

Openness, Good Governance and Ethnic Peace

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1. Introduction

Like sparks that remain buried under a pile of ash, ethnic tension is a dormant spark that awaits fuelling in multi-ethnic societies. It is all too well known how ethnic conflicts¹, once ignited, engulf and destroy lives, scar ethnic relationships over many generations and become hard to contain without mammoth effort. There is a growing literature that focuses on the determinants of ethnic conflicts and wars. The objective of this exercise, however, is to draw attention the conditions necessary to sustain ethnic peace. This is important because when ethnic peace breaks down and escalates into an ethnic war, the war may gain its own momentum and may continue for reasons unrelated to the initial causes of the conflict. Even if such a war comes to an end through some interventions, there is no guarantee that lasting ethnic peace will emerge if the necessary conditions for peace are absent.

This exercise was motivated by the experiences of Malaysia and Sri Lanka. Both countries are democracies, have practiced ethnic preference policies², and experienced racial riots. Although Sri Lanka's ethnic preference policies were relatively mild and Sri Lanka had a head-start in terms of socio-economic development, Sri Lanka failed to sustain ethnic peace and got embroiled in a crippling separatist war that came to surface in 1983. Malaysia, on the other hand, has so far managed ethnic peace successfully. In fact, any one predicting the ethnic future of the two countries would have predicted a more turbulent ethnic climate for Malaysia than for Sri Lanka. A careful examination of the policies and performance of the two countries would suggest that it was open economic policies since independence (1957) that helped Malaysia move forward despite the constant presence of ethnic tension in the country, and that it was the import substitution (closed economy) policies up to 1977 that paved the way for ethnic conflict in Sri Lanka. Poverty and relative deprivation became a breeding ground for both ethnic

¹ We use the term ethnic tension broadly to refer to ethno-linguistic-religious tension. Ethnic conflict refers to an armed conflict.

² Many countries, including developed ones, have put in place affirmative action plans to redress some disparities that were created by historical circumstances. If the outcome is not Pareto improving (i.e., make the targeted group better off without making other groups worse off) they become discriminatory.

and communist rebellions in Sri Lanka.³ The experiences of the two countries prompt us to place openness to foreign trade and investment as one of the most significant conditions, for ethnic peace in developing multi-ethnic countries because it ensures not only growth by promoting the private sector but also acts as a disciplining force of on the government. This is the central hypothesis of this exercise.

The issue of governance needs some discussion at the outset. There is a large literature that blames governments in the developing world for failures, and discussions abound as to why good governance is essential for development and ethnic peace. Although policy makers are responsible for formulating and implementing good policies, there is no mechanism in closed economies to keep the policy makers in check. Even the most promising leaders in closed economies have failed to bring about the changes they desired because of over-powering bureaucracies. Obviously a determined leadership is required to make a change. Leaders who have succeeded in opening their economies have managed to create, perhaps slowly, more responsible bureaucracies. Once set in motion, openness appears to generate a sustained feedback loop between government policies and the country's socio-economic environment that will bring about economic growth and ethnic peace. Policy makers in this setting are more likely to implement socio-economic policies that harness ethnic peace and share the growth dividends.⁴

After a brief literature survey in Section 2, the analysis of the central issues is presented in Section 3. The regression results from panel estimation of a three equation model with growth, quality of governance and ethnic conflict as endogenous variables is presented in Section 4. A summary of the arguments and results is provided in the concluding section.

2. Recent Literature on Ethnic Conflicts

Collier and Hoeffler (2007) provide a substantive summary of the literature on civil wars. They point out that the study of civil war is dominated by political scientists.

³ Armed communist uprising occurred in 1971 in Sri Lanka. This created precedence for ethnic rebellion. Although Sri Lanka embarked on a private-sector driven open-economy policy in 1977 and repealed many discriminatory policies such as employment and higher education, it came too late for the country; ethnic tension had already given way to the formation of rebel groups.

⁴ Singapore is a classic example in this regard. Although circumstances pushed Singapore to adopt open economy policies the leadership deserves full credit for its quality of governance. The role that Singapore's global dependence played in disciplining the country's single-party government is often forgotten. China and India are two recent examples where openness is playing a major disciplinary role on the government and bureaucracies.

Nevertheless, these studies in general have focused on three broad categories of determinants of ethnic conflicts (Collier et al. 2003). The studies that emphasize *economic factors* have focused on issues like poverty, economic inequalities and the legacies of colonialism. The studies that emphasize *political factors* have focused on issues like the lack of democracy and opportunities for a peaceful resolution of political disputes. The studies that emphasize *cultural factors* have focused on issues like longstanding ethnic and religious animosities. As a background for our study, in the next three sub-sections we highlight the findings of some recent studies, especially those which have attempted to provide some quantitative analyses. It should be noted that there is a substantial overlap in some of these studies with regard to the three types of factors.

Economic Factors:

Many studies have looked into how growth is affected by civil conflicts and how civil conflicts feed on economic factors. Regarding the former type, the empirical growth literature has been growing at a rapid rate and some of these studies have examined how conflicts affect growth. Barro and Lee (1994) estimate an endogenous growth model that includes either the occurrence or the duration of a civil war as an additional explanatory variable. They found that the occurrence of civil war has a negative but statistically insignificant effect on the growth rate while the duration of the war has a positive but statistically insignificant effect on growth. Sala-I-Martin (1997) on the other hand found a statistically significant negative effect of the incidence of war on growth. Using an augmented neoclassical growth model Mankiw et al. (1992) found that the incidence of a civil war has a moderately negative impact on per capita income and a substantially negative impact on the growth rates of per capita incomes in neighboring countries. They further found that the greater the intensity of the civil conflict, the greater the spatial spillover effects. Easterly and Levine (1997) found that ethnically diverse societies had slower economic growth and more political instability than ethnically homogeneous societies.

As for how economic factors affect conflicts, we try to summarize the literature under some broad themes. A number of studies have emphasized that high growth and development reduce the incidence of civil conflicts (Boswell and Dixon (1990), Muller and Weeds (1990), Gurr (1994)). Fearon and Laitin (2000) argue that the determinants of insurgency are mainly economic, not political. They find that primordialism, nationalism, and cultural or civilizational cleavages have no explanatory power as determinants of

either the magnitude or the prevalence of civil wars. They find economic growth, rather than the lack of it, to be the most salient determinant of civil war prevalence. They also assert that a civil war will occur when its opportunity cost is low and that the lack of democracy and ethnic fragmentation are statistically insignificant correlates of civil conflicts.

Evidence provided by Collier and Hoeffler (1998, 2001) shows that ethnic conflicts in Africa are mainly due to poor economic performance. They argue that, civil wars in Africa are fundamentally driven by lack of economic opportunities rather than by political or other grievances such as repression against particular social groups. Findlay (1996) observes that economic growth and effective governance have led to a decline in internal ethnic conflicts in Malaysia since the 1970s while poor economic growth, among other things, in the Philippines and Burma have allowed their internal conflicts to persist. Apart from economic growth, some have emphasized other economic factors such as inflation, unemployment, and natural resource dependence as contributory factors to ethnic conflicts. Gurr and Duvall (1973) argue that high inflation and unemployment levels induce uncertainty within different societal groups that will lead to ethnic tensions and conflicts. Franzosi (1989) argues that political strikes vary directly with high levels of inflation and unemployment, although the relationship may be co-relational rather than causal. Balasuriya (1978), Silva (1997), Herath (2002), and Abeyratne (2004) have also emphasized unemployment as the major issue that affected inter-ethnic relations in Sri Lanka. Among those who have argued that developing countries which depend heavily on natural resources face a high risk of civil wars are Collier and Hoeffler (1998, 2001), Berdal and Malone (2000), Fearon (2001), de Soysa (2002), Elbadawi and Sambanis (2002), Collier et al. (2003), and Fearon and Laitin (2003).

Some researchers have looked into the relationship between openness and civil conflicts. Sachs and Warner (1995) argue that foreign economic liberalization is welfare enhancing. Their cross-national comparison shows that developing countries that are economically open experience higher rates of economic growth and are more likely to avoid ethnic conflict than countries with closed economies. Bussmann and Schneider (2003) find that long-term trade openness reduces the likelihood of armed conflicts. According to them free trade has a conflict-reducing effect and that it can affect the preferences and norms of conflict regulations. Moreover, they did not find any evidence to suggest that the process of trade liberalization led to an increase in political instability.

Political Factors:

There are many studies that explain political factors as the main cause of ethnic conflicts in multi-ethnic countries. Elbawadi and Sambanis (2000) using a large cross-country panel data set found that the relatively higher prevalence of war in Africa is attributable to high levels of poverty, failed political institutions, and economic dependence on natural resources. They argue that the best and fastest strategy to reduce the prevalence of civil war in Africa and prevent future civil wars is to institute democratic reforms. In subsequent papers, Elbadawi and Sambanis (2002) found that democracy is negatively associated with ethnic conflict and ethnic conflict is positively associated with ethnic fractionalization. Sambanis (2001) argues that identity wars are predominantly due to political grievance rather than lack of economic opportunity. Sambanis also found that living in a bad neighborhood with undemocratic neighbors or neighbors at war, significantly increases a country's risk of experiencing a civil conflict.

Henderson and Singer's (2000) results of a logistic regression analysis corroborates previous findings that the semi-democracies are prone to high risk of civil wars. Their findings suggest that a multifaceted strategy of full democratization and economic development is required to reduce the likelihood of civil war in post colonial states. Similarly Hegre et al. (2001) found that middle-level democracies are more prone to civil war than high level democracies and high level autocracies. According to them, coherent democracies and harshly authoritarian states have few civil wars, and intermediate regimes are the most conflict prone. Reynal-Querol (2001) analyzed the role of political systems in preventing ethnic conflicts. She argues that the establishment of consociational democracies can prevent ethnic wars which originate from religious differences.

Cultural Factors:

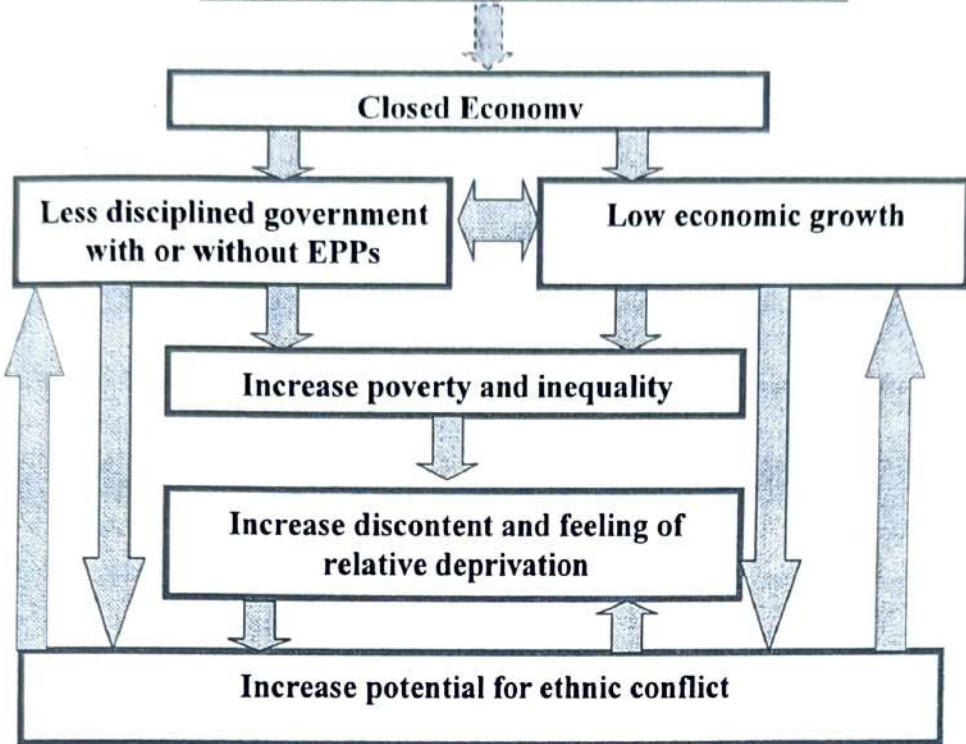
Some of the researchers cited above have also incorporated socio-cultural factors into their investigations. Horowitz (1985) argued that the relationship between ethnic diversity and civil war is not monotonic: there is less violence in highly homogeneous and highly heterogeneous societies and more conflicts in societies where a large ethnic minority faces an ethnic majority. Collier and Hoeffler (1998) using an index of ethno-linguistic fragmentation (ELF) found that more fragmented societies are not more prone to civil wars than the rest, but that the danger of civil war increases when society achieves mid level values of the index. They used the concept of ethnic fragmentation as a proxy for the coordination costs of a rebellion. The argument is that the greater the ethnic

fragmentation the greater the coordination costs and the lower the risk of an onset of civil war. Their empirical analysis showed that ELF is actually not a significant determinant of the onset of civil war; whereas ethnic dominance significantly increases the risk of civil conflict. Ellingsen (2000) and Elbawadi and Sambanis (2000, 2002) have found that ethnically polarized societies have a higher risk of suffering a civil war than homogeneous societies. Elbawadi and Sambanis examined the impact of ethno-linguistic and religious fractionalization on the probability of violent conflict. They found that the net effect of ELF on the incidence of civil war was an additive sum of its influence on the war onset and war duration. Ethnic fractionalization was positively, robustly, and non-monotonically associated with the probability of war incidence. Reynal-Querol (2002) found that religious divisions are more important than language divisions and natural resources in explaining ethnic conflicts.

3. Analysis

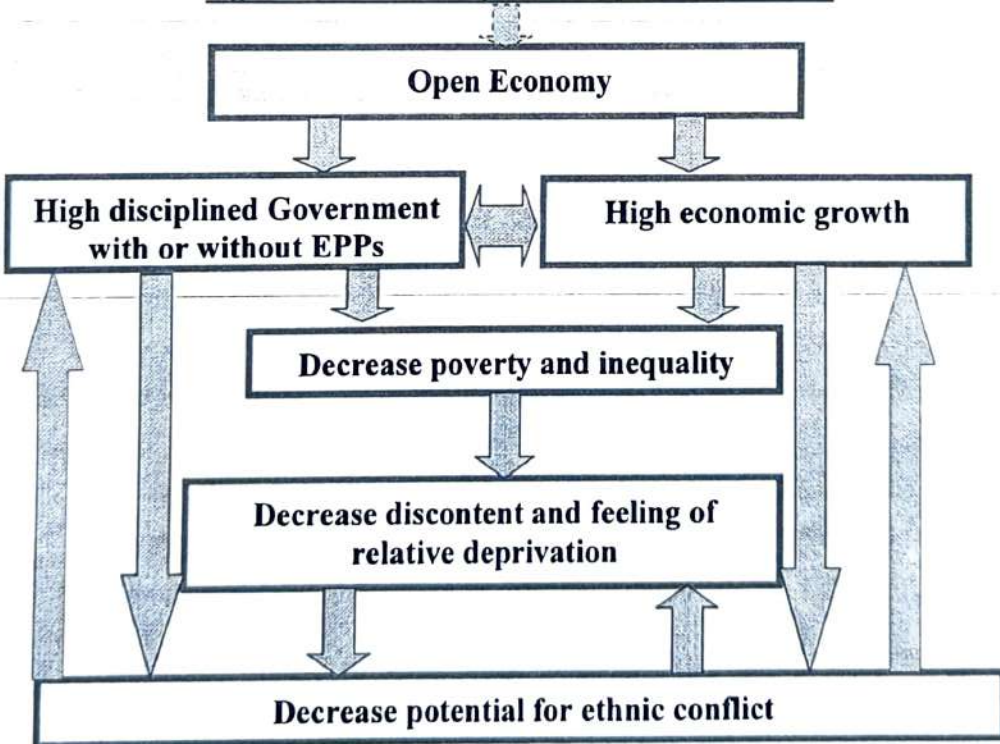
The proposed paper identifies the degree of economic openness as one of the main economic determinants that can exert influence on ethnic conflict, either directly or indirectly, via economic well-being of citizens. Economic well-being depends on economic growth and development of a country, which in turn depends on effective government policies. The biggest challenge many developing countries face is effective governance. As we have argued in the introductory section, an effective way to bring about effective governance is to ensure that the country remains open to foreign trade and investment and lets the private sector thrive. The experience of a number of countries indicates that openness is very likely to bring about a disciplined government regardless of whether it is democratic or authoritarian. If a country experiences a high degree of economic openness, then the expected influence on ethnic conflict will differ compared to a country with less economic openness (closed economy). Inter-linkages that take place in a closed economy and an open economy are depicted in Figures 1 and 2

Figure 1: Influence of closed economy on ethnic conflict



Note: EPP = ethnic preference policies

Figure 2: Influence of open economy on ethnic conflict



Note: EPP = ethnic preference policies

The figures depict that the degree of economic openness (trade and foreign direct investment (FDI)) increases or reduces the probability of ethnic conflict, not directly but through their beneficial effects on economic growth and a disciplined government with or without ethnic preference policies. It is common for every multi-ethnic country to experience ethnic preference policies; therefore, we include ethnic preference policies with the quality of governance. While economic growth and a disciplined government are important intervening variables in this analysis, poverty and inequality among the ethnic groups, and especially relative deprivation are also of concern.

In the two figures the dotted arrow at the top indicates that a closed economy or an open economy is a result of some policy decision of the government. Governments provide the legal and institutional framework for closed or open economies. Although the government is presented at the top, we do not consider its behavior to be exogenous. As shown in the figures above, the behavior of the government is endogenously determined by what is happening in the economy. Stated in different terminology, the feedback links of a government's policy reaction function depend on the type of economy in operation. These figures encompass three key endogenous variables: economic growth, quality of the governance, and ethnic peace or conflict.

Regarding Figure 1, it is not necessary to re-iterate how closed developing economies in the world have failed miserably to generate sufficient growth to uplift the masses from abject poverty levels. These countries have also endured the presence of highly bureaucratic and corrupt governments regardless of whether they are democracies or authoritarian states. Poverty, relative deprivation and discontent especially in the presence of ethnic preference policies become the breeding ground for ethnic tension and conflicts.

The virtuous feedback loop highlighted in Figure 2 shows how a private sector driven open economy acts as a disciplinary force on the government. Initially a determined leadership is required to go against the vested interests of the bureaucracy and lobby groups and to liberalize the economy and open it to foreign trade and investment. As the country gathers growth momentum the government becomes more and more responsive and will strive hard to provide a stable political environment for the proper functioning of the economy. This may include a whole plethora of measures that will uplift the living standards of the masses. It is also in the self interest of government officials to pursue such policies because, unlike the closed-economy case, prosperity opens up avenues to

enhance their own wealth accumulation through *legal means*. As economic well being improves across ethnic groups, the opportunity cost of rebellious activities increases. Moreover, as the standard of living improves, the demand for democracy increases and the political institutions may become more and more democratic. This allows for increased political participation and, therefore, channeling grievances into non-confrontational forums. Overall, the probability of sustaining ethnic peace is likely to increase substantially in an open economy.

In order to analyze the relationship between openness, good governance and ethnic peace, a discussion of the causal variables such as degree of economic openness, the quality of governance, economic growth and relative deprivation are presented below.

Openness and ethnic conflict

Before we examine the relationship between the degree of economic openness and ethnic conflict, it is necessary to analyze the relationship between the degree of economic openness and other economic activities such as good governance, economic growth.

Many studies on comparative political economy (Rodrik 1995; Shang 2000; Molanaa et al. 2004; Neeman et al. 2004) have developed several arguments to explain the consistent finding that the degree of economic openness is associated with the quality of governance. In our view, a high degree of economic openness can be found, for example, in Singapore where, various instruments were launched to reduce trade distortions; in addition transparency in governance and bureaucracy were adopted to improve economic performance and equality within this society. A country like Singapore where there is a high degree of economic openness has found it optimal to devote more resources to building good institutions. In equilibrium, such an economy may display less corruption and a higher quality of government than less open economies. Several authors have documented that more open countries tend to have a lower level of corruption and higher quality of governance (Alberto and Ditella 1999; Gatti 1999; Treisman 2000).

The quality of governance can be assessed by using measures of government intervention, public sector efficiency, public goods provision, size of government, and political freedom. In this section, we use the Index of Government Effectiveness (IGE)⁵ as a

⁵ This index is one of six indices developed to measure governance. Kaufmann et. al. (2002, 2003 and 2005) draws 194 different measures from 17 different sources of subjective governance data constructed by

measure of good governance.⁶ The IGE refers to the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of a government's commitment to policies (Kaufmann et al. 2002, 2003, and 2005). It is, therefore, a measure of the quality of government inputs. This index can take values between -2.5 and 2.5, with the higher or positive values indicating greater government effectiveness.

To sum up the link between economic openness and the quality of government, as mentioned earlier, openness can minimize conflict by a reduction of relative deprivation among various ethnic groups. This is possible through the quality of government activity and improvement of social welfare.

There is a strong consensus among economists that openness to trade, even if combined with elements of direction and protection, tends to promote economic welfare. Indeed, economic openness can stimulate economic growth by enhancing the international flow of knowledge and innovation by allowing economies to specialize, not only in the production of goods, but also in the generation of new knowledge and new inputs into production. This raises the hope that countries will eventually reach a higher level of welfare, whether measured in terms of per capita income or improvement in the living standard of their citizens or the reduction in the number of poor people. Therefore, a high degree of economic openness is likely to speed up the rate of economic growth by leading to larger economies of scale in production due to the positive spillover effects emanating from technological developments in industrial countries than a lesser degree of economic openness. It is probably the failure to achieve this condition in many multi-ethnic developing countries that explains the low level of economic performance with political instability in these countries.

Although several studies covering different groups of countries and different periods have found that trade openness is an important determinant of economic growth, the evidence reveals ambiguous results about this relationship. While some countries' experience provides a positive linkage between degree of economic openness and economic growth, other countries' experience fails to demonstrate this linkage. There are a number of countries which have experienced high economic openness parallel to higher levels of

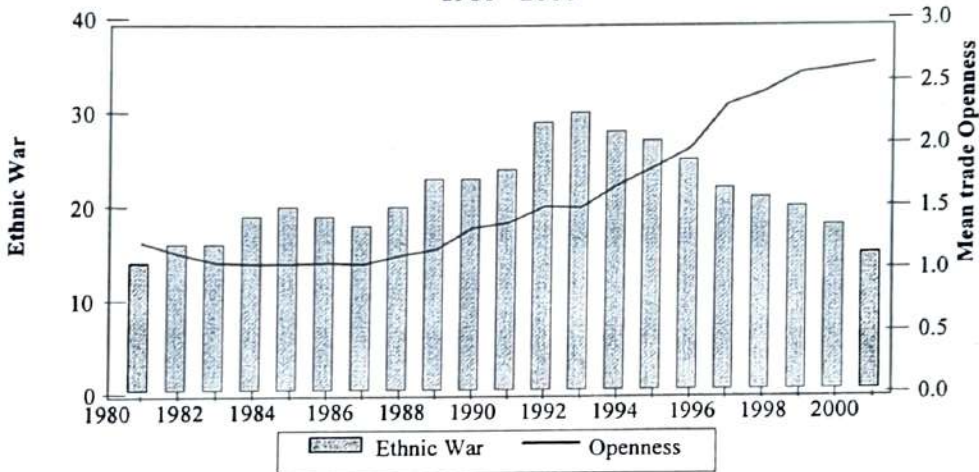
15 different organizations. These sources include international organizations, political and business risk rating agencies, think tanks, and non-governmental organizations.

⁶ The corruption index will be used as a proxy for the quality of governance in the empirical section.

economic growth. As a result of a high degree of economic openness, formerly closed economies, such as China, India and Vietnam have experienced considerable economic growth and reduction in poverty after modernizing their economies through foreign trade.

In order to confirm the relationship, the connection between the degree of economic openness and ethnic conflict was tested and the results are presented in Figure 3. For the assessment, we used economic openness data⁷ from Bussmann et al. (2003) and ethnic war data from State Failure Task Force Report (2004) and present the relationship between the degree of economic openness and ethnic conflict in the period 1980 to 2000. Figure 3 shows that the number of open economies and the number of ethnic wars have increased from 1980 to 1992.⁸ Since then, while the number of open economies increased the number of ethnic wars decreased.

Figure 3: Relationship between trade openness and ethnic war in the World: 1980 - 2000



Source: State Failure Task Force Report (2004), Bussmann et al. (2003)

Even though the experience revealed an ambiguous result regarding economic openness, it must be noted that growth-enhancing open economic policy is likely to be one of the necessary conditions for reducing ethnic conflicts via improving the quality of governance. The subsequent section provides further information regarding the relationship between quality of governance and ethnic conflict.

⁷ CACAO index measures exchange arrangements and exchange restrictions on an ordinal scale ranging from 0 "closed" to 7 "open". It is based on a combination of trade policies and institutional arrangements.

⁸ With the help of Current Account and Capital Account openness (CACAO) index, Martin and Schneider (2002) show that a majority of developing countries have become more open to the world economy during the last two decades.

The quality of governance and ethnic conflict

The role of a government in an economy can be divided into three broad categories: a contributor of institutions, promoter of economic growth, and provider of income distribution. The government can perform all these activities through a number of channels: it reduces information asymmetries about the economic environment; it reduces risk and enforces property rights and contracts, determining who gets what and when; and it restricts the actions of politicians and interest groups, making them accountable to citizens. The government is thus likely to have an important impact on economic and political activities in general.

Good governance is an essential ingredient for ethnic peace. During the past two decades, governance has become a key concept in the international development debate and policy discourse. Probably, the most challenging issue facing multi-ethnic nations today concerns the establishment of quality governance that can effectively deal with ethnic diversity and allow different groups to co-exist peacefully. The quality of governance has long been recognized as an important component of economic welfare and political stability. Attaining good governance is inherently difficult: historically, there has been far more instances of bad governance than good ones. Good governance entails the existence of efficient and accountable institutions – political, judicial, administrative, economic, and corporate – and entrenched rules that promote development, protect human rights, respect the rule of law, and ensure that people are free to participate in, and be heard on issues, relating to their lives. For instance, the government of Singapore played (and still plays) an active role in managing its ethnic society as well as in developing its economy; and the government has increasingly been challenged to maintain an even and balanced perspective on the issues of ethnicity and race. To maintain ethnic balance, the government of Singapore provides legal protection to minorities, promises freedom from expropriation, and grants freedom from repudiation of contracts. Further, it facilitates cooperation with public services in order to make a given amount of ethnic fractionalization less damaging for development.

According to the United Nations Development Program (2002), the quality of governance advances sustainable development for three reasons. First, enjoying political freedom and participating in the decisions that shape one's life are fundamental human rights. Second, the quality of governance helps to protect people from economic and political catastrophes. Third, the quality of governance can promote sustainable development by

empowering citizens to influence policies that promote growth and prosperity and which reflect their priorities. Quite clearly, growth and development cannot be achieved in the absence of good governance. Among other things, good governance ensures the most efficient utilization of already scarce resources for development, and enhances participation, responsibility, and accountability; and has the potential to release people from poverty as state legitimacy is recognized and entrenched. Therefore, bringing about improvements in the quality of life and reducing the level of inequality is a function not only of the resources available but also of the economic and social priorities and policies of a government.

Why is it that some developing countries experience rapid economic growth while others fall far behind? Recent empirical studies suggest that good governance is one of the key distinguishing factors between high growth and low or negative growth countries. Economists, historians, and political scientists have long been engaged in a debate on whether, and to what extent, good governance correlates with economic growth. La Porta et al. (1998) presented a historical approach involving legal origins to prove that good governance is correlated with economic growth. Many other economists have pointed out that effective institutions are good for economic growth. The prevailing view is that poor governance disrupts economic activity by imposing costs that distort the efficient allocation of resources in an economy. On the other hand, the institutional approach postulates that most adverse economic effects are the consequences of ineffective institutions. It has been proved by events in many developing countries that good governance correlates with economic growth.

Poor governance it may be argued is a significant contributor to low economic growth, stifled investment, ineffective provision of public services and increased inequality. The goal of a disciplined government as a promoter of economic growth can be reached in many ways: getting the country into 'the right business'; creating a comparative advantage in 'the right business'; providing infrastructure; setting standards, responsibility to provide skilled labor and entrepreneurship; and creating demand. Though the quality of governance is an important determinant of economic growth, it should also be noted that the quality of governance depends on the level of economic growth as well, since wealthy countries can afford good governance. Poor governance is a

significant contributor to low economic growth,⁹ in turn, lower levels of economic growth lead to poor levels of governance.

While higher economic growth is a key to economic development, its unequal distribution – as a result of poor governance – can lead to social unrest. Among all the factors that influence the rapidity and substance of economic growth, it is now clear that the quality of governance is one of the most decisive factors. Ineffective governance leads to poverty and income inequality in many ways: it reduces economic growth, the level and effectiveness of social programs; and perpetuates an unequal distribution of asset ownership, unequal access to education as well as employment opportunities. Once a country is characterized by poor governance, only the better connected individuals in society, who belong mostly to high income groups as well as government supporters, obtain the most profitable government projects and other benefits. This leads to reductions in social and economic welfare. Ultimately, poor governance is less likely to improve the distribution of income and make the economic system more equitable.

It can be said that good governance ensures an enabling environment for poverty reduction. There is strong evidence that effective governance matters for growth and poverty reduction. But establishing the rule of law, tackling corruption, reforming public services, and getting democracy and markets to work in poor countries is not easy. The challenge is particularly acute in some low income countries which have very weak policies, institutions, and governance (World Bank 2002). Among the countries that have sustained an impressive record of economic growth in recent decades, Malaysia provides an unusual – and perhaps unique – record.¹⁰ The next section provides these details in relation to economic growth and ethnic conflict.

⁹ This was the main story in Sri Lanka from 1956 to 1977; as a result of poor governance (political favoritism and widespread corruption), economic growth was insignificant in most periods. Further, World Bank (2001) studies conclude that the contributions to growth of physical investment and total factor productivity in sub-Saharan Africa have been low in comparison with other regions and have declined over time. These trends have reflected inefficiencies in resource allocation, poor delivery of public goods (notably health care and education), and the high risk of doing business in many parts of the region.

¹⁰ Malaysia's ethnic tension in the 1960s clearly illustrates this point. As a result of the laissez-faire economic system, there was high horizontal inequality between ethnic groups though the economy experienced a high level of economic growth.

Economic growth and ethnic conflict

Economic growth facilitates and may even be a necessary condition for, the successful management of ethnic conflict. Economic growth leads to ethnic peace, both directly and indirectly via the reduction of poverty and inequality.

The rationale behind the direct relationship is that by increasing the material resources of society, economic expansion makes it possible for governments to provide material benefits to members of all ethnic groups. Particularly, more can be provided to the relatively disadvantaged in order to satisfy their aspirations for material improvement and greater justice. Everyone benefits in this positive sum game, and no individual is deprived. Thus, economic expansion, and only economic expansion, provides the means to benefit all. The argument that 'economic growth facilitates ethnic peace' is relatively simple: in a country with greater economic growth experience and prospects of long-term prosperity, as mentioned in Collier and Hoeffler (2001), the opportunity costs of formation of rebel groups grow and a smaller number of people are keen to participate. This implies that the opportunity costs to wealthy people are higher since they have more to lose from participating in a rebellion than poor persons.

Economic growth also brings about ethnic peace indirectly via the reduction of poverty and inequality among communities. Economic growth is one of the most important factors in helping to reduce poverty and inequality, but it is not sufficient. The relationship between growth and poverty on the one hand and inequality on the other is one of the central questions in Economics that has attracted considerable attention. At first, many studies tended to assume that there must be an inverse relation between economic growth and poverty and inequality. Unfortunately, that is not absolutely clear. The literature on this issue flourished in particular after the seminal work of Kuznets (1955), where he postulated a specific nonlinear, inverted-U shaped, dynamic relationship between growth and income inequality, the so-called "Kuznets curve." At a very low level of income, groups and individuals, although poor, are not conscious of deprivation; however, at middle levels of income, they become aware of the potentialities created by greater levels of income and so they become discontented. Even though various theories were put forward to explain this dynamic relationship, evidence exists both on positive and negative relationships between growth and inequality.

Since the mid 1970s, South Korea has been perceived not only as an exemplar of rapid economic growth, but also as a society where substantial reductions in inequality and poverty seem to have been largely a reflex of economic growth. Another successful country is Malaysia where since the introduction of New Economic Policy in 1970, horizontal inequality and poverty have been gradually reduced and the country has achieved a very credible growth record. These successes have been achieved – unlike in their counterparts in East Asia – while having racially diverse populations. In the mean time an ambiguous result is found in the US. During the 1930s through 1940s income became more equal while economic decline was followed by growth. From the 1950s through to the 1970s, the income gap lessened during booms and expanded during slumps. From the late 1970s onward, income inequality worsened fairly consistently, whether the economy was stagnant or growing.

From the above evidence, it can be concluded that both positive and negative relationships can exist between growth and inequality across nations. It is important to note that economic growth does not automatically fuel equality; growth only promotes equality if policies and institutions to support equity are in place. Therefore, the effectiveness of economic growth in reducing inequality depends upon how the benefits of growth are distributed. In this context, governments need to work on creating more equity in the distribution of income as well as other resources.

In evaluating the relationship between economic growth and ethnic conflict, poor economic growth is highly correlated with the emergence of ethnic conflict, either directly or indirectly via reduction of poverty and inequality; however, the causes of potential ethnic conflict are dynamic in nature, rather than a result of economic growth alone. It must be pointed out here that economic growth alone mitigates ethnic conflict. Supportive evidence in this regard follows. In Canada, for instance, strong economic expansion in the 1960s aroused high expectations among the Quebecois, exacerbating conflict; recession in the late 1970s raised doubts that Quebec could prosper as an independent unit and dampened separatist fervour. In Malaysia, two decades of rapid growth – from 1950 to 1970 – have not significantly reduced ethnic tensions. Therefore, it can be concluded that while there is a negative relationship between economic growth and ethnic conflict in general, that some of the evidence fails to prove this link. The succeeding section will attempt to provide details relating to poverty, inequality and ethnic conflict.

Poverty, Inequality, Deprivation and Ethnic conflict

While poverty and inequality are not the same thing, they are the root causes of deprivation. Poverty is defined as the lack of some fixed level of material goods necessary for survival and minimal well-being. Inequality, on the other hand, refers to a comparison between the material level of those who have the least in a society and the material level of other groups in that society. Consequently, a country in which everyone is poor will have poverty but no inequality. Likewise, a fairly well-off country can have inequality but no poverty. Poverty is generally regarded as absolute deprivation, and inequality as relative deprivation.

There are different opinions about the impact of poverty and inequality on the probability of ethnic conflict; and this is still heavily debated on in the literature (Alesina and Perrotti 1996; Nafziger and Auvinen 2002; Indranil and Mishraz 2004). High poverty and inequality among ethnic groups accompany ethnic conflict because marginalized and poor people are unhappy with their economic status, which makes it harder to achieve political harmony among various groups with higher and lower incomes.

If a country experiences a high degree of inequality, the poor and deprived groups are confronted with groups that are relatively much better off. If marginalized frustration grows beyond a certain level, they will fight for what they perceive to be justice. This is what the relative deprivation aspect of ethnic conflict would predict. In fact, relative deprivation occurs when individuals or groups subjectively perceive themselves as unfairly disadvantaged compared to others perceived as having similar attributes and deserving similar rewards (their reference groups). The research on the relative deprivation model first introduced by Davies (1962) and then Gurr (1970) considered the concept of relative deprivation as the most important factor in creating grievances and mobilizing people for conflict behavior. The theory also claims that political violence can increase when a society's population becomes relatively well educated but fails to receive a commensurate level of income. In sum, when the poor and marginalized compare themselves to the rich, this can lead to unhappiness, stress, and alienation.

Reduction in poverty and inequality, and good governance reduces the potential for ethnic conflict by providing formal channels for the expression of grievances, thus affecting ethnic peace positively. As mentioned previously, economic stagnation and inequality are generally regarded as typical grievance factors. If a country experiences a high level of

economic growth and a low level of inequality, eventually the relative deprivation between ethnic groups will reduce ethnic peace in the country.

Overall, each and every economic factor is interrelated, and directly or indirectly influences ethnic peace or conflict. From the above analysis, it can be noted that there are ambiguous relationships regarding economic forces and between economic factors and ethnic conflict. Therefore, without analyzing empirical models, relating to specific conflicts, it cannot examine such relationships. The next part of this paper, seeks to do this.

4. Empirical Analysis

In this section we subject the above formulation to an empirical test by estimating a three equation model to assess how growth, quality of governance, and ethnic conflict respond to openness after controlling for some of the standard determinants. The three equations for a panel specification are:

Openness and economic growth

$$\begin{aligned} Growth = & \alpha_{0i} + \alpha_1 OPEN_{it} + \alpha_2 QG_{it} + \alpha_3 Pcap_{it} + \alpha_4 Hcap_{it} + \alpha_5 POPg_{it} \\ & + \alpha_6 INF_{it-1} + \alpha_7 DEMO_{it} + \alpha_8 ELF_{it} + U_{1it} \end{aligned}$$

Openness and the quality of governance

$$QG_{it} = \beta_{0i} + \beta_1 OPEN_{it} + \beta_2 GROWTH_{it-1} + \beta_3 INF_{it-1} + \beta_4 DEMO_{it} + \beta_5 POP_{it} + U_{2it}$$

Openness, the quality of governance, economic growth and ethnic conflict

$$\begin{aligned} CONFLICT_{it} = & \gamma_{0i} + \gamma_1 OPEN_{it} + \gamma_2 GROWTH_{it-1} + \gamma_3 QG_{it} + \gamma_4 INF_{it-1} + \gamma_5 POP_{it} + \gamma_6 DEMO_{it} \\ & + \gamma_7 DEMO_{it}^2 + \gamma_8 ELF_{it} + \gamma_9 ELF_{it}^2 + U_{3it} \end{aligned}$$

where, for quick reference, GROWTH = GDP growth rate (log first difference of GDP), OPEN = openness, QG = quality of governance, PCAP = physical capital, HCAP = human capital, POP = logarithm of population size, POPG = population growth (log first difference of POP), INF = inflation rate, DEMO = democracy, CONFLICT = ethnic conflict, ELF = ethno-linguistic fractionalization. Note that we use the lagged values of INF in all the equations and GROWTH in the second and third equations to avoid simultaneity problems. A detailed description of these variables, the expected sign of their coefficients and data sources are given below.

Two measures of openness are used to assess the robustness of the relationship that is being focused on. One is the commonly used trade-GDP ratio, with data taken from the

Penn World Tables (PWT, Version 6.1) (Summers et al. 2002). The other is a more comprehensive measure called "composite trade openness index" developed by Gwartney et al., 2001). This index closely captures the legal and institutional framework of openness as defined in this paper. It is estimated based on the following indicators: revenues from taxes on trade as a share of the trade sector, mean tariff rate, standard deviation of tariff rates, composite tariff rating, difference between the official and black market exchange rate, restrictions on capital transactions with foreigners, and actual size relative to the expected size of the trade sector. Each indicator is given a value from 0 to 10 and the index is set to range from 0 to 10; the larger the value the higher is the openness of a country. As argued earlier a positive effect of OPEN on GROWTH and QG and a negative effect on CONFLICT is expected.

Economic growth is measured using the annual growth rate of per capita real GDP taken from the World Bank publication, World Development Indicators (WDI). A corruption index (taken from the site countrydata.com) is used to proxy quality of governance (QG). This index ranges between 0 and 10 with zero indicating the most corrupt (lowest quality) and ten the most clean (highest quality) government. As discussed earlier QG is expected to have a positive effect on GROWTH and a negative effect on ethnic CONFLICT. Following others, the investment/GDP ratio is adopted as proxy physical capital (PCAP), with data extracted from the WDI. In the absence of comparable data across countries, the adult literacy rate is used to proxy human capital (HCAP), with data taken from the WDI. Despite its limitations, this is commonly used as a proxy for HCAP in developing countries where a large fraction of the population may lack basic education. In the GROWTH equation population growth (POPG) stands as a proxy for labor force growth (the population data also being from the WDI.) The expected effect of PCAP, HCAP, and POPG on GROWTH is positive. In the QG equation the effect of population size (POP) on QG is somewhat ambiguous though in general we can expect developing countries with large POP to provide more opportunities for corruption. On the other hand, the larger the POP the more likely is the occurrence of an ethnic CONFLICT (Alesina et al., 2003).

Many developing countries face high inflation rates and the eroding purchasing power of income is a common cause of grievance. Some studies have found INF to have a negative effect on GROWTH (Kormendi and Meguire, 1985; Grier and Tullock, 1989). On the other hand, these studies also show that higher inflation rates increase the incidence of corruption (low QG). High and variable inflation is assumed to increase uncertainty about

prices and therefore to increase the cost of auditing agents' behavior, resulting in higher corruption (Braun and DiTella, 2000). Studies have also found high and variable inflation to fuel ethnic tension and CONFLICT (Rowlands, 2000). We use the annual inflation rate computed from the Consumer Price Index extracted from the WDI.

The indicator variable for democracy (DEMO) was taken from the widely-used Polity IV data set of Marshall and Jaggers (2002). The Polity IV democracy measure uses a 20-point integer scale constructed from two subscales: democracy and autocracy. Each is given values in the range 0 and 10. Subtracting autocracy from democracy, as suggested by Polity IV's authors, generates a summary measure termed DEMO. This varies within the range of -10 (most autocratic) to +10 (most democratic). A score of 10 was added to this measure to bring the minimum value to 0, in order to avoid complications in the interpretation of the squared term of DEMO. Therefore, the score of DEMO extends from 0 (most autocratic) to 20 (most democratic). Democracy is expected to enhance both sustained growth and the quality of governance (Rivera-Batiz and Francisco, 2002). In the case of ethnic conflicts, there is evidence in support of non-linear (typically an inverted U shape) relationship between ethnic conflicts and democracy. To capture this non-linearity both DEMO and DEMO² are included as regressors in the CONFLICT equation.

The variable ethno-linguistic fractionalization (ELF) measures the probability that two randomly drawn individuals from a given country do not speak the same language (Collier and Hoeffler (1998). The commonly used formula to compute this is:

$$F = 1 - \sum_{i=1}^N P_i^2$$

where P_i is the population share of the i th ethnic group in a country (Fearon, 2002). Thus ELF = 0 indicates a totally homogenous society and ELF = 1 indicates that everyone belongs to a different ethno-linguistic group (totally fractionalized society). The data source for this variable is Alesina et al. (2003). As observed by others ELF is expected to have a negative effect on GROWTH emanating from ethnic tensions and conflicts. Its effect on ethnic conflicts is generally observed to be non-linear (typically an inverted U shape) is captured using ELF and ELF¹¹(some problem here don't you mean ELF²) in the

¹¹ The cross section includes Bangladesh, Guatemala, India, Indonesia, Kenya, Malaysia, Pakistan, Philippines, Sri Lanka, Thailand, Turkey, and Zimbabwe. The initial focus was on Malaysia and Sri Lanka, but these two alone did not provide sufficient sample variation to carry out the test. Therefore, it was decided to settle for a smaller cross section (with a greater focus on Asia) involving long time series. In a separate qualitative paper the Malaysian and Sri Lankan cases will be discussed in detail.

CONFLICT equation. The argument here is that the probability of ethnic conflict is lower in both more homogenous and more heterogeneous societies than in societies with two or three dominant ethnic groups (Ellingsen 2000).

To estimate the parameters of the three equations a panel data set of twelve multi-ethnic developing countries was used over the time period 1980-2000.¹² The first two equations were estimated with random effects (instead of fixed effects) because the Hausman test favors the random effect specification. Since CONFLICT is a binary variable and obtaining consistent estimates from a non-linear binary panel model with unobserved effects is not straightforward (Hsiao, 2003, Chapter 7) the third equation was estimate as a Logit model without unobserved effects and a linear probability model (LPM) with fixed effects. The estimation results are given in Tables 1-3.

**Table 1: Dependent variable: Economic Growth
(Random effect specification)**

Independent variable	Openness as Trade/GDP ratio	Openness as Composite index
Openness	0.6256* (0.1608)	0.1563* (0.0344)
Quality of Governance	0.1394* (0.0399)	0.0832* (0.0388)
Physical Capital	0.0386* (0.0071)	0.0350* (0.0068)
Human Capital	0.0121* (0.0024)	0.0077* (0.0029)
Population growth	0.2166* (0.0657)	0.1872* (0.0662)
Inflation	-0.0112* (0.0021)	-0.0100* (0.0020)
Democracy	0.0247* (0.0074)	0.0153* (0.0075)
ELF	-0.3036** (0.1765)	-0.3245** (0.2017)
Constant	3.7246 (0.3094)	3.8083 (0.3076)
R ²	0.5818	0.5985
Adj.R ²	0.5668	0.5765
DW	1.2113	1.2351

Note: N=252. Standard errors in parentheses. * and ** indicate statistical significance at 1% and 5% levels respectively.

¹² Sample countries are; Bangladesh, Guatemala, India, Indonesia, Kenya, Malaysia, Pakistan, Philippines, Sri Lanka, Thailand, Turkey, and Zimbabwe.

**Table 2: Dependent variable: Quality of Governance
(Random effect specification)**

Independent variable	Openness as Trade/GDP ratio	Openness as Composite index
Openness	0.9921* (0.2465)	0.1463* (0.0467)
Growth	0.3164* (0.1048)	0.3567* (0.1130)
Inflation	-0.0129* (0.0035)	-0.0103* (0.0034)
Democracy	0.0603* (0.0106)	0.0623* (0.0108)
Population	-0.1520* (0.0542)	-0.2140* (0.0530)
Constant	2.0777 (0.9291)	2.5189 (0.9636)
R ²	0.5687	0.5710
Adj.R ²	0.5491	0.5545
DW	2.1230	2.3109
Note: N=252. Standard errors in parentheses. * and ** indicate statistical significance at 1% and 5% levels respectively.		

Table 3: Dependent Variable: Ethnic conflict

Independent variable	Openness as Trade/GDP ratio		Openness as Composite index	
	Logit model	LPM with fixed effects	Logit model	LPM with fixed effects
Openness	-2.1827* (0.8207)	-0.2663* (0.1237)	-0.3864* (0.1091)	-0.0487* (0.0205)
Quality of Governance	-1.3720* (0.2747)	-0.2082* (0.0313)	-1.4546* (0.2694)	-0.2175* (0.0308)
Growth	-0.1301* (0.0531)	-0.0206* (0.0085)	-0.1069* (0.0472)	-0.0221* (0.0088)
Inflation	0.0302* (0.0139)	0.0048* (0.0017)	0.0354* (0.0136)	0.0085* (0.0021)
Population	0.7301* (0.2481)	0.1617* (0.0467)	0.8000* (0.2622)	0.1926* (0.0490)
Democracy	0.2700** (0.1616)	0.0520** (0.0291)	0.4316* (0.1481)	0.0834* (0.0280)
Democracy ²	-0.0147* (0.0077)	-0.0027* (0.0013)	-0.0224* (0.0070)	-0.0044* (0.0013)
ELF	18.1894* (3.7920)	2.7942* (0.5795)	11.5740* (3.2305)	1.6302* (0.6181)
ELF ²	-17.6627* (3.9121)	-2.7368* (0.5925)	-11.5289* (3.3035)	-1.6430* (0.6246)
Constant	3.5578 (1.9633)	1.0981 (0.3242)	3.2458 (1.0534)	1.1705 (0.2018)
	Log Likelihood = -152.96	R ² = 0.4378 Adj.R ² = 0.3948 DW = 1.9654	Log Likelihood = -162.43	R ² = 0.4215 Adj.R ² = 0.3147 DW = 1.9076

Note: N=252. Standard errors in parentheses. * and ** indicate statistical significance at 1% and 5% levels respectively.

Discussion of results

The results reported in the three tables are highly affirmative of the basic thesis postulated in this exercise. Openness, after controlling for a variety of other determinants, exerts a highly statistically significant positive effect on economic growth, improves the quality of governance, and reduces the probability of ethnic conflicts. The results are quite robust regardless of the measure used for openness. Moreover, although the magnitudes of the coefficients of openness, under the two measures of OPEN are different reflecting the difference in the two measures, the magnitude of the other coefficients remain approximately the same under these two measures. This indicates that the two measures of openness are roughly orthogonal to the other explanatory variables and as a result the effect of openness is measured reasonably accurately regardless of the presence or absence of other variables. As discussed earlier, openness is very likely to work as a disciplining force on both democratic and authoritarian governments, which is the key to bringing about policies that are conducive to economic growth, social development, and ethnic peace. Taken together, the results in Table 3 highlight how openness, quality of governance and economic growth exert a highly significant influence on reducing the probability of ethnic conflicts.

It is also worth discussing briefly the role the other variables play in each of the regressions. In the growth equation (Table 1), apart from the standard growth determinants of capital and labor, democracy shows up with a significant positive effect and ethno-linguistic fractionalization (ELF) shows up with a significant negative effect as expected. Inflation also shows a negative effect on growth.

The results of the quality of governance equation (Table 2) also confirm the expected outcomes. As argued by others, high inflation and large populations in developing countries provide a encourage corruption. It is interesting to note the positive effect of democracy in improving the quality of governance or reducing corruption.

The equation on ethnic conflicts (Table 3) also shows expected results manifesting with statistically significant effects. However, the R^2 of about 40% in the LPM models suggests that the prevalence of ethnic conflicts cannot be fully explained by these fundamental variables alone. As we have argued earlier ethnic conflicts may persist for many reasons including vested interests. The results show that high inflation and large population size increase the probability of ethnic conflicts. Of particular interest is the non-linear inverted

U shape effect of democracy and ethno-linguistic fractionalization on the probability of ethnic conflict. The estimates of these two variables across all the columns in Table 3 show that the probability of an ethnic conflict reaches its maximum when DEMO and ELF are at their half-way marks. In other words, partial democracies with a dominant minority group are highly prone to ethnic conflicts. Collier and Rohner (2007) observe that poor democratic countries are more prone to conflicts than poor authoritarian ones. Although authoritarian states are likely to achieve ethnic peace, they may entail human rights abuses. Nevertheless, open economies even with authoritarian states may experience faster growth with more responsive governments and may move towards well developed democracies faster than poor states with fragile democracies and ethnic conflicts.

5. Conclusion

Ethnic conflicts have crippled many developing countries. Sustaining ethnic peace is a constant challenge that policy makers have to grapple with, even in developed countries. Getting good and strong leaders to set everything right is a cry one could hear around the developing world. Since such a dream is far from reality in general, an important question to raise is: "is there a mechanism that will help improve the quality of the leaders and their governance, provide higher growth, and pave the way for ethnic peace." The basic hypothesis formulated and tested in this exercise is that countries that are open to foreign trade and investment are more likely to succeed in improving the quality of governance, achieving higher growth, and reducing the probability of ethnic conflicts. One important tenant of this formulation is not to treat the government as a purely exogenous entity. Economic openness tends to act as a disciplining force on governments and thereby improves the quality of governance.

The results of the regression analysis strongly favor the above hypothesis. Obviously a determined leadership is required to go against vested interests and open the economy to foreign trade and investment and place the private sector in the driving seat of the economy. Once set in motion, openness is likely to generate a virtuous feedback loop between government policies and the socio-economic environment. As the economic pie gets larger it would be easier to implement other policies that are needed for redistribution, social development and ethnic peace.

It should be noted that openness by itself is not sufficient to achieve full ethnic peace. Collier and Hoeffler (2007) summarize a number of other conditions that have been discussed in the literature. In particular, a general finding, similar to that reached in this paper, is that partial and fragile democracies are more prone to conflicts than authoritarian states and well developed democracies. This deserves careful consideration. Observations around the world also show that foreign direct investors seek politically stable countries (both democratic and authoritarian) for their investments. To work out a system which provides political stability and to put in place a mechanism (like openness) that disciplines the government is a key priority of the political leadership and of responsible citizens in developing countries.¹³

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¹³ East Asian model of single-party dominated governments that provide political stability and highly competitive and open economies that discipline the governments stand out as a good model to emulate in the take-off period.

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