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The conflict-growth nexus and the poverty of nations

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Abstract

Lack of growth limits poverty reduction while poverty increases conflict risk. Institutional failure and other factors seem to cause both growth failure and civil war. The greed explanation for conflict is common in cross-country econometric investigation, despite its dubious role in directly causing civil war. The relationship between natural resource revenues and conflict onset works through other mechanisms, such as a weakening social contract and withering state capacity. The grievance explanation for contemporary civil war is supported by detailed case studies where horizontal inequality is important. Economic reconstruction following war should therefore be pro-poor and address horizontal inequalities engendering conflict.

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The conflict-growth nexus and the poverty of nations

S. Mansoob Murshed¹

A fifth of humanity lives in abject poverty.² This is something that should be unacceptable to the more affluent for two related reasons. First of all, it affronts our sense of common humanity. Secondly, it undermines international security, as poverty eventually engenders violence and revolt. Enlightened self-interest therefore dictates that poverty should be alleviated. In short, it is difficult to separate the development and security agenda. The reduction of absolute poverty yields a double dividend by simultaneously addressing security considerations and developmental concerns. Thus, the achievement of the millennium development goals (MDGs) regarding poverty reduction is twice blessed: it serves both the altruistic and security minded motives of the donor community.

Most wars nowadays are intra-state or civil wars. The overwhelming majority of these civil wars occur in developing countries. Ultimately, wars are irrational when compared to negotiated settlements, because wars destroy part of the initial endowment of belligerents, no matter what the final outcome. But the logic of bounded or myopic rationality can sometimes make war rational. Furthermore, there is an intimate link between poverty and conflict. On the one hand, war prevents the achievement of the MDGs, perpetuating poverty, under-development and the lack of growth. On the other hand, poverty provides fertile grounds for conflict entrepreneurs, as potential combatants have less to lose from death and destruction on account of their own poverty. For all of these reasons, ending conflict, or reducing its intensity, must be a high policy imperative in the development, poverty reduction and international security agenda.

Despite the reservations of some, economic growth constitutes the principal avenue by which sustainable poverty reduction can be attained in low-income developing countries. Redistributing income, without making the cake bigger, only serves to make the already poor more equal. Thus, growth is a necessary condition for poverty reduction in low-income countries. Growth can reduce poverty if some of the benefits of growth trickle down to the poor, even if its principal beneficiaries are the wealthy. This is where other notions of pro-poor growth, such as those advocated by Kakwani and Pernia (2000), become relevant. According to this view, in order for growth to be truly pro-poor, it must disproportionately benefit the poorer segments of society; thus requiring an improvement in the distribution of income. Additionally, such pro-poor growth can also serve to stem the seeds (poverty and inequality) of conflict. Moreover, there are similarities between conflict prevention and the deep determinants of growth in the long-run because of factors common to both: institutions, inequality, endowments and so on. Despite our concern with poverty reduction, we cannot ignore the consequences of inequality, within and between nations, because of the insecurity that high inequality engenders. The lack of growth creates more inequality, and inequality breeds human insecurity. Thus an important growth-conflict nexus does exist, and the purpose of this chapter is to explore that link.

1 This chapter is based on the author's longer background paper for the United Nations (Department for Economic and Social Affairs) World Economic and Social Survey, 2006, <http://www.un.org/esa/policy/wess/>. He is grateful to Rob Vos for valuable comments on previous drafts.

2 Based upon the widely accepted purchasing power parity (PPP) concept of a dollar a day per person as the international absolute poverty line.

The rest of the chapter is organised as follows. The second section describes the growth record (recent and historical) of developing countries. The third section is concerned with conflict. It describes the stylised facts of civil war and summarises and synthesises the causes of civil war (greed versus grievance). The penultimate section sketches the empirical associations among endowment, growth, polity and conflict. The section concludes with some policy recommendations for post-conflict reconstruction.

Long-Run Determinants of Growth

The economic history of the world in the last two centuries is a sorry tale of widening disparities between rich and poor nations; see Maddison (2001). As table 1 indicates, the average income gap, measured in 1990 purchasing power parity (PPP) dollars between rich and poor nations was 1.97: 1 during the early stages of the industrial revolution in 1820. In a 178 year period to 1998, this gap widened to 6.92. The increase in the average disparity between rich and poor nations was approximately 350% during this period. Table 1 clearly shows that the present-day disparities between rich and poor states are a consequence of the lower growth rates in poor countries.

Table 1:
Long-Run Patterns of Growth in the World Economy

<i>Per-Capita GDP levels in 1820 and 1998 (1990 PPP), and growth rates</i>	<i>1820</i>	<i>1998</i>	<i>1820-1998 (% annual growth rates)</i>
Western Europe	1232	17,921	1.51
Western offshoots	1201	26,146	1.75
Japan	669	20,413	1.93
Average-rich	1130	21,470	1.67
Latin America	665	5795	1.22
Asia	575	2936	0.92
Africa	418	1368	0.67
Average-poor	573	3102	0.95

Source: Maddison (2001), Western offshoots refer to North America, and Australia and New Zealand.

other new entrants to the OECD). Upper middle refers to countries with at least two-thirds of the average per-capita income in the poorest OECD country. Lower-middle refers to those with between a third and two-thirds of the average income in the poorest OECD country. Poor refers to the number of nations with less a third of the average income in the poorest rich country.

Between 1960 and 2000 the Western share of rich countries has been increasing; to be affluent has almost become an exclusive Western prerogative—16 out of 19 non-Western nations who were rich in 1960 traversed into less affluent categories by 2000 (for example, Algeria, Angola and Argentina). Against that four Asian non-rich countries moved into the first group.³ Most non-western rich nations in 1960 joined the second income-group by 2000, and most non-Western upper-middle income countries in 1960 had fallen into the third and fourth income categories by 2000. Of 22

One of the precepts of neoclassical growth theory is that poorer regions should grow faster than richer countries, eventually catching up with the higher living standards of affluent nations. The relative gap between rich and poor nations should become narrower over time, a phenomenon known as ‘convergence’. This has not occurred, despite the fact that a handful of poor countries have joined the club of affluent nations. Consider table 2, based on Milanovic (2005), describing the number of countries in transition from poor to middle-income to rich and so on, since 1960. Rich refers to a typical OECD country (minus Turkey and

Table 2:
The Number of Countries Going from Rich to Poor and vice versa, 1960-2000

<i>Type</i>	<i>1960</i>	<i>2000</i>
Rich (OECD)	41	31
Upper-middle	22	8
Lower-middle	39	25
Poor	25	67

Source: Milanovic (2005).

3 Hong Kong, Singapore, Taiwan and South Korea.

upper-middle income nations in 1960, 20 had declined into the third and fourth income categories, among them the Democratic Republic of the Congo (DRC), also known recently as Zaire, and Ghana. Most nations in the third group in 1960 descended into the lowest income category by 2000. Only Botswana moved to the third group from the fourth category, while Egypt remains in the third category. We seem to inhabit a downwardly mobile world with a vanishing middle-class; by 2000 most countries were *either rich or poor*, in contrast to 1960 when most nations were in the middle-income groups.

Table 3:
GDP per capita (1995 CONSTANT US\$) growth rates, 1960-2000

Area/Country	Annual average GDP growth %			
	1960-1970	1970-1980	1980-1990	1990-2000
All developing countries	3.1	3.3	1.2	1.9
East Asia and Pacific	2.9	4.5	5.9	6.0
South Asia	1.8	0.7	3.5	3.2
Latin America and Caribbean	2.6	3.4	-0.8	1.7
Sub-Saharan Africa	2.6	0.8	-1.1	-0.4

Source: *World Development Indicators 2002*, World Bank.

Table 3 also illustrates that the growth rates for developing countries as a whole were greater in the 1960s and 1970s compared to the more globalised era of the 1980s or 1990s. For Africa and Latin America, the last two decades of the twentieth century were lost decades in terms of growth and other human development indicators. Many of the countries that have experienced this downward spiral have

been affected by conflict (Angola, Algeria and the DRC), besides having negative or very low growth rates in the 1965-2000 period (see Murshed, 2006).

The lack of growth in many parts of the developing world is a major cause of concern because it simultaneously prevents poverty reduction and increases conflict risk. Institutional quality has been identified as a major long-term cause of growth or its absence (see, for example, Rodrik, Subramanian and Trebbi, 2004). But what determines institutional functioning?

Murshed (2004) presents evidence that developing countries with a large mineral type natural resource endowment have tended to have low growth rates, compared to resource poor countries, since the 1970s, notwithstanding a handful of success stories like Botswana. Natural resource rents can make corruption, predation and rent-seeking more attractive. The incentive is greater, the weaker the environment of law and contract enforcement. A rich mineral type natural resource endowment, where ownership and production are concentrated may therefore produce poor institutions and even outright conflict. Hence, *endowments* may be key in determining institutional quality.

Malfunctioning institutions may thus retard growth and increase the risk of war. Easterly and Levine (2003) present evidence, based on cross-country regressions, that a mineral natural resource endowment, a poor geographical (tropical) location and an excessive mortality rate (disease burden) retard economic development, but via *institutional quality*, as proxied by governance data. Similarly, bad economic policy choices also hinder economic development via institutions. Consequently, institutions and institutional functioning are the crucial link between resource endowments, geography, and policies on the one hand and economic outcomes on the other. Can democracy 'capture' institutional quality? Most developing countries are imperfect democracies, having the characteristics of both democracies and autocracies (anocracy), because they combine weak checks on the executive and imperfect rule of law with regular elections.⁴

⁴ Many data sets on democracy exist. To give one example, the Polity data set gives a democracy score of between 0-10 (with Western democracies scoring 10). A truly meaningful democracy is only arrived at with a Polity score of 8. The autocracy data set gives an autocracy score of between -10 and 0. The Polity 2 score is a combination of both autocracy and democracy, and a reflection of a country's democratic or non-democratic status. See www.cidcm.umd.edu/insr/polity.

Lipset's (1960) famous *modernisation* hypothesis gives us an endogenous view of democracy. According to this theory, democracy is an inevitable outcome of economic progress. At high levels of income, the demand for democracy is unstoppable. Similarly, at high levels of income, the risk of societal conflict and civil war is less likely, as people have more to lose (relative to their prospects for gain) from violent struggles over resources.

Conflict

Definitions and Stylised Facts

The quantitatively minded conflict research community has increasingly placed its faith in the Uppsala data set; see Harbom and Wallensteen (2005) for recent descriptions.⁵ The Uppsala data set defines several types of conflict: inter-state (between nation states), intra-state (civil wars), intra-state internationalised (where foreign powers are involved) and extra-state (wars of national independence, which mostly ended in the 1970s). A conflict is defined as minor if there are no more than battle-related deaths per year for every year in the period. It is intermediate when 26 to 1000 battle-related deaths occur per year for every year in the conflict period. War as to describe situations with more than a thousand battle-related deaths in each year of the conflict. Any particular conflict can slip between these categories as the war escalates and wanes over time.

The salient stylized facts regarding recent civil wars are:

1. According to Harbom and Wallensteen (2005), reporting on the Uppsala data-set, there have been 118 conflicts in 80 locations since 1989. In 2004, there were 30 armed conflicts in 22 different locations.
2. Since 1946, the peak in the number of armed conflicts was either in 1991 or 1992, according to the above source. It does seem that the number of intra-state wars has been declining since the mid-1990s, a point repeatedly stressed in the *Human Security Report* (2005). This may be more due to conflict terminations, rather than a fall in the start of new civil wars (Hegre, 2004). This does not, however, provide grounds for complacency regarding the dangers of civil war; the world, especially Western powers and aid donors, need to be vigilant regarding conflict risk and its consequences for poverty.
3. The 2005 *Human Security Report* also reports the total incidence of conflict in different countries. Bearing in mind that there may be more than one conflict inside a single nation-state, which leads to more than one conflict in a single calendar year, the list is led by Burma, with 232 conflict years since 1946. India follows with 156 years; Ethiopia has the third highest incidence of conflict with 88 years, and the UK, with 77 years, is in sixth position just behind Israel (79 years).⁶
4. The 2005 *Human Security Report* also reports a downward trend in the number of battle related deaths because of the nature of low-intensity warfare and smart weapons. The figures for total

5 The data are available at <http://www.ucdp.uu.se> and at <http://www.prio.no/cwp/ArmedConflict>.

6 Interestingly, the UK is involved in the greatest number of inter-state wars (21) during the 1946-2003 period, ahead of France (19) and the USA (16).

war deaths post 1998, as reported in the 2005 *Human Security Report* is, however, disputed by the World Health Organisation, who put them much higher.

5. As far as duration or the number of years a civil war lasts is concerned, the average may be showing an upward trend (see Fearon 2004). He puts the average duration of a civil war at 16 years in 1999. He also argues that civil wars with 'sons of the soil' dynamics (mainly wars of secession) last longer, as do wars where a lootable commodity, such as alluvial diamonds or illicit drugs (cocaine or heroin), or a rent capturable commodity, such as oil, is involved; Also see emphasize Ross (2004).

Causes of Conflict

In broad terms, the contemporary 'rational choice' economics literature offers two explanations for the origin of conflict. I will first summarise the role of relative deprivation (*grievance*), then go on to contests for resource wealth (*greed*), before synthesising these arguments.

Relative Deprivation

Relative deprivation—the perception by one or more parties that they are being unjustly treated—is a major cause of civil war. Many conflict societies are characterised by large inequalities in access to the productive assets necessary for livelihoods and in public spending on economic and social infrastructure and services. Research on conflict has emphasized the importance of *horizontal* inequalities between groups, distinguished by ethnicity, religion, linguistic differences, tribal affiliations, etc., as sources of conflict; see Stewart (2000), for example. This concept should be distinguished from *vertical* inequality, which is inequality within a homogenous group. Three dimensions of horizontal inequality are discussed below:

- *Discrimination in Public Spending and Taxation.* Perceived discrimination in the allocation of public spending on unfair tax burdens lead to serious unrest. Grossman (1991) develops a theoretical model of insurrection against the state by the peasantry reacting to over-taxation, where the state is a tax-farmer interested in maximizing the income of the rentier class. Discrimination in the allocation of public employment is particularly resented in societies in which public employment represents the principal avenue for personal advancement, as in Burundi. In addition, the over taxation of smallholders encourages insurrection, and indigenous peoples often face discrimination in access to schooling, health care, and public-sector jobs; many of these factors are present in Nepal's current civil war, e.g., see Murshed and Gates (2005). Where there are inter-group fiscal transfers, which may take the form of spending on education and health for disadvantaged groups or including them in government employment, commitment to the transfer by those in power may be imperfect. This lack of credibility of the transfer can eventually lead to civil war.
- *High Asset Inequality.* Agrarian societies with high income inequality—for example, El Salvador, Guatemala, Nepal, the Philippines, and Zimbabwe—have high asset inequality, and are very prone to conflict. In these societies, agrarian elites use their collateral to further leverage their existing wealth through a financial system that they control by means of family/business cross-holdings. Asset redistribution, such as land reform to lessen inequality, is more difficult than public finance reform.

- *Economic Mismanagement and Recession.* In Africa, Latin America and the former Soviet Union, conflict-ridden countries have also suffered prolonged economic mismanagement and growth collapse. Also, as Rodrik (1999) emphasizes, countries with weak institutions of conflict management as well as high income inequality, are less able to withstand economic shocks and experience growth failure. They are also more prone to the risk of civil strife and war, since their weak institutions, further weakened by shocks and lower growth, are unable to contain the resulting social pressures and distributional conflicts.

The measurement of horizontal inequality presents a number of challenges, as no consensus exists in this regard in the literature. It is a relatively new concept, and the associated measures have not been properly worked out. For example, the use of Gini coefficients to measure between group horizontal inequality is hugely problematic, because different cultural or ethnic groups are not homogenous in size, and have rich and poor strata within each group, making it difficult to array equally sized population groups on the basis of income or some other socio-economic indicator. Horizontal inequality is best measured as a gap with the national average; from Murshed and Gates (2005) pioneered this concept, with Nepal data.⁷ For example, the group's human development index (HDI) gap compared to the national HDI or the HDI for the capital city, which can be regarded as the reference for national achievement.⁸ Within a country, disaggregated data for the human development index is collected for many countries in Asia and Latin America. This data is usually available spatially---across provinces or districts. But we can impute group inequalities from spatial data because certain ethnic groups chiefly reside in certain areas. In a few instances, household surveys explicitly ask questions about the ethnicity or religion of households. If that is the case, we can compute differences (gaps) in income, poverty incidence, educational and health status across ethnic or religious groups, for example, in Indonesia.

Two further points are worth emphasizing at this juncture. First, horizontal inequality must be measured at the level of the nation state. We are interested in cross-sectional variation *within* a specific country. It does not really lend itself to cross-country comparisons, unlike the impact of natural resource rents on conflict risk, as populations across countries are not homogenous in this regard. The data in different countries on horizontal inequality is embryonic, subject to methodological differences, while no single universal measure for horizontal inequality exists as yet. Even if that were to eventually emerge, horizontal inequality will essentially remain a gap measure, and that will limit cross-country (as opposed to within country) comparisons. The study of horizontal inequality is likely to continue at the level of detailed quantitative country-case studies, where such data are available. Secondly, most nation states do not keep systematic or detailed data on group inequalities (say between Catholics and Protestants, Hutus and Tutsis, Muslims and Christians, etc.) because of the obvious political sensitivities. However, an ethnic question in household surveys will go a long way in generating data on inter-group differences in socio-economic achievement. Horizontal inequalities have been found to significantly affect conflict in Nepal, to cite one example; see Murshed and Gates (2005).

Contests for Natural Resource Rents

Collier and Hoeffler (2002, 2004) find empirical evidence from cross-country regression analysis showing a relatively high dependence on primary commodity exports is highly correlated with the risk of civil war. . This result has had immense influence in the media and policy community, including Ministries for Overseas

7 Analogies with the poverty-gap measure are appropriate.

8 The human development index is an un-weighted average of income per-capita, educational status and longevity.

Development (and among the relevant ministers). Natural resources constitute ‘booty’ and this fact has been used to emphasize the greed or *criminal* motivation for civil war. Certain resources are more easily captured: they may be lootable, such as alluvial diamonds (in Sierra Leone, Angola) available in river beds by using artisanal techniques; or obstructable like an oil pipe line; see Ross (2003) on these issues. Belligerents in the wars of natural-resource rich countries act in ways closer to what Mancur Olson (1996) called ‘roving bandits’—who have no interest in preserving the state or its people, but are simply intent on loot—a contrast to ‘stationary’ bandits who take control of the state and seek to maximise their own income by encouraging stability and growth in their new domain. Civil wars, motivated by the desire to control natural resource rents, are also akin to “warlord competition”—a term that owes its origins to the violent competition between leaders attempting to control economic resources in medieval European cities (Skaperdas 2002).

How empirically valid is the simple version of the greed hypothesis? Ross (2004) and Fearon (2005), among others, point out that the widely accepted Collier and Hoeffler (2002)—finding that the share of primary commodity exports as a proportion of national income significantly contributes to the risk of conflict (in a logistic (?) regression)—is not econometrically robust. In other words, this cross-country result will not withstand variation in sample and data coverage.

There is also a problem with the variable definition itself. The term *primary* commodity includes both agricultural commodities and minerals/fuels, but crucially excludes illegal substances (cocaine and heroin) as well as illegal alluvial diamonds. Illicit gemstones and drugs are arguably more crucial to financing rogue conflict entrepreneurs in a greed based conflict; their omission is a serious flaw. But even before we begin to search for more appropriate natural resource rent data for conflict analysis, it is important to understand that the famous Collier-Hoeffler pronouncement about civil wars being mainly ‘greed thinly masked as grievance’ does not survive serious scrutiny. Lootable or obstructable mineral resources may not be the initial cause of civil wars, but once started, these wars tend to persist for a long time, as the rents from these commodities help to finance war besides being a source of profit (Fearon, 2004; Ross, 2004).

Lujala, Gleditsch and Gilmore (2005) go a step further in refining the *lootable* natural resource rent data. They focus on data on the production and deposits of alluvial or secondary diamonds, sometimes referred to as conflict diamonds. They find that these types of diamonds significantly increase the risk of civil war and their duration. This risk has been greater since the end of the Cold War. Non-lootable deep mine shaft diamonds, however, have a lower risk of civil war onset. In the same vein, Humphreys (2005) argues that, in some instances, it is better to utilise data on oil deposits, rather than oil exports, to study the resource-civil war nexus.

There may be mechanisms that exist between natural resource endowments and the risk of civil war, and help explain why an abundance of certain types of resources actually lead to war. Two promising explanations, among a plethora proposed in Humphreys (2005), include an undiversified economy (sparse economic interactions imply less economic interdependence and greater scope for conflict, meaning low growth along the lines of Lipset’s modernization theory) and weak state capacity (kleptocracy versus relative benevolence).

Snyder and Bhavnani (2005) argue that the causal mechanism between conflict and lootable resources is, broadly speaking, a government *revenue* effect. This implies examining how the state obtains its revenues: e.g. whether or not taxing the mineral sector (which may or may not be lootable) is important to the state. Even if a lootable sector exists, it may not be important for state revenues if other revenue sources

exist side-by-side. Additionally, the mode of extraction matters: whether it is artisanal or industrial. Only the former makes resources lootable. Finally, and most importantly, how governments spend their revenue matters: if the state spends its revenues on social welfare, military expenditure and growth enhancing investment, conflict is less likely than if it appropriates revenues for factional and kleptocratic purposes, e.g. Sierra Leone. Prior to 1985, its alluvial diamonds were extracted in an industrial fashion, rather than by artisans, making it non-lootable. It did not collapse into civil war until after that.

Dunning (2005) compares Mobutu's Zaire (1965-1997) to Suharto's Indonesia (1965-98) and Botswana during the same period. In Indonesia and Zaire, resource flows were volatile. In one case, the dictator (Suharto) chose diversification and high growth rendering policies, as well as policies aimed at equalisation and poverty reduction to contain political opposition. In the other case (Zaire, now DRC), Mobutu did not, because he felt that diversification and investment in infrastructure would loosen his grip on power and strengthen political opposition to him based on ethnicity. In East Asia, perhaps greater fears of communism strengthened developmental initiatives by dictators (South Korea, Taiwan Singapore and Indonesia), whereas in Africa, a certain type of factionalism dominated policies and politics, retarding growth-enhancing economic diversification and infrastructural development.

The greed versus grievance dichotomy is a useful entry point into the debate about the causes of conflict. But for these forces to take the form of large-scale violence, there must be other factors at work, specifically a weakening of what Addison and Murshed (2002a(?)) call the 'social contract' (see also Murshed, 2002). This is similar to the state capacity arguments made above. Therefore, while rents from capturable resources constitute a sizeable 'prize', violent conflict is unlikely to take hold if a country has a framework of widely-agreed rules, both formal and informal, that govern the allocation of resources, including resource rents, and the peaceful settlement of grievances. Such a viable social contract can be sufficient to restrain, if not eliminate, opportunistic behaviour such as large-scale theft of resource rents and the violent expression of grievance. Conflict-affected nations have histories of weak social contracts (or a once strong social contract that has degraded).

Hegre and others (2001) point out that the risk of conflict is lower in both well established democracies and autocracies, perhaps because of greater state capacity. It suggests that conflict risk is at its highest during transitions to and from democracy, when state capacity is weak, and also in fledgling and imperfect democracies (anocracies). A final complexity in fatally weakening social contracts was the interaction of these 'domestic' factors with external events, notably the Cold War, which provided finance and ideological succour to ruling elites and rebels (notably in Central America, Central Africa, and the Horn of Africa). The net result of these processes is the accumulation of grievances within the context of a disintegrating social contract that would otherwise have provided the rules of the game to govern the distribution of the social pie and to achieve peaceful conflict resolution.

Greed is rarely the sole cause of conflict. Addison, Le Billon, and Murshed (2002) construct a game-theoretic model of contemporary conflict involving competition for resources combined with historical grievances. In addition to resource rents, grievances also play their part in fuelling conflict by explaining inter-group non-cooperation and serving to lower the cost of participation in conflict. Conflict can increase because of heightened intrinsic grievances, or because there are more lootable resources. Additionally, they distinguish between two main types of resource exploitation: *point resources*, which mostly (but not exclusively) involve the *extraction* of non-renewable resources (minerals), require less labour input and are geographically concentrated; and *diffuse resources*, such as those which mostly involve the *production* of renewable resources (crops), require large amounts of labour, and are spread geographically (see also Murshed, 2004).

Occasionally, coffee/cocoa exporting economies are also classified as point resource because coffee is often marketed like minerals, and coffee/cocoa based economies are characterised by a (rentier) political economy, similar to point-resource economies. The same argument could be applied to the production and export of illicit drugs (heroin, coca) where data for these exist.

In summary, the type of economy can matter in explaining either or both civil war onset and its duration. As far as the competing greed versus grievance hypotheses are concerned, they may be complementary explanations for conflict. The greed explanation for conflict duration and secessionist wars works in cross-sectional studies, but has to make way for grievance-based arguments in quantitative country-case studies. Grievances and horizontal inequalities may, after all, be better at explaining why conflicts begin, but not necessarily why they persist (greed). The empirical literature on the causes of conflict tells us that the most robust and significant predictor of conflict risk and its duration across all studies is some indicator of economic prosperity such as income per-capita within a cross-section (of countries or regions) where average income does vary. This is because at higher incomes, people have more to lose from the destructiveness of conflict (Lipset, 1960); and a higher per-capita income implies a better functioning social contract, institutions and state capacity.

Growth, Polity, Endowments and Conflict

There are several obvious similarities between the causes of growth failure and the factors affecting the likelihood of conflict: a substantial point resource endowment being the most palpable feature. Also, analogies can be drawn between the coordination failure game that explains the absence of a big push in growth, and the game describing commitment failure to peace agreements. Additionally, stable democracies and autocracies lower conflict risk, just as democracy's impact on growth contains positive and negative channels. But more fundamentally, the lack of economic growth significantly contributes to the risk of conflict in low-income nations; by perpetuating poverty and increasing inequality they breed grievances and enhance horizontal inequality. Even the foremost exponents of the greed hypothesis (Collier and others, 2003) concede that poverty has an important part to play in engendering conflict. Institutional malfunctioning is hugely important in explaining both the lack of long-term growth and the emergence of conflict. Whether the cause of growth failure in the long-run is attributable to geography, culture, endowments or wrong policies they all impact on growth rates via institutional functioning. Similarly, irrespective of whether the causes of conflict are greed or grievance (or both), the outbreak of violent conflict requires institutional failure in conflict management, something referred to in the previous section as either poor state capacities or social contract failure.

To get an empirical feel for some of the channels mentioned above, a descriptive look at the data may be in order. We compare growth rates, the combined democracy and autocracy score, known as Polity 2, endowment type and conflict intensity or incidence in selected developing countries during the period 1965-2000. This is done selectively in Table 4, and more fully in Murshed (2006). The Polity score is a proxy for institutional capacity, which is coded 1 for autocracies (those with an autocracy score below -4), 3 for democracies (for democracy scores above 4) and 2 for anocracies that have both democratic and autocratic characteristics (with scores of between -4 and 4), and the endowment typology (based upon a country's principal exports, which is subject to change) integrates economic typology with institutional quality and conflict occurrence (measured by conflict incidence and intensity), and then, growth.⁹

⁹ I do not propose any *direct* econometric investigation, which would be fraught with endogeneity and reverse causality problems

Table 4:

Conflict Years, Growth, Polity and Economic Typology in Selected Countries

Country	<i>Incidence conflict in years, 1960-2000</i>	<i>Most frequent regime type</i>	<i>Annual average per-capita income growth rate, 1965-1999</i>	<i>Economic Typology</i>
Burma (Myanmar)	177	1	1.5%	Diffuse, Point
India	104	3	2.4%	Manufacturing
Ethiopia	81	1	-0.3%	Coffee/Cocoa
Philippines	59	1;2;3	0.9%	Diffuse, Manufacturing
Iraq	57	1	-3.5%	Point
Angola	43	1	-2.1%	Point
Iran	41	1;2	-1.0%	Point
Algeria	37	1;2	1.0%	Point
Chad	36	1	-0.6%	Point
Colombia	35	3	2.1%	Coffee/Cocoa
Indonesia	32	1	4.8%	Point, Manufacturing
Guatemala	31	1;2	0.7%	Coffee/Cocoa
Sudan	31	1;2;3	0.5%	Diffuse, Point
South Africa	31	2	0%	Point
Mozambique	27	1	1.3%	Diffuse
Uganda	23	1;2	2.5%	Coffee/Cocoa
Sri Lanka	22	3	3.0%	Diffuse, Manufacturing

Sources: Conflict years at <http://www.prio.no/cwp/ArmedConflict>; UNCTAD data base and Murshed (2004) for the typology of the economy; Polity data at www.cidcm.umd.edu/insr/polity; and *World Development Indicators (2002)* for growth rates.

Table 4 shows 17 countries with the highest conflict incidence since 1960¹⁰, along with their average annual long-term growth rates of per-capita income accompanied by the typology of the economy and the most frequently occurring regime type. Note that countries can have more than one year of civil war in any given calendar year if there are several conflicts taking place within the nation simultaneously. Burma, India, Ethiopia, Philippines, Iraq, Angola and Israel had more than one conflict per annum in the 41 year period reported in Table 4. Note that incidence does not imply anything about conflict intensity, which is measured by fatalities, as defined above.

Only five of the high conflict incidence nations reported in Table 4 had a per-capita income growth rate in excess of 2 per cent per annum in the long-term: Indonesia, India, Sri Lanka, Colombia and Uganda. Generally speaking, poor growth performers had more conflict years in Table 4. Even in these cases, it might be possible to construct counter-factual analyses to demonstrate that conflict adversely affected growth. In Indonesia and India, conflicts have been highly localized in the context of vast populations, with little effect on the entire economy; also, Indian growth rates were very low prior to 1990. In Uganda, there was a sharp and remarkable growth recovery in the 1990s' post-conflict era, making up for the earlier lost years. Only four economies (India, Philippines, Sri Lanka and Mozambique) have not been point-source or coffee/cocoa economies (the Burmese conflicts are fuelled by trade in illegal substances which cannot be reported here, because of data paucity). This lends some support to the arguments made above regarding empirical regularities regarding conflict across a cross-section of countries.

10 I have excluded Israel with 49 years, as it is a rich country when one excludes the Palestinian territories, as well as Cambodia (36 years) and Yemen (23 years) because of the paucity of economic data.

Many point-sourced and coffee/cocoa economies that are growth failures (with long-term growth rates under 2 per cent per annum on average) have tended to fall into conflict, besides having polities that are not democracies. Only three point-sourced countries and four coffee/cocoa economies did not descend into some form of civil war; see Murshed (2006). Diffuse economies also have conflicts; examples of high incidence of civil wars occurring in diffuse economies are in South Asia, the Philippines and Burma, as well as Mozambique and Zimbabwe in Africa. In total, eight out of thirty diffuse economies have avoided civil war, a record better than for point-sourced and coffee/cocoa based economies. Notwithstanding India, manufacturing economies are least likely to experience outright civil war. Perhaps this is because they have the best growth rates and institutional quality. They also probably have the most diversified economies, and are able to withstand the commodity price and national income fluctuations associated with the staple trap (reliance on a single commodity), which make economies more prone to conflict

India, Sri Lanka and Colombia are the stable democracies in the post-1960 era that have had civil wars, including high intensity conflict. India, in particular, is interesting because of its very high democracy score, and having the highest number of total conflict years (due to the multiplicity of civil wars in India) after Burma, which has not been a democracy in the period under question. All the transitions in regime type from autocracy to anocracy to democracy (during 1960-2000) are described in Murshed (2006). It is clear that multiple switches in all directions are possible, and not just from autocracy to democracy. Nevertheless, only 5 out of the 17 nations with a high conflict incidence have ever been democracies with a democracy score over 4.

Three points about democratic transitions need to be reiterated here. First, most developing countries were not democracies before the end of the Cold War. The end of the Cold War heralded democratization due to outside pressures, but many of these countries descended into anocracy. Secondly, few developing countries are fully established and meaningful democracies, in the sense of having democracy scores of 8 or above. Costa Rica is the best example of a full democracy in the global South, followed by India. Even Colombia has sometimes slipped down to a score of 7. Finally, democracy, even stable democracy, does not guarantee the absence of armed conflict, both of the secessionist and rebel varieties, as the examples of India, Colombia, Sri Lanka, the Philippines and others indicate. Autocracies also fall into conflict, as Table 4 and Murshed (2006) point out. Nevertheless, stable autocracies, such as China and Singapore, have avoided civil war, as did Taiwan and South Korea which became democracies recently. Despite prominent outliers such as India, Colombia, and Saudi Arabia, most conflict prone countries are neither stable democracies nor autocracies, lending support to the Hegre and others (2001) finding that conflict risk is greatest when regime types are in transition. While we can never be sanguine about the true nature of the causes of conflict, it does seem to occur more frequently in non-manufacturing and non-diffuse economies, and there does seem to be a distinctive positive association between conflict and growth failure.

Conclusions and Policy Recommendations

The importance of the growth and intra-state conflict nexus cannot be overemphasized. The lack of growth prevents poverty reduction and achievement of the MDGs. Similarly, poverty and low growth help increase the risk of conflict, as individuals have less to lose from conflict in low income situations, and because poverty helps supply conflict warlords with ready recruits. Consequently, the security and development agendas can never be dichotomized. Also, recent economic history provides ample evidence of diverging average incomes between rich and poor countries. This rising inequality between rich and poor nations also adds to global insecurity.

As far as the causes of conflict are concerned, both the greed and grievance hypotheses can have some validity. But the operation of either or both these motivations for civil war require the breakdown of the institutions of conflict management, referred to as the break-down of the social contract. The greed explanation for conflict is mainly applied in cross-country econometric studies. Its validity as a direct causal mechanism of civil war onset has recently been brought into serious question. The relationship between conflict onset and natural resource revenues must work through other mechanisms, such as a weakening social contract and withering state capacity.

But the abundance of lootable mineral resources or illicit drugs can help to perpetuate existing civil wars, and the prevalence of conflict seems greater among mineral and coffee/cocoa exporters compared to other agricultural and manufactured goods exporters. The latter two categories of economies also seem to experience higher growth rates. This does not mean that undiversified agricultural economies are not at risk of conflict. The grievance explanation for contemporary civil war has been found to be dominant in detailed conflict case studies. Grievances can be historical, but it can have a measurable and quantitative counterpart in group inequalities in socio-economic achievement. Here, the neglected dimension of inter-group or horizontal inequality, measured by factors such as human development gaps, can have a great deal of explanatory power. It is useful to remind ourselves that the single most robust explanatory variable for conflict risk is (low) per-capita income (implying growth failure), as it acts as a proxy for institutional quality.

Finally, a number of policy recommendations:

- Growth can reduce conflict risk in four ways. First of all, by lowering poverty, it provides fewer ready recruits for conflict entrepreneurs. Secondly, growth can ultimately lower inequality, and this can also reduce conflict producing inter-group or horizontal inequality. Thirdly, growth creates denser sets of interaction between economic agents, resulting in situations where there is much to lose from conflict. Fourthly, growth can improve institutional functioning, creating better chances of peaceful conflict resolution; even producing situations ripe for the emergence of high quality democracy.
- By the same token, income poverty reduction and achieving the MDGs also lower conflict risk. For most low-income countries, meaningful poverty reduction will only come about through growth. Ideally, growth induced poverty reduction should be truly pro-poor (growth that also redistributes income towards the poor), not merely relying on trickle-down effects where the poor receive some crumbs of the larger cake.
- Development strategies based on poverty reduction alone are insufficient; attention has to be focussed on lessening inequality if sustainable pro-poor conflict-reducing growth is to take place. Also, the reduction of group or horizontal inequalities is important in outright conflict prevention in low-income countries characterized with lootable resources and weak institutions.
- Improvements in institutional quality and good governance are important for both growth and conflict prevention (or peaceful conflict resolution). Institutional malfunctioning, weakened state capacity and the breakdown of social contracts ultimately lie behind the emergence of open conflict, irrespective of the root causes of conflict. Also, as discussed above, institutional quality is an important long-term determinant of growth.

- Lessons can be learned from why some countries avoided conflict and others did not, despite having similar initial conditions. It is instructive to contrast cases of success such as Botswana and Malaysia after the 1970s on the one hand, against failures such as the Democratic Republic of Congo (Zaire) on the other hand. In the Malaysian case, the government: (a) ended up redistributing income, via government expenditure policies favouring ethnic Malays, who were poorer; and, (b) invested in infrastructure and human capital. Botswana avoided factionalism through political consensus.
- Failing peace agreements that characterize the conflict-ridden world at the moment deserve greater attention than superficial and patchy attempts to end war. Despite copious external intervention of both the peaceful (Norway, Finland) and forceful (UK and the USA) varieties, most peace agreements do not stand a very high chance of being sustainable and self-enforcing. To avoid this requires strengthening the anchors of commitment to an externally brokered peace treaty; on this, see Addison and Murshed (2002b). This requires the carrot of overseas development aid to be backed by the stick of effective military sanctions against spoiler groups. Aid aimed at achieving peace can be misused for future belligerent activities; see Addison and Murshed (2003) on this. Effective military sanctions by outside powers against those who renege on peace agreements can be expensive, and donors may be more willing to finance this nearer home (Balkans), compared to costly interventions in distant lands (Africa).
- Some issues in post-conflict macroeconomic policies include:
 - Conflict distorts the economy, making activities with short-term returns, such as services more attractive compared to those which require long-term investment such as agriculture or manufacturing, see Addison and Murshed (2005). Analytically, the effect is similar to Dutch disease problems that distort the economy towards greater non-traded, relative to traded, goods production. The post-conflict economic recovery may be similarly lop-sided. This can impose an unfortunate path-dependence on reconstruction and growth. One source of distortion is the sharp increase in transactions costs resulting from war, including the destruction of transport, the planting of land mines, and institutional collapse that drive a wedge between producer and consumer prices. Typically, production (especially agriculture) is more vulnerable compared to other sectors such as urban-based trade and services. Services and trade heavily dominate wartime economies and, because of the relative price effect, the collapse in production usually exceeds that due to destruction alone. In addition to raising transactions costs and production costs, conflict raises uncertainty about the future and the private discount rates of investors. To avoid these pitfalls, selective policies of subsidies to the productive sectors have to be followed, see Murshed (2001).
 - But just as economic growth in general can broadly or narrowly distribute its benefits across society—depending upon the initial distribution of assets and skills—so too can reconstruction-led growth. Pre-war asset and skill distributions may have been highly unequal, with resulting grievances contributing to conflict, and can worsen dramatically during wartime. The already poor often lose the few assets they have, and looting adds to the number of poor. In contrast, warlords and their followers accumulate assets, and so, while the early years of peace may see quite rapid GDP growth, it can be very narrow in its benefits—unless policies are put in place to restore the productive assets and human capital of the poor.

The immediate post-conflict situation may offer a golden opportunity for pro-poor asset redistribution as well, although this can be impeded when rich 'winners' from war block the necessary measures.

- Aid fatigue usually sets in after the first few years of donor involvement in post-conflict situations. In the early stages of donor involvement, relatively large sums are promised by donors. But these funds cannot always be absorbed by war torn economies in early 'post-conflict' phases. One idea is to create an aid trust fund, where unused aid monies can be lodged for future use.
 - Conflict generally impacts negatively on financial development and deepening; see Addison and others (2005). In many countries, currency reform is necessary after war, sometimes via the introduction of a new monetary unit of account. To gain credibility for the new money, and build confidence in the new currency, a variety of strategies could be adopted. These include dollarization, where the domestic government surrenders the freedom to conduct independent monetary and exchange rate policies. Alternatively, currency boards, where changes in the monetary base are related to domestic reserves of a selected hard currency, is a less drastic means of gaining credibility. Reviving the banking system and introducing prudential regulation are also major challenges.
 - It is important to rebuild a post-conflict nation's fiscal institutions. State capacity, including the public expenditure system, may be so weak that it is unable to use any revenue raised to deliver improved infrastructure and services. This will also affect the ability of governments to use aid and debt relief to make the fiscal transfers necessary to redress grievances, and achieve broad-based recovery. Further difficulties arise from the need in many countries to undertake the introduction of fiscal federalism to redress previous over-centralization of political and fiscal powers. Also, as formal (taxed) activity shrinks during conflicts, so the state loses its revenue base, and while resources at the disposal of resource rentiers and warlords may become greater than those of any legitimate post-war authority. Criminal resources can be used to thwart government attempts to collect revenues (for example, extensive rackets were run to evade excise duties on petrol, alcohol, and tobacco in the countries of the former Yugoslavia), and to corrupt and control the political process. However, countries that emerge out of conflict with higher levels of *non-criminal* social capital are in a better position to achieve post-war revenue mobilization for a shared sense of nation-building.
- In connection with natural resource rents, particularly oil revenues in the context of the recent rise in crudeoil prices, the notion of revenue management is important. Essentially, this involves the creation of a social trust fund, whose principal aim is to minimize the kleptocratic syphoning-off of revenues and windfalls for ruling elites. Several points deserve mention in this connection:
- Commodity price stabilization funds may be considered, as commodity prices are very volatile. Fluctuating national incomes, as a result of commodity price volatility, lead to government revenue and growth collapses in developing countries with conflict generating consequences.
 - Monies in the trust fund should be mainly used for public investment, in activities such as education and infrastructural development, rather than consumption. This is of greater importance in resource-rich, post-conflict economies.

- The main aim should be to diversify the economy and to avoid the staple trap (reliance on a single commodity). A diversified economy is better able to withstand economic shocks, as not all sectors (prices and quantities) decline simultaneously. Ultimately, economic diversification emanates from general economic growth.
- Lastly, extractive industries should exercise greater corporate social responsibility in countries they operate in, at least seeing to it that natural resource rents do not become a source of the *increased* grievances and horizontal inequality that produce conflict. This, for example, is a major issue in the Niger delta region of Nigeria, where the oil multinational, Shell, operates. There, as elsewhere (such as in Aceh in Indonesia), the local population feels they have less than their fair share of the bounties that nature has bestowed on their regions. Local employment creation, infrastructural development and fiscal federalism help assuage these perceived injustices, but care has to be taken not to fall prey to the machinations of opportunistic local politicians.

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