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Conference Paper

Does Good Governance Contribute to Pro-poor Growth?: A Conceptual Framework and Empirical Evidence from Cross-Country Studies


Provided in Cooperation with:
Research Committee on Development Economics (AEL), German Economic Association


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http://hdl.handle.net/10419/19798
"Good governance is perhaps the single most important factor in eradicating poverty and promoting development."

Kofi Annan, Secretary General of the United Nations

1 Introduction

Since the 1990s, the concept of “good governance” has taken center stage in development thinking and practice. This is reflected not only by Kofi Annan’s statement above but also by donors’ increasing dependence on governance performance indicators for allocating overseas development assistance (ODA). Indeed, the Country Institutional and Policy Assessment (CPIA) indicators remain an integral part of the World Bank’s lending decisions, and the highly publicized US Millennium Challenge Account (MCA) intends to distribute funds only to those countries that “rule justly, invest in their people, and encourage economic freedom” (MCC website). Several reasons account for the increasing attention to governance and institutions by the international development community, among them research findings demonstrating that the effectiveness of financial aid depends on “a good policy environment” (Burnside and Dollar 1997; World Bank, 1998: 2). According to Wolfensohn and Bourguignon (2004), the lackluster performance of structural adjustment programs, the end of the Cold War and the funding of proxy states, political problems associated with reforming the economy of the former Soviet Union, and institutional weaknesses revealed during the East Asian financial crisis have also contributed to the new focus on governance.

While good governance is increasingly viewed as a key ingredient for development, the 1990s also witnessed a renewed focus on poverty reduction as the major goal of development. The first of the Millennium Development Goals (MDGs) clearly places


2 These findings are, however, contested. For example, see Easterly et al. (2003).
reducing poverty and hunger on the top of the international agenda. Poverty had already been a major focus of development in the 1970s, highlighted in the 1973 Nairobi speech by former World Bank President Robert, but the 1980s were dominated by a focus on structural adjustment policies aimed at promoting growth. The new focus on poverty entails a rather broad consensus in the development community that redistributive policies alone will not lead to eliminate poverty, and that growth is a necessary, but not a sufficient condition to meet this goal. While this thinking had already been popularized in the 1970s as “redistribution with growth” (Chenery et al., 1974), a new term catching this idea became popular at the end of the 1990s: pro-poor growth. Promoting pro-poor growth has now become a major goal in the strategies of international donor organizations.

Since both governance and pro-poor growth are high on the development policy agenda, the question arises as to how they are related to each other. While it is commonly assumed that good governance promotes pro-poor growth (World Bank 2001), testing this assumption empirically is challenging for several reasons. First, there is no general consensus on how to define and measure governance and pro-poor growth. Secondly, since growth and income distribution are influenced by many factors, it is not easy to identify the influence of governance. Thirdly, the direction of causality is far from clear. In fact, the link between economic growth alone and democracy, typically considered as one dimension of governance, has puzzled economists and political scientists for decades. Fourth, while there is a considerable body of literature on the relations between governance and growth, there are still relatively few cross-country studies that use governance indicators to link with the joint outcomes of growth, inequality, and poverty reduction, which together underlie the concept of pro-poor growth.³

Considering how strongly both concepts feature on the international development agenda and influence ODA allocations, it is troubling that there is not a more comprehensive understanding of the mechanisms linking governance and pro-poor growth. As such, the

³An impressive annotated bibliography compiled by the World Bank (1998) highlights at least 50 empirical studies on the impact of governance on economic growth. This bibliography can be accessed from the following website: http://www1.worldbank.org/publicsector/annotdbibliography.pdf
the objective of the present paper is two-fold. First, a conceptual framework is presented that identifies the possible linkages and feedback effects between governance and pro-poor growth. Secondly, the available cross-country literature dealing with these linkages is discussed from both a methodological and analytical perspective. Based on the assessment of the findings from this literature, areas and approaches for further research are proposed.

The paper is organized as follows. Section 2 gives a brief overview of attempts to define and measure governance and pro-poor growth. Section 3 presents the conceptual framework. Section 4 reviews the available cross-country studies according to how they relate to the framework. The limits of these studies and areas for further research are discussed in Section 5, and Section 6 concludes.

2 Defining and Measuring Governance and Pro-Poor Growth

2.1 Governance

Although governance is an oft-used term in international development, there are numerous interpretations of what the term actually describes. For example, the United Nations Development Program (UNDP) defines governance as the “... the exercise of economic, political, and administrative authority to manage a country’s affairs at all levels. It comprises mechanisms, processes, and institutions through which citizens and groups articulate their interests, exercise their legal rights, meet their obligations, and mediate their differences” (UNDP, 1997). The World Bank refers to governance as “the traditions and institutions by which authority in a country is exercised for the common good. This includes the process by which those in authority are selected, monitored and replaced, the capacity of the government to effectively manage its resources and implement sound policies, and the respect of citizens and the state for the institutions that

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4 We refer here to the concept of governance as used in the development literature and discourse. The concept was originally used by specialists in medieval English society, which was characterized by cooperation between the different sources of power (church, nobility, merchants, peasants, etc.). The term has also been widely used by scholars in economics and in the social and political sciences who study coordination mechanisms. For example, Williamson’s (1985) transaction costs approach deals with governance structures, and Ostrom (1990) refers to “Governing the Commons.”
govern economic and social interactions among them.\textsuperscript{5} Although such definitions appear neutral, they are implicitly based on normative assumptions, such that citizens should be able to mediate their differences or that those in authority should be monitored. Of course, definitions of “good governance” explicitly have a normative content, identifying what the organization or author proposing the definition considers desirable. Citizen participation, accountability, transparency, rule of law and stability are common elements in many definitions of good governance. A distinction has to be made between (1) identifying governance elements that are instrumental to reach other goals, such as poverty reduction, and (2) defining governance elements that constitute values in their own right. To quote an obvious example, democracy is widely considered a goal in its own right, but the case of China shows that it is not a necessary condition to reduce poverty.\textsuperscript{6} In this paper, we attempt to analyze how and to which extent different dimensions of governance defined in the literature (either as goals in their own right or as instrumental) can influence pro-poor growth.

The definitional ambiguity surrounding the notion of governance is a particular challenge when trying to measure the concept. Governance-related donor and research initiatives have been accompanied by a surge in indicators that aim to measure governance. Indeed, the World Bank Institute’s Governance website lists approximately 130 datasets from sources both internal and external to the Bank. The variety of datasets is quite extensive, both in terms of regional and thematic information. Besides indicators measuring familiar aspects of governance such as corruption and human rights violations, there are also datasets focused on more specific issues, including the degree of decentralization, labor rights, gender equality, and press freedoms. The following briefly reviews three types of data sets that are widely used in the cross-country research on governance.

\textsuperscript{6} For a comprehensive review of the theories and case studies on democracy, “good governance,” and development, please see Potter (2000).
Considered the most comprehensive dataset on governance, the data set developed by the World Bank researchers Daniel Kaufmann and Aart Kraay, and hereafter called the KK Dataset, is based on 250 measures from 25 separate data sources, including the Freedom House’s civil liberties and political rights indices, and the International Country Risk Guide (ICRG) described below. The aggregation of such a wide variety of data results in coverage for 199 countries for the periods 1996, 1998, 2000, and 2002. The KK Dataset tries to capture three dimensions of governance: (1) “the process by which governments are selected monitored and replaced; (2) capacity of government to effectively formulate and implement sound policies; and (3) the respect of the citizens and the state for the institutions that govern the economic and social interactions among them” (Kaufmann et al. 2003). An unobserved components model is used to reduce the 250 measures into six indicators that correspond to these dimensions.

The indicator voice and accountability refers to whether citizens participate in the selection and monitoring of their governments while the political stability indicator captures whether the government is vulnerable to change through violent or unconstitutional means. Both indicators fall under the first dimension of governance. Government effectiveness and regulatory quality both belong to the second dimension. Government effectiveness examines the capacity of civil servants, the quality of public service provision, and the credibility of government commitment to policies. Regulatory quality focuses on whether the policies promoted are “market-friendly” in the areas of trade and business. The final dimension of governance includes rule of law and control of corruption. Rule of law includes the enforcement of property rights and the predictability of rules governing social and economic interactions. Lastly, control of corruption refers to whether there is evidence of the “exercise of public power for private gain” in the business environment and in the broader political arena.

Although the KK Dataset is one of the most widely used in cross-country research, and has been employed by the MCA to determine country eligibility for funds, it is not
without its flaws. For instance, the aggregation procedure results in indicators with wide margins of error (Hyden, Court, and Mease 2002). In addition, countries may change over time as a result of increasing data availability rather than any substantive changes within that country. While Kaufmann, Kraay, and Mastruzzi (2003) believe that these problems are quite small, they encourage caution in using the indicators to make cross-country comparisons of the level of governance prevailing in a particular country.

The Freedom House Dataset
Since 1972, Freedom House has produced annually Freedom in the World Ratings, which reflect the combined score of a political rights and civil liberties index. Also known as the Gastil indices after their creator Raymond Gastil, Freedom House compiles these indices for 192 countries and 18 territories. The political rights index attempts to capture the extent to which citizens can participate in the political process by competing for public office and exercising a right to vote, particularly for representatives who actually have a decisive vote on public policies. The civil liberties index has a broader aim, namely to measure whether citizens have sufficient freedom to develop opinions and personal autonomy without state interference.

A number of Freedom House analysts determine the extent of political rights and civil liberties based on secondary materials, such as foreign and domestic news reports, scholarly analyses, and NGO publications, as well as through visits to and communication with their contacts in each region. The analysts then assign points from 0 to 4 for 10 questions related to political rights and 15 regarding civil liberties. The points are translated into a rating system from 1 to 7, with a higher rating corresponding with a worse performance. The separate ratings for political rights and civil liberties are then averaged to determine whether a country can be classified as Free, Partly Free, or Not Free. However, in empirical research, the separate index ratings are usually retained with the civil liberties index used more frequently than the one for political rights (Freedom House 2003).

International Country Risk Guide (ICRG)
Covering 140 countries from 1980 to the present, the ICRG is a product of the Political Risk Services (PRS) Group that analyzes and forecasts risk for international investors. According to the company’s website, the ICRG model helps determine how risk can affect the business and investments of “institutional investors, banks, multinational corporations, importers, exporters, foreign exchange traders, shipping concerns, and a multitude of others” (PRS website).

The ICRG contains 22 components that are grouped into three categories of risk: political, financial, and economic. For all components in the three categories, higher points are assigned if the potential risk for that component is lower. While the financial and economic assessments are based on objective data, using variables such as foreign debt as a percentage of GDP and exchange rate stability, political risk assessments are performed subjectively by the ICRG’s editors. In determining the composite rating, political risk contributes 50 percent to the rating while the other two categories contribute 25 percent each.

### 2.2 Pro-Poor Growth

As indicated above, the term “pro-poor growth” is relatively new, but the concept very much reflects the notion of “redistribution with growth” popularized by Chenery et al. (1974) in a joint World Bank/IDS publication with the same name. Both concepts affirm the primacy of growth in reducing poverty while also acknowledging that inequality prevents all growth from being pro-poor.

Although organizations such as the OECD (2001) and the UN (2000) have employed a very broad definition by classifying it as growth that benefits the poor, most technical conceptualizations of pro-growth fall into either one of two categories: relative and absolute. The relative category emphasizes that pro-poor growth occurs when economic growth *disproportionately* benefits the poor and highlights that achieving pro-poor growth requires ameliorating inequality (Cord *et al.* 2003). One approach for capturing pro-poor growth is measuring whether the per capita income growth rate of the poor surpasses the average income growth rate (Klasen 2001). The poverty bias of growth
(PBG) measure used by McCulloch and Baulch (1999) subtracts the real change in the poverty headcount between two time periods from the predicted change if there was an equal distribution of income. If PBG is positive, then pro-poor growth occurred. Kakwani and Pernia (2000) also developed a pro-poor growth index based on taking the poverty elasticity with respect to per capita income as a ratio of the poverty elasticity with respect to per capita income, assuming no change in income distribution.

Others, however, argue that the growth is pro-poor if the poor benefit in absolute terms, as reflected by a chosen measure of poverty. More specifically, the rate of growth and the way in which it is distributed both determine the rate of change in poverty and reveal the degree to which growth is pro-poor. A well-known measure of pro-poor growth that adheres to this definition is the mean growth rate of the income of the poor (Ravallion and Chen 2003). Thus, the main difference between these two definitions is that while the former emphasizes that the poor must benefit more from growth than the non-poor, the latter assumes that growth is always pro-poor unless the incomes of the poor decline or stagnate. The cross-country studies included in this review span both the relative and absolute approaches.

3 Linkages between Governance and Pro-Poor Growth: A Conceptual Framework

Figure 1 displays a conceptual framework that attempts to identify the linkages and mechanisms through which governance interacts with pro-poor growth. In line with the literature on economic growth, the framework distinguishes between initial conditions and drivers and outcomes. The outcomes relevant to this paper, in terms of growth, equity, and poverty reduction, are displayed in Box G.

These outcomes are obviously influenced by the policies (Box F) a country adopts in different fields, including economic policies related to public investment and trade as well as policies aimed at providing public goods, social protection and redistribution. Choosing “good policies” is often considered an aspect of “good governance.” However,

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7 This framework is based on an approach developed jointly with IFPRI’s Country Strategy Team led by Xinshen Diao.
determining which policies promote pro-poor growth, depending on a country’s circumstances, is an empirical question. Policy recommendations that are frequently advocated in the pro-poor growth literature include creating a stable macroeconomic environment, stimulating growth in the agricultural sector, integrating backward areas, reducing asset inequality, and improving human capital (Bigsten and Shimeles 2004; Dorward et al. 2004; Klasen 2001; Lopez 2004a).

**Figure 1: Conceptual Framework**

- **Natural conditions**
  - Natural resources
  - Agro-ecological conditions
  - Geography

- **Socio-economic system**
  - **Population**
    - Size, growth, ethnicity
    - Human capital
  - **Economic institutions**
    - Property rights
    - Markets, private sector
  - **Stage of development**
    - Role of agriculture
    - Infrastructure
    - Productivity, per capita income/distribution
  - **Socio-cultural institutions**
    - Social capital, norms

- **Political system**
  - **Political institutions**
    - Participation, inclusiveness
    - Electoral and party system
  - **Public administration**
    - Capacity, incentives
  - **Judiciary**
    - Legal system/institutions
  - **Civil & political liberties**

- **Decision-making environment**
  - Security
  - Rule of law
  - Accountability
  - Corruption level
  - Regulatory quality
  - Quality of public services
  - Policy volatility

- **Policies/Strategies**
  - Macro-economic policies
  - Public investment (sector)
  - Trade liberalization
  - Social protection

- **Dynamics of the development process, feedback effects**

- **Outcome**

- **Growth**
- **Equity**
- **Poverty reduction**
Many of the policy recommendations, however, are embedded in an apolitical framework. The framework proposed here acknowledges that policies are outcomes of a political process (Arrow D), even though this process is mostly considered as a “black box” in the cross-country literature. The political process is influenced both by the political system (Box C) and by the socio-economic system (Box B). The term political system is used here broadly and includes the political institutions of a country, its public administration, and the judiciary. Key political institutions that help distinguish between various political systems include the ability of citizens to elect representatives, the degree of competitiveness within the electoral system, the freedom of the media, and checks and balances between various branches of government. These institutions determine the space for participation and debate in the political process (link C-D) and influence the types of policies that a government selects and implements (link D-F). Indicators that capture a political system’s degree of openness and participation include the civil liberties and political freedom indices by Freedom House and the voice and accountability index in the KK Dataset. These indicators are actually governance performance (outcome) indicators, which may be influenced both by the political institutions and civil society interaction (which may demand these liberties, serve as a watchdog, etc.). However, to keep the diagram tractable, these relationships are not captured in Figure 1.

Together with the socio-economic conditions and the policies adopted as an outcome of political processes, the political system influences what is called here the “decision-making environment” (Box E). It captures all those governance indicators that are assumed to influence the decisions of economic agents, such as investors. Considering that in a market economy, a considerable share of the investment necessary to stimulate growth is private, the conditions under which investment decisions are made is presumably of considerable influence for stimulating growth. The term “investment climate” also refers to this consideration. The political stability and rule of law indices in the KK Dataset and the political risk component of the ICRG capture these elements. Together, these indices examine crime levels, vulnerability to coups, ethnic and religious tensions, protection of property rights, corruption, and quality of the bureaucracy. As long as a considerable share of the population is in the agricultural sector, the conditions
affecting the decisions of agricultural producers obviously matter, as well. One shortcoming in the governance literature is that the datasets do not typically capture the perspective of rural small-scale producers.

It is worth noting that not all of the widely used governance indicators influence growth and poverty by determining the decision-making environment for investment decisions. Civil and political liberties, for example, are more likely to influence growth and poverty reduction by shaping political processes and, hence, the policies adopted. The governance indicators constituting the decision-making environment may, however, also influence the political processes (link E-D). For example, they may deter the poor from engaging in the political process because they lack confidence in the state’s ability to meet their needs (Moore and Putzel 1999).

The socio-economic system (Box B) captures the initial conditions that are important in regards to growth and poverty reduction. They include demographic characteristics, economic institutions, the stage of development at the starting point of the period under consideration, and socio-cultural institutions. Economic institutions such as the system of property rights obviously play an important role, as they influence the access to productive resources. Note that the type and distribution of property rights is an aspect of the economic system. The degree to which property rights are protected is, however, a governance performance indicator, which is part of the decision-making environment (Box E).

The socio-economic system does not only influence growth and poverty outcomes directly (link B-G) but also by influencing the decision-making environment, together with the political system (links B-C, B-E and C-E). These links acknowledge that governance performance (an outcome variable) is influenced by the interaction between the political institutions and actors in civil society and the private sector. For instance, citizen engagement is necessary to make democratic institutions function effectively. In an ethnically divided society, stability may be more difficult to achieve. Whether rule of law exists depends not only on the judiciary system, but also on the degree to which
citizens are willing to obey laws and regulations voluntarily, which interns may depend on the legitimacy of the government. Likewise, the socio-economic system has obviously a strong influence on the political processes (link B-D), and the policies to which they lead.

Finally, the **natural conditions** of a country (Box A) play an important role for growth and poverty outcomes. They include the natural resources (e.g., whether a country has minerals and oil), the agro-ecological conditions and other geographic conditions, such as the size of country and whether or not it is landlocked. The “resource curse” theory suggests that richness in natural resources influences political processes in such a way that the outcomes with regard to pro-poor growth are unsatisfactory.\(^8\) This would suggest a line of causality from A over B, D and F.

A more complete framework would include more explicit linkages with the outside world, which are captured in form of trade policies here. There are also other factors such as the history of a country, or the role of shocks, that would need to be considered. Since our focus is on the cross-country literature dealing with pro-poor growth, the framework concentrates on the variables that are typically included in this literature.

Looking at the framework in a dynamic perspective, various feed-back effects need to be considered. The growth, equity and poverty outcomes obviously influence the socio-economic system and the political processes. For example, disadvantaged groups may resort to violent means, depending on the circumstances, which in turn affects the decision-making environment. Some outcomes may promote political processes that lead to a change in the political system, such as democratization (link F-C).

As can be derived from the description of this framework, it disentangles the different components of governance described in the literature in regards to how they may affect growth and poverty outcomes. The following chapter reviews the cross-country literature

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\(^8\) For examples, see Auty and Gelb (2001), Karl (1997), and Moore (2004).
dealing with governance and pro-poor growth to find out which linkages are considered in this literature and what the findings were.

4 What do cross-country studies tell us regarding the linkages between governance and pro-poor growth?

This review is limited to cross-country research that includes measures of governance as independent variables and focuses in the dependent variable on at least two of the three dimensions of pro-poor growth: poverty, inequality, or growth. Admittedly, none of the studies included in the review explicitly claimed to focus directly on the relationship between governance and pro-poor growth. Nevertheless, they provide an examination of the potential relationship between various measures of these two concepts. A more detailed description of each study can be found in Table A.1 of the Appendix.

4.1 Decision-making environment

A number of cross-country studies examine the link between the decision-making environment and growth (E-G in Figure 1). Dollar and Kraay (2000) use a sample of 92 countries and focused on the period from 1950 to 1999 to determine whether the policies and institutions traditionally associated with growth also have an impact on poverty. The rule of law indicator from the KK dataset is positively and significantly correlated with the growth in per capita incomes, although the magnitude of the correlation was quite low (see Table A.2). Kraay (2004) examines decomposed poverty changes for 58 countries into a growth and distributional component. The poverty changes were based on four measures: headcount poverty (P0), depth of poverty (P1), the poverty gap (P2), and the Watts index. He finds that rule of law is positively correlated with the growth component but also significantly with poverty-increasing shifts in relative incomes, leading Kraay to conclude surprisingly that “poverty-increasing distributional change is more likely to occur in countries with better institutional quality” (p.25). However, the association with the growth component is much larger, leading to net reductions in the poverty headcount. Similarly, Lopez (2004b) finds that the distribution of income could actually be exacerbated when the decision-making environment is less vulnerable to risk. Based on
growth and inequality panel data for 41 countries, he discovers that a better rating on the ICRG index is associated with greater inequality.

This contradicts Chong and Gradstein (2004) who examine the impact of political institutions on income inequality for 121 industrial and developing countries. They discover that both the ICRG and the rule of law indicators are negatively and significantly associated with various measures of inequality, including the Gini coefficient and the top, bottom, and middle quintile income shares. The political stability indicator not only demonstrates a similar relationship with income inequality but also exhibits the greatest influence of all of the variables from the KK dataset on inequality. For example, improvements in political stability are associated with a reduction of 0.081 in the Gini coefficient.

Studies that included dependent variables focused on poverty or broad measures of development likewise yield contradictory results. The analysis by Arimah (2004) shows that for a sample of 30 African countries, the political stability indicator from the KK dataset has a negative and statistically significant impact on reducing the percentage of the population below the national poverty line. This surprising result is supported in a study by Moore et al. (1999) that examines the political variables that are most effective in converting income into human development. In order to achieve this, the authors constructed for 61 developing countries over the 1980-1995 period a relative income conversion efficiency (RICE) index, which captures variations in the education and health components of a country’s Human Development Index (HDI). The ICRG index correlated negatively and significantly with the RICE index.

On the other hand, Dollar and Kraay (2000) also find that rule of law had a positive, albeit insignificant, relationship with the growth of the incomes of the poorest 20 percent

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9 The HDI is calculated annually by the United Nation’s Development Program. There are three elements of the HDI: life expectancy at birth; a combination of the adult literacy rate and the gross school enrollment ratios at the primary, secondary, and tertiary levels; and GDP per capita in purchasing power parity USD. After removing the GDP per capita element, Moore et al. (1999) calculated the difference between the actual level of the HDI and the level one would predict for a country on the based on its income per capita. The RICE index represents this difference.
of the population. Christiaensen et al. (2003) focus on poverty dynamics during the 1990s in a small sample of African countries and discovered that an improvement in the political component of the ICRG index was generally accompanied by reductions in the headcount poverty. For countries where political risk declined but poverty increased, including Madagascar, Nigeria, Zambia, and Zimbabwe, the authors speculate that other events, including macroeconomic instability and environmental shocks, played a larger role.

Overall, the rule of law indicator may have little impact on a more equitable income distribution but impact poverty reduction by stimulating growth. The political risk component of the ICRG index appears to provide few conclusive results. Indeed, it is associated with greater income inequality and lower human development outcomes but appears to be correlated with poverty reduction in a few African countries. These inconclusive and contradictory results probably reflect the inappropriate use of the ICRG index for analyzing poverty impacts. Indeed, confirming a concern mentioned in Section 2, it might indicate that the political factors that attract foreign investors are not necessarily indicative of a decision-making environment that actively includes the poor in the growth process (Moore et al 1999). Lastly, the finding that greater political stability is associated with higher poverty reflects the lack of adequate theory linking this variable with poverty outcomes (linkages C-E and E-D-F-G). An unstable political environment certainly reduces confidence and the credibility of government policy commitments. On the other hand, long-ruling, autocratic regimes can create political stability but may lack a developmental vision that promotes the interests of the poor. Indeed, this problem highlights that one shortcoming of the governance indicators included in these studies is that they do not capture the political orientation of the governments in power.

### 4.2 Political system

As postulated in the conceptual framework of Figure 1, the decision-making environment prevailing in a particular country is shaped by a country’s political system (Box C). Empirical research has shown that growth is associated with a wide range of political systems (Alesina and Perotti 1994; Moore and Putzel 1999; Potter 2002) but it is not
clear that the same is true with regards to poverty reduction. Achieving pro-poor outcomes often depends on whether the poor can effectively organize to influence policy (Klasen 2002). Notwithstanding the difficulties of collective action caused by information asymmetries and geographic isolation, the opportunity for the poor to actively influence policy is severely circumscribed under closed regimes that limit political participation and competition. Open and competitive political environments may not only empower the poor on their own behalf but also reduce inequality by diminishing the ability of the rich to lobby exclusively for policies in their own favor (Li et al. 1998; White and Anderson 2001).

As indicated above, governance indicators that refer to a political system’s degree of openness and participation include the civil liberties and political freedom indices by Freedom House and the voice and accountability index of the KK Dataset. The empirical results show that the choice of indicator as an independent variable matters, especially since the results are less consistent using the Freedom House indices than they are using the World Bank index. Specifically, Li et al. (1998) use a sample of 49 countries spanning the period from 1947 to 1994 and regress the civil liberties index onto various dependent variables capturing inequality, including the Gini coefficient, the real income of the top quintile of the population, and the real income of the bottom 80 percent of the population. They discover that improvements in civil liberties are positively and significantly associated with increases in the incomes of both the poor and the rich as well as a decrease in the Gini coefficient. Their study suggests that a one standard deviation decrease in the civil liberties index could lead on average to a 0.77 percent increase in the poor’s income and a 0.40 percent increase in the rich’s income.10 Similarly, Chong and Gradstein (2004) note that improved performance on the civil liberties and political freedoms index, as well as a simple average of the two, yields a significant and negative correlation with the Gini coefficient and the top, bottom, and middle income quintiles.

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10 As noted in the discussion on indicators in Section 2, the civil liberties and political freedom indices are constructed in such a manner that a higher score actually implies worse performance.
However, these two studies are contradicted by White and Anderson (2001), who analyze 143 growth episodes to determine which variables have the greatest impact on the share of incremental income received by the poorest 20 and 40 percent of the population as well as changes in their share of income. They discover that improvements in civil liberties show a negative and statistically significant correlation with the incomes received by the poor. In fact, a one standard deviation decrease in the civil liberties index results in a 0.13 percent decrease in the share of incremental income received by the poorest 40 percent of the population. On the other hand, they also find that a negative change that results in the deterioration of political freedoms is significantly correlated with a decrease in the share of income that accrues to the poor. The authors claim that this disparity may be because civil liberties provide a voice for well-organized interest groups while political freedoms are advantageous to a broader group of individuals. However, this explanation is not very satisfactory considering that greater examination of the variables that constitute the civil liberties and political freedom indices do not suggest this.11 Even more confusingly, they also find that civil liberties are positively associated with growth while political freedoms are negatively associated with it. Yet, neither governance variables is statistically significant in these growth regressions.

In order to assess the joint determinants of growth and inequality, Lundberg and Squire (2003) examine a sample of 125 countries and use both the Gini coefficient and GDP per capita in 1985 purchasing power parity (PPP) terms. They support the finding of Li et al. (1998) that a better rating in the civil liberties index is positively and, significantly associated with a reduction in the Gini coefficient. However, they contradict White and Anderson (2001) by showing that greater civil liberties are negatively, and in their case significantly, correlated with growth in per capita incomes. In particular, a one standard deviation decrease in the civil liberties index leads to a 0.56 percent decrease in the growth of per capita incomes.

11 Indeed, the political freedoms index is comprised of the following components: electoral process, political pluralism and participation, and functioning of government. The civil liberties components are: freedom of expression and belief, associational and organizational rights, rule of law, personal autonomy and individual rights (Freedom House 2003).
Freedom House’s civil liberties and the political freedom indices are, along with indicators from six other sources, integrated into the voice and accountability index of the KK Dataset. Research by Dollar and Kraay (2000) shows that the voice and accountability indicator is positively correlated with growth in the incomes of the poorest quintile of the population. While the relationship is significant at the ten percent level, the magnitude of the coefficient is quite small, such that a unit increase in a country’s voice and accountability indicator will lead on average to a 0.095 percent increase in the poor’s incomes. Likewise, in Arimah (2004), voice and accountability is negatively correlated with the percent of the population living below the national poverty line and is significant to the one percent level. When examining poverty spells, Kraay (2004) found that the voice and accountability indicator is positively correlated with the growth component of the poverty changes but also positively correlated with the poverty-increasing distributional component. Neither correlation, however, is statistically significant.

Altogether, these studies suggest that a more open political system is pro-poor in terms of increasing incomes and reducing the poverty headcount. Yet, they are less clear about what the intervening mechanism is, i.e. increased growth, improved equity, or both, that leads to such outcomes.

4.3 Policies and strategies
Although their role is crucial, the character of the political system and decision-making environment are superseded in the pro-poor growth literature by a focus on the optimal policies and strategies for achieving the joint objectives of growth, equity, and poverty reduction. We explore below the cross-country country findings in relation to three key areas: macroeconomics and trade, sectoral growth policies, and the provision of public goods.

Macroeconomics and trade:
Macroeconomic stability is already widely accepted as a crucial component of pro-poor growth (Klasen 2001). Among the studies included in this review, the impact of inflation
receives the most attention. The analyses by Lundberg and Squire (2003) as well as Lopez (2004b) indicate that lower inflation is negatively and significantly correlated with the Gini coefficient while positively and significantly correlated with growth. Thus, by increasing growth and reducing inequality, low inflation would presumably also be pro-poor. Dollar and Kraay (2002) confirm this assumption by showing that higher inflation is associated with a lower share of income that accrues to the poor, although the relationship is not significant. Using a broader measure of macroeconomic stability, namely an index that combines fiscal, monetary, and exchange rate policies, Christiaensen et al. (2003) find that the poverty headcount decreased in the African countries in their sample that experienced an improvement in this macroeconomic policy index.

The results are more ambiguous regarding trade openness. In Dollar and Kraay (2002), trade openness, measured as the ratio of exports plus imports to GDP, is correlated with growth and appears to be poverty reducing. Using the same measure, Kraay (2004) observes that trade openness is associated with reduced poverty through both its growth and distribution components. Yet, using the Sachs-Warner index, which captures a country’s exchange rate, tariffs, and non-tariffs barriers, Lundberg and Squire (2003) find that trade openness is positively and significantly related to both growth and the Gini coefficient. This implication of a potential trade-off between growth and inequality is also supported by Lopez (2004b) who measures trade openness as the volume of trade adjusted by a country’s size and population and according to whether it is landlocked and an oil exporter. Although these conflicting results are probably due to the use of different trade openness measures, they may also reflect that the impact of trade openness on the poor may vary according to the sectors in which the poor are concentrated. Moreover, some portions of the population better adjust during the process of trade openness. As such, examining the relationship between trade openness and inequality over the short- and long-term could add more insight about the dynamics of this variable. Lopez (2004b) did exactly this and found that while trade openness appears to increase poverty in the short-run, it is negatively correlated with poverty in the long-run.
**Sectoral investment policies:**

While growth is certainly a prerequisite for pro-poor growth, where and how the growth is generated is equally important. The enclave economies created by capital-intensive industries often provide few employment opportunities and bias the provision of infrastructure and services towards urban areas. If the economy’s growth is based on the extraction of oil and minerals, there are potentially other dangers. From an economic perspective, minerals growth can lead to the appreciation of the exchange rate and cause other sectors of the economy to become less competitive, i.e. the “Dutch Disease” effect. From a political standpoint, a country can deteriorate into a *rentier* state, or a political regime financed through income that it did not earn through its own efforts (Moore 2004). In other words, oil and mineral exports reduce the need for governments to collect taxes from their citizens. In theory, taxes often seal the “social contract” between governments and their citizens because citizens will not forfeit their money unless they are satisfied with how the government is using it. Rentier states have no accountability to their citizens and therefore, little incentive to improve their performance. Indeed, Moore *et al.* (1999) found that the contribution of mining and quarrying to GDP is negatively correlated with their RICE variable.

Leonard and Strauss (2003) note that agriculture too can exhibit elements of an enclave economy if production is concentrated among tree crops such as cocoa, coffee, and tea, which have high international prices relative to the labor costs involved in their production and require high levels of investment to bring the tree to maturity. Governments can more easily prey on the revenues of these crops because it is more difficult for cultivators to switch to other crops given their investments and the asset specificity of the tree crops.

Nevertheless, the fact that a majority of the world’s poor live in rural areas and rely on agricultural and non-farm activities for their livelihoods, a development strategy that promotes growth in the agricultural sector has been widely linked to pro-poor outcomes. Surprisingly then, only one study examined in this review empirically supports agriculture’s pro-poor impact. According to Dollar and Kraay (2000), agricultural
productivity is positively, though insignificantly, associated with growth in the incomes of the poorest 20 percent of the population. On the other hand, Kraay (2004) found that relative productivity in agriculture not only is uncorrelated with growth but also positively correlated with poverty-increasing measures of distributional change. White and Anderson (2001) also discover a negative but insignificant correlation between agricultural growth and both the change in share of income of the bottom 20 percent of the population as well as the share of incremental incomes received by the bottom 20 and 40 percent of the population.

Both studies admit that these results are surprising, and White and Anderson (2001) argue that the relationship between sectoral growth and the incomes of the poor will certainly be country-specific and not best captured in a cross-country framework. Indeed, the importance of agriculture in a country’s economy varies significantly across the world and therefore, the inclusion of countries from both the developed and developing world in the sample may lead to a negative impact on poverty. In addition, most of the poor in developing countries are concentrated in small-scale, subsistence agriculture, and there is no distinction of landholding size in the above studies.

**Provision of public goods:**
Since the private sector is nascent in many developing countries or lacks the incentive to invest in the poor areas where little or no profit is expected, the government is often the crucial actor in the provision of public goods. The studies included in this review focus on two elements of public goods provision: the impact of overall government spending as well as the benefits from the actual public goods.

Total government spending appears to be uniformly anti-growth in the three studies in which it was examined but, the impact on the poor is less clear. For Dollar and Kraay (2000), total government consumption is negatively associated at a statistically significant level with both growth and with growth in incomes of the poor. Interestingly, while Kraay (2004) also found a negative correlation between government consumption and growth, his study unveiled that government consumption appears to improve
distribution in a manner that reduces poverty. This echoes Lopez (2004b) where reductions in government spending correlate positively with income growth but negatively with inequality. These results are significant to the one percent level. Thus, it appears that high levels of government spending diminish growth but also shift the income distribution in a manner that is more pro-poor.

Obviously, the relationship between government spending, growth, inequality, and poverty depends on how the resources are actually allocated. Aggregating all government consumption together prevents a comprehensive understanding of which areas have the greatest pro-poor potential. Unfortunately, only two studies actually focused specifically on social expenditures and arrived at very different results. While Arimah (2004) finds that expenditures on health and education are positively correlated with reductions in poverty, Dollar and Kraay (2000) uncover a negative association between these expenditures and the income growth of the poor. They argue that this finding may indicate that the rich and middle class are more likely to benefit from these expenditures and therefore, the share of public spending devoted to social sectors does not accurately capture whether a government is pro-poor.

On the other hand, a key area for social expenditures, education, has been extensively studied with uniformly positive results. Both Arimah (2004) and Dollar and Kraay (2000) observe a positive correlation between primary schooling and poverty reduction, although the correlation is only significant in the former study. Nevertheless, Dollar and Kraay (2000) do note a positive and significant correlation between the number of years of secondary schooling per worker and growth. Measuring human capital as a log of gross secondary school enrollment, Lopez (2004b) finds the same results with growth as well as a positive and statistically significant relationship with reduced income inequality. Likewise, Lundberg and Squire (2003) discover that the number of years of schooling is negatively and significantly correlated with inequality.

Aside from the unsurprising results of Arimah (2004) that HIV/AIDS is negatively correlated with poverty reduction, the studies do not examine in any detail the growth-
inequality-poverty nexus associated with other social public goods, including health and welfare programs. Only Lopez (2004b) focused on infrastructure, or a non-social public good, and found that the number of per capita telephone lines is positively correlated with growth and negatively related to income inequality.

4.4 Natural Conditions and Socio–Economic System

When examining the impact of governance on pro-poor growth, it is important to control for differences in natural and socio-economic conditions across countries (Boxes A and B in Figure 1). In regards to natural conditions, only two studies examined the role of geography in pro-poor growth beyond the usual inclusion of dummy variables for each continent (see Table A.3). Arimah (2004) notes that landlocked African countries tend to be associated, at a statistically significant level, with a higher proportion of their populations living below the national poverty line and with a higher human poverty index.12 Moore et al (1999) find that if a country is located in West Africa, resources are converted into human development at a lower rate (i.e. RICE).

In relation to the socio-economic system, the studies included in this review devote particular attention to the size and characteristics of a country’s population. For instance, Moore et al (1999) note a negative correlation between high population density and RICE. While education policies are generally correlated with pro-poor growth, Li et al. (1998) also highlight that the initial level of secondary schooling is negatively correlated with inequality and positively correlated with growth in the incomes of both the poor and rich. Although the coefficient is larger for the poor than for the rich, one would expect that the magnitude of the impact would be even greater if the initial level of primary schooling was also included. Only the research by White and Anderson (2001) examines the role of ethnic heterogeneity on pro-poor outcomes. Indeed, this variable has been analyzed frequently in regards to its influence on growth (see Easterly and Levine, 1997).

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12 The human poverty index for developing countries is a composite of the following variables: probability at birth of not surviving until the age of 40, adult literacy rate, percentage of population without sustainable access to an improved water source, and percentage of children under weight for their age (UNDP 2004). This finding about landlocked countries echoes other studies, such as that by Gallup et al (1998), which show the negative impact of disadvantageous geographic conditions on economic growth.
which has led to conclusions that it plays a negative role. White and Anderson confirm that ethnic fragmentation is negatively, but insignificantly, correlated with growth. However, they also show that ethnic fragmentation is positively correlated with the share in incremental income that accrues to the poorest 40 percent of the population, and the relationship is significant to the 5 percent level. They argue that under conditions of ethnic fragmentation, the resources need to be widely distributed in order to avoid political instability.

Only one other aspect of the socio-economic system is given a cursory examination by the included studies: the stage of a country’s development, particularly in regards to initial income and inequality. Lopez (2004b) notes a significant and negative relationship between initial GDP per capita and inequality such that an increase in the initial income level results in a decline in the Gini coefficient with a magnitude of 0.438. Not surprisingly, White and Anderson (2001) find that a higher initial Gini coefficient is associated with a reduction in the share of incremental income that goes to the poorest two quintiles of the population. According to Lopez (2004b) and Dollar and Kraay (2000), inequality is negative for growth, although the relationship is insignificant in both studies. Besides income inequality, land inequality can certainly define the growth opportunities available to the poor. Indeed, Li et al. (1998) and Lundberg and Squire (2003) find that the Gini coefficient for land is negatively correlated with overall growth as well as with the incomes of the poor and rich and positively correlated with the Gini coefficient for income. Interestingly, when Lundberg and Squire interact the land Gini with only developing countries, they uncover a significant and positive relationship on growth but the magnitude is almost 0.

The conceptual framework of Figure 1 envisions that a country’s natural conditions and socio-economic system can directly affect pro-poor growth as well as indirectly by interacting through the decision-making environment, the political system, and policies and strategies. Only one study examined these indirect interactions. Specifically, Chong and Gradstein (2004) not only analyze the impact of political institutions on income inequality but also the reverse relationship. They discover that income inequality
actually plays a large role in the deterioration of political institutions, which suggests some important feedback mechanisms. Nevertheless, since few studies used the same variables to measure these dimensions, one cannot arrive at any definitive conclusions about the impact of natural conditions and the socio-economic system on pro-poor growth.

4.5 Summary

Examining the admittedly scant cross-country literature linking governance with pro-poor growth reveals some contradictory and even counterintuitive findings, affirming the claim by Lopez (2004a) that cross-country data regressions are “likely to be one of the weakest strands of the empirical literature on pro-poor growth” (p.11).

Table 1: Synthesis of the Correlations

<table>
<thead>
<tr>
<th>Dimension of Governance</th>
<th>Description</th>
<th>Growth</th>
<th>Equity</th>
<th>Poverty Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound Decision-Making Environment</td>
<td>Political stability, low possibility of political risk, and respect for the rule of law</td>
<td>+</td>
<td>-</td>
<td>?</td>
</tr>
<tr>
<td>Transparent Political System</td>
<td>Creating the space for civil liberties and political freedoms, as well as mechanisms for ensuring the accountability of public servants</td>
<td>?</td>
<td>?</td>
<td>+</td>
</tr>
<tr>
<td>Policies and Strategies</td>
<td>Macroeconomic Stability</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Trade Openness</td>
<td>+</td>
<td>?</td>
<td>+</td>
</tr>
<tr>
<td></td>
<td>Growth in Mining</td>
<td></td>
<td></td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Growth in Agriculture</td>
<td></td>
<td>-</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>High Government Spending</td>
<td>-</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>High Government Spending on Health and Education</td>
<td></td>
<td></td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>Promoting Education</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Notes: The question marks indicate that the included studies have shown both positive and negative relationships. Plus signs show a positive correlation while negative signs indicate a negative association with the corresponding element of pro-poor growth.
5 Discussion

This review highlights that despite the general assumption that good governance promotes pro-poor growth, there is relatively little evidence from cross-country research unequivocally confirming the linkages between these two concepts. This is not to deny that such a link exists but rather to identify the challenges faced by cross-country studies in understanding how these vaguely-defined concepts are linked. Below, the methodological challenges in these studies are addressed and recommendations for further research in this area are presented.

5.1 Methodological Challenges

Problems of Comparison:

Econometric studies typically suffer from biases created by omitted variables and the ubiquitous problem of endogeneity. Indeed, poverty dynamics not only are influenced by a number of factors that lie outside the realm of governance but also impact the decision-making environment and the political system. As the framework presented in Figure 1 suggests, the decision-making environment, political system, and policies/strategies may also be highly correlated with each other.

These challenges are compounded when assessing econometric studies in a comparative manner. The impact of governance on pro-poor growth undoubtedly varies across countries and over time. As Appendix 1 clarifies, the studies reviewed here range from including 42 countries to 193, from an Africa-only sample to samples that incorporate only one African country, from a period of five years to one of fifty. Moreover, no two studies use the same measurement for both governance and poverty or inequality, which more generally reflects the lack of consensus regarding how to define governance and pro-poor growth discussed in Section 2.
Interpreting Governance Indicators:

Despite the many differences among the studies, they all exclusively incorporate subjective governance indicators that are derived from expert polls or surveys. The benefits and disadvantages of subjective indicators, as opposed to objective ones, are critical because the choice of approach has significant implications for not only how governance is measured but also what a governance indicator is actually capturing. Implicit within subjective indicators are normative assessments about the most preferable types of governance. In some respects, this is a practical approach since for many dimensions of governance, only a few objective indicators are available for a small group of countries (Besançon 2003). This is especially true for those dimensions of governance, such as corruption, that are characterized by their illegality and therefore purposely not quantified (Kaufmann 2002; Kaufmann et al., 2003).

Subjective indicators may also better capture a government’s success at achieving certain outcomes since de facto and de jure performance may diverge significantly (Aron 2000; Kaufmann 2002). Simply because a country has written laws protecting property rights does not necessarily mean that they are enforced in practice, nor does the existence of elections indicate a functioning democracy. Moreover, objective measures may only capture a narrow element of government performance without providing a broader understanding of governance (Kaufmann et al., 2003).

However, in order to understand processes, which are related to the underlying factors and institutions that determine how rather than what outcomes are achieved, objective indicators may be preferable (Besançon 2003; Court, Hyden, and Mease 2002; Henisz 2001). One advantage of objective indicators is that they offer practical implications for policy (Besançon 2003). Indeed, while a subjective indicator may show that a country demonstrates extreme policy volatility, an objective indicator could reveal that this is due to a lack of checks and balances between various branches of government. Moreover, the choice and construction of objective governance indicators is often embedded in political and political economy theory while subjective indicators may instead reflect the biases or
client needs of the organizations that created them (Besançon 2003). This can diminish their legitimacy among developing country governments, who can in turn blame their poor rankings on Western imposed ideas of “good governance.”

Objective indicators are also usually more transparently constructed and therefore more easily replicated (Knack and Kugler 2002). It is difficult to replicate the construction of subjective indicators that are based on surveys since the respondents’ answers can vary according to their cultural and socioeconomic backgrounds (Court, Hyden, and Mease 2002). With both surveys and polls, there is always the possibility that answers are influenced by recent changes in growth, highly publicized political events, or hysteresis, i.e. countries cannot escape past perceptions of their performance (Aron 2000).

Lastly, subjective indicators are more amenable to aggregation than objective ones. On the one hand, this helps reduce the impact of idiosyncratic factors and provides a more accurate view of governance within a country than each of its component variables (Kaufmann, Kraay, and Mastruzzi 2003). Yet, as Keefer (2004a) notes, aggregation only makes sense “if all good things go together,” and in many cases, they do not. From a policy standpoint, improving governance requires addressing each of its components separately and understanding which components deserve priority, a step that can be hindered by aggregation (Besançon 2003; Keefer 2004a).

The problems caused by aggregating indicators are well reflected in this review. For instance, why does improving voice and accountability appear to increase the incomes of the poor? And why do some studies find this is not the case when two components of the voice and accountability index, civil liberties and political freedom, are examined separately? These ambiguities are often exacerbated by the mixture of inputs and outcomes in these indicators. The ICRG’s political risk component, for example, includes among other variables the extent of the military in politics, ethnic tensions, democratic accountability, and bureaucratic quality. All three variables influence each other but by aggregating them together, there is little understanding of where trade-offs exist among them.
5.2 Areas for further research

In spite of the methodological challenges inherent in such research, cross-country studies on governance and pro-poor growth are a worthwhile undertaking. There are, however, opportunities to make such research more policy-relevant and to offer greater understanding of how these two concepts are related.

Linking Political Systems and Policies:

The studies included in this review focus on how Boxes C, E, and F each separately affect pro-poor growth without examining their interaction with the political process (Box D). Political processes implicitly are dynamic phenomena that are difficult to capture with static methods but, theory and cross-country research in political economy offers some preliminary ideas about how to understand the links between the political institutions and policy choices.

For example, there is a growing literature on whether and how autocracies and democracies vary in regards to their spending on and provision of public goods. Deacon (2002) claims that economic and political resources are more likely to be concentrated amongst a small elite in autocracies, and this elite will have few incentives to use their resources to fund public goods that benefit the broader populace. Using data on autocracies and democracies from Polity IV, he finds that democracies tend to provide significantly more roads, schools, safe water, and sanitation facilities than autocracies.13

13 Polity IV is a dataset compiled by the Center for International Development and Conflict Management at the University of Maryland, College Park that assesses the extent to which a democracy is institutionalized. Based on historical, social science works, and national constitutions, Polity IV calculates indicators of democracy and autocracy on a 0 to 10 score where 10 indicates a high degree of that system and 0 a low degree. By subtracting the autocracy score from the democracy one, a polity score can be derived ranging from -10 to 10. The dataset also examines the durability of the polity according to the number of years since the last transition as well as the regulation, competitiveness and openness of executive recruitment; the regulation and participation in the political system; and the level of constraints on the executive (Marshall and Jaggers 2002). Currently, the Polity IV dataset covers 161 countries from 1800 to 2003.
On the other hand, Keefer and Khemani (2003) note that while the median voter theorem would predict broad social service provision in democratic developing countries where a majority of the population is poor, the reality is much different. They highlight three factors that explain this phenomenon: information asymmetry among voters, identity-based voting caused by social fragmentation, and the difficulty of discerning the credibility of political promises to citizens. Mulligan et al. (2004) substantiates these assumptions by also using the Polity IV database and analyzing panel data for 142 countries divided between two periods, 1960-1974 and 1975-1990. They find no difference between democracies and autocracies in relation to their total government consumption, education spending, and social spending, such as on pensions and social security programs.

The heterogeneity among democracies, especially in regards to electoral institutions, might partially explain these divergent findings. Based on panel data for approximately 61 countries between 1960 to 1998 and using social security and welfare spending as either a percentage of GDP or as a ratio to spending on goods and services, Persson (2002) finds that both presidential regimes and majoritarian electoral systems are correlated with lower government spending than parliamentary regimes and proportional electoral systems.

Further political economy research that focuses on how to achieve the policies and strategies that have been shown to be pro-poor would offer important insights on governance processes. This would also involve integrating into the cross-country research more objective indicators that, as noted above, capture process much better than subjective ones that assess performance. One source of these indicators is the Database of Political Institutions, which contains for 177 countries 108 variables related to elections, election rules, the type of political system, level of military influence on the government, measures of checks and balances, political stability, and composition of ruling and opposing government coalitions. As such, it can assist with analyzing the political institutions conducive to development and the conditions under which such institutions emerge (Beck et al 2001).
It is important to note, however, that political economy models also face limitations in terms of capturing the role that differences in education, ethnicity, religion, and culture, play in determining political processes. Moreover, the power of ideas, such as political ideologies and public discourse, are not adequately captured in models focusing on political institutions. In addition, incorporating political economy models on political systems and policy into cross-country analyses that ultimately aim to explain pro-poor growth will certainly pose even more methodological challenges than those highlighted above.

*The Role of External Actors:*

Besides exploring political economy approaches to understand political processes, there is also scope for examining the diversity of actors influencing the political system. In particular, the studies reviewed here tend to focus on how governments alone should achieve pro-poor growth, and the subjective indicators they use predominantly are intended to assist donors in allocating resources to well-governed countries and to help investors avoid volatile portfolios.

There is little examination of how external actors, such as donors and foreign investors, impact the behavior of national governments and in turn, indirectly influence the opportunity for pro-poor outcomes. Yet, there is growing evidence that they play a role. For instance, Moore *et al.* 1999 show that foreign aid as a share of GNP reduces RICE, and Leonard and Strauss (2003) argue that foreign aid can contribute to the same negative effects often associated with enclave economies by reducing government’s accountability to their citizens. Knack’s (1999) cross-country analysis likewise reveals that higher levels of foreign aid, even after controlling for income levels, erode the quality of political institutions. Similarly, while the private sector can be adversely affected by unpredictable decision-making environments and weak political institutions, it can also contribute to these problems (Kaufmann 2003). Examining how the quality of governance is affected by external actors offers a fruitful area for future research.
and exploring how to make research on governance and pro-poor growth more relevant for policy-makers in terms of identifying priority areas for intervention.

*Grouping Countries with Similar Constraints and Opportunities:*

Cross-country analyses that distinguish *ex-ante* among countries with similar characteristics and uncover priority areas that are specific to a country’s economic or political development level represent another avenue for potential research. Indeed, Kaufmann (2003) highlights that the priorities for mature democracies will vary quite substantially from those that are quite young. Grindle (2004) advocates examining the governance needs for achieving poverty reduction and growth by dividing developing countries into collapsed states, poor but stable countries, and emerging market economies. In addition, innovative approaches in econometrics could be incorporated to examine thresholds and non-linearities in the development process and thereby help address sequencing issues.¹⁴

### 6 Conclusions

The concepts of governance and pro-poor growth in relation to developing countries are not necessarily new. Indeed, during the early post-colonial period, numerous theories emerged about the relationship between political systems and economic growth, which continue to be debated and researched today. Likewise, the notion of “redistribution with growth” in the 1970s highlighted that without ameliorating inequality, growth alone would only benefit a narrow segment of the population. Various studies subsequently explored whether and how growth and inequality affect each other.

Yet, these topics have recently re-emerged in a more nuanced fashion. “Governance” is no longer confined to debates over democracy and authoritarianism but rather concerned

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¹⁴ Zhang (2004) offers a useful example of this approach. Using household data from Uganda, Zhang found that there is a threshold level of security below which public investments in infrastructure and education have little impact on growth.
with, among other things, the interaction between different stakeholders within the state, policy processes, and the evolution and maintenance of political institutions. Hundreds of indicators, both subjective and objective, have emerged to capture these new conceptualizations. Similarly, the pro-poor growth literature has helped focus attention on the importance and measurement of the growth-inequality-poverty nexus as well as the distinction between relative and absolute notions of pro-poor growth.

Despite the importance of governance and pro-poor growth on the current development agenda, however, there have been few attempts thus far to comprehensively explore their interactions with each other. As a result, a majority of the pro-poor growth discourse remains embedded in an apolitical framework, focusing predominantly on which policies should be pursued rather than on the political institutions that best foster these policy outcomes. On the other hand, the good governance literature does not adequately distinguish between which aspects of governance are conducive to growth and which determine whether the poor are capable of participating in the growth process. As a result, Grindle (2004) notes that there is little understanding of what should be the governance priorities if poverty alleviation is the objective: “Among the governance reforms that ‘must be done’ to encourage development and reduce poverty, there is little guidance about what’s essential and what’s not, what should come first and what should follow, what can be achieved in the short term and what can only be achieved over the longer term, what is feasible and what is not” (p.526).

This review examined a small sample of empirical studies that, while not exclusively focused on uncovering the relationship between governance and pro-poor growth, offer a number of important insights about the challenges of such an undertaking. In particular, countries are at different economic and political stages of development, and there is a lack of theory regarding the time lags and direction of causality between good governance and pro-poor growth. Moreover, the lack of consensus over the definition and measurement of both governance and pro-poor growth precludes arriving at any concrete conclusions from a comparative analysis. Indeed, the studies reviewed here
often yielded counterintuitive and, when compared with each other, even contradictory results.

The definitional ambiguity regarding governance is reflected in the choice of indicators (subjective versus objective, aggregated versus non-aggregated) used as explanatory variables and, in turn, affect the overall policy relevance of these studies. Specifically, by using aggregate indicators that capture governance outcomes, it is difficult to discern from these studies how such outcomes are achieved and which aspects of governance are most important. Although they pose additional methodological challenges, political economy models that incorporate objective, process-oriented indicators are a promising approach for understanding how the political system affects policy choices and ultimately pro-poor growth. Likewise, integrating more disaggregated indicators that focus on specific aspects of governance, such as freedom of the press or the form of democracy, would highlight which components of the good governance concept are most conducive to pro-poor growth.

Ultimately, however, arriving at a more comprehensive understanding of the linkages between governance and pro-poor growth involves combining cross-country regressions with micro-level analyses, case studies, and historical narratives (Grindle 2004; Kraay 2004). This is particularly important since the notion and relevance of good governance varies according to the socio-cultural and political contexts prevailing in a particular country or community. Case studies can in turn inform the choice of structure and variables included in cross-country research. Otherwise, “good governance” and “pro-poor growth” will remain donor buzzwords describing the goals of international development initiatives but whose relationship with each other is actually poorly understood.

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15 For example, David Laitin (2002) advocates the tripartite method in the sub-field of comparative politics. This method uses formal theory and narratives to complement statistical analyses.
References


http://www.cidcm.umd.edu/inscr/polity


Lopez, J.H. 2004a. "Pro-Poor Growth: a review of what we know (and of what we don't)." World Bank: Washington, DC.


## Appendix

### Table A.1: Cross-country studies examining dimensions of governance and pro-poor growth

<table>
<thead>
<tr>
<th>Source</th>
<th>Objective and Methodology</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Arimah, Ben C. 2004. “Poverty Reduction and Human Development in Africa,” <em>Journal of Human Development</em>, Vol. 5, No.3: 399-415.</td>
<td>Analysis of how different variables commonly associated with promoting development impact poverty across approximately 33 African countries. The dependent variable, poverty, is measured in three ways: percent of population below the national poverty line, percent below the international poverty line, and the human poverty index. The independent variables include expenditures on health and education, primary school enrollment, HIV/AIDS, economic growth, voice and accountability, and political stability.</td>
<td>The social expenditures have a positive impact on reducing poverty levels, and this finding is significant for education expenditures. HIV/AIDS has a negative and statistically significant impact on reducing poverty levels. While voice and accountability has a positive and statistically significant impact on reducing poverty levels at the national level, political stability actually has a negative and statistically significant impact on reducing poverty levels at the national level. The author attributes this counterintuitive result to the fact that there is high correlation between the political stability and voice and accountability indicators.</td>
</tr>
<tr>
<td>2. Chong, A. and M. Gradstein. 2004. “Inequality and Institutions,” Working Paper No.506, Inter-American Development Bank: Washington, DC.</td>
<td>Using vector autoregressions in a panel setting, this study focuses on the linkages between political institutions and income inequality for 121 countries. Gini coefficients proxy for inequality while the six indicators in the KK dataset, the ICRG, civil liberties and political freedom indices, and country credit ratings are used to measure political institutions. Regardless of the measure of political institutions used, the authors discover that poor institutions and income inequality reinforce each other. In fact, the impact of inequality on institutions is actually greater than the reverse direction of causality. The political stability indicator from the KK dataset appears to play the largest role in both cases, i.e. it is the variable that has the largest influence on inequality and the one that deteriorates the most the more unequal the income. Moreover, the impact of income distribution on political institutions is greater in developing countries than industrialized ones.</td>
<td></td>
</tr>
<tr>
<td>3. Christiaensen, L., Demery, L., and S. Paternostro. 2003. “Macro and Micro Perspectives of Growth and Poverty in Africa,” <em>The World Bank Economic Review</em>, Vol. 17, No.3: 317-347.</td>
<td>Combines macro economic and policy/institutional data with household survey data from the 1990s for Ethiopia, Ghana, Madagascar, Mauritania, Nigeria, Uganda, Zambia, and Zimbabwe to uncover correlations with poverty reduction. The macroeconomic index draws on Bouton et al 1994 and combines fiscal, monetary,</td>
<td>They find that the poverty headcount (P0) decreased in countries that also experienced an improvement in their macroeconomic policy score. The two exceptions are Zambia and Zimbabwe, which experienced an increase in poverty despite improvements in macro-policy and which might hint at the time-lag between implementing reforms and ensuring that they are not reversed. They also find that P0 decreased in those countries that experienced an improvement in their</td>
</tr>
<tr>
<td>Source</td>
<td>Objective and Methodology</td>
<td>Main Findings</td>
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<tr>
<td>--------</td>
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<tr>
<td>and exchange rate policies. The policy/institutional data is based on the ICRG index.</td>
<td>political risk score. For those that didn’t experience a P0 decrease despite improvements, other factors such as droughts played a role.</td>
<td></td>
</tr>
<tr>
<td>4. Dollar, D. and A. Kraay. 2000. <em>Growth is Good for the Poor</em>. Macroeconomics and Growth Working Paper 2587. Washington, DC: World Bank.</td>
<td>There is a one-to-one relationship between the growth in mean incomes and the growth of poor incomes. Moreover, the policies and institutions that promote growth also benefit the poor. Specifically, secondary education, financial development, and rule of law are all positively and significantly associated with growth while inflation and government consumption are negatively associated with growth, with only the latter statistically significant. Among the variables traditionally associated with poverty reduction, primary education, agricultural productivity, and voice &amp; accountability are positively associated with growth in the incomes of the poor, with only the latter statistically significant at the 1% level.</td>
<td></td>
</tr>
<tr>
<td>Uses income and inequality data for 92 countries between 1950-1999, the authors examine the impact of growth in per capita incomes on the incomes of the poor, who are defined as the poorest 20% of the population (bottom quintile). Then, they examine whether the policies and institutions associated with growth also have an impact on poverty. Thus, they include inflation, government consumption, exports and imports relative to GDP, financial development, and rule of law as independent variables in bivariate regressions. In order to determine whether certain policies considered pro-poor have a greater impact on the incomes of the poor, they also analyze bivariate relationships using primary education, agricultural productivity, total government consumption, social spending, and voice &amp; accountability.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Kraay, A. 2004. “When is Growth Pro-Poor? Cross-Country Evidence.” World Bank Policy Research Working Paper 3225, Washington DC.</td>
<td>Uses poverty surveys to look at short- and long-term poverty spells that cover 58 countries. He then proceeds with univariate regressions where the dependent variables are the distribution component of change in growth, the Gini, and in P0, P1, P2, and Watts poverty measures. The independent variables include rule of law, CPIA, openness to international trade, inflation, the size of government, the ratio of M2 to GDP, voice and accountability, relative productivity in agriculture,</td>
<td></td>
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<td></td>
<td>Between 60 and 95 percent of poverty changes are due to growth in average incomes. In the short-term, however, changes in income distribution are relatively more important. In the univariate regressions, most of the variables were insignificant. Nevertheless, the general pattern is that rule of law as well as voice and accountability are both positively correlated with growth and with distributional changes (this means that they are correlated with poverty-increasing shifts in relative incomes). Openness to international trade has a positive correlation with growth and correlated with more poverty-reducing shifts in incomes.</td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Objective and Methodology</td>
<td>Main Findings</td>
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<tr>
<td>--------</td>
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<tr>
<td>and primary educational attainment.</td>
<td>Government consumption is negatively correlated with growth and negatively correlated with distributional change (meaning more poverty-reducing). Relative productivity in agriculture is uncorrelated with growth but tends to be positively correlated with distributional change (i.e. more poverty-increasing).</td>
<td></td>
</tr>
<tr>
<td>This article’s objective is to examine factors that influence inequality. The political economy literature emphasizes that the rich have the resources to lobby for policies that benefit themselves. The capital imperfections literature stresses that credit constraints prevent the poor from making productive investments and exacerbate inequality. Thus, using data for 49 countries over the period from 1947 to 1994, the dependent variables are alternatively the Gini coefficient, the real income of the top quintile of the population, and the real income of the bottom 80 percent of the population. To examine the political economy argument, they use the civil liberties index and level of secondary schooling and for the capital imperfections argument, they use land inequality and financial market development as explanatory variables.</td>
<td>Financial development is negatively related to income inequality and land inequality is positively related to future income inequality. Years of schooling and high levels of civil liberties are both negatively related to income inequality. All of these correlations are statistically significant. They confirm these findings with their alternative dependent variables. Indeed, years of schooling, financial development, and improvements in civil liberties are positively and significantly correlated with the rich’s income. Land inequality is not significant for the rich. For the poor, years of schooling, improvements in civil liberties, and greater financial depth are also positively correlated with income. However, land inequality is negatively and significantly correlated with income. Thus, for both rich and poor, years of school, civil liberties, and financial depth are associated with greater income growth and lower inequality. Land inequality is associated with greater inequality, particularly since it reduces the incomes of the poor.</td>
<td></td>
</tr>
<tr>
<td>The goal of this paper is to assess whether policies that are pro-growth are also pro-poor. Using growth and inequality panel data for 41 countries, the author examines differences in the impact on growth and changes in the Gini coefficient caused by the following independent variables: human capital, financial development, government burden (log ratio of government consumption to GDP), infrastructure, the political risk component of the</td>
<td>Human capital, infrastructure, and low inflation both promote growth and reduce inequality. The ICRG however seems to increase inequality, which he speculates might be because once he controls for policies, the level of inequality is not related to the level of governance. Financial development, trade openness, and reductions in government spending appear to lead to faster growth but also increase inequality. Using growth-poverty elasticities, he finds that while these three policies might not be poverty reducing in the short-run, they are in the long-run. However, he claims that political economy constraints</td>
<td></td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Source</th>
<th>Objective and Methodology</th>
<th>Main Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. Lundberg, M. and L. Squire. 2003.  “The Simultaneous Evolution of Growth and Inequality,” <em>The Economic Journal</em>, Vol. 113: 326-344.</td>
<td>The objective of this paper is to uncover joint determinants of growth and inequality. Using data on inequality for 125 countries and on GDP per capita in 1985 PPP terms, they examine the impact of the following independent variables: share of government consumption, trade openness (Sachs Warner index), years of schooling, civil liberties, land distribution, and an interaction term between land distribution and a dummy for developing countries. They run a number of different regression forms, ranging from base, structural, and reduced-form models.</td>
<td>In general, they find that improving land inequality, reducing inflation, and improving education are correlated with both higher growth and lower inequality. However, greater trade openness is correlated with higher growth and higher inequality. On the other hand, increases in civil liberties are correlated with greater equality but lower growth.</td>
</tr>
<tr>
<td>9. Moore, M., Leavy, J., Houtzager, P., and H. White. 1999.  “Polity Qualities: How Governance Affects Poverty,” IDS Working Paper 99, University of Sussex: Sussex, England.</td>
<td>This paper examines which political variables are most effective in converting income into human development. Using data for 61 developing countries over the period 1980-1995, the authors construct an index called RICE (relative income conversion efficiency), which represents the difference between the actual level of the HDI (with GDP removed) and the level one would predict for a country on the basis of its income per capita (with 1995 as the base year). RICE was used as a dependent variable and it was regressed on five main independent variables: population density, contribution of mining/quarry to GDP, ratio of aid to GNP, quality of government institutions (ICRG), and Africa-related dummies.</td>
<td>They find that minerals as a share of GDP is negatively and significantly correlated with RICE. Aid as a share of GNP was also negative and sometimes significant. Surprisingly, the higher quality of institutions scored according to ICRG correlated negatively with RICE.</td>
</tr>
<tr>
<td>10. White, H. and E. Anderson. 2001.  “Growth versus Cross-country regressions for 143 growth episodes to examine which variables impact changes in...</td>
<td>The higher the initial Gini, the less the poor benefit from growth. There are apparent trade-offs between growth and distribution. More</td>
<td></td>
</tr>
<tr>
<td>Source</td>
<td>Objective and Methodology</td>
<td>Main Findings</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Distribution:  Does the Pattern of Growth Matter?&quot; Development Policy Review, vol. 19, no.3: 267-289.</td>
<td>income inequality (based on shares of income and changes in shares of income). Main explanatory variables included GDP per capita growth, Gini coefficient, civil liberties, political rights, ethnic fragmentation, annual inflation, and trade openness. The authors also examine sectoral patterns of growth.</td>
<td>civil liberties tend to have a less pro-poor impact while more political freedom tends to have a more pro-poor impact. Ethnic fragmentation appears to increase the poor’s participation in the growth process. Agricultural growth tends to be less pro-poor while the opposite is true for growth in the service sector.</td>
</tr>
</tbody>
</table>
Table A.2: Examining the Magnitude of Governance Variables on Dimensions of Pro-Poor Growth

<table>
<thead>
<tr>
<th>Source</th>
<th>Explanatory Variable</th>
<th>Dependent Variable</th>
<th>Magnitude and Direction of Coefficient</th>
<th>Statistically Significant?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Population on less than 1USD per day</td>
<td>9.12</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human Poverty Index</td>
<td>-0.937</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Political Stability</td>
<td>Population below national poverty line</td>
<td>13.972</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Population on less than 1USD per day</td>
<td>-4.59</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human Poverty Index</td>
<td>-0.347</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ratio of Top to Bottom Quintiles</td>
<td>-0.2986</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Income Share of Middle Quintile</td>
<td>0.4238</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Gastil Index of Liberties</td>
<td>Gini</td>
<td>-0.1859</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ratio of Top to Bottom Quintiles</td>
<td>-0.1177</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Income Share of Middle Quintile</td>
<td>0.1815</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>ICRG Political Risk Index</td>
<td>Gini</td>
<td>-0.4393</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ratio of Top to Bottom Quintiles</td>
<td>-0.3718</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Income Share of Middle Quintile</td>
<td>0.4225</td>
<td>Yes</td>
</tr>
<tr>
<td>3. Dollar and Kraay (2000)</td>
<td>Rule of Law</td>
<td>Growth</td>
<td>0.18</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incomes of the poorest 20%</td>
<td>-0.032</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Voice and Accountability</td>
<td>Incomes of the poorest 20%</td>
<td>0.095</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change in Gini</td>
<td>0.002</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Distribution component of change in poverty headcount</td>
<td>0.016</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Voice and Accountability</td>
<td>Growth</td>
<td>0.002</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change in Gini</td>
<td>0.006</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Distribution component of change in poverty headcount</td>
<td>0.003</td>
<td>No</td>
</tr>
<tr>
<td>Source</td>
<td>Explanatory Variable</td>
<td>Dependent Variable</td>
<td>Magnitude and Direction of Coefficient</td>
<td>Statistically Significant?</td>
</tr>
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<td>--------</td>
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<td>----------------------------------------</td>
<td>--------------------------</td>
</tr>
<tr>
<td>5. Li, Squire, and Zou (1998)</td>
<td>Civil Liberties Index (A higher index value indicates worse performance)</td>
<td>Gini coefficient</td>
<td>1.61</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incomes of poorest 20%</td>
<td>-0.77</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Incomes of richest 80%</td>
<td>-0.4</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change in log of Gini coefficient</td>
<td>0.006</td>
<td>Yes</td>
</tr>
<tr>
<td>7. Lundberg and Squire (2003)</td>
<td>Civil Liberties Index (A higher index value indicates worse performance)</td>
<td>Growth</td>
<td>0.567</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gini coefficient</td>
<td>1.3207</td>
<td>Yes</td>
</tr>
<tr>
<td>8. Moore et al (1999)</td>
<td>ICRG Political Risk Index (A higher index value indicates worse performance)</td>
<td>RICE</td>
<td>-0.02</td>
<td>Yes</td>
</tr>
<tr>
<td>9. White and Anderson (2001)</td>
<td>Civil Liberties (A higher index value indicates worse performance)</td>
<td>Change in share of income for poorest 40%</td>
<td>0.001</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Share of incremental income received by poorest 40% of pop</td>
<td>0.134</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Political Freedom (A higher index value indicates worse performance)</td>
<td>Share of incremental income received by poorest 40% of pop</td>
<td>-0.103</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td>Change in Political Freedom</td>
<td>Change in share of income for poorest 40%</td>
<td>-0.006</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change in share of income for poorest 20%</td>
<td>-0.002</td>
<td>No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Share of incremental income received by poorest 40% of pop</td>
<td>-0.464</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Share of incremental income received by poorest 20% of pop</td>
<td>-0.069</td>
<td>No</td>
</tr>
</tbody>
</table>

Notes:  
1 This is an aggregation of KK’s 6 dimensions of governance.  
2 This is an average of Freedom House’s civil liberties and political freedoms indices. The authors transformed it such that higher ratings correspond with better performance.  
3 The authors transformed this index such that higher ratings correspond with better performance.
### Table A.3: The Role of Natural and Socio-Economic Conditions on Pro-Poor Growth

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Variable</th>
<th>Finding</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geography</td>
<td>Landlocked</td>
<td>Positive and significant correlation with the percentage of the population living below the national poverty line</td>
<td>Arimah (2004)</td>
</tr>
<tr>
<td></td>
<td>Dummy for country’s location in West Africa</td>
<td>Negative and significant correlation with a country’s ability to convert resources into human development outcomes</td>
<td>Moore et al (1999)</td>
</tr>
<tr>
<td>Population</td>
<td>Population Density</td>
<td>Negative and significant correlation with a country’s ability to convert resources into human development outcomes</td>
<td>Moore et al (1999)</td>
</tr>
<tr>
<td></td>
<td>Ethnic Fragmentation</td>
<td>Positive and significant relationship to the change in the share of income received by the poorest quintile and the share of incremental income received by the poorest 40 percent of the population</td>
<td>White and Anderson (2001)</td>
</tr>
<tr>
<td></td>
<td>Initial Years of Schooling</td>
<td>Negative and significant association with the Gini coefficient as well as a positive and significant association with an increase in the incomes of both the rich and the poor</td>
<td>Li, Squire, and Zou (1998)</td>
</tr>
<tr>
<td>Stage of Development</td>
<td>Initial GDP per capita</td>
<td>Negative and significant correlation with inequality</td>
<td>Lopez (2004)</td>
</tr>
<tr>
<td>Dimension</td>
<td>Variable</td>
<td>Finding</td>
<td>Source</td>
</tr>
<tr>
<td>---------------</td>
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</tr>
<tr>
<td></td>
<td><em>Initial Gini</em></td>
<td>Negative and significant relationship with the share of incremental income that accrues to the poorest quintile</td>
<td>White and Anderson (2001)</td>
</tr>
<tr>
<td></td>
<td><em>Land Gini</em></td>
<td>Positive and significant association with the Gini coefficient and a negative and significant correlation with the incomes of the poor and the rich</td>
<td>Li, Squire, and Zou (1998)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Negative and significant correlation with growth; Positive but insignificant relationship with the income Gini coefficient</td>
<td>Lundberg and Squire (2003)</td>
</tr>
<tr>
<td></td>
<td><em>Land Gini x Developing Country</em></td>
<td>Positive and significant relationship with both growth and the Gini coefficient</td>
<td>Lundberg and Squire (2003)</td>
</tr>
</tbody>
</table>