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Why Are There So Many Civil Wars in Africa?

Prevention of Future Conflicts and Promotion of Inter-Group Cooperation

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* World bank. The findings, interpretations and conclusions expressed in this paper are entirely those of the authors and do not necessarily represent the views of the World Bank, its Executive Directors, or the countries they represent.

Abstract

Contrary to popular belief, Africa's civil wars are not due to its ethnic and religious diversity. Using recently developed models of the overall incidence of civil wars in 161 countries between 1960-1999, we draw lessons with special reference to Africa, showing that the relatively higher incidence of wars in Africa is not due to ethno-linguistic fragmentation, but rather to high levels of poverty and, especially, to failed political institutions. The best --and fastest-- strategy to reduce the incidence of civil war in Africa and, by extension, to prevent civil wars in the future, is to institute democratic reforms that effectively manage the challenges of diverse African societies. Civil wars being the extreme antitheses of inter-group cooperation, the ultimate strategy for prevention of future conflicts in Africa has to be based on finding the "right" political governance and economic management institutions for promoting such cooperation. We argue that Africa's ethnic diversity would in fact help, rather than impede, the emergence of stable development promoting bargaining process among social groups, provided that ethnic groupings are formally integrated into the political process.

1. Introduction

Over the last 40 years nearly 20 African countries (or about 40 percent of Africa south of the Sahara (SSA)) have experienced at least one period of civil strife. It is estimated that 20% of SSA's population now lives in countries formally at war or severely disrupted by conflict, while low-intensity conflict has become endemic to many states. This unfortunate legacy has created stereotypes of Africa as a doomed continent with inescapable ethnic cleavages and tribalism. This "simplistic" perception has become almost non-assailable with the more recent explosion of political violence in Africa, which took regional dimension with the flaring-up and widening of the DRC civil war.

2. However, more careful analysis of the determinants of civil wars in Africa and other regions points to deep political and economic development failures as the ultimate root causes of the problem lurking behind social fractionalization (e.g. Collier and Hoeffler, 1999, 1998; Collier, Hoeffler and Soderbom, 1999; Collier, Elbadawi and Sambanis, 2000: hereafter CES). In this paper, we follow CES who develop the concept of *incidence* (or amount) of civil war and models its determinants. The concept of war incidence is equivalent to the concept of the overall amount of civil war that one might observe in a given period, regardless of whether the war started during or before the period[1]. The focus on overall incidence allows us to ask the question as to why there have been so much civil wars in Africa? And based on the evidence to propose a broad strategy for prevention of future wars. Using CES's empirical probit model of the probability of incidence of civil wars in 161 countries between 1960-1999, we are able to show that the relatively high incidence of civil war in Africa is not due to ethno-linguistic fragmentation, but rather to high levels of poverty, heavy dependence on resource-based primary exports and, especially, to failed political institutions. Simulations of the effect of political liberalization and economic development on the probability of civil war show that the best --and fastest-- strategy to reduce the incidence of civil war in Africa is to institute democratic reforms that effectively manage the socio-cultural diversity of African societies.

3. Realizing that civil wars in socially diverse societies, as in most of Africa, is an extreme case of failure of inter-social group cooperation, we argue that the ultimate prevention strategy of future conflicts should be based on building "appropriate' institutions for political governance and economic management that could promote such positive group interaction. We ask the question as to whether Africa's social diversity (ethnic, cultural, religious ..etc.) promotes or impedes this process? And what type of institutions are capable of enhancing such role as well mitigating the negative consequences of diversity?

4. In section 2 we discuss the causes of civil wars, where we present some stylized facts about incidence, intensity and duration of civil wars and other related determinants in

[1] CES define the probability of incidence of civil war at any given time (t) as a probability of two disjoint events. The first event is that war happens at time (t) conditional on the event that there was no war at time (t-1). The second event is that war is observed at time (t), having been initiated at an earlier period. Thus, the probability of incidence of civil war is equal to the probability of war onset or initiation plus the probability that a war will last more than one period. This concepts unifies earlier literature, which focuses either on onset of fresh wars (e.g. Collier and Hoeffler, 1999) or duration of war (Collier, Hoeffler and Soderbom, 1998).

Africa and other regions of the world--focussing on the characteristics of African civil wars, and on using the CES model to explain the high incidence of civil wars in Africa compared to other regions. Section 3 undertakes some simulations on the partial contributions of improvements on political rights, standards of living or economic diversification to reductions in the risk of incidence of civil wars. The evidence from the simulation provides a basis for developing a strategy for avoiding future wars. Section 4 argues that such prevention strategy is not complete without understanding how political and economic governance institutions interact with social diversity. It will be argued that the ultimate prevention strategy of future conflicts in Africa should be based on finding the "right" institutions for promoting inter-group cooperation. Section 5 concludes.

2. Explaining the Incidence of Civil Wars in Africa

Africa has a high incidence of civil wars and this is commonly attributed to the ethnic diversity of its countries. This inference might seem self-evident, given that rebel movements almost always have ethnic identities. Ethnic identities and ethnic hatreds thus seem to be the cause of conflict. However, more systematic analysis of the causes of civil wars suggests that Africa's civil wars conform to a global pattern that is explicable by both political and economic factors as well as by the extent of ethnic, cultural and religious diversity in the society[2]. The risk of civil wars is reduced by the opportunity cost of rebel labor (proxied by indicators of economic development, such as per capita GDP or educational attainment). Up to a certain range, natural resources are associated with higher risk of war. However, for substantial natural resource base the relationship is expected to turn negative. Also natural resources provide easily "lootable" assets for "loot-seeking" rebel movements or convenient sources for sustaining "justice-seeking" movements (Collier, 1999a). However, beyond a certain range they become a formidable instrument in the hands of governments (for funding armies, buying popular support, external allies ...etc.). The risk of civil wars--especially those associated with "justice-seeking" rebel movements---has empirically been positively associated with lack of political rights and political repression. This suggests that the effect due to higher demand for justice precipitated by repression (which increases the risk of wars) tends to outweigh the increased cost of supplying justice due to repression, which reduces the risk of wars (Collier and Hoeffler, 1999).

6. This literature also suggests that the influences of social diversity on civil wars are much more complex than a casual reading would suggest. For example, like ethnic homogeneity, ethnic diversity actually reduces rather than increases the risk of occurrence of a civil war at any given point in time (CES). This is because in homogeneous societies rebel cohesion is likely to become vulnerable to government attempts to divide the rebels, given the lack of strong socio-cultural or religious divide between the two camps. For the case of diverse societies, maintaining the unity of a rebel movement composed of diverse groups is likely to become harder over time. However, ethnic, religious or cultural diversity becomes problematic when it borders polarization (when each of the largest two groups

[2] See, for example, Collier and Hoeffler (1998, 1999); Collier (1999a); Collier, Hoeffler and Soderbom (1999); and Collier, Elbadawi and Sambanis (2000).

accounts for 60-40% of the population). In polarized societies, it is both easier to start as well as sustain a rebellion.

7. Given the above analytical literature, two key questions with profound policy implications could be asked: what explains the high incidence of civil wars in Africa? And how effective are "appropriate" economic development and political reforms in reducing the risk of civil wars? We turn to these questions in subsequent sections.

2.1 The Characteristics of Africa's Civil Wars

8. Before explaining the causes of Africa's wars, it is worth identifying some of the characteristics of these wars and of African countries more generally, comparing them to other regions of the world. The two panels of Figure 1 present the mean number of five-year periods during which a war took place in each of six regions of the world for the periods 1960-98 and 1980-98, respectively. They also present relative indices of the mean war duration, war-related deaths, democracy level, and ethnic heterogeneity for these six regions.

9. Cursory inspection of the incidence of civil war in Sub-Saharan Africa and other regions reveals some telling characteristics of Africa's wars and points to some potentially important relationships. The two panels of Figure 1 show that Africa has the highest incidence of civil war, especially if we combine the incidence of war in Sub-Saharan and North Africa. Perhaps more to the point, the incidence of war has increased in the last two decades in Africa, while it has fallen or remained stagnant in other regions (see the first column of panels 1 and 2, Figure 1). Wars in Africa are on average relatively short and they tend to be among the bloodiest (see columns 2 and 3 in panels 1 and 2, Figure 1). They are therefore the most intense civil wars (in terms of casualties per unit of time). Only Asia has seen more war-related deaths than Africa in the last 40 years and this estimate need not include all civilian war-related deaths that were due to starvation, illness, and other disruptions caused indirectly by war in Africa.

10. Column 4 in panels 1 and 2 of Figure 1 also reveals a huge discrepancy in the democracy levels in Sub-Saharan and North Africa as compared to most other regions (Europe, North America, Latin America and the Caribbean, and Asia). Finally, column 5 panels 1 and 2 of Figure 1 reveal that Africa (especially Sub-Saharan Africa) includes the most ethnically diverse countries than any other region in the world. This fact lends itself to speculation concerning a positive association between ethnic heterogeneity and political violence in Africa. However, few analysts have tried to explore that relationship in depth and even fewer have considered the possible role of Africa's relative lack of political rights and its overall lower level of economic development in exacerbating any conflict that may result from its greater ethnic diversity.

11. In this paper, we look closely at precisely these relationships and we try to disentangle the effects of ethnicity from those of political and economic grievance on the probability of large-scale political violence. We turn first to some key results of global studies on civil wars and consider their implications for Africa and then focus more explicitly on a region-by-region analysis of the incidence of civil war in the past 40 years.

2.2 What Explains Africa's High Risk of Civil Wars?

12. CES, using a random effects probit model, estimated the likelihood of observing civil war during any 5-year period during 1960-1999 in 161 countries. Their model derives from a combination of theoretical insights developed with reference to the onset (initiation) and duration of civil war (Collier and Hoeffler, 1999; Collier, Hoeffler, and Soderbom, 1999). The authors defined the likelihood of civil war incidence as the sum of two disjoint probabilities, the probability that civil war is initiated at time t and the probability that a civil war is ongoing at time t+1, having been initiated at time t.

13. CES estimate the incidence of civil war as a function of political, economic, and social variables. Their dependent variable --AT_WAR-- was coded 1 for all observations during which war was ongoing and 0 otherwise. They selected a set of proxies for their explanatory variables, which, broadly speaking, measured levels of economic and political grievance, as well as the ease of coordinating a rebel movement. The authors proxy the opportunity cost of rebel labor by the per capita real income level (RGDP)[3]. They proxy political rights by the openness of political institutions (POLITY), which is the average of an index of democracy (DEM) minus an index of autocracy (AUTO).[4] The level of ethnic diversity is proxied by the index of ethno-linguistic fractionalization (ELF), which was measured in the 1960s and ranges from 0 (ethnic homogeneity) to 100 (extreme ethnic heterogeneity).[5] They also measured religious diversity, using an index constructed by Collier and Hoeffler (1999). They proxy natural resource-dependence by primary exports as a percent of GDP (PRIMX);[6] and controlled for the size of the country's population in log form (LOGPOP).

14. Overall, CES find that for the median country, the risk of civil war in any five-year period is relatively high, at nearly 25% (see Table 1). We report the point estimates of the variables in our model for the global sample (161 countries) in Table 1 and we then break down the countries in our sample into five regions, Europe/North America, Asia, Middle east and North Africa, Latin America and the Caribbean, and Sub-Saharan Africa. We then used the values for the median country in each of these regions to estimate the probability of an incident of civil war in each region using the coefficients from the global model. These median country values are reported for each region along with estimated probabilities in Table 1.

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[3] Various sources were used, which cause some problems with the comparability of GDP data. Missing values are imputed from World Bank data on GDP at market values (measured at current US $) and GDP per capita for 1960 and 1985 (World Bank data).

[4] The source is the Polity98 data-set. DEM is the democracy index (from 1 to 10, with 10 being the highest). AUTO is the autocracy index (from 1 to 10, with 10 being the highest). POL is the democracy index minus the autocracy index and ranges from -10 (lowest rights) to 10 (highest rights).

[5] The ELF index was created by Taylor and Hudson (1972); see also Mauro (1995).

[6] In a future version of this study we plan to measure the unemployment rate for males at the beginning of each five-year period (UNEMPL) to proxy the economic opportunity costs of rebellion for potential rebels (we use the male unemployment rate since rebels are typically males).

Table 1: The Probability of Civil War In and Out of Africa (1960-98)

Independent Variables at Regional Medians:	Ethno-Linguistic Division Index (ELF)	Square Of ELF Index	Covariate of Religious Diversity & ELF	Per Capita Real GDP (PPP – adjusted)	Polity Index: Democracy minus Autocracy	Primary Exports (% GDP)	Square Of Primary Exports (% GDP)	Natural Log of Population	Estimated Probability of an Incident of Civil War
Estimated Coefficients (global model):	.1553	-.00135	-5.89e-08	-.000196	-.10629	7.976	-16.599	.99618	.2483
Regions:									
Europe & North America	15.5	240.25	55558.26	6999.5	10	.094	0.0088	16.08	.0046
Asia (South & East)	47	2209	2827410	1630	-2	.142	0.020	16.42	.5624
Middle East & North Africa	18	324	14535.66	2892	-8	.170	0.0289	15.44	.0205
Latin America & Caribbean	17.5	306.25	84059.2	2565	0	.167	0.0278	14.85	.0048
Sub-Saharan Africa	72	5184	1.62e+07	812.5	-7	.159	0.0253	15.23	.1119

Notes: 1. This Table is reproduced from Collier, Elbadawi, and Sambanis (2000b). The coefficients reported in the second row are based on a random effects probit model of the probability of an incident of civil war, which should be distinguished from the probability of war initiation and from war duration. The model and empirical estimates are based on Collier, Elbadawi, and Sambanis (2000a), who estimate the probability of an event of civil war during a five-year period in 161 countries between 1960-1999.

2. The dependent variable in that model measures whether or not the country was at war during any five-year period between 1960-98. The explanatory variables are: primary exports as percent of GDP (and their square) with imputed missing values; real GDP per capita (lagged), adjusted for purchasing power parity (PPP); the ethnoliguistic fractionalization index and its square (this is a 0-100 index, where 100 denotes maximum heterogeneity and 0 maximum homogeneity; the index measures the probability that any two randomly selected people from different ethnic groups will speak a different language); the natural log of the population size; and a polity index (lagged twice), ranging from -10 to 10, where -10 denotes a complete autocracy and 10 a perfect democracy (the indices are based on the Polity98 data-set (Gurr and Jagger 1995; 1998). For a discussion of the theory of civil war and a derivation of the model used for these empirical estimations, see also, Collier and Hoeffler (1999; 1998). For a discussion of the coding of civil war events, see Doyle and Sambanis (1999).

3. All the estimated coefficients are significant at the 5% level of significance (isxp and isxp2 are significant at the 7% level). The model was estimated with 654 observations and has very good explanatory power with a Wald chi2(7) = 23.40, with a Prob > chi2 = 0.0015 and a Log likelihood = -243.49917 The constant term was -10.50 with a standard error of 2.39.

4. The last column reports estimated probabilities of a civil war event during a five-year period in each of the regions in our sample. The probability is estimated by multiplying the estimated global coefficients with the median levels of the explanatory variables for each region.

5. Estimated probabilities are adjusted by an add factor of .00468612, representing the difference between the predicted and actual probability of an incident of civil war during the base-period of 1970-74. We have used this as our base period, because we have lagged our core explanatory variables and, as a result, this is the first period for which we have predicted probabilities of civil war.

15. Three important lessons with reference to Africa emerge from the findings presented in Table 1.

- ***The median African country faces a high risk of civil war:*** Given its low level of economic development and lack of political rights as well as its depth of social fractionalization, the median African country can be expected to experience a civil war in any five-year period with a probability of 0.11. This result derives from our model, which suggests that at any given year there should be about 8 African countries in civil war (which is fairly close to the number of African countries that actually experienced civil war during 1999, for example).

  Africa's proclivity to internal large-scale political violence stands in sharp contrast to the realities of Europe, North America and South America and the

Caribbean. In those regions, the median country's risk of civil war in any five-year period is minimal. However, the risk for the median country in the Middle East and North Africa was also high, where out of each 20 countries more than three are expected to be in civil wars. East and South Asia is even more riskier than Africa, where four out of ten countries are expected to be in civil wars.

- ***Four factors drive the propensity of Africa for violent conflicts:*** First, Africa is highly dependent on natural resource exports, which provides a convenient source for sustaining rebellion. But so are all of the other three developing regions. Second, unlike Africa the other three developing regions enjoy much higher levels of income. Median per capita GDP in Africa accounts for less than one half that of Asia and less than eighth the income level of Europe and North America. The fact that young men in Africa are very poor and not educated substantially increases the risk of civil conflict. Globally, young males are the best recruits for rebellion, and if they have little to lose they are more likely to enlist. Third, Africa's pronounced failure to develop strong democratic institutions has compounded other problems and significantly increased the risk of political violence in the continent.
- ***Africa's ethnic diversity is a deterrent rather than a cause of civil war:*** Paradoxically, Africa's high degree of ethnic diversity, which is widely blamed for causing violent conflict, is a source of safety. For example, despite that overall Africa's economic and political indicators are lower than those of East and South Asia, the latter is riskier because it is polarized and Africa is diverse. Globally, countries with homogeneous or highly diverse societies are significantly less prone to violent conflicts than polarized countries. This is probably because, as noted above, compared to polarized societies it is very difficult to organize or sustain a rebellion in either homogeneous or diverse societies. Hence, rebellions tend to be less frequent in societies divided into many small sub-groups by ethnicity or religion. Of course, where rebellions do occur in such societies, they will tend to be confined to a particular sub-group. This reason makes African conflicts take the form of sub-group rebellion. This has been mistakenly interpreted as ethnically- induced conflict.

16. Note, for example, the extremely high risk of civil war in Asia -- this is directly related to the extreme ethnic polarization that we observe in Asian countries. Improvements in Asia's political and economic indicators have led to a nearly 35% reduction in the risk of civil war during the last two decades (see Table 2) as compared to the entire period (see Table 1). Asia's still high risk of civil war can only be explained (in our model) by its ethnic polarization. By contrast, Africa's risk of civil war has increased in recent years (it is almost 50% higher in 1980-98 as compared to the entire period -- see Table 2). The mean level of political freedom has fallen in the last decades in Sub-Saharan Africa, while the level of economic development (proxied in our model by per capita real income and the level of natural resource-dependence) has remained stagnant at very low levels. By contrast, Asian countries have improved dramatically: on average, they have shown sure signs of democratization, they have diversified their economies and reduced by half their dependence of natural resources, and they have made significant gains in per capita income. These improvements have allowed them to reduce their overall risk of civil war substantially.

Table 2: The Probability of Civil War In and Out of Africa (1980-98)

Independent Variables at Regional Medians:	Ethno-Linguistic Division Index (ELF)	Square of ELF Index	Covariate of Religious Diversity & ELF	Per Capita Real GDP (PPP – adjusted)	Polity Index: Democracy minus Autocracy	Primary Exports (% GDP)	Square of Primary Exports (% GDP)	Natural Log of Population	Estimated Probability of an Incident of Civil War
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Middle East & North Africa	18	324	14535.66	3230.5	-7	.171	.029	15.65	.022
Latin America & Caribbean	17.5	306.25	84059.2	2900.5	8	.164	.026	15.03	.0047
Sub-Saharan Africa	72	5184	1.62e+07	824	-6	.153	.023	15.56	.155

Notes:

1. This Table is reproduced from Collier, Elbadawi, and Sambanis (2000b). The coefficients reported in the second row are based on a random effects probit model of the probability of an incident of civil war, which should be distinguished from the probability of war initiation and from war duration. The model and empirical estimates are based on Collier, Elbadawi, and Sambanis (2000a), who estimate the probability of an event of civil war during a five-year period in 161 countries between 1960-1999.
2. The dependent variable in that model measures whether or not the country was at war during any five-year period between 1960-98. The explanatory variables are: primary exports as percent of GDP (and their square) with imputed missing values; real GDP per capita (lagged), adjusted for purchasing power parity (PPP); the ethnoliguistic fractionalization index and its square (this is a 0-100 index, where 100 denotes maximum heterogeneity and 0 maximum homogeneity; the index measures the probability that any two randomly selected people from different ethnic groups will speak a different language); the natural log of the population size; and a polity index (lagged twice), ranging from -10 to 10, where -10 denotes a complete autocracy and 10 a perfect democracy (the indices are based on the Polity98 data-set (Gurr and Jagger 1995; 1998). For a discussion of the theory of civil war and a derivation of the model used for these empirical estimations, see also, Collier and Hoeffler (1999; 1998). For a discussion of the coding of civil war events, see Doyle and Sambanis (1999).
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4. The last column reports estimated probabilities of a civil war event during a five-year period in each of the regions in our sample. The probability is estimated by multiplying the estimated global coefficients with the median levels of the explanatory variables for each region.
5. Estimated probabilities are adjusted by an add factor of .00468612, representing the difference between the predicted and actual probability of an incident of civil war during the base-period of 1970-74. We have used this as our base period, because we have lagged our core explanatory variables and, as a result, this is the first period for which we have predicted probabilities of civil war.

III. [illegible]

The analytical framework developed in CES could be used to predict the incidence of civil wars, given prevailing levels of social fractionalization, the degree of political rights, standards of living and economic diversification. This exercise allows us, for example, to explain the high incidence of civil wars in SSA and Asia during the last fourty years. The same model could also be used to simulate the marginal impact on the risk of war of political rights, level of income or the degree of economic diversification for various

levels of ethnic fractionalization (homogenous, polarized and diverse). The results of this simulation are contained in Figure 3.a-e. These simulations provide the basis for thinking through strategies for prevention.

18. Figure 2a reveals the significance of expanding political rights for reducing the incidence of wars. We see that the probability of civil war at very high levels of POLITY (i.e. strong democracies), is near zero (see the triangle-studded line in Figure 2a). Further, this relationship is not significantly affected by the level of ethno-linguistic fractionalization, which suggests that political freedom is the way to neutralize the risk of political violence resulting from ethnic conflict. By contrast, at very low levels of democracy and in autocratic regimes (the circle-studded line in Figure 2a), the risk of civil war is higher overall and it is exponentially higher in ethnically polarized societies (ELF around 50). Thus, political freedom is extremely effective in managing polarized societies. This finding has extremely important implications for Africa, given the degree of ethnic fractionalization and suggests that models of political representation in Africa must be designed with a view to neutralizing the explosiveness of political competition between polarized ethnic groups.

19. Figure 2b shows that the risk of civil wars also declines with declining poverty and as the economic opportunity costs of rebellion rise. This relationship is significantly influenced by the level of ethnic heterogeneity, however. Both at very low and very high levels of income per capita, we observe a strong parabolic relationship between GDP and the probability of war. The risk of war is greatest in polarized societies. At the same time, we observe that, even with ethnic polarization, there is a significant difference in the probability of civil war as we move from the bottom 10% to the top 10% of income per capita. Economic development therefore has a positive effect by reducing the risk of civil war, though that reduction is not as dramatic as that which we have observed as a result of improvements in political freedom.

20. Figure 2c shows that economic diversification and a lesser degree of reliance of natural resources reduces the risk of civil war (contrast the two lines with respect to the estimated probabilities of civil war). As in the previous figure, we observe here a similar reduction in the risk of civil war in polarized societies as a result of economic diversification. Such diversification can be expected as a result of economic growth and development, but it is often slow in coming, especially in countries with exceptionally rich natural resources and low levels of education and technical expertise.

21. Finally, Figure 2d simulates the joint partial impact of expanding political rights and rising levels of income; while Figure 2e simulates the combined partial impact of a full package of economic development (rising income levels and deepening economic diversification). Both Figures suggest that considerable reduction in the risk of civil wars is achieved, regardless of the nature of fractionalization in society. Since in most cases, countries that achieve high levels of income also happen to be the most diversified as well as the ones with the best functioning democracies, these countries, therefore, are the least likely to experience civil wars. The opposite happens in the case of poor countries. However, these simulations also suggest that, in the cases of countries with high natural resource endowment (and hence high income levels) but autocratic or dysfunctional democracies, the risk of wars may be high.

3.1 Ethnic Diversity and Economic Performance

22. Focusing on ethnic diversity, by far the most important aspect of social fractionalization in Africa, we briefly review the global evidence on its possible economic consequences. Earlier empirical evidence on the relationship between economic policies, economic growth and ethnic diversity at first sight appears to support the widespread belief that ethnic diversity produces bad policy. For example, Easterly and Levine (1997) establish that ethnic diversity leads to both bad policy and slow growth, both effects being quite powerful. Indeed, they suggest that much of Africa's slow growth is attributable to its ethnic diversity. Ethnic diversity has also been shown to contribute to government dysfunction in several areas of economic policies, both in developed and in developing countries alike. For example, local or central governments in ethnically diverse societies tend to under-spend on public goods and education (e.g. Alesina, Baqir and Easterly, 1999; Goldin and Katz, 1999); produce low quality of services (e.g. Mauro, 1995; La Porta, Lopez de Silanes, Shleifer and Vishny, 1998); produce greater political instability (Mauro, 1995; Annett, 1999); or misuse foreign aid and divert it into corruption (Svensson, 1998)[7]. Africa specific literature, based on survey data, also finds evidence of dysfunction in government and civil society organizations. For example, Collier and Garg (1999) find that employment in the public sector in ethnically diverse Ghana was determined by patronage, not merit. However, they fail to find similar evidence for the case of private sector employment. Also Miguel (1999) provides one more example from western Kenya, where he finds primary schools in ethnically diverse districts to be sharply under-funded and have bad facilities.

23. However, at least the macroeconomic strand of this literature has failed to allow for the rules of the political game in which the inter-ethnic contest is fought or the underlining institutions that mediate the effect of social diversity. Collier (1999c) shows that once the degree of political rights is introduced, a different picture emerges. Specifically, societies with a high degree of ethnic diversity are much more in need of a functioning democracy than ethnically homogenous societies. In homogenous societies, he shows that the degree of political rights has no effect on the growth rate. By contrast, in societies, which are maximally ethnically fractionalized, dictatorships have much slower growth rates than democracies. Collier's results suggest that the combination of high ethnic diversity and dictatorship reduces the growth rate by a massive three percentage points compared with ethnically homogenous societies, whereas those ethnically diverse societies which have full democracy grow at the same rate as societies which are ethnically homogenous. Thus, Collier argues that full democracy can completely remove the growth drawbacks otherwise associated with ethnic diversity. Using a measure of institutional quality--which is more directly relevant for economic management, rather than political governance[8]-- Easterly (2000) shows that good quality institutions significantly mitigate the negative effects of ethnic diversity on overall growth as well as on a wide range of macroeconomic polices. Rodrik (1999) also finds that high quality economic or political institutions tend to mitigate the influence of ethnic diversity on persistence of growth following external shocks. Finally, Elbadawi and Randa (2000) find ethnic fractionalization to have negative (positive) but

[7] See Easterly (1999, 2000) and Collier (1999b) for more detailed review of this literature.

[8] Easterly (2000) constructs an index for quality of institutions "INSTITUTIONS", which is an average of Knack and Keefer's (1995) measures from the International Country Risk Guide of (a) freedom from government repudiation of contracts, (b) freedom from expropriation, (c) rule of law, and (d) bureaucratic quality.

non-monotonic effect on the level (variance) of growth and that its adverse effects on growth are effectively neutralized by economic and political institutions.

3.2 What are the implications of these findings for prevention of civil wars?

24. Subscribing to the above analysis, we would like to argue that the strategy for prevention of future civil wars in Africa should be triggered by measures for improving political freedom and developing a design for political governance to accommodate Africa's social diversity. This position is based on three considerations, directly following from the simulation results and the evidence from the literature on ethnic diversity, institutions and economic performance. First, the simulation evidence on the determinants of civil war make clear that to significantly reduce the risk of civil wars via economic achievements, it is necessary to achieve very high standards of living and substantial economic diversification. Given Africa's initial conditions this may take long time to achieve. Second, the evidence also shows that political development is much more effective in reducing risk of conflicts than do superior economic performance. Moreover, due to a multiplicity of factors (demonstration effects, globalization, etc.) the pace of political reforms toward better governance and improved political rights could be accelerated. Third, improvements in the political front are prerequisites for stable economic growth and other developmental policies.

25. There appears to be a virtuous circle emanating from the presence of the right political governance institutions, leading to emergence of high quality institutions for economic management, which generates high growth and economic diversification, with all ensuring peaceful coexistence among various social groups. So far, our analysis has led us to argue that increased political freedom and improved institutions for economic management should be the centerpiece of Africa's strategy for prevention of future civil wars. However, a meaningful strategy should also say something about whether Africa's social diversity impedes development of such political and economic institutions?; what type of political governance institutions, beyond just having democracy or improved political freedom, that would be required for socially diverse Africa?; and what type of economic management institutions (especially with regard to the role of the state) would be more appropriate, given the region's social diversity.

Following up from the questions raised at the end of the previous sections, this section makes three arguments. First, it will be argued that Africa's ethnic diversity in a context of "appropriate" democracy would in fact facilitate, rather than impede, formation of effective institutions for economic management, and hence, stable growth-oriented states. Second, we will also argue that the "appropriate" democratic institutions required for promoting inter-group cooperation must embody the principles of participation, inclusion and consensus-building among social groups. Third, we will show that further insight could be gleaned from available literature for better informing the design of institutions for economic management, including the economic role of the state.

4.1 Can Stable Growth-Oriented States Emerge in Ethnically Diverse Africa?

27. Successful state formation is governed by the evolution of inter-group *bargaining process*, which under certain conditions could lead to the creation of *growth-oriented* state[9]. Under more demanding conditions, the latter could be transformed into a *development-oriented* state[10], which ensures that economic growth is sufficiently equitably distributed to reduce poverty. The question that arises is how Africa's high ethnic diversity affects the construction of a bargaining equilibrium in the process of institutional formation or consolidation? This question is addressed by Collier and Binswanger (1999). We summarize their main arguments below. However, at first we briefly identify the broad conditions associated with development promoting bargaining processes.

28. ***Bargaining Among Equally Powerful Groups:*** Bargaining is a major process in the formation of a stable, non-coercive, and development-oriented state. It occurs in democratic and non-democratic settings. The emphasis in bargaining is on the distribution of material advantages. Bargaining can create numerous new claims on the state: power sharing, and cooperation in state programs such as taxes to raise state revenue, pension, payments to the poor, public education, city planning, rural and agricultural development, and much more. Bargaining occurs under the following conditions: (1) a political decision is being made which affects a large number of people; (2) the preferred outcome of the decision is different for different participants; (3) those participating in the decision-making have a high degree of potential power either as leaders of interest groups or as office holders, and (4) the participants have various intensities of desire regarding the outcome.

29. ***Ethnic groupings as a basis for the bargaining process:*** As with civil war, Africa's ethnic diversity is usually seen as a menace, making bargaining more difficult because political bargaining will be on ethnic lines. However, as in the case of conflict, Collier and Binswanger argue that ethnic diversity is a potential asset to Africa: it can make the attainment of the bargaining equilibrium more not less feasible.

30. They reason that because one of the essential features of a bargaining equilibrium is that groups with different interests, but equal power, should oppose each other, thus forcing compromise on the growth-inducing policies from which all will gain. The major obstacle to such a configuration in a democracy is that some groups, notably small farmers, face much greater difficulties of organizing themselves into a lobby than other groups such as manufacturers. However, ethnic loyalties provide a ready-made basis for political organization. Different ethnic groups are likely to have somewhat different economic interests, if only because they will be drawn from different parts of the country. They may produce different crops, and they will have different interests in the location of public expenditure. Not all types of democracy are equally likely to produce a bargaining

[9] The inter-group bargaining process could, over prolonged periods of time, lead to a growth-oriented state. Such a state takes policy and resource allocation decisions which create the incentives and effective institutions which will lead to private and public investments, productivity growth, and growth of per capita income. It avoids decisions, which undermine such growth.

[10] Development-oriented state emerges when, in addition to taking decisions which enhance growth, the state also consistently takes decisions which lead to widely shared growth. These include improvements in the welfare of all social groups, and which ensure the economic and environmental sustainability of that growth.

equilibrium. The ideal is for groups to be proportionately represented so that governments can only be formed by coalitions across ethnic groups. For such coalition politics a high degree of ethnic diversity is a great advantage. A society divided into only say two ethnic groups, one somewhat larger than the other, in which the political contest is between the two groups, will find a development-orientated bargaining equilibrium more fragile than one in which each of many groups has its own party.

31. ***Codifying the bargaining processes among ethnic groups:*** Collier and Binswanger argue that given Africa's ethnic diversity actually helps, rather than impedes, the formation of stable development-promoting coalition, formalization of ethnic affiliation into the political process might enhance the efficiency and credibility of political governance institutions in Africa. Admittedly this might seem as a rather drastic idea. However, we would like to argue that it should merit consideration, given the reality of African politics. In most countries that attempted competitive multiparty elections (South Africa included) there was close association between ethnic loyalty (broadly defined) and party affiliation[11]. Moreover, as Collier and Binswanger observe there is clearly a mismatch between ethnic expression of the African voter and constitutional structures that fail to take account of it constructively. Therefore, they call for a radical change of attitude in order to adopt suitable ethnically-inclusive local systems. They cite the examples of Namibia (1989), Zimbabwe (1980) and especially South Africa where such change has been achieved with relative success.

4.2 Two proposals for mitigating the effect of social diversity in Africa

32. A cursory review of African experiences with state formation (e.g. Chege, 1999) would suggests that political elites in several African countries have attempted to build the kind of inclusive and participatory politics called for by African social diversity. However, these experiences have been reversible and in most cases short-lived. How then can these states escape this dilemma? Does improved understanding of the role of ethnic diversity in economic development offer any guidance for further refinements to the broad principles of political governance?. Using recent evidence from survey level data, Collier and Binswanger propose two areas, where strategic actions by the state and redrawing of the boundaries of economic activities in favor of the private sector could mitigate economic dysfunction due to social diversity.

33. ***Towards a more focused government in Africa***: Kin groups are networks of reciprocal obligation. This was their original function, to enable the insurance needs of the society to be met and, as such, the kin groups have been and continue to be highly beneficial. However, when the same reciprocal obligations are transposed into the modern economy, they become dysfunctional. A large modern organization depends upon an employment hierarchy in which merit is rewarded and slacking penalized. These rewards

[11] Collier and Binswanger (pp. ##) provides several examples, "Nigeria's March 1999 election were won on a wide national slate by the Peoples Democratic Party (62.8 per cent), but which suffered a rebuff in the predominantly Yoruba six south-western states where a third of the vote is concentrated. The ruling Movement for Multiparty Democracy in Zambia likewise achieved a majority in the 1991 and 1996 elections based on a north-west alliance, while the opposition is confined to the Nyanja-speaking East. The five really significant parties in Kenya since 1991 could aspire to no more than an ethnic constituency. The same applied to Malawi's three major parties, and to the older political parties in Zimbabwe."

and penalties provide the incentive for employees to work effectively. They are administered by an assessment of performance done by managers. For this system to function, it is essential that managers be impartial. Yet in Africa, managers are subject to pressures of group loyalty. These pressures are not simply notional. Kin groups are highly robust, long-lasting institutions that have themselves developed rewards and penalties to ensure compliance. Hence, managers face one set of pressures to administer a modern organization on the principles of meritocracy, and another to dispense patronage to their own group. To the extent that they administer patronage to their group this undermines the incentive for employees to perform and so undermines the performance of the organization. On the other hand, due to the rigor of competition in the market place, country evidence suggests that patronage is much more limited in the private sector (e.g. Collier and Garg, 1999). Hence, the boundary between public and private activity should tend to be more in favor of private provision than in other regions.

34. ***Governments should invest in creating indigenous entrepreneurial classes:*** One characteristic of Africa is that non-agricultural private business tends to be dominated by non-indigenous ethnic minority groups such as Asians in East Africa and Lebanese in West Africa. This partly reflects the exclusion of such groups from land ownership. Hence, the typical indigenous kin group will have a large majority of its members in agriculture, whereas the typical minority kin group will have a large majority of its members in non-agricultural enterprises. This inadvertently places minority groups at an advantage in non-agricultural enterprise because the typical member of a minority will have a large network of kin in the same activity whereas the typical indigenous business person will have only a few other kin group members in the same activity. Public action can, however, level the playing field between ethnic groups. Ethnically diverse societies thus need an effective state to mitigate the negative effects of ethnic diversity on this area by helping with the creation and expansion of indigenous entrepreneurial classes. This issue has dominated the discussions on the political economy of privatization in Africa, and is likely to have important implications for the capacity of Africa to achieve politically sustainable economic transformation in the 21st Century.

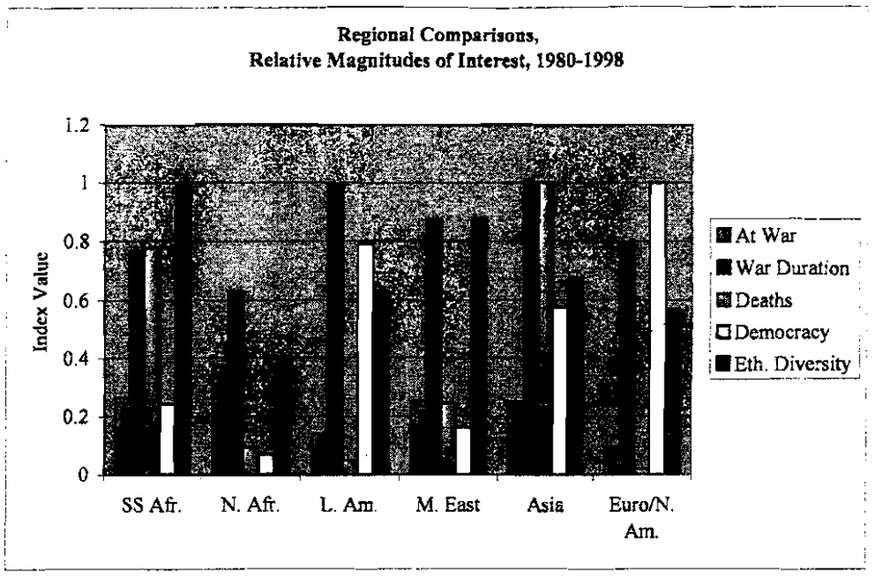
The analysis in this paper suggests three important pointers for informing a strategy for avoiding civil wars in the future. The first is that Africa's ethnic diversity is not a cause of the recent rise in the incidences of civil wars that impacted the region. Indeed, other things equal Africa is inherently safer than other region because of its social diversity. Second, however, before Africa can turn its ethnic diversity into an asset for preserving peace it must achieve better levels of political freedom, much higher standards of living and diversified economies. Third, to achieve economic development and hence contribute to prevention of future wars, both "appropriate" political governance (i.e. functioning democracy) and high quality institutions for economic management would be required for mitigating possible adverse economic consequences of social diversity.

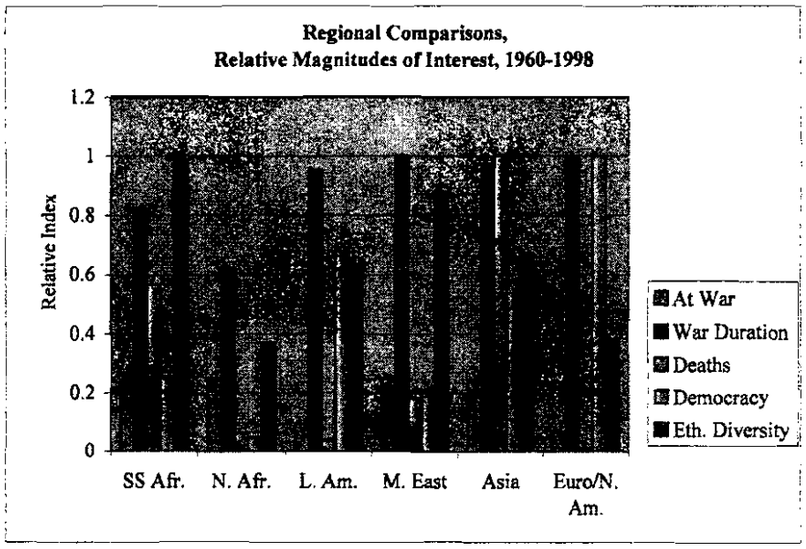
36. However, a meaningful prevention strategy should also attempt to address the question as to whether Africa's social diversity impede or enhances the emergence of the kind of political and economic institutions required for the success of a strategy for the prevention wars in the future? Taking the view that civil wars are the extreme case of non-

cooperation among social groups, this paper argues that under the right conditions, Africa's ethnic diversity would actually enhance development promoting positive inter- group interactions, provided that "appropriate" democratic institutions embody the principles of participation, inclusion and consensus-building among social groups and that these social (especially ethnic) groups be explicitly recognized as legitimate partners in the bargaining process.

37. Moreover, effective institutions of economic management required for enhancing the sustainability of the bargaining process, through reducing economic dysfunction, would require a more focused but active role for the state. First, the evidence reviewed by this paper suggest that the quality of service delivery by the state in ethnically diverse societies are likely to be low. This is because survey evidence indicates that hiring in the public sector is at least partially influenced by patronage along ethnic affiliation. However, private sector employment appears to be mainly determined by merits. To the extent that this evidence is generalizable, avoiding economic dysfunction would require that the sphere of government activities in Africa should, perhaps, be more limited than in other homogenous societies. Second, however, the government would be required to be more active in other spheres. One example is that the state in Africa should undertake strategic actions to level the playing field for the emergence of indigenous entrepreneurial class. Among other things, such measures should enhance the process of economic diversification in Africa and hence directly contribute to reduction of risks of civil wars in the future. Moreover, an expanded private sector base dominated by indigenous population would provide the political cover for meaningful privatization, which has so far eluded most African reformers.

Figure 1 (2 Panels)





Simulations of the Probability of Civil War

Figure 2a: Probability of Civil War at Low/High Levels of Political Rights and Variable Ethno-Linguistic Fractionalization

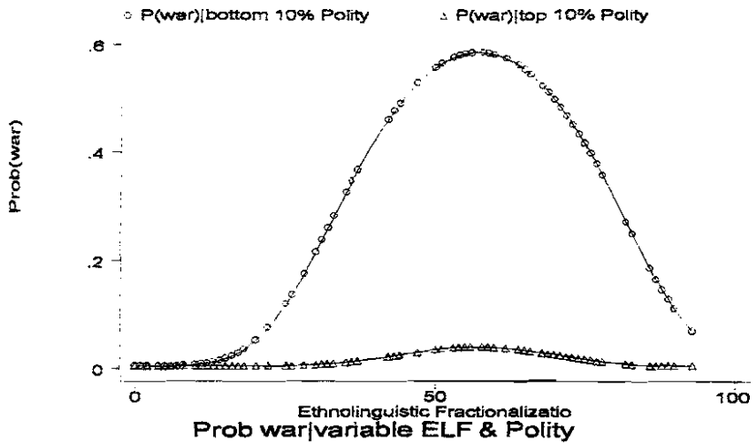


Figure 2b: Probability of Civil War at Low/High Levels of Income and Variable Ethno-Linguistic Fractionalization

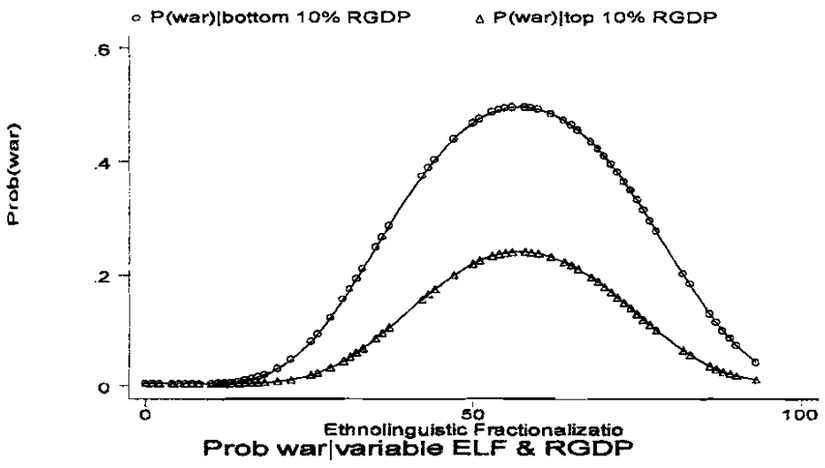


Figure 2c: Probability of Civil War at Low/High Levels of Natural Resource-Dependence and Variable Ethno-Linguistic Fractionalization

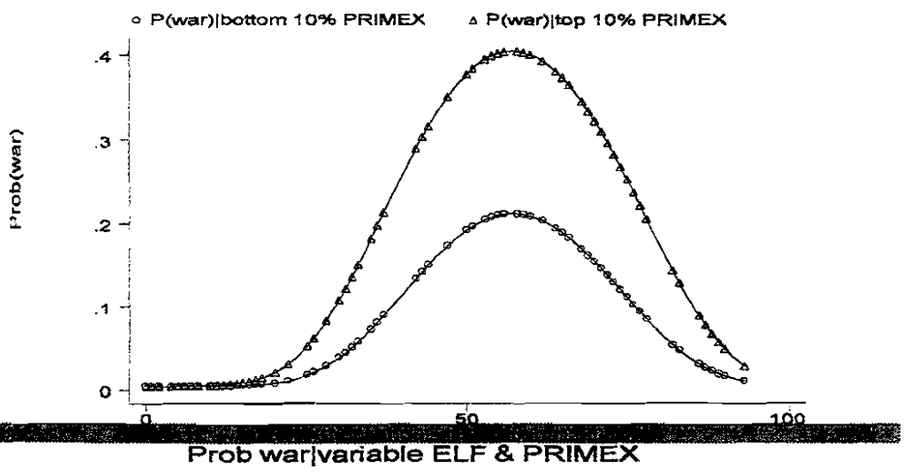


Figure 2d: Probability of Civil War at Low/High Levels of Democracy & Income and Variable Ethno-Linguistic Fractionalization

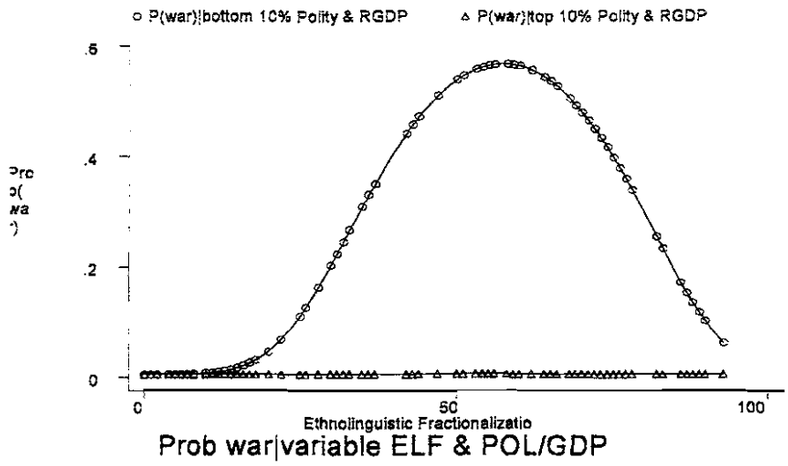
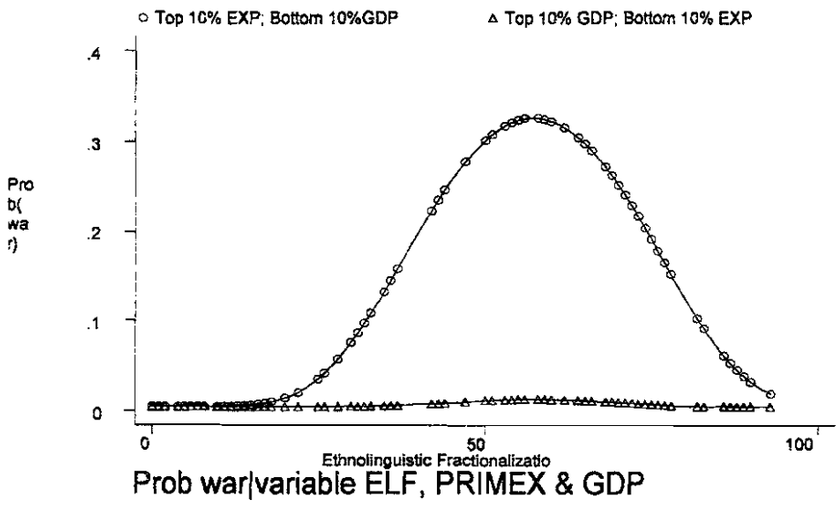


Figure 2e: Probability of Civil War at Low/High Levels of Income & Resource-Dependence and Variable Ethno-Linguistic Fractionalization



Notes: The source for these figures is Collier, Elbadawi, and Sambanis (2000a). The probability of civil war is estimated using a random effects probit and a 5-year panel data-set of 161 countries from 1960-99. Polity is a measure of political rights, ranging from -10 (minimum) to 10 (maximum). RGDP is real per capita GDP, purchasing power parity-adjusted. ELF is the ethnoliguistic fractionalization index discussed in the text (ranging from 0 in homogeneous societies to 100 in heterogeneous societies). PRIMEX measures natural resource-dependence, proxied by primary exports as percent of GDP.

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