/07/2008	Nigeria	Igbokoda	Unknown	0	1	Government (Gen	Sub-Saharan Afri	Armed Assault
01/07/2008	Nigeria	Makurdi	Unknown	1	1	Private Citizens &	Sub-Saharan Afri	Armed Assault
28/06/2008	Nigeria	Lagos	Unknown	4	2	Private Citizens &	Sub-Saharan Afri	Armed Assault
21/06/2008	Nigeria	Escravos	Movement for the	0	0	Business	Sub-Saharan Afri	Bombing/Explosi
20/06/2008	Nigeria	Unknown	Movement for the	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
19/06/2008	Nigeria		Unknown	0	0	Business	Sub-Saharan Afri	Bombing/Explosi
19/06/2008	Nigeria	Unknown	Movement for the	0	0	Maritime	Sub-Saharan Afri	Hostage Taking (K
19/06/2008	Nigeria	Unknown	Movement for the	0	0	Maritime	Sub-Saharan Afri	Armed Assault
19/06/2008	Nigeria	Unknown	Movement for the	0	0	Utilities	Sub-Saharan Afri	Armed Assault
16/06/2008	Nigeria	Unknown	Niger Delta Freed	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
14/06/2008	Nigeria	Bonny	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
14/06/2008	Nigeria	Bonny	Unknown	0	0	Transportation	Sub-Saharan Afri	Facility/Infrastru
12/06/2008	Nigeria	Opobo	Unknown	1	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
10/06/2008	Nigeria	Unknown	Unknown	9	4	Maritime	Sub-Saharan Afri	Armed Assault
09/06/2008	Nigeria	Unknown	Unknown	1	4	Maritime	Sub-Saharan Afri	Armed Assault

DATE	COUNTRY	CITY	PERPETRAT	FATALITIES	INJURED	TARGET TY	REGION	ATTACK TYI
04/06/2008	Nigeria	Aba	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Hostage Taking (K
31/05/2008	Nigeria	Warri	Unknown	0	1	Private Citizens &	Sub-Saharan Afri	Armed Assault
26/05/2008	Nigeria	Awoba	Movement for the	11	0	Business	Sub-Saharan Afri	Bombing/Explosi
22/05/2008	Nigeria	Okrika	Movement for the	0	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
22/05/2008	Nigeria	Port Harcourt	Unknown	0	0	Utilities	Sub-Saharan Afri	Armed Assault
18/05/2008	Nigeria	Port Harcourt	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
16/05/2008	Nigeria	Port Harcourt	Unknown	0	0	Other	Sub-Saharan Afri	Hostage Taking (K
13/05/2008	Nigeria	Unknown	Unknown	0	0	Transportation	Sub-Saharan Afri	Hijacking
09/05/2008	Nigeria	Port Harcourt	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
07/05/2008	Nigeria	Owerri	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Hostage Taking (K
04/05/2008	Nigeria	Unknown	Movement for the	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
20/04/2008	Nigeria	Unknown	Movement for the	0	0	Utilities	Sub-Saharan Afri	Facility/Infrastru
16/04/2008	Nigeria	Unknown	Unknown	Unknown	Unknown	Business	Sub-Saharan Afri	Armed Assault
08/04/2008	Nigeria	Asaba	Unknown	0	1	Private Citizens &	Sub-Saharan Afri	Armed Assault
22/03/2008	Nigeria	Port Harcourt	Movement for the	4	Unknown	Military	Sub-Saharan Afri	Bombing/Explosi
24/02/2008	Nigeria	Port Harcourt	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
28/01/2008	Nigeria	Unknown	Unknown	Unknown	Unknown	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
23/01/2008	Nigeria	Port Harcourt	Unknown	Unknown	Unknown	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
16/01/2008	Nigeria	Aker base	Unknown	0	Unknown	Maritime	Sub-Saharan Afri	Armed Assault
16/01/2008	Nigeria	Sand fill	Movement for the	1	2	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
10/01/2008	Nigeria	Bonny Channel	Movement for the	0	Unknown	Business	Sub-Saharan Afri	Facility/Infrastru
06/01/2008	Nigeria	Buruto	Movement for the	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
06/01/2008	Nigeria	Beniboye	Movement for the	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
04/01/2008	Nigeria	Ogbogu	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
01/01/2008	Nigeria	Port Harcourt	Niger Delta Vigila	18	Unknown	Police	Sub-Saharan Afri	Armed Assault
04/12/2007	Nigeria	Unknown	Unknown	1	1	Maritime	Sub-Saharan Afri	Armed Assault
27/11/2007	Nigeria	Bonny	Unknown	3	0	Police	Sub-Saharan Afri	Armed Assault
15/11/2007	Nigeria		Movement for the	0	0	Utilities	Sub-Saharan Afri	Facility/Infrastru
14/11/2007	Nigeria	Bomadi	Unknown	1	Unknown	Police	Sub-Saharan Afri	Facility/Infrastru
12/11/2007	Nigeria	Ibeno	Unknown	1	25	Business	Sub-Saharan Afri	Facility/Infrastru
08/11/2007	Nigeria		Unknown	0	Unknown	Government (Gen	Sub-Saharan Afri	Facility/Infrastru
08/11/2007	Nigeria	Owerri	Unknown	0	0	Other	Sub-Saharan Afri	Armed Assault
05/11/2007	Nigeria	Riverine Area	Movement for the	0	0	Government (Gen	Sub-Saharan Afri	Hostage Taking (K
31/10/2007	Nigeria	Penington (Estua	Movement for the	1	Unknown	Military	Sub-Saharan Afri	Armed Assault
27/09/2007	Nigeria		Unknown	1	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
31/08/2007	Nigeria	Sokoto	Unknown	1	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
20/08/2007	Nigeria	Agadez	Tuaregs	4	3	Police	Sub-Saharan Afri	Bombing/Explosi
14/08/2007	Nigeria	Port Harcourt	Movement for the	14	0	Journalists & Me	Sub-Saharan Afri	Armed Assault
10/08/2007	Nigeria	Port Harcourt	Unknown	Unknown	Unknown	Business	Sub-Saharan Afri	Hostage Taking (K
01/08/2007	Nigeria	Lekki	Unknown	0	Unknown	Government (Dipl	Sub-Saharan Afri	Assassination
12/07/2007	Nigeria	Unknown	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
09/07/2007	Nigeria		Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
06/07/2007	Nigeria	Port Harcourt	Movement for the	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
04/07/2007	Nigeria	Ibadan	Unknown	Unknown	Unknown	Government (Gen	Sub-Saharan Afri	Assassination
04/07/2007	Nigeria		Movement for the	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
17/06/2007	Nigeria	Bayelsa	Unknown	10	Unknown	Business	Sub-Saharan Afri	Hostage Taking (E
15/06/2007	Nigeria	Unknown	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
14/06/2007	Nigeria	Unknown	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
13/06/2007	Nigeria	Unknown	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
10/06/2007	Nigeria	Nembe Oil Field	Movement for the	0	0	Business	Sub-Saharan Afri	Bombing/Explosi
03/06/2007	Nigeria	Ikot Abasi	Unknown	1	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
02/06/2007	Nigeria	Port Harcourt	Niger Delta Peopl	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K

DATE	COUNTRY	CITY	PERPETRAT	FATALITIES	INJURED	TARGET TY	REGION	ATTACK TYI
01/06/2007	Nigeria	Port Harcourt	Movement for the	2	0	Business	Sub-Saharan Afri	Hostage Taking (K
25/05/2007	Nigeria		Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
22/05/2007	Nigeria	Warri	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
19/05/2007	Nigeria	Eleme	Unknown	1	1	Utilities	Sub-Saharan Afri	Hostage Taking (K
16/05/2007	Nigeria	Otu-Eke village	Unknown	0	Unknown	Government (Dipl	Sub-Saharan Afri	Bombing/Explosi
09/05/2007	Nigeria	Escravos	Unknown	0	4	Business	Sub-Saharan Afri	Hostage Taking (K
08/05/2007	Nigeria	Delta	Movement for the	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
06/05/2007	Nigeria	Bayelsa	Movement for the	0	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
03/05/2007	Nigeria	Rivers State	Unknown	Unknown	Unknown	Government (Gen	Sub-Saharan Afri	Armed Assault
02/05/2007	Nigeria		Movement for the	1	0	Business	Sub-Saharan Afri	Armed Assault
27/04/2007	Nigeria	Port Harcourt	Unknown	7	0	Utilities	Sub-Saharan Afri	Armed Assault
20/04/2007	Nigeria		Unknown	0	6	Utilities	Sub-Saharan Afri	Armed Assault
17/04/2007	Nigeria	Kano	Unknown	12	0	Police	Sub-Saharan Afri	Armed Assault
14/04/2007	Nigeria	Elelenwo and Oko	Unknown	7	0	Police	Sub-Saharan Afri	Armed Assault
13/04/2007	Nigeria	Kano	Unknown	2	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
06/04/2007	Nigeria	Unknown	Unknown	0	0	Utilities	Sub-Saharan Afri	Hostage Taking (K
02/04/2007	Nigeria	Kano	Unknown	0	0	Journalists & Me	Sub-Saharan Afri	Facility/Infrastru
02/04/2007	Nigeria	Unknown	Unknown	0	0	Utilities	Sub-Saharan Afri	Hostage Taking (K
31/03/2007	Nigeria	Offshore oil rig	Unknown	Unknown	Unknown	Business	Sub-Saharan Afri	Unarmed Assault
25/03/2007	Nigeria	Ilorin	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Unarmed Assault
23/03/2007	Nigeria	Port Harcourt	Unknown	0	0	Utilities	Sub-Saharan Afri	Hostage Taking (K
28/02/2007	Nigeria		Unknown	Unknown	Unknown	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
23/02/2007	Nigeria	Port Harcourt	Unknown	0	Unknown	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
23/02/2007	Nigeria		Unknown	1	1	Private Citizens &	Sub-Saharan Afri	Armed Assault
19/02/2007	Nigeria	Port Harcourt	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
09/02/2007	Nigeria	Port Hartcourt	Unknown	Unknown	Unknown	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
09/02/2007	Nigeria	Port Hartcourt	Unknown	2	0	Military	Sub-Saharan Afri	Armed Assault
09/02/2007	Nigeria	Port Hartcourt	Unknown	0	1	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
06/02/2007	Nigeria		Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
25/01/2007	Nigeria	Sagbama	Unknown	1	0	Business	Sub-Saharan Afri	Hostage Taking (K
23/01/2007	Nigeria	Port Harcourt	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
20/01/2007	Nigeria		Movement for the	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
13/01/2007	Nigeria	Ekulama	Unknown	12	0	Government (Dipl	Sub-Saharan Afri	Armed Assault
10/01/2007	Nigeria	Yenagoa	Movement for the	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
05/01/2007	Nigeria	Port Harcourt	Unknown	0	0	Telecommunicati	Sub-Saharan Afri	Hostage Taking (K
24/12/2006	Nigeria	Port Harcourt	Movement for the	0	0	Government (Dipl	Sub-Saharan Afri	Bombing/Explosi
23/12/2006	Nigeria	Port Harcourt an	Unknown	0	0	Business	Sub-Saharan Afri	Bombing/Explosi
20/12/2006	Nigeria	Obagi	Unknown	3	0	Business	Sub-Saharan Afri	Armed Assault
18/12/2006	Nigeria	Port Harcourt	Movement for the	0	0	Business	Sub-Saharan Afri	Bombing/Explosi
15/12/2006	Nigeria	Okono/Okpoho	Unknown	0	Unknown	Business	Sub-Saharan Afri	Hostage Taking (K
13/12/2006	Nigeria	Okono/Okpoho	Movement for the	0	0	Private Citizens &	Sub-Saharan Afri	Facility/Infrastru
10/12/2006	Nigeria	Port Harcourt	Unknown	0	0	Other	Sub-Saharan Afri	Bombing/Explosi
08/12/2006	Nigeria	Brass	Unknown	1	1	Business	Sub-Saharan Afri	Facility/Infrastru
03/12/2006	Nigeria	Okono/Okpoho	Niger Delta Vigila	1	Unknown	Transportation	Sub-Saharan Afri	Hostage Taking (E
22/11/2006	Nigeria		Movement for the	4	1	Business	Sub-Saharan Afri	Hostage Taking (E
20/11/2006	Nigeria		Unknown	2	2	Private Citizens &	Sub-Saharan Afri	Assassination
06/11/2006	Nigeria	Yenagoa	Unknown	0	0	Utilities	Sub-Saharan Afri	Hostage Taking (K
10/10/2006	Nigeria		Unknown	Unknown	Unknown	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
04/10/2006	Nigeria	Eket	Unknown	2	Unknown	Private Citizens &	Sub-Saharan Afri	Armed Assault
02/10/2006	Nigeria	Niger Delta	The Joint Revoluti	14	Unknown	Private Citizens &	Sub-Saharan Afri	Armed Assault
26/08/2006	Nigeria	Port Harcourt	Unknown	1	0	Utilities	Sub-Saharan Afri	Hostage Taking (K
24/08/2006	Nigeria	Port Harcourt	Unknown	1	6	Utilities	Sub-Saharan Afri	Facility/Infrastru

DATE	COUNTRY	CITY	PERPETRAT	FATALITIES	INJURED	TARGET TY	REGION	ATTACK TYI
14/08/2006	Nigeria	Ijan	Unknown	1	0	Violent Political P	Sub-Saharan Afri	Assassination
03/08/2006	Nigeria	Port Harcourt	Movement for the	0	0	Utilities	Sub-Saharan Afri	Hostage Taking (K
27/07/2006	Nigeria	Ikoyi	Unknown	1	0	Violent Political P	Sub-Saharan Afri	Assassination
06/07/2006	Nigeria	Sagana	Unknown	Unknown	Unknown	Business	Sub-Saharan Afri	Hostage Taking (K
06/07/2006	Nigeria	Gbaran	Unknown	Unknown	Unknown	Business	Sub-Saharan Afri	Hostage Taking (K
05/07/2006	Nigeria	Off-shore Oil Rig	Unknown	Unknown	Unknown	Business	Sub-Saharan Afri	Hostage Taking (K
30/06/2006	Nigeria	Jos	People's Democr	1	1	Government (Gen	Sub-Saharan Afri	Assassination
28/06/2006	Nigeria	Onitsha	Movement for Act	0	1	Private Citizens &	Sub-Saharan Afri	Armed Assault
07/06/2006	Nigeria	Port Harcourt	Movement for the	6	0	Business	Sub-Saharan Afri	Hostage Taking (K
02/06/2006	Nigeria	Warri	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
14/05/2006	Nigeria	Port Harcourt	Unknown	4	2	Police	Sub-Saharan Afri	Armed Assault
12/05/2006	Nigeria		Movement for the	200	Unknown	Utilities	Sub-Saharan Afri	Bombing/Explosi
11/05/2006	Nigeria	Port Harcourt	Gugama Youth Fe	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
10/05/2006	Nigeria		Unknown	1	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
19/04/2006	Nigeria	Port Harcourt	Movement for the	2	7	Military	Sub-Saharan Afri	Facility/Infrastru
03/03/2006	Nigeria		Unknown	0	0	Utilities	Sub-Saharan Afri	Facility/Infrastru
29/01/2006	Nigeria	Port Harcourt	Unknown	0	0	Business	Sub-Saharan Afri	Armed Assault
29/01/2006	Nigeria	Kano	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Facility/Infrastru
24/01/2006	Nigeria	Port Harcourt	Unknown	9	Unknown	Business	Sub-Saharan Afri	Armed Assault
11/01/2006	Nigeria	Unknown	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
26/12/2005	Nigeria	Adeje	Unknown	Unknown	Unknown	Business	Sub-Saharan Afri	Bombing/Explosi
21/12/2005	Nigeria	Ehor	Unknown	5	Unknown	Business	Sub-Saharan Afri	Facility/Infrastru
20/12/2005	Nigeria	Agba Okwan Asar	Unknown	11	Unknown	Business	Sub-Saharan Afri	Facility/Infrastru
22/09/2005	Nigeria	Akutuutu	Niger Delta Peopl	0	0	Utilities	Sub-Saharan Afri	Facility/Infrastru
16/06/2005	Nigeria	Unknown	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (E
15/06/2005	Nigeria	Warri	Ijaw militants	0	0	Business	Sub-Saharan Afri	Hostage Taking (E
13/05/2005	Nigeria	Sokoto	Other	2	35	Religious Figures	Sub-Saharan Afri	Armed Assault
05/05/2005	Nigeria	Nabordo	Unknown	1	0	Utilities	Sub-Saharan Afri	Armed Assault
03/01/2005	Nigeria	Iyanomo	Unknown	0	1	Military	Sub-Saharan Afri	Armed Assault
09/10/2004	Nigeria	Kala-Balge Bushe	Al-Sunna wal Jam	3	Unknown	Police	Sub-Saharan Afri	Armed Assault
22/04/2004	Nigeria	Warri	Itsekiri	10	4	Private Citizens &	Sub-Saharan Afri	Armed Assault
08/03/2004	Nigeria	Lokoja	Unknown	1	0	Government (Gen	Sub-Saharan Afri	Assassination
09/01/2004	Nigeria	Warri	Unknown	18	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
08/01/2004	Nigeria	Port Harcourt	Unknown	8	2	Private Citizens &	Sub-Saharan Afri	Armed Assault
07/01/2004	Nigeria	Abuja	Unknown	1	0	Military	Sub-Saharan Afri	Assassination
27/11/2003	Nigeria	Warri	Ijaw militants	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
19/11/2003	Nigeria	Unknown	Bini-Oru	1	1	Business	Sub-Saharan Afri	Hostage Taking (K
27/07/2003	Nigeria	Warri	Egbema National	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
24/05/2003	Nigeria	Ajama	Other	0	0	Utilities	Sub-Saharan Afri	Bombing/Explosi
14/04/2003	Nigeria	Ugbuwangue	Unknown	6	Unknown	Private Citizens &	Sub-Saharan Afri	Armed Assault
08/04/2003	Nigeria	Warri	Unknown	0	0	Business	Sub-Saharan Afri	Bombing/Explosi
08/02/2003	Nigeria	Owerri	Unknown	1	0	Government (Gen	Sub-Saharan Afri	Assassination
02/02/2003	Nigeria	Lagos	Unknown	20	43	Private Citizens &	Sub-Saharan Afri	Bombing/Explosi
13/12/2002	Nigeria	Rim	Other	14	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
02/11/2002	Nigeria	Namaran	Unknown	3	0	Government (Gen	Sub-Saharan Afri	Armed Assault
16/08/2002	Nigeria	Ayetoro	Unknown	2	1	Private Citizens &	Sub-Saharan Afri	Assassination
02/01/2002	Nigeria	Donga	Unknown	8	5	Private Citizens &	Sub-Saharan Afri	Armed Assault
23/12/2001	Nigeria	Ibadan	People's Democr	1	0	Government (Gen	Sub-Saharan Afri	Assassination
17/12/2001	Nigeria	Abia	Movement for Act	2	1	Police	Sub-Saharan Afri	Armed Assault
19/08/2001	Nigeria	Lagos	Odua Peoples' Co	0	0	Police	Sub-Saharan Afri	Facility/Infrastru
31/07/2000	Nigeria	Unknown	Unknown	0	0	Business	Sub-Saharan Afri	Unarmed Assault
18/06/2000	Nigeria	Escravos	Unknown	0	0	Other	Sub-Saharan Afri	Hostage Taking (K

DATE	COUNTRY	CITY	PERPETRAT	FATALITIES	INJURED	TARGET TY	REGION	ATTACK TYI
14/04/2000	Nigeria	Warri	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
07/04/2000	Nigeria	Port Harcourt	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
14/03/2000	Nigeria	Lagos	Unknown	0	0	Business	Sub-Saharan Afri	Facility/Infrastru
21/02/2000	Nigeria	Kaduna	Other	20	Unknown	Private Citizens &	Sub-Saharan Afri	Facility/Infrastru
04/01/2000	Nigeria	Lagos	Odua Peoples' Co	0	2	Police	Sub-Saharan Afri	Unknown
15/11/1999	Nigeria	Ekakpamre	Other	0	0	Business	Sub-Saharan Afri	Unknown
13/11/1999	Nigeria	Unknown	Egbesu Youths of	22	Unknown	Military	Sub-Saharan Afri	Armed Assault
13/11/1999	Nigeria	Unknown	Egbesu Youths of	22	Unknown	Military	Sub-Saharan Afri	Armed Assault
13/11/1999	Nigeria	Warri	Ijaw militants	0	1	Other	Sub-Saharan Afri	Armed Assault
13/11/1999	Nigeria	Warri North	Ijaw militants	Unknown	Unknown	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
08/11/1999	Nigeria	Escravos	Unknown	0	0	Transportation	Sub-Saharan Afri	Facility/Infrastru
01/11/1999	Nigeria	Bonny Island	Unknown	0	0	Transportation	Sub-Saharan Afri	Facility/Infrastru
30/10/1999	Nigeria	Warri	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
08/10/1999	Nigeria	Unknown	Unknown	0	8	Business	Sub-Saharan Afri	Facility/Infrastru
20/07/1999	Nigeria	Osoko	Unknown	0	0	Business	Sub-Saharan Afri	Facility/Infrastru
08/07/1999	Nigeria	Egwa	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
27/06/1999	Nigeria	Unknown	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
19/06/1999	Nigeria	Unknown	Other	100	200	Private Citizens &	Sub-Saharan Afri	Armed Assault
19/06/1999	Nigeria	Kantu	Other	5	0	Other	Sub-Saharan Afri	Armed Assault
05/04/1999	Nigeria	Unknown	Association of Mc	0	0	Business	Sub-Saharan Afri	Unarmed Assault
14/02/1999	Nigeria	Unknown	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
09/02/1999	Nigeria	Unknown	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Hostage Taking (K
24/04/1998	Nigeria	Lagos	Unknown	4	Unknown	Private Citizens &	Sub-Saharan Afri	Bombing/Explosi
24/04/1998	Nigeria	Ile-Ife	Unknown	5	Unknown	Private Citizens &	Sub-Saharan Afri	Bombing/Explosi
06/12/1997	Nigeria	Ife	Modakeke Ethnic	15	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
02/12/1997	Nigeria	Ife	Modakeke Ethnic	20	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
25/09/1997	Nigeria	Ondo	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
19/09/1997	Nigeria	Lagos	Unknown	0	10	Religious Figures	Sub-Saharan Afri	Bombing/Explosi
17/09/1997	Nigeria	Warri	Unknown	1	0	Military	Sub-Saharan Afri	Hostage Taking (K
02/09/1997	Nigeria	Ado-Ekiti	Unknown	0	7	Military	Sub-Saharan Afri	Bombing/Explosi
20/08/1997	Nigeria	Ife	Modakeke Ethnics	16	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
20/08/1997	Nigeria	Ife	Modakeke Ethnics	16	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
20/08/1997	Nigeria	Ife	Modakeke Ethnics	16	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
20/08/1997	Nigeria	Ife	Modakeke Ethnics	16	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
15/08/1997	Nigeria	Lagos	Unknown	0	0	Private Citizens &	Sub-Saharan Afri	Bombing/Explosi
06/08/1997	Nigeria	Port Harcourt	Unknown	1	2	Unknown	Sub-Saharan Afri	Bombing/Explosi
16/05/1997	Nigeria	Onitsha	Unknown	4	3	Religious Figures	Sub-Saharan Afri	Bombing/Explosi
16/05/1997	Nigeria	Onitcha	Unknown	1	0	Unknown	Sub-Saharan Afri	Bombing/Explosi
12/05/1997	Nigeria	Ibadan	Unknown	0	0	Military	Sub-Saharan Afri	Bombing/Explosi
07/05/1997	Nigeria	Lagos	Unknown	0	5	Military	Sub-Saharan Afri	Bombing/Explosi
11/03/1997	Nigeria	off shore	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
12/02/1997	Nigeria	Lagos	Unknown	0	8	Military	Sub-Saharan Afri	Bombing/Explosi
07/01/1997	Nigeria	Lagos	Unknown	1	15	Military	Sub-Saharan Afri	Bombing/Explosi
04/01/1997	Nigeria	Lagoa	Unknown	Government (General)		Sub-Saharan Africa		Firearms
18/12/1996	Nigeria	Lagos	Unknown	0	12	Transportation	Sub-Saharan Afri	Bombing/Explosi
16/12/1996	Nigeria	Lagos	Unknown	0	2	Military	Sub-Saharan Afri	Assassination
14/11/1996	Nigeria	Lagos	Unknown	3	0	Unknown	Sub-Saharan Afri	Bombing/Explosi
04/06/1996	Nigeria	Lagos	Unknown	2	0	Private Citizens &	Sub-Saharan Afri	Assassination
31/05/1996	Nigeria	Kabuna	Unknown	1	0	Business	Sub-Saharan Afri	Bombing/Explosi
23/05/1996	Nigeria	Lagos	Unknown	1	0	Business	Sub-Saharan Afri	Assassination
01/05/1996	Nigeria	Lagos	Unknown	0	0	Military	Sub-Saharan Afri	Armed Assault
13/04/1996	Nigeria	Lagos	Unknown	2	0	Military	Sub-Saharan Afri	Bombing/Explosi

DATE	COUNTRY	CITY	PERPETRAT	FATALITIES	INJURED	TARGET TY	REGION	ATTACK TYI
02/02/1996	Nigeria	Lagos	Unknown	0	1	Journalists & Me	Sub-Saharan Afri	Assassination
18/01/1996	Nigeria	Kabuna	Unknown	1	0	Business	Sub-Saharan Afri	Bombing/Explosi
17/01/1996	Nigeria	Kano	United Front for M	14	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
06/10/1995	Nigeria	Lagos	Unknown	1	0	Government (Gen	Sub-Saharan Afri	Assassination
30/09/1994	Nigeria	Kaduna	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
28/09/1994	Nigeria	Kaduna	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
19/09/1994	Nigeria	Lagos	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Facility/Infrastru
02/09/1994	Nigeria	Abuja, Osun State	Unknown	0	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
13/08/1994	Nigeria	Lagos	Council for Popul	0	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
13/08/1994	Nigeria	Lagos	Council for Popul	0	0	Government (Gen	Sub-Saharan Afri	Bombing/Explosi
12/05/1994	Nigeria	Bakassi Peninsul	Unknown	2	0	Military	Sub-Saharan Afri	Armed Assault
09/02/1994	Nigeria	Brass area	Unknown	13	0	Maritime	Sub-Saharan Afri	Armed Assault
20/12/1992	Nigeria	Lagos	Unknown	0	1	Government (Dipl	Sub-Saharan Afri	Assassination
07/10/1992	Nigeria	Lagos	Unknown	0	1	Private Citizens &	Sub-Saharan Afri	Armed Assault
28/05/1992	Nigeria	Lagos	Unknown	0	0	Business	Sub-Saharan Afri	Hostage Taking (K
21/05/1992	Nigeria	Lagos	Igbo tribal group	0	0	Business	Sub-Saharan Afri	Armed Assault
18/05/1992	Nigeria	Kaduna	rioters	0	0	Private Citizens &	Sub-Saharan Afri	Facility/Infrastru
17/05/1992	Nigeria	Zango-Kataf	Hausa Ethnic Gro	13	100	Private Citizens &	Sub-Saharan Afri	Armed Assault
17/05/1992	Nigeria	Kaduna	Katap Ethic Group	10	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
15/05/1992	Nigeria	Akure	Unknown	0	0	Other	Sub-Saharan Afri	Facility/Infrastru
14/05/1992	Nigeria	Lagos	Anti-Government	11	0	Business	Sub-Saharan Afri	Armed Assault
13/03/1992	Nigeria	Jalingo	Muslims	20	0	Religious Figures	Sub-Saharan Afri	Bombing/Explosi
22/02/1992	Nigeria	Benin	Unknown	1	0	Government (Gen	Sub-Saharan Afri	Assassination
19/02/1992	Nigeria	Utan Brama	Effiat ethnic roup	80	0	Private Citizens &	Sub-Saharan Afri	Armed Assault
05/01/1992	Nigeria	Katsina	Shiite Muslims	0	29	Police	Sub-Saharan Afri	Armed Assault
14/10/1991	Nigeria	Kano	Muslim Militants	8	34	Private Citizens &	Sub-Saharan Afri	Facility/Infrastru
30/08/1991	Nigeria	Gusau City	Unknown	2	0	Government (Gen	Sub-Saharan Afri	Facility/Infrastru
28/03/1991	Nigeria	Katsina state	Katsina Muslim S	0	0	Journalists & Me	Sub-Saharan Afri	Facility/Infrastru
13/03/1988	Nigeria	Lagos	Unknown	3	0	Educational Instit	Sub-Saharan Afri	Assassination
23/01/1988	Nigeria	Lagos	Unknown	1	0	Government (Dipl	Sub-Saharan Afri	Assassination
29/11/1983	Nigeria	Ikoyi	Unknown	0	1	Government (Gen	Sub-Saharan Afri	Assassination
27/11/1983	Nigeria	Lagos	Gang	1	0	Government (Gen	Sub-Saharan Afri	Assassination
11/11/1983	Nigeria	Unknown	Unknown	0	1	Government (Gen	Sub-Saharan Afri	Assassination
17/01/1980	Nigeria	Kaduna	Zimbabwe Patriot	Unknown	Unknown	Government (Dipl	Sub-Saharan Afri	Unknown

Source: Global Terrorist Data Base (GTD); *University of Maryland*.

REFERENCES

Abdul-Ganiyu Garba, 1999. Regime Changes, External Shock and Federal Fiscal Operations in Nigeria: 1975-93 in Fiscal Federalism and Nigeria' Economic Development. *Proceedings of the Annual Conference of the Nigerian Economic society* 1999.

------, 2002. Macro Institutional Framework for Harmonizing Fiscal and Monetary Policy: A Research Agenda. Paper prepared for the central Bank of Nigeria

-----, 2004. Harmonizing fiscal and monetary Policy in Nigeria: A preliminary analysis and suggestions for further research in *Leading Issues in macroeconomic management and development* edited by A-G Garba, F. Egwaikhide and A. Adenikinju

------ and P. K. Garba, 2002. Open conflicts when states, institutions and markets fail: The case of Nigeria. Unpublished manuscript in file with the Department of Economics Ahmadu Bello University Zaria, Nigeria.

Abdullah, Ibrahim and Patrick Muana, 1998. The Revolutionary United Front of Sierra Leone: A Revolt of the Lumpen Proletariat' in *Christopher Clapham* (ed.), African Guerrillas, Oxford: James Currey, 1998

ABiodun Adedipe, 2004. The impact of oil on Nigeria's Economic Policy formulation. Text of a paper presented at the conference on Nigeria: Maximizing Pro-poor Growth: Regenerating the Socio-economic Database, organized by Overseas Development Institute in collaboration with the Nigerian Economic Summit Group, 16th / 17th June 2004.

Anneli Botha, 2007. Relationship between Africa and International Terrorism: Causes and Linkages. Paper presented at the conference on Southern African and International Terrorism Dialogue hosted by the Brenthurst Foundation Tswalu, 25-27 January 2007

Aghion, P. and P. Howitt, 1998. Endogenous Growth Theory, *MIT Press*

Alberto Abadie; Javier Gardeazabal, 2010. Methods for Measuring the Costs of Conflict (online). Available at www.diw.de/documents/dokumentenarchiv/17/diw

----------, 2003. The Economic Cost of Conflict: A Case Study of the Basque Country. *American Economic Review* 93(1): 113–132.

----------, 2008. Terrorism and the World Economy. *European Economic Review* 52(1): 1–27.

Alesina, Alberto and Spolaore, Enrico, 1997. On the Number and Size of Nations," *Quarterly Journal of Economics*, 112(4) 1027-1056.

Alex P. Schmid, Albert J. Jongman, et al, 1988. Political Terrorism: A New Guide to Actors, Authors, Concepts, Data Bases, Theories, and Literature, New Brunswick, New Jersey: *Transaction Books*, 1988, pp. 5-6.

Amos Sawyer, 2003. Violent Conflicts and Governance Challenges In West Africa: The Case of the Mano River Basin Area (online. Available at http://www.indiana.edu/~workshop/papers

Baltagi, Badi H., 2005. Econometric Analysis of Panel Data (3rd edition). Chichester, UK: John Wiley & Sons.

Barro, Robert J. and Xavier Sala-i-Martin. 1992. Convergence. Journal of Political Economy, Vol. 100(2): 223–251.

---------- (1995). Economic Growth. New York: McGraw-Hill.

Barro, Robert J. 1991. Economic Growth in a Cross Section of Countries. Quarterly Journal of Economics 100(2): 223–251.

Barro, Robert, (1997). The Determinants of Economic Growth, Lionel Robbins Lectures, Cambridge and London: MIT Press.

Bates, Robert H (1983). "Modernization, Ethnic Competition and the Rationality of Politics in Contemporary Africa." In State versus Ethnic Claims: African Policy Dilemmas. Eds. Donald Rothchild and Victor Olorunsola. Boulder, CO: Westview Press, 1983. 152-171.

Ben.S.Bernanke and Refet S. Gurkaynak (2001): Is growth exogenous? Taking Mankiw, Romer, and Weil seriously. www.nber.org/papers/w8365

Benhabib, J., and Spiegel, Mark M (1994) "The role of Human capital in economic Development: evidence from aggregate cross-country data", Journal of monetary economics 34, 143-173

Blomberg, S. Brock, and Gregory D. Hess, (2002), "The Temporal Links between Conflict and EconomicActivity," Journal of Conflict Resolution, 46(1), 74-90.

Blomberg, S. Brock, Gregory D. Hess, and Akila Weerapana, 2003. Economic Conditions and Terrorism,"European Journal of Political Economy, forthcoming.

Blomberg, S. Brock, Gregory D. Hess, and Athanasios Orphanides, 2004. The Macroeconomic Consequences of Terrorism. *Journal of Monetary Economics* 51(5): 1007–1032.

Blomberg, S. Brock; Hess, Gregory D.; and Siddharth Thacker, (2000). Is There a Conflict-Poverty Trap?,"mimeo.

Brecher, Michael; Wilkenfeld, Jonathan; and Moser, Sheila (1988): Crises in the Twentieth Century," In *Handbook of International Crises*, Volume I, Oxford, UK: Pergamon Books.

Brock Blomberg, Gregory Hess; Athanasios Orpanides (2002):The Macroeconomic Consequences of Terrorism. Claremont Mckenna college WP 2003-02

Brooke, James. (1988): "Visiting State Department Official Condemns Mozambique's Rebels." *New YorkTimes*, April 27, 1988.

Central Bank of Nigeria: (2009) Statistical Bulletin

Chen, Andrew H. and Thomas F. Siems. 2004. The Effects of Terrorism on Global Capital Markets. *European Journal of Political Economy* 20(2): 249–266.

Choucri, Nazli and Robert C. North. (1972). "Dynamics of International Conflict: Some Policy Implications of Population, Resources, and Technology." *World Politics*, Vol. 24, Supplement: Theory and Policy in International Relations. (Spring, 1972), pp. 80-122.

Christa N. Brunnschweiler and Erwin H. Bulte (2008): "Natural Resources and ViolentConflict: Resource Abundance, Dependence and the Onset of Civil Wars". Available at www.cer.ethz.ch/research/wp_08_78

Collier and Sambaniseds (2005) "Understanding Civil War" the International Bank for Reconstruction and Development.

Collier P, Hoeffler A (2000). Greed and grievance in civil war. Washington DC: The World Bank

Collier, P. A. Hoeffler and D. Rohner, 2007. Beyond Greed and Grievance: *Feasibility and Civil War*, CSAE WPS/2006-10, Oxford: U.K

Collier, P. and A. Hoeffler, 1998. On Economic Causes of Civil War, *Oxford Economic* Papers 50: 563-573

Collier, P. and A. Hoeffler, 2004. Greed and Grievance in Civil War, *Oxford Economics* Papers 56: 563-595

Collier, P. and A. Hoeffler, 2005. Resource Rents, Governance, and Conflict, *Journal of Conflict Resolution* 49: 625-633

Collier, Paul, V.L. Elliott, HåvardHegre, AnkeHoeffler, Marta Reynal-Querol, and Nicholas Sambanis. 2003. Breaking the Conflict Trap: Civil War and Development Policy. Washington, DC: *World Bank and Oxford University Press*.

Collier, Paul. 1999. "On the Economic Consequences of Civil War." *Oxford Economics* Paper 51

Crenshaw, Martha, (1981): The Causes of Terrorism," *Comparative Politics* 13(4), 379-399.

DaniRodrik (1998) "Where Did All the Growth Go? External Shocks, Social Conflict and Growth Collapse".Harverd, MA .

De La Croix, David and MatthisDoepke, (2003). Inequality and Growth: Why Differential Fertility Matters."*American Economic Review*, September, 1091-1113.

Deininger, Klaus and Lyn Squire (1996): A New Data Set Measuring Income Inequality." World BankEconomic Review, November, 1996, 65-91.

Denis Larocque and Michael Normandin (2009): Macroeconomic Effects of Terrorist Shocks in Israel DEFL working paper N° 2009-2 Development: An Empirical Investigation." American Economic Review.

Dinopoulos, E., Thompson, P., (1999a): Reassessing the empirical validity of the human capital Dollar, David and AartKraay, 2003, Institutions, Trade and Growth: Revisiting the Evidence",*World Bank Policy Research Working Papers*, 3004.

Drakos, Konstantinos and Ali M. Kutan. 2003. Regional Effects of Terrorism on Tourism in Three Mediterranean Countries. *Journal of Conflict Resolution* 47(5): 621–641.

Drakos, Konstantinos. 2004. Terrorism-Induced Structural Shifts in Financial Risk: Airline Stocks in the Aftermath of the September 11th Terror Attacks. *European Journal of Political Economy* 20(2): 436–446.

Dunne, J Paul and Sam Perlo-Freeman. 2003. "The Demand for Military Spending in Developing Countries." International Review of Applied Economics, 17:1, pp. 23-48

Durlauf, Steven N. and Danny T. Quah (1999): "The New Empirics of Economic Growth", in John B. Taylor And Michael Woodford, eds., *Handbook of Macroeconomics* Vol. 1, Amsterdam: Elsevier Science, 235-308.

Easterly, William and AartKraay, (2000): Small States, Small Problems? Income, Growth and Volatility in Small States", *World Development*, November, 28(11): 2013-2027.

Eckstein, Zvi and Daniel Tsiddon. 2004. Macroeconomic Consequences of Terror: Theory and the Case of Israel. Journal of Monetary Economics 51(5): 971–1002.

Eghosa E. Osaghae and Rotimi T. Suberu (2005): A History of Identities, Violence, and Stability in Nigeria, *CRISE* WORKING PAPER No. 6

Enders, W. and T. Sandler. (1995): Terrorism: Theory and applications. In Handbook of defense economics, ed. K. Hartley and T. Sandler. Amsterdam: Elsevier
Enders, Walter , Sandler, Todd, and Jon Cauley, (1990): Assessing the Impact of Terrorist Thwarting Policies: An Intervention Time Series Approach," Defence Economics, 2(1), 1-18.

Enders, Walter and Todd Sandler, (2002). What do we Know About the Substitution Effect of Transnational Terrorism?" mimeo.

Enders, Walter and Todd Sandler, (1993): The Effectiveness of Anti-Terrorism Policies: Vector Autoregression Intervention Analysis," American Political Science Review, 87(4), 839-44.

Enders, Walter and Todd Sandler. 1996. Terrorism and Foreign Direct Investment in Spain and Greece. Kyklos 49(3): 331–352.

Enders, Walter and Todd Sandler. 2006a. The Political Economy of Terrorism. Cambridge: Cambridge University Press.

Enders, Walter and Todd Sandler. 2006b. Distribution of Transnational Terrorism Among Countries by Income Class and Geography After 9/11. International Studies Quarterly 50(2): 367–393.

Enders, Walter, Adolfo Sachsida, and Todd Sandler. 2006. The Impact of Transnational Terrorism on US Foreign Direct Investment. Political Research Quarterly 59(4): 517– 531.

Enders, Walter, Sandler, Todd and Gerald Parise, (1992): An Econometric Analysis of the Impact of Terrorism and Tourism," Kyklos, 45:4, 531-54.

Enders, Walter, Sandler, Todd and Khursrav Gaibulloev, (2010): Domestic versus transnational terrorism: Data, Decomposition and Dynamics.

Enders, Walter, Todd Sandler, and Gerald F. Parise. 1992. An Econometric Analysis of the Impact of Terrorism on Tourism. Kyklos 45(4): 531–554.

Falendra Kumar Sudan (2010): "Social and Economic Costs of Armed Conflicts on Children: Evidence fromDisplaced Camps in Jammu and Kashmir, India" paper submitted to International Research Workshop of the Households in Conflict Network (HiCN) and the German Institute for Economic Research (DIW Berlin)

Fama, Eugene F., Lawrence Fisher, Michael C. Jensen & Richard Roll (1969). The adjustment of stock prices to new information. International Economic Review 10, 1—21.

Frances Steward (2002):"Root causes of violent conflict in developing countries". Available from http://www.bmj.com/content/324/7333/342.full

Frey, Bruno S. and Luechinger, Simon (2003): Measuring Terrorism. Zurich IEER Working Paper No. 171.

Frey, Bruno S. and Simon Leuchinger, et al. "Calculating Tragedy: Assessing the Costs of Terrorism." *CESifo Working paper*: no 1314. Category 1: Public Finance. November 2004.

Fleischer, A., Buccola, S., 2002. War, terror, and the tourism market in Israel. *Applied Economics* 34, 1335-43.

Friedrich Schneider, TilmanBrück, Daniel Meierrieks (2010): The Economics of Terrorism and Counter-Terrorism: A Survey (Part I) CESIFO WORKING PAPER NO. 3011

Gaibulloev, Khusrav and Todd Sandler. 2008. Growth Consequences of Terrorism in Western Europe. Kyklos 61(3): 411–424.

Garfnkel, Michelle, (1990): Arming as a Strategic Investment in a Cooperative Equilibrium," American Economic Review 80(1) (March), 50-68.

Ghobarah, Hazem A., Paul Huth, and Bruce Russett. 2003. Civil Wars Kill and Maim People—Long After the War Stops. American Political Science Review 97(2): 189–202.

Glaeser, Edward L. and Jesse M. Shapiro, "Cities and Warfare: The Impact of Terrorism on Urban Form,"Journal of Urban Economics, 51(2002):1-20.

Gleditsch, Nils P., Peter Wallensteen, Mikael Eriksson, Margareta Sollenberg, and HåvardHegre. 2002. Armed Conflict 1946–2001: A New Dataset. Journal of Peace Research 39(5): 615–637. UCDP/PRIO Armed Conflicts Version 4–2007. , accessed on 19 April 2008.

Global Terrorism Database 1. 1970–1997. Inter-University Consortium for Political and Social Research. , accessed on 19 April 2008.

Global Terrorism Database 2. 1998–2004. START/CETIS. , accessed on 19 April 2008.

Göran Lindgren (2003): Measuring the Economic Costs of Internal Armed Conflict – A Review of Empirical Estimates; Department of Peace and Conflict Research, Uppsala University, Sweden Goran. Paper for the conference Making Peace Work in Helsinki 4-5 June arranged by The UnitedNations University – World Institute for Development Economics Research (WIDER): http://www.conflictrecovery.org

Grossman, Herschel I., (1991): A General Equilibrium Model of Insurrections," The American Economic Review 81(4) 912-921.

Gurr T.R. (1993): Minorities at risk: a global view of ethno political conflicts. Washington DC: Institute of Peace Press.

Gurr, T.R., K. Jaggers, and W. Moore, (2003): Polity Handbook IV, 2003, University of Colorado Press, Boulder.

Hess, Gregory D. and AthanasiosOrphanides, (1995): War Politics: An Economic, Rational-Voter Framework," American Economic Review, 85(4), 828-846.

Hess, Gregory D. and Athanasios Orphanides, (2001a): Economic Conditions, Elections, and the Magnitude of Foreign Conflicts," Journal of Public Economics, 80(1), 121-140.

Hess, Gregory D. and AthanasiosOrphanides, (2001b): War and Democracy," The Journal of Political Economy, 109(4), 776-810.

Heston, Alan, Robert Summers, and Bettina Aten. 2006. Penn World Table Version 6.2. Philadelphia, PA: Center for International Comparisons of Production, Income and Prices, University of Pennsylvania.

Hirshleifer J (1994): The Dark side of the force. Econ Inquiry

Horowitz D (1985). Ethnic groups in conflict. University of California Press.

Humphreys, Macartan. 2003. Economics and Violent Conflict. The Conflict Prevention Initiative (CPI),an online project of the Harvard Program on Humanitarian Policy and Conflict Research,http://www.preventconflict.org/portal/economics/portalhome.php.

Isaac Olawale Albert (2007): An Alternative Explanation of Religious Fundamentalism in Northern Nigeria, Institute of African Studies University of Ibadan

Islam, Nazrul, "Growth Empirics (1995): A Panel Data Approach", Quarterly Journal of Economics, 110,November 1995, 1127-1170.

Ito, Harumi and Darin Lee. 2005. Assessing the Impact of the September 11th Terrorist Attacks on U.S. Airline Demand. Journal of Economics and Business 57(1):75–95.

Iwayemi, A. (1979): the military and the economy: the Nigerian government and politics under military rule, 1966—79. OyeleyeOyediran, ed. London. The MacMillan press ltd.

James Fearon (2007) "Iraq's Civil War" in Foreign Affairs, March/April 2007.

James M. Boughton (2001) : Different strokes? Common and uncommon Responses to Financial crises IMF Staff papers WP/01/12

James R. Barth, Tong Li, Don McCarthy,TriphonPhumiwasana and Glenn Yago(2006):Economic Impacts of Global Terrorism:From Munich to Bali; Milkeninstitute 2006 Research Report

Kaplan R (1994). The coming anarchy: how scarcity, crime, overpopulation and disease are threatening the social fabric of our planet. Atlantic Monthly 1994 (Feb):44-74.

Keen D (1994). The benefits of famine: a political economy of famine relief in southwestern Sudan 1883-1989. Princeton University Press.

Keynes, John Maynard (1919), The Economic Consequences of the Peace. London, UK: Macmillan and Co..

Klenow, P., Rodríguez–Clare, A., 1997. The neoclassical revival in growth economics: has it gone too far. In: Bernanke, B., Rotemberg, J. (Eds.), NBER Macroeconomics Annual 1997, MIT Press, pp.73–102.

Knight, Malcolm, Norman Loayza, and Delano Villanueva. 1996. "The Peace Dividend: Military Spending Cuts and Economic Growth." IMF Staff Papers 43 (1): 1–37.

Kosuke Imai and Jeremy M. Weinstein (2000); Measuring the Economic Impact of Civil War CID Working Paper No. 51

Krueger, Alan and JitkaMaleckova, 2002 :Education, Poverty, Political Violence and Terrorism: Is There a Causal Connection?"NBER Working Paper 9072, July 2002.

Kunreuther, Howard, Erwann Michel-Kerjan, and Beverly Portor. 2003. Assessing, Managing and Financing Extreme Events: Dealing with Terrorism. Working Paper 10179. National Bureau of Economic Research. Cambridge, MA.

Kormendi, R.C., and P.G. Meguire(1985): "Macroeconomic Determinants of Growth: Cross-Country evidence," Journal of Monetary Economics, 1985, 141-163.

Lapan, Harvey and Todd Sandler, 1988. To Bargain or Not to Bargain: That is the Question,"American Economic Review Papers and Proceedings , 78:2, 16-21.

Lapan, Harvey and Todd Sandler, 1993. Terrorism and Signaling," European Journal of Political Economy, 9:3, 383-97.

Laqueur, W. (1999). The new terrorism: Fanaticism and the arms of mass destruction.New York: Oxford University Press

Levine, R. and D. Renelt, 1992, A Sensitivity Analysis of Cross-Country Growth Regressions, American Economic Review, 82(4), 942-963.

Ling Huang (2010): A Logical Inference and Extension of the Mundell-Flemming Model School of Economics at Peking University Working Paper No. E-2010-06-005

Macartan Humphreys (2003) "Economics and Violent Conflict" http://www.preventconflict.org/portal/economics

Mankiw, N. G., D. Romer, and D. N. Weil. (1992): A Contribution to the Empirics of Economic Growth. Quarterly Journal of Economics 107: 407-37.
Manning, Patrick (1990) "Slavery and African Life: Occidental, Oriental, and Africa Slave Trades". Cambridge University Press. 1990.

Marshall, Monty G. and Keith Jaggers. 2004. Polity IV Dataset and Dataset Users' Manual, Computer file, Version p4v2004. Center for International Development and Conflict Management. University of Maryland, College Park, MD.

Max Baldwin Orero, Charlotte Heime, Suzanne Jarvis Cutler and Sarah Mohaupt (2007): The impact of conflict on the intergenerational transmission ofchronic Poverty: An overview and annotated bibliography, CPRC Working Paper 71

Meade, James E.(1940): The Economic Basis of a Durable Peace. New York, NY: Oxford University Press, 1940.

Mickolus, Edward F. and Susan L. Simmons. 2002. Terrorism, 1996–2001: A Chronology. 2 volumes. Westport, CT: Greenwood Press.

Mickolus, Edward F., Todd Sandler, and Jean Murdock. 1989. International Terrorism in the 1980s: A Chronology of Events. 2 volumes. Ames, IA: Iowa State University.

Mickolus, Edward F., Todd Sandler, Jean M. Murdock, and Peter Flemming. 2006. International Terrorism: Attributes of Terrorism Events (ITERATE), 1968–2005. Dunn Loring, VA: Vinyard Software.

Mickolus, Edward; Sandler, Todd; Murdock, Jean; and Peter Flemming, (2003): International Terrorism: Attributes of Terrorist Events (ITERATE)," Dunn Loring: VA, Vinyard Software.

Murdoch, James C. and Todd Sandler. 2002. Economic Growth, Civil Wars, and Spatial Spillovers. Journal of Conflict Resolution 46(1): 91–110.

N. D. Danjibo (2010) "Islamic Fundamentalism and Sectarian Violence: The"Maitatsine" and "Boko Haram" Crises in Northern Nigeria; Peace and Conflict Studies Programme, Institute of African Studies, University of Ibadan; http://www.ifra-nigeria.org/IMG/

Nafziger EW, Auvinen J (2000). The economic causes of humanitarian emergencies. In: Nafziger EW, Stewart F, Vayrynen R, eds. War, hunger and displacement: theorigin of humanitarian emergencies. Oxford: Oxford University Press,91-145.
New York: Oxford University Press, p. 6 Welfare and Policy Responses, HiCN

Nicholas Sambanis (2003): Using Case Studies to Expand the Theory of Civil War; Social Development Department, Environmentally and Socially Sustainable Development Network

Nitsch, Volker and Dieter Schumacher. 2004. Terrorism and International Trade: An Empirical Investigation. European Journal of Political Economy 20(2): 423–433.

O'Brien, Sean P., (1996). Foreign Policy Crises and the Resort to Terrorism: A Time Series Analysis of Conflict Linkages," The Journal of Conflict Resolution, Vol. 40(2), 1996.

Omitoogun, W. (2003) Military Expenditure Data in Africa: A survey of Cameroon, Ethiopia, Ghana, Kenya, Nigeria and Uganda. SIPRI Research Report No.17, Oxford University Press.

Obstfeld, M. &Rogoff, K.S. (1995) :Exchange rate dynamics redux. Journal of Political Economics,102, 624-660.

Obstfeld, M. and K. Rogoff (1996): Foundations of International Macroeconomics, Cambridge: The MIT Press.

Olson, Mancur. 1982. The Rise and Decline of Nations: Economic Growth, Stagflation, and Social Rigidities. New Haven, CT: Yale University Press.

Philip Verwimp, Tom Bundervoet& Richard Akresh (2010): The Impact of Violent Conflict on Child Health: What Are the Channels?, http://www.microconflict.eu/publications/

Pigou, A. C. (1940): The Political Economy of War. London, UK: MacMillan and Co.

Richard Jackson (2002): "Violent Internal Conflict and the African State: towards a Framework of Analysis" http://cadair.aber.ac.uk
Robbins, Lionel.(1942): The Economic Causes of War. London, UK: Jonathan Cape.

Rodrik, Dani. 1998. Why Do Open Economies Have Bigger Governments? Journal of Political Economy 106(5): 997–1032.

Rodrik, Dani. 1999. The New Global Economy and Developing Countries: Making Openness Work. Policy Essay No. 24. Washington, DC: Overseas Development Council.

Roy Chikwem (2007): Why ECOMOG Is Still The Best?: The Success and Failureof ECOMOG Peacekeeping Operations;http://www.dawodu.com/chikwem2.htm

Said Adejumobi (1999) "Demilitarization and the Search for Democratic Stability in Nigeria".http://unpan1.un.org/intradoc/groups/public/documents/cafrad

Sambanis, Nicholas. (2002). Review of Recent Advances and Future Directions in the Quantitative Literature on Civil War. Defence and Peace Economics 13(3): 215–243.

Sandler, T. and K. Hartley. 1995. The economics of defense. New York: Cambridge University Press

Sandler, Todd and Walter Enders. 2008. Economic Consequences of Terrorism in Developed and Developing Countries: An Overview in Philip Keefer and Normal Loayza (eds.), Terrorism, Economic Development and Political Openness. Cambridge: Cambridge University Press: 17–47.

Sandler, Todd, John Tschirhart, and Jon Cauley. 1983. A Theoretical Analysis of Transnational Terrorism. American Political Science Review 77(1): 36–54.

Schmid, A. and Jongman, A. (1988) Political Terrorism: A New Guide to Actors, Authors, Concepts,Databases, Theories and Literature, Oxford: North Holland.

Shedrack Gaya Best (2001): Religion and religious conflicts in Northern Nigeria; University of Jos Journal of Political science, Vol II No II
Sims, Christopher and Zha, Tao, 1999. Error Bands for Impulse Responses," Econometrica, 67, 1113-1156.

Siqueira, Kevin and Todd Sandler. 2006. Global Terrorism: Deterrence versus Pre-emption. Canadian Journal of Economics 39(4): 1370–1387.

Skaperdas, Stergios, 1992. Cooperation, Conflict, and Power in the Absence of Property Rights,"American Economic Review, 82(4), 720-739.

Solow, Robert M., 1957, "Technical Change and the Aggregate Production Function," Review of Economics and Statistics, 39, pp. 312-320.

Steen L. Jorgensen, Sunday O., and Dirk R. (2003): Conflict Analysis inNigeria. The World Bank

Sloboda, B.W. 2003. "Assessing the Effects of Terrorism on Tourism by Use of Time Series Methods." Tourism Economics, Vol. 9, No. 2, pp. 179-190.

Stergios Skaperdas (2009) :The Costs of Organized Violence: A Review of The Evidence, in Skaperdas et all, The World Bank

Stergios Skaperdas, Rodrigo Soares, AlysWillman, and Stephen C. Miller (2009): "The Costs of Violence"; Social Development Department, The World Bank

Stewart F (2001). Horizontal inequalities as a source of conflict. In: Hampson F, Malone D, eds. From reaction to prevention. London: Lynne Rienner

Stewart, Frances and Valpy Fitzgerald. 2000. "Introduction: Assessing the Economic Costs of War," pp.1-20 in War and Underdevelopment - Volume 1: The Economic and Social Consequences of Conflict. Frances Stewart and Valpy Fitzgerald eds. Oxford: Oxford University Press.

Stiglitz, Joseph E., and Linda J. Bilmes. 2008. The Three Trillion Dollar War: The True Cost of the Iraq Conflict. New York: W.W. Norton and Co.

Sulaiman A. Jaafar-Furo M.R. (2010): Economic effects of Farmer-grazing conflicts in Nigeria: a case of Bauchi state. Trends in agricultural economics 3(3)

Summers, Robert and Alan Heston, 1991. The Penn World Table (Mark 5): An Expanded Set of International Comparisons," Quarterly Journal of Economics, 106(2), 327-368.

Sylvain Chassangy and pador i. Miguel: Economic growth and Civil war: http://personal.lse.ac.uk/padro/EconomicShocks.pdf

Tavares, Jose and RomainWacziarg. 2001. How Democracy Affects Growth. European Economic Review 45(8): 1341–1378.

Tavares, Jose. 2004. The Open Society Assesses Its Enemies: Shocks, Disasters and Terrorist Attacks. Journal of Monetary Economics 51(5): 1039–1070.

Tinbergen, J. (1942): ZurTheorie der LangfirstigenWirtschaftsentwicklung. WeltwirtschaftlichesArchiv55: 511-49.

United States Department of State. 2003. Patterns of Global Terrorism 2002. Washington, DC: US Department of State.

Van Raemdonck, Dirk C. and Paul F. Diehl. 1989. "After the Shooting Stops:Insights on Postwar Economic Growth." *Journal of Peace Research*, 26:3, pp. 249-64.

Walter Laqueur (1999): The New Terrorism: Fanaticism and the Arms of Mass Destruction, Working Paper 61

WorldNetDaily. 2003. Al-Qaida Training Manual Shows Seaports Top Target. , accessed on 19 April 2008.