Growth, Poverty, and Well-Being

Empirical evidence from decades of development experience around the world shows decisively that economic growth is an essential and powerful engine for reducing poverty and improving well-being, though growth is not the whole story.

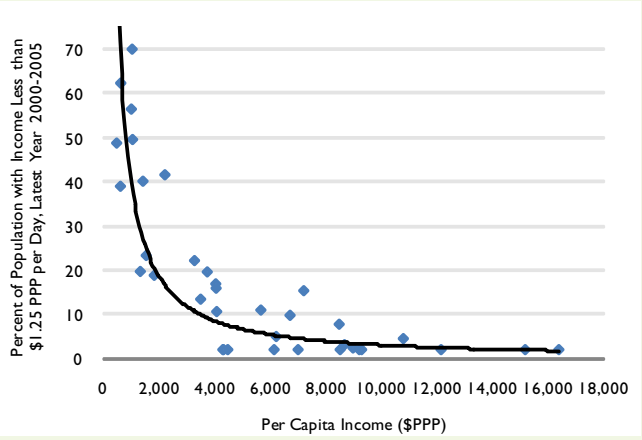
Nearly all economists view economic growth as an essential and powerful engine for reducing poverty and improving well-being in developing countries—while recognizing that other factors also have important effects on the pattern and pace of progress. Some development professionals, however, downplay the role of growth on grounds that per capita income is not an adequate measure of well-being, and that attention should focus on programs directly addressing basic human needs and capabilities for the poor. In this spirit, the UNDP, for example, introduced the Human Development Index and shaped the Millennium Development Goals (MDGs) to highlight people-centered measures of development performance. In addition, one strain of conventional wisdom contends that pro-growth reforms favor the rich and often harm the poor. This note addresses the debate by reviewing the empirical relationship between growth, poverty, and well-being in developing countries.

CROSS-COUNTRY PATTERNS OF PROSPERITY

Looking across countries, the relationship between national prosperity and human development is unmistakable. Figure 1 shows data on per capita income and the proportion of the population subsisting in extreme poverty for all developing countries reporting poverty estimates between 2000 and 2005. The solid line represents the best-fit statistical relationship between these two variables. The poverty rate here is measured using the standard criterion of $1.25 per person per day, calculated in terms of purchasing power parity (PPP).[1]

FIGURE 1

Poverty and Per Capita Income in Developing Countries, 2005



Source: World Development Indicators, 2010, and author's calculations. Income is measured in GDP.

The graph reveals three clear patterns:

1. ***Higher per capita income (PCI) is strongly associated with a lower poverty rate.*** All countries with income levels above

This briefing note is part of a series produced for the EGAT Bureau at USAID as a contribution to the recurrent debate on development priorities. Each note in the Programming for Growth series examines a topic relating to the value and effectiveness of USAID's economic growth programs. All the titles in the series are listed on the last page of this note.

$4,000 have poverty rates below 20 percent, and in most cases under 10 percent. In contrast, the poverty rate exceeds 20 percent in nearly every country with an income level below $2,000.

2. ***Poverty rates drop rapidly, on average, moving from very low income countries to middle income countries.*** At higher income levels, however, there is little scope for growth to reduce *absolute* poverty further.

3. ***Countries with similar levels of income can have sharply different poverty rates.*** For example, PCI is nearly the same in Moldova and India, but the poverty rates are 8 percent and 42 percent, respectively. Likewise, only 8 percent of Brazilians live in extreme poverty, compared to 26 percent of South Africans, despite similar PCIs.

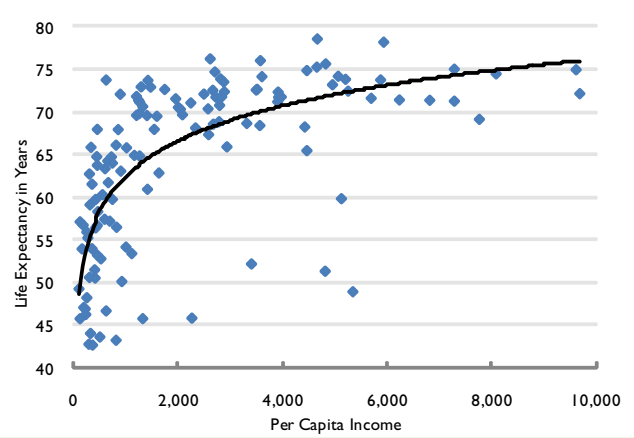
The third pattern confirms that factors other than income affect poverty rates. This implies that countries at any given level of PCI can combat poverty using policy tools that improve earning opportunities for the poor. But redistribution programs are limited by structural and political constraints. They can also dampen growth by discouraging investment and innovation. And in countries that are very poor, overall, even a large redistribution would simply leave everyone with very low income. Hence, income growth is the primary route for low-income countries to achieve a deep and lasting reduction in poverty.

Aside from poverty rates, other indicators of well-being show a similar cross-country correlation with per capita income. Figure 2, for example, shows a striking relationship between PCI and life expectancy, a widely used indicator of health quality. The pattern is similar for infant mortality rates: on average, the difference in mortality rates between low-income countries and upper-middle income countries (by the World Bank's classification) was an alarming 61 deaths per 1,000 live births in 2005 (Figure 3).

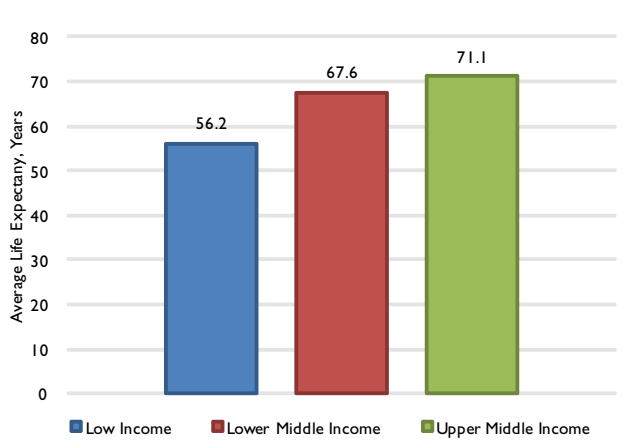
In the sphere of education, the average adult literacy rate in 2005 was 24 percentage points lower in low-income countries than in countries in the lower half of the middle-income range (Figure 4). The relationship applies also to education for youth: girls' secondary enrollment rates are far higher in countries with higher income (Figure 5). And the pattern is seen again in Figure 6 for the UNDP's Gender Empowerment Measure, which gauges gender equity in political and economic participation and decision making, and power over economic resources.

FIGURE 2

Life Expectancy and Per Capita Income, Developing Countries 2005



Source: World Development Indicators, 2010. Income is measured in terms of gross national income (GNI).



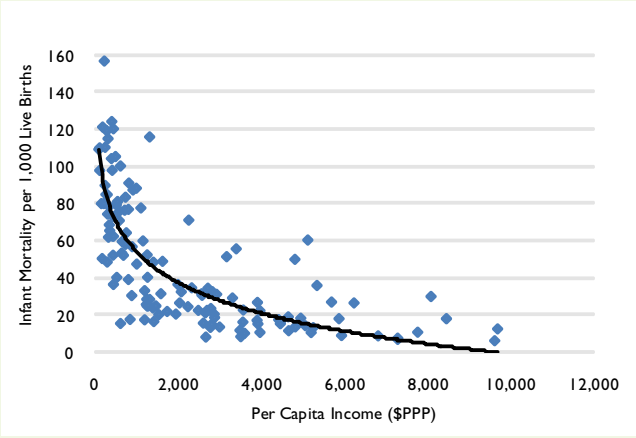
Source: World Development Indicators, 2010.

Note: The anomalous data points are for African countries with high rates of HIV/AIDS incidence and relatively high income: Botswana, South Africa, Namibia, and Swaziland. Gabon is also an outlier, with poor health conditions despite high per capita income from mineral wealth.

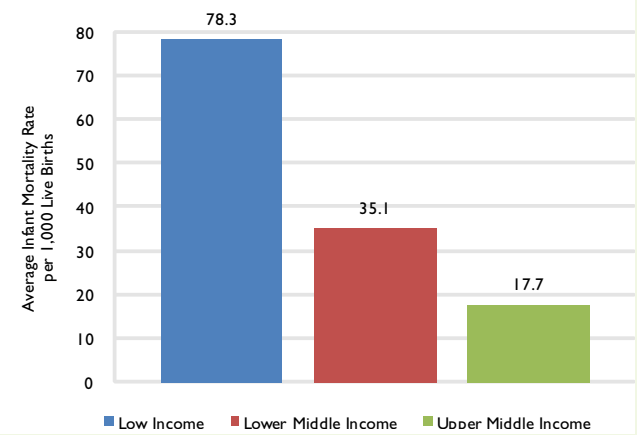
A high correlation between per capita income, poverty, and human development is no surprise. Countries with more resources have the means to provide more and better public services like education, health care, and infrastructure. Perhaps equally important, countries with a larger middle class tend to have more responsive governments, and prosperous households can afford to purchase more services from private providers. Furthermore, as gains in per capita income improve education and health conditions, these benefits enhance workforce capability and productivity and contribute in turn to economic growth. This feedback loop reinforces the basic message that growth

FIGURE 3

Infant Mortality Rates and Per Capita Income, Developing Countries, 2005



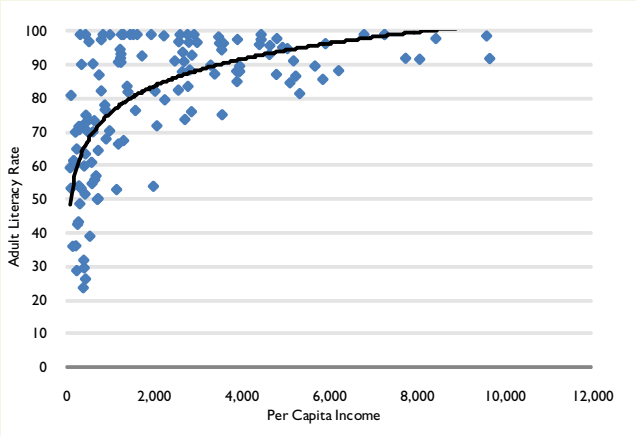
Source: World Development Indicators, 2010. Income is measured in terms of GNI.



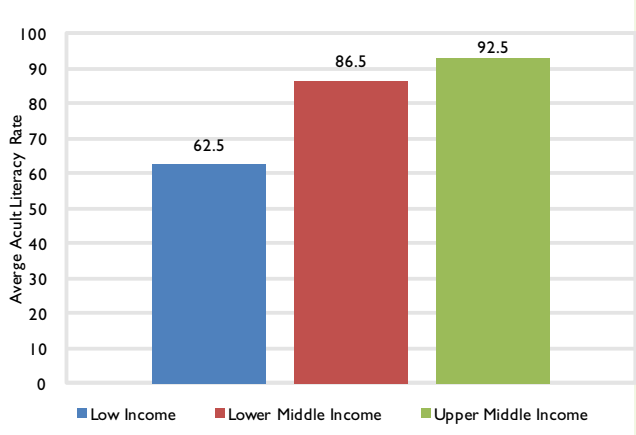
Source: World Development Indicators, 2010.

FIGURE 4

Adult Literacy and Per Capita Income, Developing Countries, 2005



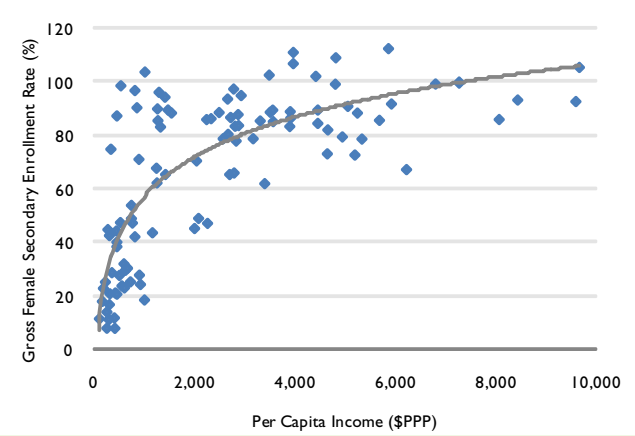
Source: World Development Indicators, 2010, and Human Development Report, 2005. Income is measured in terms of GNI.



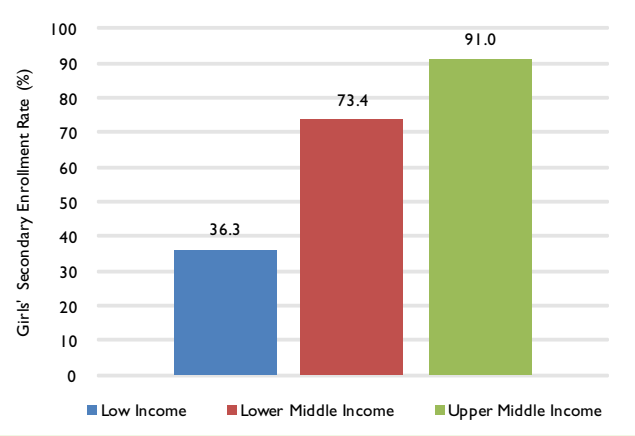
Source: World Development Indicators, 2010.

FIGURE 5

Girls' Secondary Enrollment and Per Capita Income, Developing Countries, 2005



Source: World Development Indicators, 2010. Income is measured in terms of GNI.

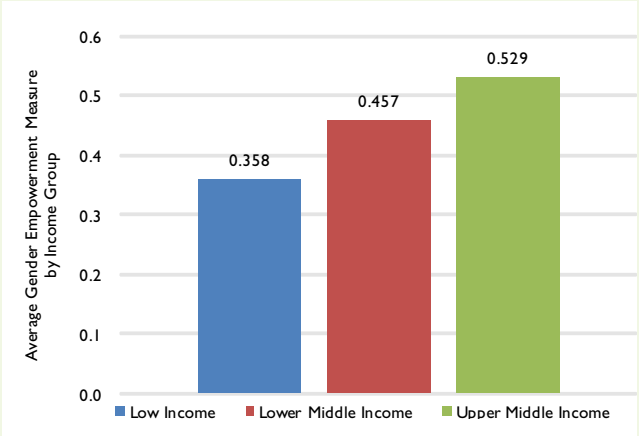


Source: World Development Indicators, 2010.

FIGURE 6

Gender Empowerment and Per Capita Income, Developing Countries, 2005

Source: World Development Indicators, 2010, and Human Development Report, 2005. Income is measured in terms of GNI.



Source: World Development Indicators, 2010, and Human Development Indicators, 2005

is a powerful tonic for deprivation, especially for the poorest countries.

PATTERNS OF GROWTH AND POVERTY REDUCTION OVER TIME

The cross-country relationship between levels of per capita income and poverty tells a compelling story. But to get the complete story one must also examine the empirical relationship between income growth and changes in poverty over time, at the country level. Several studies have examined this relationship for developing countries with poverty statistics that are available for multiple years. While the results vary with the methodology and data used, all of the major studies find that poverty generally declines as PCI grows (Klasen and Misselhorn 2008; Haughton and Khandker 2009). One widely cited World Bank study compiled poverty rates from household surveys in 137 countries and found that incomes for the poor tend, on average, to improve at approximately the same rate as overall per capita income (Dollar and Kraay 2002). The authors conclude that policies to stimulate growth "are likely to be central to successful poverty reduction strategies."

The actual relationship between income growth and changes in the poverty rate differs from country to country depending on its structural characteristics, policy choices, and institutional conditions. Figure 7 shows the relationship between income growth and poverty reduction for developing countries between 1985 and 2005. Despite the wide range of outcomes, the underlying pattern is still clear: faster growth is associated with faster poverty reduction (Box 1).

Other studies have examined how country conditions influence the extent to which growth affects poverty. Klasen and Misselhorn (2008), for example, find that the benefits of growth for poverty reduction are strongest for very poor countries and for countries with low initial income inequality, such as Ethiopia, India, Bangladesh and Pakistan.

PATTERNS OF GROWTH AND WELL-BEING OVER TIME

While changes in the poverty rate at the country level are clearly associated with income growth, other indicators of well-being exhibit changes over time that often diverge from trends in per capita income—a point repeatedly emphasized by the UNDP in its annual *Human Development Report*. One reason for the divergence is that improvements in health, education, and other aspects of well-being are strongly affected by global developments, as well as policies, programs and structural conditions particular to each country. For example, most countries have experienced large gains in life expectancy over the past half-century thanks to medical innovations, better communication of information on public health issues, and concerted efforts to improve health services, with or without income growth.

An influential study by Easterly (1999) analyzed country-level changes in 81 quality-of-life indicators between 1960 and 1990. His analysis included measures of education, health, transport and communications, individual rights, political instability, and inequality by class and gender. Easterly's main result was that exogenous shifts over time were more important than per capita income growth in explaining changes in most quality-of-life

BOX 1

Faster Growth, Faster Poverty Reduction

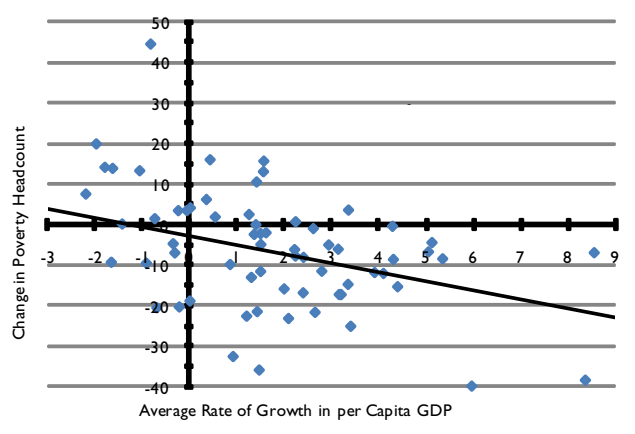
Figure 7 presents a scatter-plot of data on per capita income growth and changes in the incidence of extreme poverty for developing countries reporting poverty estimates from household surveys at least five years apart between 1985 and 2005. (The graph excludes countries where the poverty rate was below 5 percent in the initial survey year, leaving little scope for further reduction.)

The most prominent feature of the graph is the dispersion in the relationship between income and poverty, when the variables are viewed as changes over time instead of levels at a point in time (as in Figure 1). Yet one pattern stands out: poverty rates fell in nearly every country where PCI grew by at least 2 percent per year between the survey years, while poverty rates increased in nearly two-thirds of the countries where PCI growth was under 1 percent per year.

Notice that some of the data points are far out of line with the general pattern. Some of these deviations reflect genuinely remarkable performance, as in Vietnam, where the estimated poverty rate fell by 40 percentage points between 1987 and 2005. Others probably reflect data problems or transient conditions, such as poor weather in one of the survey years. Two data points show poverty declining by 20 percentage points despite negative growth in per capita GDP. These observations come from Mauritania and Central African Republic, countries where living standards for the poor surely did not improve to this extent. This is a useful reminder that poverty data for developing countries can be problematic.

FIGURE 7

Per Capita Income Growth and Changes in the Poverty Rate, 1985–2005



Source: World Development Indicators, 2010 and Nathan Associates Inc. estimates. Income is measured in terms of GDP.

variables. He points out, though, that it is difficult to pin down the effects of growth when they involve long and variable lags.

Extending the data set to include the 1990s, Kenny (2005) obtained similar results. According to Kenny, "everything that matters" for human well-being—life expectancy, infant survival, calorie intake, adult literacy, primary school enrollment, the gender gap in literacy, political and civil rights, and even beer production per capita—has been improving in developing countries relative to rich-country standards. From this evidence, Kenny endorses the United Nation's focus on development indicators other than income, but he also acknowledges that income growth is an important factor driving improvements in the quality of life.

Even the UN, while emphasizing indicators other than income in defining the MDGs, recognizes the need for growth. The 2009 MDG Report, for example, states that "The increase in average incomes since 2000 has enabled many people to lift themselves out of poverty and has reduced the depth of poverty of those who remain extremely poor." (UN 2009, 7.)

There is also ample case-study evidence showing that rapid growth delivers enormous benefits for all dimensions of well-being. For example, there were dramatic differences in development performance from 1970 to 2008 between Indonesia, where per capita income grew rapidly, and Zambia, where it stagnated (see Box 2). Equally striking comparisons can be found for other pairs of countries where one enjoyed rapid income growth for decades (such as China, Botswana, Mauritius, Korea, or Chile) and the other languished with low income growth (such as Haiti, Moldova, Cameroon, Madagascar, or South Africa).

IMPLICATIONS FOR ECONOMIC GROWTH PROGRAMMING

Empirical evidence from around the globe confirms that economic growth has been an essential and powerful engine for achieving deep and lasting reductions in poverty—***and*** that other factors also contribute greatly to improvements in well-being. Nearly all countries have seen gains in health, education, and other dimensions of well-being as a result of rising incomes,

BOX 2

Changes in Well-Being in Zambia and Indonesia, 1970–2008

Early in the 1970s, average income was much higher in Zambia than in Indonesia. The World Bank's first World Development Report in 1979 even classified Zambia as a middle-income country. Zambia was then ahead of, or on par with, Indonesia on nearly every indicator of well-being including life expectancy, school enrollment, access to potable water, and infant mortality. (There is no poverty data for that time.)

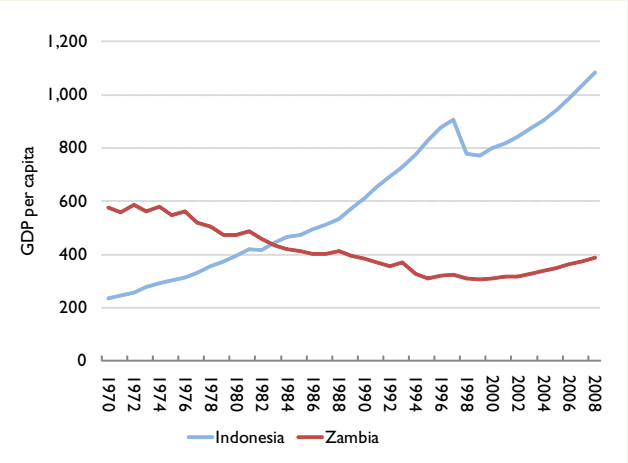
Indonesia then pursued pro-growth policies—with substantial USAID support—while Zambia rejected mainstream economics in favor of interventionism under the rubric of "African Humanism," which deterred investment, lowered productivity, and bred macroeconomic instability.

Real incomes in Indonesia then grew by an average of 4.1 percent per year between 1970 and 2008, despite the Asian Crisis of 1997–1998. Meanwhile, real incomes in Zambia fell at an average rate of 1 percent per year. Figure 8 shows the respective trends in per capita GDP.

By the mid-2000s, the initial gap in well-being was decisively reversed. Among the striking differences, Indonesia's poverty rate was 17 percent, compared to 68 percent in Zambia. Indonesia also showed far better performance on adult literacy, school enrollment, infant and maternal mortality, and virtually every measure of living standards. Back in 1970, even the most insightful observer would not have foreseen these changes.

FIGURE 8

Income Growth Trends in Zambia and Indonesia, 1970–2008 (constant 2000 US$)



Source: World Development Indicators. Income is measured in terms of GDP.

global technical advances, national policies to improve social services, and donor support in a variety of program areas.

These observations suggest complementarities between donor programs to help developing countries achieve rapid and broad-based growth, and programs focused on social services and democratic development. On the one hand, growth expands opportunities for poor families to escape from poverty and achieve food security; enhances the capacity of host governments to improve and sustain social services; and contributes to government legitimacy and political stability. On the other hand, efforts to boost economic growth are most effective when accompanied by government and donor programs to improve education and health, support disadvantaged groups, and strengthen democratic institutions. A strategy that balances direct aid to the poor with programs to promote economic growth can have a greater impact than an approach focusing on one or the other.

While the power of economic growth to improve well-being is clear, there is still a question of whether USAID's economic growth *programs* produce effective results. This issue is answered in other notes in the Programming for Growth series.

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NOTE

1 Data are from the World Development Indicators on-line, as of March 2010. Purchasing power parity (PPP) estimates are used for consistency across countries, taking into account the purchasing power of different national currencies.

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