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Editors' Summary

Globalization and its linkages to global poverty and inequality are the subjects of heated debates. These topics are also the focus of large and growing literatures, in economics and other disciplines. What have we learned from all of this research? Or put another way, what do we know, and what do we still not know? This broad topic clearly involves a myriad of more specific issues, and most, if not all of them, are quite complex. To make sense of the interwoven strands, a series of papers by researchers working actively on a variety of subtopics were commissioned for this project. These experts, as well as the formal commentators, were explicitly selected so as to cover a range of perspectives and views.

All of the contributors to the project grappled with difficult issues of definition. As discussed below, there are no agreed-upon definitions of the terms globalization, poverty, or inequality. However, clarifying the way such terms are used is critical, as studies based on different definitions of these terms yield starkly contrasting conclusions.

A number of other themes emerged from the analyses. Perhaps the most consistent was a note of caution against making definitive, across-the-board statements about the relationships between globalization, poverty, and inequality. The extensive discussions highlighted tremendous heterogeneity in outcomes as countries integrate into the global economy. This heterogeneity is driven as much by differences in countries' initial endowments and institutional capacity as it is by the globalization process per se. Another theme is the extent to which implicit value judgments are embedded in the measures and methods that are used to evaluate these relationships. For example, economists that study inequality typically focus on proportionate differences in income across countries and individuals, while critics of globalization are more concerned about absolute differences between individuals and countries—for example, the income gap between the rich and

the poor. This results in starkly different visions of the relationship between globalization and inequality.

Four of the papers focus on measures of global welfare. These contributors examine traditional indicators of poverty and inequality, as well as explore broader indicators including measures of health, subjective well-being, and civil conflict. Their papers highlight that there are difficult issues of measurement inherent in each of these concepts. Reasonable people may disagree about which one (or ones) is most appropriate, often because of the value judgments embedded in the methodology used to construct them and, furthermore, because each of the measures appears to behave quite differently.

Three papers focus on the channels through which globalization may affect the world's poor. One of these does so using the lens of analytic trade models to explore the importance of cross-country differences in factor supplies versus productivities. Another provides an extensive review of the empirical literature on the implications of trade liberalization using microdata from country case studies. The third tackles a broad set of issues, including the influences of both domestic and international factors on the poor in low-income countries.

Authors of the final two essays were asked to comment broadly on what they had heard and to look forward. One of these emphasizes why inequality, and not just poverty, matters. The other takes a very long-term view, discussing implications of growth on poverty and the risks to that growth scenario.

HOW MUCH ARE THE WORLD'S POOR sharing in the gains that arise from economic growth, fueled by greater economic integration? In the second paper of the volume, Martin Ravallion asks why different sides of the ongoing debate about globalization and inequality give seemingly conflicting answers. Members of the antiglobalization movement claim that inequality between and within nations has been increased by globalization policies. In stark contrast, those who support globalization claim that it raises nations' incomes and that the poor benefit substantially. Ravallion's main thesis is that the different sides in this debate do not share the same values about what constitutes a just distribution of the gains from globalization. But value judgments are embedded in the standard measurement practices used to construct the factual claims made about what is happening to global inequality. He explores several differences in the value judgments made about distributive justice and examines their implications for the globalization debate. While recognizing that knowledgeable individuals might reasonably make different choices, he offers some tentative conclusions about preferred measures of inequality. More generally, he argues that explicit attention to the values that underlie the seemingly con-

flicting evidence on what has happened to poverty and inequality is essential for moving the debate forward.

The paper begins with an overview of some of the main empirical findings about what has happened to inequality and poverty, relevant for the globalization debate. Inequality can be measured in a variety of ways. One might focus on inequality among people in the world. Noting that the results here depend on the study and time period, Ravallion concludes that there has been no clear trend toward either increasing or decreasing global inequality. One might focus on inequality within countries. Here, Ravallion discusses the common finding that growth is distributively neutral on average. In other words, among growing economies, inequality (measured by the usual Gini index) rises about half of the time and falls about half of the time. This is true for poor as well as for rich countries. Thus the well-known Kuznets hypothesis has not been borne out. However, this finding is based on measures of relative inequality, as discussed further on. It is not true if inequality is measured so as to depend on absolute differences in living standards instead of income ratios relative to the mean. The absolute gap between the rich and the poor tends to rise in growing countries.

Perhaps most controversial has been the question of what has happened to inequality between countries. It is true that, on average, poor countries are not catching up with rich countries. Over the past 100 years, countries that were initially poor have grown relatively slowly. In addition, the average income of the world's richest country was roughly ten times that of the world's poorest country in the late nineteenth century, but today that income is closer to sixty times greater. Taking each country as one observation, critics of globalization have pointed to a sharp *increase* in inequality between countries beginning in the 1980s. However, if countries are weighted by population, the data show a trend toward a *decline* in the between-country component of inequality since the mid-1970s. This is the approach preferred by globalization proponents. The exchange about which approach should be used has often been heated. As discussed below, Ravallion argues that this is one area in which value judgments are implicit in the arguments on both sides.

The paper also surveys some of the empirical findings about global poverty. One frequently used indicator of absolute poverty is the share of the population with income below a fixed real value (such as one dollar a day). By this measure, poverty has clearly fallen. In developing countries the percentage of the population classified as poor fell from 40 percent in 1981 to 21 percent in 2001, and the number of poor fell from 1.5 billion to 1.1 billion. But it is far from clear that this decline in the number of poor is attributable to globalization. If one excludes China, the number of poor has remained roughly stable over this period.

And the sharp decline in ChinaÕs poverty incidence appears more closely linked to the post-1978 decollectivization of agriculture since it occurred during the early 1980sÑbefore ChinaÕs external trade liberalization.

Ravallion stresses that it is extremely difficult to assess what might have happened in the absence of globalization, raising questions about the claims (by either side) about precisely what role globalization played. Furthermore, he cautions against the types of broad generalizations that too frequently are made. For instance, the finding that growth tends to be associated with reductions in poverty does not imply that all growth-promoting policies are necessarily good for the worldÕs poor.

The paper highlights three differences in the value judgments made about distributive justice that underlie the globalization debate. The first concerns the dispute over what has happened to inequality between countries. The value judgment here relates to whether one should weight countries equally or people equally when assessing distributional outcomes. Weighting countries equally makes sense for the large macroeconomic literature that studies the empirics of growth and distribution, because each country is considered a draw from the urn of possible combinations of country policy, shocks, initial conditions, and outcomes. But if it is the *impact* of policies and performance that economists and policymakers care about, then why use equal country weights, thereby giving smaller weight to those living in populous countries? And it seems inconsistent to use population weights in measuring within-country but not between-country inequality. However, population-weighted measures ignore that individual welfare is likely to reflect country of residence as well as own income. Furthermore, population weights make the inequality indicator very sensitive to outcomes and to possible measurement errors in the most populous countries (China and India). Ravallion concludes that neither weighting method is ideal but that it is hard to defend weighting countries equally when the objective is to make normative judgments about inequality.

The second difference in concepts of inequality relates to how much weight one should attach to the way average gains from reform vary with income (horizontal impact) versus the differences in impacts found at a given level of income (vertical impact). The pro-globalization side has tended to focus on the former aggregate measure. The antiglobalization side has pointed to the losers among the poor and those vulnerable to povertyÑoften to the point of ignoring the aggregate outcomes. Although conventional measures incorporate both vertical and horizontal inequality, Ravallion discusses a number of conceptual and measurement issues and concludes that standard indicators may indeed underweight the horizontal component. Measured income may not adequately capture horizon-

tal inequities. Differential impacts on initially similar households may be viewed as unfair, fueling social conflict. And conventional indicators do not reflect "churning" as some people gain while others lose, swapping places in the income distribution.

The third issue concerns the distinction between *relative* inequality, which depends solely on proportionate differences in incomes, versus *absolute* inequality, which depends on the absolute differences—the "income gap between rich and poor." Ravallion notes that virtually all the research by economists on world inequality has used the former concept, and this has become embedded in popular writings supporting globalization. In contrast, critics of globalization often seem more concerned about absolute inequality. Arguably it is absolute inequality that most people see in their daily lives and that motivates their concerns about distributive justice. One's preference between the two concepts reflects one's (implicit) value judgment about what is a fair division of the gains from growth. Ravallion argues that both sides need to be clearer about which concept they are using and more aware of the underlying value differences.

Thus Ravallion argues that the empirical "facts" in contention do not stem solely from objective data on incomes, prices, and so on. They also depend on value judgments that have become embedded in the methodological details underlying statements about what is happening to inequality in the world. Bringing the value differences to the surface will be one critical step in moving the globalization debate forward.

Both discussants agreed with the main points made in the paper. Erik Thorbecke extended the analysis in a number of directions. In particular, he argued that "churning" may be even more important than Ravallion's paper suggests since the welfare losses of those who are hurt will exceed the gains of those whose income rise. He argued that we need to better understand how sensitive inequality measures such as the Gini index are to measurement errors in the data and to the underlying assumptions used to construct them. Finally, he discussed a variety of difficulties with using income as a measure of welfare, suggesting that a range of indicators should be considered, including those based on health and other outcomes.

Lant Pritchett argued against focusing on how one concept he sees as poorly defined (globalization) affects another (poverty). First, he disagreed that the central driving phenomenon of the period in which we live should be labeled "globalization." He argued that the past fifty years have seen a proliferation of sovereign states, significant technological improvements reducing transport costs, liberalization of restrictions on the cross-border movements of merchandise in some countries, and binding restrictions on the ability of labor to move across

borders. In his view, this is *not* globalization. Furthermore, he sees no reason for strong preconceptions about how these developments should affect global inequality. Finally, he took issue with the usage of a single, low poverty line (for example, a dollar a day) because we do care about income gains above that line. He argued instead for use of a higher poverty line or, better yet, for focus on the distribution.

IN THE SECOND PAPER, William Easterly examines the channels through which globalization affects inequality between and within countries. He defines globalization as the movement across international borders of goods and factors of production. Conventional analyses of the consequences of globalization for inequality examine the effects of trade and factor flows on the returns to factors (labor, capital, and land), on accumulation of factors, and on national income. However, the central point of his paper is that different economic models give very different predictions about exactly what the effects of these flows are likely to be.

Easterly focuses on the two main alternative models. In "Factor World," flows are driven by differences in relative factor endowments, and countries have equal productivity levels. This neoclassical framework is well known to international trade economists. It generates clear predictions about how globalization will affect inequality, and in most cases, inequality is reduced. In contrast, when trade and factor flows are driven by productivity differences between countries ("Productivity World"), predictions are considerably more ambiguous, and inequality may well rise, both within and between countries.

Easterly does not try to answer the big question of whether globalization raises or lowers inequality. Instead, his approach proceeds in two steps. In the first part of his paper, he sets out textbook versions of the frameworks and discusses their predictions about how a variety of specific shocks would affect inequality. While he recognizes that both models are polar cases, he argues that this stark presentation of the alternatives clarifies the central pedagogical issues. He then examines the actual behavior of inequality and trade, trends in trade, and factor flows, factor returns, and relative incomes in a variety of real world episodes, so as to assess which model is more relevant in particular cases.

Why do Factor World and Productivity World have such different implications for the effects of trade flows on inequality? Easterly explains this by providing a number of examples. When looking at inequality, he assumes that while everyone (in each country) owns labor, only some people (in each country) own capital. Consider what would be predicted to happen if trade restrictions were removed. First, suppose flows are driven by different factor endowments. Then capital will move from rich to poor countries, and labor will move from

poor to rich countries, equating capital labor ratios between rich and poor nations. In poor countries, wages will rise while the return to capital will fall. The opposite will occur in rich countries. Then, although income inequality is predicted to rise in the rich country (those owning capital get relatively richer), inequality declines in the poor country and between countries. In contrast, suppose flows are driven by productivity differences. Both capital and labor would move from poor to rich countries. A frictionless world would end up at the corner solution in which poor countries "empty out" and all factors move to rich countries. Globalization (international capital flows) would not tend to eliminate international inequality.

Easterly also explains that in Factor World, trade and factor flows effectively work as substitutes and have similar effects on factor prices. However, in Productivity World, there are complex interactions between trade and factor flows, and the two can be complements. For example, rich countries are traditionally expected to be relatively abundant in capital while poor countries are relatively abundant in labor. But if the rich country has productivity advantages in the labor-intensive sector, it would be perversely labor abundant. Trade flows would raise the wage in rich (relative to the poor) countries, leading to more labor migration.

In the second part of his paper, Easterly examines a large and diverse set of (seventeen) types of empirical evidence, asking in each case which of the two frameworks provides a better "fit." He concludes that some episodes or "facts" seem to support a Factor World view. These include the convergence in income inequality between countries in Western Europe and North America since 1950, the great migration from the Old World to the New World (during the late nineteenth and early twentieth centuries), and evidence of wage convergence in the heaviest senders of migrants. However, he argues that other empirical findings seem more consistent with Productivity World. All factors (unskilled and especially skilled labor, as well as capital) flow to the richest countries. Easterly presents some descriptive regressions that show increased trade associated with lower within-country inequality in rich countries. He also argues that the cross-country empirical literature on growth suggests that there must be large differences in cross-country productivity growth.

Easterly concluded that the clear theoretical channels between globalization and inequality featured by factor endowment models do help us understand some important globalization and inequality episodes. Unfortunately, many other episodes seem to require productivity channels to accommodate the facts. Because much less is known about how productivity channels work, Easterly stressed the need to extend existing models and develop new ones that can improve our understanding and the quality of our predictions.

Both discussants agreed with Easterly's bottom line. It *is* difficult to make sense of the facts about trade, factor flows, and inequality without allowing for important differences in productivity, as well as factor endowments, across countries. But both also raised concerns about some of Easterly's conclusions. John Williamson, as well as some commentators in the general discussion, took issue with Easterly's claim that factor accumulation can explain little of the differences in cross-country growth. Williamson also had questions about the claim that skilled labor and capital are flowing to the richest countries, and about the direction of causality in the regressions reported in the paper. However, he agreed that theory does need to incorporate both sets of channels. And practitioners need to think through whether their policy recommendations are robust.

Abijit Banerjee argued that Easterly's focus on macroeconomic categories (wages, rentals, productivity) is what makes it so difficult for him to draw specific conclusions about the distributional impacts of trade. Instead, he advocated decomposing the analysis to take account of heterogeneity, not only within countries but also within sectors. In specific situations, more detailed trade models can be very effective in predicting winners and losers. These models are very much in Productivity World. Banerjee illustrated this approach with examples from some recent research by himself and others.

IN THE THIRD PAPER of the volume, Angus Deaton asks whether globalization has been good for the health of the world's population. He documents that there were health improvements in poor countries (in Latin America and Africa during the 1970s and 1980s and in Asia since 1960) that represent substantial increases in well-being. But in the poorest countries since the 1990s, health improvements have been limited. His paper takes a broad look at the relevant issues, considering the very different perspectives typically seen in the public health versus economics literatures and reviewing a variety of types of empirical evidence. While recognizing that, in the long run, major health improvements cannot take place without growth in income, Deaton shows that evidence for a causal role of income growth on health is weak. Thus it is unlikely that most of the observed health gains were due to income growth, much less to income growth induced by globalization. Instead, the central tenet of his paper is that the key channel has been the spread of health-related knowledge and technology. In this broader sense, he concludes that globalization has been good for health but also that the millions of preventable deaths per year among the world's poor represent a failure of globalization.

Deaton's paper begins with a brief overview of previous episodes of globalization and international health. Disease has traveled with goods and people from

the earliest times. Previous waves of globalization spread disease and, in some cases, eradicated whole peoples. At the same time, the geographical distribution of disease shaped patterns of conquest and colonization. More recently, the accelerating pace of international travel and communication has contributed to the spread of HIV/AIDS and presents a continuing threat of new infectious diseases. Yet these same developments make our response to outbreaks of disease potentially faster and more effective.

The economics and public health literatures take strikingly different perspectives on what is meant by globalization and on its health consequences. The public health literature tends to emphasize direct effects, such as those described above, and to see globalization as a threat to international health. Furthermore, it tends to define globalization quite broadly, including not just the international integration of markets but also the imposition of policies by institutions dominated by western (and especially American) interests. For example, trade-related aspects of intellectual property rights (TRIPS) agreements are seen as putting poor-country health second to first-world profits, and the General Agreement on Trade in Services (GATS) is viewed as threatening enforced privatization of health service provision.

In contrast, Deaton notes that health issues are most notable in the economics literature on globalization for their absence. Studies that do address health tend to focus on the indirect benefits of globalization, which is defined quite narrowly. The view is that international differences in population health are largely determined by income. Globalization reduces the cost of trade, increases its volume, and generates widespread gains in income that reduce poverty and improve population health. While this literature recognizes that the linkages go both ways—strong health and educational systems are likely to be a prerequisite for successful participation in the global economy—recent globalization is seen as generally benevolent.

What is the evidence linking income to health? Deaton provides an updated version of the "Preston curve," which plots cross-country data on life expectancy against per capita gross domestic product. This does indeed show a strong positive correlation between poverty and population health, and the slope of the relationship between life expectancy and income is much steeper among poor countries (per capita incomes less than $5,000) than among rich countries. Despite the strong levels relationship, cross-country evidence since 1960 shows only a weak correlation between income growth and changes in life expectancy. Some countries have shown marked health improvements with no income growth while others have experienced rapid income growth with only limited health gains. To reconcile these two findings, Deaton stresses that the *proximate* determinants of

health in poor countries are things such as health systems, immunization campaigns, or women's education. Although likely to be strongly related to income in the long term (with causality running in both directions), the short- and medium-term relationships can be quite weak.

Economic growth in the world was faster in the 1990s than in the 1980s, but life expectancy rose by less in the 1990s. Patterns of inequality have also been changing. From 1960 into the 1990s, life expectancy improved most rapidly in the countries whose population health was initially worse. As a result, international inequality in life expectancy narrowed markedly between 1960 and 1990, a trend that has been interrupted over the last decade by the effects of HIV/AIDS in Africa and, to a lesser extent, by declines in population health in the countries of Eastern Europe and the former Soviet Union. By contrast, the distribution of income among the *people* of the world has continued to narrow, driven largely by rapid growth in the two largest countries in the world, China and India. At the same time, the distribution of income among the *countries* of the world has widened: sub-Saharan Africa and Eastern Europe have suffered from both low or negative growth and worsening population health.

Finally, Deaton asks what are the main determinants of long-term worldwide declines in mortality. The last section of his paper is devoted to arguing that the health of most of the citizens of the world is ultimately determined by new knowledge that is transmitted from elsewhere. This can be knowledge about the causes of disease, such as the germ theory, or the consequences of smoking or knowledge about therapies, including new drugs and surgical procedures. He argues that if this is true, one should expect to see increased coordination in cross-country movements of health indicators and increased convergence of mortality rates. He finds support for transmission using time series of mortality in rich countries. Specifically, deaths from cardiovascular disease (CVD) have been declining, more or less in parallel, throughout the rich countries, and male mortality rates from CVD for middle-aged men have now largely converged across rich countries. The same is not true for women, largely because of the wide divergence in international trends in women's smoking.

Deaton concludes that throughout the poor world, life expectancy improved in the last fifty years largely by the gradual application of medical knowledge that was transmitted from the first world. The speed of information transmission has much to do with the conditions in the receiving country, including education, political arrangements, and the quality of health delivery systems. Citing the more than 2 million deaths in sub-Saharan Africa from HIV/AIDS—many preventable with first-world drugs that so far have not been transmitted to poor countries—and the 10.5 million child deaths each year—preventable in that those

children would probably not have died had they been born in rich countries—Deaton stresses that much remains to be done. He advocated more, not less, globalization, which should prioritize finding faster ways of diffusing first-world health technologies. This will require better international arrangements, as well as improvements in the economic, educational, and political conditions in poor countries to permit the more rapid adoption of health technologies that already exist elsewhere. This last point received strong support from both discussants as well as many who participated in the general discussion following the presentations.

Both William Jack and Gary Burtless, the paper's discussants, agreed with Deaton's main point. The transmission of health knowledge and technologies is likely to be a (if not the) critically important channel through which globalization can, and has, improved global health. However, each raised additional issues. Burtless stressed the need to consider the impact of globalization on the distribution of income gains within rich and poor countries as well as across them. However, he does not believe that there is clear evidence about whether globalization has tended to increase or to decrease real incomes of poor people in both rich and poor countries.

Jack stressed that the transmission of health knowledge and techniques through globalization represents globalization of a public good. He raised the question of how the provision of such public goods might be affected by increased diffusion of the benefits. He also noted that knowledge of how to avoid the spread of some of the main causes of death and illness is probably widespread among public officials in poor countries. However, a variety of factors, including low incomes, credit market constraints, and coordination problems, limit their implementation. Should this be interpreted as a problem of poverty or one of inadequate transmission? In his view the distinction is not always clear cut.

THE NEXT TWO PAPERS, which take broader perspectives on how to measure well-being, were presented as a pair, followed by two commentaries. In the first paper, Carol Graham discusses ongoing work by herself and others to explore what can be learned from survey data in which individuals are explicitly asked about their level of happiness. She argues that such data can complement the welfare indicators traditionally used by economists, such as income growth, poverty head counts, and Gini indexes. While these income-based indicators do provide very useful benchmarks, she highlights dimensions of well-being that they do not fully reflect—including actual versus perceived insecurity, status of public services, and equity norms, as well as what might be called the proximity to a tolerance threshold for inequality. She suggests that failure to capture such dimen-

sions may help explain the persistent disconnect between the positive assessments of the aggregate benefits from globalization, typically reached by economists, and the more pessimistic assessments often vociferously voiced by noneconomists. The panel survey data promise to shed some light on these dimensions by providing information, including short-term movements in and out of poverty, changes in the distribution over the life of the earnings cycle, distributional shifts at the sector and cohort level, the role of relative as well as absolute differences, and changes in reported well-being.

Graham provides a brief summary of the literature on the economics of happiness, which informs her own work. A central finding in this literature is that wealthier people tend to be happier than poorer people within countries, but there is no such relationship across countries or for given countries over time. Initially uncovered by Richard Easterlin in the mid 1970s, the so-called "Easterlin paradox" has been supported by numerous subsequent studies. Economic growth and related improvements in living standards indicate that people are better off, based on objective indicators. However, they do not report to being happier. Why? One possible explanation is that absolute income matters only up to a point, beyond which relative income matters more. A related explanation is that norms and expectations adjust upwards with economic progress. Graham cites work supporting these views and discusses ways in which globalization might affect these channels. An important theme in the economics of happiness is the role of aspirations and reference norms in determining well-being. Aspirations and reference norms are, no doubt, affected by these processes, both via the changing rewards to different skill and income cohorts and via the marked increase in the availability of global information.

Much of the paper focuses on panel data for Peru (1991–2000) and Russia (1995–2000). Graham discusses a number of limitations of these data, such as sample size and attrition, as well as issues raised in interpreting self-reported responses to questions about happiness. A strength of these data is that she is able to benchmark the subjective responses against data on income and expenditure for the same respondents. However, errors in reported income are a concern, albeit one that is common to longitudinal studies. And the fact that relatively little of the variation in happiness is explained by available socioeconomic and demographic variables raises concerns about measurement errors there as well.

Graham documents a variety of interesting patterns in these data that are consistent with findings from cross-country data for other Latin American countries and the United States. She concludes that the results support the view that relative income differences, reference norms, and other nonincome factors are important determinants of reported happiness. In Latin America and Russia, hap-

pier people as well as those with greater prospects for upward mobility are more likely to support market policies and democracy. However, as Graham discusses, these results raise thorny issues of causality, and it is unclear whether her attempts to address this are able to fully resolve them.

Graham gives considerable attention to a group she calls "frustrated achievers" (FAs). These are respondents with the highest levels of (measured) income gains but who report that their economic situation is either negative or very negative. This group accounts for a surprisingly large share of the most upwardly mobile in both Peru and Russia. Why should so many who seem to be doing well report such dissatisfaction? In addition to the possibilities that the finding simply reflects innate character traits or measurement error, Graham suggests that it may arise from relative income differences or from insecurity coupled with inadequate social insurance. In any case, such frustrations are closely linked to respondents' views about market policies and democracy.

Overall, Graham concludes that these survey-based data do give a somewhat different picture than the typical income-based measures of how people are faring in economies as they integrate with the global market. However, it remains unclear how these data and their implications might be incorporated into analyses of globalization or might be used to inform the associated debates.

In his discussant remarks, Michael Kremer commended Graham for an interesting paper that raises important questions. However, he noted the difficulty of discerning the independent effect of happiness on economic outcomes because happiness is not necessarily exogenous. He agreed that her finding a large group of frustrated achievers is quite provocative. After noting the difficulty of ruling out both measurement error and the possibility that these individuals were frustrated at the outset, Kremer suggested an interpretation. This group's frustration may reflect differences in observed income gains relative to what was *expected*. Unfortunately, there are no good measures of people's sense of what is expected or what is appropriate (fair). But it is known that economic reform, like change of any kind, alters income distribution. He concluded with the view that the people most likely affected by globalization are not the poor but the elites, who become less willing to accept the status of their country.

NICHOLAS SAMBANIS PROVIDES an analytic review of the large literature on poverty and political violence, focusing on civil war. His paper also presents some new empirical results. In particular, he considers the effects on violence of economic inequality, economic growth, and education. He concludes that there is an emerging consensus that a low level of income is a significant (and perhaps even a necessary) condition for some forms of political violence, such as civil war or

coups. However, there is *no* such consensus on the effects of economic inequality or education. Furthermore, it is not clear that the same relationship between income and civil war applies to other forms of violence, such as terrorism.

Sambanis begins with a discussion of the various theories that address the link between development and violence and critically reviews the available empirical evidence. The two kinds of theories that have had the most significant impact on the literature are relative deprivation theories and rationalist theories, which focus on the opportunity to organize a rebellion. Theories of relative deprivation lead one to expect that violence will rise as a result of higher inequality as persistent inequality leads to anger and despair, which reinforces the demand for political change. Rationalist theories of civil war lead one to expect that the risk of a war breaking out will increase as income per capita, education, and economic growth decline. However, the causal mechanism is unclear. This is due to either the declining economic opportunity cost of violence or to the decline in state capacity.

His review concludes that the available empirical analyses lend support to rationalist theories of civil war but not relative deprivation theories. It reports strong evidence that per capita income is robustly and negatively associated with civil war but little evidence in support of relative deprivation theory. By contrast, economic inequality measures are not found to be significant predictors of civil war onset.

However, a closer look uncovers that there is not a very good fit between the empirical results and all aspects of rationalist theory. In particular, income is subject to differing interpretations. Some view it as an indicator of the economic cost of joining a rebellion, while others view it as an indicator of state strength. Distinguishing between rival theoretical explanations is necessary before appropriate policy interventions can be designed to reduce the prevalence of civil war. Existing statistical results on income provide no means of distinguishing among causal mechanisms. Thus Sambanis offers some suggestions for how to parse out the observable implications of each causal mechanism and test them empirically. He also reviews several case studies that demonstrate measurement and other problems (for example, unit heterogeneity) that may plague quantitative studies of civil war.

One intriguing finding reported in the paper is that although income differences *across* countries seem to explain variation in cross-national patterns of civil war, there is no significant *within*-country effect of income. This result is based on regression analysis of panel data using a fixed effects model. It may suggest that chronic poverty is more robustly associated with a higher civil war risk than

transitory poverty. But, unfortunately, there still are not enough microlevel studies to provide a full picture of the microfoundations of rebellion.

Sambanis stresses that one cannot rule out the possibility that relative deprivation does matter on the basis of these results alone. Economic inequality is hard to measure and may exert an indirect effect on the risk of civil war. Most analytic research has focused on looking for a direct, linear effect between inequality and civil war. Instead, the effect may work through other factors such as a higher level of political instability due to underlying economic inequality. Available measures, such as the Gini index, do not capture changes in the distribution of income across groups, and group-level inequality may matter more than interpersonal inequality. For secessionist wars in particular, interregional inequality is theoretically more relevant than interpersonal inequality. And different forms of inequality may well have different effects on different types of wars, such as popular revolutions and secessionist struggles.

While income differences across countries may explain civil war onset, Sambanis argues that they do not seem to explain all forms of violence, particularly terrorism. He cites scholars who have found that terrorists in some countries are more educated and have higher incomes than the respective cohorts in their society. How might this be explained? He suggests that terrorism can be viewed as proto–civil war, fought by top-heavy organizations composed of elites with more education and greater commitment to their cause than the average rebel in a civil war.

Sambanis notes that economic incentives and opportunity are not the only explanations of political violence. Ideology, ethnicity, coercion, and religion can all motivate participation in insurgency. The type of insurgency (ethnic or nonethnic) and the form the violence will take (coup, terrorism, or civil war) influence the mix of recruitment incentives. To better understand the impact of poverty on civil war, he argues that the effects of economic incentives must be weighed against the effects of other explanations, such as ideology, ethnicity, coercion, or religion, on different forms of violence. And a theory must be developed that explains the dynamics of violence as it shifts forms across time and space, often moving from coups and terrorism to civil war or genocide and back. Thus he concludes that a strategy to eliminate, or reduce, organized political violence must necessarily be complex, targeting the various forms that violence might take at different stages in the political evolution of different countries

In commenting on the paper, Michael Kremer agreed that the relationship between income and stability is complex and that it would likely be fruitful to study disaggregated data—looking, for instance, at indicators of inequality among

ethnic, geographic, and other groups. He also suggested that in addition to examining determinants of when the disadvantaged rebel, it may be informative to study the behavior of those in power. When do they find it advantageous to pacify disadvantaged groups?

Catherine Pattillo commended Sambanis for an extremely informative survey that covers a lot of ground. She highlighted those areas that, in her view, were the most important for future work to address. First, the endogeneity of economic variables is a major problem, making it difficult to convincingly establish that there is a causal relationship between growth and civil war. She noted an approach that has been used in one study. Second, more information is needed about the factors that determine risk of civil war across countries versus within countries over time. Third, what are the channels through which natural resource dependence affects the risk of civil war? Finally, more country-specific microlevel information, such as spatial poverty mapping, promises to greatly deepen our understanding of the relationships between poverty, inequalities, and conflict.

AUTHORS OF THE NEXT PAIR of papers in the volume were asked to address the impacts of globalization on the poor. Because the discussants commented on these papers together, we summarize their main points up front and then turn to the papers. Ann Harrison viewed both papers as balanced and providing a remarkably consistent set of lessons for policymakers. The first of these lessons is that there is no clear relationship between openness and growth. Second, trade liberalization by itself has been overemphasized, and it is most effective when complemented by additional reforms. Third, market access is critical for poor countries. And *last*, the short-term consequences of trade reform, often involving increased unemployment, are important and warrant greater attention. Harrison also highlighted the frequently critical role played by volatile capital flows, an issue not addressed in either paper.

Branko Milanovic builds on the two papers to present an extensive discussion of empirical trends in inequality, openness, and the link between them. He argues that available data show what he labels a tidal wave of rising inequality during the past two decades. Like the authors of the two papers, he points to a sizable dissipation of rents in industries that may have been affected by trade liberalization. In his view, economic explanations of changes in skill premiums and wage inequality are not enough. He advocates additional focus on the political economy of protection—what was being protected and why—and of liberalization—how countries were able to reduce this protection and why it occurred when it did.

In their paper, Pinelopi Goldberg and Nina Pavcnik provide an extensive review of the empirical evidence on the relationships between international trade, inequality, and poverty, based on analysis of microdata from several developing countries that recently underwent significant trade reforms. Despite many measurement and identification difficulties, and despite conflicting evidence on some issues, they argue that the empirical work based on these "country case studies" has established certain patterns that seem common across countries and trade liberalization episodes. They conclude that these are very informative as to how developing countries adjust to trade reform.

Their survey focuses on trade liberalization episodes involving drastic tariff reductions. These provide relatively accurate measures of the magnitude of liberalization. Furthermore, the authors argue that endogeneity of trade protection is less of an issue among countries that liberalized in response to becoming GATT/WTO members. They focus on short- and medium-term effects, which they argue are easier to relate to trade policy changes and are often a central concern of both policymakers and the public. And they focus on static links between trade policy and income distribution, which operate through changes in relative goods and factor prices, as opposed to dynamic changes, which operate through growth.

To establish common ground, the paper begins with a discussion of relevant definition and measurement issues. They discuss the widely documented increase in inequality for several developing countries. Typically based on comparing wages of skilled versus unskilled workers, the magnitude of the increases in observed skill premiums is large enough to suggest that they are not simply due to measurement problems. Explanations consistently point to increased demand for skilled workers. Pavcnik and Goldberg cite additional work suggesting that factors other than skill premiums have also contributed to observed increases in inequality.

Despite a large literature related to inequality, the authors point out that there has been virtually no work that explores the relationships between trade liberalization and poverty. After discussing a number of inherent challenges to addressing this, they explain their decision to focus on indirect, but empirically measurable, indicators such as labor market and consumption effects that would disproportionately affect the poor.

Their critical review of the literature reaches the following conclusions. First, in many developing countries, the most heavily protected sectors tend to be those that employ a high proportion of unskilled workers earning low wages. Accordingly, it should come as no surprise if trade liberalization has a negative impact on unskilled workers in the short and medium term. If there is a puzzle, it is why

most developing countries choose to protect low-skill intensive sectors when patterns of comparative advantage would suggest otherwise. Goldberg and Pavcnik explore possible explanations, but existing empirical work has not offered a verdict on the relative importance of these alternatives, and the authors see this as a fruitful area for future research.

Second, despite the large magnitude of tariff and nontariff barrier reductions observed in many developing countries in the 1980s and 1990s, empirical work has consistently documented a lack of major labor reallocation across sectors. However, there is some evidence that trade liberalization decreased the industry wage premiums in those sectors that experienced the largest tariff reductions. This is consistent with the dissipation of industry rents or, alternatively, the existence of labor market rigidities that constrain labor mobility across sectors in the short and medium term. But the effects of trade reforms on industry wages are generally estimated to be small.

The price (wage) response to trade liberalization tends to be more pronounced than the quantity response. This is again indicative of market rigidities that may be particularly relevant in developing countries in the short and medium term.

Given the magnitude of the trade reforms, the effects uncovered by empirical work are small and can explain only a small fraction of the general increase in wage inequality. On the other hand, studies using plant- or firm-level data document substantial output reallocation in the aftermath of trade reforms toward more productive firms within an industry, so that aggregate productivity increases in the industries that liberalized more. Taken together, these two points suggest that the lack of evidence that trade liberalization had any *major* effects on the wage distribution may be partly due to the high level of aggregation used in household surveys, which is too coarse to detect worker reallocation across firms within the same industry in response to trade liberalization. Against this background, empirical studies that use more disaggregate data, focusing on the differential effect of trade reforms on firms (possibly belonging to the same two- or three-digit ISIC sector) or on compositional changes (for example, quality upgrading) in the products produced by developing countries, seem particularly promising. What is missing from current empirical work is a clear link between such compositional changes and changes in the income distribution.

While establishing a clear link between trade liberalization and absolute poverty poses a tremendous challenge, especially in rural areas, documenting the correlation between trade liberalization and certain indicators of urban poverty in the short or medium term seems more promising. Existing empirical studies find little support for “race to the bottom” arguments. If anything, there is some

evidence that more "openness" increases the level of and compliance with minimum wages and reduces child labor. Similarly, there is little evidence that trade reforms are associated with an increase in informal employment and a worsening of working conditions. Any such evidence seems to come from settings characterized by severe labor market rigidities.

Finally, trade liberalization changes relative prices and is thus likely to affect poverty via the effect of price changes on consumption. Empirical work using simulations suggests that these effects are potentially significant. Yet *research* in this area is still at a preliminary stage. Part of the difficulty arises from the fact that little is known about the empirical relationship between trade policy changes and changes in relative prices.

PRANAB BARDHAN PROVIDES a brief analytical essay on the processes through which globalization affects the lives of the poor in low-income countries. He takes globalization in the limited sense of openness to foreign trade and long-term capital flows, and looks only at absolute poverty. His approach is to consider the poor in their capacity as workers, recipients of public services, and users of common property resources.

As workers, the poor are mostly either self-employed or wage earners. The self-employed face constraints in credit, marketing, extension services for new technology, infrastructure, and government regulations. Substantial changes in domestic policy are often necessary to redress such constraints. He argues that foreign traders and investors are not directly to blame for these impediments and in fact may sometimes help in relieving bottlenecks. However, if the self-employed poor remain constrained, it is difficult for them to withstand competition from large agribusiness or firms (either foreign or domestic).

Bardan argues that when small producers are heavily involved in exports (such as coffee or rice), the major hurdle they face is often the result of *too little* globalization, not too much. Here he cites the well-known point that export prospects for poor countries are severely restricted by developed-country protectionism and subsidization of farm and food products and simple manufactures (such as textiles and clothing).

As for the wage-employed, the paper discusses different mechanisms through which the opening of an economy can affect wages and employment, in some situations positively and in others, negatively. The latter cases are particularly important for poor countries, where there is very little effective social protection available from the state. He argues that international organizations that preach the benefits of free trade should take responsibility for funding and facilitating such adjustment assistance programs in poor countries.

Bardhan expresses the view that until issues of general economic security for poor workers in developing countries are satisfactorily resolved, globalization is bound to raise anxiety and hostility among workers worried about their job security. Mass politics is usually organized in such a way that the nation-state is the primary political forum for demanding and getting the necessary redistributive and insurance functions of a society. Thus it is a matter of great concern if forces of international economic integration weaken the nation-state. Much depends on a society's institutions of conflict management and coordination.

In the case of the poor as recipients of public services (such as health and sanitation or education), Bardhan argues that the low quantity and quality of public services that reach the poor are often due to domestic institutional failure and not primarily to external problems. Here he sees the major effort required as the strengthening of domestic institutions of accountability.

Regarding the poor as users of common property resources (forests, grazing lands, irrigation water, fisheries, and the like), the relationship between trade and foreign investment liberalization is complex, and a closed economy is no solution. Large changes in the legal-regulatory or community-institutional framework are often necessary.

In general, Bardhan believes that while globalization *can* cause many hardships for the poor in poor countries, it also creates potential opportunities. Some countries can and do utilize these although others cannot or do not—largely depending on their domestic political and economic institutions. The complexities inherent in the net outcome belie the glib pronouncements for or against globalization that often issue from the opposing camps. In many countries poverty alleviation requires developments such as expansion of credit and marketing facilities, land reform, public works programs for the unemployed, or provision of education, training, and health care. It may require restructuring of existing budget priorities and a better, more accountable political and administrative framework. But the obstacles to such changes are often largely domestic. He concludes that, for these countries, globalization is often neither the main cause of their problems, contrary to the claims of its critics, nor the main solution, contrary to the claims of some gung-ho free traders.

Bardhan stresses that this perspective does not absolve international organizations and entities of their responsibility to help the poor of the world. He offers a long list of important policy changes that are firmly in their purview. His bottom line is that globalization should not be allowed to be used, either by its critics or by its proponents, as an excuse for inaction on either the domestic or international front when it comes to relieving the poverty that oppresses the life of billions of people in the world.

THE FINAL PAIR OF PAPERS were prepared for a panel session entitled "Looking Forward." These authors were invited to contribute thought essays, not surveys or analyses. There were no discussants for this session.

In "Why Global Inequality Matters," Nancy Birdsall explains why inequality, rather than just poverty, matters among individuals and across countries, as well as why it matters in the context of globalization. Speaking from the perspective of a development economist, she focuses on the current asymmetries in how global integration affects poor versus rich countries (and the citizens of those countries), and the resulting limits to poor countries' (and poor people's) ability to capture the potential benefits of globalization.

Birdsall asserts that despite similar rates of income growth across countries, absolute differences in income between the rich and the poor continue to increase. Even if growth is just as good for the poor as the rich in terms of growth rate, the poor may feel increasingly worse off. This is because, given a static growth rate, the disparity between a poor individual's and a wealthy individual's income will grow, while at the same time the cost of consumer goods may increase because the effective demand for them has grown along with the large absolute income gains.

Inequality's effects on outcomes also matter but tend to be indirect. In some contexts, inequality may well be constructive, reflecting real differences in productivity and work effort and generating new incentives for innovation. Yet where market and policy failures abound, as in many of the poorest countries, inequality may be destructive, reflecting real differences in opportunities and reinforcing the discouragement and discriminatory practices those failures have created.

Birdsall also suggests that inequality may undermine the political process, especially in developing nations, where existing political institutions are weak and politics is not particularly representative. It may, in fact, be a factor that, interacting with weak institutions, helps trigger civil conflict and violence. Likewise, inequality may undermine social and civic life, as evidence suggests that crime is associated with high income disparities.

She goes on to state that inequality matters not only because of its effects on growth and other economic variables, but in and of itself, because it is of import to individuals in their own communities, as well as throughout their countries and the world. This is largely because individuals tend to care not only about their relative standing (in terms of income) but also about the expected change in their standing. Different societies, meanwhile, can have different levels of tolerance for inequality.

In discussing the relationship between globalization and inequality, Birdsall notes the potential gains that come from global integration. Yet she also high-

lights three asymmetries in the way globalization affects poor countries and poor people. First, the bigger and deeper markets of the global economy reward most those countries and people with the assets to exploit such markets. Second, global integration is by nature disruptive, and the people and countries that are poor have the least capacity—in terms of human capital and institutions—to adapt to those disruptions in a timely manner. And finally, the rules of the global economy tend to favor the rich and powerful, reflecting their capacity to shape the rules in the first place.

KENNETH ROGOFF BEGINS his paper by highlighting some of the themes that he found throughout the papers of the volume. The effects of trade in goods and capital on the poor are complex, difficult to document rigorously, and almost always depend on domestic institutions. There is great disagreement about what poverty is, with several plausible measures. And growth need not be the same as happiness or fairness. To balance the range of issues already presented, his paper first asked what can be said about poverty based on expected growth over the very long run and then explored some of the risks to growth.

Rogoff asserted that over the very long term, global growth will dominate all other factors as a determinant of absolute poverty. To make this point, he builds on the conventional estimate that trend per capita global growth appears to be about 3 percent per year. This is driven by technological change in leading-edge countries such as the United States, as well as catch-up from the rest of the world. While Asian economies have been experiencing a period of sustained convergence toward U.S. per capita income levels, he notes that Latin America has generally failed to converge, with real income per adult remaining at about 25 percent of U.S. levels for the past fifty years. Likewise, many African nations have fallen further and further behind in relative income levels since gaining independence in the 1960s and 1970s. But despite these bleak statistics, Rogoff speculates that if global per capita growth remains constant for the rest of the century, global per capita income would still rise sevenfold, even in Latin America, where income levels in 2100 will be fourfold those in the U.S. today. He goes on to challenge the prediction that Europeans are doomed and points out that even if incomes fall two-thirds relative to those in the United States, they can still expect measured incomes of two to four times that of ultrarich Americans today. And in China and India, he claims that just a modicum of convergence will ensure a very high overall standard of living in these countries ninety-five years from now.

Rogoff concedes that the forecast is not so bright in Africa and the Middle East, where economies are still very much in transition and per capita income

growth remains weak, but he maintains that on the whole, if global growth continues at the current rate throughout this century, poverty as we currently define it is likely to become a distant memory in many parts of the world. In his view, this calculation highlights that poverty is inherently a complex political, social, and economic phenomenon that requires a relative measure. He predicts that poverty, albeit differently defined, will remain a deep global issue.

He goes on to explain that all of this depends largely on continued technological progress and that it is possible to identify reasons for it to either accelerate or decelerate. He speculates that outsourcing, electronic education, and greater globalization may accelerate the rate of progress. He also explores the risks to growth, such as deceleration due to war, terrorism, and disease.

Even if technological progress is sustained or accelerates, he stresses that the potential for global and domestic financial crises presents a serious challenge to global growth. As a nation's economy grows, becoming more complex and decentralized, more sophisticated financial markets and institutions are required. In the process of implementing these, economies will become increasingly vulnerable to financial crises. Pointing out that problems such as banking collapses, high inflation, and massive exchange market distortions present a threat even to countries that are not yet experiencing growth, Rogoff notes that the possibilities for financial crises grow exponentially in middle-income economies that are rich enough to have sophisticated financial markets but still too weak institutionally and politically to regulate them.

Rogoff concludes that poverty is a complex political, social, and economic phenomenon that will be with us for a long time. In his paper, he highlighted the strong evidence that technology and growth will make huge inroads in reducing poverty, as portrayed by simple income definitions. Yet he also notes that how we view the issue of poverty and its relation to globalization will, in the long term, also depend on our broader notions of well-being and fairness.