

**Understanding Economic Growth in Specific Contexts:
An Overview of the First Phase of Global Research Project "Explaining Growth"**

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1. Introduction

This chapter provides an overview of Phase 1 of the Global Research Project "Explaining Growth" (GRP) initiated by the Global Development Network (GDN). The project aimed at enhancing research on economic growth in developing countries through local capacity building. Phase 1 provided frameworks and background reviews for country studies in the second phase. This chapter highlights and synthesizes the key results of various growth themes examined by Phase 1 papers and draws their connections and general lessons.¹

A key observation that emerges from the framework papers of Phase 1 is that while growth regressions have established some broad and important regularities, there are gaps and ambiguities in their results, especially concerning the role of various policies in each setting. Among the major cross-cutting issues that emerge from the framework papers are the role of risk, competition, and the extent of government controls on the economy. In these and many other areas, the papers find that interactions among numerous factors make the impact of many policies and other variables ambiguous and context specific. The presence of this complexity calls for detailed case studies of individual countries along with improvements in the methodology of cross-country regressions to take better account of structural and dynamic aspects. The observation also highlights the importance of capacity building in developing countries to allow them to come up with self-correcting policymaking processes that steer policies in right direction under complex and dynamic conditions. Phase 2 of GRP has followed these implications and has contributed to the capacity building objective by organizing local researchers in developing countries to carry out case studies of their countries in collective effort.

Section 2 of this chapter presents a brief outline of the process of GRP and the approaches taken in its two phases. Section 3 focuses on the outcome of Phase 1 and reviews the themes examined in that phase. Section 4 concludes by discussing the main results and implications of Phase 1 studies.

¹ The initial chapter was written in January 2003, shortly after the end of Phase 1 of GRP. Most of the ideas behind the project or emerging from it have found expression or been echoed in other research. McMahon and Squire (2003) offer a detailed report on that phase of the project. For related ideas and further discussions and references, see Rodrik (2005, 2007, and 2008). It is still worthwhile to review and synthesize the ideas behind GRP both as a background to the current volume and as a framework for further thinking about different approaches to the analysis of economics growth.

2. Outline of the GRP Approach

The dominant empirical methodology for the study of economic growth during the 1990s was cross-country regression. The methodology managed to establish some regularities about the concomitants of economic growth, such as high investment rates, low inflation, and "good institutions." However, most of these variables were broad measures and typically contained many components that could have different effects and some were endogenous to the growth process. When more explicit measures of the components were employed in the regressions, the main regularity was that the effects were not clear-cut. The results seemed context specific, but it was difficult to specify all the relevant details of the context and estimate all the interactions. This problem became particularly evident when it came to deriving policy implications given circumstances. It turned out that there were few general policy lessons and in most cases the best choices depended on the situational details, whose interactions with policies were not well understood. Concerns about these weaknesses gave rise to the idea of the GRP.

To initiate a remedy for this situation, GDN launched the GRP as a multi-country, decentralized project where broad analytical frameworks could be developed at the regional level (Phase 1) and detailed case studies could be carried out at the country level to shed light on the interactions of economic policies and country conditions (Phase 2). The regional frameworks in Phase 1 were envisioned as general guidelines, rather than binding instructions, to ensure flexibility for country authors in Phase 2. The idea was to provide reviews of the issues and existing knowledge to prepare the ground for generating ideas at the country level. This allowed country studies to reflect their own situations and enrich the debate over the causes of differential growth rates across countries and over time. The design of the GRP also created an opportunity for growth research on each country to be conducted locally, building local capacity to rethink growth issues and to offer fresh ideas about what needed to be done in each specific context.

To go beyond the role of broad measures and generalities, the GRP gave much more weight to the study of detailed issues and specific policies, compared to the past growth literature. This was achieved by dividing the activities in Phase 1 into four major themes. One theme was devoted to summarizing the existing literature on the cross-country analysis of sources and determinants of aggregate growth. In contrast, the second theme was fairly novel from the point of view of empirical literature—the role of microeconomic agents in the growth process. This theme was to explore how households and firms responded to policies and market conditions in their choices concerning saving, investment, education, and employment. The third theme considered the growth consequences of market institutions and policies, which shaped the environment for the micro agents. The final theme looked at the next level—namely, the political economy arena where policies and rules affecting growth are made. Issues

concerning the political economy of growth have been considered extensively in the literature, but often in isolation. In the context of the GRP, the political economy framework served as an integrating role and offer explanations for the patterns found by the other three themes. The question was why countries pursued the particular policies that they did, even when such policies were patently inefficient and harmful to growth.

The implementation of the GRP was started by the African Economic Research Consortium, which commissioned the first set of Phase 1 thematic papers for the countries in Sub-Saharan Africa (SSA). Five other regional development networks in East Asia and the Pacific (EAP), South Asia (SA), Latin America and the Caribbean (LAC), Middle East and North Africa (MENA), and Central and Eastern Europe and Former Soviet Union (CEE-FSU) soon followed suit by inviting economists from their regions to author thematic papers. The results of these endeavors were four papers from each of the six regions, which were presented in June 2000 in a conference in Prague. Following the conference, GDN decided to produce thematic overview papers that brought together the ideas examined in the regional papers. Two authors from each set of regional thematic papers were selected to write the overview paper for their theme. The resulting four papers together with an introductory chapter by Gary McMahon and Lyn Squire, a concluding chapter by Lant Pritchett, and a forward by Robert Solow became a volume, McMahon and Squire (2003), that embodies the results of Phase 1 of the GRP.

Based on the thematic papers, each regional network invited teams of researchers from its affiliated countries to propose studies of economic growth in their own countries. This led to the selection of a set of countries in each region that altogether produced 80 case studies. The country studies were themselves done in two steps. In the first step, the team members for each country produced notes concerning various growth themes for their country over different periods since the mid-twentieth century. The periods were to be distinguished by important turning points in the country's economic and political history, such as major shifts in resources or significant changes in politics and institutions. In the second step, each team (or its leaders) was to weave the findings of the thematic notes into an integral story of growth for the country. In practice, some country studies gave differential attention to the themes or focused entirely on one or two of them. The results were presented in regional conferences and the revised papers became the basis of final activity of the GRP, which is to synthesize at various levels the wealth of information and analysis that has been produced by country studies.

The rest of this chapter focuses on the results of Phase 1. The next section reviews and connects the most important results of the four thematic overviews as well as the introductory and concluding chapters accompanying them. The purpose of this review is to draw the key lessons learned in Phase 1 and offer insights for interpreting the country studies.

3. The Main Results of Phase 1 of the GRP

The introductory chapter by McMahon and Squire touches upon the main points of the four thematic overview chapters. Based on the lessons of those chapters, the chapter also makes a key point about the significance of interactions among the determinants of economic growth. It argues that some variables may matter only when other conditions are met, including thresholds of themselves. McMahon and Squire use a simple discriminant analysis to identify some conditions of this nature and the combinations of variables that are most closely associated with economic growth. Their exercise shows that appropriately selected thresholds of a handful of variables—particularly, the investment share of GDP, the rate of inflation, and the growth rate of the share of labor force in total population—can classify most high and low growth countries. Their findings suggest a useful way for approaching country studies. For the countries that are classified by the combination of key variables, the task is to explain how such combinations have arisen and why the interactions and thresholds are central to growth performance. For countries that are misclassified, one has to look for other factors that may have influenced the process in significant ways. Indeed, the precise nature and the relative importance of the underlying relationships can only be determined at the level of individual countries. The significance of this approach is that it draws attention to the effects that are not easy to capture in cross-country growth regressions.

Given the above background about the significance of variable interactions and the need for examining detailed effects, we now turn to a discussion of the main points of the thematic overviews one by one. We compare the four chapters and examine the lines that tie them together as part of the discussion of the political economy theme in section 3.4. In discussing the chapters, we will take note of points made by Pritchett in his concluding chapter, which reflects on the four themes.

3.1. Sources of Growth

This thematic chapter examines the methodology and the results of two quantitative approaches to the sources of growth; namely, growth accounting and regression-based identification of the determinants of growth. The authors, Charles Soludo and Jongil Kim, note that both approaches are wrought with methodological controversies. Pritchett (2002) also agrees wholeheartedly and provides further concrete examples. However, examining the numerical findings and taking into account the controversies, one is still struck by some patterns that offer important insights and pose interesting puzzles.

Growth accounting is based on the presumption that some immediate factors determining aggregate output are known and their marginal impacts are readily measurable. By subtracting the overall impact of the changes of those factors from output growth, one can come up with a "measure of our

ignorance," also known as total factor productivity (TFP) growth. Such decomposition, when feasible, can show which factors of production—e.g., physical and human capital or TFP—have been driving the growth performance of a country. Table 1 presents an example of a representative set of such calculations for various regions. The significance of such estimations is that they allow one to focus on the production factors responsible for high or low growth and try to understand the forces driving those factors. In addition, when growth comes from factor accumulation rather than TFP, then there should be concern about the sustainability of growth (if diminishing returns are present and the Solow-Swan growth model applies). This latter point was quite relevant for the CEE-FSU countries before the collapse of the Soviet Block. It has also been raised in the case of high performing EAP countries, stirring a great deal of controversy (Young, 1995). The reason for the controversy is that measuring the relevant factors and their impacts on output are not easy and the results are often sensitive to the assumptions made.

Table 1
The Sources of Growth by Region and Period

Region	Period	Contribution by Component Assuming Capital Share of 0.35			Growth Rate of GDP per Capita
		TFP	Capital-Labor Ratio	Human Capital per Capita	
Africa	1960-73	0.3	1.3	0.2	1.9
	1973-84	-2.0	1.2	0.2	-0.6
	1984-94	-0.4	-0.4	0.3	-0.6
Latin America	1960-73	1.8	1.3	0.3	3.4
	1973-84	-1.1	1.1	0.4	0.4
	1984-94	-0.4	0.1	0.4	0.1
South Asia	1960-73	0.1	1.4	0.3	1.8
	1973-84	1.2	0.9	0.4	2.5
	1984-94	1.5	1.0	0.3	2.7
East Asia	1960-73	1.3	2.3	0.5	4.2
	1973-84	0.5	2.8	0.6	4.0
	1984-94	1.6	2.2	0.6	4.4
Middle East	1960-73	2.3	2.0	0.4	4.7
	1973-84	-2.2	2.2	0.6	0.5
	1984-94	-1.5	0.0	0.5	-1.1
Developed Countries	1960-73	2.2	2.3	0.4	4.8
	1973-84	0.2	1.1	0.6	1.8

	1984-94	0.7	0.8	0.2	1.7
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Source: Collins and Bosworth (1996).

Soludo and Kim review the controversies surrounding growth accounting in some detail and come up with an interesting observation: While varying the measurement methods affects the level of TFP in each region, the relative growth rate of TFP across regions is more or less the same. In fact, they observe that regions with higher investment rates also have higher TFP growth rates, with EAP countries enjoying the high side of both variables and SSA countries residing on the low side (see Table 1). To the extent that the economies in the sample can be characterized as market economies, the association of the two factors may be intuitively explained by the impact of productivity shocks on investment profitability. Of course, the relationship does not hold if investment is raised by coercive mechanisms at the cost of rapid decline in TFP, as in centrally planned economies with large public sectors. In fact, this is the way some participants in the debate have portrayed EAP economies (Krugman, 1994). But the results of Soludo and Kim suggest that this portrayal may not be applicable.

The growth regression approach has been far more popular, though no less controversial, in the last dozen years. Here the methodology is, in principle, supposed to allow the researcher to uncover the determinants of economic growth and their impacts. But, in practice different sets of variables have proven significant under different specifications and different samples, with the econometric tests showing insufficient power to discriminate among them in clear ways. As Pritchett (2002) observes, part of the problem is that the variables have not been measured correctly; another part is that the econometric models have not been carefully specified to represent growth theory faithfully.

Despite the well-known problems with the existing growth regressions, Soludo and Kim sift through the results from regional thematic papers and come up with important observations that seem to be robust. One result is that the initial conditions matter. This is most clearly reflected in the negative sign of the initial level of per capita GDP that is typically placed on the right-hand side of growth regressions. This result is generally interpreted as confirmation of the conditional convergence hypothesis, which posits that when shocks drive the income level of an economy below its steady-state path, its subsequent growth tends to rise so that the economy returns to that path, and vice versa.² Life expectancy at birth at

² An exception to this finding is the results of regressions for CEE-FSU, which implies a possible positive effect for initial income. However, in those regressions initial income is combined with other indicators of initial conditions and also may be representing other effects than convergence.

the start of each period also proves consistently significant with a positive effect on growth during the period.

The second major observation is that some variables that are considered growth "fundamentals" also matter. This is notably true about investment, as McMahon and Squire also found. Institutions and political stability, which can be considered as part of the fundamentals because of their basic role in determining productivity, also play definite roles in growth. To this list, Soludo and Kim added some geographic conditions, especially being landlocked, distance from developed countries, and natural resource abundance (all of which seem to have negative effects on growth). However, some of these effects seem to be conditional on other variables that may not have been captured properly in the regressions. In particular, as the experiences of Australia, Canada, United Kingdom, and Scandinavia suggest, natural resource abundance can be a blessing if the institutional setting is supportive of efficient allocation and technological innovation (Maloney, 2002). Another fundamental variable that has rendered unexpected results is education. While everyone expects education to play a central role in growth, measures of educational attainment seem to show positive and significant signs only in LAC and CEE-FSU. As Pritchett (2002) and Guriev and Salehi-Isfahani (2002) observe, this variation in findings must have something to do with the schooling quality and job market conditions. Similar considerations apply to the terms of trade shocks, which seem to show significance mainly in LAC.

Soludo's and Kim's third observation concerns policy variables. Here, a consistent finding is the inconsistency of coefficient estimates for each indicator across regions and regressions. The controversies about the empirical roles of openness, foreign aid, and IMF programs manifest themselves in the differential findings of the regional studies. In addition, market-oriented reforms also fail to produce clear signs of contribution to growth. However, some groups of variables taken together prove statistically relevant. In particular, sound macroeconomic policies and government expenditures on infrastructure and social programs seem to have generally positive effects. Another result, which is a novel consequence of the regional papers, is the similarity of post-liberalization CEE-FSU countries with other developing countries in terms of the roles played by many variables.

A fourth observation in the Soludo-Kim chapter concerns methodology of cross-country regressions. As many other students of growth have also noted, measurement of the relevant variables remains a major constraint. In addition, the tradition of regressing growth rates on a series of potentially relevant variables is not a desirable way of specifying equations for testing theories of economic growth. The methodology has also created a sense of "everything may be important," which is not very helpful from a policy perspective.

One way to react to the situation may be to despair and to abandon research on cross-country regressions. However, this is difficult because once a new insight about growth is suggested from any source, it is natural to think of testing it via regressions. As Soludo and Kim point out, it seems inevitable that a new research program on the methodology of cross-national regressions should be launched. Projects with in-depth studies of large numbers of countries in the style of the GRP may be launched to improve measurement and generate more insight about possible interactions.

On the specification front, the research agenda might greatly benefit from diversifying away from reduced form estimations. There is a need to develop more structural models that allow richer relationships to be tested. Also, more dynamics need to be captured in empirical growth models. An obvious issue is response to shocks that move the economy away from its long term growth path or change the path itself. For example, this can be addressed by viewing growth as a dynamic error-correction process where the economy's existing conditions determine an equilibrium growth path. The initial conditions may also influence the speed of adjustment toward the equilibrium path, in case there are temporary shocks. The equilibrium path could be evolving according to permanent shocks and changing conditions.³ This perspective also addresses a concern over the use of levels of non-stationary variables on the right-hand side of growth regressions, which Easterly (2000) and Pritchett (2002) have raised. The issue is that the level of such variables—e.g., human capital—may be rising indefinitely, while growth rates are stationary and cannot be functions of non-stationary variables. But, if the level variables are viewed as part of an expression that determines the equilibrium path of GDP, then the difference between that expression and actual GDP, which appears on the right-hand side anyway, can form a stationary error correction term. In fact, since all growth regressions include on the right hand side the GDP level, which is non-stationary, there is every reason to combine it with an expression for equilibrium GDP that is cointegrated with it.

Another important issue concerning dynamics is the long term cycles in economies. In their history, countries experience periods of stagnation due to major institutional or economic problems. Then they arrive at solutions that allow them to experience rapid growth for some time. However, the adopted solutions later become obsolete as the economy transforms and starts facing new challenges, making another round of basic reforms necessary. Such cycles often take decades and seem inevitable in developing countries because the best feasible solutions to transition problems may not be the arrangements that the country wants to adopt once it is developed. An obvious example that highlights

³ For examples of empirical work that examine such processes, see Lee, Pesaran, and Smith (1997 and 1998) and Canning and Pedroni (1999). For a more recent example that includes structural relationships as well, see Esfahani and Ramírez (2003).

such a possibility is the high growth episodes under dictatorships that sometimes last for a long time but eventually come to an end (e.g., Iran under the Shah and Indonesia under Suharto). These episodes are often viewed as great success stories while they are unfolding and are dismissed as fundamentally flawed once they are over. Yet, they significantly transform underdeveloped economies that might have otherwise stagnated. In fact, in the East Asian version of these episodes, they seem to prepare the ground for smooth transitions to democratic and stable regimes that produce new high growth episodes, as in Korea and Taiwan. The point is that these types of cycles are very interesting and important to study, but the existing growth regressions are not specified in ways that can capture such long-term dynamics. Country studies are great opportunities to explore these issues further.

3.2. Microeconomic Agents and Growth

The overview of microeconomics theme, coauthored by Sergei Guriev and Djavad Salehi-Isfahani, examines the behavior of two different sets of agents, households and firms. The choices of micro agents are important for growth because they define the opportunities and constraints for generating savings and increasing investment and productivity. These choices are driven partly by the characteristics of the agents—e.g., extent of informality among firms and the attitudes of households toward work and fertility—and partly by the constraints imposed on them by markets and political economy factors. The chapter discusses both of these forces, but there is some endogeneity about the agent characteristics that sometimes makes it hard to pin down which characteristics are persistent and which ones are more transient responses to the environment. This is an issue that country studies should try to tackle. The matter will become clearer as we discuss the findings of the chapter.

Households

The most important observation of the chapter concerns the nature of demographic transition. Historically, households in all parts of the world have chosen to have a large number of children in whom they invested very little by way of human capital. But, in all countries that have succeeded in reaching sustained growth, at some point in time families have shifted their strategy toward smaller numbers of children with higher investment in education of each. Caldwell (1976) has described this transition as a shift from a situation where net intergenerational transfers are from children to parents, in the form of farm labor and provision of old age security, to a situation where the process is reversed and parents provide their children with human capital and other assets. The reasons for the dominance of these two polar cases are not very well understood, but, as Barro and Becker (1988) argue, it could be because of diminishing marginal utility of children that reduces the parents' discount factor applied to the utility of each child as the number of children increases. Under this assumption, as the endogenous growth model

developed by Becker, Murphy, and Tamura (1990) shows that the economy may have two polar equilibria, one stagnant with high fertility and the other growing with low fertility. Guriev and Salehi-Isfahani examine the evidence concerning these effects. They find that there is empirical support for the existence of a quality-quantity tradeoff concerning children. They also document the dominance of the two polar cases by graphing fertility versus average years of schooling across countries. The result shows that the more developed countries of EAP and LAC are in the area where fertility is low and education is high, while in SSA and SA fertility remains high and education low. These are key regional differences that may have affected growth options for each. Two interesting cases are CEE and MENA. CEE countries are in the high education/low fertility area and seem poised for high growth once their transition process is over. MENA countries, on the other hand, appear to have high fertility with relatively high years of schooling. Guriev and Salehi-Isfahani argue that, if the years of schooling are well correlated with the level of education, the situation in MENA is a potentially unstable one that can go either way, sailing toward growth if the demographic transition comes soon or sliding down the prosperity index if high fertility continues. However, the quality of education in MENA seems to be low, which weakens the potential of this scenario.

The question that the above observations raise is why some countries have managed to escape the high fertility trap, while others have remained stuck. Becker, Murphy, and Tamura (1990) suggest that exogenous shocks may move the economy beyond a point of unstable equilibrium where it can shift gears, although shocks may push a growing economy in the other direction as well. These are interesting points about which regional studies can offer some insights. This may shed light on the nature of the household environment and on some of the forces at work on the ground.

The chapter identified two factors as the major forces that may make the low-growth/high-fertility scenario resistant to shocks in some regions. The first one is the high risks and lack of insurance and social security institutions in many poor countries. Indeed, the regional thematic papers for SA and SSA suggest that in agrarian economies, climate and disease factors are major sources of risk and households respond to the situation by increasing the number of their children. The rationale behind this strategy is to maximize the chances that some of the children survive to support the family. By the same token, investing in each one of them has low expected returns. Guriev and Salehi-Isfahani point out that while this may be the case, one still has to explain why the SA and SSA populations facing high risks have not invested more in risk-reducing technology and institutions. In fact, the response to high risk could in principle be high investment and high growth as a way of reducing future risks. Choices with opposite consequences may be due to high costs associated with low population density or institutional and political economy factors. Indeed, outside SA and SSA, risk does not seem to be an important factor

in fertility decisions possibly because they are more urbanized. In LAC macroeconomic instability may have raised risks, and in CEE the transition to market economy seems to have reduced the job security that the socialist planning had created for the households. In both cases fertility remains low.

In the case of MENA region, risk does not seem to explain the continuation of high fertility rates. For that case the authors emphasize a second factor that may be the culprit; namely, traditions that constrain the participation of women in the labor force and induce them to have more children. Interestingly, this factor may be working very differently from risk in the sense that the low opportunity cost of women's time may allow them not only to have more children, but invest in their education as well! In fact, this observation may help explain the position of MENA countries in the fertility-education diagram, if the education variable indeed reflects high human capital. However, as Guriev and Salehi-Isfahani point out, education in MENA is highly degree-oriented and its contribution to productive human capital may be limited. They attribute this feature to the dominance of public employment in MENA economies.⁴

Besides fertility and education, households make decisions about labor supply and savings that matter a great deal for growth. The chapter notes that the demographic transition generate large bonuses in these regards as well. The reduction in fertility raises the share of workforce in the population, especially the share of middle-aged workers who have high savings rates. Guriev's and Salehi-Isfahani's review of the literature and regional thematic papers indicates that these factors may have substantially contributed to growth in EAP. However, they raise the issue that household savings have been relatively insignificant and could not have had much impact on growth. This may be relevant, but they seem to overlook the fact that business savings, which were quite high in EAP, are not entirely independent of household decisions. This is straightforward in the case of small firms, which are typically family owned. In the case of larger corporations, the lifetime nature of employment and rising wage profiles, which were quite common in EAP, may have allowed the workers to accept lower compensations in their early and mid-careers, thus enabling their employers to save and invest on their behalf. This is not to deny that there are other factors that may play significant roles in corporate savings, as can be readily noted by comparing the private savings rates of EAP and LAC countries (both of which are in advanced stages of the demographic transition, but the latter countries do not generate nearly a much saving as the former). As Guriev and Salehi-Isfahani point out, instability in the macroeconomic environment and distortionary

⁴ Guriev and Salehi-Isfahani also mention the dominance of public employment as a cause of high fertility in MENA. But that does not seem to be as relevant as the tradition factor, particularly when one notes that the complete dominance of the public sector in CEE-FSU countries had reduced fertility to very low levels because of the income security and female job opportunities that it had created.

government policies are likely to be other factors that have discouraged savings in LAC and other regions.

Concerning the positive effect of demographic transition on labor supply, the chapter shows that the balance of evidence is by and large supportive. However, a striking observation with respect to labor supply is the enormous variation in women's labor force participation, which happens to be rather weakly related to demographic transition and fertility. Women's participation rate is highest in SSA, EAP, and CEE and lowest in MENA. It is in the middle range in LAC and SA. These outcomes seem to confirm the importance of cultural factors highlighted by Guriev and Salehi-Isfahani.

In sum, the thematic overview of the microeconomics of growth shows that the interaction of a variety of exogenous and endogenous variables has generated a range of household strategies regarding fertility, education, savings, and labor force participation. Though the outcomes can be classified in more narrow categories, the role and the interaction of various factors in shaping those outcomes are complex.

Firms

The behavior of firms matters for growth because of their central role in production and investment. There are three major dimensions that differentiate firms and their behaviors: ownership, size, and informality. The influence of ownership (public, private domestic, and foreign) on performance is an old debate and there are major differences among regions in terms of the role that each type of ownership plays in the economy. Distinction according to ownership, of course, matters only as far as formal firms of medium and large size are concerned because small and informal firms are typically privately owned. The thematic overview chapter does not consider the issue of foreign ownership and touches upon state-owned enterprises mostly in passing. This focuses the discussion of firm behavior largely on the question of size because informality is highly correlated with smallness. Still, the findings of the chapter are important because size and informality have major influences on firm behavior and these characteristics are among the most conspicuous elements of the differences in the industrial structures of developed and developing countries.

How do small and large firms differ in their contributions to growth? The answer given can be summarized as follows: small firms are constrained and large firms are reluctant to restructure. The constraints on small firms prevent them from growing and raising their productivity. Also, such firms, especially when they are informal, typically offer limited opportunities for long-term professional career development, which can be an important source of productivity growth. The reluctance of large firms to restructure impedes productivity growth. Guriev and Salehi-Isfahani argue that the detrimental growth

consequences of such behaviors depend on the nature of markets and policies that shape the country's business environment. In the following, we examine these issues with respect to the two types of firms.

The chapter considers five types of constraints on small firms: limitation of access to credit, insufficiency of insurance, limitation of participation in foreign markets, predation, and inadequate public services. In the past, credit market constraints of small firms were considered to be quite important and, in fact, all regional papers on the microeconomic theme address the issue. However, the thematic overview chapter offers indications from the regional thematic papers and from the literature at large that finance may not be a major concern in most regions, arguing that small firms may have access to informal credit markets. Curiously, credit constraints are emphasized only in EAP, where markets tend to be more developed than in the other regions. The claim is also at odds with insurance problems that the authors find to be a major concern for small firms. The reason is that access to credit should help deal with insurance needs as well, if firms can borrow for their short term needs. Guriev and Salehi-Isfahani point out that the informal markets are local and, therefore, cannot insure against broader risks. This implies that access to credit may in fact be limited, though in subtle ways not easy to detect if one surveys small firms about their finance needs. In fact, the authors recognize the importance of financial impediments when it turns to the discussion of large firms. So, it would be surprising if small firms were not credit constrained, unless the ones that dominate the market are those that have no inherent ability to grow. So, it seems reasonable to conclude that in most of the developing world, the non-finance problems facing the operation and growth of small firms are quite serious, to the extent that they may have curbed the demand for credit and diminished the importance of finance as a constraint. In contrast, small firms in EAP have opportunities to grow and need a lot of credit, which has become their binding constraint.

Access to foreign markets is not discussed directly in the chapter as a concern for small firms. Access to imports is probably subsumed under the quality of public services, but facilities for participation in export markets might be a constraint that needs more attention. Detecting the constraints of small firms in accessing export markets may be difficult for reasons similar to the constraint that they face in financial markets. As access to export markets requires networking through international trading companies, the absence of such companies might rule out the formation of export-oriented small firms. In that case, studies of the existing small firms that are established to serve local markets may not tell us much about the constraint that potential exporters may have faced. As the successful experience of Taiwan with trading companies indicates, the potential for such exports may be large if appropriate market mechanisms exist to assure foreign buyers of the quality and reliability of small producers.

The authors find that in most regions access to good quality public services (including infrastructure) is a major concern for small firms, especially the informal ones. This is recognized as a

very serious issue particularly in MENA, SSA, and FSU regions. Not surprisingly, predation by the government, bureaucrats, and powerful entities (such as large firms) is also emphasized as a significant impediment to the operation and growth of small firms in the same three regions. This is in contrast with EAP where government services are not problematic and certainly not much of a problem compared to finance issues. In CEE complaints about government also have declined substantially. Outside EAP and CEE, predation and poor quality of public services has another notable byproduct as well—driving firms to the informal side of the economy. This survival strategy helps small firms evade bureaucratic harassment more easily, but it exposes them to extortion by protection rackets and severely limits their ability to grow productively and contribute to the economy.

Another important issue that the chapter raises with regard to small firms is the endogeneity of industrial structure. Many of the constraints on small firms tend to keep them small and cause the problems that they face to persist. Indeed, as the thematic paper on the microeconomics of growth in CEE-FSU observes, in CEE countries where governments have been more responsive to the needs of producers, firms have been growing much more effectively than in FSU where public service failure and predation are more prevalent. Despite this important element of endogeneity, there are likely to be elements of culture and entrepreneurial and managerial human capital that keep most firms small in countries at the earlier stages of industrialization. The chapter's findings suggest that the limitations of such firms act as impediments to aggregate growth that policymakers need to deal with. The potential for tackling this problem depends on a host of other institutional and market characteristics, which takes us back to the complexity of interactions of the variety of factors shaping the growth process.

Turning to the results concerning large firms, the authors identify two key features of their behavior that jointly affect growth. One aspect is their larger resources relative to small firms, which allows them to capture the regulatory mechanisms and protect their surpluses or even extract rents from the rest of the economy. The other aspect is their high costs of restructuring, which make them reluctant to invest in productivity, hence wasting part of the surplus that they can control. Guriev and Salehi-Isfahani explore the interactions of these incentives with three factors in the policy and business environment.

The first factor is privatization, which is supposed to induce firms to restructure. However, as the results of the regional thematic papers and other research indicate, the presence of soft-budget constraint and underdevelopment of corporate governance may preclude such an outcome. This is particularly confirmed by a comparison of CEE and FSU countries. In FSU, governments have been more eager to use carrot and stick strategies to keep some control over the choices of privatized firms as a way of preventing large layoffs. In many CEE countries, on the other hand, governments have acted bolder and

in many cases have allowed restructuring. In other regions also one can observe evidence of soft-budget constraints. In fact, this became a major issue in EAP countries in the 1990s when governments used their leverages over financial institutions to prop up large corporations that badly needed restructuring. That approach seems to have changed after the financial crisis of 1997. We will further explore the motives of governments in conducting such policies below in our discussions of markets and growth and political economy themes.

The second factor that affects the behavior of large firms is financial market imperfections, which may constrain the firms' *ability* to restructure. Here, the argument is that firms need to finance the costs of restructuring as an investment in productivity, but in underdeveloped financial markets, they may not be able to obtain the necessary credit. Obviously, this type of constraint and the problem of soft budget constraint must be mutually exclusive. In fact, regional thematic papers indicate that as a constraint to large firm restructuring, finance may be an issue outside CEE-FSU and EAP and soft-budget constraints inside those regions.

The third notable factor in the policy and business environment is competition and openness. Both factors create pressures for domestic firms to be more productive, hence they should enhance restructuring. In fact, some of the evidence across regions seems to be supportive of this effect. However, Guriev and Salehi-Isfahani note that increased competition might not always yield such an outcome. In particular, when financial constraints bind, increased competition may drive down profits to an extent that deprives firms of resources necessary for restructuring.⁵ This may also explain why many developing countries experienced relatively high growth in the early days of import-substitution in the 1950s and 1960s when the high profits induced by protection eased their financing obstacles. Despite these caveats, the evidence reviewed suggests that, in most countries at present, competition and openness are perhaps the sources of strongest incentives for restructuring.

In conclusion, the findings of Guriev and Salehi-Isfahani suggest that the responses of small and large firms to their environments play significant roles in economic growth. These responses depend on complex sets of incentives and constraints that the firms face. Moreover, given imperfections in markets, straightforward "Washington Consensus" policy stances may not always generate desirable outcomes. The required policies seem to be situation-specific and need to be applied with care. Whether the politicians have the incentive to adopt and implement such policies are questions that we take up below.

⁵ Openness may also force immature specialization (Rodriguez and Rodrik, 2001).

3.3. Markets and Growth

This theme examines the consequences of market characteristics and market-related policies for economic growth. In their overview of the theme, Štěpán Jurajda and Janet Mitchell consider four types of markets, namely, financial, labor, natural resource, and product markets. For each type of market, they analyze the roles of three key dimensions—institutional infrastructure (including factors such as laws and courts), participants, and distortions. Following that analysis, they sketch four stylized growth scenarios, each relevant for some regions of the world. We will discuss those scenarios after presenting their main results concerning markets.

Financial Markets

Financial markets play a central role in economic growth because they channel savings towards investment, help allocate funds across investment projects, and monitor the results. If any of these functions is impaired, the economy's surplus may be misallocated or wasted to the detriment of growth.

Jurajda and Mitchell suggest that the main institutional infrastructure needed for effective functioning of financial markets consists of the *de facto* institutions that govern contracts, accounting, and bankruptcy. Growing empirical evidence seems to support the significance of these elements. However, there is still very little known about the relative importance of each one or their interactions. The overview chapter notes that gaining such knowledge is important for policy purposes. For example, policymakers need to know whether improving accounting standards can be helpful in case the rule of law or contract enforcement is not very strong. In the same vein, it is imperative to study the contributions of other elements of financial market infrastructure, such as the regulatory system of financial intermediaries and the technological facilities.

The characteristics of participants that seem to matter most for the operation of financial markets are the ownership of intermediaries and borrowing firms. The authors note that empirical work on the growth consequences of ownership structure is not plentiful, but what exists suggests that state ownership has negative effects on financial development. Foreign ownership is another factor that may affect performance. More work is needed in this area to assess the situation-specific role of state ownership because the dominance of government in the market is not an exogenous factor as the current studies assume. In fact, as Guriev and Salehi-Isfahani note in their chapter, in many economies state firms and banks were initially established as a way of initiating the development process, so they could not be considered entirely anti-growth.

Distortions in financial markets are partly interest rate ceilings and partly manipulation of credit allocation by the government. Other interventions include various regulatory controls and entry barriers.

While controls and interventions may cause misallocation, their adverse effect on growth are by no means clear. Indeed, as is well-known, when competition lowers profit margins, banks may opt for excessively risky lending and bring about financial crises. Jurajda and Mitchell observe that several CEE-FSU and SSA economies have suffered banking crises as a result of excessively lax restrictions on entry into the banking sector. Another important consideration from growth perspective is that often the main winners of the financial liberalization are consumers who get to borrow more easily. This lowers growth, but need not be inefficient. In fact, Pritchett's (2002) raises this point by arguing that very high growth rates such as those in EAP may be inefficient because consumers are forced to save when they are poor to get the returns years later when they are substantially richer. Another concern over financial liberalization that Jurajda and Mitchell raise is its association with banking crises when the regulatory system is not sufficiently strong, as was the case in the 1990s in some EAP and LAC countries.

Labor Markets

The contribution of labor markets to growth is through allocation of labor resources and the creation of incentives for human capital accumulation. The chapter examines labor market infrastructure under six topics: (i) transportation and housing, (ii) schooling, (iii) market-clearing mechanisms, (iv) protection of property rights, (v) labor regulations, and (vi) social security. Jurajda and Mitchell discuss the theoretical ideas about the ways these factors affect growth and point out that there is not much empirical work in the area. The existing empirical work is mostly focused on the role of labor market rigidities, which appear to be harmful to employment. However, the regional thematic papers question whether the results are applicable in developing countries because the restrictive rules that make markets rigid may not be actually enforced. The authors further take note of a recent strand of political economy models that suggests that, given the political constraints, maintaining some rigidities and slow adjustment may be beneficial to growth.

The labor market participants that may matter most for growth are organized interest groups (e.g., labor unions and employer associations) and the government as an employer. The distortions that the labor groups induce, besides limiting labor reallocation, are wage rigidities (minimum wage, centralized compressed wage structure, massive redistribution). Jurajda and Mitchell argue that such rigidities seem theoretically harmful to growth, but empirical evidence is scant.

Product Markets

Product markets are quite varied, but their operations generally depend on physical infrastructure (transportation, telecoms, etc.), rule of law, property rights (including patent laws), competition and anti-trust laws, and the system of standards and safety rules. As in other markets, ownership (private, public,

foreign), organized interest groups, and market structure should matter. The relevant policy wedges are often trade restrictions, product-specific subsidies and taxes, price controls, rationing, and quality controls. While there is evidence that some gross market distortions are detrimental to growth, the verdict on most regulatory interventions is not clear. The competition and openness are important for product markets, but the issues are the same as we discussed earlier in the case of overview chapter on the microeconomics theme.

Natural Resource Markets

The markets and growth overview chapter raises the point that natural resource abundance depresses economic growth and reviews the evidence. In addition to the findings of the sources of growth chapter, it observes that according to a number of recent studies, dependence on natural resources increases the risk of civil war and other forms of conflict. This effect, as pointed out above, is clearly conditional on other country characteristics. We will discuss this issue further under the political economy topic.

Growth Scenarios

The message that emerges from Jurajda's and Mitchell's review of the role of markets is that removing market distortions will usually not lead to increased efficiency and growth if complementary conditions such as institutional and physical infrastructure are not present or if some participants in the market have the incentives and the ability to induce distortionary policies or block corrective measures. The issue that seems most pressing for research is: which set of reforms are likely to prove most productive and lead to further positive responses when a country starts from difficult initial conditions (particularly, a situation where markets are distorted, infrastructure is weak, and the dominant players in the market are not very helpful). Not surprisingly, the answer depends on the relative seriousness of various impediments and other specifics of the situation, which future research should help exposit.

In their four growth scenarios Jurajda and Mitchell categorize countries according to the way they have handled their initial conditions. The first scenario, which they dub as "openness," is the story of countries that have managed to opt for openness, keep their markets flexible, develop their physical and institutional infrastructure, and motivate the accumulation and effective use of human capital. Jurajda and Mitchell conjecture that in these countries, which are mostly in the EAP region, the trigger for the

virtuous circle may have been the innovative adoption of export promotion policies. This is an important observation that is well worth further research.⁶

The second scenario also has a happy ending, but the trigger is different. The scenario begins with a challenging shock to the economy that forces the policymakers to start reform somewhere. Once the country starts to respond to the shock, problems in other areas become noticeable and further reforms are adopted, keeping the overhaul of policies and institutions in motion. The best examples of this scenario, which Jurajda and Mitchell call "response to shock", are CEE countries. A few countries in MENA and LAC have also managed to follow this scenario.

One set of countries that has been subject to significant shocks and has failed to adjust toward more growth-oriented paths is the majority of oil exporting countries. They have had growth periods in the past and are not the poorest of the poor, but they are not growing nearly as fast as their resources warrant. Jurajda and Mitchell name this outcome the "natural resource curse" scenario.

Finally, there are many highly underdeveloped countries that have not initiated reform on their own and have not responded to shocks. The result has been a "consistently low growth" scenario, which is the story of many SSA countries. It is a real challenge to find out how these countries can escape the vicious circle where markets do not work very well and governments are unable to align the incentives of the players toward policies that are in everyone's interests. For further examination of these issues, we turn to the overview of the political economy theme.

3.4. Political Economy of Growth

The overview chapter on the political economy theme, coauthored by Micael Castanheira and Hadi Salehi Esfahani, examines why some governments maintain policies that have adverse impact on long-run growth, while others undertake more growth-oriented policies. This consideration also connects the issues discussed under other growth themes because the behavior of micro agents and existing market conditions shape the options of the governments in terms of what they can, want, and should do. The key issue is why in some countries the collective action processes—interest group activity, policymaking institutions, and the like—fail to help the realization of the economy's potential surplus—i.e., rents and quasi-rents or the value produced in excess of the recurrent costs of production—be guided toward growth-enhancing activities to the optimal extent.

⁶ There are already a number of studies that have examined the how the change came about in Korea and Taiwan. See, for example, Amsden (1989) and Wade (1990).

The traditional political economy literature has sought to find the powerful interest groups that benefit from low growth and blame them for blocking change. However, this approach often does not show why those powerful groups do not design mechanisms to implement more efficient policies, enhance growth, and capture the additional surplus for themselves. To avoid this pitfall, Castanheira and Esfahani adopt an alternative approach based on the theory of incomplete contracting, which was suggested in regional thematic papers. The idea is that sub-optimal growth outcomes are the results of contracting difficulties among the players in an economy. Problems caused by incomplete contracting are, of course, present in all economies. However, their intensity varies across situations. For some economies, the surpluses lost to contracting problems are a minor part of what they actually realize and channel towards increased production and productivity. For others, large potential surpluses are lost and the system lacks even rudimentary capabilities to come up with deals that help improve the conditions for contracting (and policymaking) in the future.

The above discussion implies that the task for unlocking the puzzle of low growth is to explore the factors that may intensify contracting problems among interest groups and policymakers. The theory of incomplete contracting suggests that these factors can be put into five categories: (1) limitation of information about possible states of the world and their consequences for everyone involved; (2) scarcity of professional skills for assessing the situation and designing effective solutions; (3) divergence in the preferences of contracting parties; (4) weakness of coordination mechanisms; and (5) weakness of institutional commitment mechanisms. The thematic overview chapter examines (1), (4), and (5) in detail and discusses (2) and (3) only implicitly. Below, we discuss the nature of the factors involved in these categories and review evidence regarding their presence in various regions. We then examine the connections between those factors and the deficiencies in policies and markets that are highlighted in other thematic overviews. A discussion of the implications of the framework for economic reform is left for the concluding section of this chapter.

Before discussing the factors that affect incomplete contracting, it is worth noting that when assessing institutions, it is necessary to examine their formal and informal structures in the contexts in which they operate. As Pritchett (2002) observes, formally similar institutional arrangements seem to generate very different results in different countries. Moreover, very different formal institutions may produce similar levels of prosperity—e.g., as in the case of Western European and Japanese economies. Hence, formal institutions cannot be analyzed out of context. For this reason, to evaluate the role of institutions, Castanheira and Esfahani focus on the functions that institutional arrangements render. This area is new and there are few results showing how detailed aspects of formal and informal institutions

interact with each other and with other elements in the economy, but the framework provides a road map for moving towards more concrete answers.

Institutional Characteristics and Incomplete Contracting

The essence of the problems that make incompleteness of contracting almost ubiquitous is the limited ability of human beings to collect and process information. This is always a problem in the design of policies and rules (which can be viewed as contract mechanisms), because policymakers have to assess the costs and benefits of their choices for all groups that may be possibly affected under various conditions. In general, this is a difficult task and there are a number of factors that make the matters worse. The first one is the lack of representation of some affected groups in the policymaking process, which denies everyone the chance to extract and consider their information. In fact, this is a key criticism of dictatorships. More democratic systems, especially the ones with stronger parties that can aggregate and articulate the demands of different segments of the population, have an easier time recognizing the needs and taking them into consideration. (However, as we will see this does not always translate into implementation of better policies if other conditions are not met.) Castanheira and Esfahani observe that deficiencies in representation are particularly notable in SSA and MENA regions. In those regions, even when political offices are subject to election, the choices among candidates are highly restricted and the end result is the domination of a small group over the policymaking process. In other regions, democratization has gone further and the representation is on the rise.

A second factor that inhibits the removal of inefficiencies is weakness of administrative institutions in gathering and processing information and implementing policies. Except for countries in EAP, CEE, and, to some extent, LAC, administrative capability remains weak in the rest of the developing world. In most developing countries bureaucratic institutions are not well designed and do not provide sufficient resources to attract and motivate high quality professionals to deliver good services. Low pay and weak organizational structures breed corruption and further undermine whatever work ethics might otherwise exist.

The third impediment to information flow is inadequate education, especially in communication and organizational skills. This feature is partly the consequence of weak administration, but it also feeds back into that and other institutions because it limits the pool of labor with appropriate skills to help improve institutional performance. These are serious problems in many countries of SSA, SA, MENA, and even LAC. Schooling rates in MENA and FSU are not low, but as the microeconomics overview chapter observes, the human capital generated in those regions is generally not very productive.

When contracting is incomplete, the critical factor that brings about inefficiency is divergence in preferences of the groups involved in an economic process. If preferences were uniform across groups, tasks could be delegated to those who were in the best position to carry them out, and then the outcome would be to everyone's satisfaction. However, when preferences vary, each group wants to get others to behave according to its wishes and, if they cannot solve the problem through complete contracts, they try to impose constraint on each other's behavior, hence generating inefficiency. This implies that when a country's polity is more diverse and polarized (e.g., due to ethnolinguistic, geographic, or income heterogeneity), the demands for controlling the government and getting it to impose controls on various groups are stronger and the likelihood of inefficient interventions is higher. Bates and Devarajan (2000) and Collier and Gunning (2000), along with a number of earlier studies, observe that ethnolinguistic heterogeneity is particularly serious problems in SSA. The thematic papers for other regions also find the problem to be important at least in some of the countries examined. Economic inequality is also high in most regions except CEE-FSU and parts of EAP. There is also evidence of major ideological or religious polarization in SA, SSA, MENA, and LAC. This is in addition to fragmentation due to divisions created by narrow loyalties to small groups such as family and clan, which in turn reinforce and are reinforced by distrust of all others. It is worth noting that such narrow loyalties tend to be stronger in more risky environments, where individuals have greater need for support and security. The result may be high degrees of fragmentation that make broader and more comprehensive difficult to reach, hence impeding more efficient and growth-enhancing arrangements.

The divergence in preferences creates another major problem as well, namely, the tragedy of commons where every group wants to use the public policy arena to advance its own interests without taking into account the negative consequences for others. This problem can be reduced if there are coordination mechanisms that help each group to internalize the costs and benefits of its actions. For example, many countries achieve successful coordination over fiscal and monetary policies by delegating the decisions concerning aggregate measures of those policies to offices that represent broad interests (Alesina and Perotti, 1999). Political systems that encourage the emergence of a few disciplined parties also do better in terms of coordination than those that have a multitude of parties or lack party discipline. High degrees of centralization and dictatorial rule in most developing countries have been used as a means of forcing coordination, although success in such arrangements requires a very capable bureaucracy and often comes at the cost of reducing representation. Krongkaew (2000) makes this point in the case of EAP countries and suggests that strong governments in that region have been effective in coordinating policies to serve broad interests. Centralization and dictatorial rule are common in MENA, SSA, and FSU, though bureaucratic weaknesses in those countries often undermine their ability to achieve much. However, it is notable that many LAC countries that have moved away from such

arrangements to establish democracy have ended up with massive coordination failures (as in Argentina and Brazil). These countries managed to encourage broader public participation in the system and decentralized many policy decisions, but lack of commensurate coordination mechanisms has often pushed them towards major macroeconomic instability.

The problem of incomplete contracting with divergent preferences becomes much more serious if the parties involved cannot commit to uphold what they agree upon. This is a particularly damaging problem when the government cannot commit to a set of tax and regulatory policies that allow private agents to earn normal returns on their investments (Weingast, 1995; Levy and Spiller, 1996). Such a deficiency raises the investors' concerns about potential opportunistic policy changes and discourages investment, hence preventing the economy to grow even when projects with high social returns are abundant. A number of studies have shown that commitment problems are associated with insufficiency of checks and balances, lack of independent judiciary, and political instability. Democracy can provide these features, but in many new democracies the detailed arrangements that make such mechanisms work are not present. Free elections and free press that start off democracies can be helpful, but they are by no means sufficient to ensure effective policymaking. In fact, without complementary institutions, they can cause massive coordination and political instability problems. Examples of this can be found in all regions (e.g., Bangladesh in the past decade, Indonesia after Suharto, and Iran in recent years).

Non-democratic regimes typically lack checks and balances or independent judiciary, but sometimes they may be able to offer limited commitment out of concern for their reputations if the ruling politicians have long-term horizons (or, in the words of McGuire and Olson (1996), are "stationary bandits"). Again, political instability, which itself seems to depend on social and political fragmentation, becomes a critical issue. Castanheira and Esfahani argue that this is the story of many SSA and some LAC countries, while dictatorships with longer-term horizons have been more common in EAP and MENA. They also note that commitment is hampered by lack of coordination and administrative capabilities because such deficiencies make it difficult to ensure that promises are kept and implemented.⁷

Government Controls

Inefficiency of government controls through ownership or various regulations is an issue that is raised most often in all thematic papers. The overview of markets and growth theme identifies a large

⁷ Another point that they note is that commitment becomes more difficult when the government is expected to be short of funds. The reason is that the government's incentive to go back on its promises and capture the resources of the private sector grows stronger. This could be caused by lack of coordination over public expenditure, weak and corrupt bureaucracy that fails to collect taxes, or high elasticity of tax bases.

public sector and controls on the private sector as a source of distortions in labor, credit, and product markets. The overview of the microeconomics theme observes more specifically that the dominance of the government over the economy reduces the incentives for the restructuring of firms and weakens the household's incentive to acquire productive human capital as opposed to educational certificates. In the sources of growth theme, such connections are not explored directly, but they may be implicitly reflected in the role of other variables such as the black market premium on foreign exchange and the size of government consumption. An interesting observation is that there is relatively high correlation between interventions in various parts of the economy.⁸ As Guriev and Salehi-Isfahani (2002) and Soludo and Mitchell (2002) observe, when banks are state-owned, public enterprises are less likely to reform and even private enterprises are less likely to restructure. The government is also more likely to be restricting trade and to follow policies that make labor markets rigid. Taken jointly, these interventions seem harmful to growth, especially because they are imposed by governments that show little administrative capability. Why do so many governments fail to refrain from inflicting so much damage to their economies?

The explanation that Castanheira and Esfahani offer is based on the factors that may have made contracting more difficult in those countries. They observe that according to regional thematic papers, the extent of government ownership and controls are associated with ethnolinguistic heterogeneity, economic inequality, and ideological polarization of the society. Bates and Devarajan (2000), Collier and Gunning (2000), Kelegama and Parikh (2000), and Krongkaew (2000) provide detailed accounts of how governments in SSA, EAP, and SA have used public enterprises to help certain regions or interest groups receive investment, jobs, and other benefits. In MENA and LAC, income inequality, narrow loyalties, and ideological divisions appear to have provided a stronger force behind government controls (Esfahani, 2000; Rodriguez, 2000). Interestingly, these effects are observed even in situations where the ruling elite who implement the controls have no prior ideological disposition in favor of an extensive public sector (as in the case of Turkey in the 1930s and Taiwan in the 1950s). In many cases the government has left enterprises in private hands, but it has still tried to cajole them to do what it wants through various regulatory and subsidy/tax mechanisms. Vivid examples of this behavior are documented in Guriev and Ickes (2000) for CEE and especially FSU countries. Similar examples are given in Krongkaew (2000) for EAP. The government's need to control firms and use them to serve ends other than growth explains why soft-budget constraints persist.

⁸ Existence of such correlations can also be seen, for example, in Hou and Robinson (2000) and Esfahani and Toossi (2002) who find that in most countries there is a positive relationship between the size of the public enterprise sector and government consumption.

Although the thematic papers do not examine the details of the relationships between government controls and institutional weaknesses that impede contracting, there is growing evidence in the literature that indicate a positive correlation exists, as predicted by the contracting framework. For example, Keefer and Knack (1995), LaPorta et al. (1999), Claessens and Djankov (1998), Hou and Robinson (2000), and Esfahani and Toossi (2002) find that state ownership declines with institutional quality indices that reflect the commitment capability, bureaucratic quality, and the like. There is, of course, a possibility of reverse causation, but the effect survives when Hou and Robinson (2000) and Esfahani and Toossi (2002) use exogenous instruments such as legal origins. Similar connections concerning other government controls have not been explored yet, but the correlation on the role of government in various areas suggests that future studies are likely to arrive at similar results.

When a country has better coordination and commitment mechanisms and greater administrative capability, it can offer a better environment to private investors and bring about high rates of private investment. When there are some deficiencies in commitment capability but coordination and administrative capabilities are strong, the government may still be able to ensure high rates of efficient investment by taking care of part of the activity itself. This is often done through public investment in infrastructure or intermediate goods that can then be used to subsidize downstream private projects. In other words, some public investment can substitute for commitment deficiencies. As a result, in both cases high investment rates can be maintained and, because other institutional capabilities are strong, the growth performance is likely to be strong. This may help explain the strong correlation between investment and growth that empirical studies commonly document. There are, of course, anomalies where a government uses resource rents or heavy taxation to maintain high investment rates, but lacks the institutional capability to bring about a minimum level of productivity and growth, as McMahon and Squire observe in chapter one.

Natural Resources

As we have seen in the discussion of the overview chapters on "sources of growth" and "market and growth", abundant natural resources has proven a curse in some countries and a blessing in others. The examples given above confirm that the difference is associated with the quality of institutions. But, how exactly do institutional capabilities shape the consequences of natural resource endowments?

To answer this question, Castanheira and Esfahani observe that the countries that use their natural resources more effectively enjoy stronger capabilities in terms of coordination, commitment, and administration. For example, in a country like Kuwait, where the ruling family's dominance and long-term horizon has made it easy for the government to coordinate and commit, a large share of oil revenues has been invested overseas to create a portfolio of international assets. This portfolio provides a stream of

revenues that is inversely correlated with oil revenues and insures the country against external shocks. Another example is Malaysia, where oil revenues have been used for domestic infrastructure development coordinated by a strong coalition that has ruled the country since its independence. The contrasting situation is Nigeria where various ethnic groups have failed to come to terms with each other and oil revenues have been plundered by fast changing governments.

Further evidence concerning the role of contracting capability can be found in the domestic pricing of oil resources. Esfahani (2002) develops a theoretical model and empirical tests showing that domestic distortions of fuel prices are highest in the countries in the middle range of democracy and rule of law. At one end, where the voters can ensure that the politicians use government resources to enhance public welfare, they have no difficulty accepting high fuel prices even when the country is well endowed with oil (as in Norway and United Kingdom). As the other end, where dictators force coordination and capture rents for themselves, again prices are set relatively high. However, in the middle range, where the public has some power to get the politicians to lower fuel prices, but not enough power to get the government to apply the resource rents that it collects as public funds to welfare, the equilibrium outcome is inefficiently low prices.

Risks, Shocks, and Inflation

The thematic chapter on microeconomics highlights the importance of risk, especially broader ones that cannot be insured locally, in household and firm behavior. Much of such risks can be insured through appropriate government policies through the development of insurance and credit markets and through appropriate fiscal and monetary policies. The need for strong institutions in the development of insurance markets is easy to see. Here, we focus on the role of fiscal policy and why contracting failures may be responsible for the inadequacy of the policy.

To examine the role of fiscal policy, it is important to first note that in most developing countries—especially in SSA, MENA, and LAC—fiscal policy is pro-cyclical (IADB, 1998; Bates and Devarajan, 2000; Rodriguez, 2000; Esfahani, 2000). The reason is that the governments in these countries tend to borrow and spend as much as they can when their economies are doing well and look credit worthy. Once the fortunes of the country change, the government has to cut back on spending not only because it cannot borrow any more, but because it has to pay back the debt that it had raised during more prosperous times. That is, expenditure is cut exactly when the population needs more public spending to smooth consumption. The reason for this pattern can be found in the incentives of policymakers in those countries. To be able to restrain borrowing during booms and ensure sufficient credibility during troughs, the government has to have good coordination and commitment capabilities. The example of Kuwait discussed above is illustrative. A similar pattern can be seen in Taiwan and China and a number of other

EAP countries examined by Krongkaew (2000). These are in contrast with most SSA, MENA, and LAC countries that cannot coordinate their fiscal policies very well and end up exacerbating the fluctuations of their economies through pro-cyclical fiscal policy.

An important consequence of coordination failure over macroeconomic policies is inflation. When the government finds itself credit constrained and badly short of funds, the politicians become keen to solve the problem temporarily via monetizing government debt. If the coordination mechanism for monetary policy is weak, then the task becomes easy and inflation follows. This makes inflation a summary statistic for serious coordination failure, which may explain why statistical studies find it to be closely associated with low growth.

Political Economy of Reform

A particularly sad part of the political economy story sketched above is that government controls and institutional deficiencies may form a vicious circle and may sustain each other through the incentives that they create for human capital accumulation. A lack of professional expertise and motivation to find better solutions to a country's problems leads to inefficient controls, which in turn distorts the incentives for accumulating productive skills. This may seem a simple coordination problem that should be easy to solve by hiring some experts from outside to help design better policies. That might put a virtuous circle in motion, as better policies improve the economic conditions and the type of human capital being accumulated, creating incentives and capabilities to do more of the same down the road. However, there are some details that often come in the way of this otherwise good story. The key problem, as the review of the GRP results in this chapter suggest, is that economic and institutional factors are quite numerous and their detailed interactions are yet to be understood in systematic ways. This wealth of possibilities has given rise to a vast variety of outcomes and has made it difficult to say much about each specific situation without getting deep into its details. This does not necessarily mean that no solution can be found for countries in poverty. Rather it implies that the solutions must be found by those who are acting within a system and are quite familiar with its details. In addition, effective solutions require the cooperation and detailed involvement of large numbers of individuals. Therefore, it is ultimately the insiders that must gain the vision and the incentive to search for better policies.

Given the complexity and dynamism of the socio-economic systems, it is also natural and quite likely that any set of adopted policies may have inadequacies or soon become obsolete. Technologies, resource scarcities, and global positions are always subject to change and countries constantly face new challenges that call for new solutions. Achieving sustainable growth in such an environment ultimately calls for institutional mechanisms that enable the policymakers to assess the economy's conditions and its

responses to their policies so that errors can be corrected on a systematic basis. In other words, successful growth requires a local institutional setup that renders the country's policymaking process *self-correcting*.

Does the above discussion mean that academic research and foreign advice are useless for reform? Not at all! Better knowledge about the nature of the problems facing the policymakers and the range of possible solutions are bound to help policymakers improve the adopted policies and the deals that they give each other and the public. Pritchett (2002) has argued that the existing political economy models are incapable of generating results that would improve economic policy because they assume that everyone is already optimizing subject to the constraints of the system. So, any proposed policy improvement must be ignoring or violating some constraint. This is certainly true in systems where there is a potential for complete contracting. However, in a complex world, lack of information about what needs to be known and what is important or not for one's purposes is a constraint that policymakers always face, but it could be relaxed by better knowledge about the parameters and workings of political and economic systems. Investing in research that reveals more about how things work can be quite helpful to the players in the game. It may enable them to find more efficient deals among themselves.

4. Conclusion

The central motivation behind the GRP has been the view that the process of growth is too complex to be practically captured through cross-country regressions alone. Econometric work has, of course, generated important general insights, but the results concerning many variables of interest, particularly policy variables, have not been clear-cut. The factors that shape economic growth are numerous and seem to interact in intricate ways, especially given the imperfections in information and contracting that naturally arise in complex and dynamic socio-economic processes. This complexity has two important implications: First, the key factors constraining economic growth vary according to place and time and need to be identified through case studies that examine the specific conditions in detail based on the broad lessons of economic theory and econometric analysis. Second, because of the extent of details that seem to matter, the most important component of the studies required for appropriate policies design must be carried out by professionals who are intimately familiar with both global knowledge and local political and economic conditions. The GRP was developed based on these two implications. It created an opportunity for further research on growth by local scholars in 80 developing countries in the form of comprehensive case studies. The experience should also help strengthen local analytical skills for continued work on growth issues and policies.

Interestingly, a major observation arising from Phase 1 of the GRP was the specificity of the main growth issues and appropriate policy responses in each context. While the thematic papers concurred with the broad results in the literature, such as the positive impacts of human capital, investment rate, and rule

of law on growth, they found gaps and ambiguities in the past cross-country research concerning how strength in these respects can be built and what are the best policies in each setting. A major issue that may fruitfully be explored through case studies is the role of risks. High risk is often viewed as an impediment to growth: households may respond by choosing high fertility at the cost of education; small firms may suffer as markets react to high risk by restricting financing and investment; political economy actors may focus on shorter horizons and may steer toward narrow allegiances that result in greater political fragmentation. All these could add to the uncertainty and riskiness of the economic environment and worsen the situation. However, it is also possible that the need to deal with risk could also lead to actions that enhance growth. Micro agents may react by saving and investing more, efforts to improve risk sharing and insurance could become growth industries, and political actors may search for institutional arrangements that increase security and coordination. Economic and institutional factors should certainly matter in the scenario that is realized in each setting, but we need to know how do they matter and how the likelihood of more virtuous circles can be increased.

Another issue that seems to cut across all themes is the interactions of various policies that make it difficult to determine which reforms have higher payoff in each situation. For example, increased competition and openness are in principle highly desirable policies, but focusing on them as priorities when financial and insurance markets are very imperfect may not bear much fruit. Whether a country should pursue those policies simultaneously with reforms in financial markets or should sequence the reforms one way or another are questions for which there are no good answers yet. Since the potential answers are likely to depend on economic and political circumstances, again case study and development of local research capabilities are natural ways to proceed.

A third major cross-cutting issue is the role government in the economy. Extensive government involvement in economic activities is often seen as an important source of inefficiency and slow growth. Dominance of the government in labor, product, and financial markets tends to render markets more rigid and make economic restructuring more difficult. Also, the rent redistribution that such interventions entail tends to create entrenched political interests in favor of the status quo. The impact may further influence individual behavior in terms of incentives to accumulate productive human capital as opposed to focusing on educational degrees. However, rolling back the role of state and turning it into an effective minimalist regulator as opposed to direct provider has not been easy and the associated reforms in many countries have not produced clear evidence of economic success. To be able to respond to opportunities and challenges and operate effectively (e.g., in containing risks), markets require a great deal of institutional infrastructure. When such infrastructure has not reached some minimum level of development, it is not at all clear that hands-off policies would be best. In fact, almost all countries that have experienced modern

economic growth have had periods of increased government intervention, especially trade restrictions, in their earlier stages of development. Coming up with appropriate measures that build the necessary institutional capabilities and take account of interactions among existing weaknesses has been more of a trial and error process with unique local features than a well-understood and predictable course.

The thematic GRP chapters touch on many details of the above issues and other related topics, all of which confirm the basic messages raised above: economic growth is a very complex process and local knowledge and a self-correcting policymaking system are important. This implies that further capacity building through local studies should be a key component of research on growth. However, this should not be to the exclusion of cross-country econometric work. That methodology, especially as it develops further to take account of structural and dynamic aspects, will remain essential for reaching generalizations and checking the broader validity of case study results.

References

- Alesina, Alberto and Roberto Perotti (1999), "Budget Deficits and Budget Procedures", in James M. Poterba and Jürgen von Hagen, eds., *Fiscal Institutions and Fiscal Performance*, Chicago: University of Chicago Press: 13-57.
- Amsden, Alice (1989), *Asia's Next Giant: South Korea and Late Industrialization*, New York: Oxford University Press.
- Barro, Robert J. and Gary S. Becker (1988), "A Reformulation of the Economic Theory of Fertility", *The Quarterly Journal of Economics*, 103.1: 1-25.
- Bates, Robert and Shanta Devarajan (2000), "Framework Paper on the Political Economy of African Growth", GDN Working Paper.
- Becker, Gary S.; Kevin Murphy; and Robert Tamura (1990), "Human capital, fertility, and economic growth", *Journal of Political Economy*, 98: s12-s37.
- Caldwell, John C. (1976), "Toward a Restatement of Demographic Transition Theory", *Population and Development Review*, 2.34: 321-66.
- Canning, David and Peter Pedroni (1999), "Infrastructure and Long Run Economic Growth", Paper presented at the 1999 Econometric Society Summer Meeting, Madison, Wisconsin.
- Castanheira, Micael, and Hadi Salehi Esfahani (2003), "Political Economy of Growth: Lessons Learned and Challenges Ahead", in McMahon and Squire (eds.), chapter 5.
- Castanheira, Micael and Vladimir Popov (2000), "Framework Paper on the Political Economics of Growth in Transition Countries", GDN Working Paper.
- Claessens, Stijn and Simeon Djankov (1998), "Politicians and Firms in Seven Central and Eastern European Countries," Manuscript, The World Bank.
- Collier, Paul, and Jan Willem Gunning (2000), "The Microeconomics of African Growth 1950-2000", Growth Research Project on Explaining Growth, Washington, DC: Global Development Network.
- Collins, Susan and Barry P. Bosworth (1996), "Economic Growth in East Asia: Accumulation versus Assimilation", *Brookings Papers on Economic Activity*, 2: 135-203.
- Esfahani, Hadi Salehi (2000), "Political Economy of Growth in MENA Countries: A Framework for Country Case Studies", GDN Working Paper.
- Esfahani, Hadi Salehi (2002), "A Political Economy Model of Resource Pricing with Evidence from the Fuel Market", manuscript, University of Illinois.
- Esfahani, Hadi Salehi and Maria Teresa Ramírez (2003), "Institutions, Infrastructure, and Economic Growth", *Journal of Development Economics*, 70: 443-477.
- Esfahani, Hadi Saleh and Ali Toossi Ardakani (2002), "What Determines the Extent of Public Ownership?" Manuscript, University of Illinois.

- Guriey, Segei, and Barry Ickes (2000), “Microeconomic Aspects of Economic Growth in Eastern Europe and the Former Soviet Union, 1950-2000”, GDN Working Paper.
- Guriey, Sergei and Djavad Salehi-Isfahani (2003), “Microeconomic Determinants of Growth Around the World”, in McMahon and Squire (eds.), chapter 3.
- Hart, Oliver; Andrei Shleifer; and Robert W. Vishny (1997), “The Proper Scope of Government: Theory and an Application to Prisons”, *Quarterly Journal of Economics*, 112: 1127-1161.
- Hou, Kewei and David T. Robinson (1999), “Towards a Property Rights View of Government Ownership”, Manuscript, University of Chicago
- Inter-American Development (IADB) (1998), *Economic and Social Progress Report 1998: Latin America After a Decade of Reforms*, Washington DC: Part III, Chapters 1 and 2.
- Jurajda, Štěpán and Janet Mitchell (2003), “Markets and Growth,” in McMahon and Squire, (eds.), chapter 4.
- Keefer, Philip and Stephen Knack (1995), “The Effects of Institutions on Public Investment”, Preliminary Draft of paper presented in American Economic Association Meeting, 1996, San Francisco.
- Kelegama, Saman and Kirit Parikh (2000), “Political Economy of Growth and Reforms in South Asia”, GDN Working Paper.
- Krongkaew, Medhi (2000), “The Political Economy of Growth in Developing East Asia: A Thematic Paper”, GDN Working Paper.
- Krugman, Paul (1994), “The Myth of Asia's Miracle”, *Foreign Affairs*, 73.6: 62-78.
- LaPorta, Rafael; Florencio Lopez-de-Silanes; Andrei Shleifer; and Robert W. Vishny (1999), “The Quality of Government”, *Journal of Law, Economics and Organization*, 15.1: 222-279.
- Lee, Kevin; M. Hashem Pesaran; and Ron Smith (1997), “Growth and Convergence in a Multicountry Empirical Stochastic Solow Model”, *Journal of Applied Econometrics*, 12: 357-392.
- Lee, Kevin; M. Hashem Pesaran; and Ron Smith (1998), “Growth Empirics: A Panel Data Approach – A Comment”, *Quarterly Journal of Economics*, 113: 319-323.
- Levy, Brian D. and Pablo T. Spiller (1996), *Regulations, Institutions and Commitment: The Case of Telecommunications*, Cambridge, UK: Cambridge University Press.
- Maloney, William F. (2002), “Missed Opportunities: Innovation and Resource-Based Growth in Latin America”, manuscript, the World Bank.
- McGuire, Martin C. and Mancur Olson, Jr. (1996), “The Economics of Autocracy and Majority Rule: The Invisible Hand and the Use of Force”, *Journal of Economic Literature*, 34.1: 72–96.
- McMahon, Gary and Lyn Squire (2003), *Explaining Growth: A Global Research Project*, Basingstoke, U.K.: Palgrave Macmillan.
- Pritchett, Lant (2003), “A Conclusion to Cross National Growth Research: A Foreword 'To the Countries Themselves'”, in McMahon and Squire (eds.), chapter 6.

- Rodríguez, Francisco (2000), "The Political Economy of Latin American Economic Growth", GDN Working Paper.
- Rodríguez, Francisco and Dani Rodrik (2001), "Trade Policy and Economic Growth: A Skeptic's Guide to the Cross-National Evidence", in Ben S. Bernanke and Kenneth Rogoff (eds.), *NBER Macroeconomics Annual*, Cambridge, MA: MIT Press.
- Soludo, Charles C. and Jongil Kim (2003), "Sources of Aggregate Growth in Developing Regions: Still More Questions than Answers?" in McMahon and Squire (eds.), chapter 2.
- Wade, Robert (1990), *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*, Princeton: Princeton University Press.
- Weingast, Barry (1995), "The Economic Role of Political Institutions: Federalism, Markets, and Economic Development", *Journal of Law, Economics, and Organization*.
- Young, Alwyn (1995), "The Tyranny of Numbers: Confronting the Statistical Realities of East Asian Growth Experience", *Quarterly Journal of Economics*, 110.3: 641-680.