mismatch between jobs and workers, eliminating rigid wage and employment practices, and upgrading the skills of workers.

Recent trends in unemployment are especially troubling. Despite a steady recovery in the world economy, open unemployment has grown in many countries. In Europe the persistence of high unemployment rates during the 1980s is believed to have been caused by a combination of weak growth in labor demand, real wage rigidities in the face of declining demand for unskilled workers, a welfare system that gives its beneficiaries disincentives to accept jobs, and restrictions in some service sectors that have held back employment growth.

Unemployment is particularly severe in many of the former centrally planned economies, where many enterprises, exposed for the first time to the discipline of markets, have been forced to cut back production or to shut down altogether. In Bulgaria, Hungary, and the Slovak Republic, officially recorded unemployment was negligible as recently as 1989. But by 1993 all three confronted open unemployment rates of between 12 and 16 percent. However, not all economies facing transition have had the same experience. In Belarus, the Czech Republic, and Russia open unemployment remains in single digits, although many workers in Belarus and Russia are effectively laid off or working part-time.

During the 1980s growth in modern sector employment stagnated in many poor countries in response to reductions in aggregate demand and public enterprise restructuring. In urban centers open unemployment grew as new entrants to the labor force and displaced workers failed to find work. Once viewed as a luxury, available only to better-off young people waiting for a modern sector job, unemployment now affects all social classes.

Economic development brings new and rapidly changing opportunities to participants in the labor market. Progress depends on the willingness and capacity of households to save and build up their productive assets, the willingness of entrepreneurs to organize productive factors so that gains from specialization can be achieved, and the willingness of governments to enhance rather than discourage these endeavors. Economic growth makes labor services increasingly expensive, inducing households to choose alternative ways of managing their time, and employers to discover better ways of organizing production. But these interactions are not perfect, and often many workers find that their labor is underutilized and their incomes are low.

CHAPTER 4

Policy and Patterns of Labor Demand

ECONOMIC DEVELOPMENT MEANS DRAMATIC CHANGES IN THE STRUCTURE OF EMPLOYMENT AND ENORMOUS INCREASES IN PRODUCTIVITY. The pattern of work in traditional industries changes as the rising cost of labor, together with technological advances, encourages new methods. Meanwhile job opportunities expand in services and industry, as employment in agriculture declines and workers move to urban areas and from the informal to the formal sector. Workers have prospered more when the process of productivity upgrading and labor transfer has been based on market realities. Attempts by governments to force the pace of change by protecting industry and formal employment have proved unsustainable and often counterproductive, slowing economic growth, depressing labor demand, and encouraging informalization.

This chapter seeks to explain why productivity growth changes the pattern of employment. It then asks how policy choices can help or hinder a process of labor-demanding growth and structural transformation.

The transformation from low- to high-productivity activities

Productivity growth and rising real wages change the way economies work. As skills and capital become more abundant, countries find it economical to use their labor to pro-
duce more skill- and capital-intensive manufactures and services and fewer labor-intensive agricultural goods. On average, agriculture's share of employment falls from 90 percent of the total in poor countries to roughly 5 percent in rich ones, as Figure 4.1 shows. Industry's share, which includes manufacturing, construction, and mining, rises from 4 percent to about 35 percent, and that of services from 6 percent to 60 percent. This shift is associated with the rise in formal employment discussed in Chapters 2 and 3. But different resource endowments can produce wide variations from this basic pattern. Those countries with a lot of agricultural land, such as the United States and New Zealand, remain highly efficient agricultural producers as they develop. Those well endowed with minerals, such as Indonesia and Venezuela, tend to allocate less labor to manufacturing and more to services.

Rising real wages also encourage producers within a given sector to adopt labor-saving production techniques as workers move from low- to high-productivity activities, as differences in the organization of milk production in Mexico, Ecuador, and Texas illustrate. Poor family farms in rural Mexico, each working with its own meager capital and without hiring specialized services, earn little more than a subsistence income producing only three to four liters per day per cow. In the Ecuadoran highlands small commercial dairy farms hire laborers at $100 per month, use a range of market services such as artificial insemination, and obtain thirteen liters per day from each cow. Texas ranches rely even more heavily on market transactions for such inputs as supplemental nutrients and veterinary services; their ranch hands get $1,200 per month, but their cows produce twenty or more liters per day.

As economies expand, new employment opportunities compete with existing ones. With demand rising elsewhere, workers move out of low-productivity, low-wage activities. Figure 4.2 outlines labor productivity trends within and between sectors in Malaysia and the Republic of Korea over the past three decades. Malaysia's impressive productivity performance partly reflects an expansion of employment in the high-productivity services and industrial sectors, but also the fact that agriculture substantially boosted its productivity while keeping the number of workers nearly constant. Korea's record was even more dramatic, although agricultural productivity began to improve only after the sector started to shed workers in the mid-1970s. In Korea and Malaysia, a breakdown of the sources of national labor productivity growth finds that about 60 percent of the total comes from rising labor productivity within sectors, and most of the rest from shifts between sectors.

Growth in labor productivity, whether within or between sectors, is not just a story of job creation; typically, some jobs must be eliminated as well. For example, employment in Korean industry grew from just over 1 million jobs in 1966 to more than 6 million in 1990, and during this period manufacturing's share in total employment increased from 10 percent to 30 percent. But this economic success was unevenly distributed across industries and often resulted in the destruction of jobs. For example, employment in the plywood industry expanded from 23,000 jobs to 32,000 jobs between 1970 and 1979 but then fell after 1980. Real wages grew rapidly during this period, inducing a productivity-enhancing transformation in the industry.

**Policy mistakes that lower labor demand**

Too often the transformation of employment fails to reflect market-driven changes but instead results from government attempts to speed the shift from low- to high-productivity activities and sectors. There are three routes by which governments have tried to force change: policies that introduce a pro-industry, anti-agriculture bias; policies that are biased against labor demand within agriculture; and regulations designed to make formal sector employment more attractive to workers. All three suppress growth in labor demand and sooner or later hurt overall growth.

**Pro-industry bias**

Policies in a wide range of countries that emphasized import-substituting industrialization eventually proved bad for industrial employment, agricultural growth, and overall economic performance (Table 4.1). India, for example, enjoyed steady growth in wages, but experienced slow employment growth in manufacturing. Countries such as...
Workers in Malaysia and Korea have increasingly found employment in sectors with high and rising productivity.

Argentina and Peru, or Ghana and Zambia, suffered from both declining wages and slow (and in Argentina's case, negative) employment growth. Protection of industry failed to produce dynamic growth in industrial payrolls. It also introduced biases against labor within industry: studies show that in low- and middle-income countries export industries are usually more labor-intensive than import-substituting ones, but typically the former are disproportionately taxed rather than subsidized. Often capital is implicitly subsidized by lower protection for imported capital goods, and by overvalued currencies, further biasing industrialization against labor. In contrast, the successful East Asian economies emphasized exporting and had relatively moderate biases in favor of industry. They have seen wage employment growth far exceeding population growth, and significant growth in manufacturing wages.

Pampering of industry has proved good for a few industries but bad for growth in industrial employment. It has
also been bad for agriculture. Given that agriculture is the major labor-intensive sector, this constitutes a bias against labor demand—and against the poorest groups of workers. The true tax on agriculture has often been huge. A study of eighteen countries found a total (explicit and implicit) tax on agriculture of 30 percent for the 1960–84 period—equivalent to a transfer to other sectors of 46 percent of agricultural value added per year. This transfer varied from around 50 percent for extreme taxers of agriculture such as Ghana and Zambia to 10 to 20 percent for relatively mild taxers such as Malaysia, Korea and Portugal actually subsidized agriculture. In most cases the primary source of taxation—some three-quarters of the total on average—was not explicit taxes but the indirect effects of industrial protection and the overvalued currencies that this brought. The study found that low taxation of agriculture meant faster agricultural growth and faster overall growth. Since this speeded the overall development process, lower taxes on agriculture paradoxically speeded the transformation from agricultural to industrial and services employment.

The pattern of technological change also matters. Where technological advance in a major labor-intensive sector is slow, that sector can become a laggard in the country's overall advance. This can be due to a failure to develop and adopt new techniques, as happened in agriculture during the industrial revolutions in the United Kingdom and the United States. There technical advances were concentrated in industry and communications, and this was one factor behind the stagnation of unskilled wages even as overall growth was taking off in these countries. But the green revolution has profoundly changed the situation in agriculture in the past three decades. Where farmers have been able to adopt the new technologies—notably in much of Asia—rural technical change has been rapid, bringing rapid overall rural income growth and powerful gains to rural workers through direct effects on farm incomes and agricultural wages. One study of rural India found that yield increases due to technical change reduced the incidence of poverty from 56 percent to 30 percent of the rural population between the mid-1970s and 1990, through both higher farm incomes and a 70 percent rise in agricultural wages. Many studies have found a substantial indirect effect in the expansion of the rural nonfarm sector, pulled up by rising demand for services, consumer goods, and inputs as farm incomes rise. However, for technological change to occur, the policy environment has to be supportive. Severe biases against agriculture, not unresponsive farmers, are the major reason for slow agricultural productivity growth in Sub-Saharan Africa.

**Antilabor biases within agriculture**

Between 1950 and the late 1970s, agriculture policies in both market-oriented and centrally planned economies were inspired by the view that peasants would be unlikely to respond to market incentives, that large farms were more efficient, and that the sector's best hope lay in capital-intensive modernization. This has been proved wrong. A few economies, mostly in East Asia, not only avoided excessive taxation of the agricultural sector but also provided strong infrastructural and service support for small-scale agriculture. This was facilitated by prior distributive land reforms (in Korea and Taiwan, China), by a history of small-farm production (in Indonesia and Thailand), or by a swift transition to small-farm production (in China after 1978). These economies enjoyed rapid rural growth and a significant shift to nonfarm employment within rural areas.

In many economies, however, a large proportion of land is held in excessively large and capital-intensive farms, which employ very little labor but enjoy preferential access to credit and other subsidies. In Latin America halfhearted land reforms that sought or threatened to give land rights to tenants only sharpened landowners' bias toward adopting labor-saving production practices. Colombia is a particularly striking example of the perverse incentive effects of such policies. Land that could be used efficiently for planting crops is instead used for ranching because of policy biases that favor large farms (Box 4.1). In many countries of the former CMEA bloc, land is still held in large-scale collective farms or their successors.

Privatization, land reform, or both are required in many countries. Viet Nam and Albania have already moved in...
Box 4.1 Explaining weak labor demand in agriculture: the case of Colombia

Colombia is an example of a country that has taxed agriculture yet achieved a respectable rate of agricultural growth through an array of subsidies. But Colombia also vividly illustrates how policy biases within the sector can reduce labor demand. Poverty rates remain much higher in rural areas than in the cities, even as poverty has diminished in the country as a whole.

It is estimated that Colombia's implicit tax rate on agriculture reached 30 percent during 1960–84, yet agricultural growth averaged 3.5 percent per year between 1950 and 1987. The country's growth path was extremely capital- and land-intensive. Capital grew by 2.8 percent per year, and land area devoted to agriculture and livestock by 1.4 percent, but employment by only 0.6 percent. Preferential tax treatment, credit subsidies, and the virtual abolition of tenancy favored an excessively labor-saving pattern of agricultural growth. Beginning in 1936 and culminating with the Ley de Aparcería of 1975, a series of measures have had the effect—intentionally or otherwise—of reducing the incentive for large landowners to lease out land to tenants. The employment of sharecroppers and colonos was formally outlawed in 1968. Farmers reduced their dependency on labor through mechanization, usually with subsidized credit, or by converting to livestock ranching. A steep fall in rural employment—by 3.9 percent per year—occurred between 1970 and 1975.

Poor farmers resorted to squatting: during the 1970s there was a wave of illegal farm occupation, but this avenue for land acquisition was closed in 1988. The only option left for the poor was to occupy marginal and often ecologically unstable land at the frontier of the rain forest or in steep hills. In many areas mountain slopes are being denuded of vegetative and soil cover, and the resultant loss of moisture retention has an adverse affect on stream flow. Although lack of access to land and farm employment is by no means the only cause of rural violence in Colombia, it undoubtedly aggravates the situation. Those provinces most plagued by violence were found to have had a higher than average rate of decline in the land area operated by tenants and colonos between 1960 and 1988.

Colombia passed a different kind of land reform law in 1994, which proposes to increase the role of the market in transferring land to the rural poor. Eligible applicants will receive a subsidy of 70 percent toward purchase of a plot of land sufficient to support a farm family, and credit will be provided to cover the remaining 30 percent. It is intended that the subsidized farmers will group together in cooperatives to negotiate purchases of land from owners of large holdings. The new law also gives title to established squatters located on frontier lands and includes land improvement measures for indigenous communities. The law does not reform the restrictions on land tenancy, but it is a step in the right direction.

this direction, and a land reform program is getting under way in South Africa. Land reform is best executed within a market framework, with willing buyers and sellers, rather than through expropriation. To make reform work, the poor can be assisted with grants for farm purchase and development. Technical and marketing support and investment in rural infrastructure will also need to be redirected from larger farmers to smallholders.

Labor regulation, labor dualism, and the informal sector

The change in resource allocation that makes possible the productivity-enhancing transformation of an economy requires a labor market that is open to economic forces. Policies that favor the formation of small groups of workers in high-productivity activities lead to dualism (segmentation of the labor force into privileged and underprivileged groups) and tend to close the formal sector off from broader influences from the labor market, at the cost of job growth. These outcomes often occur when an output market that is sheltered from competition by trade protection or public ownership combines with government labor regulations designed—often with good intentions—to protect or support the conditions of workers in the formal sector. This can create a small group of relatively privileged workers with an interest in perpetuating their favored status.

In many Latin American, South Asian, and Middle Eastern countries, labor laws establish onerous job security regulations, rendering hiring decisions practically irreversible; and the system of worker representation and dispute resolution is subject to often unpredictable government decisionmaking, adding uncertainty to firms' estimates of future labor costs. A proper bankruptcy law does not yet exist in India, rendering plant closings a matter of government discretion and complicating the political economy of adjustment in the industrial sector. Similarly, weak links between social security contributions and benefits have effectively transformed contributions into a tax, encouraging tax avoidance through changes in employment status. A study of the Brazilian social security system found evidence of workers staying in the informal sector as long as possible, switching eventually to formal employment only to meet the vesting requirements of the pension system.

The urban informal sector ranges from around 75 percent of the urban labor force in Burkina Faso and Sierra
Leone to around a quarter in Argentina. Informality tends to be higher in Sub-Saharan Africa and Latin America, and within each region informality and labor productivity are negatively related (Figure 4.3). But policy also matters. Onerous taxes and regulations can increase the size of the informal sector. A comparative study of El Salvador, Mexico, and Peru found the level of informality to be least in Mexico, where formal sector workers had less of an advantage over informal workers in terms of wages and legislated job security.

What should governments do about or for informal labor? Three types of policy initiative make sense. First, removing antilabor biases, whether against employment in agriculture or in formal sector establishments, reduces the pressure on the informal sector from agricultural workers who are leaving the land but cannot find formal jobs. Second, the tax and regulatory burden on formal activity needs to be put at moderate (and enforceable) levels. Third, there is some scope for direct public action, especially in the pattern of urban infrastructure provision and the avoidance of channeling subsidized credit to favored firms. Small firms see lack of credit as a constraint, but the experience of the East Asian countries shows that small firms can develop despite real rates of interest on the order of 40 percent, as long as they have access to credit and to markets.

As discussed in Chapter 3, in all economies there is a continuum of employment opportunities, from self-employment within the household to formal employment in registered enterprises. If labor policy overlooks the role of wages and working conditions as incentives and as market signals, it will end up closing the formal labor market to the influence of market forces and discouraging the formalization of labor contracts. Part Three discusses standards and income security provisions that are affordable and will be treated by workers as a benefit of employment, not by employers as a tax.

Economic growth and higher real wages mean that labor productivity will rise within sectors and that workers will move to higher productivity sectors such as industry and services. But governments will invariably fail if they try to speed this process by introducing biases toward high-productivity activities. Biases that favor industry over agriculture, capital over labor, and formal over informal work paradoxically tend to slow, not speed, the shift toward a more productive and more formalized economy.