

# The Critical Role of Economic Growth

**Rapid economic growth can transform a country's living standards within a single lifetime. Even moderate growth has enormous cumulative effects on social well-being over time. And without growth, disadvantaged people in poor countries continue to languish in poverty.**

The case for accord a high priority to economic growth (EG) programs in USAID's portfolio of foreign assistance activities hinges on understanding the critical importance of growth for improving human welfare. This note outlines the critical role of growth in the development process, and briefly explains the process of growth. The note also examines the merits and problems of using gross domestic product (GDP) as a gauge of development, and ends with some rules of thumb for stimulating growth in developing countries.

Briefing Note 3 examines more fully the empirical evidence on how growth is related to poverty and social welfare. Other notes in the series show that USAID's EG programs can indeed deliver huge benefits for the people of partner countries, including improved food security and reduced conflict risk.

## **RICHER AND POORER: A TALE OF TWO EARTHQUAKES**

In January 2010, an earthquake of magnitude 7.0 on the Richter scale leveled much of the Haitian capital, Port-au-Prince, killing more than 200,000 people. For days, hundreds of thousands of people lacked food and clean water, and many people were unable to contact family members to know if they were alive. Months later, hundreds of thousands continue to live in relief

camp, vulnerable to the weather and waterborne disease. Haiti's suffering has been enormous.

A few weeks after the quake in Haiti an earthquake of magnitude 8.8—500 times more powerful than the one in Haiti—struck Chile, inflicting huge damage but killing fewer than 600 people. Although the earthquake victims suffered, far fewer people were severely affected than in Haiti.

What accounts for this huge disparity? The main reason is that Haiti is much poorer than Chile (though other factors, such as the earthquake characteristics, also made a difference). As a relatively affluent country, Chile had the resources and capabilities to enforce high standards of construction. Haiti, in contrast, is so poor that the government was unable to enforce building codes, and few citizens had resources of their own to afford protection from such a risk.

The stark disparities in resources and institutional capacities that were so apparent in Haiti and Chile following the earthquakes can be seen in every gauge of human development and well-being. For example, in Haiti, the average life expectancy—a common indicator of health and nutrition conditions—is 61 years, the adult literacy rate is 62 percent, and more than half the population lives each day in extreme poverty. In Chile, the

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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.

average life expectancy is 18 years longer, at 79 years, while 97 percent of the adults are literate, and the only 2 percent of the people suffer severe poverty (see Figure 1).

These enormous differences in well-being reflect the fact that per capita GDP in Chile is 14 times higher than in Haiti (World Bank 2009). This differential affects not only the well being of individuals and households, but also the capacity of government to provide essential services. Before the quake, government spending on health and education was actually a larger *share* of GDP in Haiti than in Chile, but the level of funding available for these services amounted to just \$66 per person in Haiti, compared to nearly 10 times more in Chile. Even monumental efforts by highly dedicated nongovernmental organizations could do no more for the Haitian people than provide “patches of green” in an otherwise bleak landscape of poverty.

Then what accounts for the tremendous gap in per capita GDP? The answer is different long-term rates of economic growth.

In 1945 (when consistent estimates of per capita GDP for Haiti begin), Chileans already enjoyed living standards three times higher than Haitians (Maddison 2007). The gap widened over the next 60 years as per capita GDP (adjusted for inflation) grew by an average of 2 percent per year in Chile, while in Haiti it fell.

Looking back further in time, historical evidence suggests that Haiti’s plantation and trade economy was one of the richest in the Americas on the eve of American Independence, with per capita GDP—even accounting for the slave population—exceeding even that of the United States (Sokoloff and Engerman 2000). The Chilean economy was much poorer (Maddison 2007). Over the past two centuries, however, the lack of economic growth has kept Haitians desperately poor, while Chileans and Americans have prospered.

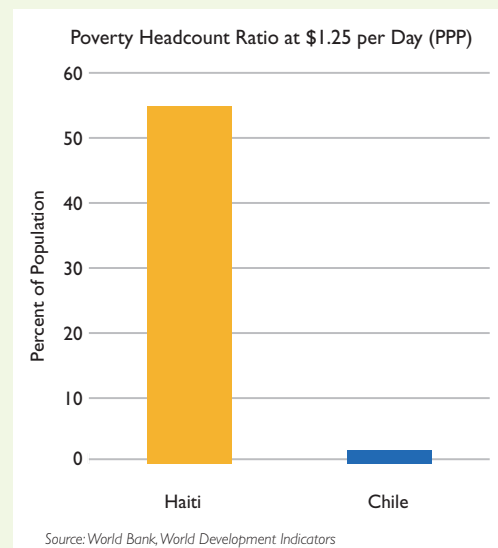
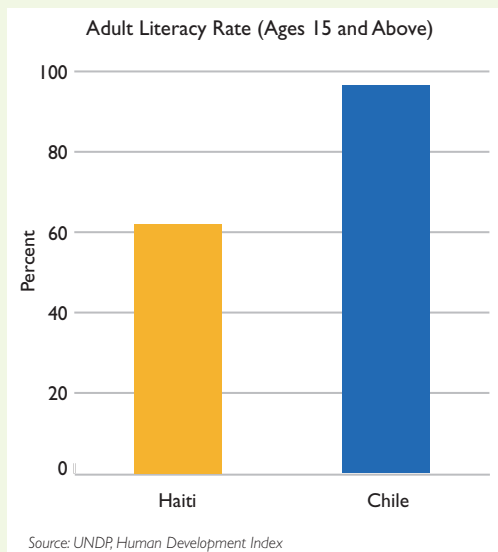
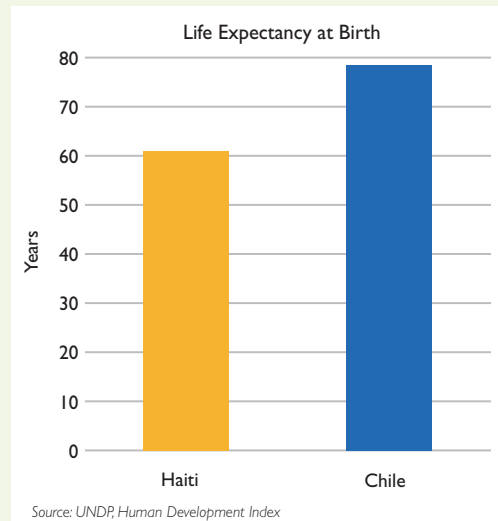
## THE GROWTH PROCESS

Growth is a cumulative process resulting from the accumulation of physical and human capital, advances in knowledge and technology, and institutional improvements that boost productivity. Productivity is the key. Poor countries are poor because their people do not produce enough.

In successful countries, overall productivity (or total factor productivity, TFP) typically grows at 1 to 3 percent per year as firms find more efficient ways to operate, workers become

FIGURE 1

## Indicators of Well-being in Haiti and Chile



Note: Figures are for 2007 or most recent year available.

more skilled, investments in specialized machinery augment the output of each worker; and infrastructure development lowers production and transportation costs (Harberger 2007). Productivity also rises when workers move from low-productivity activities to higher-productivity ones—a natural consequence of individuals and firms seeking better opportunities and higher incomes in response to market incentives. When workers and capital engage in more productive pursuits, less-productive enterprises close down. Much of the productivity growth in the United States over the past century came from the movement of workers from low-paying jobs in agriculture into more productive blue-collar jobs in manufacturing, and later into knowledge-intensive white collar service industries. Dozens of other countries have followed a similar market-driven path of structural transformation, rising productivity, and higher income.

Economic growth therefore results from millions of individuals creating more and better goods and services through their ingenuity, planning, and investment. Economic growth, when sustained, has a compounding effect that can transform living standards and other conditions of social welfare within a single lifetime. Box 1 explains how this works through the “rule of 72.”

## THE EFFECTS OF COMPOUND GROWTH

The beneficial effects of compound growth are easy to see:

- With per capita GDP growth of 2 percent per year, incomes in Chile nearly quadrupled between 1945 and 2010.
- The United States achieved unprecedented affluence with per capita GDP growth of 1.7 percent per year. This unremarkable performance (by today’s standards) doubled incomes every 42 years (on average); over 220 years (1789 to 2009), incomes increased more than 32-fold.
- In 1950 average income was slightly higher in Haiti than in the Dominican Republic, on the same island. Over the next 50 years per capita GDP tripled in the Dominican Republic, with growth averaging 2.5 percent per year. In contrast, economic growth in Haiti was slower than population growth, and per capita GDP fell by 25 percent (Maddison 2007).

The effects of rapid growth are even more profound. In 1960, South Korea was one of the poorest countries in the world; average incomes were only marginally higher than in Haiti, and lower than in Ghana. By 2003, incomes in Korea had increased more than 12-fold as a result of per capita GDP growth averaging 6.1 percent per year. In less than one lifetime, rapid growth

### BOX 1

## The Rule of 72

Economic growth is a process of incremental changes that compound over time to produce huge cumulative gains. The “rule of 72” makes it easy to see the power of such compound growth. This is a simple arithmetic relationship for approximating how long it takes for an initial value to double at any given growth rate. The rule can be applied to anything that undergoes steady growth, such as population or money invested in a bond.

Here’s the rule:  $\text{growth rate} \times \text{doubling time} = 72$ , where the growth rate is expressed in percentage terms. If per capita GDP grows by 1 percent each year, it takes about 72 years for incomes to double ( $1 \times 72 = 72$ ). But it takes only 12 years for incomes to double if per capita GDP grows at 6 percent per year ( $6 \times 12 = 72$ ).

If 6 percent growth continues, incomes double again every 12 years. That means that living standards increase fourfold in 24 years, and soar eightfold in 36 years.

When growth is slow, living conditions change little from one decade to the next, or even one generation to the next; when growth is fast, the benefits are tangible. Also, each time a country’s income doubles, the resources available to government for infrastructure, education, health, and other public services also double—or more than double, if government’s capacity for mobilizing revenue and using it efficiently improves along with higher incomes.

transformed South Korea from a poor rural society where few homes had water or electricity connections, to an advanced urban economy where access to electricity and water is essentially universal, high-speed internet connections are among the best in the world, and the infant mortality rate is lower than in the United States.

After reviewing facts like these, Nobel Laureate Robert Lucas remarked that the consequences of economic growth for human welfare are so staggering that “...once one starts to think about them, it is hard to think about anything else” (1988, 5). Lucas concluded that the central challenge for development economics is to identify the causes of rapid growth and implement appropriate measures in all poor countries; if this could be done for a generation, the impact on billions of the poorest children of the world today would be incalculable.

## ECONOMIC GROWTH AND FREEDOM

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The benefits of sustained growth extend beyond material gains from rising incomes. More fundamentally, growth brings with it “the dignity that comes with the opportunity to pursue a better life” (White House 2010, 35). Even the pioneering work on economic development by W. Arthur Lewis emphasized that the main benefit of growth is that it “increases the range of human choice” and thus freedom (1955, 420). Amartya Sen (1999) similarly views economic growth as a precondition for full human freedom, expanding individual choice and opportunity for self-realization. Benjamin Friedman’s study on *The Moral Consequences of Economic Growth* (2005) uses historical evidence to show that growth has promoted freedom and tolerance, while economic stagnation has bred dictatorship and violence. The connection to violence is particularly important considering that civil wars have afflicted more than a third of all developing countries over the past 50 years, with poverty and slow growth as significant contributing factors (Blattman and Miguel 2010).

Others have identified political pluralism as a consequence of steady economic growth, pointing to the way in which economies like South Korea and Taiwan evolved from one-party dictatorships into robust democracies after economic growth produced a large and vocal middle class. Indeed, all of the world’s high-income countries except Singapore have become multiparty democracies. In turn, greater accountability, transparency, and responsiveness in government are important factors motivating a sustained commitment to reforms that promote economic growth and development (see Briefing Note 4 on policies and institutions to foster growth).

### IS GDP A MEASURE OF WELL-BEING?

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In discussing the effects of sustained growth, we have used per capita GDP as the gauge of economic progress, and also as a broad proxy for human well-being. While GDP statistics do not measure general well-being, as such, per capita GDP is a useful measure of material living standards. This is because GDP and income are two sides of the same coin: in essence, the value of productive activity equals the value of incomes generated by that activity.<sup>1</sup> Furthermore there is a strong empirical relation-

ship between per capita GDP, poverty, and most social indicators of well-being (see Briefing Note 3 for details).

Many efforts have been made to measure well-being more directly, including prominent work of the United Nations Development Program (UNDP) in producing the Human Development Index. An international commission headed by Joseph Stiglitz and Amartya Sen recently explored alternative measures of well-being and concluded that a broad “dashboard” of indicators is needed to cover different aspects of quality of life. But it also noted that if one wants a single indicator, then per capita GDP is a “good place to start” (Stiglitz, Sen and Fitoussi 2009, 12).

It is still important, though, to understand that GDP statistics do have shortcomings. For example, GDP excludes some major factors affecting well-being such as health benefits from improved sanitation or the treatment of infectious diseases. Similarly, GDP comparisons over time undervalue the benefits of new goods and services and quality improvements. Today, most people enjoy conveniences that kings would have envied in times past. The ability to switch on a light, move rapidly from one place to another, and communicate with distant friends are technological marvels whose full value is not captured in GDP.

Another issue is that per capita GDP is an average for the population, but the distribution of income also matters. Two countries with the same average income level can have very different living conditions if incomes are highly skewed in one and equitably distributed in the other. Also, while living standards for the poor generally improve in line with per capita GDP (see Briefing Note 3), income comparisons over time may not give an accurate picture of welfare in cases where the growth process is characterized by rising inequality. In the worst case, an increase in per capita income might reflect large gains for a few and stagnant or declining living standards for most. This may occur especially in countries where the rise in per capita income results from new-found resource wealth. Box 2 shows how this dismal scenario played out in Nigeria.

Economic growth,  
when sustained, has a  
compounding effect  
that can transform living  
standards and other  
conditions of social welfare  
within a single lifetime.

## BOX 2

### Nigeria and the “Resource Curse”

When Nigeria gained independence in 1960, it had a bright future because of its well-educated professionals and efficient production of a variety of agricultural exports, mainly produced by millions of small farmers. Nigeria was then the world’s largest exporter of peanuts, palm oil, and cocoa. Other major crops included cassava, coconuts, and citrus. Early hopes were dashed, however, first by a civil war after the Biafra region attempted to secede, and then by the exploitation of immense oil reserves.

When world oil prices soared in the 1970s, per capita income in Nigeria more than doubled. But the enormous increase in foreign exchange earnings from oil strengthened the Nigerian currency to the point that traditional Nigerian agricultural exports became too expensive to compete on world markets.

Improvements in productivity might have stemmed the decline in competitiveness, but agricultural research institutions in Nigeria failed to develop better seeds or methods of cultivation. Instead, as oil exports boomed, the agricultural sector withered, and millions of small farmers lost an important source of income.

Corruption also boomed as oil earnings rose to 85 percent of government revenue, creating a bonanza of unearned income for many in the government and the military during the dictatorships of the 1980s and 1990s—while the majority either suffered income loss or gained little from the resource wealth.

## MAKING GROWTH HAPPEN

Dani Rodrik, a frequent critic of mainstream development thinking, has observed a broad agreement among development professionals that “economic growth is the most powerful instrument for reducing poverty.” He also sees a remarkable convergence on “first-order economic principles” for promoting growth in developing countries, including “protection of property rights, market-based competition, appropriate incentives, [and] sound money” (2007, 2 and 6). The appropriate policies and institutions, however, can take a variety of forms depending on the context. As stated in the report of a recent international Commission on Growth and Development “no generic formula exists” (Spence 2008, 2).

The determinants of growth and the role of economic reforms, and institutional capacity building in particular, are discussed in Programming for Growth Briefing Note 4. Here, we offer eight broad observations that emerge from the convergence noted by Rodrik and the recognition of country diversity:

1. **Promoting economic growth is an art, not a science.** Economists do not have a cookie-cutter formula for producing rapid and broad-based growth. The principles are clear, but the identification of programmatic priorities requires a detailed understanding of each country, including institutional and political constraints. In this respect, USAID’s business model is especially well suited for developing effective country programs.
2. **Good leadership is the key to growth.** Every region has seen successes and failures in pursuing economic growth. Even in Africa, Botswana and Mauritius were seen as development “basket cases” in the 1960s (Meade 1961 and Lewis 2006), yet both countries today rank among the great success stories, thanks to dedicated leaders and capable technical cadres who formulated sound policies and strategies. Political leaders and other elites shape the policy choices and determine the effectiveness of any reforms.
3. **Economic growth comes from productivity growth.** And productivity growth comes from a variety of sources, including investment in equipment and infrastructure; better technologies and management processes; better education, health and training for workers; and structural transformation that reallocates resources to more productive activities. Higher incomes come from working smarter, not just working harder.
4. **International connections matter.** All high-growth developing countries over the past half-century have taken advantage of global markets and international investments to improve productivity, acquire technology, and learn new business methods. For poor countries, selling labor-intensive goods (and more recently, services) to high-income countries is an alternative to having workers emigrate.
5. **Investors favor countries with sound institutions.** Stable and effective institutions that support market development are essential to investors. In countries that lack such institutions, donors need to focus on these fundamentals without falling into the trap of unsustainable “institution-building” that lacks a strong foundation of local support.

6. ***Incentives matter, too, shaped by institutions and cultural norms.*** Growth results from innumerable decisions of businesses and households. These decisions are steered mainly by financial incentives, as shaped by market opportunities, government policies, and legal and regulatory institutions. But non-economic incentives and cultural values also influence market behavior. Donors and national decision makers need to understand how incentives and traditions work in a particular society to achieve the best results in promoting economic growth.
7. ***Adaptability is essential for success.*** In setting priorities, designing programs, and implementing reforms, governments and donors require the capacity to learn from experience and adapt to changing conditions.
8. ***Expanding the participation of women boosts productivity and incomes.*** As half of the potential labor force and talent pool in any country, women are essential contributors to economic growth. They are also major beneficiaries of growth, as emergence from poverty frees women from the drudgery of “grinding grain for hours, walking miles to fetch pails of water, and so on,” and provides them with opportunities to exercise their abilities “in the same way as men” (Lewis 1955, 422).

In sum, economic growth is central to improving the lives of hundreds of millions of people, and offering even better opportunities for their children and grandchildren. The many cases of successful development show that this can happen. And if it can happen, it should be made to happen.

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**BRIEFING NOTES CAN BE READ IN ANY SEQUENCE.**

## NOTE

1 Per capita GDP and per capita income are used interchangeably. Technical differences between the two terms do not affect the analysis.