

## **Development Policy and Development Economics: An Introduction\***

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Anyone who undertakes to produce a volume of surveys in economic development must confront the question: does the world really need another one? There have been four volumes in the present series alone, going back to 1988 (Chenery and Srinivasan, eds.), with the latest collection published in 2008 (Schultz and Strauss, eds.). The field changes over time and, one hopes, knowledge accumulates. So one motive is the desire to cover the more recent advances. And indeed, economic development has been one of the most dynamic and innovative fields within economics in recent years.

But we had another motive as well. We envisaged this Handbook to have a somewhat different focus from earlier ones. In particular, rather than just surveying the “state of the literature” in various subfields, what we sought to accomplish is to present critical and analytical surveys of what we know (and don’t know) in different *policy areas*. We asked the authors of each chapter to answer the questions: “What kind of policy guidance does the literature offer in this particular area of development? Where are the gaps? What can we say with certainty that we know? What are the weaknesses of the literature from a policy perspective? What kind of research do we need to undertake to answer burning policy questions of the day? To what extent does actual policy practice correspond to the prescriptions that follow from solid research?” We thus envisioned that the audience for this volume would not only be graduate students and other

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academics, but well-trained policy makers in developing countries or international financial institutions.

While one primary goal is to inform policy makers, we also hope that the volume will assist scholars in designing research agendas that are informed by policy questions, in particular by the gaps in knowledge that would speak to major policy issues. The development field has always been one in which the worlds of research and practice are in close relationship with each other and move in tandem. The large number of PhD economists who work in international organizations such as the World Bank and the influence of academia among developing-country officialdom ensure that ideas emanating from the ivory tower often find quick application. But equally important, in principle, is the reverse feedback—the need to tilt researchers’ attention on the questions that are, or should be, on the policy agenda. The organization of the present volume around policy issues is designed to make a contribution towards both of these goals.

### Key themes

Before briefly summarizing the individual chapters, it is worthwhile to highlight some of the main cross-cutting themes that emerge from the material that follows.

1. *The policies that impact development are wide-ranging, all the way from broad macroeconomic policies such as monetary and exchange-rate policies to interventions in microfinance.* This is perhaps one of the differences between the economics of development and other fields within economics. Poverty reduction, economic growth, and development most broadly are the outcomes of a complex set of interactions across the entire range of economic policies and institutions. From this perspective, “development policies” must have a very broad meaning indeed. As the chapters in this Handbook illustrate, one cannot associate the field of

development with policies in just a narrow set of domains—such as education or growth. Nor do these effects and interactions neatly separate along methodological dividing lines such as microeconomics versus macroeconomics. To cite just a few examples: A couple of years' bout with high inflation can undo the effects on poverty reduction of decades of effective anti-poverty programs. In the absence of effective social programs, high growth may not deliver much real development. The returns to schooling may be affected by health interventions that affect life expectancy or cognitive capacity. Improving credit markets may affect schooling. And the analysis of institutions, human capital effects on growth, or environmental policy span across micro and macro perspectives.

2. *The efficacy of policy is rarely a question of “does it work;” instead it is a question of “when does it work and when not and why?”* Economic theory is rich and flexible enough to justify many different policies, depending on the constraints and opportunities defined by the context. Nowhere is this general point better illustrated than in the area of development policies. The chapters that follow elucidate the point amply. Whether it is in trade, macroeconomics, labor markets, property-rights, education, or microfinance, there is no unique correspondence, as the Washington Consensus and other general recipes suppose, between policies and outcomes. Earlier attempts to establish universal linkages (such as the impact of tariffs or foreign aid on growth) do not survive the most recent generation of work.

As the newer literature surveyed here makes clear, the trick is to know enough about context and the universe of applicable models to be able to apply the right framework. There are no simplistic rules of thumb and no alternative to the hard work of applying economic reasoning and evidence to the context. Even in such an area as property-rights, around which current orthodoxy has coalesced, there are no clearcut and immediate policy implications one can draw

*in general.* As Besley and Ghatak note, “The creation of effective property rights is heterogeneous in its impact and there are many potential mechanisms that can sustain property rights. This suggests that there should not be a “one size fits all” mantra of extension of private property rights, nor a blind faith that this is a magic bullet that will cure all economic ills.” All of this suggests the need for far greater modesty when generalizing about the role of policy and for studies that evaluate policies or interventions in different contexts.

Relatedly, details of policy implementation matter. The specifics of how a policy or intervention is designed can have a substantial impact on its success. Decentralization of schooling may in principle lead to improved outcomes because educational resource allocations better reflect their suitability to differing local environments, but as studies reviewed by Behrman show, the implicit incentives built in to actual decentralization programs can undermine their achievements. Similarly, Karlan and Morduch emphasize in their chapter that the specific delivery mechanisms for financial products can have substantial effects on outcomes such as repayment rates for similar-sounding financial products (e.g., micro loans).

*3. Appropriate development policies typically exhibit high degrees of complementarity.* One reason behind context-specificity is the presence of prerequisites for policies to work appropriately. Policy can work or fail depending on the presence of those prerequisites and the feasibility of implementing the entire package. For example, Kose et al. list a long list of macroeconomic and structural policies that need to be in place for countries to reap the benefits of financial globalization, and emphasize how policies towards the capital account need to be seen as part of a much broader set of policies. Similarly Harrison and Rodriguez-Clare emphasize the relevance of complementary aspects of the policy regime—such as labor-market policies or the ease of entry and exit for firms—to the success of the trade policy. As Temple

points out, we cannot analyze the economics of aid without combining it with the economics of growth, trade, and political economy. As Baland et al. argue, governance is best thought of as a bundle or cluster of institutions and not just a single thing. Hanson points to the interactions between trade in goods, domestic schooling policies, and international labor flows. Schultz points to the ineffectiveness of schooling interventions where the health environment is such that life expectancy is low. And Dasgupta emphasizes the incompleteness of any account of development that leaves natural capital out of the picture.

*4. Even though developing countries have become significantly more integrated into the world economy in recent decades, their integration remains skewed, has been full of surprises, and has failed to provide many of the expected benefits.* Many of the chapters in this Handbook (those on trade, aid, international labor mobility, monetary and currency policies, financial integration) focus on the linkages between the world economy and development outcomes, and on how domestic policies in both developed and developing countries affect the quality and consequences of those linkages. This is entirely appropriate, as the integration of developing economies in the world economy has been one of the major trends of the last quarter century. Yet, as the chapters demonstrate, this has been a far from smooth process: trade liberalization has not always paid off the anticipated dividends and financial globalization has brought frequent and painful crises. International labor mobility, which could be a great boon, remains mostly restricted, by high-income countries. As the authors document, however, we are now in a far better position to understand these processes and to avoid the blind spots of the past

*5. Actual experience with development policy has increasingly led economists to broaden and deepen the scope of the analysis into the areas of institutions, governance, and politics.* Scratch any economic issue of consequence, and you are likely to find politics lurking

underneath. The chapters that follow demonstrate that this is all the more true of development economics. Economists increasingly acknowledge the importance of institutions—the rules of the game in a society—and the nature of political and power struggles that lie behind them. Encouragingly, they are also increasingly applying their empirical and conceptual tools to analyze those deeper determinants. Issues of governance, politics, and power are no longer a sideshow; they constitute a central element in the field. However, while there has been increased attention to generic issues such as corruption and politician competence, there are few studies that examine the political economy aspects of specific policies, although Behrman’s chapter discusses some research that focuses on how elites suppress public schooling in their own interest. As Dasgupta notes in his chapter, the institutions of governance with respect to natural capital—domestic and international—is also beginning to receive some belated attention.

6. *Getting cause-and-effect right is extremely important in designing development policy, and has become a central focus of research in development. But there are dangers.* There is consensus that associations between variables cannot be used as a sound basis for policy. For example, Shultz’s chapter on health and population documents the strong positive historical relationships across countries and over time between income and health measures (e.g., life expectancy). Some have argued that indeed, based on these associations, ill health is a major barrier to development. What is unclear is to what extent these associations reflect the effects of income on health demand and/or jointly reflect differences in both governmental capacities to simultaneously deliver health services and promote income growth. Existing micro studies, which deal with the issue of causation, however, all indicate only modest effects of improvements in nutrition or health on productivity even among the poorest households relative to the aggregate correlations observed in cross-country data.

While to some extent policies should be skewed towards interventions for which evidence is more persuasive, the limitations of empirical methods and of data (see below) mean that only a limited set of interventions will be well-supported by causal evidence. And, indeed, empirical studies will focus on those topics for which obtaining credible, causal estimates is least costly. Thus, the danger is that some interventions that may have large payoffs for generating growth and for which there is little empirical support, because of the absence of evidence, may be neglected. Of course, one aim of this Handbook is to point researchers to areas of potential policy relevance where evidence is weak.

*7. Distinguishing symptoms of underdevelopment from root causes of underdevelopment is key to setting the right policies.* This is distinct from identifying cause and effect. One may find a true causal remedy for a symptom, but remedying the symptom may not lead to economic growth or development. Distributing a certain pill efficiently may cost-effectively and causally reduce the incidence of a particular disease that is prevalent in low-income countries, but even eradicating the disease may not lead to substantial economic growth. Finding which “pills” work for which symptoms thus may not go a long way towards solving problems of underdevelopment. A program redistributing income to the poor alleviates poverty to some extent, but it does not address the root cause of poverty and thus may not be sustainable in the long run. In most low-income countries school attendance and school inputs are also at low levels. There may be many ways in which schooling can be increased, and there is now increased evidence on the “effectiveness” of various mechanisms (see the chapter by Behrman), through cash transfers that condition on schooling, via policies that relieve credit constraints, or through improvements in school availability or school quality. But if schooling demand is low principally because payoffs to schooling are low, such interventions will have little effect on poverty

reduction and growth. Alternatively, a policy change that accelerated the pace of technical change and raised the demand for skilled workers might both alleviate all of the symptoms of low schooling and enhance economic growth. An understanding of the contexts in which schooling and health contribute to long-term growth is needed along with evidence on the effectiveness of policies that induce increased schooling demand or increase healthiness. Evidence on the former may be more difficult to obtain compared with evaluating specific interventions that raise the quality of schooling, attract students and teachers to school or eradicate disease.

8. *We learn from many different types of evidence.* Development policy progresses through the updating of priors on what works, how and where. These chapters demonstrate that there are multitudes of ways in which our priors can be updated. For example, economists have exploited historical events – e.g., colonization and technological inventions; natural events – e.g., twinning and disease spikes; and policy variation to assess the impacts of institutions and population and health policies on income growth. Economists are also directly inducing intervention randomness, rather than achieving it through imposing structure on existing data. Randomized controlled trials (RCTs), in which randomly-selected subpopulations are selected for an intervention and then outcomes are compared across the treated and untreated populations, have been used to evaluate the causal effects of specific programs (e.g., cash transfers, subsidies to medical inputs), delivery mechanisms (e.g., kinds of financial products), and, less pervasively, to obtain evidence on fundamental behavioral assumptions that underlie models used to justify policy – e.g., adverse selection.

As we learn from the chapters on aid, microfinance, health, and education, RCTs are extremely useful in some settings, because, unlike many other empirical techniques, they leave

little room for questioning the internal validity of the results. But this method has a number of important limitations. First, in common with other empirical methods, the findings obtained from one population may not be generalizable to others (problems of external validity). This, of course, is just the same principle that applies to development policies – we need to know where interventions work, and why. Second, in common with RCT's applied to medicines but not to other methods, if an intervention is deemed successful in the short run it is almost always then provided to the control population, and if the intervention is deemed ineffective in the short run it is abandoned, thus making it difficult to assess long-term effects of any randomized trial. For example, the original Mexican *Progresa* program, which restricted cash transfers to a randomly-chosen sub-population, was deemed to be a success and then immediately extended to all eligible households. Third, in common with the medical use of RCT's and many other methods, interventions are evaluated one at a time – there are few comparisons of alternative interventions that could achieve the same outcome within a given experiment. Some of these limitations are remediable – multiple interventions can be randomized, treated and non-treated populations can be followed over time, and the same set of interventions can be tried in different populations to assess external validity. But, at this point in time we have almost no evidence of long-term effects based on RCT's and few systematic comparisons of the outcomes of RCT's across different populations to improve our understanding of the conditions in which particular interventions are most effective.

The limitations of cross-country empirical work have been increasingly recognized in recent years, but as the chapters in this Handbook demonstrate, there is still much that can be learned from these exercises if appropriate judgment is exercised. First, aggregate cross-country associations can be used to establish important regularities (as in Freeman's chapter on labor

markets and Hanson's on international labor flows) or to cast doubt on policy presumptions based on incorrect assumptions about cross-country relationships. The chapters by Harrison and Rodriguez-Clare and by Kose provide important illustrations of the latter. As these authors discuss, strongly-held professional priors about the impact of trade and financial opening on growth have been considerably weakened by the latest generation of cross-country regressions. These cases represent learning—or perhaps more appropriately, unlearning. History and case studies can also be useful, and many of our chapters make strategic use of them. Schultz for example examines the historical demographic transition. He also shows that the existing macro evidence on the relationship between fertility decline, which ages a population, and savings is weak or non-existent, even though the life-cycle model of savings predicts that savings should rise as a consequence of aging. The impact of fertility decline on savings has been one key motivation for population control policies. A second potential benefit of using relationships among aggregate statistics is that they permit inferences about externalities. For example, the micro evidence on the causal effects of, say, health or fertility change on individual wages captures private but ignores social gains from policies that improve health or reduce family size. As Schultz and Behrman point out in their respective chapters, there has in fact been little evidence on the externalities of fertility, schooling or health that help justify public interventions in these areas. In the field of environment and natural capital, Dasgupta notes that it is possible to learn from about household and village behaviour governing local ecosystems from studies that differ greatly in style, ranging from narratives on individual lives to econometric studies that cover many villages.

*9. The experience of developing countries with diverse policies and institutions provides a rich laboratory for learning about the effect of policies and institutional arrangements—so has*

*made important contribution to economics as an applied science.* Policies and institutions in the advanced nations tend to be stable and relatively uniform. Policies in the developing nations tend to be in a flux, and both policies and institutions vary considerably across time and space. This is both a blessing and a curse. You want to test the idea that nominal variable can have no real effects? What better environment to look at than developing countries with high inflation? Want to scrutinize the diverse ways in which property rights affect economic incentives or how firms and households cope with absent markets? Why not look across developing countries—where there is huge variance—or indeed within African countries where there can be significant variation in property-right protection even across households. Want to understand the implications of diverse labor-market policies? Again, the developing countries with a range of institutions provide a great laboratory. Of course, it is precisely this heterogeneity in institutional settings and policies that makes it difficult to draw general conclusions about a policy from individual studies confined to particular settings, or from cross-country regressions that assume that policy-response coefficients are identical across countries. Nevertheless, the combination of economic theorizing along with careful and thoughtful empirical work applied to new data has led to an increased understanding of the effectiveness of policies across a wide spectrum of environments, as the chapters in this Handbook demonstrate.

### An overview of the volume

We now provide a brief summary of the chapters that follow.

Harrison and Rodriguez-Clare ask the question: When should the government depart from policy neutrality in trade and foreign investment—employing industrial policies or tilting in favor of (or against) inward foreign investment—and what does the empirical literature say about

the record of such policies? The authors draw attention to two important empirical regularities in recent decades: first, there is no significant relationship between average protection levels and growth; and second, there is a positive association between trade volumes and growth. They interpret these regularities to suggest that any successful industrial policy strategy must ultimately raise the share of international trade in GDP. The authors are also skeptical that promotion of FDI is warranted by the existing evidence. They find little support for what they call "hard" interventions (those that distort prices to deal with Marshallian externalities, learning-by-exporting, and knowledge spillovers from FDI). But they believe there is room for "soft" industrial policy, wherein the goal is to develop a process whereby government, industry and cluster-level private organizations collaborate on interventions to increase productivity. They suggest programs to help particular clusters "by improving the formation of skilled workers, regulation and infrastructure."

As Levy Yeyati and Sturzenegger underscore, few things can have as quick and dramatic effect on poverty as mismanaged monetary policy that ends up in a balance-of-payments crisis and high (or hyper-) inflation. Their chapter focuses on the role of "sound monetary policy," and on the evolving understanding of how that idea is practiced. It emphasizes the role of both economic theory and economic history in shaping governments' choices with respect to monetary and exchange rate policies. A central argument in the chapter is that these policies not only affect key nominal variables, but, also as a result, real outcomes such as output volatility, economic growth, and income distribution. In addition, they affect many other variables that are only loosely related to monetary issues. For example, currency stability may foster trade, or augment financial fragility as it undermines the incentives of agents to hedge against currency risk. As Levy Yeyati and Sturzenegger note, the pros and cons of alternative policies depend

both on the country context and the changing global context. So the debate on appropriate monetary and exchange rate policies is far from closed.

Kose et al. survey the extent of financial globalization and the nature of the policies that help developing nations put it to better use. They conclude that financial sector development, institutional quality, and trade openness help to derive the benefits of globalization. Low levels of public debt and the avoidance of fixed exchange rate regimes are also important prerequisites. But this chapter also emphasizes that “the relationship between financial integration and economic policies is a complex one and that there are unavoidable tensions inherent in evaluating the risks and benefits associated with financial globalization.” Consequently, the risk-benefit ratio has to be evaluated in a country-specific manner. One of the main contributions of this chapter is the idea that financial integration’s benefits may come not directly in the form of greater investment and better risk sharing, but indirectly in the form of “collateral” benefits: improved macroeconomic discipline, development of the domestic financial sector, competitive discipline, and so on.

Temple reviews the rich and contentious literature on foreign aid and its effectiveness. His chapter’s focus, appropriately, is not on whether aid works, but on when it works. The first half of the chapter takes a general equilibrium perspective, and discusses aggregate models, the Dutch disease, and the political economy of aid. This part also discusses the cross-country evidence that underpins much of the academic literature on foreign aid. The second half of the chapter is organized more concretely around current debates among donors. Here Temple reviews recent changes in donor policies, against the background of the emergence of a new “partnership” model for donors and aid recipients. He focuses on the shift towards greater targeting of aid, governance and institutions, local ownership of reforms, the streamlining of

conditionality, and direct budgeting support for recipient governments. Temple ends on a hopeful note: “Although much remains unknown, arguably enough has been learnt that aid and conditionality can be more effective in the next few decades than in the past. By assigning a central role to governance and institutions, academics and policy-makers may have finally identified the most important binding constraint on growth, development and aid effectiveness. Donor policies are responding to this, and evolving towards greater flexibility in approach...”

It has become trite to say that markets depend on well-defined property rights. But how exactly do these matter, and what is the evidence that they matter in the development process? Besley and Ghatak devote their chapter to these questions. They develop a unified analytical framework for studying the role of property rights in economic development. The model aims to address two fundamental questions: (i) What are the mechanisms through which property rights affect economic activity? Property rights may work through reduced expropriation, through facilitating gains from trade, or by acting as collateral. (ii) What are the determinants of property rights? Using the analytical framework as an organizing device, Besley and Ghatak survey some of the main empirical and theoretical ideas in the literature. They caution about not fetishizing property rights reform (as it may have diverse effects in different settings), and warn that there may not be a single, uniform manner in which it can be implemented.

Baland, Moene, and Robinson address the broader issue of governance. Their chapter yields four main conclusions. First, governance remains a vague notion which is difficult to unbundled in practice. Nevertheless, the emphasis on governance is quite consistent with the results of the recent academic literature emphasizing the importance of institutions. Second, governance is the outcome of a political process, and as such, the analysis of governance is closely related to the literature on the political economy of development. Third, reformers who

want to improve governance need to understand the nature of the underlying political equilibrium which determined prevailing arrangements of governance. Finally, little is understood about the forces that create or impede endogenous improvements in governance, and this remains an important frontier for future research.

Freeman provides a survey of the institutional landscape of labor markets in developing nations, and looks at the effects of labor market practices such as employment-protection laws, minimum wages and unions on economic outcomes. Developing nations are characterized by labor market dualism. But Freeman's evaluation greatly qualifies the simple Harris-Todaro picture of labor markets where rigidities in urban formal sectors have adverse implications both for efficiency and equity, and in which there are easy benefits to be had from weakening labor regulations. He concludes that "regulations and unions are not the bugbear to development that many believed them to be years ago." Where policies have adverse effects on employment, the magnitudes are generally modest. Freeman emphasizes that practices in formal labor markets have important spillovers on informal labor markets. For example, minimum wages produce spikes in wage distribution in informal labor markets as well. He provides capsule summaries of the Chinese and Argentinean experiences, which suggest that labor market institutions can play a positive role in promoting development and preserving social stability. The chapter calls for more research on the informal sector, about which Freeman says we still know far too little.

One sign of the growing integration between developed and developing countries is the increase in labor flows from low- to high-income countries. The associated phenomenon of remittances has also caught the attention of development economists, as these financial flows from high- to low-income countries exceed in magnitude foreign aid flows. Hanson's chapter documents the rise in international labor mobility and in remittances. In this area, it is the

policies of developed countries that appear to have the greatest impact on these phenomena and thus on the development of poor countries experiencing emigration - high-income countries severely restrict both the quantity and types of immigration, but few countries control labor outflows, although some actively support labor emigration (e.g., the Philippines). Hanson's review of the existing literature suggests that we do not yet know the primary causes of the still relatively low levels of inter-border labor movements given the substantial disparities in world wages. We do know that most emigrants are positively selective with respect to human capital and that remittances do not appear to have any special effects on sending-country domestic investment. Hanson asks the policy question of whether increased outflows that would be enabled by less restrictive high-income country immigration policies would aid development in low-income countries, and finds that the evidence is still too weak to provide a reliable answer, but does point to mechanisms to study – effects on wages (generally positive), effects on domestic returns to schooling (unclear), effects on income distribution (depends on the selectivity of receiving-country restrictions). Areas of interaction across topics highlighted in this chapter include domestic schooling policy - schooling abroad is an alternative to domestic investment in education but has implications for the permanent outflow of workers as well – and trade and aid, although the literature on whether trade, aid and migration are complements or substitutes is not yet clear.

The chapter by Schultz documents the declines in fertility and improvements in health across the world generally and examines the evidence on the impact of health on productivity and on the effects of fertility reduction on human capital development. He presents evidence that policy-makers in low-income countries wish to lower fertility while those in high-income countries tend to favor policies that are pro-natalist. However, the amount of public domestic or

international-donor funds devoted to affecting fertility decisions is relatively modest and has declined over time. Existing micro-studies that examine the impact of family size on human capital also point to only relatively small effects. Such micro-studies, however, do not capture externalities that may exist from population growth reduction. The aggregate effects of fertility reduction on age-composition also do not appear to have major effects on growth. Emerging evidence does suggest that early interventions in health, including when a child is in the womb, have potentially the largest impacts on adult productivity. Because a child's health is proximately affected by parental decisions, the chapter highlights these and points to how an effective health policy that seeks to promote economic growth must focus on early interventions and thus on the role of parents.

Behrman focuses on schooling policy issues pertaining to the effectiveness of improvements in school inputs such as smaller classes, or textbooks, and the efficacy of decentralization of schooling. There is now a growing literature, using RCT's, that has examined schooling input effects and incentive schemes to improve both the quality and quantity of schooling resources, but Behrman notes the paucity of evidence of long-term effects of schooling improvements and findings across multiple settings. An emerging theme is that pre-school interventions may be especially effective in the majority of low-income countries where primary schooling is now the norm. These findings complement those of the health literature, which, as reviewed in Schultz's chapter, also show stronger effects of early interventions. The set of RCT's is still too limited to draw generalizable conclusions, however, and there is a relative absence of studies that look at the general issue of schooling incentives. Behrman also points to a lack of study of the markets in which schooling inputs are supplied, most especially on what determines the quantity and quality of teachers and other education providers.

Many economists believe that poverty itself is a barrier to development, given the limitations of credit and insurance markets – the poor are too poor to save or invest in either human capital or businesses that spur growth. Such a view takes as given financial institutions, however. And it is true that existing formal institutions such as banks find it unprofitable to offer financial services to the poor, and the poor also appear not to be interested in insurance products and to have low savings rates. Karlan and Morduch’s chapter takes the point of view that the principle barrier to providing the poor with financial resources is the absence of delivery mechanisms that appropriately take into account market imperfections, informal institutions and behavior. One well-known institutional innovation in finance is “micro-credit”, but evidence of its success is mixed and an understanding of why and whether the specific features of micro-credit mechanisms contribute to solving the fundamental problems of credit markets is incomplete. Designing the appropriate financial institutions and delivery mechanisms, of course, requires a deep understanding of behavior and informal sources of finance. The chapter reviews these with respect to how they contribute to designing financial delivery mechanisms. They then review recent RCT’s that look at how differing mechanisms of delivery for savings, insurance and loan products affect both take up rates and sustainability (e.g. repayment rates in the case of loans), as well as how such products affect savings, contribute to consumption smoothing and spur business investment.

Of all the issues discussed in this volume, none has the potential to do as much lasting damage to the prospects for development, if mismanaged, as climate change and other sources of degradation in “natural capital.” As Partha Dasgupta notes, policy discussion on these issues vacillates between two perspectives, one pessimistic and held mostly by ecologists and the other optimistic and held mostly by economists. The former point with alarm to the current pattern of

apparently unsustainably use of natural resources, while the latter take comfort in the fact that any potential scarcity is not (yet) reflected in rising prices for marketed resources. The complex interactions between the environment and economic development is the subject of Dasgupta's chapter.

Dasgupta begins by emphasizing the huge importance of natural capital in the lives of the poor, which he argues is often neglected in economic analyses. He then discusses the externalities involved and the kinds of institutions, particularly community-based ones, most likely to be effective in removing them. Common property resources (CPRs) have both their pros and cons, but have been diminishing in importance for a variety of reasons that Dasgupta identifies. The rest of his paper focuses on ways to value natural capital and proposes a method for evaluating economic programs. He draws a distinction between project evaluation and identifying sustainable development. He shows that GDP is a misleading indicator in the presence of natural capital, as it measures the well being of only the current generation, and should not be used as a welfare index in either type of exercise. He proposes a comprehensive measure of wealth as an alternative, and discusses the relevance of his preferred index for both identifying sustainable development and undertaking project evaluation. Dasgupta argues that determining the shadow prices of ecological capital assets should be central to the future research agenda in development economics.

### Concluding note

As these contributions amply demonstrate, development remains a vibrant field, with lively interplay among theory, empirics, and policy. We hope these chapters give a good account of where the field stands. We also hope their suggestions on important new policy-relevant research will eventually contribute to this Handbook's own obsolescence.



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