

**PART I**

**CHINA'S INSTITUTIONAL AND STRUCTURAL FAULT LINES**

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**MASSIVE UNEMPLOYMENT AND RURAL POVERTY**

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This chapter reviews the current status and recent trends in unemployment and rural poverty in China and discusses how they might affect economic growth should conditions deteriorate in the next decade.

We define unemployment to include both open and disguised unemployment. Open unemployment refers to persons who are 16 years of age or over, are capable of working, and are actively seeking employment, but who have not been able to find employment. Disguised unemployment is loosely defined to include those whose removal from the workforce would have virtually no effect on output, assuming no change in production techniques or in the supply of other factors, but allowing organizational changes if necessary.<sup>1</sup> The reason for including the disguised unemployed in our definition is

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<sup>1</sup>Disguised unemployment includes those who work “full time” but whose labor input per unit of time falls short of some standard because of work sharing. For example, if the standard is that three workers can harvest one acre of rice in one day, and if five workers do the same job over the same period of time, each putting in a full day’s work though at a more leisurely pace, then, by our definition, two persons fall into the category of disguised unemployment. They all work full time but are not full-time equivalent workers in the strict sense. Nor are they part-time workers. The conceptual and measurement problems involving disguised unemployment are many. See Nurkse, 1953; Kao, Ansel, and Eicher, 1964; Myrdal, 1968; Sen, 1975; and Bhaduri, 1989. The controversy need not detain us here. That there is disguised unemployment in rural China is evidenced by findings of rural surveys and by the 30 some million peasants flooding the coastal cities looking for work in the 1990s, while agricultural output continued to grow without significant technological changes. See Cook, 1999; Development Research Center (DRC), 1994; and Fan and Hou, 2000. In the urban areas, a survey by the International Labor Office found an urban hidden unemployment rate of 18.8 percent in 1995 (Yang, 1997, p. 48).

that they are different from the openly unemployed only in form. In the current transition to a market-oriented economy, the disguised unemployed are steadily coming to the surface, and their effects on resource allocation and social stability are no less consequential than those of the openly unemployed.

Table 2.1 presents a rough estimate of unemployment in China in 1999.<sup>2</sup> For convenience of discussion, six categories of unemployment are distinguished. The first group, open urban unemployment, refers to unemployed urban residents, whether or not they have registered with the local labor office.<sup>3</sup> The second group comprises deactivated (*xia-gang*, or literally, “off-posts”) workers and employees who are seeking reemployment.<sup>4</sup> A third group consists of the workers and employees in defunct enterprises, which have not yet gone bankrupt but have suspended operations. A fourth category includes unemployed persons in urban areas that do not fall into the officially defined urban unemployed. They include such persons as migrant workers from rural areas, underage youths, retirees, and individual (self-employed) workers who are out of work. The fifth category is the redundant workers in urban enterprises and organizations who have not yet been laid off. Sixth, there are the hidden unemployed in the rural areas.

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<sup>2</sup>It should be noted that these estimates are at best informed guesses because of the lack of reliable data. Available estimates of China's unemployment vary widely because of differences in definition, sources, and methods. For example, estimates of total unemployment in 1995 range from 167 to 225 million. See Beijing *Xinhua*, March 1, 1995, reported in Foreign Broadcast Information Service, CHI-95-040, March 1, 1995, p. 41; *Wen hui pao* (WHP), January 3, 1995. Another example is that the Ministry of Labor estimates the urban hidden unemployment rate at 10–12 percent, compared to the 25 percent estimated by the State Planning Commission (Yang, 1997, p. 48).

<sup>3</sup>These estimates are from surveys by the State Statistical Bureau (SSB) and are different from official statistics of unemployment that cover only the registered unemployed urban residents (*Statistical Yearbook* [SY] 93, p. 140). Thus, the SSB estimate of 2.9 percent in 1995 is distinctly lower than the 4.5 percent urban unemployment based on survey data, which presumably include those not registered (SSB and Ministry of Labor and Social Security [MOLS], 2001, p. 67; Yang, 1997, p. 219). For this reason, it would be misleading to compare China's official unemployment rate with those of other countries as both the SSB and the World Bank did in SY 97, p. 884, and World Bank, 2001a, p. 56.

<sup>4</sup>The deactivated workers are those who have been laid off but who still maintain “labor relationships” with their work units (SSB and MOLS, 2001, p. 571).

**Table 2.1**  
**Unemployment, 1999**

Unemployment	Total (millions)	Composition (%)	Unemployment Rate (%)
Urban, open	30.5	18.1	10.0
SSB survey data	14.0	8.3	—
Deactivated	9.4	5.6	—
Defunct units	6.0	3.6	—
Migrant workers	1.1	0.6	—
Urban, disguised	13.0	7.7	6.2
Rural, disguised	125.0	74.2	25.2
Total	168.5	100.0	22.9

SOURCES: Following the methodology used by the SSB in SSB and Ministry of Labor (MOL), 1997, p. 3, we derive the urban open unemployment (SSB survey data) by deducting total employment from economically active persons given in SY 00, p. 116. Estimates of deactivated urban workers and the migrant workers are taken from Hu, 2001a. Yang, 1997, p. 27, reported that unemployed workers in urban enterprises that had stopped or virtually stopped operations have remained at the level of 6 million since 1989. We assume the same level of defunct units in 1999. The urban disguised unemployment is derived as a residual, by deducting the total that have been deactivated since 1995, 20 million estimated in Chinese Academy of Sciences (CAS), 1998, p. 104, from the total redundant workers and employees, 33 million, given in Yang, 1997, pp. 75–76. Rural disguised unemployment is the midpoint of the range of estimates by the State Planning Commission in Zeng, 1999, p. 524, and the World Bank reported in *Chinese Daily News* (CDN), July 25, 1999. For total employment used to calculate unemployment rates, 210.1 and 495.7 million in urban and rural areas, respectively, see SY 00, pp. 118–119.

NOTE: “—” = not available.

An unemployment rate of 23 percent is high by any standards. The situation could remain severe and even worsen in the next decade, because of three distinct trends in the 1990s that could continue into the 2000s. First, despite an acceleration of GDP growth, from 9.3 percent per year during 1980–1990 to 10.1 percent during 1990–2000, the growth of employment fell markedly, from 4.2 percent in the 1980s to 1.1 percent in the 1990s (SY 01, pp. 52, 108). In short, there had been a sharp drop in the employment elasticity of output in the 1990s as compared to the preceding decade. Second, closely related to the decline in employment elasticity is the slowdown in the growth of employment in the major labor-absorbing sectors in the 1990s. For example, average annual growth of nonagricultural employment dropped from 6.8 percent in 1980–1990 to 3.4 percent in 1990–2000. Within the nonagricultural sector, growth of employment in the nonstate subsector fell from 11.2 to 6.2 percent; that of rural enter-

prises, from 11.9 to 3.3 percent; that of construction, from 9.3 to 3.9 percent; and that of services, from 7.9 to 5.2 percent, over the two periods, respectively (SY 01, pp. 108, 110–112). Third, the annual growth of total employment during 1980–1990, 4.2 percent, far exceeded that for the working-age population (population in the age group of 15–64 years, a proxy for labor supply)—2.3 percent over the same period. In contrast, the average annual growth of employment during 1990–2000, 1.1 percent, lagged behind the growth of the working-age population, 1.5 percent, over the same period.<sup>5</sup>

The trends in the 1990s could continue into the next decade, in part because of a possible slowdown in GDP growth, and in part because the growth of the working-age population could remain at about the same pace as in the last decade. In the 1990s, GDP growth has already been slowing, from 12 percent per year during 1990–1995 to 8.3 percent during 1995–2000 (SY 01, p. 52). Economic projections by the World Bank and the Chinese Academy of Social Sciences show a declining trend continuing into the next decade.<sup>6</sup> If that should occur, employment growth would probably fall as well. Meanwhile, continued population growth in the 1980s and 1990s will have an echo effect of increasing the working-age population during the 2000s. According to one estimate, the annual growth of the working-age population will drop only slightly, from 1.5 percent during 1990–2000 to 1.4 percent during 2000–2010 (SA 01, p. 36; Lin and Zhai, 1996, p. 23). Given the divergent trends in the growth of employment and the working-age population, and the huge current backlog of unemployment, a worsening of the situation is a distinct possibility.

Closely related to unemployment is the problem of rural poverty. Unemployment in the villages is one of the key factors contributing to rural poverty, and poverty drove many peasants to migrate to coastal cities, swelling the already large urban unemployment. The first issue relevant to our study is how serious is rural poverty in

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<sup>5</sup>For data on employment, see SY 01, p. 108. For working-age population, see *Statistical Abstract* (SA) 01, p. 36; SY 01, p. 91. The age distribution in 1980 is assumed to be the same as that in 1982.

<sup>6</sup>The World Bank projects average annual GDP growth to fall from 8.4 percent in 1996–2000 to 6.9 percent in 2001–2005 (World Bank, 1997b, p. 21). Likewise, Li Jingwen anticipates GDP growth rates to drop from 9.4 percent to 8.1 percent over the same periods (Li, 1998, p. 20).

China today? Official reports and estimates by the World Bank differ sharply on this issue. According to official claims, a mere 4.8 percent of the rural population in 1998, or 42 million, were poor.<sup>7</sup> The World Bank estimates that 106 million rural residents lived in poverty in 1998.<sup>8</sup> Measures of relative poverty are lacking.<sup>9</sup> Nonetheless, it seems reasonable to assume that relative poverty is closely associated with the degree of income inequality. The more unequal the distribution of income, the greater the probability of a larger incidence of relative poverty. One common measure of income distribution is the Gini coefficient.<sup>10</sup> The World Bank estimates the rural Gini index at 40.3 percent for 1998, somewhat higher than those in other large developing Asian countries such as India and Indonesia.<sup>11</sup>

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<sup>7</sup>Zeng, 1999, p. 632.

<sup>8</sup>World Bank, 2001d, p. 2. The World Bank estimate is much larger than the official estimate because the SSB uses a much more austere poverty line. The poverty line used by the World Bank is the international subsistence standard of US\$ 1 per day, in 1987 purchasing power dollars. The SSB uses one that is equivalent to US\$ 0.66 per day. There are reasons to believe that the SSB figures are unrealistically low. First, in calculating the poverty line, the SSB uses procurement prices to value the grain purchased or consumed by the peasants, which are below the market prices. Most poor peasants do not grow enough grain and have to purchase grain at market prices. Also, the market prices measure more realistically the alternative costs of the grain they grow and consume. According to Zhao and Griffin, 1994, p. 327, adjusting the prices would raise the official poverty line for 1988 from 260 to 291 yuan. Second, the poverty line varies with changes in the costs of living over time. Inadequate allowance for a rise in the cost of living would set the poverty line too low and understate the incidence of poverty. This is exactly the case with the SSB data. For example, the SSB reports the poverty line in 1985 and 1990 at 206 and 268 yuan, respectively, implying a 30 percent change in the rural cost of living over the period (World Bank, 1992, p. 26). Yet, the rural consumer price index rose by 65 percent over the same period (SY 01, p. 282). Third, the SSB estimates of the incidence of poverty are based on the distribution of per-capita income from its annual sample survey of rural households. The estimates are generally more conservative than those based on expenditure data (World Bank, 2001d, p. 3).

<sup>9</sup>People living in relative poverty are those whose incomes are below what most people regard as the minimum acceptable standard.

<sup>10</sup>The Gini coefficient is the ratio of the area between the diagonal and the Lorenz curve divided by the total area under the diagonal, i.e., the line of equality. The Lorenz curve shows the percentage of population (measured on the horizontal axis) that has a corresponding percentage of income (measured on the vertical scale). The coefficient ranges from 0 to 1. The larger the coefficient, the greater the inequality.

<sup>11</sup>World Bank, 2000c, p. 282. Note that the figures refer to indices for the economy as a whole.

What are the prospects of these problems worsening in the next decade? To address this issue, we briefly review some recent trends and their underlying factors. On the eve of economic reform, about one-third of the rural population were poor. The number dropped sharply to 12 percent by 1985 (World Bank, 1992, p. 4). The most important single factor underlying the sharp decline in poverty during this period was the rapid growth of per-capita rural income. In 1978–1985, rural per-capita income rose from 134 to 324 yuan, at an average annual growth of 13.4 percent (World Bank, 1992, p. 4). The rapid growth was the direct result of agricultural reforms during the period. The dismantling of the communes greatly enhanced the peasants' work incentives. The rise in farm procurement prices improved the terms of trade for the peasants. As the state relaxed its restrictions over labor mobility across occupations, many peasants took up nonfarm work. In particular, employment in the rural enterprises rose 2.5-fold, from 28.3 million in 1978 to 69.8 million in 1985 (SY 01, p. 111). All these factors combined to raise per-capita income and drastically reduce poverty in the rural areas.

However, during the subsequent period, 1985–1990, the incidence of poverty hardly changed (World Bank, 1992, p. 4). Apparently, by the mid-1980s, the positive effects of agricultural reform had about run their course. Further increase in per-capita income would have to come primarily from agricultural growth. Unfortunately, the average annual growth of real agricultural output per capita dropped sharply from 7.9 percent in 1980–1985 to 3.4 percent in 1985–1990 (SY 01, pp. 52, 91). By the late 1980s, there were still pockets of rural poverty in the 14 hilly provinces in interior China.<sup>12</sup> These provinces face more-formidable constraints to agricultural growth than the coastal plains because of their poor natural environment, underdeveloped social infrastructure, and shortage of human and financial capital.

In the 1990s, the number of rural poor began to fall again, as per-capita rural income rose at a rapid pace.<sup>13</sup> Several other factors also

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<sup>12</sup>The 14 provinces are Inner Mongolia, Shaanxi, Shanxi, Ningxia, Qinghai, Xinjiang, Guangxi, Guizhou, Gansu, Yunnan, Sichuan, Tibet, Hebei, and Henan. The poor population in these provinces accounted for 72 percent of the total in 1989 (World Bank, 1992, p. 37).

<sup>13</sup>The annual growth of per-capita rural income during 1990–2000 averaged 6 percent, compared to 1 percent for 1985–1990 (SY 01, pp. 282, 323).

contributed to the rise. There had been a more rapid structural shift of the labor force into nonfarm activities where per-worker income was higher.<sup>14</sup> A large number of peasants from the poor areas migrated to other provinces and coastal cities looking for work, and some found employment. Rural population growth slowed in the 1990s. With the exception of Xinjiang, population growth in the 14 poor provinces all experienced a marked decline during 1990–2000, as compared to 1980–1990 (SSB, 1999; SY 01, p. 99). The period also witnessed a much greater effort by the central government to alleviate poverty.

This brief review of the developments in the last two decades suggests several key factors affecting rural poverty: the growth of per-capita agricultural output, employment opportunities in the nonfarm sector, the extent of government extraction of the peasants' net output, and the distribution of income among the peasants and across regions. One could conceive of a severe-case scenario for the next decade in which recent trends in these factors continue to be unfavorable. Agricultural growth had been slowing since the early 1980s, from 5.2 percent per year during 1980–1990 to 3.8 percent during 1990–2000 (SY 01, p. 52). Rural population growth had slowed too during the two periods, but not to the extent of agricultural growth (SY 01, p. 91). The average annual growth of nonstate, non-agricultural employment dropped from 11.2 to 6.1 percent in the two periods, respectively (SY 01, pp. 108, 110). In particular, growth of employment in the rural enterprises, which had been absorbing large numbers of rural laborers into nonfarm work, declined from 11.9 to 3.3 percent per year in 1980–1990 and 1990–2000, respectively (SY 01, p. 111).

State regulations specify that the tax burden on the peasants should be limited to no more than 5 percent of the household's per-capita net income (*China Daily*, December 23, 1991, p. 4). However, local authorities often impose many fees and levies so that the actual burden far exceeds the 5 percent ceiling.<sup>15</sup> Despite repeated attempts by

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<sup>14</sup>Employment in the rural enterprises steadily increased. As a result of which, the share of wage income in the peasants' total incomes rose from 20 to 31 percent during 1990–2000 (SY 01, p. 323).

<sup>15</sup>In some cases, as much as 30–40 percent of the farmers' net incomes have been appropriated (*China Daily*, June 25, 1993, p. 4). The Ministry of Agriculture (1990, pp.

the central government to reduce the peasants' burdens, exorbitant taxes and fees remain. The basic reason is that the local cadres are under great pressure to provide social infrastructure to the local community, such as schools, family planning, road building, militia training, and health care, and they can only rely on self-raised revenues to meet budget expenditures. Given the growing needs of the local communities and a possible slowdown in agricultural growth, the share of the peasants' net income being taken by the government could remain fairly large.

Even if the incidence of absolute poverty were to remain unchanged or even decline, the severity of poverty could worsen, as was the case in the last two decades. By severity, we refer to the extent to which the poor households' incomes fall below the poverty line. Does a poor household's income fall just below, or far below the poverty line? To assess the severity of poverty, the poverty gap, which measures the additional income necessary to bring a poor person up to the poverty line, is generally used. Over time, a widening gap indicates that poverty is increasingly severe. Using this index, the World Bank has found that, in the period 1985–1998, the severity of poverty has increased (World Bank, 1992, pp. 25–26, and 2001d, pp. 2–3).

Nor have changes in the Gini index in the last two decades suggested positive results in reducing relative poverty. The World Bank finds that the rural Gini coefficient rose continually from 0.21 in 1978 to 0.31 in 1990 (World Bank, 1992, p. 23). A separate study also shows a rising trend in the 1990s (Lin, Hai, and Ping, 2000, pp. 286–300). Apparently, income distribution among individuals and across regions has become increasingly unequal. If the trend continues into the next decade, the problem of relative poverty could worsen.

If massive unemployment and rural poverty remain chronic in the next decade, what could happen to the economy? Two serious consequences are possible: One is an outburst of large-scale labor protests and peasant riots. In urban areas, migrant workers and de-activated workers are potentially major sources of social instability.

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57–60) reported that in 1989, the peasants had to pay 74 types of fees or levies. In addition to levies in cash, the peasants are also obligated to contribute a certain number of labor days per year. For the present purpose, the amount of cash levies is more relevant.

Most of the migrant workers are young, with little savings and no public assistance. Desperate to survive, they could seek refuge outside the law. Deactivated workers could become disillusioned with the loss of their “iron rice bowls” and angry about meager unemployment benefits. They could direct their grievances at the government, join forces, and create a torrent of social unrest. In rural areas, the peasants’ income is still relatively low, and the large labor surplus remains an unsettled, volatile force. A severe natural disaster, decisions by local governments to impose more and larger taxes, or a sharp drop in farm prices following large imports of agricultural products could threaten their survival and trigger peasant revolts. Massive demonstrations could deteriorate into sociopolitical crises if party leaders were to use the military to crush the demonstrators and their sympathizers. By then, the economy, the political leadership, and China’s international relations could be thrown into chaos, as happened immediately after the Tiananmen Square incident in 1989.

Actually, a wave of labor unrest has been sweeping the nation in recent years. Incidents, sometimes involving as many as 30,000 workers, have been reported all over China, in Wuhan, Liaoyang, Daqing, Dongguan, Guiyang, Loyang, and Beijing (*The Wall Street Journal* [WSJ], January 12, 1998, p. A14, and March 14, 2002, p. A9; *Los Angeles Times*, June 10, 2002, p. A1; *Chinese Daily News* [CDN], March 25, 2002, p. A7, and April 9, 2002, p. A2). The demonstrators protested against layoffs, unpaid wages, and unfair severance packages. These protests have become more common in recent years, and their scale larger than before. However, they have not yet developed into a real crisis, partly because the protests remained localized and partly because the government has been able to contain the unrest, by targeting the handful of organizers, granting some of the workers’ demands, and isolating the incidents. Likewise, many small-scale peasant riots against excessive fees and levies broke out in the 1990s.<sup>16</sup>

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<sup>16</sup>In 1992, for example, more than 200 incidents were reported (*Far Eastern Economic Review*, July 15, 1993, pp. 68–69). In 1993, more than 170 antigovernment disturbances occurred since late 1992 (*South China Morning Post* [SCMP], June 27, 1993, p. 1). The biggest riot was the one in Renshou, Sichuan, where 10,000 peasants surrounded government buildings and attacked officials, triggered by levies to build a new road (WHP, June 13, 1993, p. 2). For specific cases of peasant unrest in seven provinces in the late 1990s, see Liu, Xu, and Liu, 1999, pp. 187–208.

Even if no large-scale riots occur, rising unemployment and rural poverty could slow economic growth through adverse effects on the key parameters of GDP growth. Take, first, their possible effects on savings. The unemployed and poor usually have little or no savings of their own. They generally have to draw on the savings of others, including the government, which takes care of most of the urban openly unemployed and the poor in remote regions. The state-owned enterprises (SOEs) and urban collective enterprises subsidize deactivated workers, workers of defunct units, and the urban disguised unemployed. Rural households bear the burden of supporting redundant farm labor. Increases in the financial support of the unemployed and the poor need not affect total savings, if they are compensated by reductions in household and government consumption expenditures. However, in the next two decades, it might be difficult for households and the government to continue such compensations for several reasons. China's population is aging rapidly.<sup>17</sup> Household expenditures on health care could rise rapidly because per-capita health care costs are generally higher among the aged. Moreover, the ratio of those working to the number of retirees is dropping fast.<sup>18</sup> That means more and more people will be living primarily on their own or others' savings. Demographic experience also shows that poor families generally have higher crude birth rates.<sup>19</sup> As a result, their children dependency ratio (the proportion of children age birth–14 years to those age 15–64 years) is higher than in other families.<sup>20</sup> An increase in the number of poor families could dissipate more savings, simply because they have more children to feed than the average family. Furthermore, household expenditures on housing could rise as a result of the government's cutting housing subsi-

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<sup>17</sup>The population age 65 years or over as a share of total population is projected to increase from 6.3 percent in 2000 to 10.9 percent in 2020 (Lin and Zhai, 1996, p. 16).

<sup>18</sup>The ratio is expected to fall from 6:1 in 1991 to 2:1 in 2020 (Lin and Zhai, 1996, p. 349).

<sup>19</sup>"Crude birth rate" is a concept commonly used by demographers and economists. It refers to the average number of births during a specified period per 1,000 persons in the midperiod total population.

<sup>20</sup>For example, the ratios for the poor provinces Tibet, Ningxia, and Guizhou in 1999 were 57.8, 43.0, and 42.7 percent, respectively—considerably higher than the national average of 35 percent (SY 00, p. 102).

dies.<sup>21</sup> Of course, eliminating subsidies could increase government revenues, but the savings could be easily offset by the increase in expenditures on such urgent needs as environmental protection, reserves to liquidate the state banks' bad loans, and building a nationwide social security system. Moreover, none of this allows for the ongoing defense modernization program. The tightness of the government budget is evidenced by the persistent budget deficits and their growing size (SY 01, p. 245). If income growth should lag behind that of consumption expenditures, the savings rate would decline and the growth of capital would be adversely affected.<sup>22</sup>

Where possible effects of unemployment are concerned, the first point to be noted is that high unemployment could vastly increase the supply of low-cost labor. Nonetheless, unemployment and poverty could also have serious effects on the quality of labor. The major sources of human capital formation are education, training programs, and learning by doing. To be sure, China has made notable achievements in educating its people since 1978. However, increasing unemployment could disrupt the current progress in several ways. First, as noted earlier, the financial need to support increasing numbers of the poor and unemployed could strain government and household budgets. The relatively small and declining share of public educational expenditures in GDP in the last two decades suggests

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<sup>21</sup>Because of the subsidies, urban households' housing expenditures accounted for only 4 percent of total consumptions in 2000, much lower than the rural households' share of 15 percent, where housing was not subsidized (SY 01, pp. 306, 326).

<sup>22</sup>Two caveats should be noted. First, massive unemployment results in abundant cheap labor, which could attract foreign investment. However, the lower labor cost could be offset by higher transaction costs due to a deteriorating economic environment caused by widespread poverty, urban congestion, pollution, and erosion of law and order. The assumption here is that no significant changes in these factors will occur in the next decade or so. Second, some economists argue that rural surplus labor could be used in investment in kind and thus provide a potential savings increase (Nurkse, 1953). Indeed China has been cited as a case of having successfully exploited this savings potential (Kindleberger and Herrick, 1977, p. 342; Bhaduri, 1987, p. 113). However, whether the Chinese experiment was successful is an open issue. The "Great Leap Forward" in the late 1950s, which mobilized surplus labor to build dams and backyard furnaces, was a failure. Clearly, to realize the savings potential complementary factors such as capital and technology are needed. Furthermore, an effective incentive system must be put in place to call forth additional effort from those who remain on farms, otherwise total output would fall because surplus workers have already been producing some output under the work-sharing system. In the present case, we assume that these conditions are absent.

that education has been a low-priority item for government expenditures.<sup>23</sup> Thus, as unemployment increases and poverty spreads, slow growth for educational expenditures is quite possible. If indeed this should happen, shortages of facilities and qualified teachers could limit the size of school enrollment. Second, at the household level, the poor and the unemployed have a hard time surviving, let alone having sufficient resources to send their children to school. An increase in unemployment and poverty could increase the number of school dropouts.<sup>24</sup> Third, an increasingly large number of unemployed means that the skills of more and more people will remain stagnant, because they lack opportunities to learn by doing. Fourth, the quality of labor depends not only on educational level, but also on health status. In China's poor areas, the working population suffers from poor physical health for several reasons: malnutrition, a harsh natural environment, and the lack of adequate health care. The World Bank (2001d, pp. 8–9) reports that roughly 50 percent of children in poor areas are at least mildly undernourished, few poor villages have access to safe water, and the incidence of infectious and endemic diseases is relatively high. As a result, life expectancy and the working life span of the workers are shorter than the national averages.

The effects of unemployment and poverty on the efficiency of resource use could be just as significant. We have noted that rural poverty and unemployment have driven the peasants to migrate en masse to the coastal cities. One distinct behavior of these migrants is that they usually keep the land in their villages, as a safety net against unemployment in the cities. This is understandable, because migrant workers do not have the same job security as urban workers and they are usually the first to be laid off when employers run into difficulties. Nonetheless, the scarce arable land in their home villages is be-

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<sup>23</sup>The share of educational expenditures in GDP was only 2.5 percent in 1980 and dropped to 2.3 percent in 1997, discernibly lower than the world average of 3.4 and 3.3 percent for low-income countries in 1980 and 1997, respectively (World Bank, 2000c, pp. 284–285).

<sup>24</sup>This, in fact, has happened in the past. For example, in 1987, 46 percent of youths age 15–17 years in Guangdong were not in school, and in Hubei, 1.5 million school-age children dropped out of school, mainly because families could not afford the tuition fees (WHP, June 27, 1988, p. 10). The problem is even more serious in poverty-stricken areas. As many as half the boys and nearly all the girls in the poorest village did not attend school and would not achieve literacy (World Bank, 2001d, p. 8).

ing underutilized. The practice also prevents the consolidation of land into larger and more-efficient farms.

Another possible effect of rural poverty on land use is that more-intensive use of arable land in poor regions could result in lower soil fertility. In the poor's struggle to survive, environmental consequences are of secondary importance. Heavy dependence on crops, particularly grain, puts increasing pressure on their poor-quality land. Population growth forces them to reclaim more and more inferior land. Overexploitation, soil erosion, and deforestation inevitably follow. The government thus faces a dilemma. If nothing is done to protect the environment, a vicious circle could ensue. Poverty leads to environmental deterioration, and a poor environment lowers productivity and depresses the peasants' income. If, however, the government decides to reverse the trend, substantial resources would be required to improve the environment, and quite possibly, resources would have to be diverted from other uses, possibly from more productive ones.

By definition, unemployment entails idle labor, and an increase in unemployment means wastage of more labor resources. In China's case, there are two other possible sources of inefficiency. The first is that massive unemployment could lead to local protectionism. As the World Bank notes (2001d, p. 26),

rising urban unemployment has resulted in a growing intolerance for rural migration by urban governments and populations. So as to protect urban workers, urban governments have in some cases tried to segment the labor market by requiring urban employers to hire migrants only for unskilled, menial jobs.

An increase in unemployment in the next decade could further intensify the rise of local protectionism.

Second, in rural areas, the rural unemployed who migrate are generally young and better educated (Yang, 1997, p. 61). The exodus of educated youths thus drains the limited human capital from the villages and could adversely affect productivity on the farms.<sup>25</sup> Meanwhile, these better-educated youth are either unemployed or, in

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<sup>25</sup>Such negative effects have been found in Sichuan (WHP, June 9, 1988, p. 10).

many cases, hired to do unskilled work in the cities. An increase in internal migration of the rural poor and unemployed thus could result in a misallocation of the educated few.<sup>26</sup>

Unemployment could adversely affect capital use as well. Under the work-sharing system, redundant workers generally require some capital investments, such as floor space, tools, and equipment. In an important sense, capital goods to accommodate redundant workers are also redundant. Any increase in the disguised unemployed could result in more wastage of resources. Furthermore, as noted earlier, unemployment could increase transaction costs for business activities, because of its unfavorable effects on law and order, the environment, and labor disputes. Indeed, crime rates in the coastal cities climbed sharply since the influx of migrant workers.<sup>27</sup> Incidents of social unrest not only disrupt normal economic activities, they also induce the society to divert resources to less productive uses, such as to measures for controlling crime and protecting private property.

In the past, the government has stepped in to help the poor and unemployed. However, the allocation of resources by the government has not always been based on economic considerations. For example, the allocation of relief funds was politically biased. Counties with favorable political credentials and strong supporters—such as old revolutionary bases—were provided poverty relief despite having per-capita income levels twice the poverty line (World Bank, 2001d, p. 6). This means that counties in greater need of relief were deprived

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<sup>26</sup>It should be noted that the effects of internal migration on resource allocations are not all unfavorable. Some of the migrants acquire formal education by going to adult schools. Others go through technical training conducted by their employers. Still others learn new skills, acquire management techniques, and develop a network of personal and business connections. Their subsequent return to their home villages could enhance capital formation in the remote areas. However, such benefits should not be overstated. Most migrant workers are hired to do the “low level” jobs that provide little opportunity for skill formation, and few of the migrant workers who return become entrepreneurs.

<sup>27</sup>See *Asian Wall Street Journal* (AWSJ), February 3–4, 1995, pp. 1, 8. In 1984, there were only 0.5 million criminal cases. It rose to 1.6 million in 1996, as the registered urban unemployed increased from 2.4 to 10.9 million over the same period (CAS, 1998, pp. 163–164). According to another estimate, 56 percent of the criminal cases in Shanghai, Beijing, and Tianjin during July 1993 to June 1994 were committed by the unemployed (Yang, 1997, p. 12). Elsewhere, clashes between the police and the unemployed have been reported (SCMP, December 6, 1995, p. 1; CDN, October 16, 2001, p. A16).

of support. Furthermore, the more-permissive policies regarding population control among minorities tend to perpetuate their low per-capita income status. If such perverse policies should continue, more resource waste could result.

For a rough estimate of the potential economic losses resulting from these circumstances, we use a simple growth accounting framework to project GDP growth: first, in a sustained growth scenario where economic progress continues without major disruptions; and second, under worsening conditions of unemployment and rural poverty. We take the World Bank's projection of GDP growth at 6.6 percent per year as a benchmark estimate of sustained economic growth for the next decade.<sup>28</sup> The World Bank projection is based on the following assumptions: (1) the investment rate remains at 35 percent (World Bank, 1997b, p. 20); a capital-output ratio of 3 is implicitly assumed so that physical capital grows at 11.5 percent per year;<sup>29</sup> (2) labor grows at 0.8 percent per year (World Bank, 1997c, p. 34); (3) the growth of human capital is 1 percent per year;<sup>30</sup> (4) the output elasticities of physical capital, human capital, and labor are assumed to be 0.4, 0.3, and 0.3, respectively (World Bank, 1997b, p. 106); and (5) the growth of total factor productivity is projected at 1.5 percent per year (World Bank, 1997b, p. 21).

We postulate two adverse scenarios in which the savings rate drops by 1 and 3 percent of GDP, as a result of mounting subsidies to the

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<sup>28</sup>See World Bank, 1997b, pp. 20–21. The projections are originally for 1995–2020. We assume it to be the same as that for 2000–2010.

<sup>29</sup>The implicit capital-output ratio is reconstructed from the World Bank data as follows. The contribution of capital to GDP growth, 4.6 percentage points, is first obtained by subtracting those of labor (0.5 percentage points) and total factor productivity (1.5 percentage points) from GDP growth (6.6 percent). The contribution of labor is derived by multiplying its annual growth (0.8 percent) by its output elasticity (0.6). Similarly, the growth of capital (11.5 percent) is obtained by dividing its contribution (4.6 percent) by its output elasticity (0.4). The implied capital-output ratio is derived by dividing the investment rate (35 percent) by capital growth (11.5 percent). For sources of data, see text.

<sup>30</sup>The contribution of human capital growth to GDP growth (0.3 percentage points) is derived as a residual from GDP growth (6.6 percent), physical capital contribution (4.6 percent), labor growth contribution (0.2 percent, which is the product of labor growth [0.8 percent] and the output elasticity of labor [0.3]), and total factor productivity growth (1.5 percent). Given the output elasticity of human capital (0.3), the implied growth of human capital is 1 percent per year.

unemployed and poor and of increases in public and private expenditures to maintain law and order, which have never been firmly established in the first place. Furthermore, we assume that the annual growth of labor falls from 0.8 percent in the benchmark model to 0.7 and 0.5 percent, that the growth of human capital, from 1.0 to 0.8 and 0.6 percent, and that total factor productivity growth drops from 1.5 to 1.4 and 1.3 percent, as the decline in the investment rate also lowers the demand for labor, as less expenditures on education and less opportunities to acquire formal or informal training slow the accumulation of human capital, and as more uneven distribution of income across regions and individual groups generates social discontent and rising local protectionism. Under these assumptions for the two adverse scenarios, GDP growth falls to 6.3 and 5.8 percent, the loss being 0.3 and 0.8 percentage points, respectively.