

## **RECENT DEVELOPMENTS IN CHINA'S LABOUR ECONOMY\***

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## INTRODUCTION

The years since 1990 have brought major changes in many dimensions of China's large and dynamic economy. At the macroeconomic level, the decade began with a rapid recovery of momentum from a short downturn caused by a combination of efforts to control inflation and fallout from the suppression of urban protests in June 1989. High-speed growth rekindled inflationary pressures. Once again, the government applied strong measures to cool the economy. Apparent success in reducing inflation without eroding the momentum of growth proved short-lived, as a combination of structural imbalances and the impact of the 1997/98 Asian crisis sharply reduced the pace of growth. Rapid growth resumed in 2002, sparked by booming foreign investment and an incipient auto boom. After an unexpected outbreak of SARS disease imposed a brief, but sharp setback, rapid growth resumed in the latter half of 2003.

Although macroeconomic performance was highly uneven, the economy has recorded substantial growth of aggregate and per capita output and income since 1990. Structural change was notable in many areas, including a continuing decline in the importance of agriculture, the emergence of new growth poles in electronics, telecommunications, auto manufacture, real estate, and finance, continued increase in the scale and sophistication of foreign investment and export-oriented manufacturing in the wake of China's accession to the World Trade Organization, and rapid expansion of income inequality.

A combination of government policy and decentralized initiatives generated major institutional shifts. Although the late 1990s brought important changes that expanded the central government's capacity to control the economy, the scope and power of market forces have undoubtedly achieved broad gains since 1990.<sup>1</sup>

Issues of employment and unemployment, labour compensation, wage differentials, working conditions, migration, job mobility, and employment security figured prominently in all of these developments. At times, changes in the labour arena appeared to drive developments elsewhere. On other occasions, shifts on the labour scene came in response to changes in other segments of the economy.

This report examines Chinese labour market developments since 1990. Its objective is to review major shifts, to highlight important interactions between labour and other aspects of China's dynamic economy, and to indicate the likely path of trends in the determination of employment and wages.

To do this, we focus successively on demographics, employment, unemployment, migration, productivity, wages, and distribution, and conclude with speculation about possible policy responses to China's growing problems of unemployment and excess labour supply.

The data underlying the analysis of Chinese labour issues are often problematic. In addition to the general cautions applicable to any large, low-income nation with a large farm sector, several specific issues merit attention:<sup>2</sup>

- Coincidence of rapid institutional change with frequent shifts in the scope and coverage of statistics related to employment, labour, and wages creates inconsistencies and discontinuities within standard statistical measures.
- Reduced incentive to cooperate with official statistical agencies, diversion of resources from the collection and processing of statistics, and widespread manipulation of data at the microeconomic level and within local and provincial governments appear to have expanded error margins and reduced the reliability of many types of economic data during the 1990s.
- Particularly during 1998-2001, strong political pressures ignited what Chinese commentators call a “wind of falsification and embellishment” (*jiabao fukuafeng*), which sparked systematic overstatement of macroeconomic aggregates at the provincial, and, in all probability, at the national level.<sup>3</sup>

Table 1 illustrates difficulties with recent data on urban employment, the most reliable component of China’s statistics on labour, wages, and unemployment. In 1980, total urban employment tallied precisely with the sum of components. Recent data show an increasing gap between the two figures, which amounts to over one-third of reported urban employment and is rapidly approaching 100 million persons. The statistics yearbook explains that the total is adjusted on the basis of “data obtained from the sample surveys on population changes” (Yearbook 2001, p. 107). This indicates a commendable use of surveys to improve the quality of employment data. It also illustrates the wide range of uncertainty surrounding basic information underpinning any quantitative analysis of recent trends in China’s economy.

Although this report points to the most serious distortions associated with specific types of data, there is no practical alternative to relying on standard figures issued by China’s National Bureau of Statistics (NBS, formerly known as the State Statistics Bureau). Although NBS produces “internal” compilations with restricted circulation, such materials generally elaborate data that appear in the open sources on which we rely here.

## **DEMOGRAPHICS AND LABOUR SUPPLY**

Table 2 summarizes major data series relating to population and labour force. Two measures: “economically active population” (*jingji huodong renkou*) and “employment” (*congye renkou*) are offered as approximate measures of labour force.<sup>4</sup> Although these figures are far from precise, they do show a gradual downward trend in the growth of the population and labour force in absolute numbers as well as percentage gains. This

reflects the long-term impact of population control measures and rising incomes on reproductive behavior. Focusing on the more complete labour force measure (Series B), annual increments decline from over 13 million before 1990 well under 10 million in recent years.

## EMPLOYMENT

Table 3 summarizes the composition and sectoral attachment of China's vast work force. With expansion of the labour force growth running ahead of population growth, China's labour force participation rate increased marginally from the high level recorded in prior years. Large-scale layoffs beginning in the mid-1990s created a considerable decline in urban formal employment between 1990 and 2002. This decline in urban formal employment parallels the emergence of substantial open unemployment in China's cities. Within the urban work force, the share of female workers has remained roughly constant despite reports that layoffs disproportionately targeted women and that private employers often discriminate against female workers, especially when recruiting for "professional" and managerial positions.

Table 3 also displays important trends in the sectoral attachment of China's work force. The 1990s brought a continued decline in the share of workers engaged in farming and other primary production work. In contrast with earlier data, the absolute number of primary workers now shows a modest downward movement.<sup>5</sup> Large inflows of foreign investment, most directed towards manufacturing, did not prevent a sharp decline in employment growth among China's secondary industries, a category dominated by manufacturing. As a result, the proportion of workers in secondary trades remained static between 1990 and 2002. Service-sector employment, by contrast, showed continued rapid growth both in terms of numbers of workers and share of total employment. This reflects both the normal process of economic development and the continuing (but as yet incomplete) process of relaxing long-standing barriers that limit entry of new firms into a number of important service trades.<sup>6</sup>

Table 4 summarizes changes in formal employment. Following Chinese statistical practice, the totals include figures for domestic private business.<sup>7</sup> The national data show considerable growth of formal employment during the early 1990s, followed by a smaller decline. They also reveal a distinct slowdown in the pace of job creation: the national total rose by 6.0 per cent annually between 1980 and 1990, but by only 1.8 per cent during the subsequent decade and continuing into the new century. These figures may understate the magnitude of the drop-off in job creation because the underlying data may well overstate employment in one major category, township and village enterprises (TVEs), after 1997. China's 1995 industrial census revealed massive exaggeration in the TVE statistics compiled by the Ministry of Agriculture.<sup>8</sup> The sharp fluctuations in TVE employment reported for 1996/98 may reflect an effort to improve the TVE data, followed by a return to the prior pattern of chronic overstatement. Since financial

difficulties and widespread privatization make it unlikely that actual TVE employment increased after 1996/97, the current figure could be closer to 90 million than to the figure of 130.9 million reported for 2001. Insertion of the lower figure into Table 4 would push nationwide growth of formal employment during 1990/2001 to little more than 0.5 per cent per year.

Whatever the actual level of recent TVE employment, the figures compiled in Table 4 indicate fundamental changes in China's employment dynamics. Expansion of formal employment during the 1990s is entirely attributable to increases in rural jobs. The urban employment figure for 2001 is virtually identical with the total for 1990. Furthermore, the locus of job expansion has shifted from state-owned enterprises (SOEs), urban collectives, and TVE firms, which absorbed the largest numbers of workers during the 1980s, to firms under "other" ownership, a mixed group that includes domestic shareholding firms and enterprises with partial or full foreign ownership, and to domestic private business. Employment at SOEs and urban collectives dropped sharply. As a result, growth of formal employment during the 1990s is primarily (or, if TVE employment remained roughly constant during the 1990s, entirely) attributable to the expansion of job opportunities provided by domestic private and shareholding firms and by foreign-invested enterprises. This shift has important policy implications, which are discussed in the concluding section.

Tables 4A and 4B address issues raised by discussion surrounding the decline in manufacturing employment in the United States, Japan, and other nations. Some observers suggest a large-scale transfer of jobs to China. For example: "Minnesota has lost 38,000 manufacturing jobs since 2000, and manufacturers believe competition from China has played a significant role, according to a new survey by Minnesota Technology Inc." ("Survey: Minnesota Losing Manufacturing Jobs To China," [http://www.wcco.com/localnews/local\\_story\\_063102500.html](http://www.wcco.com/localnews/local_story_063102500.html), consulted 5 November 2003). Table 4A provides time series data on employment in manufacturing and on industry (including mining and utilities as well as manufacturing). Both series show a clear downward trend in employment beginning around 1993. Although the timing of the drop-off in employment is distorted because large numbers of furloughed workers disappear from the figures starting in 1998, the direction of change is unmistakable: employment in manufacturing reached a peak of 55 million in 1992 and dropped below 30 million during the ensuing decade. Figure 1 provides a graphic representation of these data. Adding information for township and village enterprises, which are excluded from the figures in Table 4A and Figure 1, would reduce the extent of decline without altering the overall downward direction of industrial employment.

Table 4B presents a microcosm of the employment reduction process by focusing on data for manufacturers of widely-used industrial components. The figures, which may not be complete, show trends in value-added, employment, and labor productivity for firms that belong to various industry associations. These data reveal industries in the throes of restructuring rather than dynamic growth. In each sub-sector, we see a combination of near-stagnant output (except for vacuum equipment), sharply reduced employment (again, excepting vacuum equipment, where the decline is slight), and steeply rising productivity.

Although migration of manufacturing employment to China certainly contributes to China's employment dynamics, it is only one part of a complex process whose overall results include substantial reductions in overall manufacturing jobs in the People's Republic of China.

Reduced absorption of labour into regular employment implies that growing numbers of workers are pushed into (or obliged to remain within) the unorganized sector, which includes informal work, self-employed farming, and various degrees of un- and under-employment. Table 5 quantifies this recent development. During the 1980s, rapid growth created an average of over 10 million formal jobs per year. The pace of job creation accelerated during the early 1990s. With a slowdown in labour force growth, employment prospects facing Chinese workers improved remarkably, with millions transferring every year from farming and other informal occupations into regular employment.

Table 5 shows that employment prospects deteriorated dramatically after 1995, with large numbers pushed out of the formal sector.<sup>9</sup> Slow growth of labour demand in the formal sector arises from several factors:

- the collapse of tenure provisions that formerly protected the majority of urban workers from market pressures
- substitution of informal for formal workers, possibly on a considerable scale
- a sharp decline in the employment elasticity of domestic growth, apparently connected to public-sector investment decisions favoring capital-intensive projects and technologies
- a steep but temporary decline in economic growth during 1998-2001 that is not reflected in official statistics

The first and second of these factors point to institutional change as a major source of recent labour market developments.

Agriculture remains the largest source of informal employment. Reforms begun during the late 1970s allocated land use rights to each village household. Local governments periodically redistribute farmland on the basis of demographic and other changes. Agricultural land is typically cultivated by the household to which it is assigned. However, recent studies find a growing frequency of rental transactions among villagers, particularly in regions with diverse and well-developed rural economies.<sup>10</sup>

For China, as for other low-income nations, there are no precise estimates of the number of workers engaged in farming. Standard figures, which, as noted above, grow slowly during the 1980s and begin to decline after 1990, appear to be residuals derived by subtracting employment in township-village enterprises, local government, and other activities from estimates of the economically active population. Alternate figures derived

using output of specific agricultural products and estimates of unit labour requirements consistently produce much smaller estimates of farm labour requirements.<sup>11</sup>

Despite the paucity of reliable figures, it appears likely that the labour resources devoted to farming continued to decline in recent years. Overall, farmers faced increasingly unfavorable demand conditions during the 1990s, especially in regions with limited choice of cropping patterns. This was particularly evident after 1996, when profit margins eroded, and sometimes disappeared under pressure from steep declines in farm-gate prices and escalating official demands in the form of taxes and fees.<sup>12</sup> Information about sugar provides a small but informative illustration: between 1996 and 2000, excess capacity pushed the price of manufactured sugar from RMB4,138 to RMB2,762 per ton. Not surprisingly, farm gate prices also declined, from RMB260 to RMB147 per ton of sugar cane, pushing the grower's profit margin from RMB107 to RMB12 per ton of cane (An 2001, p. 38). Such changes led to widespread complaints that farmers "raise production but cannot raise their incomes," and to reports that large segments of the farm population have suffered declining incomes during the late 1990s.<sup>13</sup>

These conditions push villagers in the direction of leaving the land. Important institutional changes, discussed below, have sparked continued expansion of out-migration from China's villages despite a major slowdown in urban growth.

## **INSTITUTIONAL CHANGE, UNEMPLOYMENT, MIGRATION**

China is the prime example of gradualism in the transition from socialism. Transformation of labour markets and employment conditions, especially in cities and in the state sector, was notably absent from early reform initiatives. As late as 1990, the rigid systems associated with state-sector employment - employee tenure, narrow wage differentials, and extensive employer-provided benefits (housing, pensions, health care, education) - continued to dominate the urban labour scene, so much so that reviews of China's first reform decade commented on retardation in labour market development and decried the "failure" of labour reform (Korzec 1992).

Despite limited accomplishments, a coalition favoring meaningful reform gradually emerged. Economists pointed to the vast future cost of unfunded mandates for pensions and other benefits. An "optimal labour" programme invited managers to design (but not implement) measures to trim redundant workers (Jefferson and Rawski 1992). Regulations on the management of state enterprises, promulgated in 1992, assigned decision-making authority over employment and wage matters to enterprise managers.

These measures, together with broader economic developments, accelerated the transformation of institutional structures surrounding China's labour markets. By the end of the 1990s, employment arrangements involved less segmentation, fewer rigidities, and far greater market influence than at the beginning of the decade. Two major changes - the collapse of urban tenure arrangements and large-scale migration of villagers into the

cities – and a plethora of important, but less visible reforms, contributed to dramatic changes in labour market arrangements. China's 2001 accession to the World Trade Organization accelerated the momentum of market opening in ways that substantially, although indirectly, increased the impact of market forces on employment decisions.

### **Collapse of the urban tenure system**

Despite some evidence of growing links between urban wages and enterprise financial outcomes (Rawski 1994), officially mandated reforms of urban employment and wages remained largely ineffectual until the intensification of competition sparked by increasing entry of TVEs, domestic private firms, and foreign-invested enterprises into a growing array of sectors. This new competition in product markets formerly dominated by urban-based state-owned enterprises created growing financial pressure on costs and profits. The dynamic is simple: firms burdened with expensive, poorly motivated workers and an array of costly fringe benefits cannot survive direct competition with rivals whose operations escape these constraints.

Although national and local authorities adopted (and continue to pursue) defensive measures intended to protect incumbent urban workers and money-losing urban employers, traditional tenure arrangements began to crack about 1993, when state enterprise managers in Shanghai were allowed to lay off redundant workers as long as open unemployment remained within specific limits. The tenure system collapsed soon thereafter, as massive segments of the urban work force were shunted into a new arrangement called *xiagang* or furlough. Although the exact terms of furlough are subject to considerable variation, the key elements are consistent: furloughed employees receive no work assignments and need not report to work. They are entitled to (but do not always receive) small stipends and fringe benefits from their employers, with whom furloughed workers maintain residual ties.

Table 6 summarizes scattered information about the scale of furloughs, which have disproportionately affected women, workers with limited education, and employees in late middle age.<sup>14</sup> Since the term *xiagang* has no exact definition, these figures cannot be precise. What is beyond doubt, however, is that *xiagang* has effectively shattered China's socialist tradition of lifetime tenure for regular urban workers, that the number of furloughed urban workers is large – probably in excess of 50 million, that furloughed workers face sharply reduced economic circumstances, and that they often encounter difficulty in re-entering the urban labour market.

With the spread of *xiagang*, China's cities now confront large-scale open unemployment on a scale unknown since the earliest days of the People's Republic. Official measures, summarized in Table 7, are universally viewed as understating actual unemployment by a wide margin. There are three major difficulties. The official measure of the unemployed is limited to registered urban residents. Furthermore, workers on furlough retain a nominal affiliation with their former employers, and are therefore excluded from the jobless count even though, as Solinger and others have demonstrated, many of them are

reduced to circumstances of dire poverty (Solinger forthcoming). Finally, the official total excludes large numbers of workers idled by the closure of loss-making or bankrupt enterprises.<sup>15</sup>

With confusion surrounding the treatment of furloughed workers, many of whom hesitate to reveal new employment ties for fear of losing entitlements associated with their former employment, and with governments at all levels acting to limit the growth of measured unemployment,<sup>16</sup> it is not possible to construct accurate and reliable unemployment measures even for China's urban economy.<sup>17</sup> The following summarizes recent developments:

-- Recent years have witnessed a steep rise in open unemployment among registered urban residents. The number of working-age individuals who find themselves without regular employment on account of dismissal, enterprise closure, bankruptcy, furlough, or semi-forced retirement approaches and could exceed 10 per cent of the urban labour force (excluding rural in-migrants from both numerator and denominator). This is the conclusion of Hu Angang, a prominent researcher of labour issues, whose unofficial estimates of urban unemployment appear in Table 7.

-- Although the official unemployment figures surely understate the extent of joblessness among urban residents, it seems increasingly possible that alternate estimates such as those of Hu Angang (and others, some of which indicate urban unemployment rates in the range of 15% or even higher) may *overstate* the prevalence of idleness among urban working-age adults. The possible overestimate arises because urban residents may wish to conceal their participation in informal employment in order to preserve their access to job placement services, stipends from their former employers, or payments from public insurance systems. As a result, it seems probable that standard figures understate both employment and unemployment among urban adults. Recent surveys directed by Professor Cai Fang of the Institute of Population and Labor Economics, Chinese Academy of Social Sciences, may provide the best picture of actual employment conditions among Chinese urban residents. These surveys find that between 1996 and 2002, jobless rates "in five major cities -- Fuzhou, Shanghai, Shenyang, Xi'an and Wuhan. . . averaged about 8 per cent between September 1996 and January 2002," while subsequent figures in some localities "have even topped 14 per cent" (see [www.chinagate.com.cn/english/4664.htm](http://www.chinagate.com.cn/english/4664.htm), consulted 13 November 2003).

-- Comprehensive and consistent data, if available, would probably show a continuing increase in the rate of joblessness among registered urban residents.

-- Urban unemployment is typically structural rather than transitory. Current unemployment arises from "the mismatch between the new industrial structure and the low labour skills of the workers available" (Towns 2002). Laid-off personnel have little prospect of finding new positions that require the skills or offer the pay and benefits provided by their former employment. Long-term joblessness is common among laid-off urban workers. The decline of uncompetitive industries has turned some localities,

particularly in the northeast and northwestern regions, into depressed areas with very high rates of unemployment and little hope of rapid recovery.

-- Despite extensive layoffs, the urban formal sector still contains substantial pools of redundant workers. Commentators regularly point to state-owned industry, where employment has dropped from a 1993 peak of 44.9 million to less than 16 million in 2002, as sheltering large pockets of disguised unemployment (Abstract 2003), p. 44.

-- China's urban work force also includes considerable numbers of jobless migrants from rural villages. Since migrants are routinely excluded from urban safety nets, and since concerns about maintaining public order motivate urban authorities to exercise strict controls over rural migrants, it seems likely that the bulk of unemployment among migrants is transitory. Villagers who come to cities in search of employment either find work or leave.

-- China's authorities are preparing for further market-oriented reform that will essentially eliminate the traditional *danwei* system that combined employment ties with the delivery of a broad array of social services. Under the new system envisioned by reform planners, "the concept of lay-offs [here referring to *xiagang*] will soon disappear, owing to a new labour relationship featured by a contracted one being established catering to the market economy. A socialized social security system will soon be realized" (Hua 2003). The meaning is clear: in future, employers will hire and dismiss workers in line with the dictates of market forces. Workers, whether employed or temporarily idle, will access health, pension, unemployment and other social benefits from public agencies rather than through their employers. Worker-employer relations will move in the direction of simple contractual exchanges of labor services for wage payments.

-- The outlines of the new system are beginning to take shape. In recent years, enterprises putting large numbers of workers on furlough "were asked to set up re-employment centres to take care of the laid-off workers, including the insurance [i.e. issuance] of money to ensure their basic living expenses and skills training for new job positions." In late 2003, "the re-employment centres targeting especially this group of people have all been closed in. . . Beijing, Tianjin, and Shanghai municipalities and Liaoning, Zhejiang, Fujian and Guangdong provinces" (ibid), evidently because public agencies now stand prepared to assume the social support functions previously assigned to the former employers of jobless workers.

-- The new system of urban-based social insurance programs, funded by taxes levied on both wage-earners and employers, which citizens will access directly rather than through their own (or a family member's) work unit is beginning to take shape. The new arrangements, which can be supplemented by individual contracts with domestic and/or foreign-linked firms in China's rapidly expanding insurance industry, include medical coverage, unemployment insurance, and pensions for retired or disabled workers.

-- Expansion of the new system should relax existing constraints on normal labor market mechanisms. Reorganization or liquidation of failed enterprises, for example, may be simplified by the elimination of head-on conflict between the rights of creditors, who have legal claims over such firms' assets, and the interests of employees, who typically receive preferred access to such assets at the behest of local officials despite the prior legal obligation to compensate creditors.

-- Despite important moves in the direction of implementing a new system that will separate employment ties from social safety net provisions, traditional arrangements often remain in force, as when "enterprises on the edge of bankruptcy will have to submit a clear scheme on how they plan to arrange for their employees to set aside enough funds for such arrangements [i.e. to control unemployment] before they are allowed to begin bankruptcy proceedings. The SOEs should report to local governments in advance if they are planning to lay off a number of workers that exceeds the limit set by the labour authorities" (Wu 2002). However, we can expect a gradual, and perhaps rather brisk, shift in the direction of new, market-oriented arrangements that will represent the completion of a major shift in Chinese urban society.

### **Domestic migration**

The People's Republic of China, established in 1949, inherited an economy with large regional differences in per capita incomes. Subsequent egalitarian reforms acted mainly to reduce inequality within the urban economy (socialization of private business) and within local village communities (land reform, collectivization) without reducing long-standing spatial income disparities. Chinese socialism quickly developed a strong urban bias. To preserve urban amenities for the intended beneficiaries and to limit the cost of these special benefits, the state implemented an array of policies that created barriers between the urban and rural sectors. These measures permitted a large expansion of the income gap between urban and rural residents.<sup>18</sup> In the meantime, China's communes, which managed the rural economy from 1958 to the late 1970s, were expected to employ all able-bodied members. This pushed farm labour utilization far beyond economically sensible limits. Rural reforms, initiated in the late 1970s, quickly revealed an immense reservoir of underutilized rural labour.

The combination of large urban-rural income differentials and the sudden release of huge amounts of labour from farming created strong incentives for migration of villagers to China's towns and cities. Long-standing underdevelopment of the urban service sector and rapid growth of the urban economy intensified these pressures by expanding the urban demand for unskilled labour.

The result was a growing exodus from villages in many parts of rural China. Initially, fast-growing rural-based TVEs provided the prime destination for migrant workers. During the 1990s, the slowdown of TVE growth, the creation of networks linking would-be village migrants to urban employment,<sup>19</sup> rapid improvement of interregional transport and communication, the erosion of urban control systems that had formerly obstructed

migrants' access to grain and housing,<sup>20</sup> and further expansion of urban-rural income differentials channeled growing numbers of migrants to urban destinations.

Although there are no precise estimates of the numbers leaving the villages or working in urban areas, the scale of domestic labour movement is enormous, no doubt the largest in human history. Furthermore, there is considerable evidence that the size of what Chinese writers call the "human tide of farmer-workers" has continued to increase. Apparently referring to the early 1990s, Hein Mallee asserts that "a consensus seems to have emerged that the number of rural migrants is probably between 50 and 60 million" (Solinger 1999, p. 17). Recent figures are considerably larger. Goodkind and West report that "By 1997, the Ministry of Public Security estimates that the floating population had grown to 100 million" (Goodkind and West 2001, p. 6).

While the largest segment of migrants flows toward China's coastal regions, census data show several western provinces, notably Xinjiang and Yunnan, receiving modest net migratory inflows during the late 1990s. Yang, Xu and Xiang (2003) show that big agricultural provinces of central and western China (e.g. Anhui, Jiangxi, Hunan, and Sichuan, among others) provide the largest sources of migrants, in part because several of these provinces (Anhui, Jiangxi, Hubei, Hunan, Sichuan) appear to have experienced actual declines in employment during the 1990s.

The recent deceleration of economic growth and the concomitant increase in urban unemployment may have reduced urban demand for migrant workers, particularly since many urban areas have established regulations and fees intended to limit the influx of rural migrants.<sup>21</sup> This appears not to have occurred. Goodkind and West believe that "a decline in migration seems unlikely" (Goodkind and West 2001, p. 5). Quantitative support for this view comes from a national survey that collected 20-year employment histories from 1199 households. The results show that "the rapid rise in [off-farm] employment [of village residents] has continued even during the late 1990s, a time when some feared that macroeconomic conditions might keep rural residents on the farm or drive them back to the farm" (deBrauw et al. 2001, p. 22). The same survey shows a sharp decline in the proportion of off-farm work located in residents' home counties, which fell from 42.2 per cent to 29.8 per cent between 1990 and 2000 (deBrauw et al. 2001, Table 2). This suggests that an increasing proportion of migrants found work in urban destinations.

### **Growing penetration of market forces**

In addition to major changes in urban employment security and in rural-urban migration, the period since 1990 brought gradual changes in employment arrangements which cumulatively resulted in a major expansion of market forces in the determination of hiring, dismissal, and compensation of Chinese workers.

In 1990, dismissal of regular urban workers was almost unknown. By the end of the decade, large-scale layoffs were widely seen as both necessary and beneficial. Published

reports benchmark the change. In 1994, bankrupt and loss-making enterprises “could decide to reduce their staffs” but only with “the approval from the whole staff or union” (Chang 1994). As late as 1998, published commentaries said that “middle and small-sized firms and labour-intensive enterprises must try to fully use the labour resources of the country. . . [and] should avoid promoting profit by simply letting go unnecessary employees” (Jobs 1998). But three years earlier, “Wu Bangguo, member of the Secretariat of the Party Central Committee [and also Vice-Premier with responsibility for industry]. . . . urged enterprises to cut their surplus staff, which he stressed as ‘important work for enhancing management’” (Sun 1995). Official emphasis on the employers’ responsibility for securing new positions before dismissing redundant workers has declined steadily. In 2001, Premier Zhu Rongji, displaying his customary bluntness, “encouraged laid-off workers. . . to find jobs on the private labour market” (Zhu 2001).

Premier Zhu’s comment epitomizes major changes in the role of the private sector during the 1990s. During the first reform decade, private business remained small, neglected, and scorned. Many entrepreneurs felt obliged to operate private firms under the “red hat” of fictive collective ownership. Rapid expansion of private business in the face of severe restraints alerted growing segments of the policy community to the potential importance of the private sector to China’s future prospects. Local governments began to follow the lead of provincial and local officials in Guangdong and Zhejiang by encouraging and supporting private business. National leaders, acting with great deliberation in the face of considerable opposition, reinforced this trend with a succession of reforms, including a constitutional amendment endorsing private business, a law governing “solely-invested enterprises,” a decision to open the Communist Party to private entrepreneurs, increasingly specific promises to curtail various forms of discrimination against private enterprise, and growing exhortations favoring support of “small and medium enterprises” – a term widely taken to refer to private enterprise.

In 1990, new employment typically resulted from job assignments in which local labour bureaux matched applicants to requests submitted by potential employers. Voluntary job transfers were unusual, often stalled by employers, and, when successful, widely remarked. This changed rapidly. A 1993 report noted that “managers are often helpless with the employees who break contracts. . . . many workers are ready to leave for more lucrative jobs” (System 1993). Employers now complain about “job hopping” by ambitious employees.

College graduates, formerly assigned jobs upon graduation, now routinely seek employment on their own. Thus “students from outside the city who swarm into Shanghai are challenging local graduates in the local job market” (Recruits 2000).

Prior to the onset of reform, and even during the first reform decade, studies of wage determination found unusually low returns on educational attainment, with college graduates, for example, sometimes earning lower incomes than their less-educated colleagues. This changed rapidly during the 1990s.<sup>22</sup> Ambitious and talented individuals sought risky but rewarding new careers in Shenzhen and other special economic zones and open cities. Foreign-invested firms played a leading role in bidding up the price for

highly educated workers. Government agencies leaped into the fray, urged on by Song Defu, the Minister of Personnel, who insisted that “it is imperative to develop job fairs and labour markets” to achieve “a wide distribution of talent.” After Zhuhai’s special zone emphasized the new role of talent by “heaping large rewards on. . . outstanding scientists and technicians” and “sent a delegation to travel across the country in search of gifted people with high levels of education” in 1992, northern cities mounted a “counterattack” that “scoured the southern provinces for similarly trained and talented people” (Mu 1993). State enterprises, formerly bastions of egalitarianism, have taken up the challenge: in 2001, representatives of Shanghai-based Baosteel visited university campuses in the United States and other foreign countries to recruit “high-level professionals” for positions paying over US\$70,000.<sup>23</sup> The same trend appears in studies of rural migrants. Comparing 1990 and 2000, deBrauw et al find that “the evolution of China’s labor markets” for village migrants “increasingly has rewarded formal education.” The same applies in local markets: in Zhejiang, for example, “rural residents. . . participating in local labor markets. . . are being rewarded for their formal education” (deBrauw et al. 2001, pp. 20-21; see also Jia Heping 2003).<sup>24</sup>

These developments have vastly increased the impact of market forces on employment outcomes. Even so, movement in the direction of a market-based system is far from complete. Government agencies and party offices continue to appoint the executives, and sometimes even mid-level managers of large enterprises in industry and finance, particularly (but not exclusively) in the state sector. Business executives may have little or no say in the appointment of their own deputies. Government agencies continue to establish (and perhaps enforce) wage guidelines for state, collective and even for foreign-invested enterprises.<sup>25</sup> The slow pace of change is evident in a December 2000 report that the Ministry of Labour and Social Security “has suggested a salary system that is based on actual work performed by different workers” in state enterprises (Liu 2000). There is continuing resistance to special compensation for managers: efforts to reward corporate leaders with stock options have encountered stiff opposition. One former state enterprise director reports that his only means of rewarding a particularly valuable subordinate was with gifts of company-owned apartments (1999 interview).

### **China’s Entry into the World Trade Organization**

China entered the World Trade Organization in 2001 on the basis of sweeping and complex negotiations that imposed explicit and substantial marketing-opening obligations on China’s government. Despite loud arguments over the degree to which Beijing has fulfilled its WTO responsibilities, there can be no doubt that China agreed to undertake a succession of concrete and important market-opening measures and that, notwithstanding any complaints, Beijing has indeed moved energetically to implement laws, regulations, and administrative measures that are clearly intended to execute its WTO responsibilities.

The practical results of these measures include an immediate expansion of the share of China’s vast work force whose income and employment prospects are in part determined by global market forces, with further increases forthcoming as the scope for trade and

capital flows continues to expand. The following comments illustrate both the approximate magnitudes of the short-term employment impact associated with WTO entry and the differential impact on various segments of the economy:

“China's entry into the World Trade Organization (WTO), in a long-term point of view, means an increase of 2 - 3 million job opportunities every year. However, the recent estimation is to see an additional unemployment of 3-4 million, making the unemployment rate to rise two percentage points. The above judgment was made in the "Report on China's Population & Job Opportunity" which was recently published by Chinese Publishing House for Social Sciences and Documents when dealing with China's entry into the WTO and its influence on the employment situation in China” (“WTO Entry Impacts China's Employment Market,” <http://www.china.org.cn/english/MATERIAL/33345.htm>, consulted 5 November 2003).

“Employment opportunities in agriculture will decrease sharply, while the volume in the tertiary industry is expected to grow dramatically. In the secondary industry, job opportunities will increase in some sectors, Li Binsheng, deputy director of Policy Research Department under the All-China Federation of Trade Unions (ACFTU) was quoted as saying” (“WTO Entry: A Two-edged Sword for China's Employment Market,” [http://fpeng.peopledaily.com.cn/200201/24/eng20020124\\_89260.shtml](http://fpeng.peopledaily.com.cn/200201/24/eng20020124_89260.shtml), consulted 5 November 2003).

If these expectations are confirmed, the net annual impact of WTO entry on formal sector employment and urban joblessness may be as small as 1-2 million -- a tiny fraction of China's immense workforce. Adjustments imposed on specific sectors, however, may be large. One set of calculations based on a computable general equilibrium (CGE) model indicates sectoral employment changes as large as +36% (for textiles) and -30% (for motor vehicles and parts) by 2005 (Li and Yang 2002). Whatever one's doubts about the plausibility of CGE analysis, which requires stringent and somewhat unrealistic assumptions, the expectation that WTO entry may spark large employment swings in particular industries is surely on target. In addition, we may also anticipate that WTO entry will reinforce structural changes already underway, with the following results:

- Further expansion of employment opportunities for younger, better educated workers, and reduced growth or even contraction in openings for older, less skilled workers who are slower to adapt to changes in working conditions and employer requirements..
- Acceleration of ongoing decline in agricultural labor requirements.
- Further expansion of employment opportunities in coastal regions, both absolutely and relative to opportunities in interior areas.

Even though the net impact of WTO entry on employment, unemployment and underemployment may remain modest in size, it seems likely that WTO entry will deepen the structural problems embedded in China's labor markets. This is because individuals displaced by WTO-related developments are likely to have characteristics – (age, work history, education, etc.) – that are associated with long-term unemployment.

These realities, which were surely appreciated by former Premier Zhu Rongji and others who led the campaign to conclude negotiations that ratified China's accession to the World Trade Organization, illustrate the determination of China's leaders to implement long-term reform initiatives in the face of substantial and unavoidable costs.

## **WAGES AND EMPLOYMENT CONDITIONS**

### **Wage Patterns**

Wage behavior reflects the pattern of considerable, but incomplete transition to a system governed primarily by market forces visible in the institutions surrounding the determination of employment. Table 8 summarizes trends in money and real wages for the formal (mainly urban) sector. With the exception of the small and declining urban collective sector, all sectors show a strong upward trend in both money and real wages. Surprisingly, real wage gains accelerate during the second half of the 1990s and into the current decade despite slow job growth, extensive layoffs, and a modest deflationary trend. Wage behavior in the state sector is particularly noteworthy for the unusual combination of large pay increases and massive layoffs visible beginning in the late 1990s.

The new prominence of market forces is readily apparent from Table 9, which summarizes wage changes in 14 large cities for the year ending in October 1998. The data reveal a wide dispersion of wage movements. The tendency to reward educational accomplishment is evident. There are large differentials in the movement of nominal wages across major economic sectors and, within manufacturing, among specific trades.

Data on labour costs in manufacturing for the same cities, summarized in Table 10, highlight the impact as well as the limitations of market-directed institutional change on China's urban economy. Comparing the figures for state enterprises with information about firms under "other" ownership (which includes shareholding, foreign-linked, and domestic private enterprises) demonstrates the competitive pressures generated by firms operating under recently established organizational forms. The "other" enterprise group consistently outperforms the state sector in the areas of value-added, sales revenue, and profit per unit of labour cost. And despite higher labour costs per worker, the share of labour in total costs is uniformly lower for the "other" category than in the state sector. Adjustments to reflect the probable understatement of labour costs in the state sector would further expand the already considerable productivity and profitability advantage enjoyed by the "other" firms.<sup>26</sup>

These data also suggest that, despite extensive market-leaning reforms, manufacturing firms operating under traditional ownership categories continue to face institutional barriers to raising efficiency, productivity, and profitability. The inability of state enterprises, despite their generally superior complement of equipment, investment funds,

and technical capabilities, to consistently outperform the weak and declining urban collective sector demonstrates the remaining grip of tenure and tradition on the operations of state industry.

The figures in Table 10 point to wage indiscipline, an issue raised by W.T. Woo and others during the course of debates over productivity change in Chinese industry and echoed by Chinese writers,<sup>27</sup> as a possible obstacle to improved performance, especially in the state sector. The share of labour in total cost for state sector manufacturers during 1997 was 14.5 per cent – nearly double the share of wages in gross output value reported for the entire state industrial sector in 1992.<sup>28</sup> Although the comparison is not exact – GVIO is not the same as sales and the 1997 figures include non-wage labour costs – these figures suggest a considerable run-up in labor's share of total costs during the 1990s. Figure 2, which shows the ratio of wage costs to gross output value for state-owned firms rising to a 1996/97 peak of triple the figure for other types of firms, points in the same direction (figures after 1997 are neither comparable – because of changes in statistical classification, nor reliable - because of possible overstatement of output growth).

Information in Table 11, which provides sectoral figures for labour costs broken down by region rather than by ownership, shows that labour costs (but not wages) are particularly high in China's western provinces. It is evident from the figures for wage trends (Table 8) and cost structure (Tables 10 and 11) that a modest reduction in labor's share of total cost, easily attainable through a modicum of wage restraint, could have produced steep increases in the near-zero profits recorded by state industry during 1997.

The suggestion of excessive wage increases, especially in the state sector, need not imply an inability or unwillingness of enterprise managers to control labour costs. China's historic legacy of egalitarianism makes it difficult for managers to impose large pay differentials. In banking, for example, egalitarianism “is still often seen in the salary and housing distribution, making it difficult to offer effective incentive to the staff” (Mi, Li, and Huang 2001, p. 91). Under these conditions, managers may feel obliged to grant broad wage increases in the hope of retaining key employees. Since private and foreign-linked firms enjoy far greater flexibility in wage setting, such efforts may not succeed.<sup>29</sup> In banking, for example, officers' pay at foreign firms is about six times the figure at state-owned commercial banks. It is therefore not surprising that 32 of 169 senior managers employed by foreign banks at the end of 1999 were former employees of the Bank of China. The same bank hired 29 new college graduates in 1997 but lost 16 during the next four years (ibid.).

Beginning in 1998, state sector pay increases have become an instrument of expansionary macro-policy. Official statements attribute declining growth momentum to insufficient aggregate demand.<sup>30</sup> China's government has designed a multiplex response. In addition to expanded infrastructure investment financed with the proceeds from sale of treasury bonds, recent policy initiatives include large pay increases for state-sector employees and expansion of public holidays – both specifically intended to boost consumption spending. As a result, evidence of excessive wage and salary levels is not necessarily attributable to weak cost control efforts on the part of state sector managers.

Chinese sources rarely publish detailed comparisons of men's and women's wages. Studies based on small data samples show mixed results, with some finding a considerable gap between men's and women's wages and others indicating small and declining gender pay differentials. An econometric study based on indirect inference from data for 1988-1994 involving most of the urban labour force (but without information on specific individuals) found that China's urban employment system includes large gender pay differences that parallel conditions observed elsewhere in East Asia (Maurer-Fazio, Rawski, and Zhang 1999). Table 12 presents information from a Chinese source that provides unusually detailed information on gender pay differentials in fourteen large cities. These data confirm that, with some exceptions (notably textiles and education), average wages for women typically fall well below mean earnings for male workers. Occasional press comments point in the same direction: a "Report on the Social Status of Women" issued in September 2001 found that "the average yearly income. . . of urban women was only 70.1 per cent of that of urban men" (Tang 2001).

### **Employment Conditions**

The discussion here is limited to brief observations about wages, hours of work, industrial safety, and working conditions. In each area, we see a combination of vigorous effort to establish suitable standards and limited success in enforcing official policy.

*Wages.* In recent years, China's provinces and cities have legislated minimum wage standards. These standards vary widely across the nation. Each is geared to prevailing income levels and market conditions. Enforcement is far from complete. In Shajing (near Shenzhen in Guangdong province), an executive of a (probably typical) Taiwan-owned firm reports that "though the city's minimum wage is about \$56 a month, Ching Hai starts recruits at. . . \$32. . . and promises subsidies for food and lodging to make up the difference (Wonacott 2003).

The same firm reports that "amid intense price pressure," management "has even increased wages by about 5% in the past two years" (ibid.). This illustrates the dual nature of China's urban wage markets, which in recent years have delivered multiple wage increases for skilled and educated employees and for workers in government and state enterprises while wages for unskilled workers "for whom the only requirements. . . are a tolerance for long hours and low pay" (ibid.), have stagnated under the twin pressures of heavy migration from China's villages and intense pursuit of cost advantage from overseas buyers of labor-intensive goods.

Duality in urban labor markets appears widespread. Qin Hui writes that despite GDP growth of more than tenfold, wages paid to several hundred thousand migrant workers in Dongguan (Guangdong) have hardly risen in the past decade (2003). More generally, Luo Hao, a Nankai University economist, argues that the survival of low-wage labor-intensive industries in China's entire coastal region depends on this duality, which effectively decouples the (low and stable) wages paid to migrant laborers from the (much

higher and steadily increasing) pay scales attached to formal employment for regular urban residents. Large gaps between standard wage measures for coastal and interior regions, which suggest that labor-using industries should quickly move away from the coast, are misleading because official wage statistics focus only on the upper strata of urban labor markets and therefore “cannot reflect changes in wages and labor cost conditions for labor-intensive industries in China’s developed regions” (2003, p. 57).

*Hours of work.* During the 1990s, new legislation reduced the standard working week from 48 to 44 hours (in 1994) and then to 40 hours (in 1995) (Jefferson et al. 2000, p. 809). These new provisions are widely implemented, especially in the public sector, in large cities, and in northern regions. There are, however, many reports of long hours. A 1991 issue of a Shanghai labour journal, for example, noted that union offices had received numerous letters from employees of foreign-linked firms “who complain that they have been subjected to relentless overtime” (Chan 2001, p. 43). At the firm whose wage payments are cited above, workers routinely put in 14-hour shifts and “say they are sometimes asked to work as long as 18 hours” (Wonacott, 2003). These circumstances appear to be quite typical of conditions in hard-driving export firms that compete mainly on price and cost.

*Industrial safety.* Industrial safety is a long-standing problem in China, as in many industrializing nations. During the 1990s, the Chinese authorities have allowed increasingly open discussion of safety issues. Serious accidents are now widely reported in the press, along with promises of remedial action from top national leaders. Accident statistics, formerly shrouded in secrecy, are now routinely available, as when the New China News Agency reported in November 2001 that “Official figures show in the first half of this year, 64 major industrial accidents claimed 1,200 lives” (<http://web12.cri.com.cn/english/2001/Nov/36619.htm>). Safety concerns have figured prominently in the recent closure of large numbers of small-scale coal mines. China’s State Council is in the process of drafting legislation on industrial safety for submission to the National People’s Congress (ibid). Wonacott (2003) offers one of many reports that confirm high rates of accidents and worker injury in specific enterprises and localities.

*Working conditions.* China’s socialist tradition includes strong emphasis on providing employees with suitable working conditions. In theory, trade unions, in their role as guardians of worker interests, are both qualified and empowered to campaign against unsatisfactory working conditions. However theory and reality need not coincide. Historically, trade unions have enjoyed limited independence and have often acted more as agents of the government than as representatives of the workers. More recently, the growing role of market forces has created conflicts between employers’ efforts to limit costs and raise productivity and employees’ concerns about workplace hazards, excessive discipline, and fair compensation.

The result is the current transitional situation in which the rights and obligations of workers and employers, as well as the role of government regulation and trade union advocacy are neither clearly defined in law and regulation nor clearly understood in

everyday practice. Rapid clarification of these issues seems unlikely, especially because ongoing institutional change will continue to inject elements of novelty and uncertainty into the employment nexus.<sup>31</sup>

Workers' complaints and protests arise in part from the consequences of economy-wide changes, including abolition of tenure and abrogation of official safety-net provisions that are largely unrelated to conditions in specific workplaces. In addition, there are numerous reports of employer abuse, particularly in the south and in rural areas. Detailed accounts from Chinese sources, many reproduced in (Chan 2001, Thireau and Han 2003), show that Chinese workers often face hazardous conditions, harsh discipline, and financial malpractice on the part of hard-driving employers. In extreme cases, these reports describe circumstances tantamount to indentured servitude.<sup>32</sup>

Chinese authorities are well aware of such episodes. In supporting new provisions stipulating that "all workers and employees are authorized to join trade unions" and forbidding interference "with the act of joining a trade union," Liu Heng, Vice-Chairman of the All-China Federation of Trade Unions, speaks publicly of "rampant infringement of workers' legal rights." Migrant workers are frequent victims of abuse: *China Daily* comments that "legal protection of their rights and interest remains woefully absent" (Guo 2003). Beginning in 2003, migrant workers will be allowed to join trade unions (Union 2003). Hu Min, a national legislator, pinpoints the chief violators of worker rights: "working conditions and social security are not so ideal in some private, joint-owned [i.e. with foreign investment] and township enterprises. . . . Overtime work. . . [may provide] no extra pay, and. . . some employers go too far by conducting body searches of workers [to prevent theft of materials]. . . . workers are really the ones we should place priority on" (Union 2001).

In reality, there is no agreement on where China "should place priority." Local and provincial officials are expected to deliver high growth of output and exports and to limit expansion of unemployment. With labour in excess supply, official sentiment can easily tilt towards employers. A high inflow of foreign investment is widely viewed as an essential component of regional as well as national economic strategy. Since one major segment of foreign investment clusters in industries in which low labour costs are important sources of competitive advantage, local officials may feel obliged to tolerate harsh treatment of workers, particularly in view of the cost disadvantage arising from the appreciation of China's *renminbi* relative to most other Asian currencies since the 1997 financial crisis. Also relevant is the desire of local officials, especially in the south, to transfer the risk (and hence the responsibilities) associated with economic management to private entrepreneurs.

## **PRODUCTIVITY**

Aggregate output per worker provides the broadest measure of labour productivity. Since available data show little change in labour force participation rates during the 1990s, the path of output per head will exactly parallel the behavior of output per worker.<sup>33</sup> Table 13 shows an index of GDP per person derived from official figures. The data, which can be interpreted as an index of aggregate output per worker, accelerate from a 7.4 per cent annual growth rate during 1980/90 to a 9.5 per cent annual growth rate during 1990/97.<sup>34</sup> Even though these figures may overstate productivity growth on account of possible overstatement of GDP growth during 1997-2001 and (possibly increasing) understatement of population growth, there is little room to doubt the continued achievement of substantial growth of output per worker during the 1990s.

Estimates of real output per worker in various industrial ownership segments, reproduced in Table 14, confirm this picture of rising labour productivity during the 1990s.<sup>35</sup> Analysis of total factor productivity, however, indicates a productivity slowdown during the 1990s, with declining productivity observed during 1993-1996 for industry as a whole, for state firms and, surprisingly, for shareholding and foreign-invested enterprises as well (Jefferson et al. 2000, pp. 797-799).

## **DISTRIBUTION**

Prior to the start of economic reform in the late 1970s, official Chinese rhetoric emphasized equality and downplayed domestic income differentials. Modest income dispersion within urban organizations and model rural communities gave outsiders a distorted image of China as a highly egalitarian society. In reality, China's pre-reform economy harbored a wide income gap between privileged urbanites and the rural majority, as well as large spatial differentials, with higher incomes concentrated in the coastal east and low incomes clustered in the western, interior regions. One empirical review concluded that, at the beginning of reform, rough measures of Chinese distributive equity looked "not unlike those for India and Pakistan" and that "important features of China's income distribution" had "not improved significantly since the 1950s or even the 1930s" (Rawski 1982, pp. 25-26).

Initially, reform acted to reduce inequality. Steeply rising rural incomes diminished the urban-rural gap, while rapid growth along China's south-eastern coast allowed provinces formerly starved of investment funds to catch up with more favored regions. By the late 1980s, however, growth began to enlarge rather than diminish inequality.

Chinese and international observers agree that developments during the 1990s have accelerated the growth of income inequality. Among many empirical studies, a collaboration between Chinese and international researchers on two large surveys conducted in 1988 and 1995 provides a representative account. The authors find that: "Between 1988 and 1995 income inequality increased sharply in China, making it one of the more unequal of Asian developing countries. Inequality rose in both rural and urban

areas, but the great urban-rural gap is still the dominant contributor to overall inequality” (Khan and Riskin 1998, p. 252). These findings, which probably understate inequality because the surveys exclude non-monetary benefits provided to urban residents,<sup>36</sup> underreport income from capital and fail to capture the highest income earners, are echoed by numerous Chinese and international studies.

There is every reason to believe that the dispersion of incomes has continued to expand since 1995. The urban-rural gap continues to grow under the combined impact of large increases in formal sector wages and steep declines in the prices of agricultural commodities that may well have reduced rural incomes despite increased cash flow from migrant remittances and off-farm employment.<sup>37</sup>

Within China’s cities, differential income growth has favored highly educated workers and persons employed in sectors (including finance, telecommunications, tobacco, electric power, aviation) where steep entry barriers enable high profits that are partly used to fund generous pay increases.<sup>38</sup> Growing opportunities for talented workers to obtain high-wage employment in foreign-linked businesses, international organizations, and outside China have contributed to big pay hikes for employees with highly sought skills. At the same time, growing excess supply of unskilled and semi-skilled workers, including increased competition between unemployed urbanites and newcomers from rural areas, has acted to reduce even the nominal incomes of low-wage urban workers.<sup>39</sup>

Expansion of the east-west income gap has followed differential growth of output, and therefore of employment and personal incomes, favoring coastal areas and major urban centers. This process is in part fueled by foreign investment, which clusters in coastal regions, especially Guangdong, Fujian, Shanghai, Zhejiang, Jiangsu, Beijing, and Shandong. Despite large-scale injection of official development funds into interior regions under the government’s plan to “Develop the West,” market forces pull funds to the coast (Ye 2000). As one Chinese writer explained: “The time is not ripe for large-scale foreign investment in the west. Foreign investment takes profit as the objective. Return on investment is greater in the east than in the west. For this reason, it will be difficult to create a high tide of foreign investment in the west” (Li 2000, p. 19). Private funds follow the same logic.

Finally, differential access to non-farm income opportunities favoring educated individuals and persons located closer to urban centers or transport arteries contributes to the expansion of intra-rural inequality.

The result is high and rising inequality which shows signs of becoming embedded in China’s social structure, as when one author observes that in Anhui province, high tuition costs at all levels ensure that “the number of sons and daughters of farmers and laid-off urban workers who leave school is rising year by year, and the number of illiterates in the villages has begun to rise.”<sup>40</sup> Evidence of income concentration abounds, as when *China Daily* reports that 60 per cent of bank deposits are held by 8.7 per cent of the population (Chandler 2001). Recent studies indicate that inequality continues to grow:

income gaps across China widened in the first six months of [2001]. . . according to figures from the National Bureau of Statistics. . . . Accompanying the widening income gap between different regions was a widening gap between different social sectors. The Gini index. . . is 0.458 in China. This ranks China alongside the 40 countries with the greatest income gaps. (Jia 2001).

## **SUMMARY, PROSPECTS, AND POLICY DIRECTIONS**

This study has reviewed recent developments affecting China's labour markets. Quantitative appraisal of recent trends is complicated by an apparent deterioration in the quality of Chinese economic statistics. This has occurred despite strenuous efforts by the National Bureau of Statistics to improve the quality of its measures and to align Chinese data with international norms. Difficulties arise from technical issues, notably the growing institutional complexity of China's economy and the reduced willingness of respondents to provide timely, complete, and reliable information; and also from the growing politicization of economic data at all levels.

Nevertheless, the recent development path of China's labour economy is clear.

The population and labour force have continued to grow, but at declining rates.

Trends in the sectoral attachment of China's immense work force unfolded along familiar lines, with the number and proportion of workers in farming and other primary occupations declining and the size of the work forces in tertiary occupations increasing substantially.

Growth of formal employment has declined sharply. Average annual absorption of workers into formal employment dropped from roughly 11.6 million during 1980/90 and 15.5 million during 1990/95 to a negative 3.8 million during 1995/2000. As noted above, it seems likely that recent figures overstate employment in TVEs, in which case the decline in labour absorption would be larger than what is shown in Table 5.

In view of complaints surrounding the loss of manufacturing employment in the United States, Japan, Mexico and other nations, it is essential to note the clear absence of increased employment in China's industrial sector during the past ten years. Chinese employment in manufacturing and in industry (which includes mining and utilities as well as manufacturing) has declined continuously during the past decade (Table 4 and Figure 1). Although standard figures exclude employment in township and village (TVE) enterprises, inclusion of these firms (see Table 4A), with suitable adjustment to offset widespread over-statement of TVE activity levels, would not alter the picture of declining industrial employment.

The locus of job creation has moved from SOEs and TVEs, prominent during the 1980s, to employers in what Chinese sources describe as “other ownership arrangements,” including domestic private firms, shareholding entities, and foreign-linked businesses.

Large-scale layoffs of redundant workers, mainly in the state enterprise sector, but also in urban collectives, services (banks, railways), rural TVE firms, and government agencies (including the military), have reinforced the effect of smaller numbers of new jobs. The exact numbers are unclear, but the total appears to exceed 50 million workers (Table 6), perhaps by a considerable margin.

The combination of massive layoffs and slow job creation has resulted in the emergence of substantial open unemployment among China’s urban populace. Official figures showing unemployment rates of approximately 4 per cent understate the extent of joblessness among registered urban residents. Chinese researchers provide more plausible estimates showing national urban unemployment rates of at least 6-8 percent during 1995-2002. Unemployment rates among urban residents appear to have risen in recent years. Available estimates of urban unemployment exclude redundant employees, transitory joblessness among migrants arriving from rural areas, and underemployment within China’s rural work force.

China’s urban labor arrangements are moving in toward new structures in which relations between employers and workers will focus on contractual exchange of labor services for money wages, with social benefits increasingly managed and funded by public agencies rather than obtained from the work unit.

Out-migration of villagers seeking work in China’s towns and cities has become a major feature of China’s labour scene. The number of migrants continues to increase, probably to more than 100 million, despite a deceleration of economic growth during 1997-2001.

The past decade has brought growing penetration of market forces into China’s labour economy. In addition to increased domestic migration and large-scale layoffs of redundant workers, important new developments include the emergence of private business as a leading source of new jobs, the gradual replacement of official job assignments with competitive recruiting, and increased job mobility, especially among well-educated workers.

Wage data display growing differentials among different trades, localities, and job categories, a new pattern that reflects the rising impact of market forces. Nonetheless, official interventions continue to affect urban wages. Inappropriately high wages contribute to poor financial performance, especially in the state sector. Beginning in 1998, official policy has mandated large increases in urban wages as part of expansionary macroeconomic policy designed to raise consumer spending. For China, as for other Asian nations, available data indicate that male workers are paid considerably more than female employees. Urban labour markets display a dual structure in which product-market competition and labor supply pressure maintain low wage structures in labour-intensive industries staffed mainly by migrants from rural areas, while officially-

influenced wages attached to formal jobs staffed by regular urban residents have risen steeply despite layoffs and redundancy.

Working hours, industrial safety, and working conditions are areas in which we observe a substantial official effort to legislate standards combined with uneven enforcement.

Despite problems of measurement, it appears that output per worker continued to increase during the 1990s.

Chinese and international observers agree that income inequality increased rapidly during the 1990s. Available data, which appear to understate the degree of income inequality, suggest that China is rapidly emerging as an exemplar of disequalizing development.

The changes reviewed in this study, particularly the slowdown in job creation and the emergence of substantial open unemployment in the cities, have propelled employment issues to the top of China's national agenda.

As this is written in November 2003, short- and medium-term prospects for rapid expansion of employment opportunities appear poor. The employment elasticity of economic growth (i.e. the percentage increase in employment linked to a 1 percent increase in GDP) remains low, fluctuating between 0.1 and 0.2 during 1990-2001 (Wang 2002, p. 84). With firms continuing to furlough redundant workers and re-employment rates for laid-off workers declining (ibid), registered unemployment among urban residents continues to increase, rising from 4.0 percent at the end of 2002 to 4.2 percent at the end of June, 2003 (Fu 2003). Few groups seem exempt from the consequences of overabundant labor supply: the Ministry of Education reported that one-fifth of China's 2002 college graduates remained jobless in March 2003 and predicted that "this year's prospects look even worse" (Hu 2003). Even optimistic accounts, such as an October 2003 report announcing that "an additional 8.12 million workers found jobs in . . . the first nine months" of 2003, include somber forecasts indicating that the number of job-seekers exceeds prospective employment by a wide margin (Xiao 2003).

After enduring a period of declining formal-sector employment, the likelihood of attaining China's official objective of creating 8 million new jobs annually during the current 10<sup>th</sup> Five-Year Plan Period (2001-2005) appears modest at best. The immediate prospect is rather for further increases in joblessness.

Political leaders and economic policy-makers recognize the gravity of China's labour situation. In November 2001, front-page accounts reported the finding of a Central Economic Working Conference "that the country's employment situation is of political importance as it is vital to stability, reform, and opening up. Therefore committees of the Communist Party of China and governments at all levels should pay close attention to the employment situation and work to provide more jobs" (Demand 2001). In 2002, Premier Zhu Rongji "pointed out that supply surpassing demand in the labor force is going to be a long-term phenomenon during the country's modernization process" (Dian 2002). Ministry of Labour and Social Security Zhang Zuoji echoed this view in January 2003, as

his ministry predicted that “about 22-23 million workers will be searching for jobs in urban areas during the next three to four years, with around 8-9 million openings forecast to be available” (Fu 2003).

Despite the government’s realization that China faces a challenging employment situation, with further deterioration likely in the short term, it will not be easy to design and implement an effective policy response. It is increasingly evident that the initial diagnosis, which attributed slow job expansion and growing unemployment to a shortfall in aggregate demand arising primarily from the 1997 Asian crisis, was mistaken. If, as this survey maintains, China’s labour market difficulties arise from a structural mismatch between the supply of and demand for workers, quick policy adjustments will not suffice to ameliorate high and rising unemployment. Instead, resolution of problems arising from slow employment growth will depend on progress towards structural change. China’s reform experience, which now covers a full quarter-century, demonstrates that structural change is slow, difficult and often painful.

For this reason, there is no menu of obvious measures with which Chinese officials can hope to reverse the recent decline of formal employment. The following discussion proposes policy directions that could help to accelerate the creation of new jobs. Initiatives in these directions, however, will not be easy, because they are likely to conflict with existing structures, policies, and objectives, including many that are deeply embedded in China’s political economy.

**Promote private business.** Expanding China’s private business sector, the largest source of new employment during the 1990s, is perhaps the most obvious employment-enhancing policy. Private business has grown rapidly, in part because of supportive policy changes, including favorable legislation, a supportive constitutional amendment, and, most recently, the important (and controversial) decision to admit private entrepreneurs into the ruling Communist Party. Despite these beneficial policies, further expansion of private business, and therefore of employment, remains massively restricted by artificial barriers. One Chinese commentator provides an apt summary by noting that private firms “need national treatment. . . . Though governments at all levels have attached great importance to the development [of private firms in their public statements, in practice such firms]. . . still felt the inequality in government treatment when compared with the state-owned and foreign-invested enterprises” (Zhang 2001a, p. 82). During 2000, for example, private businesses “accounted for about 30 per cent of the value of China’s total industrial output” as well as substantial shares of activity in commerce, construction, and transport, but “received less than 1 per cent of total credit issued by banks” (Leggett 2002).

**Expand the service sector,** which became “the main employment channel” during the 1990s. Further development in services can deliver substantial employment growth. Even though China has moved away from the “policy discrimination against the service sector” practiced under socialist planning, the service sector’s share of overall employment remains low in comparison with both developed and developing nations. One difficulty is that “monopoly has been commonplace inside service trades in China,

with excessive restraints over market access and insufficient competition” (Li and Hou 2001). Requiring that the state sector “takes the lion’s share in key fields such as the service sector, insurance, banking, telecom, education, and medical care, which all concern national security and [therefore] belong to the public” sector leads to high entry barriers, high prices, restrictions on output, and unnecessarily low growth of employment (Non-State 2002).

**Promote rural development.** The rural sector, which has demonstrated its employment-creating potential in Japan, Taiwan, and elsewhere, provides numerous opportunities for policy initiatives oriented towards job creation. Chinese policy has long displayed a strong urban bias.<sup>41</sup> Both the fiscal and financial systems transfer resources from village to city: to cite a single example, calculations of “effective sales-related tax rate on added value” during the 1990s shows that tax levied on “light industry using farm products as raw material” is higher than any major category other than “petroleum processing and coke refinery” and consistently runs 10 percentage points above the industry-wide average (Lu 2002, pp. 26-27). The failure of rural consumption to deliver a fervently desired boost to aggregate demand during China’s economic downturn of 1997-2001 may have alerted policy-makers to the cost of neglecting investments in rural infrastructure, education and institutions that support the farm economy. Although no quick turnaround is possible under present circumstances, in which “the economy below county level is generally lacking growth momentum,” an increase in resources applied to rural development could pay handsome employment dividends within a few years. (Xie and Yu 2001, p. 4). Efforts to trim bloated local administrations and to roll back the vast array of fees and informal levies imposed on villagers and rural businesses represent potentially valuable initiatives that may, if pursued with persistence and determination, contribute to an acceleration of rural development and employment growth.

**Avoid artificial increases in the cost of hiring workers.** Recent labour market developments include an astonishing combination of excess labour supply with steep wage increases in the urban formal sector. Although some of the wage increases are needed to retain employees with special skills, most are not. Recent use of public sector wage increases as part of expansionary macro-policy seems ill-advised.<sup>42</sup> The process continues: huge wage increases for civil servants – two pay raises and year-end bonuses for 45 million government employees “swelled the government payroll bill by nearly 40 per cent” in 2001, with a further increase “in the pipeline” for 2002 and proposals for additional increases offered in 2003 (Chang 2002; Xu 2003). As the effects of these measures spread across (and perhaps beyond) the public sector, the resulting increases in absolute and relative labour costs will discourage the expansion of labour-intensive industries and the use of labour-intensive technologies. Even if the dual nature of China’s labor markets acts to insulate low-skill industries from upward pressure on wages, excessive labor costs in the organized sector threaten to limit employment growth in two ways. High and rising wages steer investment choices in the direction of alternatives that substitute capital, energy, materials, or technology for labor, thus directly reducing the expansion of employment opportunities. There is also an indirect effect: high and rising wages intensify financial pressures on state enterprises and state-related entities (see Table 10 and Figure 2). The resulting diversion of budgetary appropriations, bank

lending, and capital market access toward state enterprises and state-related entities contributes to a “crowding out” phenomenon that further limits the (already restricted) funding available to private businesses, the main source of employment growth in recent years.

**Limit the growth of social safety net programs.** China’s ambition to create universal (at least for urban residents) programmes for unemployment insurance, retirement pensions and other social security provisions may be premature. Pension, health care, and other social insurance arrangements appear to cover larger proportions of the populace in China than in other many nations of comparable or higher wealth. Public pension spending, for example, amounted to 2.7% of China’s GDP in 1996, a figure that exceeded comparable totals for 8 Asian nations, including Korea, Singapore, and Malaysia, often by substantial margins. Data for 1995 show that, with the sole exception of Singapore, China’s ratio of social insurance taxes to gross wages (36.0%) and to total labor costs (27.0%) is higher, often much higher, than in a long list of Asian economies including Korea (8.4 and 8.0%), Malaysia (24.3 and 21.3%) and Taiwan (12.4 and 11.1%) (Palacios and Pallares-Miralles 2000). Efforts to implement social programmes that exceed the financial capacity of China’s economy will reduce the growth of employment directly, by forcing up labour costs, and indirectly, by intensifying pressure on overburdened government budgets and financial institutions, thus adding to the already considerable risk of financial instability.

**Expand the role of market forces in determining the allocation of capital.**

Investment decision-making is perhaps the weakest link in China’s political economy, with many aspects displaying little change from circumstances under the pre-reform planning system (Rawski 2002). Consistently poor allocation of capital has generated a long history of low returns and a vast legacy of excess capacity. Recent efforts to boost economic growth by expanding public infrastructure spending and initiating a major programme to develop China’s relatively poor western provinces have had unfortunate side effects, including conflicts with (already weak) efforts to reform investment behavior, crowding out investment in the (mainly private) small business sector, and further reduction in investment returns (Macro 2001; Xu 2002b; Zhang 2001a). Excessive official involvement in investment decisions is a long-standing problem that continues to undercut the employment-generating capacity of China’s economy. With officials making investment decisions, “many places are curtailing labour-intensive trades to upgrade their industrial structure, which is another reason why the employment rate is down compared to the GDP increase” (Employment 2003).

**Reduce subsidies to capital-intensive undertakings.** Chinese policy heavily subsidizes capital-intensive activity, mainly by steering investment resources towards capital-using state enterprises,<sup>43</sup> which receive the overwhelming share of bank loans and enjoy nearly exclusive access to domestic and overseas stock and bond markets. The need to nurture state firms is offered as an explicit rationale for low interest rates. In addition, state firms working in “key sectors” or developing new technology may receive partial or complete exemption from interest costs. Finally, debt avoidance is commonplace. The rate of interest repayment (*shouxili*) on loans held by China’s four big state-owned commercial

banks dropped from 84 per cent in 1994 to less than 60 per cent in 1998 and under 50 per cent in 1999 (Qiu, Li, and Cai 2000, p. 20). Easy avoidance of repayment persists: at the end of 2001, “Chinese commercial banks are considering taking action against companies that deliberately dodge debts” (Xu 2001a).

Although deflation has eliminated the prior practice of lending at negative real rates, the current situation, in which (especially large-scale) state firms enjoy preferred access to loans at low nominal cost and (because of lenient treatment of defaulters) at even lower actual cost encourages China’s largest users of capital to emphasize investments with limited employment creation potential.<sup>44</sup> As a result, “the same volume of capital hires less labour in China than in other developing countries” (Zi 2001). Reports chiding large Chinese firms for failing to follow the example of “developed countries [where] large companies will put between 8 and 10 per cent of . . . overall assets into IT” – as opposed to the “minuscule” information technology investments revealed in an “official survey released. . . [by] the State Economic and Trade Commission,” push investment decisions in directions that seem likely to limit employment creation.

**Avoid gigantism; avoid imitating the attempts of Japanese and Korean official agencies to “pick winners.”** China has announced plans to create “up to 50 giant State-owned enterprises” in the wake of China’s entry into the World Trade Organization. These firms, situated in sectors like coal, steel, aluminum, shipbuilding, and engineering, are slated to receive “preferential policies,” including “governmental financial support” and preferred access to equity markets. This move is intended “to increase competitiveness of Chinese industry in the globalized market” (Fu 2001; Groups 2001). This initiative, which has drawn sharp commentary from critics who insist that successful enterprises “are not born by nature, self-styled or designated by the government,” illustrates the conflict between employment promotion and other official objectives (Liu 2001, p. 51). An economist at the State Economic and Trade Commission finds that, on average, investment outlays per new job amount to RMB220,000 in large enterprises, RMB120,000 in medium-sized firms, but only RMB80,000 at small companies, so that “promoting SMEs will be more cost effective in job creation” (Zhao 2002).

**Promote resource mobility.** China’s current unemployment problem is exacerbated by institutional impediments to the matching of workers with complementary resources needed to provide productive employment. Obstacles to the activation of idle state-sector facilities and equipment via merger, acquisition or bankruptcy, while much reduced from the 1980s, remain formidable. Such restrictions have the effect of reducing the effective stock of capital, and hence the growth of both output and employment. Barriers to interprovincial trade, restrictions associated with China’s system of residence permits (*hukou*), and other policies that limit the free flow of commodities and resources generally act to limit the growth of productive employment, as do restrictions that prevent companies from selecting and compensating managers and workers on the basis of market criteria.<sup>45</sup>

**Reduce unproductive regulation; avoid re-regulation of economic activity.** Despite the beneficial impact of two decades of reform, China’s economy remains burdened by a

vast array of unproductive regulation. Reform is complicated by the regulators' desire to preserve their own power and authority and by the need to identify and preserve (or expand) the beneficial regulation that effective markets require. Unproductive regulation, including the costly and corrupt system of examination and approval (*pizhun*) and China's vast web of semi-legal fee collection, imposes immense costs on Chinese businesses, and extracts a high price in terms of foregone employment opportunities. Given the inevitable difficulty of piece-by-piece deregulation, major downsizing of public agencies following the example of the central government's recent 50 per cent staff reduction appears to promise substantial benefits,<sup>46</sup> not least a possible reduction in the magnitude of corruption and malfeasance.<sup>47</sup>

Re-regulation is particularly visible in the expanded scope of economic intervention by economic work commissions associated with the Chinese Communist Party, by the State Development Planning Commission, and by the Ministry of Finance. These developments threaten to stall or reverse many beneficial reform accomplishments. The possible negative impact of re-regulation on investment decisions is particularly worrisome. Re-regulation threatens to diminish China's growth prospects, and therefore to reduce opportunities to expand productive employment.<sup>48</sup>

China's economists and policy-makers understand that their nation faces a difficult employment situation. Current labour market problems arise from long-standing and deeply rooted structural imbalances that are not amenable to rapid or easy correction. Short-term expansion of the already large gap between the supply of labour and the demand for workers appears likely. As a result, accelerating the growth of job opportunities now stands near the top of China's economic and political agenda. Achieving the goal of enlarged employment growth will not be easy. There are many feasible policy initiatives, but also many conflicts with competing objectives and with long-standing policy preferences and institutional arrangements. These circumstances ensure that employment concerns and labour market issues will remain close to the centre of China's economic and social policy agenda for the next decade.

## REFERENCES

- Abstract. 2003. *Zhongguo tongji zhaiyao 2003* [China Statistical Abstract 2003]. Beijing: Zhongguo tongji chubanshe.
- Agence, France-Presse. 2001. *Investors Left in Dark by Flawed Economic Data* 17 December 2001 [cited 17 December 2001]. Available from [wysiwyg://55/http://biz/scmp.com/ZZZZEQSYAVC.html](http://biz/scmp.com/ZZZZEQSYAVC.html).
- An, Jilie. 2001. Prospects for the Sugar Industry After China Enters WTO. *Jiage lilun yu shijian* [Price Theory and Practice] (9):38-39.
- Appleton, Simon, John Knight, Lina Song, and Qingjie Xia. 2001. *Towards a Competitive Labour Market? Urban Workers, Rural Migrants, Redundancies and Hardships in China*.
- Chan, Anita. 2001. *China's Workers Under Assault*. Armonk NY: Sharpe.
- Chandler, Clay. 2001. *In China, the Rich Keep Getting Richer* Washington Post Foreign Service, 1 November 2001 [cited 11 December 2001]. Available from <http://www.washingtonpost.com/ac2/wp-dyn?pagename=article&node=&contentId=A21307-2001Oct31>.
- Chang, Hong. 1994. Labour Law Guarantees Benefits for Workers. *China Daily*, 3 March, 1.
- Chang, Tianle. 2002. Civil Servant Pay Rise in the Pipeline. *China Daily*, 7 January, 2.
- Chen, Gang et al. 1999. *Zhongguo dazhong chengshi laodongli shichang gongzi jiawei* [Labor Market and Wages in China's Large and Medium Cities]. Beijing: Laodong he shehui baozhang chubanshe.
- Chen, Xiwen. 2001. Analysis of the Situation of Agriculture and Rural Economy in the First Half of 2001. *China Development Review* 3 (4):7-18.
- deBrau, Alan, Jikun Huang, Scott Rozelle, Linxiu Zhang, and Yigang Zhang. 2001. *The Evolution of China's Rural Labor Markets During the Reforms*.
- Demand. 2001. Rising Demand to Help Boost Economy. *China Daily*, 30 November, 1.
- Dian, Tai. 2002. Zhu Talks More Jobs. *China Daily*, 14-15 September, 1.
- Eckholm, Erik. 2000. Silk Workers in Standoff With Beijing Over Union. *New York Times*:A6.
- Employment. 2003. Employment Needs More Attention as Growth Sought. *China Daily*, 15 May, 4.
- Fleisher, Belton M., and Xiaojun Wang. 2001. Efficiency Wages and Work Incentives in Urban and Rural China. *Journal of Comparative Economics*, in press.
- Fu, Jing. 2001. Colossal SOEs to Advance WTO Role. *China Daily*, 8-9 December, 1.
- Fu, Jing. 2002. More Cheap Houses Promised. *China Daily*, 8 January, 2.
- Fu, Jing. 2003a. Jobless Rate Rises to 4.2%. *China Daily*, 30 July, 1.
- Fu, Jing. 2003b. Tight Job Market Set to Ease. *China Daily*, 31 January, 2.
- Gilley, Bruce. 2001. Toil and Trouble. *Far Eastern Economic Review*:50-53.
- Goodkind, Daniel, and Loraine A. West. 2001. *China's Floating Population - Definitions, Estimates, and Implications for Urbanization* Washington DC.
- Groups. 2001. What They Are Saying: Enterprise Groups Needed. *China Daily*, 10 December, 4.

- Guo, Kesha. 1999. Aggregate Demand or Structural Problems? How Distorted Economic Structure Constrains China's Economic Growth. *Jingji yanjiu* [Economic Research] (9):15-21.
- Guo, Zi. 2003. Pay Workers On Time, Every Time. *China Daily*, 30 October, 4.
- Gustafsson, Bjorn, and Shi Li. 2001. The Anatomy of Rising Earnings Inequality in Urban China. *Journal of Comparative Economics* 29:118-135.
- Hu, Angang. 1998. *Jiuye yu fazhan: Zhongguo shiye wenti yu jiuye zhanlue* [Employment and Development: China's xxx Problem and Employment Strategy]. Shenyang: Liaoning renmin chubanshe.
- Hu, Angang. 2001. *Creative Destruction of Restructuring*.
- Hu, Angang. 2002. What They Are Saying: Four Challenges Ahead. *China Daily*, 7 January 2002, 4.
- Hu, Qihua. 2003. Tough Times Continue in Job Market. *China Daily*, 11 March, 2.
- Hua, Hua. 2003. Cutting Numbers of Lay-offs. *China Daily*, 31 October, 4.
- Indicators. 2001. *China Monthly Economic Indicators 2001.12*. Beijing: National Bureau of Statistics.
- Industry. 1993. *Zhongguo gongye jingji tongji nianjian 1993* [Statistical Yearbook of China's Industrial Economy 1993]. Beijing: Zhongguo tongji chubanshe.
- Jefferson, Gary H., and Thomas G. Rawski. 1992. Underemployment, Employment and Employment Policy in China's Cities. *Modern China* 18 (1):42-71.
- Jefferson, Gary H., Thomas G. Rawski, Li Wang, and Yuxin Zheng. 2000. Ownership, Productivity Change, and Financial Performance in Chinese Industry. *Journal of Comparative Economics* 28 (4):786-813.
- Jia, Heping. 2001. Nation's Income Gap Widens. *China Daily Business Weekly*, 28 August - 3 September, 20.
- Jia, Heping. 2003. Rocky Road Leads from Farms to Cities. *China Daily Business Weekly*, 11-17 February, 1, 3.
- Jiao, Xiaoyang. 2001. Farmers 'Cheaper' Than Urban People? *China Daily*, 7 February, 4.
- Jobs. 1998. Labour-intensive Firms Key to Providing Jobs. *China Daily*, 14 July, 4.
- Khan, Azizur Rahman, and Carl Riskin. 1998. Income and Inequality in China: Composition, Distribution and Growth of Household Income, 1988 to 1995. *China Quarterly* (154):221-253.
- Korzec, Michael. 1992. *Labour and the Failure of Reform in China*. New York: St. Martin's.
- Kung, James Kai-sing. 2001. *Off-Farm Labor Markets and the Emergence of Land Rental Markets in China*.
- Labor. 1987. *Zhongguo laodong gongzi tongji ziliao 1949-1985* [Statistical Materials on China's Labour and Wages, 1949-1985]. Beijing: Zhongguo tongji chubanshe.
- Labor. 1991. *Zhongguo laodong tongji nianjian 1991* [China Labour Statistics Yearbook 1991]. Beijing: Zhongguo laodong chubanshe.
- Labor. 1995. *Zhongguo laodong tongji nianjian 1995* [China Labour Statistics Yearbook 1995]. Beijing: Zhongguo tongji chubanshe.
- Labor. 1996. *Zhongguo laodong tongji nianjian 1999* [China Labour Statistics Yearbook 1999]. Beijing: Zhongguo tongji chubanshe.
- Labor. 1998. *Zhongguo laodong tongji nianjian 1998* [China Labour Statistics Yearbook 1998]. Beijing: Zhongguo tongji chubanshe.

- Labor. 2000. *Zhongguo laodong tongji nianjian 2000* [China Labour Statistics Yearbook 2000]. Beijing: Zhongguo tongji chubanshe.
- Lee, Young. 1999. Wages and Employment in China's SOEs, 1980-1994: Corporatization, Market Development, and Insider Forces. *Journal of Comparative Economics* 27:702-729.
- Leggett, Karby. 2002. Foreign Investment Not a Panacea in China. *Wall Street Journal*, 14 January, A1.
- Li, Chacha. 2001. Current Conditions in China's Macroeconomy: Present Circumstances, Problems, and Response. *Guoyou zichan guanli* [State Asset Management] (8):11.
- Li, Haizheng, and Guifang (Lynn) Yang. 2002. Reconfiguration of the Labor Market. In *The Globalization of the Chinese Economy*, edited by S.-j. Wei, G. J. Wen and H. Zhou. Cheltenham: Edward Elgar.
- Li, Shantong, and Yongzhi Hou. 2001. Third Strategic Objective of Modernization Drive Calls for Rapid Expansion of Service Trade. *China Development Review* 3 (4):37-50.
- Li, Xiaoxi. 2000. Economic Prospects for 2000. *Zhongguo gongye jingji* [China Industrial Economy] (2):16-21.
- Lin, Jiang. 2001. Chaotic School Fees: Causes and Response. *Jiage lilun yu shijian* [Price Theory and Practice] (8):18.
- Lu, Ding. 2002. Revamping the Industrial Policies. In *The Globalization of the Chinese Economy*, edited by S.-j. Wei, G. J. Wen and H. Zhou. Cheltenham: Edward Elgar.
- Lu, Mai, Shukai Zhao, Nansheng Bai, Yang Xie, Huabo Huang, and Yijun Han. 2001. *Retrospect and Prospect of Issues Related to Rural Labor Migration in China* Beijing.
- Luo, Hao. 2003. Unlimited Labor Supplies and Regional Cohesion of Industry in China. *Zhongguo gongye jingji* [China Industrial Economy] (4):53-58.
- Ma, Jun. 2001. *Slower Reforms in Wake of Global Slowdown* China in the World Press, 5 November 2001 [cited 21 December 2001]. Available from [www.chinaonline.com](http://www.chinaonline.com).
- Macro. 2001. With Continued Improvement in China's Macroeconomy, Don't Curtail Expansionary Fiscal Policy. *Guoyou zichan guanli* [State Asset Management] (9):4-7.
- Maurer-Fazio, Margaret, Thomas G. Rawski, and Wei Zhang. 1999. Inequality in The Rewards for Holding up Half The Sky: Gender Wage Gaps in China's Urban Labor Markets, 1988-1994. *China Journal* 41:55-88.
- Meng, Lian. 1999. Analysis of Economic Conditions and Policies During the Past Several Years. *Gaige* [Reform] (3):73-82.
- Mi, Jianguo, Yang Li, and Jinlao Huang. 2001. The Challenges from the Opening of Banking Service Market in China. *China Development Review* 3 (4):83-96.
- Monopoly. 2001. Breaking Monopoly is a Must. *China Daily*, 10-11 November, 4.
- Mu, Zi. 1993. Scramble for Talent Spreads Across Nation. *China Daily*, 26 October, 4.
- Nation. 2000. Nation Moves Boldly Forward. *China Daily*, 6 March, 5.
- Non-State. 2002. Non-State Economy Plays Big Role. *China Daily*, 9 January, 4.
- Palacios, Robert, and Montserrat Pallares-Miralles. 2000. *International Patterns of Pension Provision (ms. received from Richard Jackson, October 2003)*.
- Poverty. 2001. *China: Overcoming Rural Poverty*. Washington DC: World Bank.

- Qin, Hui. 2003. *Freedom of Movement and Population Segregation* 2003 [cited 19 November 2003]. Available from <http://www.yangzhizhu.com/qinhui102.htm>.
- Qiu, Yuemin, Bing Li, and Youcai Cai. 2000. Losses of State-owned Commercial Banks: Causes and Policy Suggestions. *Jingji gongzuozhe xuexi ziliao* [Study Materials for Economic Workers] (44):18-26.
- Rawski, Thomas G. 1982. The Simple Arithmetic of Chinese Income Distribution. *Keizai kenkyu* [Economic Research, Tokyo] 33 (1):12-26.
- Rawski, Thomas G. 1994. Progress Without Privatization: The Reform of China's State Industries. In *The Political Economy of Privatization and Public Enterprise in Post-Communist and Reforming Communist States*, edited by V. Milor. Boulder CO: Lynne Rienner.
- Rawski, Thomas G. 1999. *China: Prospects for Full Employment*. Geneva: International Labour Office.
- Rawski, Thomas G. 2000a. China's Move to Market: How Far? What Next? In *China's Future: Constructive Partner or Emerging Threat?*, edited by T. G. Carpenter and J. A. Dorn. Washington DC: Cato Institute.
- Rawski, Thomas G. 2000b. The Political Economy of China's Declining Growth. In *China in the World Economy*, edited by P. Lloyd and X. Zhang. Aldershot: Edward Elgar.
- Rawski, Thomas G. 2001a. China By the Numbers: How Reform Has Affected China's Economic Statistics. *China Perspectives* (33):25-34.
- Rawski, Thomas G. 2001b. China Reform Watch: Turning Point Looming. *China Perspectives* (38).
- Rawski, Thomas G. 2001. *China's GDP Statistics - A Case of Caveat Lector?* 2001c [cited 15 December 2001]. Available from [www.pitt.edu/~tgrawski/papers2001](http://www.pitt.edu/~tgrawski/papers2001).
- Rawski, Thomas G. 2001d. What's Happening to China's GDP Statistics? *China Economic Review* 12 (4):347-354.
- Rawski, Thomas G. 2002a. Measuring China's Recent Gdp Growth: Where Do We Stand? *Jingjixue jikan* [China Economic Quarterly] 2 (1):53-62.
- Rawski, Thomas G. 2002b. Will Investment Behavior Constrain China's Growth? *China Economic Review* 13 (4):361-372.
- Rawski, Thomas G., and Robert W. Mead. 1998. On the Trail of China's Phantom Farmers. *World Development* 26 (5):767-81.
- Rawski, Thomas G., and Wei Xiao. 2001. Symposium on Chinese Economic Statistics - Introduction. *China Economic Review*, in press.
- Recruits. 2001. *City Lacks High-Tech Recruits* 22 February 2000 2000 [cited 23 December 2001]. Available from <http://www.chinadaily.com.cn/star/history/00-02-22/c04-city.html>.
- Roberts, Kenneth D. 2001. The Determinants of Job Choice by Rural Labor Migrants in Shanghai. *China Economic Review* 12 (1):15-39.
- Schob, Chris. 2001. *Cracks in the Foundation? China's Regional Economies* Pittsburgh.
- Seized. 2000. China Labor Figure Seized. *New York Times*, 16 December, A16.
- Smith, Craig S. 2001. China Reports 7.8% Growth in Economy. *New York Times*, 18 July, W1.
- Solinger, Dorothy J. 1999. *Contesting Citizenship in Urban China*. Berkeley: University of California Press.

- Solinger, Dorothy J. 2001. Why We Cannot Count the 'Unemployed'. *China Quarterly* (167):671-688.
- Solinger, Dorothy J. forthcoming. Economic Informalization by Fiat: China's New Growth Strategy as Solution or Crisis? In *On the Roots of Growth and Crisis: Capitalism, State and Society in East Asia*, edited by L. Tomba.
- System. 1993. New Employment System Not Yet Perfect. *China Daily*, 28 October, 4.
- Tang, Min. 2001. Long Way to Go to Gain Gender Equality. *China Daily*, 24 September, 4.
- Thireau, Isabelle, and Linshan Hua. 2003. The Moral Universe of Aggrieved Chinese Workers: Workers' Appeals to Arbitration Committees and Letters and Visits Offices. *China Journal* (50):83-103.
- Towns. 2002. What They Are Saying: Towns Offer More Jobs. *China Daily*, 2 January, 4.
- Trade. 1984. *Zhongguo maoyi wujia tongji ziliao 1952-1983* [Statistical Materials on China's Trade and Prices, 1952-1983]. Beijing: Zhongguo tongji chubanshe.
- Union. 2001. Trade Union Law Amended. *China Daily*, 5 November, 3.
- Union. 2003. Union Accepts Migrant Workers. *China Daily*, 3 September, 3.
- Wang, Cheng. 2002a. New Views on China's Employment Development. *Jingji yanjiu* [Economic Research] (12):79-87.
- Wang, Lihua. 2001a. Problems and Responses in Implementing Debt-Equity Swaps. *Guoyou zichan guanli* [State Asset Management] (9):22-25.
- Wang, Xiaoya. 2001b. Analysis of the Current Macroeconomic Situation. *Caimao jingji* [Finance and Economics] (4):5-10.
- Wang, Ying. 2002b. Beijing Government Slices Workforce to Raise Efficiency. *China Daily*, 3 January, 2.
- Wonacott, Peter. 2003. Beyond China's Export Boom, Heated Battle Among Factories. *Wall Street Journal*, 13 November, A1, A10.
- Woo, Wing Thye, Gang Fan, Wen Hai, and Jin Yibiao. 1993. The Efficiency and Macroeconomic Consequences of Chinese Enterprise Reform. *China Economic Review* 4 (2):153-168.
- Wu, Yan. 2002. Steps to Ease Unemployment. *China Daily*, 28 October, 2.
- Wu, Yunhe. 1997. Census Nets Critical Info For Industry. *China Daily*, 3 April, 1.
- Xiao, Li. 2003. 8 Million Find Jobs. *China Daily*, 27 October, 2.
- Xiao, Mi. 2001a. Baosteel Set to Steal Talent. *China Daily Business Weekly*, 20-26 November, 17.
- Xiao, Zhu. 2001b. The Money Pit. *China Daily*, 6 December, 10.
- Xie, Fuzhan, and Bin Yu. 2001. A Basic Judgment Over the Current Economic Situation. *China Development Review* 3 (4):1-6.
- Xu, Binglan. 1999. Statisticians Seek Reliability. *China Daily Business Weekly*, 15 February, 1.
- Xu, Binglan. 2002a. Growth Kept Despite Weak Global Economy. *China Daily*, 1 January, 1.
- Xu, Dashan. 2001a. Debt Dodgers Targeted for Wipeout. *China Daily*, 15 December, 5.
- Xu, Dashan. 2001b. Experts Advocate Tax Cuts. *China Daily*, 30 November, 5.
- Xu, Dashan. 2002b. Overall Tax Cut Unlikely. *China Daily*, 10 January, 5.
- Xu, Dashan. 2003. Fiscal Policy Needs to Shift Emphasis. *China Daily*, 9 June, 5.

- Xu, Lianzhong. 2002c. Analysis of Ten Major Causes of Falling Prices. *Zhongguo wujia* [China Price] (7):6-9.
- Yan, Tingbiao, and Hong Chen. 2001. Major Issues and Ideas About State Enterprise Reform Under Present Conditions. *Guoyou zichan guanli* [Management of State Assets] (9):37-39.
- Yang, Yunyan, Yingmei Xu, and Shujian Xiang. 2003. Employment Replacement and Labor Flows: A New Analytic Framework. *Jingji yanjiu* [Economic Research] (8):70-75.
- Yearbook. 1997. *Zhongguo tongji nianjian 1997* [China Statistics Yearbook 1997]. Beijing: Zhongguo tongji chubanshe.
- Yearbook. 1999. *Zhongguo tongji nianjian 1999* [China Statistics Yearbook 1999]. Zhongguo tongji chubanshe.
- Yearbook. 2000. *Zhongguo tongji nianjian 2000* [China Statistics Yearbook 2000]. Zhongguo tongji chubanshe.
- Yearbook. 2001. *Zhongguo tongji nianjian 2001* [China Statistics Yearbook 2001]. Beijing: Zhongguo tongji chubanshe.
- Zhang, Chenghui. 2001a. Research Report on the Current Financing Situation of Privately-owned Enterprises. *China Development Review* 3 (3):72-82.
- Zhang, Liqun. 2001b. New Features and the Recent development Trend of the Economic growth in China. *China Development Review*, July 2001, 24-37.
- Zhao, Huanxin. 2000a. Unions Vital to Workers' Rights. *China Daily*, 14 December, 1.
- Zhao, Shaoqin. 2000b. State Eyes Job Pinch. *China Daily*, 8 March, 1.
- Zhao, Xiao. 2002. Unemployment Aid Needed. *China Daily*, 31 October, 4.
- Zhao, Yang. 2001. Rural Tax and Administrative Fees Reform: A Major System Innovation Since the Policy of Contracting Outputs to Farm Households Was Adopted. *China Development Review* 3 (3):53-62.
- Zhu, Qiwen. 2001. Domestic Market Fuels Growth. *China Daily*, 6 August, 4.
- Zi, Xun. 2001. Enterprise Overhaul Needed to Rise to WTO Challenge. *China Daily Business Weekly*, 27 November - 3 December, 15.

## NOTES

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- <sup>1</sup> These themes are pursued in Rawski 2000a; Rawski 2001b.
- <sup>2</sup> For details, see Rawski and Xiao (2001) and the accompanying symposium on Chinese economic statistics.
- <sup>3</sup> Official measures of real GDP indicate annual real growth of 7.8, 7.2, 8.0, and 7.3 per cent beginning in 1997/98. Referring to 1998, Chinese observers speak of "universal falsification of statistics, as a 'statistical bubble' works its way up through the system, and provides mistaken reportage to the decision-making levels" (Meng 1999, p.78). Premier Zhu Rongji complained in Mar. 2000 that "falsification and exaggeration are rampant" (Nation 2000). Available evidence suggests near-zero growth in 1998 and 1999. This author shares the views of "many economists [who] say the country's real economic growth rate is, at most, half of that reported" (Smith 2001). (For details, see Rawski 2001a; Rawski 2001c; Rawski 2001d; Rawski 2002).
- <sup>4</sup> The relation between these measures is not clear. Urban data for 1998, for example, show that the "economically active population" exceeds "employment" by 13.1 million persons, which is far larger than registered urban unemployment of 5.7 million. (See Labour 1999, pp. 63, 83).
- <sup>5</sup> Official data appear to overstate China's farm work force. Rawski and Mead (1998) conclude that the number of "phantom farmers" actually working outside agriculture may be as high as 100 million. They argue that the decline in the absolute number of farm workers began in the 1980s.
- <sup>6</sup> See Guo 1999. At present, the main purpose of entry barriers is to protect the pricing power and profits of incumbent state enterprises. Relaxation of barriers would expand competition, reduce prices, increase volume, and therefore raise employment in telecommunications and other currently protected sectors.
- <sup>7</sup> These figures, which are no doubt less reliable than the figures for other employment categories, are the sum of two components: private companies employing eight or more workers and self-employed or individual workers (including businesses with fewer than eight employees).
- <sup>8</sup> Vice Premier Zou Jiahua announced the results of the 1995 industrial census showing that "After striking out phoney [sic] statistics, the listed number of township enterprises in China has decreased by one third. . . and their output figure dropped by nearly 40 per cent" (Wu 1997).
- <sup>9</sup> Table 5 is based on the standard figures for TVE employment. Since, as noted above, these may be overstated, it is possible that the results exaggerate formal

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employment growth and understate the expansion of the informal work force during 1995/2000.

<sup>10</sup> A number of studies find that approximately 5-6 per cent of cultivated land is rented out. The figure reaches 8-10 per cent in developed regions and 1-2 per cent in the hinterland (Chen 2001, p. 15; see also Kung 2001).

<sup>11</sup> See Poverty 2001; Rawski and Mead 1998. These calculations (and similar analysis by Chinese economists) explicitly or implicitly depend on data for cultivated acreage. These figures are widely believed to underestimate actual circumstances. The standard crop output figures incorporate adjustments for underreporting of acreage. The accuracy of these adjustments directly affects the reliability of estimated labour requirements.

<sup>12</sup> Rampant fee collection (*luan shoufei*) is a major theme of writings on the political economy of rural China. China's government has struggled to enforce a 5 per cent limit on the proportion of rural household income that local governments can take in taxes and fees. The latest policy effort to reduce farmers' burdens replaces multiple fees with a simpler and more transparent tax levy (Zhao 2001).

<sup>13</sup> Zhao (2001) reports reductions in farmers' "absolute incomes" in the "central and western regions and major grain-producing areas" (p. 53). Wang Mengkui finds that "since 1997, 48 per cent of peasant households have experienced a drop in net income" (see Schob 2001), which refers Wang's article "Dangqian shehui jingji fazhanzhong xuyao yanjiu de wenti" (Problems Requiring Study in Current Socioeconomic development) reprinted in *Guomin jingji guanli*, 6, No. F10 (2001). See also Lu et al. 2001; Wang 2001b).

<sup>14</sup> Surprisingly, the share of female employees in the formal work force (Table 3) has increased despite the well-documented tendency of women workers to suffer a disproportionate share of layoffs (Appleton et al. 2001).

<sup>15</sup> China's 1995 industrial census revealed the presence of widespread idle capacity. Average and median utilization rates for production facilities in 111 product lines stood at only 66 and 55 per cent (Yearbook 1997, pp. 454-455). Frequent press reports note a continuing shift from "seller's market" to "buyer's market" and indicate that domestic product markets remain in a state of excess supply. Despite the absence of systematic data, it seems likely that utilization rates have declined since 1995. A 1997 document notes that "more than 9 million staff and workers were laid off due to bankruptcy, partial or total suspension of production" (Roberts 2001, p. 17).

<sup>16</sup> China's supreme court, for example, has forbidden lower courts to initiate bankruptcy proceedings involving large state enterprises without explicit permission. One possible motivation for this instruction, which appears to contravene China's bankruptcy statutes, is to limit the growth of officially measured unemployment (Ma

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2001). Elsewhere, “some local governments refuse to let people register as unemployed for reasons as spurious as being able to eat meat regularly“ (France-Presse 2001).

<sup>17</sup> Solinger’s review of sources on urban unemployment leads her to conclude that “these numbers are truly unfathomable” (Solinger 2001, p. 688).

<sup>18</sup> During 1955-57, for example, per capita grain consumption in rural and urban areas was nearly identical. During the ensuing two decades, average grain consumption rose in the cities, but declined in the villages (Trade 1984).

<sup>19</sup> See Solinger 1999, p. 180, on the commercialization of domestic labour export.

<sup>20</sup> See for example, Solinger 1999, p. 65 (housing) and pp. 129, 263 (grain).

<sup>21</sup> Ministry of Labor officials report that surveys indicate that “the demand increase [for rural migrants seeking work in urban areas during 2003] is slight compared with past years” (Jia Heping 2003, p.1). On regulations, see for example, Lu et al. 2001. However, critics insist that such regulations “have no effect in reality, but only contribute to arbitrary collection of fees on farmers who look for work in cities” (Chen 2001, p. 15).

<sup>22</sup> Lee (1999), for example, finds that “the average wage for college graduates [working in state-owned industrial units] has increased dramatically since the late 1980s” (p. 713).

<sup>23</sup> Xiao 2001a, where salaries of US\$48,300 plus housing subsidies equivalent to US\$24,150 are mentioned.

<sup>24</sup> “Formal education, even at a low level, equips migrants, who customarily speak a local dialect, with the ability to speak Mandarin (*putonghua*) and contend with life outside their region of origin” (Roberts 2001, p. 27).

<sup>25</sup> Professor Zhang Weiying of Peking University displayed a chart showing the Beijing municipal government’s wage guidelines at a May 2000 conference attended by the author.

<sup>26</sup> Understatement of labour costs for state firms is most likely in two areas: pension costs, which typically include payments to current retirees but ignore the (much larger) accumulation of future liabilities, and housing.

<sup>27</sup> See Woo et al. 1993. More recently, Yan and Chen (2001, p. 39) note that “the phenomenon of ‘many people assigned to do a single person’s task’” still exists, and criticize inadequate pay differentials within state firms, which leave technical workers underpaid, while unskilled workers receive high wages for performing tasks that command lower wages outside the state sector.

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<sup>28</sup> The ratio of wages to gross output value in state industry rose from 7.0 per cent in 1980 to 7.3 per cent in 1985 and 7.5 per cent in 1992 (Industry 1993, pp. 26, 35).

<sup>29</sup> Fleisher and Wang (2001) “find evidence of productivity-enhancing wage effects in Chinese enterprises.” They also find that “technical and administrative workers are consistently underpaid. . . relative to production workers.”

<sup>30</sup> The alternative advanced by a number of Chinese economists and endorsed by the present author, is to attribute the growth slowdown to structural causes. (See Rawski 2000a; Rawski 2000b)

<sup>31</sup> The following sequence of reports illustrates the uncertainty surrounding labour issues. A Chinese report summarizes Vice-President Hu Jintao’s address to a national trade union conference, in which Vice-President Hu said that unions should “focus on safeguarding the interests and rights of workers” and that workers’ congresses “should be given more say in management and decision-making.” The next day, the *New York Times* noted that workers in a state-owned silk factory found themselves “in a tense standoff with the authorities over their daring proposal to form a worker-run trade union in place of the official body that they say has failed to defend their interests.” The group’s leader “was detained by the police . . . and involuntarily committed to a psychiatric hospital. . . one day after he spoke with Western reporters about the workers’ grievances.” (See Eckholm 2000; Seized 2000; Zhao 2000a).

<sup>32</sup> Gilley (2001, p. 51) reports that debt bondage and other exploitative employment relations are “on the rise in China as migration flows grow and private business blossoms.”

<sup>33</sup> The labour force participation rate derived from Table 2 (using Series B to measure labour force) falls within the range  $56 \pm 0.3$  per cent throughout 1990-2000.

<sup>34</sup> Calculation of growth rates after 1997 is omitted because the official reports appear to substantially exaggerate actual GDP outcomes.

<sup>35</sup> Comparison of industrial labour productivity figures becomes difficult after 1997 because of changes in the scope of employment (furloughed workers are omitted beginning with the data for 1998), changes in the calculation of industrial output (in 1995 and again in 1998), and because, starting with 1998, official reports appear to substantially exaggerate the growth of industrial production.

<sup>36</sup> Income statistics typically include pension payments to current retirees, but invariably fail to account for the (much larger) value of pension rights available almost exclusively to urban residents. A further issue arises from the large transfers associated with urban housing reform. In Beijing, for example “public servants and employees working in government-funded institutions” can buy apartments of 20-30 square meters at subsidized prices. The market price of such apartments, transferred to lucky recipients

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for RMB1,450 per square meter in 1997 and RMB1,560 in 2001, reached RMB4,772 in late 2001, indicating that the transfer associated with a typical apartment of 25 square meters amounted to  $25 \times (4772 - 1560)$  or RMB80,300 – a sum more than 35 times the average per capita income of rural residents in 2000 (Fu 2002; Xiao 2001b). In some cases, state-sector employees (for example, in civil aviation), are given apartments valued at US\$200,000 or more, free of charge (2001 interview).

<sup>37</sup> “Purchase prices of farm and sideline products have already fallen for five consecutive years, with the cumulative drop amounting to 25.7 per cent, which has made the net income from agriculture drop for three consecutive years, while net incomes of rural villagers have dropped at an increasing rate for five consecutive years (Li 2001, p. 11). “Since 1997. . . the income of around 0.35 billion rural people did not increase with the GDP. Instead, it declined” (Lu et al. 2001).

<sup>38</sup> In Guangzhou, for example, “monopoly has resulted in large income gaps” with salaries in tobacco processing (RMB4,461), postal and telecom services (RMB3,265), and aviation (RMB14,200) running far above the city-wide average of RMB1,693 (Monopoly 2001).

<sup>39</sup> Large-scale survey data show a 21 per cent drop in the nominal incomes of primary school graduates within the lowest income quintile among urban residents between 1988 and 1995; average urban incomes rose by 66 per cent during the same period (Gustafsson and Li 2001, pp. 127, 131).

<sup>40</sup> Lin 2001, p. 18. The author notes that annual tuition at village primary schools is RMB400. Per capita net income of Anhui rural households in 2000 averaged RMB1,935 (Yearbook 2001, p. 324).

<sup>41</sup> After the collapse of a poorly-built bridge resulted in 40 deaths, local officials in Chongqing municipality “gave each rural victim’s family only half what they gave to an urban family” (Jiao 2001).

<sup>42</sup> A number of Chinese economists have recommended reductions in taxes (Xu 2001b). Tax cuts (or reductions in the growth of tax revenues, which are astonishingly high even after ample allowance for rampant overstatement) could match or surpass the expenditure stimulus from pay hikes while avoiding the negative consequences (higher labour costs, further pressure on China’s heavy burden of formal and (mainly) informal public debt) associated with wage increases for government employees.

<sup>43</sup> Lee (1999, p. 720) describes state-owned industry as operating under conditions of “extreme capital intensity.”

<sup>44</sup> “Financial institutions are willing to grant loans to large-sized enterprises or enterprise groups that enjoy good reputation. But these enterprises put the money into

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stock market because they cannot find good investment projects immediately” (Xie and Yu 2001, p. 6).

<sup>45</sup> The suggestion that preferential treatment for large enterprise groups (but perhaps not for others?) should include “the right to distribute wages in line with. . . economic returns” illustrates the tentative approach to full wage liberalization (Groups 2001).

<sup>46</sup> Responding to “the call of the central government, [Beijing municipality] intend[ing] to slice the municipal government workforce in half” has laid off “tens of thousands of city employees. . . in a two-year-long reorganization” (Wang 2002).

<sup>47</sup> An experienced Chinese civil servant advises the author that the conduct of central and provincial officials is “relatively good,” with only about half engaging in “dirty” behavior; at the local level, such behavior is far more prevalent.

<sup>48</sup> This theme is pursued in Rawski 2001b.