Violent Conflicts and Foreign Aid in Fragile West African Countries

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Abstract

This study examined the economic implications of violent conflicts and foreign aid in fragile West African countries between 1990 and 2018. The objectives of the study include analyzing the effects of foreign aid on violent conflict in fragile West African economies, and determining the causal relationship between foreign aid, Economic growth, and violent conflict in the region. The dependent variable used is the real GDP per capita, while the covariate variables include foreign aid, violent conflict, labour force, gross fixed capital formation, inflation rate, exchange rate, and trade openness. The static panel analysis, which include the pooled OLS, Fixed effect, and Random effect estimation techniques was used, while the random effect was chosen as the most appropriate among them. Empirical result showed that violent conflict negatively and significantly enhanced the real

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GDP per capita in West African countries. Meanwhile, foreign aid exerted a positive but insignificant impact on the real GDP per capita in the selected West African countries. Moreover, the causality analysis shows that there are unidirectional causal runs from the real GDP per capita to foreign aid and from the real GDP per capita to violent conflict, while there is a bi-directional causal nexus between violent conflict and foreign aid among these West African nations. We, therefore, recommend that foreign aid should be effectively utilized to offset the negative impact of violent conflicts in West Africa.

Key Words: Violent Conflict, Foreign aids, Fragile Nations, Growth, Labour Force, & GDP per Capita.

INTRODUCTION

In recent years, studies on the economic causes and duration of conflicts around the globe have gained increasing attention from academics and policymakers (World Bank, 2016). According to the recent work of Adedoyin (2018), he defines 'Conflict' as armed struggle that occurs in a country, which includes insurgents seeking territorial secession or autonomy, or rebels aiming at the control of the central government, or fighting against modern education. Conflicts lead not only to human suffering but also to economic loss. Moreover, Blattman and Miguel (2010), posit that the proportion of countries involved in conflicts increased steadily through the last half of the twentieth century, peaking in the 1990s. Of the regions of the world, the West African region has seen several of its member nations being severely hit by conflicts such as terrorism, violence, banditry and other forms of social unrest. Countries like Mali, Nigeria, Sierra Leone, Liberia, and Burkina Faso have experienced certain forms of social unrest and are still experiencing such until date. Therefore, studies into conflicts and other aspects of economic development in the region are topical.

Empirical literature has documented conflict as unfavourable to economic growth and development. However, the reverse may be the case, leading

to complications in the analysis (Devitt, 2012). While the number of violent conflicts, particularly inter-state conflicts, may be declining in the region, internal conflicts, ranging from guerrilla war to genocidal war, are still prevalent. These include recent insurgencies in many West African countries, most especially, Boko Haram, Herdsmen kidnapping and Armed Bandits in Nigeria, Islamist militant groups in Mali, as well as Sahel Islamist and Maghred groups in Niger, and Mauritania respectively. The activities of these groups cause disruptions to the economies of the nations with ripples felt throughout the region. These activities have resulted in the destruction of lives and property as well as the internal displacement of people, which led to a region-wide refugee crisis and consequently to poverty and disease, the proliferation of small arms and weapons, human and drug trafficking, illegal exploitation of natural resources and lawlessness (Adebayo, 2010; Annan, 2014; Collier and Sambanis, 2002; Sambanis, 2001).

On the other hand, foreign aid is believed to have played an important role in stimulating economic development in a vast majority of recipient developing economies for decades. Developed nations see the necessity to support developing economies where conflict and violence are rife. The United States foreign aid (sometimes referred to as US foreign assistance) is "aid given by the United States to other countries to support global peace, security, and development efforts, as well as provide humanitarian relief during times of crisis. According to Wikipedia the United States is a small contributor relative to GNI (0.18% 2016) but is the largest single DAC donor of ODA in 2019 (US$34.6 billion), followed by Germany (0.6% GNI, US$23.8 billion), the United Kingdom (0.7%, US$19.4 billion), Japan (0.2%, US$15.5 billion) and France (0.4%, US$12.2 billion). The primary source of ODA is bilateral grants from one country to another, though some of the aid is in the form of loans, and sometimes the aid is channeled through international organizations and nongovernmental organizations (NGOs). Some countries can use foreign aid effectively to speed up economic development, but some cannot. Hence, there has been ample literature on the role of foreign aid in spurring economic growth. The variable has been hypothesized to positively contribute to growth and development, but empirical findings on the growth im-

pact of foreign aid are contentious. The debate on the relationship between the two variables is still ongoing and largely unresolved, especially when it involves using foreign aid to stimulate growth in a fragile state or violence prone country. Significantly, West African countries are generally consistent with the *greed and grievance* theory. The theory argues that the development of conflicts can be attributed to greed and grievance on the part of the population. Essentially, countries with natural resources are more susceptible to conflicts, particularly where these resources are easily accessible and capable of being looted.

Following this introduction is the Literature in section II, Methodology in section III, while Data Analysis and Conclusion occupy sections IV and V respectively.

LITERATURE REVIEW

CONCEPTUAL ISSUES

ECONOMIC GROWTH AND CONFLICT

Many thoughts have arisen because of economic growth and conflict in the recent literature, some of these divergent opinions can be seen clearly as stated below:

The relationship between a country's economic characteristics and its fragility as well as susceptibility to conflict is complex and mutually reinforcing (Holden and Pagel 2012). Growth may determine government popularity, influence grievances, and the willingness of the population to sympathise with a particular side (Collier, et al. 2009). Institutional breakdown and a failure of the social contract are often associated with poverty and growth failure (Murshed & Tadjoeddin, 2009). Collier et al. (2009) argue that financial and military feasibility are the key determinants of whether a rebellion will occur or not. Specifically, they argue that natural resources, when predated by rebels, can finance the escalation and sustainability of rebellion. Lack of inclusion in growth is considered a risk to conflict, particularly where there are horizontal inequalities related to regional or ethnic disadvantage (Stewart 2010).

Therefore, drawing form the above, Economic theory is indistinct about the relationship between conflict and economic growth. On the one hand, conflicts disrupt capital and the work force, which in turn decreases growth in the economy. On the other hand, conflicts can also mobilise the work force, thereby increasing effort and enhancing productivity (Polachek and Sevastianova, 2010). A country experiencing little or no growth might be exposed to high levels of conflict due to its citizens fighting for a better standard of living, among many other reasons. Alternatively, the depletion of resources during wars may be one reason some countries fail to sustain adequate economic growth, because economic growth affects a population's well-being. This question concerning how war relates to growth is important from a policy perspective, though it is plagued with endogeneity problems from the empirical point of view.

The most widely accepted relationship between economic growth and conflict posits that high-income countries are less likely to experience civil wars than low-income countries. Findings are almost entirely consistent in the direction that– growth, prosperity, and development reduce the risks of civil war (Dixon, 2009). According to Collier and Hoeffler (2004), a life in poverty makes people more frustrated and thus more likely to rebel. Poverty also increases the available recruits or rebels because of the large number of unemployed and dissatisfied youths. The number of rebels should decline as the economic opportunity costs of rebellion increases. In richer states, time devoted to production, rather than rebellion and appropria-tion, pays more than in poor states (Sambanis, 2003).

Fearon and Laitin (2003) also find that higher income per capita reduces the likelihood of conflict. However, their argument is that income per capita is a general proxy for a country's financial, administrative and security capacity. If the regime is weak, rebels will have higher chances of success. They further establish that it also captures the quality of infrastructure and central administrative penetration into rural societies where grievance and separatist sentiment may arise. In contrast, Buhaug and Rod Rd (2006) find only a marginally significant effect on territorial (separatist) conflict.

STATE CAPACITY AND CONFLICTS

The costs and losses incurred because of violent conflict have impacts on micro or macro social and institutional performance. Lost economic growth means less revenue for governments, who are then unable to support local-level governance and service delivery (Brück, et al 2013). Tilly (1978) used the Theory of Political Opportunity Model by employing state capacity as the main explanatory factor, by which a state can either repress or accommodate a rebellion. If rebels know that the state is capable of repressing a planned rebellion, they are less likely to attempt to execute it. If the state has, the capacity to accommodate different interests and grievances through institutionalized channels like party systems, the motivation for conflict and rebellion will be lessened (Tilly, 1978). If a state chooses to inhibit a rebellion, the state must have the capacity to identify the rebels and determine the form of coercion to apply. Despite its pedigree and the various interpretations deducible from literatures in the social sciences, state capacity is a relatively lesser-known concept in the economics literature, in part, because it is complex to define and measure.

Melander et al. (2016) and Allanson et al (2017) submitted in their studies that there were subcategories of organized violence that share the same intensity cut-off – an average of 25 fatalities in a calendar year. State-based armed conflict includes all cases where at least one of the parties is the government of a state, that is, armed conflicts between states and within states (e.g. government vs. a rebel group). They include cases ranging from small-scale conflicts, which are only active briefly (e.g. the attempted coup in Lesotho in September 1998), to large-scale wars that rage for many decades (e.g. the government conflict in Afghanistan that has been active on a high-intensity level since 1978). Non-state conflicts include fights between rebel groups, militias, and drug cartels such as the conflict between the Islamic State (IS) and Taleban, which has been raging since 2015 in Afghanistan. It also covers conflicts between informally organized groups, notably between groups with a common identification along ethnic, clan, religious, national, or tribal lines. Examples include inter-ethnic violence between Birom and Fulani as well as between Fulani and Tiv in Nigeria's Middle Belt. Finally, One-sided violence entails the targeted killing of unarmed civilians, by states (e.g. the Afghan Taleban government's excessive killing of civilians, particularly in 1998, when it consolidated its

control over the northern areas of the country), or formally organized non-state groups (e.g. the Ugandan rebel group LRA's massacres across northern Uganda, eastern DR Congo, Central African Republic, and South Sudan).

Moreover, according to Hendrix (2010), state capacity can be categorised into three broad dimensions: first, military capacity; second, administrative capacity; and third, quality and coherence of political institutions. *Military capacity* is typically the state's capability to repress rebellions and is often measured as military personnel per capita or military spending per capita (Hendrix, 2010). *Administrative capacity* can be measured in multiple ways: the quality of the services provided by the state during a government change; the ability to commit to private investors; or the state's ability to collect revenue from the society, monitor the population, as well as identify, and find potential rebels from whom they can elicit information (Hendrix, 2010). *Quality of political institutions* defines state capacity as the degree to which democratic and nondemocratic features are intermingled in the political system. In the extant literature, the most common measure used to capture institutional coherence is the Polity Index (Gurr, 1974; Hegre, *et al.*, 2001; Marshall and Jaggers, 2009).

Besley and Persson (2010) define state capacity as a state's ability to implement policies effectively. This is similar to the definition of economic and legitimate capacity. One of the other dimensions to a state capacity is the ability to create policies and enact them—— extractive and legitimate capacity. If a state lacks funding, it can be challenging to provide the population with their basic needs and demands. The administration of the state becomes difficult when resources are scarce, and arguably, it becomes a vicious circle when revenue from tax, resource rents, grants, and foreign aid plummets because of bad management. A recent interest in economic literature is the distinction between legal and fiscal state capacity. Legal capacity refers to issues such as the availability of contracting institutions (i.e., institutions supporting private contracts) and property rights institutions (i.e., institutions constraining government expropriation). Cardenas *et al.* (2010) propose fiscal state capacity as that which deals with questions such as the ability to raise revenue from the society, usually measured by the total taxes as a share of GDP. One common feature of the

existing conceptualisation of state capacity is the importance of the coercive (and to some extent, the administrative) capacity of the state, which reflects the ability of the state to deter violent challenges to its authority (Collier and Hoeffler, 1998; Fearon and Laitin, 2003; Henderson and Singer, 2000). Against this background, state strength is associated with the degree to which the state can exert power over its citizens.

WEAK AND STRONG STATE CAPACITY

In evaluating the capacity of states in their core area(s) of responsibility, many authors came up with different nomenclature to denote weak states such as 'failed', 'fragile', 'failing' and even 'collapsed'. This is used to differentiate between countries suffering from a wide variety of capacity gaps. While there is no generally acceptable definition of weak states, the consensus is that countries that lack the capacity and/or will to perform core functions of state effectively are weak. These states or countries do not have sufficient bureaucratic penetration into society and efficient institutions of coercion like police and military forces. They are expected to face numerous difficulties in enforcing laws, imposing order, and maintaining peace among the citizens. They also experience numerous challenges in monitoring, discouraging, and suppressing opposition. This situation creates conditions that are conducive for insurgents to recruit non-combatants to their forces.

A failed state therefore is a political body that has disintegrated to a point where basic conditions and responsibilities of a sovereign government no longer function properly. It goes further to say that a state fails if the government loses its legitimacy even if it is performing its functions properly. For a stable state, it is necessary for the government to enjoy both effectiveness and legitimacy. Thus, when a nation weakens and its standard of living declines, it introduces the possibility of total governmental collapse.

In the same vein, the legitimacy of a regime is dependent on its performance; if the state is able to produce and deliver economic and social goods at the level its subjects expect, or at least as its rulers promise, it should have no legitimacy problem. However, if the state cannot adequately steer the economic system, this is likely to result in a decline in its legiti-

macy. With legitimate capacity, the state can effectively steer activities without necessarily deploying coercion. Without legitimacy, the state would find it extremely difficult to extract resources from the society and would have to bear higher costs in maintaining law and order (Habermas, 1976).

In another context, Hironaka (2005) defines state weakness as an ineffective bureaucratic and political system. This definition merely reiterates the definition of a state in a slightly different language rather than identifying the actual underlying antecedents: what, in this context, is the state other than a bureaucratic and political system? What constitutes military and police capabilities or reach of government institutions and in what sense are these things weak?

In answering these questions, many opinions and assertion continue to surface. Of interest, the theme of strong and weak states has recently figured largely in comparative political economy. However, significant variation across sectors in single countries in the degree to which the state is able and willing to intervene in the economy has led to calls for a disaggregated view of the state, with more attention devoted to the different levels – micro, meso, macro – at which the state confronts the economy. The concepts of strength and weakness ensure that greater attention is paid to specific bureaucratic arrangements and the relationships with key societal actors, which, in company with bureaucratic agencies, form the core of 'policy networks' at the sectorial level.

Fragile states are known to be prone to intrastate conflicts (Hegre and Sambanis, 2006), which lends credibility to the model's discrimination of other types of weak states, not all of which are prone to conflict. For example, there is a tendency for aid donors to favour states that are weak in capacity but functional in policies and institutions, and largely free of violent conflict. Hence, the relationship between aid allocation and state type may be examined, in order to confirm the possibility of a donor bias towards states weak in capacity, but bolstered by moderate levels of authority and legitimacy.

Essentially, state building rests on three pillars: the capacity of state structures to perform core functions, their legitimacy and accountability, as well

as ability to provide an enabling environment for strong economic performance that will aid generation of incomes, employment, and domestic revenues. State legitimacy reflects *leadership support of the population along with international recognition of that support.* Legitimacy can be represented by two indices: Control of Corruption, and Voice and Accountability. Strong states have been identified with centralisation, which can be either territorial or administrative. Territorially decentralised states have assets that are separated from state cores either by water or by the territory of other states; strong states are territorially unified. In decentralised states, these units may raise independent taxes, directly elect executive or legislative bodies, or carry out independent public policies in few or many domains. Both federal states and states with systems of indirect rule may be considered decentralised.

The state's strength is related to a professional and autonomous bureaucracy, including military forces. Professionalization is rooted in the methods of credentialing, selection and the philosophy of the bureaucrat (public servant). This is where autonomous officials are salaried, and they cannot appropriate their offices and attached assets as personal property or pass them down to heirs. Weak or failing states have been identified by some contemporary scholars with neo-patrimonialism, or the systematic privatisation and exploitation of public positions and resources (Reno, 1998). Such states are termed predacious, in the sense that they extract resources from the society without providing corresponding public benefits. A related deviation from bureaucratic rationalism involves systematically directing state resources and offices toward real or fictive clans.

Apart from journalistic discourse, the conception of "strength" has declined along with the fortunes of authoritarian states during the so-called "Third Wave" of democratisation. For instance, the governing agility of the Chinese leadership or leadership style of Vladimir Putin's on revitalisation of the Russian polity attests to this position. However, a number of empirical studies of conflict have identified an inverse U-shaped relationship between regime type and civil war, indicating that the most authoritarian states are resistant to the outbreak of civil wars (Vreeland, 2008).

In addition, discourses on international relations sometimes define strong state capacity in terms of the quantity and quality of military assets or "capabilities" such as soldiers, tanks, naval vessels, and munitions (armaments) (Kocher, 2010) that the state possesses. This view of strength is highly intuitive; big, expensive armies win wars and deter would-be aggressors. The logic of the argument can be extended to encompass non-military security forces such as the police. Domestic groups that might otherwise see opportunities to capture the state or detach territories from it are likely to be deterred or defeated quickly before large-scale challenges can develop. Strong states are also referred to as high capacity states when they are able to provide public goods such as human security, medical and health care, as well as social and physical infrastructure that promote human development (Rotberg, 2003). Strong states are also known to possess high levels of socio-political cohesion that are directly correlated with consolidated participatory democracies, strong national identities, as well as productive and highly developed economies. Weak states, also known as low capacity states, are limited in their ability to provide these necessities, leading to low social trust (Rothstein and Stolle, 2008), low development levels, or even state failure (Rotberg, 2004; Skocpol, 1979).

The political domain in African countries has been viewed as a big-man rule regime. Big-man rule conventionally describes the relationships between patron and client in a patrimonial system, with an emphasis on the personal – sometimes almost transcendent – power of the patron and the distance between a leader and a subject. Notorious leaders like Mobutu Sese Seko, Félix Houphouët-Boigny, and Daniel Arap Moi are frequently cited as examples, but the concept of the big-man applies equally well to contemporary leaders, especially in West Africa. The essence of the patron–client relationship is that patrons provide material resources, services, and opportunities – to which they as big-men have access but which others do not – to their followers in exchange for loyal support and allegiance (McCauley, 2012). This generated concern on vote buying in Nigeria. The relationship ensures that subjects have their welfare needs met directly, and that big-men enjoy the authority and legitimacy necessary to maintain power. Some scholars suggest that this relationship could be traced

to precolonial norms that encouraged elites with uncertain time horizons to capitalise on their positions of influence. This bore nepotism, ethnicity alignment, segregation, as well as tribalism.

Conflict and political instability are common features in developing countries as weak government institutions experience stagnation and hopelessness (Besley and Persson, 2010). One of the consequences of colonialism experienced by African countries was that the colonial powers hired mostly Europeans to run the colonies and their regimes were very bureaucratic (Van de Walle, 2001). When independence was given to African countries between the late 1950s and the 1980s, few natives had any experience or training in running a state or even a university degree. This changed drastically through the next decades; still, scholars claim that state capacity has actually deteriorated since the independence of African countries, leading to the development of weak states in the continent (Van de Walle, 2001). Corruption, inadequate or lack of research and technology innovations, low morale, and legitimacy problems, along with shortages of, perhaps outdated, equipment and technology are part of the picture. Brain drain and better-paying jobs in the private sector leave the public sector without enough qualified candidates, and normal government tasks like tax collection and statistical service barely function. Essential services like communications, electricity, education, and transportation systems are neglected because the state is weak and incapable of performing these functions. This, however, is not the current state in most African countries as there are varying degrees of weakness in state capacity. In addition, weak states usually experience all the symptoms of economic underdevelopment: dualistic and poorly integrated mono-economies, heavy debt burdens, low or negative growth rates, high inflation, unemployment, low levels of investment, and massive social inequalities. However, weak states are not totally excluded from periods of economic growth such as were enjoyed by Botswana, Uganda, Nigeria and South Africa in the 1990s and early 2000. In spite of this, by comparison with the developed states in Western Europe or North America, most African countries lag behind significantly in economic growth.

FOREIGN AID ATTRACTION TO AN ECONOMY

The literature on the conditions for giving aid to a country has a large consensus on the recipient's need as a significant criterion of aid allocation. Thus, countries with a high need should receive a high amount of aid. This criterion, among others, is used in several bilateral and multilateral aid policies. For instance, the World Bank's International Development Association (IDA) uses a specific rule of aid allocation, which gives priority to the poorest countries, and those with the ability to use aid effectively. Compared to the IDA, the Asian Development Bank formula assigns a higher weight to recipient countries' poverty level, but a lower weight to the recipient's population size. In a study for the 2008 Development Cooperation Forum at the UN Economic and Social Council, Andersson (2008) evoked different factors, including initial income that influences the form of aid allocation. Other studies (Carter, 2014; Guillaumont and Wagner, 2015; McGillivray and Pham, 2017) provide more details on these aid allocation rules and mention a formula of aid allocation to a recipient country as a function of its poverty.

McGillivray and Pham (2017), Guillaumont *et al*. (2017) consider the lack of human capital as a determinant criterion. Other analyses underline the link between aid allocation and political variables (strategic allies, former colonial status, and the ability to use aid effectively), between aid allocation and macroeconomic conditions (trade openness, commercial allies, etc.). The allocation of aid may be conditional on the policy performance of a country as underlined in Burnside and Dollar (2000), Collier and Dollar (2001, 2002). According to these authors, a country with a high policy quality is more likely to be able to use aid efficiently. Guillaumont and Chauvet (2001) focus on a fairness argument when they concentrate on the recipient's economic vulnerability by prescribing that more aid should be provided to countries with a high economic vulnerability since in these countries aid would be more efficient. This argument also fits in a philosophy of fairness which, proposes that aid should compensate the recipient country for its vulnerable initial situation (in macroeconomic conditions or lack of human capital), so that all countries can begin at the same initial opportunities.

It should be noted, however, that the recipient country uses aid and tax on capital to finance public investment, which improves private capital productivity. Since some spending of aid is wasted in most recipient countries, there is a significant part of the unproductive activity.

THEORETICAL REVIEW

SOLOW GROWTH THEORY

The Solow neoclassical growth model was exhaustively tested in Collier and Dollar (2001). It was postulated that the Solow neoclassical model fits the data better, once an additional variable - human capital - is introduced. This model improves considerably the original ability to explain income disparities across countries. Investigating the limitations listed above, this paper uses another route: new econometric techniques that select a group of countries with time series that present the same stochastic properties in order to make reliable estimates of physical capital share. This procedure provides a new empirical test of the Solow growth model, which yields new evidence on income disparity behaviour across countries. Recently, the profusion of remarkable advances in econometric methods has generated a new set of empirical tests for economic growth theories. In keeping with this trend, an important contribution was made by Guillaumont *et al.* (2017), whose paper reports an estimate for the parameters of a neoclassical model in a panel data approach. In this case, the author admits the levelling effects for individual countries as heterogeneous fixed intercepts in a dynamic panel. Although the Collier and Dollar (2001) findings allow us to conclude, that human-capital performs an important role in the production function, Guillaumont *et al.* (2017) reached an opposite conclusion, once a country's specific technological progress is introduced into the model. This means that since the Solow growth model specifies production as a function of labour and capital, and considering the discussion on violent conflicts and foreign aid, the marginal productivity of labour and consequently output growth will be altered.

THE CLASSICAL THEORY OF GROWTH

The earliest organized school of macroeconomic thought is the "classical" school. The classical economists were proponents of the price mecha-

nism (market system), which assumes that there will be a smooth functioning market where there is effective resource allocation (Andersson, 2008). It also guarantees economic freedom to all and sundry, with built-in flexibility that excludes the need for conscious government planning and intervention. It, however, has certain limitations and inefficiencies resulting in a condition referred to as "market failure". The market failed to achieve a satisfactory level of welfare for the society by providing an equitable or fair distribution of income and wealth, or all of these (Esteban and Ray, 1999). The 1930s Great Depression was a confirmation of the reality of the failure of the market economy, which led to the evolution of Keynesian economics. Keynes submitted that the lingering unemployment and economic depression were a result of failure on the part of the government to control the economy through appropriate economic policies (Granato *et al.*, 1996). Thus, according to the classical theorists, government intervention in the economy is forbidden as only the free interplay between the market forces of demand and supply is necessary for equilibrium wage to be attained in the labour market. However, whenever there are violent conflicts in an economy, the role of government to mediate and strike a balance in order to ensure economic progress becomes very crucial. This then means that the classical theory cannot entirely stand in the face of oppression and violence, thereby causing a modification to the theory in fragile West African states. In addition, the inflow of foreign aid in these economies is a disruption of the smooth interplay between the forces of demand and supply. Hence, there is the need to modify this theory in practice, especially considering the situation within fragile West African countries.

EMPIRICAL REVIEW

STUDIES ON CONFLICTS AND GROWTH

Fearon and Laitin (2003) found that lower GDP per capita is significantly associated with the onset of a civil war. They argue that the key channel linking poverty and civil war is the low repressive capability resulting from weak militaries and poor roads. Using novel geographic data, they also emphasize the role of rough terrain—as captured by the percentage of the country that is mountainous—in sustaining insurgencies. The authors also

found that ethnic diversity does not contribute to the onset of conflict. They submitted that higher income per capita reduces the likelihood of conflict. However, their argument is that income per capita is a general proxy for a country's financial, administrative and security capacity. If the regime is weak, rebels have higher chances of success. They further establish that it also captures the quality of infrastructure and central administrative penetration into rural societies where grievance and separatist sentiment may arise. However, Buhaug and Rųd (2006) find only a marginally significant effect on territorial (separatist) conflict.

Miguel *et al*. (2004) suggest that GDP growth is significantly negatively related to the incidence of civil conflict in SSA during the period between 1981 and 1999 across a range of regression specifications, including some with country fixed effects. They find that the relationship between GDP growth and the incidence of civil conflicts is extremely strong; a five-percentage-point drop in annual economic growth increases the likelihood of a civil conflict (at least 25 deaths per year) in the following year by over 12 percentage points. This amounts to an increase of more than one-half in the likelihood of civil conflict. However, they establish that the impact of income shocks on civil conflict is not significantly different in richer, more democratic and more ethnically diverse African countries or countries with a range of different political institutional characteristics.

Burgoon (2006) suggests that although some public expenditure does not serve redistributive or welfare goals (e.g. defense spending), they still affect the social rights of citizens, particularly in developing countries where clearly social welfare is not developed. He finds no statistically significant relationship between military expenditure and the emergence of internal conflicts, but maintains that the welfare spending remained statistically significant.

Rice and Patrick (2008) developed an index of state weakness in developing countries. The authors define weak states as countries that lack the essential capacity and/or will to fulfil the four sets of critical government responsibilities. These include fostering an environment that is conducive for sustainable and equitable economic growth, establishing and maintaining legitimate transparent political institutions, securing their populations

from violent conflict and controlling their territory, and meeting the basic human needs of their population. About 141 developing countries in the sample were ranked according to their relative performance in four critical spheres: *economic, political, security* and *social welfare.* Therefore, state weakness is measured as a state's effectiveness in delivering some critical dimensions. The state weakness index is based on 20 indicators that show a balanced picture of how each country performs or fails to perform along multiple dimensions. Each indicator score is standardised and aggregated, creating an individual score which is then averaged over the four main categories to obtain an overall score for state weakness ranging from 0.0 (failed state) to 10.0 (strong state). The 20 indicators provide a multifaceted, yet, user-friendly measure of each state's performance profile. Their results show that failed and critically weak states are geographically concentrated in Sub Sahara African (SSA) countries. Though only one-third of the 141 countries examined were in SSA, 23 out of the 28 critically weak states are in the region. There are, of course, high performers in the region, including Botswana, Mauritius, Seychelles and South Africa.

Fjelde and de Soysa (2009) investigate the relationship between conflict and state capacity by suggesting three conceptually and empirical notions of state capacity. These notions signify different ways in which peace can be secured, which are coercion, co-optation, and cooperation. Coercion is defined as the ability to extract large taxes, co-optation as the relative size of government spending or level of public goods provision, and cooperation as the degree of trust economic agents have in state institutions. They find that public spending is significant in enabling strong environments and that good institutions contribute to peaceful periods in a society. Their results suggest that it is beneficial to look at peace as co-produced and not just originating from the coercive ability of the states. They also find that good governance can be obtained by states that are able to elicit cooperation by credibly committing to providing collective goods and securing property rights and the private market. In addition, states that pay back a larger share of the productive assets of society in the form of state spending seem to manage peace better than those that simply have coercive capacity for collecting a super-normal amount of taxes.

Likewise, Thies (2010) examines the relationship between state capacity and civil conflict onset from the primary commodities viewpoint. The focus of the article shifts from typical civil conflict literature - where the incentives of rebel and rulers are revenue seeking in nature - to examine if primary commodities solely affect state capacity or indirectly affect state capacity via conflict onset. Since primary commodities can be looted and are taxable, both rulers and rebels are likely to be drawn to them as sources of revenue. Rather than assume the state is a function of per capita income that serves to constrain rebels, state capacity is modelled as a function of its fiscal size and strength. A two-equation model is developed to capture the simultaneity of civil war and state capacity. The results show that all measures of state capacity are not significantly related to civil conflict. He finds, however, that civil conflict disrupted the normal pattern of revenue extraction even when the extraction includes non-tax revenue.

Bohlken and Sergenti (2010) find that economic growth reduces the incidence of conflict. They examined 15 states in India, with a particular reference to the Hindu-Muslim community; they find economic growth has a negative and significant effect on ethnic riots. They postulate three possible mechanisms through which growth can affect the incidence of riots. All three mechanisms suggest the need for increased growth in reducing the occurrence of riots. They also address the endogeneity problem associated to economic growth with Instrumental Variable (IV) estimation, using percentage change in rainfall as an instrument for growth. The results of the IV estimation are similar to the non-IV estimations, and the authors conclude that the negative effect of economic growth on conflict is not due to reverse causality or the omitted variable bias.

Taydas and Peksen (2012) also argue that higher levels of social welfare spending by the government would reduce the likelihood of civil conflict onset. It is believed that it takes a conscious effort from the government to maintain a state of peace, and this can have an impact on public finances. The state's efforts to increase spending might influence conflict onset in a number of ways but two in particular may be crucial and one is mentioned here. First, the government's commitment to redistribute income has an important effect on the perception and preferences of social actors to-

wards the state. In return, for productive social welfare policies, political leaders gain public loyalty, compliance, and support; they also have an easier time pursuing their agendas. They confirm that strategies like government commitment to redistributing income in favour of the poor, was used by rulers in the west in the 19th century to increase the legitimacy of governments and to prevent revolution.

DiGiuseppe *et al.* (2012) analyse the relationship between state capacity and long-run economic performance for 11 European countries over 4 centuries. The argument for using only European countries lies in Europe being deemed as the birthplace of modern economic growth. They argue that sovereign governments in European history typically faced two key political problems: fiscal fragmentation and absolutism. Although the rulers had weak authority over taxation, they had strong control over expenditures. Under this equilibrium, revenues were low, and executives typically spent available funds on military explorations rather than on public services with broad economic benefits. They also affirm that the implementation of uniform tax systems at the national level – "fiscal centralisation" – enables European states to fulfil effectively their extractive role. This revolution naturally occurred swiftly and permanently from 1789 onward.

Iyoboyi (2014) examines the impact of economic growth on conflicts in Nigeria. Using annual data for the period between 1981 and 2011, and employing the dynamic Ordinary Least Square (OLS) methodology, the author finds evidence of a direct relationship between Nigeria's economic growth and conflict. The author argues that the results are not surprising; given the mono-cultural tendency of the country in terms of crude oil production from which the country gets a bulk of its revenue. This revenue has had a short-lived impact on many conflicts that have occurred in the country. He argues that violent conflicts in the country are partly due to the drive for control of the nation's wealth. Accessing the controlling of other macroeconomic variables, the author finds that poverty, unemployment, and inflation are significant variables influencing the nature and dynamics of conflict in the country.

STUDIES ON FOREIGN AID AND GROWTH

It is necessary to examine studies on foreign aid and growth chronologically, from the past studies to the present, which are closely related. Starting with the work of Fayissa and El-Kaissy (1999), they re-examine the impact of foreign aid on economic growth in the less developed countries. In the study, the researchers incorporate a number of sources of growth as the determinants. The variables include physical capital, human capital, labour, technological changes, and the degree of political and civil liberties into the estimation methods, using average cross-sectional data for 80 countries over the period between 1971 and 1990. They find foreign aid as having significant positive effects on economic growth in the countries under study. They also suggest that foreign capital inflows supplement domestic savings rather than replace them.

Dalgaard, Hansen, and Tarp (2004) investigate the effectiveness of foreign aid, both theoretically and empirically, using a standard overlapping generation model to study the long-run impact of foreign aid on productivity. They find foreign aid to be effective in stimulating growth. This finding is also consistent with the studies of Gomanee, Girma, and Morrissey (2005) and Karras (2006) who establish the significant positive effects of foreign aid on growth.

Irandoust and Ericsson (2005) examine the relationship between foreign aid, domestic saving, and growth in five countries, namely Togo, Senegal, Niger, Nigeria, and Rwanda. They find foreign aid to have positively contributed to economic growth for all countries in their sample. In Melanesia, foreign aid is also found to have a positive impact on growth. Later, Bhattarai (2009) found foreign aid to have positively contributed to growth in Nepal.

Using a sample of 40 member countries of the African Union and the fixed-effects growth models, Loxley and Sackey (2008) support the positive and statistically significant impact of foreign aid on growth in the countries under consideration. Although the variable plays a dynamic role in their chosen countries, they still support the need to strategize in order to reduce future dependence on aid. After a pooled-group mean analysis, Tan (2009) finds foreign aid as having a significant long-run impact on eco-

nomic growth in the selected countries. At the same time, Asteriou (2009) investigates the long-run relationship between foreign aid and the economic growth of five South Asian countries. The findings suggest that foreign aid has a positive relationship with GDP growth as well. Later, Mekasha and Tarp (2013) conducted a meta-analysis, using the data from 68 published and unpublished aid-growth studies covering the period between 1970 and 2004. They find the effect of foreign aid on growth to be positive and statistically significant in their study.

Kim (2011) examines the impact of foreign aid on economic development in South Korea. The findings show that foreign aid was employed successfully to overcome various national challenges and to support state-led development projects for the improvement of the overall economy in South Korea. Kim also suggests that a strong government commitment will play a vital role in ensuring foreign aid is used effectively. In addition, military aid with the presence of American troops in South Korea also helped to increase consumption, which later led to increase in growth.

Juselius, Mụller, and Tarp (2014) conducted a comprehensive analysis of the long-run effects of foreign aid on macroeconomic variables in 36 sub-Sahara African countries from the mid-1960s to 2007. The study used a well-specified cointegrated VAR model. They find the variable to have a positive long-run impact on the macro economy. They also provide little evidence to support previous findings that aid has been harmful. Most recently, with the use of a dynamic spatial framework, Nwaogu, and Ryan (2015) examined how foreign direct investment, foreign aid, and remittances influence the economic growth of 53 African and 34 Latin American and Caribbean countries. They find foreign aid as contributing positively to growth in both regions.

Sothan (2018) examines the growth impact of foreign aid in Cambodia over the period between 1980 and 2014, using the autoregressive distributive lag (ARDL) bounds testing approach. The study also incorporates investment and trade openness into the model. The empirical findings show that trade openness has positive effects on growth in both the short run and the long run; investment has positively contributed to growth in the long run while foreign aid has a positive impact on growth only for

the short run. On the contrary, in the end, it (foreign aid) has a negative impact on investment and growth. This suggests that dependence on foreign aid for long periods does not positively contribute to investment and growth in Cambodia. In order to achieve sustainable growth and enhanced industrialization, policymakers should be enjoined to move from aid dependence to promoting investments through elevating domestic and foreign capital in the country.

Pham and Pham (2019) introduce an infinite-horizon endogenous growth framework for studying the effects of foreign aid on the economic growth in a recipient country. They used aid to finance partially the recipient's public investment. They also point out that the same rule for aid may have very different outcomes, depending on the recipient's circumstances in terms of development level, domestic investment, efficiency in the use of aid and in public investment, etc. Foreign aid may promote growth in the recipient country, but the global dynamics of equilibrium are complex (because of the non-monotonicity and steady state multiplicity). The economy may converge to a steady state or grow without bounds. Moreover, there are rooms for the divergence and a two-period cycle. After characterizing the conditions under which each scenario can take place, the study contributes to the debate on the nexus between aid and economic growth and in particular on the conditionality of aid effects.

GAPS IN THE EMPIRICAL LITERATURE

This research focuses mainly on West Africa and accounts for the relationship between foreign aid and several conflicts as identified in the introduction section. Economic growth has been recorded in West Africa in recent years though the growth is uneven across the countries with a considerable variation throughout the region, as several studies have posited. Furthermore, a related economic issue is that the region still faces high public debt, poverty, and low job creation. There is a vast amount of literature on conflict, these studies note its different dimensions, and how it affects the performance of an economy. Le Billon (2008) argues that conflict hinders growth and the intensity of conflict is crucial to economic growth. Collier and Hoeffler (2004), however, argue that the poor economic performance of the countries is among the main causes of conflicts

in the region. Humphreys (2005) suggests that conflicts in West Africa are generally consistent with the *greed and grievance* theory. The researcher argues that the development of conflicts can be attributed to greed and grievance on the part of some members of the population, but emphasises that countries with natural resources are more susceptible to conflicts, particularly where the resources are easily accessible and capable of being looted. In spite of the many studies available on the subject, a review of the extant literature suggests that research in this area has been unable to reach a consensus on the relationship between conflict and economic growth. Since there is no agreement in the literature as to the possible effect of violent conflict on growth and the fact that foreign aid has not been included in the previous models, this study sets to fill this gap by focusing on West Africa.

THEORETICAL FRAMEWORK

This study is based on the theoretical foundation of the Solow Neoclassical growth model. The study emphasises the role of human capital development in growth process compared to the Solow growth model that states that there is no growth in worker per capita, consumption, and real wages. This study draws from the influential contributions of Mankiw *et al.* (1992). It also draws methodology insight from Keller (2006), Heshmati (2001), Barro (1996) among others.

There are several reasons for the consideration of the Solow growth model. One of which is that people invest in human capital to boost economic growth (see, Keller, 2006; Zhang and Casagrande, 1998; Barro, 1996). Furthermore, there is the need to determine the economic implications of violent conflicts and foreign aid in fragile West African countries. This is derived from the increasing realization of the importance of having a peaceful economy that would drive the growth potentials of the nation. Therefore, in this study, we can augment the theoretical model of Solow to accommodate conflicts and foreign aid because the conventional neoclassical production function, where land, labour, and capital are recognized as the main factors of production is inadequate in this context.

Notably, there are two inputs, capital and labour, which are paid their marginal products, according to Solow (1956), assuming a Cobb-Douglas production function at time t given by:

$$y(t) = k(t)^{\alpha} A(t) L(t)^{1-\alpha} \qquad 0 < \alpha < 1$$

(3.1)

Where: Y is output, K is capital, L is labour and A is the level of technology.

The initial levels of capital, labour, and level of technology are taken as given. Labour and level of technology grow at constant rates:

$\dot{L}(t) = nL(t)$

(3.2)

$\dot{A}(t) = gA(t)$

(3.3)

Where n and g are exogenous parameters and where a dot over a variable denotes a derivative with respect to time.

Applying the result that a variable growth rate equals the rate of change of its log to equation (3.2) and (3.3) tells us that the rates of change of the logs of L and A are constant and that they equal n and g respectively. Thus,

$\ln L(t) = \{\ln L(0)\} + nt$ (3.4)
$\ln A(t) = \{\ln A(0)\} + gt$ (3.5)

Where $L(0)$ and $A(0)$ are the values of L and A at time 0.
Exponentiating both sides of these equations give us:

$$L(t) = L(0)e^{nt}$$ (3.6)
$$A(t) = A(0)e^{nt}$$ (3.7)

The number of effective units of labour, A (t) L (t), grows at rate $n+g$.
The model assumes that a constant fraction of output s is invested. Defining k as the stock of capital per effective unit of labour, $k = K/AL$; and y as the level of output per effective unit of labour, y=Y/AL; the evolution of k is governed by

$$k(t) = sY(t) - (n + g - \partial)k(t) = sK(t)^{\alpha} - (n + g + \partial)k(t)$$

(3.8)

Where ∂ is the rate of depreciation. Equation 3.8 implies that K converges to a steady-state value, which is defined by:

$$sK^{\alpha} = (n + g + \partial)K \, or$$

$$K = \left[\left(\frac{s}{n} + g + \partial\right)\right] 1/(1 - \alpha) \tag{3.9}$$

The steady-state capital labour ratio 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 income. Substituting (3.9) into the production function (3.1), and taking logs, we find the steady-state income per capita as:

$$\ln\left[\frac{y(t)}{L(t)}\right] = \ln A(0) + g(t) + \alpha/1 - \alpha \ln(s) - \alpha/1 - \alpha \ln(n + g + \partial)$$
$$\tag{3.10}$$

Because the model assumes factors of marginal products, it then predicts not only the signs but also the magnitudes of the coefficients on saving and population growth.

METHODOLOGY

This study, which focuses on the economic implications of violent conflicts and foreign aid in fragile West African countries between 1980 and 2018, employs static panel analysis Pooled OLS, Fixed Effect, and Random Effect estimation techniques. Data for the study is generated from the World Terrorism Indicators (2018) and the World Development Indicators of the World Bank (2019).

MODEL SPECIFICATION

In order to carry out this research with a robust analysis of the economic implications of violent conflicts and foreign aid in fragile West African countries, this study employs the real Gross Domestic Product per capita to capture economic growth. To represent equation (3.10) in a functional form to accommodate the variables for this study, we have:

$$GDPPC_{it} = f\,(LF_{it},\, GFCF_{it},\, CFL_{it},\, AID_{it},\, TO_{it},\, EXC_{it},\, INF_{it})$$
$$\tag{3.11}$$

It is expected that asides from labour and capital that the Solow growth model predicts has an impact on economic growth, other explanatory variables, in line with the objectives of this study, also impacts economic growth. The subscript "i" represents the number of countries while "t" represents the number of years. In equation (3.12), the model is stated explicitly as:

$$GDPPC_t = \alpha_0 + \beta_1 LF_t + \beta_2 GCF_t + \beta_3 CFL_t + \beta_4 AID_t + \beta_5 TO_t + \beta_6 EXC_t + \beta_7 INF_t + \mu_t$$

...(3.12)

Thus, in equations (3.11) and (3.12), we have the following notations:

Where; *GDPPC* = Real Gross Domestic Product per capita and it is a proxy for economic growth;

LF = Labour force and it represents labour;

GCF = Gross Fixed Capital Formation, and it represents capital;

CFL = Violent Conflict, and it is captured with the number of terrorism activities;

AID = Foreign Aid, and it is captured with the official development assistance received;

TO = Trade Openness and it is a control variable in the model;

EXC = Exchange Rate, and it is a control variable in the model;

INF = Inflation Rate, and it is a control variable in the model;

α_0 = Intercept;

β_{1-7} = Slope or regression parameters; and

μ = Error term.

ANALYSIS OF RESULT

PRESENTATION OF RESULTS

In this section of the study, we start the presentation of results with the panel-unit root test, which enables us to test for the stationarity of the variables. This is followed by the panel cointegration test, which makes it possible to determine the long run relationship among the regressors. Then, we proceed to presenting the result of the scientific enquiry using the Pooled OLS, Fixed Effect and Random Effect estimations.

PANEL UNIT ROOT RESULT

In Table 4.1, the study presents the panel-unit root result for the heterogeneous process (Im *et al.,* 2003) and the homogenous unit root tests (Breitung, 2000; Levin *et al.,* 2002).

TABLE 4.1: PANEL UNIT ROOT

Variables	Heterogeneous Unit Root Process				Homogeneous Unit Root Process			
	Level		1st Diff		Level		1st Diff	
	ADF	IPS	ADF	IPS	Breitung	LLC	Breitung	LLC
GDPPC	9.35	1.54	43.21***	-3.79***	0.91	1.38	-3.11***	-1.95**
LF	12.54	7.37	32.9***	-2.49***	-6.28***	5.81	-4.58***	-2.829***
GCF	24.90	-1.71**	87.39***	-8.21***	-2.69***	-2.19**	-7.62***	-8.89***
CFL	26.35**	-2.23**	134.5***	-13.4***	-3.19***	-1.19	-6.41***	-9.97***
AID	29.86**	-1.87**	85.09***	-7.97***	-0.48	-2.14**	-4.12***	-3.4***
TO	19.77	-0.87	66.87***	-6.33***	-1.77**	-2.11**	-5.06***	-2.46***
EXC	9.88	1.55	48.5***	-4.22***	0.38	1.97	-3.51***	-3.71***
INF	61.45***	-5.89***	111.8***	-10.4***	-4.4***	-7.05***	-9.65***	-7.59***

*** 1% significant, ** 5% significant; IPS=Im, Pesaran & Shin; LLC=Levin, Lin & Chu.

Table 4.1 shows clearly that for the panel, we accept the null hypothesis of unit root, at level. To this end, we first differentiate the data in the panel and observe that all the variables are stationary. It then implies that at first difference, we can reject the null hypothesis of unit roots in the panel and accept the alternate hypothesis of no unit root. That is, the variables are non-stationary at levels but are stationary at first difference.

PANEL COINTEGRATION RESULT

Since it has been confirmed that all the variables employed in the study are stationary at first difference, instead of at levels, we then proceed to carry out the panel cointegration test given by Pedroni (1999). It is of high importance to be able to determine if a long run relationship exists between the explanatory variables and the economy of fragile West African nations. In doing this, four within-group tests and three between-group tests are explored and presented in Table 4.2. In the table, there are two columns namely the between-dimension and the within-dimension.

TABLE 4.2: PEDRONI RESIDUAL COINTEGRATION TEST

Between-Dimension		Within-Dimension		
	Statistic		Statistic	Weighted Statistic
Group rho	0.7303	Panel v-Stat.	0.7589	-1.5155
Group PP	-3.0176***	Panel rho-Stat.	-3.7684**	-1.6502**
Group ADF	-2.8437***	Panel PP-Stat.	-2.1395***	-2.6328***
		Panel ADF-Stat.	-2.6702***	-4.3379***

***, ** indicate 1%, 5% significance level.

The between-dimension column presents the computed value of the statistics based on estimates that average individually estimated coefficients for every country in the panel, while the within-dimension column presents the computed value based on the estimates that pool the autoregressive coefficient across the countries in the panel. This is necessary for the unit-root tests on the estimated residuals. In Table 4.2, the null hypothesis of no cointegration is rejected for both between group and within-group

dimensions. Only the "group rho" and "panel v-statisticare" are statistically insignificant for the between-dimension and within-dimension respectively. All the other criteria in the between and within-dimension are statistically significant. Hence, we conclude that there is a long-run relationship between the variables.

RESULT OF THE PANEL ESTIMATES

The panel estimates employed in this study include the pooled OLS, Fixed effect, and Random effect presented in Tables 4.3, 4.4, and 4.5. The coefficients of real GDP per capita, labour force, gross fixed capital formation, violent conflict, foreign aid, trade openness, exchange rate, and inflation rate are shown in the three tables. We then use the F-test and Hausman test to determine the appropriate model to interpret. The F-test is used to choose between the pooled OLS and the other two models, while the Hausman test is used to choose between the Fixed effect and Random effect models.

TABLE 4.3: POOLED OLS RESULT FOR THE FRAGILE WEST AFRICAN COUNTRIES

Variable	Dependent Variable: Real GDP Per Capita			
	Coefficient	Std. Error	t-Statistic	Prob.
Constant	3.7562***	0.7978	4.7081	0.0000
LF	0.1067***	0.0379	2.8097	0.0054
GCF	0.0173***	0.0029	5.9380	0.0000
CFL	0.1679***	0.0291	5.7788	0.0000
AID	0.0365	0.0454	0.8038	0.4224
TO	0.0007	0.0009	0.7285	0.4671
EXC	-0.0001***	0.0003	-5.0352	0.0000
INF	-0.0003	0.0021	-0.1544	0.8774
R-squared	0.8514			
Adj. R-squared	0.8342			
F-Statistic	26.325			
Prob (F-Stat)	0.0000			

Note: ***indicates 1% level of significance

The result in Table 4.3 shows that after holding constant all the explanatory variables, the real GDP per capita in fragile West African nations is 3.7562. In addition, the result shows that violent conflict has a positive and significant impact on economic growth in West African Fragile nations. The coefficient of 0.1679 indicates that a 1% increase in violent conflict causes the real GDP per capita to rise by about 0.16% while keeping constant all the other explanatory variables. Violent conflict is also significant in the pooled OLS model at 1% level of significance. Again, foreign aid has a coefficient of 0.0365, which means that it positively affects economic growth in fragile West African states. Its p-value of 0.4224 means that it is not significant. However, since the F-statistic value of 26.325 is significant at 1% level, we can confirm that there are unobserved individual effects in the selected panel and that the countries are unique. We, therefore, reject the null hypothesis of omitted variables in the panel and accept the fact that the Fixed effect and Random effect models are more appropriate than the pooled OLS.

TABLE 4.4: FIXED EFFECT RESULT FOR THE FRAGILE WEST AFRICAN COUNTRIES

Variable	Dependent Variable: Real GDP Per Capita			
	Coefficient	Std. Error	t-Statistic	Prob.
Constant	3.3254***	1.2349	2.6929	0.0077
LF	0.0652	0.0433	1.5064	0.1336
GCF	0.0199***	0.0034	5.8362	0.0000
CFL	-0.2001***	0.0335	-5.9720	0.0000
AID	0.0861	0.0681	1.2643	0.2076
TO	0.0004	0.0011	0.3629	0.7170
EXC	-0.0001***	0.0003	-4.6346	0.0000
INF	0.0023	0.0024	0.9840	0.3263
R-squared	0.9254			
Adj. R-squared	0.8917			
F-Statistic	5.0748			
Prob (F-Stat)	0.0000			

Note: ***indicates 1% level of significance

The result in Table 4.4 shows that after holding constant all the explanatory variables, the real GDP per capita in Fragile West African nations is 3.3254. In addition, the result shows that unlike the pooled OLS result, violent conflict has a negative and significant impact on economic growth in West African Fragile nations. The coefficient of 0.2001 indicates that a 1% increase in violent conflict causes the real GDP per capita to fall by about 0.2% while keeping constant all the other explanatory variables. Violent conflict is also significant in the pooled OLS model at a 1% level of significance. However, foreign aid has a coefficient of 0.0861, which means that it positively affects economic growth in fragile West African states while its p-value of 0.2076 means that it is insignificant in the model.

TABLE 4.5: RANDOM EFFECT RESULT FOR THE FRAGILE WEST AFRICAN COUNTRIES

Variable	Dependent Variable: Real GDP Per Capita			
	Coefficient	Std. Error	t-Statistic	Prob.
Constant	3.7563***	0.8340	4.5038	0.0000
LF	0.1067***	0.0397	2.6878	0.0077
GCF	0.0173***	0.0030	5.6804	0.0000
CFL	-0.1679***	0.0304	-5.5280	0.0000
AID	0.0365	0.0475	0.7689	0.4428
TO	0.0007	0.0009	0.6969	0.4866
EXC	-0.0001***	0.0002	-4.8167	0.0000
INF	0.0003	0.0022	0.1477	0.8827
R-squared	0.8954			
Adj. R-squared	0.8817			
Hausman Test	8.1057			
Probability	0.3234			

Note: ***indicates 1% level of significance

In Table 4.5, we present the result of the Random Effect estimation, and findings illustrate that after holding constant all the explanatory variables, the real GDP per capita in Fragile West African nations is 3.7563. Similarly, like the Fixed Effect result, findings in Table 4.5 show that violent conflict has a negative and significant impact on economic growth in West

African Fragile nations. The coefficient of 0.1679 indicates that a 1% increase in violent conflict causes the real GDP per capita to fall by about 0.17% while keeping constant all the other explanatory variables. Violent conflict is also significant in the pooled OLS model at 1% level of significance. Moreover, foreign aid has a coefficient of 0.0365, which means that it positively impacts economic growth in fragile West African states while its p-value of 0.4428 means that it is insignificant in the model. It implies that a 1% increase in foreign aid causes the real GDP per capita to rise by about 0.03% while keeping constant all the other explanatory variables. However, since the Hausman test is only possible after estimating the Random Effect model, it is presented in Table 4.5. The Hausman test value of 8.1057 is insignificant at 1% and 5% level since its P-value is 0.3234. Thus, we accept the null hypothesis of the appropriateness of OLS estimates. This means that the Random Effect model is more appropriate, and we proceed to explain and discuss the random effect result.

Table 4.6: Causality Analysis

Null Hypothesis	Probability
AID does not Granger Caus e GDPPC	0.1891
GDPPC does not Granger Cause AID	0.0002***
CFL does not Granger Cause AID	0.0017***
AID does not Granger Cause CFL	0.0003***
CFL does not Granger Cause GDPPC	0.2198
GDPPC does not Granger Cause CFL	0.0116**

Note: ***, ** implies significance at 1%, 5% respectively.

The causality analysis presented in Table 4.6 shows that there is a unidirectional causal relationship running from the real GDP per capita to foreign aid. This means that income growth is a stimulating factor for attracting foreign aid into fragile West African countries. In addition, there is a unidirectional causal nexus running from the real GDP per capita to violent conflict. It, thus, follows that income growth granger causes violent conflict in these nations. That is, the possibility for economic growth and in-

come consideration engenders conflicts in fragile West African countries. Lastly, the result shows that there is a bidirectional causal nexus between violent conflict and foreign aid among the West African nations. This implies that an increase in conflicts makes room for more foreign aid inflow to the region and an increase in foreign aid in-turn promotes more conflict in West Africa.

DISCUSSION OF RESULTS

The ensuing implication from the random effect estimation is that violent conflict negatively and significantly affects the economies of fragile West African nations. The idea is that violent conflict poses serious damage to these nations' economies by reducing their output growth. This can be attributed to the fact that an increase in violence and conflict, including terrorism and other social vices, makes these economies unsafe and highly inimical to the tenets of development and productivity. Once productivity reduces, there is the possibility that workers will be laid off by firms as aggregate demand drops as well. The reduction in the overall level of transaction further compounds output growth by reducing household consumption and future investment in the country. This result is in tandem with those of Bohlken and Sergenti (2010), Miguel *et al*. (2004), and Fearon and Laitin (2003), which find that conflicts have a negative and significant impact on economic growth.

Regarding the result of foreign aid, this study confirms that foreign aid positively but insignificantly enhances the economies of fragile states in West Africa. This implies that foreign aid is beneficial to these economies, and whatever negative impact that conflicts brings to the economy, foreign aid might be able to offset such negative influence. This can be attributed to the fact that when foreign aids are received, they provide the necessary injections into the economy and stimulate transaction levels. The only challenge regarding these in West African states is that foreign aid is insignificant in driving growth. This might be caused by the fact that foreign aids are not often utilised for what they are released for in these countries. The finding is, therefore, in tune with Juselius *et al* (2014), Nwaogu and Ryan (2015), and Sothan (2018), who all find a positive association between foreign aid and growth. It is, however, at variance with studies like Loxley

and Sackey (2008), Tan (2009), as well as Mekasha and Tarp (2013), who all confirmed that foreign aid significantly determined economic growth.

CONCLUSION

This study critically examined the economic implications of violent conflicts and foreign aid in fragile West African countries between 1990 and 2018. Three objectives were specifically captured in the study and the first and second involved analysing the effects of foreign aid and violent conflict on fragile West African economies respectively, while the third involved the determination of the causal relationship between foreign aid, growth, and violent conflict in West Africa. The analysis of the economic implications of violent conflicts and foreign aid in fragile West African countries between 1990 and 2018 is very revealing. The estimated regression results revealed that violent conflict negatively and significantly enhanced the real GDP, foreign aid positively but insignificantly enhanced the real GDP, and there is causal relationship between violent conflict, foreign aid, and fragile West African countries. To this end, we conclude that violent conflict is negative while foreign aid is positive in fragile West African countries over the period of study.

The following strategic policy options are proffered as follows: The national governments in these West African countries should stem the tide of conflicts by creating job opportunities for the youths in order to promote economic growth. Foreign aid should be effectively utilised to offset the negative impact of violent conflicts in West Africa. Violent conflicts can be discouraged by celebrating and promoting citizens that excel in their chosen fields and by giving rewards to good behaviour. This can provide a means to preventing violence and encouraging friendliness in West Africa.

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