

7-1-2015

## Poverty and Conflict: Can Economic Development Prevent Conflict?

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### Recommended Citation

Galster, K. (2015). Poverty and Conflict: Can Economic Development Prevent Conflict?. *Journal of Interdisciplinary Conflict Science*, 1(1), 7-29. Retrieved from <https://nsuworks.nova.edu/jics/vol1/iss1/1>

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## ***Poverty and Conflict: Can Economic Development Prevent Conflict?***

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### **Abstract**

War and widespread poverty plague the developing countries of the world in a devastatingly violent cycle. This paper illustrates a correlation between economics and the role it can play in violence. The author surveys three theoretical approaches to understanding conflict resolution and socioeconomic causal relationships of violence, summarizes empirical evidence of those causal relationships, explores these relationships in terrorism and civil war, and utilizes those theories and empirical data in an analytical case study of the Hashemite Kingdom of Jordan, including a correlation coefficient matrix and regression analysis with policy implications. The theoretical approaches surveyed include human security and development, the horizontal inequalities theory, and structural demographic theory. The unique and peaceful approach of growing a developing nation's economy could be key to breaking the cycle of violent conflict in war-torn countries and avoiding such violence in countries on the verge of civil war.

Possibly the most unfortunate state of affairs of all is war. Armed conflicts around the world yield countless refugees, widows, orphans, and render many destitute. The costs of armed conflict in many ways are immeasurable, but action can and should be taken to prevent situations causing the outbreak of violence in addition to rebuilding and rendering aid in post-conflict occasions. Although socioeconomic issues are not the primary reason for conflict, empirical evidence supports that there is a strong case for causal relationships between economic stability and violence. A survey of three theoretical concepts, in addition to empirical evidence, examples of civil war and terrorism, policy choices, and an analysis of a case study of the Hashemite Kingdom of Jordan, may further develop understanding of the subject. Finally, the potential roles of non-government (both not-for-profit and for-profit entities) and government organizations in preventing conflict through economic development will be addressed.

Three theoretical approaches to understanding links between conflict and socioeconomic standing are human security and development, horizontal inequalities and conflict, and structural demographic theory. Human security and development, as indicated by Krause and Jutersonke (2005), is based on the basic human need for security in economic stability as well as from both internal and external violence. The commonly held view in economics and development was that development was a precondition for security and increased development would reduce the incidence of conflict within and between states (Krause & Jutersonke, 2005). This was severely challenged, however, with the development that took place directly before the Rwandan genocide. In a crisis of scarcity, development assistance and relief are precious commodities which, if wrongly distributed, can reinforce social cleavages and consequently establish insecurity, instilling fear and provoking the environment of hostility, which results in conflict rather than alleviating it (Krause & Jutersonke, 2005). Thus, the security-development link has been reversed, and basic security is a precondition for political, social, and economic development or well-being. Major aid donors and international financial institutions demonstrate the history of this shift in the focus on “security sector reform.” These kinds of efforts represent the change in thinking for post-conflict development institutions in program development for security and development efforts (Krause & Jutersonke, 2005).

The UK has set up a Post Conflict Reconstruction Unit for the purpose of growing awareness to close the planning gap between security and development efforts. The World Bank also included a security dimension, taking the lead on demobilization and reintegration programs (Krause & Jutersonke, 2005).

The connection between peace building and the provision for individual security is vital. It encompasses more than fostering stability to prevent conflict, but building political, social, and economic institutions for the purposes of capacity building, good governance, inclusion, economic opportunity, and individual well-being. Therefore, in order to incorporate the comprehensive understanding of peace, the development component needs to be included in peace-building programs (Krause & Jutersonke, 2005). The new, broader concept of security was first introduced in the UNDP *Human Development Report* to include seven different dimensions, which consisted of economic, food, health, environmental, personal community and political security. The overall goal for this report was to expand the general understanding of security, which was before defined primarily in terms of territory and external threats (Krause & Jutersonke, 2005).

An example of a broader view of security beyond that of physical security, which typically leads to violence, is food security. Brinkman and Hendrix concluded:

Food insecurity is both a cause and a consequence of violence, contributing to a vicious cycle or “conflict trap”. Food security is critical for political stability. Food insecurity is linked to increased risk of democratic failure, protests and rioting, communal violence and civil conflict. Violent conflicts, in turn, create food insecurity, malnutrition and – in some instances – famine. Thus food insecurity can perpetuate conflict, although its effects depend on the context, with the strongest links evident in states that already have fragile markets and weak political institutions (Brinkman & Hendrix, 2011, p. 20).

Food is a basic need for all of mankind. It is obvious that a lack of access to food can have adverse effects on society, especially when there are deeper social reasons for the absence of food security.

The second theoretical approach to understanding conflict is the horizontal inequalities theory, which seeks to understand conflict and the mobilization of groups toward violence. These both demonstrate a powerful link between different types of horizontal inequities and conflict. Frances Stewart of the University of Oxford explored the importance of horizontal inequalities (HIs) and their relationship to conflict. Stewart concluded that there is a proven status quo that cultural, ethnic, religious, or racial differences alone cannot account for conflict in an unavoidable “clash of civilizations,” and that they can, in fact, peacefully coexist. According to Stewart, the findings of Fearon and Laitin (1996) have estimated that from 1960 to 1979, of all the potential ethnic conflicts in Africa (defined as occurring where different ethnic groups live side by side) only 0.01% actually turned into violent conflict. The question Stewart’s (2008) research raises is, what may be identifiable ways in which preventing conflict and the costs in terms of deaths, injuries, and economic social collapse from happening?

If horizontal inequalities are inequalities which cause conflict, then policies should be engineered to reduce HIs and therefore reduce the likelihood of conflict.

Horizontal inequalities are “inequalities in economic, social, or political dimensions of cultural status between culturally defined groups” (Stewart, 2008). Violent conflict within poor countries is typically found in seven out of ten of the poorest nations in the world. These countries are undergoing or have recently experienced some sort of civil war (Stewart, 2008). In return, violence becomes a major obstacle to development, reducing incomes and investment and undermining human development. Regression analysis suggests an average loss in gross domestic product (GDP) per capita of between 2.0% and 2.4% per annum among countries experiencing conflict. The cost of war is staggering. There was a suggested cumulative loss of half of the GDP in Iraq in the case of the war between Iraq and Iran, and infant deaths during the Uganda conflicts amounted to 2% of the population (Stewart, 2008).

Mobilization for violence requires motivation. Organized group conflict may be a result of a variety of motivations. Individual mobilization motivation is commonly believed to primarily be the desire to gain economic advantage. However, there is neither exclusively nor primarily a matter of individual motivations included in group mobilization. What are most involved in group’s mobilization are shared identities linked to goals to attack others in the name of the group. Young men may fight because they are unemployed, uneducated, or have few opportunities. Generally they fight out of loyalty to a group as opposed to personal convictions (Stewart, 2008). Bearing this in mind, it is apparent that HIs play an important role in mobilization of groups.

Vertical inequalities (VIs) are inequalities among individuals in social classes whereas HIs are inequalities specific to groups of culturally defined individuals on the basis of religion, ethnicity, or salient factors, which bind groups of people together (i.e. political, socioeconomic, or social cleavages) (Stewart, 2008). In order for mobilization to occur, grievances at both the leadership and the mass level may be present. In many cases, political ambition may cause a multi-dimensional horizontal inequality due to a lack of representation of a given group’s leadership because of their economic and social position in relation to other groups. Major grievances, whether political or social, may likely be causes of mobilization. This is due to them limiting access to education and employment, which are two primary means to elevate from poverty, and makes it an economic issue (Stewart, 2008). Stewart concludes:

There are causal connections between different HIs. For example, inequalities in political power often lead to similar social and economic inequalities. A biased distribution of government jobs and provisions of infrastructure is common, with the group in power discriminating in its favour. For example, in Burundi in the 1990's, half of government investment went to the Bujumbura region and its vicinity, which is the home of the elite Tutsi group (Gaffney, 2000). In some countries, the president and his coterie have taken a massive share of state resources for their private use, such as the Duvaliers in Haiti and the Somoza family in Nicaragua (Lundahl, 2000; Pastor and Boyce, 2000). Moreover, there are connections between economic and social elements. Lack of access to education leads to poor economic opportunities, while low incomes tend to result in poor educational access and achievements in a vicious cycle of deprivation. There are also reinforcing cycles of privilege and deprivation because of the way that one type of capital requires others to be productive (Stewart, 2008, p.13).

Therefore, economic status and garnering a political power base between social groups can be a motivator for mobilization.

Horizontal inequalities may be created due to high levels of natural resources and power struggles over who gains from these resources. However, conflict may be less likely to break out if HIs exist and there is a growing economy or where a very strong state represses any conflict. Another reason could be political accommodation. Socioeconomic HIs generate a hostile environment for conflict to emerge as cultural status inequalities act to bind groups together for mobilization. Political HIs provide incentives for leaders to mobilize people for rebellion. Where severe HIs exist and abrupt changes in political or cultural events where cultural or religious values are threatened, there exists the possibility of a powerful trigger to conflict (Stewart, 2008).

Finally, Stewart argues that out of four hypotheses, three were confirmed significant and the last deemed untestable. The hypotheses include: conflict is more likely where there are significant political and/or economic HIs, political mobilization is especially likely where HIs are consistent, and cultural recognition or status inequalities are also provocative. The last, undetermined hypothesis is that political mobilization, and possibly conflict, is more likely to occur when HIs are widening. Due to lack of data over a period of time, this was determined untestable (Stewart, 2008).

The final theory assessed is the structural demographic theory. It postulates that labor oversupply leads to falling living standards and elite overproduction. Those, in turn, cause a wave of prolonged and intense sociopolitical instability.

Three empirically supported generalizations may impact outbursts of these violent cycles followed by periods of internal peace (Turchin, 2012). The generalizations include: the neo-Malthusian principle, the principle of elite overproduction, and the structural demographic causes of political instability. The neo-Malthusian principle states that sustained population growth inevitably leads to falling living standards and is positively impacted by the switch from an agrarian to an industrial economy. Simplified in terms of supply and demand, it means the supply of labor exceeds its demand, and the price of labor then decreases causing living standards to decrease. Agrarian demand for labor is limited to resources for production (cultivable land, ability to get supplies/livestock). Uncontrollable population growth inevitably leads to falling living standards. Modern economies have more dynamic demand for labor (Turchin, 2012). Elite overproduction refers to a situation when upward mobility overmatches downward mobility, and the process of declining living standards for lower class is mismatched with increasing consumption levels of elites. This creates a situation where there is an increase in inequality (Turchin, 2012). Inequality leads to a structural demographic issue where elites obtain the higher paying employment opportunities and the lower class is unable to obtain any employment thus creating a recipe for grievances and political instability.

These theoretical concepts increase understanding of civil wars among impoverished countries. Civil war in a low-income country typically lasts for nearly a decade with overwhelming non-combatant casualties. Reasons for death include disease, forced migration, and the breakdown of health systems (Collier, *Development and Conflict*, 2004). War creates a gaping hole in the economy that takes many years to recover. Many of the costs of the war become apparent after it is over. Damage is rarely contained and spreads to neighboring countries and regions with more than half of the total economic cost falling on the shoulders neighboring countries (Collier, *Development and Conflict*, 2004). Other costs of civil war are significant as well. 95% of the world's hard drug production takes place in civil war environments where territory is outside the control of recognized governments (Collier, *Development and Conflict*, 2004).

Paul Collier's research of civil wars in the world that broke out from the period of 1965-99 indicated factors that statistically make a country prone to conflict are low income, rate of growth, and economic structure. A civil war is classified as an internal conflict with at least one thousand battle-related deaths. During this period, there were 73 civil wars globally, and in principle, Collier analyzed the pattern to determine why these wars occurred (Collier, *Economic Causes of Civil Conflict and their Implications for Policy*, 2006).

Collier divided the period up into eight, five-year sub-periods and attempted to predict the occurrence of war during a sub-period by the characteristics at its start. Utilizing statistical logit and probit regressions, he drew conclusions about patterns of the factors involved in civil war. Due to a lack of data on some countries, knowing that a war took place, but not knowing enough of its other characteristics to include it in analysis, Collier reduced the sample to 47 civil wars. However, this was still sufficient to find some strong patterns (Collier, *Economic Causes of Civil Conflict and their Implications for Policy*, 2006).

Low-income countries face a 14% risk of civil war, but doubling the income of a country will halve the risk of conflict. One percentage point of growth rate reduces the risk by around a percentage point, and reducing dependence upon natural resource exports powerfully reduces the risk of conflict (Collier, *Development and Conflict*, 2004). Causes that lead to increased risk of conflict and poor economic conditions are many. One such factor is poverty making it difficult for governments to gain popular allegiance. Rebellion becomes an attractive option with the prospect of the parties involved gaining power, weapons, and drugs (Collier, *Development and Conflict*, 2004). Generally, half of all civil wars are due to post-conflict relapse and results in common underlying characteristics such as low income, natural resource dependence, and the legacy of the conflict itself (Collier, *Development and Conflict*, 2004).

Collier's analysis indicated that a major component of risk was whether or not the country had a substantial share of its income in Gross Domestic Product (GDP) generated from primary commodities. Dependence of 26% of GDP or more indicated serious danger of conflict. The risk in Collier's sample was 23%, whereas countries with no primary commodity in exports, but were otherwise the same, would have a risk of half of a percentage point (Collier, *Economic Causes of Civil Conflict and their Implications for Policy*, 2006). This, as well as economic opportunity, provide major implications for conflict. Conflict was found to be concentrated in countries with low education (Collier, *Economic Causes of Civil Conflict and their Implications for Policy*, 2006). On average, young males in secondary education in the sample consisted of 45%. Any country that had 55% of its youth in an education system would cut its risk from the 14% risk of civil war to 10%. Again, conflict was more likely in countries with rapid population growth. Each percentage point of growth raises the risk of conflict by around 2.5 points. Therefore, the most significant predictors of civil war were dependence on primary commodity exports, low average incomes, slow growth, and large diasporas (Collier, *Economic Causes of Civil Conflict and their Implications for Policy*, 2006).

In periods of economic stagnation, countries where there are large numbers of disaffected youth, particularly males, may become more likely to be mobilized by rebel groups. Cincotta, Engelman, and Anastasion (2003) studied demographic structures and incidence of war in the 1990s and found that the outbreak of civil conflict was more than twice as likely in countries which the youth between the ages of 15-25 comprised more than 40% of the adult population compared to countries with lower proportions. Conditions in which young men feel frustrated with poor life prospects for income and employment may increase the likelihood that they become recruited for violent conflict (Fukuda-Parr, 2007).

Regarding post-civil war reconstruction, a field experiment was conducted in northern Liberia where randomly assigned villages received international development assistance. Evidence demonstrates that new local-level institutions can alter patterns of social cooperation in a way that persists after the program concludes. Villages that were exposed to a community-driven reconstruction program exhibited higher subsequent levels of social cooperation than those in the control group (Fearon, Humphreys, & Weinstein, 2009). This suggests that the changes in community cohesion can take place over a short period of time and occur in response to outside intervention within the context of the given and unchanged macro-level political economic situation. Therefore, it is possible for post-conflict reconstruction efforts to have measurable impact on social cohesion (Fearon, Humphreys, & Weinstein, 2009).

Post-civil war prescriptions can be effective if a holistic development approach is utilized. Three instruments to reduce post conflict relapse are political design and reform, economic recovery, and military provisions. Collier and Hoeffler (2004) find that the security benefits alone are around four times the cost of the aid and still substantially exceed the costs even at the adverse bounds of the confidence intervals of their estimates (Collier, Development and Conflict, 2004).

Given the evidence supporting the connection between civil war and economic standing, it is necessary to focus on other specific forms of conflict in terms of analysis on potential economic causal relationships. Much research conducted on the relationship of terrorism and poverty would cast doubt that there is a strong correlation between terrorist operatives and their economic well-being. Generally, evidence supports that those recruited by terrorist organizations are highly educated, potentially in a higher income bracket, and have many reasons for getting involved. This does not, however, explain the phenomenon of why the origins international terrorist attacks are traced to impoverished countries.

Terrorism is defined as “premeditated, politically motivated violence perpetrated against noncombatant targets by subnational groups or clandestine agents, usually intended to influence an audience,” (Berrebi, 2007, p. 5). Its objective is maximizing media exposure to the act and, ultimately, to the terror group and/or to its “cause.” Many academics and policy makers have maintained that terrorist activity is the result of ignorance or poverty. Research conducted on terrorism in Palestine indicated that 31% of Palestinians were considered poor whereas only 16% of those involved in terrorist activities were considered poor (Berrebi, 2007).

Out of 208 observations where information about terrorist operatives’ education was available, 96% have at least a high school education and 65% (135 observations) have some kind of higher education, compared to 51% and 15% respectively in the overall Palestinian population of same age, sex, and religion. Contrasted with the general population, operatives tend to be younger, which further accentuates the findings of differences in poverty and education (Berrebi, 2007). All estimates were statistically significant and indicated an inverse relation between poverty and education positively related between the likelihood someone was a Hamas or PIJ (Palestinian Islamic Jihad) operative (Berrebi, 2007). A possible explanation for this is that terrorist organizations prefer more educated individuals, but those individuals are more likely to participate in terrorist activity when the economic environment is not in favor of their opportunities (Berrebi, 2007). Interestingly, out of the information provided on education, which was little, over half indicated religious studies. The most likely explanation of the results pertaining to education may be related to the educational content (Berrebi, 2007).

Demonstrably, terrorist operatives’ likelihood of being recruited for terrorist activities is not linked to poverty statistically. However, there does prove to be a correlation between instability and the likelihood of international terrorist events originating from those countries or regions which are unstable. If in fact civil war is correlated with poverty, and contributes to overall instability where international terrorist attacks are likely to originate, then poverty in that context may contribute to international terrorism. The rationale of the “escalation effect,” which stresses that domestic political instability is the main reason for international terrorism, has demonstrated to be plausible. The econometric evidence (total number of terror acts, total fatalities, and median fatalities) from a panel of more than 130 countries from 1968 to 2003 demonstrates that civil wars and guerrilla warfare are robustly associated with various aspects of international terrorism (Campos & Gassebner, 2009). Thus, terrorists appear to exploit existing arenas of conflict.

The results supporting the escalation effect indicates that civil wars and guerilla warfare, as well as riots, all exhibit the expected positive relationship and are all highly statistically significant. Transitioning from no civil war to an eruption of civil war would result in an increase in terror attacks by approximately 30%. The magnitude of the effect of guerilla attacks is almost identical. Keeping all other factors equal, increasing the number of guerilla incidences by one results in roughly 30% more international terror events originating from that location (Campos & Gassebner, 2009). These results have proven to hold true in light of the attacks on 9/11, 2001, as well as the foiled “underwear bomber” on Christmas Day, 2009, attempted to board a flight in Detroit. Both cases originated from unstable countries with histories of civil war: Afghanistan, and Yemen, respectively. Umar Farouk Abdulmutallab (the underwear bomber) was believed to have been moved to Yemen by Al-Qaeda for training prior to the attempt (Temple-Raston, 2010).

General consensus among scholars is that fragile states are commonly impoverished, rendering the less capable to deal with and manage negative dynamics like civil war and drug, weapons, or human trafficking. Weak states are less able to protect themselves against insurgency or terrorist networks, deploy peaceful political means to resolve conflict and prevent the onset of it, or resolve local disputes when they arise (Fukuda-Parr, 2007). Hence, such insurgent networks are able to exist and use weak or unstable states as a platform to conduct international terrorism.

### **Jordan Case Study**

Utilizing theoretical concepts, examples supported with empirical evidence, and the effects of socioeconomic issues on different types of conflict (civil war and terrorism), analysis of real-world situations becomes possible. A case study of the revolutions in the Middle East that took place in 2011, popularly known as the “Arab Spring”, can demonstrate these concepts in detail. The analysis will turn to a case study of the Hashemite Kingdom of Jordan. It should be noted initially that Jordan was a fairly stable country in the midst of the Arab Spring. However, there may be evidence that Jordan is at risk for violence due to its socioeconomic, political, and cultural composition and have Arab Spring-like consequences.

As a nation state, Jordan is burdened by scarce natural resources and uncertain demographics. In 1921, British colonial powers haphazardly drew border lines on the map as with all the other nation states of prior colonial powers to create a monarchy of the Hashemites, a clan from the Hejaz region of the Arabian Peninsula. The monarchy currently takes the form of a parliamentary monarchy. The country has a large, arid landmass with virtually no major natural resources (including oil) and limited water (Yom, 2013).

The economy is therefore heavily reliant on foreign aid. The social makeup of the country is sensitive and fractured among different divisions including those loyal to the king whom are “east bankers” or local tribal natives and the urban Palestinian majority that has been largely excluded from power (Yom, 2013).

The monarchy and policy makers assume that the record of stability suggests it will remain stable, which has resulted in relatively little political reform despite facing unprecedented opposition due to political discontent and economic difficulties. This has become a shaky assumption (Yom, 2013). Jordan’s polity has never been more willing to express hostility toward the monarch. Opposition has united in some ways across deep social cleavages: Islamist and secular, Palestinian and East Banker, urban and tribal, old dissidents and former regime officials, military veterans and regular civilians. The unthinkable crime of speaking out against the king is now a reality (Yom, 2013). The kingdom has suppressed protests and petitions for democracy for over two decades. The response from the regime has been spurts of controlled liberalization. Opposition has not yielded to this appeasement the same as it has in the past, and due to rising unemployment and living costs associated with the weak economy, which required a \$2 billion bailout from the IMF, there may be continued frustration (Yom, 2013).

Jordan’s Islamist sector consists mainly of Muslim Brotherhood members and their party, the Islamic Action Front. The Brotherhood has a long history of political involvement and is moderate. The leadership is aiming for a negotiated transition to constitutional monarchism and not an Islamic state (Yom, 2013). The Islamists managed to organize weekly protests in Amman in 2011 and 2012 drawing thousands indicating their discontent. However, these were virtually all peaceful. It becomes clear, then, why the regime would hesitate to give in to real democratic reform for fear of empowering Islamists (Yom, 2013).

Another major part of the Jordanian social fabric is the conflict between the country’s ethnic- Palestinian majority and tribal East Bankers. Identity became part of the structure when the Jordanian government drove the Palestine Liberation Organization out of Jordan into Lebanon in 1970. The Palestinian Jordanians dominate the private sector, but due to prejudice, they are barred from access to political power (Yom, 2013). Tribal Jordanians fill the public sector, including the military and security forces, and have far closer relations with the monarchy and institutions itself. The officials of the state treat this as though the imbalance is permanent and that democratization would result in a worst-case scenario in which Palestinians could use their numbers to gain control of the state (Yom, 2013).

Economic growth has not translated into job production. Leading industries, such as real estate, banking, and retailing, attracted foreign capital as the labor force grew, but generated few jobs, especially in the tribal dominated rural areas. Privatization of state assets, including phosphate and potash factories, caused losses in jobs in tribal towns like Tafleeh, which already suffered from poor infrastructure and services. This became clear in 2011 when King Abdullah visited Tafleeh. A riotous crowd throwing bottles and stones greeted him. The southern city is made up of mostly ethnic Jordanians and is known for intense loyalty to the ruling regime. However, sources tied to international media, internet, and radio depicted riots. Tension between the government and the loyalists demonstrates something deeper going on politically below the surface (Tobin, 2012). The official unemployment rate is 12.5%. However, actual joblessness is at least double that. In November of 2012, riots were sparked by the mandated cut by the International Monetary Fund to fuel subsidies, which drove up energy costs. These were mostly violent in the tribal areas, signaling a danger that may be involved with not taking the disparity of economic modernization seriously (Yom, 2013). The poor, rural areas, consisting of tribal youths, created their own popular opposition through the *hirak* movement, a grassroots phenomenon that spawned hundreds of organized rallies. This is something very similar to the rest of the Arab spring countries (Yom, 2013).

Jordan's circumstances seem to indicate that it is in a risky position and, given the right economic decline, could spark into more violence. The indicators that lead to this conclusion are the youth bulge, the high unemployment among rural tribal youth, the Palestinian power struggle, and the Islamist movement. The effect of the rural tribal youth bulge is clear in light of activity in the rural city of Ma'an. Ma'an's population is approximately fifty thousand. It consists primarily of Native-Jordanian tribes and is mostly non-Palestinian. As a result of these demographics, Ma'an and other southern cities provide an important base of support for the royal family. Since Palestinians are barred from the public sector, Ma'an is home to numerous military and security personnel and remains a recruitment site for such public positions. Regardless, Ma'an has been the center of significant unrest sparked by the regime's program of "economic reform" recommended by the International Monetary Fund (Schwedler, 2002).

In 1990, 43.4% of the working age group was youth aged 15 to 24. This has since decreased to 36.8%. Based on the statistics quoted before by Kukuda-Parr (2007), anything above 40% creates a situation where conflict is more than twice as likely. Coupled with the high unemployment, this produces an unfavorable situation under political oppression (United Nations, 2010).

The horizontal inequalities of political power among the Palestinians and the impoverished rural tribal areas could potentially create power struggles among social cleavages and amplify already existing stratification between the government and society. Should there ever be any sort of popular revolution, these parties would then compete against each other for power during the formation of the new government.

With the rural tribal areas being one of the most at risk aspects of Jordanian demographics, it becomes important to solidly grasp the economic makeup regarding rural income and inequality. A study conducted by Richard Adams of the World Bank in 2001, found that 50.6% of total rural household income in Jordan is non-farm income. The GINI coefficient was 0.408 within rural income. This demonstrates that within rural income there is a fairly high level of inequality. The rural poor receive less than 20% of their total per capita income from non-farm income. People in rural Jordan do not press for land access since the really attractive economic rates of return are found not in agriculture, but rather in the nonfarm sector. Only 30% of the cultivated land base is irrigated, and the main field crops (wheat and barley) are generally grown under rain-fed conditions so the yields are low (Adams, 2001).

The rich in rural Jordan earn less than 10% of their total per capita income from agriculture and over 55% of their total income is from non-farm sources. In percentage terms non-farm income accounts for 53% of inequality in rural Jordan. Therefore, non-farm income makes the single largest contribution to rural income inequality (Adams, 2001). The correlation of non-farm income with total income is highly related in Jordan. This suggests that, in Jordan, non-farm income is closely synonymous with total rural income. Therefore, non-farm income is not only the single most important source of income, but it is also very similar to non-farm income as a whole benefiting primarily the top quintile. (Adams, 2001). Non-farm income in Jordan is broken down into five categories: government employment, private sector, unskilled labor, and other, which refers to things such as building sales (Adams, 2001).

In Jordan, 60% of poor rural income is from the government. Those in the top quintile receive over 68% of their non-farm income from government employment (Adams, 2001). This is especially important regarding rural income because those in the bottom may not have access to government employment through social capital, or “wasta” which is the access to a middleman to gain access to social needs. This would explain the high inequality among rural Jordanians, the link between nonfarm income and rural inequality, and the even bigger divide between rural poor and urban rich.

Though government employment can significantly decrease unemployment in rural Jordan, it would be a mistake to envision a policy around increasing government employment. There are not enough employment needs to suit the whole community, and the added stress on the economy to pay these workers would be a drain on the economy. Therefore, it becomes important to focus on the unskilled nonfarm workers, such as construction workers, brick makers, and ditch diggers (Adams, 2001). Policy implications will be further explored in the conclusion section.

### **Jordan Case Study: Supporting Data Analysis**

Considering the social make up of Jordan, empirical analysis demonstrates some verification about the economic effects on political stability of the nation. The following statistical analysis (conducted by the author), based on two data sets from the World Bank “World Development Indicators” database (WDI) and *The World Handbook of Politics IV* (WHIV), will be discussed in addition to the case study on Jordan’s economic and social fabric adding to the arguments about instability.

Data for Jordan is limited regarding group inequalities, and there are not records of individual income levels or education levels that can be used to compare different groups of people (ie. Palestinian-Jordanian or Native-Jordanian). However, there are some indicators that can be correlated with each other that allude to the presence of horizontal inequalities (HIs) in Jordan. The indicators used in this research were taken from the years of 1990 to 2004 and include measurements for both political instability as well as economic and social measurements. Furthermore, a two-tailed linear regression analysis using these indicators develops a strong case for causality regarding the presence of HIs and their effects on political instability in Jordan. The resulting concept of the social make up in Jordan regarding HIs is between Palestinian-Jordanians living in urban centers and rural Native-Jordanians with lack of access to employment opportunities. It is unclear, however, if Palestinian refugees have inequalities when compared to either of the two groups.

Data:

The data was coded in order to fit the needs of this model as follows. The WHIV dataset (Jenkins, Taylor, Abbott, Maher, & Peterson, 2012) contains variables representing protest incidents for each year for three different actors categorized as “civil”, “state”, and “unknown”. Each variable consisted of three observations for each year based on each actor, meaning that for the year 1990, there was an observation for civil actor protests, state actor protests, and unknown actor protests.

Variables then were coded and broken down into three different variables, one for each actor, in order to have one data point for each year to coincide with the WDI dataset. The protest data consisted of variables, “PDEM” (protest demonstration-All protest demonstrations not otherwise specified), “POBS” (protest obstruction-Sit-ins and other non-military occupation protests), “PMAR” (protest procession-Picketing and other parading protests), “PPRO” (protest defacement-Damage, sabotage and the use of graffiti to desecrate property and symbols), “PALT” (protest altruism-Protest demonstrations that place the actor (protestor) at risk for the sake of unity with the target), “SRAL” (rally support-Gatherings to express or demonstrate support for an existing government or institution. Includes celebrations, public displays of confidence, commemorations, and vigils), and “STRI” (strikes and boycotts-Labor and professional sanctions reported as strikes, general strikes, walkouts, lockouts, or withholding of goods/services). For the purposes of generating a model attempting to measure instability, variables “PALT” and “SRAL” were removed from the data set as they both measured pro-government protests as opposed to protests against the government, which would demonstrate political instability. Therefore, the protests that were utilized were, “PDEM”, “POBS”, “PMAR”, “PPRO”, and “STRI”. These were recoded into three variables apiece for each actor and renamed as, “PDEMCIVIL” (civil actor), “PDEMUNK” (unknown actor), and “PDEMSTAT” (state actor). Each of the rest of the original variables was also recoded into three new codes to have the actor identifier of “CIVIL”, “UNK”, or “STAT” (i.e. POBSCIVIL, POBSUNK, etc.). Actors that did not have any observations were no longer relevant and were left out of the dataset because their observations were zero. At that point, aggregate variables were created for civil protests and state actor protests, grouping all CIVIL protests into one variable and all STAT protests into another. These were then coded as “PCIVIL” and PSTAT” respectively. The variables of “PCIVIL” and “PSTAT” became the primary variables used as dependent variables in the analysis.

The WDI data set (World Development Indicators, 2014) consisted of economic and social data that was taken to represent the independent variables of the analysis. These variables included, “CPII” (Inflation, consumer prices (annual %)), “MORT” (Mortality rate, under-5 yrs. old per 1,000 live births), “REFPOP” (Refugee population by country or territory of asylum), “URBPOP” (Urban population growth (annual %)), and “RURPOP” (Rural population (% of total population)).

## Method and Results:

The variables were first arrayed in a correlation coefficient matrix to determine correlations, the slope of the correlation, and level of statistical significance for each correlation by utilizing a Pearson correlation two-tailed test. These are displayed in the following Table 1.

**Table 1**

	<b>PCIVIL</b>	<b>PSTAT</b>	<b>REFPOP</b>	<b>RURPOP</b>	<b>URBPOP</b>	<b>CPII</b>	<b>MORT</b>
<b>PCIVIL</b>	1.0000000	0.5023149	-0.5113463	0.5464802*	0.1238167	0.7303852**	0.5346665*
<b>PSTAT</b>	0.5023149	1.0000000	-0.4724389	0.5306817*	0.3677070	0.7856795**	0.4891948
<b>REFPOP</b>	-0.5113463	-0.4724389	1.0000000	-0.9602680**	-0.7628084**	-0.6929683**	-0.9975739**
<b>RURPOP</b>	0.5464802*	0.5306817*	-0.9602680**	1.0000000	0.7861188**	0.7844944**	0.9532731**
<b>URBPOP</b>	0.1238167	0.3677070	-0.7628084**	0.7861188**	1.0000000	0.4565361	0.7466442**
<b>CPII</b>	0.7303852**	0.7856795**	-0.6929683**	0.7844944**	0.4565361	1.0000000	0.6877527**
<b>MORT</b>	0.5346665*	0.4891948	-0.9975739**	0.9532731**	0.7466442**	0.6877527**	1.0000000

\* Correlation is significant at the 0.05 level (2-tailed).

\*\* Correlation is significant at the 0.01 level (2-tailed).

There are some interesting correlations that were used to determine which linear tests would be best to perform. The full analysis will be discussed further after the linear models are displayed in the analysis. There were several relationships that were collinear and were not used in the following linear tests as that would have unintended consequences on the results. These collinear variables were RURPOP and REFPOP, CPII and RURPOP, MORT and REFPOP, and MORT and RURPOP.

Based on these correlations and collinear relationships the following eleven regression models were tested and displayed in Table 2.

**Table 2**

Model No.	Dependent Variable	Independent Variable	Estimate	Residual Standard Error	Multiple R-Squared	P-Value
1	PCIVIL	RURPOP	0.7309	3.166	0.2986	0.035*
2	PCIVIL	URBPOP	0.1659	3.751	0.01533	0.6602
3	PCIVIL	URBPOP	-1.0725	2.658	0.5434	0.02612*
		RURPOP	1.5725	2.658	0.5434	0.00290**
4	PCIVIL	URBPOP	-0.8	2.968	0.431	0.08302
		REFPOP	-0.01301	2.968	0.431	0.01190*
5	PCIVIL	URBPOP	-0.8339	2.898	0.4572	0.07538
		MORT	0.99549	2.898	0.4572	0.00876**
6	PCIVIL	CPII	0.6039	2.445	0.6458	0.0254*
		URBPOP	-0.7029	2.445	0.6458	0.0886
		REFPOP	-0.006008	2.445	0.6458	0.2108
7	PCIVIL	CPII	0.5844	2.384	0.6633	0.0249*
		URBPOP	-0.7253	2.384	0.6633	0.0657
		MORT	0.4833	2.384	0.6633	0.1475
8	PSTAT	CPII	0.2919	0.8567	0.6396	0.00444**
		URBPOP	0.0808	0.8567	0.6396	0.55246
		REFPOP	0.001303	0.8567	0.6396	0.42814
9	PSTAT	CPII	0.27881	0.8701	0.6282	0.00601**
		MORT	-0.06407	0.8701	0.6282	0.58274
		URBPOP	0.0544	0.8701	0.6282	0.68251
10	PCIVIL	CPII	0.6778	2.582	0.5335	0.00199**
11	PSTAT	CPII	0.2532	0.8121	0.6173	0.000517***

\* Correlation is significant at the 0.05 level (2-tailed).  
 \*\* Correlation is significant at the 0.01 level (2-tailed).  
 \*\*\*Correlation is significant at the 0.001 level (2-tailed).

These models demonstrate some intriguing relationships given the evidence from the Jordan case study above. In the correlation matrix it is important to note that rural population, as a percentage of the overall population (RURPOP), was positive and statistically significant with both civil (PCIVIL) and state (PSTAT) protests. This demonstrates that rural population growth is correlated with those protests. Likewise, the consumer price index (CPII) was highly significant statistically at the 0.01 level for both civil and state protests. Also it is important to observe that the mortality rate (MORT) was positive and statistically significant for civil protests whereas urban population was positive and not statistically significant for either protest.

These serve as the three main hypotheses for the regression models. If rural population as a percentage of total population, the consumer price index, and the child mortality rate (specifically, those under five years old per one thousand live births) are statistically significant and positive while controlling for other possible confounding variables, then there may be strong evidence to support that HIs do, in fact, exist and have an effect on political instability. The logic behind this is the consumer price index will mostly affect the disadvantaged, and the disadvantaged are primarily the rural, poor tribal Jordanians. Also, it is a fair assumption that the mortality rate is highly statistically significant with rural population and less so for urban population, and those in the rural areas are more at risk for higher mortality rates. Furthermore, if all three of these are statistically significant with civil protests and positively sloped while controlling for urban population growth and refugee population growth, the argument can be made that evidences suggests causality between the relationship of the existence of HIs and political instability.

The regression analysis makes a case for causality between HIs in Jordan and political instability. Some models to point out include models 3, 5, 6, 7, 8, and 9. The consumer price index was used in more of the models over rural population as a percent of population due to its higher level of statistical significance and its positive and statistically significant correlation with rural population as opposed to its less positive slope and non-statistical significance with urban population. Due to the co-linearity of the CPII variable with RURPOP, only one of these could be used per model.

Some very interesting conclusions can be drawn regarding HIs in Jordan. Model 3 suggests that PCVIL and RURPOP have a positive correlation, and rural population is statistically significant while urban population had a negative correlation and was less statistically significant.

This indicates that, based on the slope, for every 1.57 percentage point of increase in rural population there was a 1 point increase in civil protests with an error rate of + or – 2.65%. In contrast for every 1 point of increase in urban population growth, there was a negative slope of a 1.07 decrease in civil protests. Similarly, Model 5 demonstrates that the mortality rate of children under 5 years old per thousand births is positively sloped at 0.99, almost one point increase per point of civil protest increase and is statistically significant while urban population has a negative slope and is not statistically significant. This is important because the mortality rate on the correlation matrix is highly statistically significant with both RURPOP and URBPOP variables. It has a 95.3% correlation with rural population, but only a 74.6% correlation with urban population, thus demonstrating that the mortality rate is higher among the rural population.

The last four models, Models 6-9, focus on the CPII as the primary variable of interest. This is because RURPOP is collinear with CPII, and the inflation as an annual percent on the consumer price demonstrates that the economy plays an important role on protests. The inflation has a greater effect on the poor rural areas than the urban areas and is more statistically significant than the mortality rate. As shown in Model 6, for example, the CPII variable slope is positively correlated with civil protests and statistically significant where both URBPOP (urban population) and REFPOP (refuge population) were negative and not statistically significant. Likewise Model 7 indicates that MORT does not have as much of an impact on civil protests, despite its positive slope. It is not statistically significant when compared with both CPII and URBPOP. This means that for every 0.6% increase in annual consumer price index, civil protests also increased by one point. This is especially important when both models maintained a high Multiple R-Squared of 64.5 and 66.3%, demonstrating the degree to which the dependent variable was impacted by the independent variables.

Lastly, Models 8 and 9 demonstrate similar results when compared to the consumer price index with state protests. When CPII is tested with URBPOP and REFPOP it maintained a positive slope with a high level of statistical significance. Likewise, once REFPOP was removed and MORT added, it remained positive in slope and statistically significant, while MORT, surprisingly had a negative slope and is not statistically significant.

It is clear that the inflation rate measured by consumer price index, the mortality rate of age under five per one thousand births, and rural population as a percent of overall population each has a distinct affect on political stability in Jordan. The implications are that HIs are involved in the causal effect of the instability and policy can be pinpointed to the most at-risk aspects of the economy.

## Policy Implications and Conclusion:

Given this information, it seems that substantial evidence across a variety of different types of conflict issues, provided with examples, indicate that socioeconomic stability can contribute to the escalation or incitement of violence. The basic need for human security, horizontal inequality theory, and structural demographic theory provide a respectable reference point and structure by which violence can be analyzed and understood in terms of economic development. A case study of the Hashemite Kingdom of Jordan backed up by statistical analysis demonstrates how these concepts could potentially explain the risk of instability for the nation should these issues go unimpeded which can further result in violence.

Possible policy implications should include political reform targeting ethnic dominance of tribal Jordanians over Palestinians in regard to political power. According to Collier (2008), this can be done by entrenching minority rights into the constitution or government structure. One possible course of action would be to establish some sort of legislation on group rights while advocating strong individual rights. If the individuals in the society have a sense of security from discrimination, then the minorities will feel secure, lessening fear and irrational actions to gain security. This should include checks and balances, which the state utilizes in its government power (Collier, *Economic Causes of Civil Conflict and their Implications for Policy*, 2006). A possible course of action might include breaking up the divide of the Palestinian and non-Palestinians in the public sector and private sector in Jordan. These government-level policies could be accomplished through human rights legislation and reformation of political systems to include a proportional representation across groups and a power sharing vote systems (Stewart, 2008).

These policies ensure balanced group representation in parliament, government, and in some cases, the executive. Lijphart (1986) has suggested that the simplest way of ensuring ethnic representation is to create separate electoral rolls with seats allocated by group rather than geographic boundary. This has been implemented in Cyprus and in New Zealand (Stewart, 2008). An alternative would be to create a single electoral roll but reserve certain seats for certain groups as it is in India where 15% of parliament seats are reserved for Scheduled Castes, but registered electors from all groups in the constituency vote for them. In multiethnic societies there is a strong tendency for political parties to become 'ethnic' as this seems to be the most effective way to mobilize votes. Therefore, systems of "list" proportional representation, or a single transferable vote in multimember districts, may be a suitable system, as adopted by Malta and Ireland (Stewart, 2008).

Without some constraining influences, political parties can be highly divisive in multicultural societies with elections leading to conflict. A final political policy option could be to place restrictions on political parties themselves, such as Ghana and Nigeria, where political parties have to have representatives throughout the country and, given the geographic concentration of ethnic groups, promotes multiethnic parties (Stewart, 2008).

Economic reforms could possibly include quotas for employment, and special investment or credit programs for particular groups. It is clear that an effort from both the private sector and the government is necessary. However, non-government organizations and businesses may play an important role in transforming the economic landscape by focusing on rural tribal Jordanians who are disenfranchised and at-risk of popular revolt under unfavorable economic conditions. It is clear that the non-farm sector of the rural Jordanian economy would benefit greatly if business would invest in the rural sector. This would allow firms to expand their markets and increase opportunities for rural Jordanians. Government incentives could place pressure on the private sector in order to accomplish this. These are just a few out of many possible outcomes for nations with economies that favor conflict. Each nation will need to implement policies specific to their social and economic fabric.

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