ECONOMIC GROWTH IS GOOD FOR WORKERS. Low- and middle-income countries cannot sustain the growth they need without making the best use of their working-age populations. Sustained growth with rising labor demand has been achieved by countries that have relied on markets—domestic and international—to guide the process of development, whereas inward-looking and centrally planned strategies have generally failed to bring sustainable gains to all workers. But the choice for governments today is not simply between free markets and state intervention. The task is to determine which kinds of public intervention best support the efficient functioning of markets, most encourage productive investment in plant, technology, and people, and can assist disadvantaged workers. This is the new challenge of development.

This chapter investigates why some countries grow faster than others, focusing on three countries that have had very different experiences over the past three decades. It examines the determinants of growth and the importance of investment in physical capital and in people. And it considers whether rapid population growth tends to depress growth rates of GDP per capita and impoverish populations.

How do development strategies affect labor outcomes?

Ghana, Malaysia, and Poland are typical of their regions—Sub-Saharan Africa, East Asia, and Eastern Europe. The working-age populations of all three economies have grown significantly over the past three decades. But their governments started out with different development strategies. The result has been wide differences in economic growth rates and labor outcomes (Figure 2.1).

Ghana was poorly integrated with global markets and relied on government intervention in allocating resources, for example through extensive use of state-run produce marketing boards and stringent controls on foreign exchange. Malaysia also adopted various forms of intervention, including protected public enterprises and a broad program of redistribution. But Malaysia’s overall strategy relied heavily on market processes; capital markets were open, and the economy faced outward. In Poland resources were allocated not by the market but by central planners. Output targets were chosen and inputs allocated without consideration of the real opportunity cost of resources; participation in international markets was limited mainly to centrally negotiated trade with other planned economies.

Beginning in the 1960s Ghana experienced two decades of economic decline, followed by a major reform program and a modest recovery, which began in the late 1980s and continues today. Between 1960 and 1990, GNP per capita fell by 1.5 percent a year on average, and poverty deepened. Meanwhile Ghana’s working-age population doubled from about 3.5 million to 7.8 million. Unemployment continued to account for only a small percentage of the labor force: the working-age population in 1989 was distributed roughly as it had been thirty years earlier (Table 2.1). Self-employment in urban and rural areas continued to absorb more than half...
of the working-age population. Another quarter were outside the labor force—raising children, attending school, or unable to work. Only 14 percent of the working-age population was occupied in wage labor, more than half of them in public employment. Private wage employment as a share of the labor force actually declined.

Malaysia’s economy took off over this same period, and the number of households living in absolute poverty fell dramatically. Malaysia achieved growth in GNP per capita of 4 percent a year, despite a surge in the working-age population from 4.2 million to 10.4 million—a larger and faster increase than Ghana experienced. As in Ghana, labor force participation rates changed little over time, and unemployment accounted for only a small percentage of the labor force. What changed was wage employment, which rose, and self-employment, which fell, as jobs in industry and services increased dramatically (Table 2.1). In 1957 one in two employees worked on plantations; by 1989 only one in ten workers did. Wage employment tripled between 1957 and 1989, while the share of the work force employed in agriculture fell from 58 percent to 26 percent.

Poland’s economy also grew quickly during 1950–79, with net material product (GDP excluding most public and personal services) expanding by 4.1 percent a year and capital investment by 9.7 percent a year. The population grew slowly, at about 1.2 percent a year, and there was no unemployment—the state guaranteed workers jobs. The government moved thousands of workers from farms to the cities and pushed tens of thousands of women into the labor force. But growth proved unsustainable—it was based primarily on increasing the amount of capital and numbers of workers rather than on raising the productivity of capital and labor. Productivity slowed in the late 1960s, but heavy foreign borrowing postponed the crisis until eventually Poland’s economy stopped growing altogether. By 1992, GDP was 9 percent lower than it had been in 1980. Over-

![Real wages in Ghana, Malaysia, and Poland have followed different paths.](image-url)
all, between 1955 and 1990 the working-age population expanded from 17 million to 25 million. The share of the working population engaged in wage employment had increased, but so had the number of unemployed and the number living below the poverty line.

Wage increases mirrored aggregate economic performance in all three countries. Average real wages in manufacturing in Ghana remained roughly constant in the 1960s, but as growth turned negative, the purchasing power of wages in manufacturing collapsed: by 1984 real wages had plunged to 13 percent of their level a decade earlier; agricultural wages also collapsed (Figure 2.1). Had household incomes fallen as much as real wages, most families would have starved. Instead Ghanaians adjusted to falling wages in various ways. Farm families able to consume their own production had some protection against economic stagnation and rapid inflation. Urban workers held several jobs or migrated back to rural areas; some families relied on transfers from other households. Only recently have manufacturing wages started to rise again with economic recovery.

Malaysian workers, in contrast, have reaped the benefits of economic growth: all the major sectors experienced sustained increases in real wages, while more workers found jobs in higher paying, high-productivity activities. Both plantation wages and real earnings in manufacturing have doubled since the early 1970s. Most entrants to the labor force joined the modern industrial and service economy, where the average wages of workers in manufacturing were twice those of general plantation workers. Even those who did not work for wages experienced significant gains in their earnings from work. Self-employed workers such as street vendors, hairdressers, and truck drivers saw growth in their earnings that equaled or even exceeded the increase in manufacturing wages (Table 2.2).

Real wages in Poland also followed changes in GDP. Real wage growth remained high in the 1970s, even higher than in Malaysia. But in the 1980s Poland's wages fell, then stagnated, and unemployment rose in the 1990s. Poland was unable to sustain the past gains in the welfare of its workers. Real earnings in manufacturing dropped by a quarter between 1981 and 1991 (Figure 2.1).

Malaysian workers thus have benefited from economic growth, while Poles and Ghanaians have suffered from a lack of it. These countries are not unique. Evidence on long-run wage trends in low- and middle-income countries is not abundant, but in those countries for which data are available long-term growth is associated with rising real wages in agriculture and manufacturing (Figure 2.2). This is not surprising: GDP measures the value added by all factors of production—land, labor, and capital—and wages measure value added by labor. If GDP per worker is growing, then value added per worker must be growing—and under most circumstances so must wages.

Economic growth also changes the employment status of workers. In poor countries most labor is engaged in relatively low-productivity self-employment in agriculture or services. But as countries grow richer, more workers move into higher productivity, higher wage employment in industry and services (Figure 2.3). This transformation results from growth, but it also paves the way for further growth and increases in living standards. The formalization of employment relations is associated with increased opportunities for specialization and training, risk pooling, and greater income security.

What causes economic growth?

The benefits enjoyed by labor in fast-growing economies are not the result of job creation in the public sector or wage increases mandated by government. Expanding employment opportunities and rising wages are the consequences of growth and economy-wide increases in output per worker. A market-based development strategy achieves these outcomes through investment decisions by firms, households, and government. The search for more profitable activities encourages businesses—whether family farms, informal sector enterprises, or large corporations—to invest in equipment, new technology, and the training of workers. Households, seeking higher earnings from the hours they spend at work, will invest in their own human capital through improved health and nutrition and through schooling and training. Governments contribute directly by investing in public goods such as rural roads. But a market-

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**Table 2.2 Earnings in selected occupations in Malaysia**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Earnings in 1989 (manufacturing = 100)</th>
<th>Annual average growth rate of earnings, 1973-89 (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General plantation workers</td>
<td>50</td>
<td>3.0</td>
</tr>
<tr>
<td>Manufacturing workers</td>
<td>100</td>
<td>3.5</td>
</tr>
<tr>
<td>Self-employed workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street vendors</td>
<td>111</td>
<td>4.4</td>
</tr>
<tr>
<td>Hairdressers</td>
<td>95</td>
<td>4.6</td>
</tr>
<tr>
<td>Launderers</td>
<td>42</td>
<td>-1.6</td>
</tr>
<tr>
<td>Tea preparers</td>
<td>64</td>
<td>2.5</td>
</tr>
<tr>
<td>Truck drivers</td>
<td>120</td>
<td>4.7</td>
</tr>
<tr>
<td>Shop owners</td>
<td>138</td>
<td>5.6</td>
</tr>
</tbody>
</table>

**Source:** Malaysia Labor Force Survey data for 1973, 1989.
Long-term economic growth is strongly correlated with wage growth in agriculture and manufacturing.

![Graph showing growth rates of GDP per capita and real wages in agriculture and manufacturing.](image)

Figure 2.2 Growth rates of GDP per capita and real wages in agriculture and manufacturing. The sample consists of twenty-two low- and middle-income countries over a period from the 1960s to the 1990s. Actual years vary by country. Source: World Bank data; UNIDO data.

Based development strategy means that governments, above all, must enable businesses and households to invest in themselves, for example by protecting property rights and providing access to education.

The evidence linking economic growth to investment is overwhelming. For individuals, more schooling is strongly associated with increases in labor productivity and greater earning power (Chapter 5). At an aggregate level, the countries that have sustained high levels of economic growth are those that have experienced rapid increases in their stocks of physical and human capital. Between 1965 and 1990, the high-performing developing economies of East Asia significantly increased their investment-GDP ratios, from an average of 22 percent in 1965 to an average of 35 percent in 1990. Human capital also increased rapidly; between 1965 and 1990 the gross primary school enrollment rate increased from 92 percent to 102 percent, and the gross secondary school enrollment rate went from 27 percent to 37 percent (gross enrollment rates include pupils who are not of the customary school age, and thus can exceed 100 percent of the relevant population). No other region matched this overall pattern of investment or the resulting payoffs in GDP growth, expanding wage employment, and increased earnings.
The share of the work force in modern sector wage employment increases as GDP per worker rises.

The relationship between investment and economic growth is captured by cross-country data comparing long-run (1960–85) growth rates in GDP per worker with recent estimates of the accumulation of physical capital and of years of schooling of workers (Figure 2.4). A sample of over sixty low- and middle-income countries, covering all regions except the transitional economies of Europe and Central Asia (for which comparable measures of investment are not yet available), exhibits a positive relationship between investment and growth in output per worker.

Fast-growing economies invest more, but investment alone does not necessarily deliver faster growth—the link between investment and productivity growth is far from automatic. Many economies expanded their stocks of physical and human capital per worker yet experienced low or even negative productivity growth rates. Some countries that regularly invested more than 20 percent of GDP—including China in the 1970s, the former Soviet Union, Sri Lanka, and Tanzania—did not grow quickly. Changes in workers’ average years of schooling are also weakly linked to faster growth. Many African countries expanded their educational systems, raising the average years of schooling of their labor force, but have seen little corresponding growth.

This far-from-automatic relationship between investment and productivity growth has two further implications. First, growth depends not only on how quickly inputs are accumulated, but also on the quality of those inputs, the technology embodied in them, and how efficiently they are employed. Fast-growing economies did not simply invest more but combined physical capital and educated workers in ways that increased output per worker.
Investment in physical and human capital is necessary but does not guarantee productivity growth.

Second, the relationship between investment in human capital and productivity growth is much weaker than that between investment in physical capital and productivity growth, as Figure 2.4 shows. But this is not to suggest that human capital is less important to growth. Detailed econometric studies find investment rates and initial endowments of education to be robust predictors of subsequent growth. Other things equal, the more educated a nation’s workers, the greater their potential to catch up with prevailing technologies and so achieve more rapid output growth. Rather, what weakens the relationship is that workers appear willing to invest in human capital even in the kinds of distorted, low-growth environments that tend to scare off private investment in physical capital. One reason is that capital is more mobile and can more easily seek out better opportunities in other regions or countries. Another is that households may continue to invest in education because they have longer run investment horizons or because public subsidies, by lowering private costs, continue to make education a worthwhile private investment. Households may also invest in schooling even when it does not translate into
Growth in the working-age population has been similar across regions, but GDP growth has not.

<table>
<thead>
<tr>
<th>Region</th>
<th>GDP Growth</th>
<th>Working-age Population Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Middle East and North Africa</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>South Asia</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>East Asia and the Pacific</td>
<td>9</td>
<td>10</td>
</tr>
</tbody>
</table>

Figure 2.5 Growth rates of GDP and the working-age population by region. Data are for 1965-93. Source: ILO 1986 with ILO data updates; World Bank data.

Higher levels of labor productivity because they value other benefits that education provides.

**Economic growth and labor supply**

Does rapid population growth depress growth and living standards? The argument that developing economies can have too many workers sounds persuasive. Economic growth requires rising productivity (output per worker), so more workers should, other things equal, mean lower productivity. But other things are not equal. More workers mean more output. And growth in output depends on the quantity and productivity of all inputs, including physical capital, human capital, and technology as well as the number of workers. Population growth need not have an adverse effect on investment, nor need it depress the productivity of inputs.

Poor labor outcomes may have little to do with the rate of growth of labor supply. Indeed, in recent decades, differences in the growth of potential labor supply in low- and middle-income economies do not explain differences in labor market conditions. During 1965–93, growth rates of the working-age population were remarkably similar across regions, differing by only a few tenths of a percentage point. (The lone exception is the Europe and Central Asia region, which had already achieved low fertility rates by the 1960s.) But differences in GDP growth rates were huge, as Figure 2.5 shows. In East Asia output growth exceeded expansion of the working-age population by an average of about 5 percentage points a year; in Latin America the difference was less than 1.5 percentage points; and in Sub-Saharan Africa growth in the working-age population exceeded GDP growth. Where economic growth rates have been high, average output per worker has grown rapidly, doubling every fifteen years in East Asia compared with every fifty years in Latin America, and actually declining in Sub-Saharan Africa.

Economic growth and labor supply are interdependent, but the causality appears to run the other way than often claimed, with economic growth encouraging faster, then slower labor supply growth. The Republic of Korea's working-age population was growing at a rapid 2.8 percent per year in the 1960s and 1970s, yet economic growth, by expanding employment opportunities, actually encouraged an increase in labor supply as participation rates of women went up. With growing incomes, and backed by family planning efforts, Korean households began to choose to have fewer children. As fertility declined, families invested more in each child they had, increasing the average number of years they spent in school. A growing economy also enabled government and households to devote more resources per pupil, improving the quality of Korea's education system. Investment in human capital helped to sustain Korea's rapid growth rates and closed the virtuous circle between economic growth and labor supply. Today Korea, like many other East Asian nations, has nearly completed its demographic transition from high to low fertility rates and faces the global marketplace with a slow-growing, highly skilled, and increasingly well-compensated work force.

The dilemma remains, however, about what to do about future labor supply in areas where economic growth is stagnant and populations continue to grow rapidly, as in much of Africa and the Middle East. There are no easy answers. It takes about twenty years for lowered fertility rates to appreciably slow the growth of the labor supply. And in the short run, lowering fertility can increase labor supply if women who would have been rearing children instead join the labor force. If the goal is to raise labor incomes, resources will have a higher return if used to encourage increases in labor demand—such measures will improve labor outcomes far sooner than will direct attempts to reduce future labor supply. While slowing population growth is thus no substitute for efforts to increase labor demand, there is reason to emphasize social policies that contribute to a decline in fertility—education of girls, improvements in women's status, and investments in reproductive health and family plan-
Economic growth delivers higher wages and encourages workers to move to higher paid, high-productivity jobs in the formal sector, as Malaysia's experience demonstrates. Investment in physical capital and in people is key to economic growth and higher productivity—without investment, wages stagnate and living standards fall, as they did in Ghana before its reforms. But simply increasing the stock of physical capital and years of schooling will not automatically translate into sustained growth, as Poland discovered. A market-based development strategy that encourages enterprises and households to invest for the future in a productive and profitable manner can sustain rising labor demand. Such a strategy will enable low- and middle-income countries to expand employment opportunities and raise the wages of their often rapidly growing labor forces.

CHAPTER 3

Households, Growth, and Employment

MOST PEOPLE, WHATEVER THEIR race, nationality, or the stage of development of their country, spend most of their lives working for a living. Economic growth and rising income per capita have a dramatic effect on the type of work households do, the incomes they receive, the way they manage their time, the sectors in which they work, and whether to migrate. Rising labor productivity and higher real wages affect decisions about who in the household should work, who should receive education and how much, and how households deal with risk and income security. For employers, higher productivity affects labor demand, the organization of production, and the nature of employment contracts. The interaction of households' supply of labor and employers' demand for it yields the employment outcomes we observe.

This chapter maps out the changes in household labor decisions and the organization of employment relationships that development brings. It then looks at what determines unemployment in rich and poor countries.

Household decisions and labor supply
Households everywhere have limited resources with which to meet their objectives. For most, especially in low- and middle-income countries, labor time is their primary resource.

Labor force participation
Households must decide how to allocate their collective labor time between home-based and market activity. Household income and the wages each member commands will influence their decisions. Low wages will not always mean long hours of work. In Ghana and Malaysia, evidence from household surveys suggests that workers from families in the bottom 40 percent of the income distribution worked 15 to 20 percent fewer hours on average than did individuals from the top 20 percent. This finding is probably due to a lack of opportunities, especially in rural areas. But at some point rising labor productivity and higher real wages raise household incomes enough so that individuals can choose to work fewer hours. One of the benefits of the sustained economic growth of today's high-income industrial countries has been an almost 40 percent decline in hours worked per person per year, from an average of 2,690 in 1900 to 1,630 in 1986.

Households must also decide who will work and in what activities. As work is conventionally measured, men work more than women. In a wide range of countries almost all men between twenty-five and fifty-four are...