

Danwei: The Economic Foundations of a Unique Institution

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For more than two decades, from the early 1960s well into the 1980s, the Chinese urban work unit, or *danwei*, maintained its unique status as an extreme example of a certain kind of social organization. The *danwei* was not solely a “work unit” or productive enterprise. Rather, the *danwei* had multiple social, political, and economic functions and a permanent “membership” of workers with lifetime employment. This chapter argues that the most distinctive features of the *danwei* are best understood in light of the distinctive characteristics of the economic environment in which Chinese enterprises operated. The evolution of the economic environment thus provides insight into both the emergence of the distinctive *danwei* institution and its subsequent decline. Today, changes in the economic environment induced by economic reforms are causing dramatic changes in the *danwei* system. Since the early 1980s, economic reforms of a progressively more fundamental character have reshaped the urban economy, increasing labor mobility and changing many of the other economic foundations of the *danwei* system. These changes inevitably spell profound change in the *danwei* system, and point to its eventual abolition; yet the *danwei* system also displays remarkable tenacity. In the face of economic changes of unprecedented magnitude, the *danwei* system has survived to the present, although in modified form, and continues to be important in China.

Orientation

In all societies, the employment relationship has a special status that differentiates it from other contractual relationships. In developed market economies, the labor contract carries with it some degree of protection for the worker, such that

dismissals cannot be made entirely arbitrarily or without notice. Moreover, the indispensability and relative stability of the employment relationship leads governments both to regulate employment (for health and safety objectives) to use the employment relation to organize eligibility for social benefits, including health care and unemployment insurance. Thus, the workplace in all developed countries ends up serving functions beyond merely organizing productive labor. There is, however, a wide variation in the extent to which the employment relationship is treated like an ordinary economic transaction. Near one extreme is the United States, in which the employment relationship is generally seen as a voluntary contract between two parties, more or less freely entered into and terminated at will by either party. It is illegal for employers to terminate employees for the wrong reasons (discrimination on account of age, race, or sex) but not illegal to terminate employees for no reason at all or simply in pursuit of the company's economic advantage. Despite some government regulation, the relationship is widely regarded as being a specific example of a general category of voluntary economic contracts. In Japan, the relationship is quite different, at least in large firms. Japanese courts have created a body of case law that makes it extremely difficult for companies in Japan to lay off workers for anything less than gross misconduct or dire economic distress. Moreover, companies have internalized these guidelines into a common practice of permanent employment within the large firm sector.

China's *danwei* system, then, is not unique because of the presence of permanent employment or enterprise social services. However, it is unique in the extent to which these functions are performed. Despite its roots in Soviet organizational practice, the Chinese *danwei* developed the tendencies discernible in Soviet institutions to a much more extreme degree. What demands explanation is the extreme nature of the Chinese institution. It makes some sense to discuss the *danwei* as an ideal type. In this ideal type, workers are permanently attached to the enterprise, and the enterprise is multifunctional. Production and revenue earning are primary functions, but all enterprises also have social, cultural, and political functions. They assume full responsibility for other activities, including provision of social services, especially health care, welfare, and housing. Political control is exercised by the *danwei*. Indeed, all enterprises have a similar bundle of responsibilities and, partly as a result, are required to have a similar organizational form. The enterprise is the building block for nearly all the important organizational systems of urban society. The enterprise encompasses a multiplicity of functions and uniformity of organizational form. Employees are not so much contractors with the *danwei* as they are citizens of it. The *danwei* is a microcosm of urban society, into which individuals are born, live, work, and die. By contrast, a purely market-oriented enterprise may engage in a variety of activities, but all these activities will be directly subordinate to a single function: to earn revenue through the sale of a good or service. The enterprise will contract with individual workers for their productive services, and the contract will be

subject to termination by either side or renewal by mutual consent. The enterprise is free to take on any organizational form that it deems appropriate for its purposes. Thus the capitalist enterprise can be characterized as a bundle of contracts, entered into to accomplish revenue-generating activity. It exists in a "sea" of heterogeneous organizations, created for different purposes, as needed, according to different principles. Each organization is specialized, and there is a multiplicity of organizational forms. Employees owe no special allegiance to a work organization, and the enterprise knows no allegiance to them.

This chapter stresses the economic conditions that permitted the emergence of the *danwei* system, which today are reshaping and may eliminate the *danwei* system. Among these economic conditions, by far the most important is the absence of labor mobility that characterized the Chinese economy precisely during the years when the *danwei* system was most highly developed. It is not accidental that the *danwei* in China was unique among the socialist countries or that China was also unique among socialist countries in abolishing urban labor markets and virtually eliminating labor mobility. Other conditions, however, were required for the emergence of the extreme form of the *danwei* system: a sheltered competitive position for the enterprise and the trend toward administrative simplification as China's administrative apparatus slid backward during the Cultural Revolution. Since economic reforms began after 1978, these shaping conditions have diminished in strength. Yet the result has not been a linear transformation toward a familiar market-system enterprise and employment relationship. On the contrary, early reforms, in particular, sometimes had the paradoxical effect of strengthening the *danwei* characteristics. Even today, despite much progress, the *danwei* form persists.

The Emergence of the Danwei in Its Classic Form

The *danwei* system emerged during the mid-1960s, as part of the Chinese administrative adaptation to the new economic circumstances created by the Great Leap Forward disaster. Three factors were most important to the *danwei*'s emergence in its classic form: the curtailment and gradual elimination of labor markets and job mobility; the regularization of an enterprise financial system that created substantial surpluses for most enterprises; and the program of administrative simplification that emerged during the 1960s.

The Absence of Labor Mobility

During the 1950s, in the initial phases of Soviet-style industrialization in China, urban labor markets were quite fluid. Rapid expansion of production was accompanied by large-scale rural-to-urban and interregional migration. New industrial workers enjoyed higher incomes than before, but did not automatically or universally receive coverage under the new social security and health insurance sys-

tems.¹ Policymakers expressed concerns about the high cost of providing new urban jobs, continuing unemployment in urban areas, and the difficulties of sustaining continued rapid urbanization. Regulations were adopted between 1956 and 1958 that would have had the effect of restricting migration to cities. However, before these regulations came into effect, the Great Leap Forward (1958–60) intervened. During the Leap, millions left agricultural work and crowded into existing factories as well as hurriedly erected new plants, including the well-known “backyard steel mills.” This sudden human flood into the factories was churned up by the bizarre political utopianism of the Leap, but also corresponded with the interests and aspirations of individual migrants. A factory job and urban residence were clearly the keys to a better life. The calculation to move in response to politically generated opportunities was individually rational, but collectively disastrous. The exodus from agriculture was far too great for China’s agricultural economy to support. With the shift of millions from agricultural to industrial occupations the food balance swung inevitably into deficit. Food production collapsed, and mass starvation and hunger inevitably resulted.

Out of this immense catastrophe emerged a new set of economic conditions, which created the foundations for the Chinese *danwei* system. Faced with imminent starvation, the urban population, through a combination of voluntary action and a government removal program, shrank by 14 million between 1960 and 1963. Subsequently, tight controls were put in place—ultimately based on the pre-Leap regulations—that essentially halted new migration from rural to urban areas. It is clear that the fundamental motivation for this policy was the fear that if the decision were left to voluntary choice, migration of rural residents to the cities would quickly resume and the burden on food supplies would again become too great to sustain. The gap between rural and urban living standards was becoming wider: more crucially, it was also becoming increasingly evident and showing signs of becoming permanent. The government felt compelled to freeze the existing population in place. When this was done, the status of existing urban residents changed. Increasingly protected from inflows of rural migrants, urban residence became an even more privileged status, possessed by individuals, usually for life, and inherited by their children. Mobility of all kinds, and including job mobility, thus declined sharply.² At about this time, the government also assumed direct control over the hiring process, a control that had eluded it throughout the 1950s. From the early 1960s, the government began directly or indirectly to allocate almost 95 percent of first jobs in urban areas, taking away the hiring function from the individual enterprise.³

Following these changes, voluntary job mobility *within* urban areas—that is, job changes from one urban job to another—began to disappear. The state still reassigned workers to new enterprises—including those in distant cities—in accordance with state needs, but resignations, dismissals, and job transfers became virtually nonexistent for ordinary workers. A few numbers can flesh out these observations. Our first data on labor mobility come from 1978, but evidence

indicates that the situation prevailing in 1978 began in the 1960s. At the end of 1978, there were 63 million long-term, or “permanent” (*guding*) state workers in China, and during that year, slightly over a million workers left the state sector. However, almost half the job leavers were retirees. Only 37,000 workers quit or were fired in 1978, about one-twentieth of one percent of all permanent workers. During the same year, 150,000 state workers died. Thus death was four times as important a cause of job-leaving as were resignations and being fired; and retirements were thirteen times as important. If workers converted to collective status are added, the total leaving the state sector for reasons plausibly relating to individual or managerial choice still falls short of one-tenth of one percent.⁴ This measure is not a complete measure of job mobility because it does not capture workers who quit (or are fired from) one state job and accept another within the year. However, it does give a good idea of the order of magnitude of voluntary job mobility: virtually nonexistent.

It is worth stressing how unusual this was in the socialist context. In the Soviet Union and the East European socialist countries, ordinary workers changed jobs frequently. It was common for a worker to leave his or her job and search for a better job in the same city. “The Soviet labor market is very active. Until the end of the 1970s, Soviet state employees could quit a job on two weeks’ notice; today [1987] the required notice is two months. In 1978 in the Russian Republic, 16 percent of all industrial manual workers quit their jobs during the year.”⁵ Voluntary job turnover was about a hundred times more common in the Soviet Union than in China under the *danwei* system. Moreover, in the Soviet Union two-thirds of all hiring was done directly by the enterprise (at the factory gate, in the case of industrial enterprises) and another 10 percent consisted of voluntary matches arranged by municipal labor bureaus. Beginning in the 1960s, urban Chinese were, with rare exceptions, assigned to a work unit upon leaving school and then remained with that single work unit for the remainder of their working lives.

Additional features of the Chinese employment system differentiate it from “permanent employment” in market economies such as Japan. First, the Chinese system applied indiscriminately to all state workers. In market economies, long-term employment relations predominate only in occupations where they are likely to enhance productivity through the creation of work skills that are specific to a given firm: if skills are nonspecific, there is little to be gained by tying workers to a specific employer. Thus, white-collar employees in any country are often effectively “permanent,” and in Japanese industry only a portion of the work force (perhaps one-third) are covered by permanent employment arrangements. The presence of permanent employment arrangements among Japanese blue-collar workers is frequently linked to the fact that the work force is relatively highly skilled and to flexible work rules that build firm-specific human capital among a portion of the blue-collar labor force.⁶ Similarly, in the Soviet Union, most of the extensive labor turnover occurs among ordinary production

workers with skills that are easily transferable between enterprises.

Second, the initial work assignment for the Chinese school graduate was typically his or her final assignment as well. There was little trial employment or "sorting" of workers and employers to find appropriate matches. By contrast, in Japan there is considerable "sorting" of the blue-collar labor force in the first years of work. Two-thirds of new blue-collar employees of large firms have had previous work experience in other firms.⁷ Thus the labor market permits enough flexibility at the outset to avoid some of the most unsatisfactory matches between individuals and their work environments. Moreover, permanent employment positions are generally with more desirable enterprises in Japan, so competition between entry-level applicants also provides an effective sorting mechanism. By contrast, virtually all Chinese urban school-leavers were assigned to a work unit that immediately became their permanent employer, with little possibility of adjustment. The likelihood that the employment relationship was resented and impeded productivity must therefore have been far greater in China. So, despite the natural temptation to draw parallels between the Chinese system and those prevailing in the Soviet Union or in Japan, there are clear differences: In both comparisons, the Chinese system is more rigid and extreme.

Profit Stream

During the mid-1960s, the Chinese budgetary system developed into its mature form, which relied heavily on state-owned industry to produce revenues. After the start-up phase of the early 1950s and the disruption of the Great Leap Forward, China's industry entered a phase of ordinary operation in the 1960s. Given the existing price system and the control the government exerted over rural production and marketing, ordinary operations in industry implied that industry was tremendously profitable. Even during the 1950s, industrial workers had created a "surplus" (total profit and tax) for the state greater than their own wage. But, during the 1960s, the surplus created by each worker climbed to a much higher level and in 1965 surpassed four times the value of his total wage for the first time. In that year, state-owned industry produced a total profit and tax of 30.92 billion yuan—virtually all of which was turned over to the government— or slightly over 2,500 yuan per worker. By comparison, the annual industrial worker wage in that year was 633 yuan. Through 1978, state-owned industrial more than doubled in size, and more than doubled its labor force, but the basic financial relationship remained unchanged. In 1978, each state industrial worker created total profit and tax of just over 2,500 yuan, and the average industrial wage was 631 yuan.⁸ Throughout this period, the typical state-owned enterprise (SOE) was generating a surplus for the government equal to about four times what it paid to the enterprise workers.

These financial relationships are due to the protected competitive position of SOEs. Prices were set by the government, and no serious competition was al-

lowed. Prices were set in a way that discriminated against farmers and benefited urban work units. The result was that most urban work units were profitable, and the government could then tap these surpluses to fund its own activities. The goal of the system was, of course, to provide an easily mobilizable tax base for the government. By transferring financial surpluses from its own enterprises to the government budget, the authorities could be assured of the resources they needed for ambitious programs of economic, military, and political construction.

Yet the volume of the surplus at the enterprise level was also significant because a large surplus was the necessary condition for the creation of a prosperous work unit. Even though the *danwei* was required to turn over virtually all its surplus to the government, the reality was that the *danwei* had at least initial control of a large revenue stream, and the diversion of even a small proportion of that revenue could have a significant impact on the workers' standard of living.⁹ Realistically, enterprises were in a position to skim a portion of revenues and use them to finance improvements in living standards. Moreover, the national government was at worse ambivalent about the diversion of a small part of the enterprise revenue stream. After all, the government had as one of its policy objectives to provide benefits to urban workers, and the enterprises had the money to finance those benefits. "Collective" benefits were seen as being ideologically preferable to individual wage increases. Thus while the government attempted to monitor and control the rate at which enterprises tapped into these large revenue streams, it was by no means hostile to the idea that increased profitability would finance some improvement in workers' living standards. Workers in state industry enjoyed benefits not available to those in other sectors as industry emerged as the "cash cow" of the economic system. These financial relationships provided another of the basic preconditions for the *danwei* system. During these years, the system of social insurance and benefits became universal in state-owned enterprises.

Administrative Simplification

As the Chinese economy recovered from the Great Leap Forward debacle, policymakers once again began to face some choices about economic strategy. After a period during which all available resources had to be devoted to survival and recovery, gradually improving economic conditions began to provide some "surplus" resources by the mid-1960s. Policymakers made some crucial calculations about the allocation of this surplus. How much of the increasing surplus would be devoted to improving living standards? How much would go toward building and consolidating the institutions and bureaucratic apparatus that governed the economy and provided the basis for a developed society. Under pressure from Mao Zedong's increasingly utopian conception of socialism, policymakers basically decided to allocate almost nothing to improving living standards and to institution building. Instead, they opted for political mobilization and the devel-

opment of what we might term "austerity socialism." Under austerity socialism, increased resources were devoted almost entirely to industrial and military development, with the objective of giving Chinese society "survivability" in what was seen as an increasingly hostile world.¹⁰

This decision had important implications for the evolution of Chinese enterprises. First, it led to the creation of new enterprises in remote rural locations in the Chinese interior. These "Third Front" enterprises were created for national defense purposes and were thus located as far as feasible from existing urban infrastructure.¹¹ This remoteness meant that these enterprises had to provide and subsequently manage their own physical infrastructure and social services. Third Front enterprises thus became extreme examples of the *dawwei* even when compared to the Chinese norm, itself extreme by international standards. Third Front enterprises were often literally "small societies," or firms that incorporated within them all the functions of small cities. There was no urban or social context into which these firms could be embedded.

Even for existing urban enterprises, the trend toward austerity socialism implied changes in social organization. A process of administrative simplification detached the worker from reliance on independent bureaucracies that provided alternative sources of support or assistance, and reinforced the worker's dependence on the work unit as such. China's evolution in this respect was again in contrast to that of the Soviet Union. In the Soviet Union after the Stalinist era, there were always competing and overlapping jurisdictions within urban areas. Different functional bureaucracies oversaw and checked one another, even while each carried out specified core functions. In China, by contrast, the enterprise assumed direct control over diverse functions, making external bureaucracies superfluous.

An important example of this difference is the lesser importance of labor unions in China than in the Soviet Union, and in fact the disappearance of labor unions during the time period under consideration here. In the Soviet Union, labor unions have consistently been a significant part of the distribution of power and benefits in the enterprise. Labor unions administered much of the benefit package and served as a vehicle for the expression of certain of the workers' (nonpolitical) interests.¹² Unions were always less important in China than in the other Soviet-type economies. Because the Chinese Communist Party's revolutionary strategy has been based on peasant mobilization since the late 1920s, union organization played little effective role in the Communist political triumph. Although union organizations were set up on the Soviet model immediately after 1949, those organizations lacked influence both within the enterprise and in national politics. Union leaders were on the losing side of two important political campaigns during the 1950s and were further marginalized by the Maoist radicalization of the Great Leap Forward. As Jeanne Wilson put it:

A distinguishing feature of Chinese trade unions is their institutional weakness even in comparison with unions in other communist states. . . . The devel-

opment strategy of the Great Leap, with its stress on voluntarism, mobilization, and the heritage of the party's experience in Yenan. . . . relegated the trade unions to the periphery of the enterprise, patently Soviet-style structure in an increasingly anti-Soviet environment.¹³

During the 1960s, the congenitally weak status of Chinese unions sank even lower. Immediately after the beginning of the Cultural Revolution in January 1967, the All-China Federation of Trade Unions (ACFTU) was formally dissolved, and virtually all enterprise unions ceased to function. The abolition of labor unions inevitably meant that the administration of the benefits and social security system was taken over by the enterprise management itself. Conversely, the absence of labor mobility, already becoming institutionalized, meant that enterprises were in a position to assume responsibility for social services administration without serious problems. Initially, responsibility devolved to the "revolutionary committees" that were the newly constituted enterprise executive organs.¹⁴ Subsequently, as normalized management structures began to re-emerge during the 1970s, enterprise management groups assumed control of social welfare functions. In some enterprises, unions were revived and, in some cases, resumed significant welfare functions. But, even in those cases, welfare administration was delegated to the enterprise union by the enterprise management. No national labor union system existed, and the unions ceased to function as a separate delivery system. Naturally, this meant that there was no longer an option of a worker leaving an individual welfare delivery system. Not surprisingly, these developments substantially reinforced the trend toward the *dawwei* system. No longer did the individual worker retain the option of leaving his enterprise but maintaining his benefit package through his union membership. Benefits, along with housing, for the first time began to tie workers to specific enterprises.

The evolution of the trade unions was only one part of a broader trend toward direct Communist Party management of the enterprise. Although this trend did not receive any formal endorsement, it was inevitable under the intensely politicized Cultural Revolution environment. Gradually party control and direct management of the enterprise coalesced into direct party management. Competing administrative bodies were sidelined during the initial Cultural Revolution struggle for power. Subsequently, the need to restore order in the factories invariably led to the creation of a single political authority, the revolutionary committee. The revolutionary committee in most cases reflected an uneasy compromise among different factions, but it was given the sole direct management authority within the factory. In no case was any kind of pluralism or balancing of functions within the enterprise tried as an approach to restoring normal functioning. As the Communist Party hierarchy gradually resumed functioning, the revolutionary committees were subsumed within that hierarchy. During the 1970s, unified management under the Communist Party (*dangde yiyuanhua*) became a common slogan. The separate hierarchies of government—in this case, economic

administration—and party were progressively united into a single hierarchy. The party secretary was the “boss” (*yiba shou*), who either had the ultimate authority over the factory manager or else took over the factory manager’s job.

These changes simplified the enterprise’s administrative relationships, in the sense that they took previously separate hierarchies or systems and merged them into one. But, conversely, the “simplification” made the authority relationships within that single remaining hierarchy all the more complex, since they now covered a much broader scope. Decisions about production, politics, and welfare were now channeled through a single chain of command. The *danwei* became all-encompassing in part because many types of important decisions were channeled through the *danwei* leadership. In the 1970s, a new form of social control was added to this mix, as compulsory birth control targets were introduced. Factory managers were charged with monitoring reproductive behavior (through their deputies) along with their other responsibilities.

At the same time, these changes in social service delivery form were essentially predicated on the end of job mobility. It would have made little sense to transfer responsibility for these things to enterprises away from society-wide institutions such as labor unions, unless the worker could be depended on to remain with the firm. And they were greatly facilitated by the strong financial position of most firms. These three elements, then, made up the basic economic preconditions for the *danwei* system. By the mid-1960s, all three were in place in China.

Aspects of the Classic Danwei System

It is worth taking a brief snapshot of the operation of the *danwei* system in its classic form. Doing so brings to light three key aspects of that system: the *danwei*’s important role in social service provision; the internal complexity of the *danwei*; and its lack of autonomy.

Social Service Delivery

Overall, state enterprises have played a substantial role in the provision of social services. Only about two-thirds of the industrial SOE work force consists of actual industrial workers, with perhaps one-fifth of their work force devoted to providing services that would not be similarly provided in a capitalist enterprise. (Table 7.1 provides figures on the labor force of industrial SOEs in 1990.) More than 70 percent of state enterprises ran schools of some kind.¹⁵ About 40 percent of all general hospital beds were in the state-owned industrial system. State enterprises constructed most of the new housing in cities and owned a large share of the total housing stock.

While the *danwei* system existed in virtually all SOEs, it was most developed in the large, heavy industrial SOEs. Large firms were more likely to have abun-

Table 7.1
State Industrial Workers and Staff, 1990

	Million	Percent
Total	43.64	100.0
Production workers	28.93	66.3
Apprentices	1.07	2.5
Engineers and Technicians	2.52	5.8
Managerial	4.74	10.8
Service	4.54	10.4
of which:		
Elementary and Middle	0.57	1.3
College	0.04	0.1
Medical	0.47	1.1
Commercial	0.2	0.5
Other	1.84	4.2

Source: *Zhongguo laodong tongji nianjian* [China labor statistics yearbook 1991] (Beijing: Zhongguo laodong chubanshe, 1991), 331, 319.

dant revenues to fund benefits, and they were more likely to enjoy government priority during investment, so that they could provide housing and other facilities to their workers. Although few in number, large firms (*dazhongxing*) play a significant role in Chinese industry. According to the 1985 Industrial Census, which offered the first detailed look at Chinese industry, there were 8,285 of these large firms, of which 7,946 were state-owned. These comprised less than 2 percent of all SOEs, but accounted for 45 percent of state light industrial employment and 64 percent of state heavy industrial employment.¹⁶ Moreover, these factories were highly profitable and relatively efficient by Chinese standards. In fact, large enterprises accounted for almost two-thirds (62.3 percent) of the total profit and tax generated by independent accounting industrial enterprises.

These more than 8,000 large industrial enterprises in 1985 employed 21 percent of the total state system health workers. Similarly they have almost exactly half the hospital beds within the industrial system, or 19.4 percent of the total general hospital beds. The housing owned by just these 8,285 enterprises equals 32 percent of the total housing stock in the 317 largest cities in China.¹⁷ Within the category of large enterprises, heavy industrial enterprises accounted for three-quarters of the workers and staff, and these heavy industrial SOEs also provided substantially greater levels of services to their workers than did light industrial enterprises. Consider the comparisons shown in Table 7.2: Large heavy industrial enterprises tended to be from 80 percent to 400 percent as well endowed with social services as light industrial enterprises. What accounted for this difference? Three factors were important. First,

Table 7.2

	Social Services Provided by Large Industrial Enterprises in 1985	
	Light industry	Heavy industry
Enterprise-owned housing (m ² per worker)	10.4	18.6
Health-care personnel (per 100 workers)	.84	1.80
Hospital beds (per 100 workers)	.37	1.24
Elementary students (per 100 workers)	4.4	16.2
Secondary students (per 100 workers)	2.8	12.2
Vocational and post-secondary (per 100 workers)	1.0	2.9
Children in nursery school (per 100 workers)	7.1	7.2
Library books (per worker)	2.6	3.6
Recreational facilities (m ² per 100 workers)	.26	.45
Workers studying (vocational and post-secondary) (per 100 workers)	2.01	2.62

Source: Industrial Census Leading Group, *Zhonghua renmin gongheguo 1985 nian gongye pucha ziliao* [Materials on the 1985 industrial census of the People's Republic of China] (Beijing: Zhongguo tongji chubanshe, 1987), vol. 1, 202, 608, 624.

heavy industrial enterprises were simply privileged, enjoying higher prestige and receiving higher levels of benefits. Second, 49 percent of the workers in large light industrial enterprises were female, compared to only 28.5 percent in large heavy industrial enterprises. If we suppose that benefits to family members were disproportionately supplied via the father's work unit, the underlying inequality between families may be less than the apparent inequality among work units. In this regard, note that nursery facilities are the only service provided equally to both sectors. Third, more heavy industrial facilities are outside major urban areas, including in remote Third Front areas. These enterprises must bear a disproportionate burden of social services since they must provide virtually all available services, and cannot rely on urban facilities. The picture of the overall *danwei* system is somewhat biased to the extent that it relies on large, heavy industrial work units as the basis for generalization. In fact, these enterprises were considerably better endowed than the average Chinese *danwei*.

Internal Complexity

The fact of permanent employment lay behind the subjective reality of the *danwei*. This subjective reality was that of a dense, sometimes suffocating, network of complex but familiar relations between human beings. Those relations could develop this overgrown lushness only because of their permanence. This reality—taken for granted by most mainland Chinese—is highlighted in the reactions of one mainland cadre after he went to work in Hong Kong in the early 1980s:

I was surprised to discover that nobody paid any attention to my private circumstances. In China, if there's a newcomer in any unit, before long everybody knows his background, history, wage grade, political behavior, whether there are any black marks on his record, what sports he's good at, and with whom he does or doesn't get along. . . . A whole range of matters must go through public evaluation, such as wages, bonuses, designation as a progressive worker, being sent out to study, promotions and punishments, and allocation of housing and other benefits. At a critical moment, just a word in the wrong place can do great harm, so people have to sound out everybody else carefully. Rumors, gossip and nasty remarks are common, too, and this leads to pointless quarrels, making the relationships between people complicated and tense.¹⁸

People have long histories and long memories.

The complexity of work unit relationships also derives from the fact that the *danwei* was the unit for the delivery of a variety of services and also for the exercise of political control. The Chinese industrial enterprise has multiple functions to fulfill. As a result, managers are under enormous time and information pressure. One study of a small sample of Chinese managers found that they worked long hours (on average nine hours and forty minutes per day) and performed many different tasks. Among these tasks, those related to the welfare functions of the enterprise were particularly demanding.¹⁹ Particularly striking is the comparison between the 26 percent of time spent on personnel and welfare, compared to only 4 percent of time spent on supply and marketing.

Lack of Autonomy

One aspect of this is that although we stress the cellular nature of the *danwei*, it is important to recognize that that cell is embedded in the social body and not an autonomous cell. It has *insularity without autonomy*. Alternatively stated, although the *danwei* may appear to be nearly self-sufficient in terms of the provision of goods and services to its members, it is far from autonomous, even with respect to its own organization. This lack of autonomy is perhaps most striking with respect to political control—a large topic that is discussed below. But the enterprise's inability to shape its own organizational form also extends to various functional departments. In general, the enterprise is required to have an internal department that corresponds to each of the bureaucratic organizations with which the firm must deal. Thus the *danwei* typically was required to have a measurement division, a testing office, an energy section, an equipment management division, a safety section, and a quality section, as well as larger and more fundamental divisions such as finance and accounting, purchasing and sales, and labor.²⁰ While it is probably essential that any enterprise have personnel who carry out these functions, the point here is that they must be organized in a

certain way that is dictated by outside organizations: They must be *dukou* (common pathle).

Chinese enterprises resemble branch plants rather than corporations. They have a relatively uniform organizational structure and a restricted product line. This monotonous character is due, on the one hand, to the multiple superior bodies with which the enterprise must coordinate its activities and, on the other hand, to the continuing principle of territorial monopoly over production. The first of these features was well described by Boisot and Xing:

The organizational structure of the typical firm is standardized to meet external requirements and cannot be easily modified. It is designed to match the organizational structure of the supervising agencies. . . . which seek direct control of organizational departments putatively reporting to the director.²¹

Therefore, the typical firm has a finance department that coordinates with the Ministry of Finance, a planning department that coordinates with the State Planning Commission, and so on. This organizational straitjacket has been greatly resented by managers, even those who are not very entrepreneurially oriented. A 1986 survey conducted of 170 managers of large and medium-size factories in Liaoning revealed that the greatest source of discontent was the lack of authority managers had over wages and personnel and over the organizational structure of their enterprises. Managers believed that they were effectively compelled to replicate within their enterprise every organizational division existing in hierarchical bodies.²²

This general lack of organizational autonomy was especially pronounced in areas relating directly to political control. The enterprise was permeated by political organizations that owed ultimate allegiance to distant masters. Most sizable firms have a public security office within the firm. (It is a subordinate agency of the local public security bureau, or a *paichu jigou*.) But the most important is the Communist Party. The party has significant influence over the *danwei*. Typically, the party committee had under it four offices: the party secretary's office, the organization department, the propaganda department, and the discipline inspection department.

The Ironic Strengthening of the *Danwei* in the 1980s

Economic reforms began after 1978 were ultimately to transform every aspect of the Chinese economy, including the *danwei* system. But, ironically, the initial effects of reform often strengthened the *danwei* system. Reforms began tentatively, and without a clear strategy or blueprint. It was inconceivable, under these circumstances, that the fundamental institutions underpinning the *danwei* system would be transformed in the early stages of reform—no serious attempt to create labor markets or transform social security systems could be anticipated at this phase. But early re-

forms did significantly increase the volume of resources under the control of the enterprise. Decentralization and increased autonomy to the enterprise implied expanded resources for the enterprise. In the short run, increases in enterprise resources naturally increased the importance of *danwei* relations with urban workers. This is evident in two areas.

Early economic reforms unfolded in an environment of intense pressure on employment. Large groups of young people were entering the labor market just as millions of "sent down" urban youth were returning from the countryside.²³ In order to provide employment for young people, older workers for the first time were encouraged to retire (previously retirement had been discouraged on the grounds that everyone should contribute his all to national construction). During the two years 1979-80, 6 percent of state workers retired. In subsequent years, more than 1.5 percent of state workers retired annually. This change had two consequences. First, the number of retired workers and outlays from pension funds grew rapidly. From 3 million in 1978, the number of retirees soared to 15 million in 1984, and then grew steadily to 29 million by 1994. Enterprise outlays climbed in tandem with the number of retirees. Second, many of the retirees were replaced by their own children. Under special provisions in force through 1982, older workers were able to retire in favor of their own children, even before the official age of retirement. The attachment of workers to the *danwei* went from being permanent to being perpetual, as the link now crossed generations.²⁴

As reforms broadened and deepened, enterprises were allowed to retain progressively larger shares of the surplus they generated. The primary objective was to provide enterprises with incentives to cut costs and improve productivity. At the same time, the abandonment of austerity socialism meant that enterprises were increasingly encouraged to use these funds to upgrade workers' living standards. One result has been a huge boom in housing construction, financed primarily by enterprise funds. Between 1978 and 1994, the per-capita living space of urban residents in China more than doubled, increasing from 3.6 square meters to 7.8 square meters.²⁵ Most of this was financed by enterprises, and the share of enterprise-owned housing in total urban housing has grown sharply. Although not all this housing was constructed on the grounds of existing enterprises, there seems little doubt that more workers than ever lived in the physical compound of the enterprise in which they worked. More enterprises than before set up subsidiary retailing operations, often "collectives," in order to provide employment for children of existing workers. Workers were tied more closely to their *danwei* and probably lived in even closer proximity. Relaxation of economic controls in a situation where the enterprise had substantial resources inevitably strengthened the tie between enterprise and worker and thus indirectly the whole *danwei* system.

New Pressures Reshaping the Enterprise

Despite the trends toward providing enterprises with more resources and more autonomy in the use of those resources, the most fundamental forces unleashed

by the reform process have begun steadily to push the enterprise away from the *danwei* model.

Steadily Increasing Labor Mobility

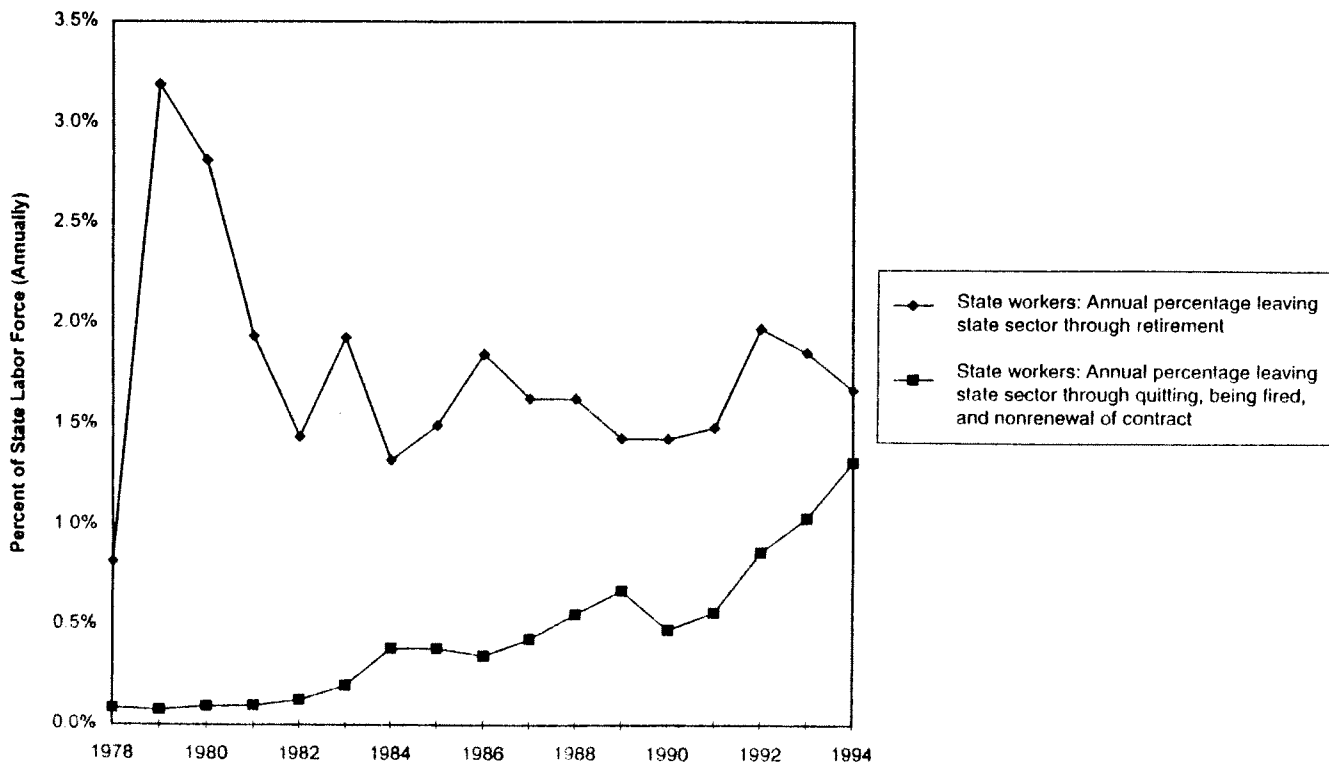
Although still low, labor mobility has been creeping up steadily in China throughout the reform period and has become significant during the 1990s. Some of this is the direct result of institutional reforms. Since 1986, new workers have been hired on the basis of five-year contracts, and the evidence is now substantial that those workers are more likely to quit (or be fired) when their contracts expire than are old-style permanent workers. By the end of 1993, contract workers reached one-third of all workers in manufacturing.²⁶ The 1995 Labor Law decreed that all long-term workers should become contract workers by the end of 1996. Moreover, permanent workers are now considerably more likely than in the past to resign or be fired. Anecdotal evidence suggests that the number of state workers "taking the plunge" into the private sector (*xia hai*) increased substantially during the early 1990's economic boom.

Available statistics reflect these changes, albeit imperfectly. Figure 7.1 displays available information on workers leaving the state sector. The measure shown aggregates workers quitting or being fired, who did not renew their employment contract. This measure, which was only 0.06 percent in 1978 (six-hundredths of one percent) has been increasing steadily since 1983 and reached 1.3 percent of the relevant labor force in 1994.²⁷ This measure clearly shows the magnitude of the changes in the Chinese labor market. Changing jobs is now at least fifteen or twenty times more frequent than it was in 1978. Yet the measure is imperfect and certainly understates the total amount of job mobility in the early 1990s. First, it does not show how many workers changed jobs between enterprises within the state sector, which by most indications is a fairly large number, probably larger than the number leaving the state sector. Moreover, the data for 1993 include a large "other" category of workers leaving the state sector, representing 1.8 percent of total employees. Some of these factors probably explain an alternative labor mobility figure for 1993 given by the State Statistical Bureau (without explanation). It reports that worker mobility in 1993, explicitly including movements between state-owned units, reached 3.2 percent of the state-employed labor force.²⁸ A mobility rate of this order of magnitude is still well below that of the relatively restless workers of Russia and the United States, but probably not too far behind that of Japan.

Competitive Pressures

The dominant process driving Chinese economic reforms forward has been the creation of competitive pressures by the entry of new producers.²⁹ Initially created by the growth of township and village enterprises and locally run SOEs,

Figure 7.1 Labor Turnover in State-Owned Units



Source: See note 27.

competition in the 1990s has increasingly been fostered by private and foreign-invested firms. Competition has eroded the comfortable profit margin that SOEs enjoyed and created serious challenges to the management of state firms.

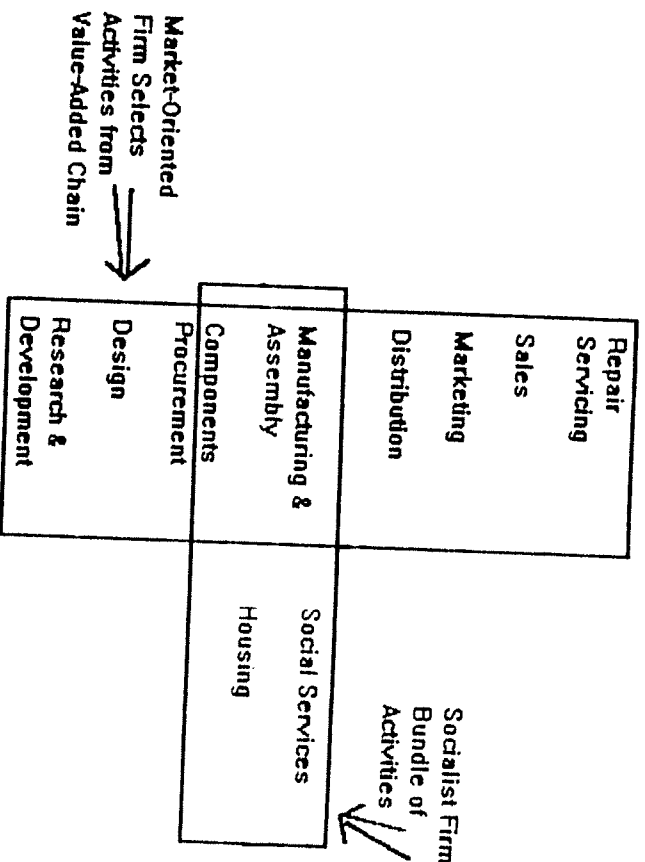
Consider first the erosion of profits. We saw above that from the mid-1960s through the end of the 1970s, state industrial workers produced a total "surplus" (profit and tax) equal to four times their total wage. By contrast, in 1993, state-owned industry produced a total profit and tax of 245.5 billion yuan, of which a significant share was retained by the enterprises. Even leaving aside the enterprise retention, each worker was producing a potential "surplus"—most of which was still going to the state—of 5,455 yuan. But by comparison the annual manufacturing worker wage in that year was 3,562 yuan.³⁰ The workers' "surplus" had declined, on average, to one and a half times the annual wage. Thus, SOEs simply no longer have the luxury of disposing of substantial surpluses that can be diverted into funding the institutional peculiarities of the *danwei*.

More generally, SOEs face an imperative created by competition: to restructure their activities. In the simplest terms, restructuring means that state firms need to increase efficiency, producing more and better output for a given input of capital and labor. But restructuring actually refers to a much more complex task: SOEs need to reallocate resources within the *danwei* so that they are more effective in responding to market demands. In order to do this, enterprises need to do not only what they have already been doing more efficiently; they need to learn to do different things. The classic *danwei* bundled together production tasks and worker welfare delivery. The contemporary SOE, in order to respond to competition, needs to add a range of activities to its existing repertoire.

One way to look at this is to adapt a paradigm from the business literature, that of the "Value-Added Chain" (see Figure 7.2).³¹ This chain comprises the total sequence of activities that create value in the overall production and sales process. It stretches from research and development and product design, through procurement and sourcing, production, marketing and sales, and ends with post-sales service and repair. Any of these activities are potentially productive and profitable: Different firms take up different positions on the value-added chain, depending on the overall business strategy that they pursue. Only the largest firms—a General Motors, for instance—find it reasonable to perform nearly all the activities in the value-added chain themselves, and even they rely on subcontractors for important parts of the production process. Most firms specialize in one or more links on the value-added chain. Companies such as Nike and Apple Computers do very little actual production. Instead, they specialize in research and design, at one end, and distribution and marketing at the other end. Most actual manufacturing is contracted out to other firms, often in Asia. In a market economy, competitive advantage is obtained by specializing in certain areas, while relying on the market to buy goods or services when lower-cost providers are available.

These relationships are applicable not only to consumer goods firms, which

Figure 7.2 Value-Added Chain



produce diversified products for often-fickle markets. They apply, albeit in somewhat altered form, to the large heavy industrial plants at the heart of the *danwei* system. Consider this account of the development of the American industrial corporation:

The cost advantage of larger plants cannot be fully realized unless a constant flow of materials through the plant or factory is maintained to assure effective capacity utilization. . . . In the capital-intensive industries the throughput needed to maintain minimum efficient scale requires not only careful coordination of flow and the flow of outputs to the retailers and final consumers. Such coordination cannot happen automatically. It demands the constant attention of a managerial team, or hierarchy. Thus, scale is not only a technological characteristic. The economies of scale, measured by throughput, require organizational input. Such economies depend on knowledge, skills, and teamwork—on the human organization essential to exploit the potential of technological processes.³²

In Chandler's account, the need for coordination of inputs, production, and distribution within the firm is the fundamental cause of the rise of the large industrial firm in the United States. Socialist economies have giant firms, of course, and managerial teams as well, but those managers are not accustomed to integrating distribution and production into a single business strategy.

Indeed, in relation to the value-added chain, traditional SOEs are overwhelmingly concentrated on the manufacturing activities in the middle of the chain. The supply and marketing functions traditionally have not been performed by the producing enterprise. Those functions were reserved to planners (drawing up material balance plans) and to specialized commerce and material supply organizations (for consumer and producer goods, respectively). Industrial firms use allocated inputs and sell output to a predesignated purchaser. Thus, firms typically had little or no knowledge of market conditions and little experience developing marketing strategies. Instead, SOEs are predominantly "horizontal" organizations (see Figure 7.2). After production, their next most important activities are likely to be the provision of education, housing, or health care. SOEs were units for the delivery of social services as well as the "cells" of political organization. Their fundamental form is poorly suited to the demands of a market economy.

SOEs need to shed some of these auxiliary activities, but without thereby totally alienating the work forces that depend on them. But that is not enough since they would still be left helpless amputees. They need to learn new activities: grow new limbs, as it were. Perhaps, most important, they need to grow a cerebral cortex, a center of higher intelligence that will create a strategy for the organization as a whole.³³ That is, firms need to develop corporate headquarters that can strategically position the firm where it wants to be and oversee the development of new functions.

These firms need to remake themselves. The task is challenging, time-consuming, complex, and costly, and it causes conflict. One of the remarkable things about the Chinese experience in the 1980s was the finding that government-imposed incentive systems could push managers to adapt to market conditions. Sufficient restructuring of the managerial incentive system in China meant that managers had a certain minimal interest in the performance of their firms. Managerial compensation can be shown to be clearly related to firm profit and sales.³⁴ Under those circumstances, managers arguably have some incentives to restructure firms, provided that they are allowed to do so by bureaucratic superiors.

New Institutions Are Available to Shoulder Some of the Burden

The reform process has been accompanied by a gradual, indeed painfully slow, process of creating new institutions that will relieve the *danwei* of some of the burdens of providing social services. One of the essential milestones in this process was the adoption of the factory manager responsibility system, whose implementation began in 1984. Factory manager responsibility made the manager the top authority in the factory, concentrating power in his hands, and placing the party secretary in a secondary, although still potentially important, role. Gradually, the party secretary's power began to diminish and that of the manager began to increase. The secretary still had influence, but increasingly the

institutionalized, routinized vehicles through which the secretary exerted influence over the enterprise were restricted. Many factories amalgamated the former four party offices into a single party office, or eliminated it, amalgamating it into the manager's office.

Authority over pensions has been gradually separated from the enterprise management. Enterprises were required to begin contributing a portion of the wage bill to a provincial pension fund. In practice, many enterprises (especially wealthy ones) clung to the old ways by first paying their own retirees, and then depositing any additional funds with the provincial authority up to the total amount of the pension fund set-aside required by law. Both enterprises and retirees preferred to maintain the direct link between the enterprise and its pensioners. In spite of this interesting peculiarity, the pension system spread steadily from the late 1980s, and by 1994, more than 95 percent of SOE workers participated in pension fund arrangements. Indeed, the pension funds had accumulated more than 20 billion yuan in reserves, held mostly in treasury bonds.³⁵ The institutionalization of this process accelerated with the passage of the 1995 Labor Law. That law endorsed a general model for reforming the financial relationship between enterprises and workers' social welfare funds. The law calls for the adoption of five different funds to be managed by local governments rather than enterprises: pension, unemployment compensation, accident and disability, maternity, and medical insurance. Of these, pension funds are now almost universal, while medical insurance funds exist in only a few localities. Unemployment and disability funds, followed by maternity funds, are widespread, but still short of universal.³⁶

Similar efforts have been made with respect to housing reform. Housing rent is being raised; some enterprise housing is being sold off, and individuals are being encouraged to invest in their own housing. Although a start has been made, there is universal agreement that housing reforms have not yet begun to succeed and have not changed the fundamental state of affairs under which most urban housing is controlled by *danwei* of various kinds.

Limitations and Future Prospects

The process under which economic conditions are changing is already quite advanced. If the process relied solely on the creation of alternative institutions to relieve the *danwei* of some of its burdens, it would be difficult to be optimistic. But in fact the process of change, as is so often the case in China, is being pushed forward by multiple factors. Workers are increasingly ready to change jobs, and so they create a partial constituency for greater "portability" of benefits and relaxed *danwei* control. Enterprises are struggling to survive, and so they seek ways to relieve themselves of different kinds of burdens and remake their internal institutions. The government seeks to accommodate these demands by creating new institutions. The process of institutional creation lags behind the need.

yet it continues to be pulled forward precisely by the magnitude of those needs. The most powerful, most fundamental, and most long-lasting forces are those that undermine the *danwei* system and push the system toward greater marketization.

At the same time, for many reasons it would be naive to think that progress will be quick or linear. First, again ironically, in the current reform environment, it is precisely the large state firms that have survived. Small-scale state firms have practically disappeared, outcompeted by rural collectives and private firms. However, the larger state firms, particularly in heavy industry, have survived, protected by government regulations and the importance of economies of scale. That is, it is precisely in those firms where the institution of the *danwei* was most highly developed that change has been the smallest. Among state firms, the *danwei* institutions are still quite prominent.

Indeed, we should expect that successful SOEs will hold onto as much of the apparatus of social service provision as they can. In part, this is because there will be increasing competition for good employees, and some of this competition will take the form of benefit provision. In part, this is because successful firms will continue to control large revenue streams, most of which they are supposed to give up to the government. Naturally, they will continue to divert as much as possible to their own benefit. Moreover, the comparison with Japan (and even with the United States) shows that there are good reasons to the workers with special skills to enterprises for long periods. Firm-specific skills can be fostered by continuous investment in workers, and it should be made advantageous to those workers to remain with the firm that invested in them. Precisely those large, capital-intensive and technologically sophisticated firms where the *danwei* system was most developed before reform are those most likely to exhibit these conditions. Some, at least, of these firms will retain *danwei*-like institutions in the competitive market economy because they find them consistent with their competitive advantage.

Second, progress in dismantling the *danwei* system is hindered by ambivalence about giving up political control. After the June 4, 1989 Tiananmen incident, central leaders tried to re-establish party organs in the enterprise. Document no. 9 of 1990, published by the Central Organization Department, decreed certain standards of party representation in the enterprise: the party offices were not to be eliminated or amalgamated with administrative organs; specific quotas for personnel devoted to party tasks were re-established, including a directive that at least 1 percent of total personnel should be in full-time party work (not including the union and the Communist Youth League).³⁷ There should be both a "center"—the factory manager—and a "core"—the party committee—in each factory. We can see in such attempts a last-ditch attempt to restore some of the functions of the old *danwei* system. By struggling to retain the *danwei* as an instrument of political control, China's current leaders reveal their anxiety about the more open, fluid society that is emerging in the country.

Third, China's continuing administrative weakness will retard attempts to

dispense with the *danwei* altogether. This is particularly evident in the implementation of the pension system. Expert advice is in complete agreement that pension programs should be instituted at the national level, with uniform provisions nationwide. As an insurance program, and a key element of social equity, social security ought to be a national policy. China has, however, implemented a social security system in local areas first and intends to build up to a nationally united system gradually. This choice probably reflects a realistic assessment of the national government's administrative capabilities. But it also creates a difficult and paradoxical situation. Local implementation has the benefit that local experimentation can help determine the best form for the emerging social security system. At the same time, local experimentation also means that social security programs are not uniform. Thus pension benefits are still not portable across provincial (or sometimes municipal) boundaries. Perhaps more crucially, as funds accumulate in pension funds, struggles break out to control those funds. Local governments that implement unified pension funds covering state, collective, and foreign-owned enterprises must establish new, locally controlled bodies to manage those funds. This is to the advantage of the local government, and the existence of such a fund then gives the local government an incentive to resist national unification and regularization of the pension system.³⁸ Under these circumstances, over the next several years the *danwei* will continue to be significant, albeit less so.

Notes

1. The number of workers in state-owned and urban collective units jumped from 16 million in 1952 to 31 million in 1957. Of the 31 million urban workers in 1957, only 11.5 million were covered by labor insurance programs. See John Dixon, *The Chinese Welfare System, 1949-1979* (New York: Praeger, 1981), 38; *Zhongguo tongji nianjian* [China statistical yearbook 1995] (Beijing: Zhongguo tongji chubanshe, 1995), 84.

2. Sulamith Potter and Jack M. Potter, "A Caste-like System of Social Stratification: The Position of Peasants in Modern China's Social Order," chapter 15 of *China's Peasants: The Anthropology of a Revolution* (New York: Cambridge University Press, 1990); Harry Xiaoying Wu, "Rural to Urban Migration in the People's Republic of China," *China Quarterly*, no. 139 (September 1994): 669-98; Cheng Tiejun and Mark Selden, "The Origins and Social Consequences of China's *Hukou* System," *China Quarterly*, no. 139 (September 1994): 644-68.

3. Yanjie Bian, "Guanxi and the Allocation of Urban Jobs in China," *China Quarterly*, no. 140 (December 1994): 973; David Granick, "The Industrial Environment in China and the CMEA Countries," in *China's Industrial Reform*, ed. Gene Tidrick and Chen Jiyuan (New York: Oxford University Press, 1987), 109. By contrast, only college graduates were routinely assigned work in the Soviet Union.

4. The numbers, which will be further discussed below, are an incomplete measure of labor mobility because they do not cover workers changing jobs within the state sector, either through voluntary choice or job reassignment. *Zhongguo laodong tongji nianjian 1993* [Yearbook of labor statistics of China] (Beijing: Zhongguo laodong tongji chubanshe, 1993), 318. The categories of *tuzhi* and *tingzhi* (resign or discharge and suspension,

respectively) were almost as important as those who quit or were fired in 1978, with 31,000. However, these categories imply administrative action, rather than voluntary worker or management choice. The measure reported here covers all state workers (including administrative and nonprofit workers). State enterprise employees have slightly more job mobility than do state workers as a whole.

5. Granick, "The Industrial Environment," 110.

6. See Kazuo Koike, "Human Resource Development and Labor-Management Relations," in *The Political Economy of Japan. Volume 1: The Domestic Transformation*, ed. Kozo Yamamura and Yasukichi Yasuba (Stanford: Stanford University Press, 1987).

7. *Ibid.*, 296.

8. State Statistical Bureau, *Zhongguo laodong gongzi tongji ziliao 1978-1985* [China labor and wages statistical materials] (Beijing: Zhongguo tongji chubanshe, 1987), 40-41, 153; State Statistical Bureau, *Zhongguo gongye jingji tongji nianjian 1988* [China industrial economic statistics yearbook] (Beijing: Zhongguo tongji chubanshe), 1988, 48. Note that the measure of wage used here includes all monetary payments to the worker, thus including bonuses and subsidies.

9. To this day, there is a substantial distinction between a wealthy enterprise and an impoverished enterprise. Even if wage standards are identical between the two, conditions are far better for the worker in the wealthy enterprise because of the access to facilities and fringe benefits that a wealthy enterprise can provide. The argument here is by the mid-1960s the average industrial enterprise had achieved at least middle-income status.

10. Barry Naughton, "Industrial Policy During the Cultural Revolution: Military Preparation, Decentralization, and Leaps Forward," in *New Perspectives on the Cultural Revolution*, ed. William Joseph, Christine Wong, and David Zweig (Cambridge: Harvard University Press, 1991).

11. *Ibid.*, and *idem.*, "The Third Front: Defense Industrialization in the Chinese Interior," *China Quarterly*, no. 115 (September 1988).

12. On labor unions in the Soviet Union and other Soviet-style economies, especially their involvement in social insurance administration and social benefits delivery, see Emily Clark Brown, *Soviet Trade Unions and Labor Relations* (Cambridge: Harvard University Press, 1966), especially 125-28 and 163-68; Blair Ruble, *Soviet Trade Unions: Their Development in the 1970s* (Cambridge: Cambridge University Press, 1981); and Alex Pravda and Blair Ruble, eds., *Trade Unions in Communist States* (Boston: Allen and Unwin, 1986).

13. Jeanne L. Wilson, "The People's Republic of China," in *Trade Unions in Communist States*, ed. Alex Pravda and Blair Ruble (Boston: Allen and Unwin, 1986), 219, 223.

14. John Dixon, *The Chinese Welfare System, 1949-1979* (New York: Praeger, 1981), 121-31, 153-54; Lee Lai To, *Trade Unions in China 1949 to the Present: The Organization and Leadership of the All-China Federation of Trade Unions* (Singapore: Singapore University Press, 1986).

15. State Economic Commission, *Guanghui de chengji* [Glorious accomplishment] (Beijing: Renmin chubanshe, 1985), 16.

16. Industrial Census Leadership Small State Council Group, *Zhonghua renmin gongheguo 1985 nian gongye pucha ziliao* [Industrial census materials of the PRC] (Beijing: Zhongguo tongji chubanshe, 1987), vol. 1, 204, 608, 624.

17. *Zhongguo shehui tongji ziliao* [Social statistical materials] 1987 (Beijing: Zhongguo tongji chubanshe, 1987), 91. Not all these enterprises are in large cities.

18. Ding Yang, "A Mainland Cadre's Impressions of Hong Kong after Three Months," *Zheng ming*, no. 3 (1983): 77.

19. Max Boisot, and Xing Guoliang, "The Nature of Managerial Work—Chinese Style" (paper presented at the International Conference on Management in China Today,

Leuven, Belgium, June 19-21, 1988). A similar picture of the daily activities of an industrial manager emerges in the fictional portrayals of Jiang Zilong. See Jiang Zilong, *All the Colors of the Rainbow* (Beijing: Panda, 1985).

20. A Chengdu firm interviewed in 1990 had attempted to consolidate their measurement and testing sections, but had not been permitted to do so (Interview file 90C57).

21. Boisot and Xing, "The Nature of Managerial Work."

22. These opinions were the more remarkable in that this group of managers did not generally favor enhanced autonomy for the enterprise. The vast majority of managers thought that prices should continue to be controlled or allowed to float within narrow margins; only 22 percent wanted a smaller production plan, and 29 percent wanted the right to independently sell a greater proportion of output (Liaoning Statistical Bureau, "The Opinions of Managers of Large and Medium-Size Enterprises on Several Problems of Reform," *Tongji*, no. 3 [1987]: 32-33). Thirty-three percent of respondents thought that the plan was about right, and 37 percent wanted a larger plan; 26 percent thought that independent sales were about right, and 39 percent wanted a smaller sales responsibility.

23. During the Cultural Revolution, urban youths were sent to the countryside to be "re-educated by peasants." After some years, these resettled youths began to return to the cities in the late 1970s. By the mid-1980s, most of them had left the countryside.

24. The cross-generational link was implicitly there before the large-scale retirements of the late 1970s, since the provisions for replacement already existed. However, they did not become real until a significant number of workers actually retired.

25. According to household surveys (*Zhongguo tongji nianjian 1995* [China statistical yearbook] [Beijing: Zhongguo tongji chubanshe, 1995], 257).

26. *Zhongguo tongji nianjian 1994* [China statistical yearbook] (Beijing: Zhongguo tongji chubanshe, 1994), 100. See also Deborah Davis, "Job Mobility in Post-Mao Cities: Increases on the Margin," *China Quarterly*, no. 132 (December 1992): 1062-85.

27. *Zhongguo laodong gongzi tongji ziliao 1978-1987* [China labor and wage statistical materials] (Beijing: Zhongguo tongji chubanshe, 1988), 40, 67; *Zhongguo laodong tongji nianjian 1990* [Yearbook of labor statistics of China] (Beijing: Zhongguo laodong chubanshe), 79, 88-90, 204, 217; 1991: 295-96; 1992: 331-32; 1993: 301, 318; 1994: 352-53; 1995: 400. Tom Rawski generously lent me some of these yearbooks.

28. State Statistical Bureau, "Woguo juyue jiegou de zhidu bianhua" [Ten major changes in China's employment structure] (Beijing: mimeo, October 1994). Unfortunately, the report does not provide sufficient detail for us to understand exactly what definitions have been used to compute the mobility rate. Nonetheless, it is consistent with the figures cited above. The report is described in Lu Hongyong, "Booming Economy Reshapes Labor," *China Daily—Business Week*, October 23-29, 1994. The Statistical Bureau also reports that mobility rates are 6.3 percent in "other ownership" (predominantly foreign-invested) firms, and 20 percent in private and individual firms.

29. Barry Naughton, *Growing Out of the Plan: Chinese Economic Reform, 1978-1993* (New York: Cambridge University Press, 1995).

30. *1994 Statistical Yearbook of China* (Beijing: Zhongguo tongji chubanshe, 1994), 126, 374, 381.

31. Bruce Kogut, "Designing Global Strategies: Comparative and Competitive Value-Added Chains," *Sloan Management Review* (summer 1985): 15-28; (fall 1985): 27-28.

32. Alfred D. Chandler, Jr., "The Emergence of Managerial Capitalism" in *The Coming of Managerial Capitalism*, ed. Chandler and Richard Tedlow (Homewood, Illinois: Irwin, 1985).

33. Ryutaro Komiya, "Japanese Firms, Chinese Firms: Problems for Economic Reform in China," *Journal of Japanese and International Economies* 1 (1987): 31-61, 229-47.

34. Theodore Groves, Hong Yongmiao, John McMillan, and Barry Naughton, "Au-

tonomy and Incentives in Chinese State Enterprises," *Quarterly Journal of Economics* 109, no. 1 (February 1994); idem., "China's Evolving Managerial Labor Market," *Journal of Political Economy* 103, no. 4 (August 1995): 873-82; Gary Jefferson, and Thomas Rawski, "Enterprise Reform in Chinese Industry," *Journal of Economic Perspectives* 8, no. 2 (spring 1994): 47-70.

35. Lu Hongyong, "Workers Funding Pension Reserve," *China Daily—Business Week*, October 23-29, 1994. Unfortunately, treasury bonds paid interest at rates below the rate of inflation, so these pension reserves were declining in value. Small wonder that enterprises preferred to pay funds to their workers directly.

36. Anne Stevenson-Yang, "Re-vamping the Welfare State: China Aims to Weaken the Link Between Employers and Benefits," *China Business Review* (January-February 1996): 8-17.

37. Interview file 90C71.

38. Jean-François Huchet, "Retraites et transition en Chine: vers l'établissement d'un système national de protection sociale?" (Tokyo: Maison Franco-Japonaise, 1996).