



Local Governments as Industrial Firms: An Organizational Analysis of China's Transitional Economy

Andrew G. Walder

The American Journal of Sociology, Vol. 101, No. 2. (Sep., 1995), pp. 263-301.

Stable URL:

<http://links.jstor.org/sici?sici=0002-9602%28199509%29101%3A2%3C263%3ALGAIFA%3E2.0.CO%3B2-Y>

The American Journal of Sociology is currently published by The University of Chicago Press.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/ucpress.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

The JSTOR Archive is a trusted digital repository providing for long-term preservation and access to leading academic journals and scholarly literature from around the world. The Archive is supported by libraries, scholarly societies, publishers, and foundations. It is an initiative of JSTOR, a not-for-profit organization with a mission to help the scholarly community take advantage of advances in technology. For more information regarding JSTOR, please contact support@jstor.org.

Local Governments as Industrial Firms: An Organizational Analysis of China's Transitional Economy¹

Andrew G. Walder
Harvard University

Despite widespread skepticism about government ownership in transitional economies, China's rapid industrial growth has been led by public enterprises. Kornai's theory of soft budget constraints, born of the failure of earlier Hungarian reforms, fosters such skepticism—but it assumes as fixed organizational characteristics that in fact vary widely across government jurisdictions. Local governments with smaller industrial bases have clearer financial incentives and constraints, fewer nonfinancial interests in enterprises, and a greater capacity to monitor them. In China's vast public sector, the fastest growth in output and productivity has occurred where government ownership rights are clearest and most easily enforced, which enables officials to manage public industry as a diversified market-oriented firm.

Some economists and international agencies have asserted that privatization and a rapid shift to markets are the only sure path for the transition away from central planning in Eastern Europe (Blanchard et al. 1991; Peck and Richardson 1991; Sachs 1992, 1993). This assertion has been questioned by sociologists and economists who have subjected proposals for monetary stabilization and rapid privatization to searching critical scrutiny (Stark 1990, 1992, 1996; Murrell 1991; Poznanski 1993; Comisso

¹ Work on this article began with support from NSF grant BNS-8700864 while I was a fellow at the Center for Advanced Study in the Behavioral Sciences (1990–91). Research in China was supported by grants in 1986 and 1988 from the Committee on Scholarly Communication with China, National Academy of Sciences. Valuable comments on earlier versions were provided by Michael Burawoy, Ed Campos, Donald Clarke, Gary Jefferson, János Kornai, Jean C. Oi, Louis Putterman, Yingyi Qian, Thomas Rawski, Bruce Reynolds, Ákos Róna-tas, Andrei Shleifer, David Stark, *AJS* reviewers, and audiences at the University of California—Berkeley, the University of California—Davis, Cornell, Harvard, Northwestern, the School of Oriental and African Studies (London), and the University of Western Ontario. Address correspondence to Andrew G. Walder, Department of Sociology, William James Hall 480, Harvard University, Cambridge, Massachusetts 02138.

1991; Stiglitz 1994). The recent record of China is directly relevant to these disputes, for it has become one of the world's most rapidly growing economies despite violating the advice contained in plans for rapid stabilization and privatization. China's transition to the market has been gradual and partial, with extensive government intervention in and domination of key product markets; privatization of existing public firms has been largely absent. Nonetheless, China's industry has grown at an annual rate of 13% for more than a decade, with the most rapid growth—well in excess of 20% annually—in a dynamic new sector of public enterprises owned by county, township, and village governments (Jefferson and Rawski 1994; Jefferson, Rawski, and Zheng 1992).

The seemingly anomalous performance of Chinese industry is the subject of intense recent interest among economists (Jefferson and Rawski 1994; McKinnon 1992; Qian and Xu 1993; Rawski 1994*a*, 1994*b*; Sachs and Woo 1994), political scientists (Cui 1994; Oi 1992, 1996), and sociologists (Nee 1992; Peng 1992; Walder 1994*a*), and three broad explanations have emerged to account for this phenomenon. The first is that the rural public sector is a *different ownership form* than the state enterprises that dominate the economies of large cities. Some authors have begun to refer to the large collective sector (small public firms of cities and rural jurisdictions) and the small private sector as a single "nonstate sector" different from the state firms said to be under central planning and state ownership (Sachs and Woo 1994; Sachs 1993, pp. 81–82). Because the smaller rural firms are seen to face stiff market competition, they are sometimes referred to as substantially private or "semiprivate" (Peng 1992), or are analyzed explicitly as a transitional phenomenon—a mixed or hybrid organizational form somewhere between state and private ownership (Nee 1992). Furthermore, what appears formally on the surface as public ownership sometimes conceals considerable informal, or hidden, privatization (Liu 1992; Nee and Su 1993). This explanation for China's industrial dynamism hinges on the intriguing argument that a growing proportion of industry, especially the rural public sector, is a mixed organizational form midway along an evolutionary continuum from state to private ownership.

A second explanation emphasizes the spread of market mechanisms that create *incentives for firms*. One version of this view is that *gradual* reform (as opposed to a rapid, "big bang" approach) has worked in China because of the steady increase in the exposure of firms to market competition. Work in this genre documents the emergence of competitive product markets, the rise of competition between older urban state firms and newer rural public firms, and the gradual increase in competition for inputs and capital (Byrd 1991; Naughton 1992*b*, 1995; Jefferson and Rawski 1994). It emphasizes that a gradually reforming economy can

steadily shift incentives for managers in state enterprises to resemble those in private enterprises. Privatization, and by implication property rights, may therefore not be as important as the conventional wisdom asserts (Rawski 1994a, 1994b; Jefferson and Rawski 1994). A second variety of this explanation is that the most dynamic industrial growth occurs in areas in which the transition to a market economy is closer to completion. The rural industrial sector is therefore more dynamic than the urban industrial sector because its firms are exposed more fully to market institutions and market competition (Nee 1992; Peng 1992). Both varieties of this view emphasize the development of market competition facing *firms*.

A third explanation emphasizes the changing incentives that bear upon the *incentives for government officials*. Research in this vein focuses on the incentives provided local officials by China's reformed tax system, which makes governments residual claimants in the flow of tax revenues upward in the government hierarchy. The intensity of local interests in revenue generation, especially in less industrialized regions, and the relatively hard budget constraints facing rural government jurisdictions, are said to explain the entrepreneurial behavior that was observed among rural officials so often in the 1980s (Byrd and Gelb 1990; Oi 1990, 1992, 1996; Wong 1988, 1992).

While all three explanations offer valid observations about the changing incentives and constraints facing enterprises and governments, none of them addresses explicitly the relationship between government and enterprise seen rightly as the Achilles' heel of earlier attempts at partial reform in Hungary. Kornai's (1980, 1990b, 1992) influential analyses found the failure of past market reform not in the lack of financial incentives for either firms or governments, but in the *relationships* among them, specifically in the unavoidable bilateral monopoly that leads to a regime of bargaining, which in turn softens budget constraints and weakens financial performance (see also Naughton 1992a; Walder 1986b, 1992a; Wong 1986a).

Kornai's institutional theory presents us with a puzzle: Why has not bilateral monopoly and bargaining between government and industry served to soften budget constraints and undermine the reform of public industry in China as it did earlier in Hungary? The key to solving this puzzle is the observation that Kornai's analyses treat as fixed key organizational characteristics that in fact vary widely in a large and decentralized industrial economy. When one introduces variation in the size and scope of local industrial bases, the predictions of Kornai's model change, and the same reasoning that predicted the failure of partial reform under public ownership provides instead an explanation for the industrial dynamism observed in the lower reaches of China's political

economy. Contrary to the emphasis of the first explanation outlined above, my own view refutes the claim that these firms are a hybrid of state and private ownership: they are under a form of public ownership no different from the large urban state sector, except that government has clearer incentives and a *greater ability to monitor firms and enforce their interests as owners*.²

THE INSTITUTIONAL ARGUMENT FOR PRIVATIZATION

Kornai's cogent analysis of redistributive economies and his critique of the failure of partial reform in Hungary has deeply informed sociological work on transitional economies (Burawoy and Krotov 1992; Burawoy and Lukács 1992; Stark and Nee 1989; Walder 1986*b*, 1989, 1992*a*). According to this analysis, as owners of enterprises, governments have other objectives besides profitability (Kornai 1992): the supply of scarce inputs for other enterprises (something made especially important by the material shortages characteristic of planned economies), maintenance of full employment, funding of pensions, medical insurance, and provision of housing and social services. These nonfinancial preferences of planning officials conflict with the government's interest in strong financial performance of firms, and financial interests are further weakened by the ability of government flexibly to redistribute funds from profitable enterprises to subsidize those that are unprofitable. And in addition to redistribution among enterprises, the government has further recourse to financial resources by curtailing wage increases, raising the prices of consumer goods, increasing the money supply, or borrowing abroad. Behind the analysis of soft budget constraints facing firms is an equally important assumption: the budget constraint upon government is also soft, and its financial interests in enterprise efficiency are weakened by competing nonfinancial interests.

The government's nonfinancial interests in firms, and the firm's dependence on government for bailouts and subsidies, create a mutual dependence between government and enterprise (a situation of bilateral monopoly or extreme asset specificity). There arises a suboptimal "regime of

² Qian and Xu (1993), drawing on Chandler (1962) and Williamson (1975), offer a convincing macrocomparative argument about the institutional sources of China's comparative success, in which they contrast the more centralized and specialized industrial hierarchies of Eastern Europe (U form) with the more decentralized and territorial hierarchies of China (M form). My own analysis complements and reinforces theirs: I focus on relations between government and enterprises at each level in China's decentralized hierarchy, and I elaborate the organizational differences that alter widely accepted arguments about bargaining and soft budget constraints under public ownership.

bargaining” in which budget constraints are softened and the firm’s incentives to hoard and overinvest are strong. The government’s dependence upon firms for physical output and the provision of employment and social welfare constrains its ability to discipline firms with the threat of closure. Enterprise managers are aware of these constraints and engage in continuous concealment of resources in their constant bargaining with government officials over more resources and more favorable financial terms. A government faced with a hopelessly large number of firms to monitor therefore suffers from severe information problems. Even if its financial interests in firm profitability were very strong, a government so constrained by nonfinancial considerations and information problems would be unable to enforce financial discipline over firms.

Under these institutional conditions, which are assumed to be relatively invariant under Communist party rule (Brus 1989; Kornai 1992), any moves toward market mechanisms will be counterproductive unless ownership is wrested from the state. The affinity of public ownership with bureaucratic redistribution is so close that only a decisive shift to private ownership is compatible with the effective working of a market mechanism (Kornai 1990*b*, pp. 58–59; 1990*a*). Referring to Hungary immediately after the fall of its Communist regime, Kornai counseled that only by cutting the ownership ties between government and firm could the suboptimal regime of bargaining be eliminated and budget constraints hardened: “It is futile to expect that the state unit will behave as if it were privately owned and will spontaneously act as if it were a market-oriented agent. It is time to let go of this vain hope once and for all. . . . State ownership permanently recreates bureaucracy” (Kornai 1990*b*, p. 58).³

ASSUMPTIONS INTO VARIABLES: REWORKING THE INSTITUTIONAL ANALYSIS

China’s rapid industrial growth has been spearheaded by managers of public firms and, to some extent, even by local government officials act-

³ Despite his strong critique of state ownership, Kornai (1990*b*, pp. 80–82) advocated a gradual, evolutionary approach to the privatization of state industry in Hungary and was harshly critical of programs for mass privatization of the kind proposed by Sachs (1993) and others. Moreover, in a tantalizing one-page aside, Kornai (1990*b*, p. 97) recognized the possibility that local state ownership could work, but he felt that “the odds will be unfavorable for a long time to come,” as this could only work well in the smallest government jurisdictions, and that it was impossible for this local state sector to become very large in Hungary. He also felt that unless a “truly representative” legislature existed, “then the bureaucratic traits that characterized classical nationwide state ownership are bound to reemerge.”

ing as “market-oriented agents” who compete fiercely on regional, national, and even international product markets. In the public sector, firms classified as “state” grew at a rate of 7.8% from 1980 to 1992; those classified as “collective,” 18.4%. While private industry grew at the much higher rate of 64.9%, it still constituted only 6.8% of output in 1992 and was not therefore a major force in industrial expansion during the preceding period (Jefferson and Rawski 1994, p. 48).

More important in gauging change in economic performance are changes in factor productivity. Before its reforms, China, like all Soviet-style economies, suffered from stagnating factor productivity and could maintain growth rates only through higher investment levels at the expense of consumption (Chen et al. 1988). Industrial productivity responded to reform efforts and has grown steadily since 1980 (Chen et al. 1988; Jefferson and Xu 1991). By 1988–92, according to one estimate, total factor productivity was improving at an annual rate of 2.5% in the state sector, 4.9% in the urban collective sector, and 6.9% in the township and village (i.e., rural collective) sector. During the same period, the corresponding annual rates of increase for labor productivity were 4.7%, 13.8%, and 17.7% (Jefferson and Rawski 1994, p. 56).⁴

Why are these Chinese outcomes so much at variance with the theory derived from the earlier Hungarian experience? There are two reasons, both simple, yet fundamental. The first is that the analysis of soft budget constraints usually proceeds as if there is one owner in the economy, “the state,” although in fact *there potentially are as many owners of public enterprise as there are government jurisdictions*. The second follows directly from the first: the organizational characteristics responsible for weakening government financial interests in firms, and for creating dual dependence and information problems, are assumed to be invariant although in fact they *vary widely according to the scale and organizational characteristics of government jurisdictions and their industrial bases*.

These two observations suggest an analysis of industrial organization in which the relations between governments and enterprises are viewed as analogous to relations within an industrial firm, or corporation. Gov-

⁴ The much higher rates in output and productivity growth in the rural industrial sector are not disputed, but other researchers, who have also found significant productivity growth in rural industry, find no productivity growth in the state sector and have argued that more favorable estimates contain methodological errors (Woo, Fan, Hai, and Jin 1993; Woo, Hai, Jin, and Fan 1993). A preliminary exchange between the groups appears inconclusive (Jefferson, Rawski, and Zheng 1994; Woo et al. 1994). A third group of researchers finds evidence that supports the earlier findings of decisive improvements in the performance of state enterprises (Groves, Hong, McMillan, and Naughton 1994).

ernment, the owner, is analogous to the principal in a corporate structure, and enterprise managers are analogous to division chiefs or plant heads within a corporate firm. The analogy resonates strongly with the ways that government authorities manage industry in cities, towns, and villages in China, and the literature on reform in China is replete with descriptions that compare village, township, county, and even municipal governments to business corporations (Oi 1986, 1988, 1990, 1992; Wong 1987; Nee 1992; Qian and Xu 1993; Rozelle 1991; Byrd and Lin 1990; Walder 1992*a*, 1994*b*).⁵

Corporate hierarchies, often on a very large scale, are of course pervasive in any market economy, and the presumption is that such hierarchies exist because they have advantages over market coordination of the same activities (e.g., Coase 1992; Williamson 1985). No one would suggest that such corporate (Need I add bureaucratic and redistributive?) hierarchies are always inefficient nor that the only way to improve lagging performance is to break them up. Many view innovation in corporate organization, not the completeness of markets, as the driving force of economic expansion (Aoki 1988; Chandler 1977; Lazonick 1991; Stinchcombe 1990). The analogous question here is, Under what circumstances can the problems associated with bilateral monopoly be remedied by altering, rather than breaking apart, the corporate structures that link government to enterprises?

The organizational analysis developed in this article links variation in industrial productivity and growth to variations in the organizational characteristics of local governments as industrial firms. The same financial incentives have been offered to all subcentral government jurisdictions by fiscal reform (Oi 1992; Wong 1992), and even large-scale urban industries have been heavily exposed to market competition (Naughton 1992*b*).⁶ Yet the large-scale corporate hierarchies of higher level government jurisdictions have responded more slowly to these same incentives than the smaller corporations represented by county, township, and village government. This is because the intensity with which financial

⁵ The corporate analogy is now widely used, but different authors use it to convey different messages. Oi (1990, 1992) has used the analogy to convey close control by cadres, in which they act less like a corporate board of directors (despite her use of this term) than as the top management team of a company. Nee (1992) has used the same "board of directors" analogy to convey a looser association between political officials and the managers of enterprises, in which officials primarily oversee, assist, and regulate functionally autonomous firms (see also Nee 1989; Nee and Su 1993).

⁶ Two surveys of state owned enterprises (cited in Jefferson and Rawski 1994) have shown that between 1980 and 1989, the share of material inputs purchased on markets rose from 32% to 59% or from 12% to 66%, and that sales of output on markets grew from 49% to 60% or 13% to 66%, while enterprise funds and bank loans replaced budgetary grants as the main source of investment funds.

incentives and budget constraints are felt by these corporations varies systematically with their size and internal diversification, as do the government's nonfinancial interests in industry, the political constraints that prevent the closure of firms, and the government's ability to monitor enterprise performance and enforce financial discipline. At the highest levels of the hierarchy of government, the organizational features assumed in Kornai's analysis are closely approximated and there the response to the new incentives has been relatively muted. But as one moves down the hierarchy of government jurisdictions, these organizational features change progressively, and at the bottom levels of the hierarchy, where the public-sector response has been strongest, they exhibit few if any of these features.

GOVERNMENTS AS OWNERS: PROPERTY RIGHTS CONSIDERATIONS

Because there is some confusion about the ownership of public enterprises labeled "collective," especially those in China's rural jurisdictions, we need to be very clear about what is meant by government ownership. Some writers (e.g., Sachs and Woo 1994) imply that privatization is well advanced in China because more than half of industrial output (52% in 1992; see State Statistical Bureau 1993, pp. 107–8) is produced outside the state sector—but 70% of the output of the "nonstate" sector is produced by publicly owned firms labeled "collective." Sociologists sometimes refer to this growing rural sector of township and village government industries as "semiprivate" or a "hybrid form" (Peng 1992; Nee 1992). To the extent that these claims imply that rural governments have been partly or wholly stripped of ownership rights over enterprises, they run directly counter to the main thrust of this analysis—that governments at the lower levels are able to exercise *more effective control* over their assets than are governments at higher levels. It therefore must be stated clearly at the outset what is meant when it is said that a government jurisdiction owns an enterprise.

If we conceive of ownership as a bundle of rights (Demsetz 1983), this means that the government holds all rights to control, income flows, and sale or liquidation except for those rights it chooses to transfer to agents who are either hired to manage those assets or who obtain these rights in lease contracts. Less abstractly, with regard to control, this means that the government hires and replaces managers or allocates contracts to lease assets and makes the ultimate decision to open or close the enterprise or shift its activity. With regard to income flows, this means that the government has the right to all income flows from the asset except those allocated to the managers in their incentive contracts. In terms of

transfer, this means that the government has the right to sell off an asset and that it bears responsibility for the gains or losses from that sale, and therefore that it ultimately bears all risk. Historically, a government jurisdiction obtained these rights in the 1950s by nationalizing private enterprises and appropriating preexisting public enterprises and by providing the capital to establish and operate new firms thereafter.

In China, public enterprises are divided into two legal types: state and collective. In terms of the definition of property rights given above, there is no fundamental distinction between state and collective enterprises, whether the collective enterprises are in cities or in the countryside.⁷ Field studies have shown repeatedly throughout the 1980s that township and village industrial enterprises are owned and operated by local governments whose officials are deeply involved in virtually all major decisions regarding the hiring and compensation of managers, the establishment or closing of firms, the mobilization of investment capital, changes in production line, and marketing strategies; they also participate extensively in carrying out these decisions, especially when this involves dealing outside the jurisdiction (see Byrd 1990; Byrd and Lin 1990; Huang 1990; Lin and Chen 1994; Lin and Hao 1992; Ody 1992; Oi 1986, 1990, 1992, 1996; Wong 1988, 1992). In surveys of enterprises, managers in urban and rural collectives report levels of decision-making autonomy that are no different from those of the large-scale state enterprises in cities (Jefferson et al. 1992). Evidence that the boundary between public and private enterprise in villages and townships is sometimes vague—public enterprises listed falsely as collectives (Liu 1992; Odgaard 1990), public assets leased out to private individuals (Nee and Su 1993), and private enterprises partially owned by officials (Wank 1995; Solinger 1992)—qualifies but does not alter this unequivocal portrayal of the rural collective sector as government owned and operated in the same sense as the urban state sector.

The most important way in which government ownership rights in state and collective sectors *do* differ is in the extent to which they are regulated by higher levels of government, especially the central government. This does have property rights implications, in the sense that such regulations “attenuate” property rights in ways familiar to students of government regulation in market economies (Eggertsson 1990, pp. 38–39), however it is the property rights of regional and local governments that are attenuated. State firms are required to provide health insurance, disability insurance, death benefits, and pensions according to national

⁷ Two exceptions to this categorical statement are the “new collectives” established in the 1980s, which in effect are cooperatively owned private enterprises and are still relatively small in scale and in number, and the “fake” collectives, discussed below.

standards, and the enterprises write these costs directly into costs of production. Only some collective enterprises are required to provide similar benefits, and not at the same level. "Large collectives," largely under city and county governments, are required to provide similar though less comprehensive insurance and retirement benefits (Bian 1994; Walder 1986*a*, chap. 2). Smaller collective enterprises, especially those established by the lower ranking government jurisdictions in the 1980s, are subject to almost no such regulation and usually provide few if any benefits of this sort. The impact of such regulation is illustrated by the finding that some 40% of the difference in profitability between state and collective enterprises is due to social overhead costs of this kind (Xiao 1991). Note that the attenuation of local government property rights is in this sense *less*, not more, regarding collective firms.

THE HIERARCHY OF GOVERNMENT INDUSTRIAL BUREAUCRACIES

The stylized notions of "state ownership" and "central control" that one often finds in analyses of redistributive economies are no more realistic than the assumption of perfect competition in market economies. State-owned industrial enterprises are not all owned and administered by the central government, and in China no more than a minority ever were (Granick 1990; Wong 1985, 1986*b*). Enterprises are lodged under the ownership of a given government jurisdiction, and there are more than 800,000 in China, ranging from ministries of the central government down to rural townships and villages (see table 1).⁸ All of these levels of government administration (except for the poorer townships and perhaps around half of villages) own and operate a total of 1.2 million public industrial enterprises, which accounted for 84% of all industrial output and 58% of all industrial employment in 1992 (table 2).

What varies in this hierarchy is not the nature of government property rights but the composition and scale of industry and the degree to which

⁸ The former Soviet and East European regimes probably also harbored large numbers of distinct government owners, but the degree of decentralization of industrial ownership in China has far exceeded that elsewhere, thanks to decentralization directives from the 1950s through the 1970s, as ownership and control of state firms were gradually shifted away from the center to provincial and municipal governments. This has led to a comparatively high degree of regional autarky in planning and material supply (Schurmann 1968; Riskin 1987; Granick 1990; Wong 1985). The trend was deepened in the 1970s when communes were pushed to develop their own rural small-scale industries (Wong 1986*b*; Riskin 1971; Perkins 1977). China thus began the reform era as a nested hierarchy of hundreds of thousands of government jurisdictions, each with its own set of enterprises whose activities they directed and planned and whose earnings contributed to local revenue.

TABLE 1

NUMBER OF SUBCENTRAL GOVERNMENT JURISDICTIONS IN CHINA, BY LEVEL, 1992

Jurisdiction	No.
Province	30
Provincial districts and equivalent	339
Municipalities	517
Counties and equivalent	2,171
Townships and towns	48,250
Villages	806,032
Total	857,339

SOURCE.—State Statistical Bureau (1993), pp. 3, 329.

government rights in enterprises are attenuated by central regulations. *State* ownership is in fact a designation reserved for the larger public firms that were formerly central to the input-output planning of years past. State enterprises on average produce more than five times the output and employ more than three times as many people as the collective enterprises in cities (table 2). As one moves down the hierarchy of government, the scale of enterprise continues to decrease, to village-run enterprises that, in 1992, employed an average of 30 persons and produced an average annual output of 600,000 *yuan* (U.S. \$75,000).

As one moves downward in this hierarchy, the proportion of public enterprises classified as *state* shifts from 100% to 0, and the scale of enterprises drops sharply. At the apex (in 1985, the year of the last industrial census) are 3,835 manufacturing enterprises directly under the central government, all state owned, which employed an average of over 2,200 people and produced an annual average output valued at 43 million *yuan* (table 3). At the next two levels of the hierarchy (the census publications combine the provincial and municipal categories), state firms employing an average of 745 produce an average of 12 million *yuan* in annual output, some 81% of total output at that level; much smaller collective enterprises produce the rest. At the county level, both state and collective firms are smaller still, and the proportion of output by state firms is smaller (65%; see table 3). At the bottom of the hierarchy—townships and villages—all of these small firms are under “collective” ownership (see tables 2 and 3).

As one moves down in this hierarchy, not only the scale of enterprises but, more important, the *scale and diversity of the government's industrial base* change dramatically. The central government's many ministries and bureaus must manage a comprehensive industrial economy of almost 4,000 large enterprises. The average management burden for cities and provinces, by contrast, is only 236 enterprises (table 3). This

TABLE 2
NUMBER AND SCALE OF INDUSTRIAL ENTERPRISES IN CHINA, BY FORM OF LEGAL OWNERSHIP, 1992

Jurisdiction	No. of Enterprises (Thousands)	Gross Value of Output (in Millions of <i>yuan</i>)	Output per Enterprise (in Millions of <i>yuan</i>)	Total No. of Employees (in Millions)	Employees per Enterprise
Public:					
State	103.3	1,782,415	17.3	45.2	438
Urban collective	155.0	427,430	2.8	18.6	120
Township run	207.5	467,690	2.3	16.4	78
Village run	709.7	453,983	.6	21.4	30
Nonpublic:					
Cooperative	546.4	86,982	.16	52.9	10
Urban	39.6	10,188	.26	6.0	15
Village	506.8	76,794	.15	46.9	9
Individual (private)	6,854.0	250,680	.04	20.5	3
Urban	507.0	19,538	.39	1.4	3
Village	6,347.0	231,142	.04	19.1	3
Other	14.2	263,358	18.5	2.4	168
Total	8,590.1	3,732,538	.4	175.0	20

SOURCE.—State Statistical Bureau (1993), pp. 107–8, 110–11, 409, 441–43.

NOTE.—“Other” is composed of joint ventures between Chinese government units and foreign partners or wholly owned foreign firms.

TABLE 3
CHARACTERISTICS OF CHINESE PUBLIC INDUSTRY, BY LEVEL OF GOVERNMENT, 1985

Jurisdiction	No. of Jurisdictions	No. of Enterprises	Enterprises per Jurisdiction	No. of Employees (in Millions)	Employees per Enterprise	Gross Output (in Millions of <i>yuan</i>)	Output per Enterprise (in Millions of <i>yuan</i>)
Central government	1	3,835	3,825	8.68	2,269	165,056	43.2
Province and City	354	83,394	236	32.6	391	463,480	5.6
State		31,254	88	23.3	745	375,892	12.0
Collective		52,140	147	9.3	178	87,588	1.7
County	2,046	68,811	34	10.6	154	116,114	1.7
State		35,263	17	6.6	187	75,760	2.2
Collective		33,548	16	4.0	119	40,353	1.2
Urban street	N.A.	30,518	N.A.	2.3	74	17,600	.58
Township run	91,138	170,364	1.9	11.4	67	69,384	.41
Village run	940,617	632,601	.7	14.4	23	66,272	.10

SOURCES.—State Council (1987), 3:6–7; State Statistical Bureau (1986), p. 23.

NOTE.—Tables exclude joint ventures and joint state-collective enterprises.

number varies widely from large provincial-level industrial cities like Tianjin, with more than 3,200 enterprises directly under bureaus of the municipal government and 1,692 under its industrial bureaus alone (see table 4), to a medium-sized city like Suzhou, with a total of 433 enterprises under municipal administration (see table 5). The average county, by contrast, administers an industrial base of just 34 enterprises (data from 1985; see table 3), and, on the average, townships and villages administer just over four and less than one, respectively (data from tables 1 and 2). In areas where rural industry is highly developed, such as Tianjin (table 4) and Suzhou (table 5), the average township has from 10 to 23 enterprises; the average village, two or three.

The central claim of this article is that the validity of Kornai's organizational assumptions varies across levels of this hierarchy. At the apex of the hierarchy—at the center and the larger industrial jurisdictions represented by Tianjin—the organizational assumptions of Kornai's analysis are valid, and the smaller cities such as Suzhou are an intermediate case, but at the county, township, and village levels, the assumptions do not hold. It is precisely at these lower levels that growth in output and productivity of public firms has been so striking. Working with published data on the size and scope of China's corporate hierarchies, and drawing on 61 interviews conducted in government bureaus and enterprises in seven large Chinese cities in the mid-1980s and a study of the industrial system of one county in Shandong from 1988–92, I will offer an organizational explanation for the theoretically anomalous performance of public enterprise in China, and why it has performed so well at lower-level government jurisdictions.⁹

FINANCIAL INCENTIVES FOR GOVERNMENT JURISDICTIONS

Kornai's analysis portrays government as having weak interests in the financial performance of firms. Planners focus on output rather than

⁹ The main idea behind this article originated in my research on the relatively small industrial system of one rural county (Walder 1994b), when I noticed that local officials in the county exercised far more intimate knowledge of, and direct involvement in, the management of local state and collective firms than did the officials of the larger cities that I had studied earlier (Walder 1992a). This observation ran directly counter to the common understanding that the small firms of rural jurisdictions enjoyed greater autonomy than large state firms in the cities. The contrast I saw at the county level was larger still in the smaller and more rural jurisdictions below the county level as portrayed by Oi (1988, 1990, 1992) and others (Lin and Hao 1992; Byrd and Lin 1990), where village or township officials play an even more direct role in key management decisions. Readers may find fuller descriptions of the roles of local officials in industrial decision making in these studies; in this article I use, primarily, published data on China's industrial economy to develop further these contrasts.

TABLE 4

PUBLIC ENTERPRISES AND OUTPUT BY GOVERNMENT JURISDICTION, TIANJIN MUNICIPALITY, 1990

Jurisdiction	No. of Jurisdictions	No. of Enterprises	No. of Enterprises per Jurisdiction	Total Output (in Millions)	Output per Jurisdiction (in Millions of yuan)	Output per Enterprise (in Millions of yuan)
Central	126	. . .	7,117	. . .	56.5
Municipal	1	3,251	3,251	42,411	42,411	13.0
Industrial bureaus		1,692		37,920		22.4
Other bureaus		1,559		4,491		2.9
County/district	18	627	89	1,869	104	3.0
Urban street	128	743	6	428	3.3	.6
Township/town	221	1,951	10	5,806	31	3.0
Village	3,872	8,050	2	12,695	3.3	1.6
Total	4,240	14,748	4	70,326	16.6	4.8

SOURCE.—Tianjin Municipal Statistical Bureau (1991), pp. 129, 192, 286, 340, 342, 421.

NOTE.—“Industrial bureaus” indicates the 10 specialized industrial bureaus of the municipal government. Enterprises established by various offices under the agriculture, construction, transportation, and commercial bureaus are included in “other bureaus.”

TABLE 5
PUBLIC ENTERPRISES AND OUTPUT BY GOVERNMENT JURISDICTION, SUZHOU MUNICIPALITY, 1990

Jurisdiction	No. of Jurisdictions	No. of Enterprises	No. of Enterprises per Jurisdiction	Total Output (in Millions)	Output per Jurisdiction	Output per Enterprise
Municipal	1	433	433	9,810	9,810	22.7
Rural county/district	7	1,203	172	10,223	1,460	8.5
Township/town	166	3,804	23	19,920	120	5.2
Village	3,371	10,477	3	14,093	4	1.3
Total	3,545	15,917	4	54,046	15	3.4

SOURCE.—Suzhou Municipal Statistical Bureau (1991), pp. 13, 54-55, 63.

NOTE.—Some 244 enterprises under urban district and street jurisdictions are excluded from the totals for "municipal."

financial performance, which creates a resource-constrained economy in which shortages of material inputs are the factor that constrains production rather than a demand-constrained economy driven by markets in which market demand is the key constraint and money, not material supplies, is the medium of exchange (Kornai 1992). While it may be true that government has weak financial interests under central planning and that this is demonstrated in Hungary's limited attempt at enterprise reform, these interests have been strengthened in China by a fiscal reform that has provided new financial incentives for governments—incentives that increase in intensity as one moves down the hierarchy of government.

Before China's reform, each level of government below the center received an annual budget from the level above. Budgetary surpluses, if there were any, were appropriated by the next higher level of government by adjusting the next year's budget. Funds for investment were part of the budget and were doled out to enterprises in the form of grants. As in any bureaucracy, what motivated the heads of each jurisdiction was budgetary slack, that is, the difference between the true cost of the operations of the jurisdiction and the funds budgeted for these purposes (Migue and Balanger 1974; Niskanen 1975). Mirroring the relationship between government planning bureaus and enterprises, bargaining between levels of government was not over some specified residual, but over the budgetary slack, with the subordinate level seeking to conceal resources wherever possible.

China's fiscal reform of the mid-1980s changed the relationship between levels of government. First, instead of governments appropriating all profits from enterprises under their jurisdiction automatically, enterprises were to be taxed according to fixed rates (the residual left to the enterprise was the centerpiece of a new incentive package for managers of state enterprises).¹⁰ Second, of the tax revenues collected from enterprises under their jurisdiction, each level of government turned over a contractually specified amount to the next higher level of government and could keep the residual (or, conversely, was responsible for covering shortfalls; see Oi 1992; Sicular 1992; Wong 1992). These fiscal contracts have taken

¹⁰ While the tax rates for profits were fixed at 55% in the late 1980s, local governments were free in practice to exempt almost any percentage of income they saw fit from centrally mandated taxes on a temporary annual basis (see Walder 1992a; Oi 1992, 1996). Recognition of this common practice led eventually to an annually negotiated tax and profit contract that specifies base targets and formulas for sharing residuals. The limit upon local governments in providing tax breaks is the fiscal solvency of the government jurisdiction and local governments' own ability to turn over their contracted revenues to the next higher level (see Walder 1992a; Oi 1992; Wong 1992).

a number of forms, with one of the most favorable being that given Guangdong Province in the early 1980s, in which the central government committed itself to a fixed level of tax payments from the province for five years (Vogel 1989, pp. 85–86). Other jurisdictions sign a variety of contracts, which usually include a fixed sum plus some formula for sharing revenues collected above that targeted level. Villages are, strictly speaking, outside the fiscal contracting system, but in many ways they have the strongest incentive of any level of government. Villages must pay the township government the obligatory taxes on their enterprises, but *all* of the residual goes to the village government. In other words, village governments are treated by the township government exactly as a *private* enterprise under the township would be (Oi 1996). As Oi (1992) has emphasized, this fiscal contracting system has provided an economic foundation for rapid, local government–led economic growth, especially at the county, township, and village level, by giving officials both the incentive and the investment funds to become effective promoters of local industry. The better the financial performance of enterprises and the faster the economic growth of the area, the greater the annual increase in the revenues available to the government jurisdiction.

These financial incentives, note, refer to *budgetary* revenues. Even stronger incentives are provided by *extrabudgetary* revenues, which are not shared with higher levels of government. There has always been in Chinese fiscal practice a category “extrabudgetary funds” that was not part of the budget renegotiated annually for each jurisdiction. Before the 1980s, this was primarily composed of depreciation funds, a fixed residual that remained with the locality and provided a pool of funds that could be recirculated to enterprises in the form of grants for the renovation of capital equipment. The fiscal reforms of the 1980s created new sources of extrabudgetary funds that were not to be counted as part of the revenue base to which fiscal contracts would apply and that therefore accrued wholly to the local jurisdiction. These included a new set of local taxes, a series of new nontax levies upon local enterprises, and taxes upon newly established private enterprises (Oi 1996; Sicular 1992; Wong 1992).

The additional incentive these extrabudgetary funds provided for subnational government jurisdictions can be gauged from their explosive growth after the early 1980s. Only 20% of the size of the national budget in the early 1980s, extrabudgetary funds grew to equal the national budget by the end of the decade (Wang 1995). As the great majority of these funds accrued to subnational government jurisdictions, their growth indicated a shift toward local fiscal power at the expense of the center, as the center’s proportion of total government revenue fell from an average of 50% in the decade before the reforms to 28% in the next decade (Wang 1995).

While enhanced financial incentives are provided for all government jurisdictions, their intensity varies according to the level of industrialization of a locality. True to its Soviet origins, China's fiscal system has depended almost entirely upon the appropriation of profits from industrial production. Even into the late 1980s, taxes on industry comprised some 80% of government revenue, while agriculture comprised less than 10% (Naughton 1992*b*; Sicular 1992). Therefore the higher the ratio of agriculture to industry, the more intense the financial incentives provided by fiscal reform (Oi 1992). Rural counties, townships, and villages have much smaller revenue bases relative to the populations they serve, and therefore the growth and financial performance of public enterprise has a larger and more direct incremental impact upon government revenue.

NONFINANCIAL INTERESTS OF GOVERNMENT

While China's fiscal reforms have strengthened financial incentives for governments, especially in rural jurisdictions, this fact alone does not respond to the main thrust of Kornai's analysis of the soft budget constraint. For Kornai also stresses the many nonfinancial interests that governments have in the operation of their enterprises. These interests compete with, and to a considerable degree conflict with, their interest in strong financial performance: reliable supply of inputs for other firms in the jurisdiction, full employment, and the funding of social insurance and housing, to name only a few. These interests are seen to constrain governments' ability to enforce financial discipline over enterprises by making governments dependent upon these nonfinancial outputs. Therefore Kornai reasoned that no matter how strong the financial interests may be, the nonfinancial interests are so large that they weaken the desired incentives.

Outputs as Inputs: Materials Balances

One important nonfinancial interest is that enterprises provide reliable sources of supply for other enterprises in the jurisdiction. In the economy of shortage that characterizes command economies, government agencies are usually more interested in ensuring a steady supply of inputs than in the marginal cost of producing them. China's reforms have tended to reduce this interest, as the proportion of industrial output allocated by planners has dropped at the expense of output produced and marketed directly by enterprises (Byrd 1991). Moreover, a government jurisdiction's interest in the physical output of enterprises varies directly with the size and diversity of its industrial base. The center, provinces, and large cities will have a large and diversified industrial base. To the extent

that a jurisdiction is large enough to strive for a certain degree of self-sufficiency, such interests will be relatively high. Jurisdictions below this level, however, will have much weaker interests in this regard. Counties, townships, and villages have industrial bases that are small and specialized and concentrated in light industry and consumer goods; they produce almost exclusively for external markets and purchase almost all supplies elsewhere. In these settings, the interests of a government jurisdiction in physical output for its own sake is almost nonexistent.

Employment Creation

Socialist governments have had a historically strong commitment to full employment and indeed maintained full employment at the cost of the efficiency of their firms (Granick 1987; Kornai 1992). China's state enterprises are widely thought to maintain labor forces well in excess of their needs, and full employment is still one of the most important nonfinancial interests that government has in its enterprises. This interest constitutes one of the most difficult remaining political barriers to the further reform of state industry, as reformers who threaten heretofore sacrosanct guaranteed employment make themselves vulnerable to the mobilization of worker and trade union support by officials opposed to rapid reform (see, e.g., Szelenyi [1989] for a description of this phenomenon in Hungary in the 1970s). This interest is not fixed across jurisdictions, however. In urban areas the interest is in preventing unemployment; in rural areas, however, the interest is primarily in creating better paying jobs for a labor force that is underemployed and poorly compensated in agricultural pursuits. This may seem a subtle difference, but as we shall see below when we consider constraints upon government, it is an important one.

Provision of Social Welfare and Housing

Government jurisdictions in Soviet-style economies have enormous interests in industrial enterprises as providers of social welfare and housing. I have already mentioned the way that costs for pensions and medical and disability insurance are by law written into the costs of production of state and the larger urban collective enterprises. The same enterprises that tend to provide these benefits also provide a very large range of other benefits and services for employees. The most important and costly of these is housing, which is provided at an average of less than 3% of the individual monthly wage (Walder 1992*b*). In addition to housing, state enterprises commonly provide meal services, transportation, day care centers, kindergartens, medical clinics, reading rooms, entertainment centers, subsidized group vacations, bathing facilities, and other

subsidized or free social services that are rarely provided by neighborhoods (Bian 1994; Walder 1986a; Whyte and Parish 1984). While these latter benefits, including housing, are not mandated by law, the expectation of government officials as well as employees is that an enterprise will supply such nonwage compensation to the best of its ability, and for a number of reasons state enterprise managers continue to feel pressures from their subordinates to supply them (Walder 1989). Many observers recognize that the integral role of state industry in the provision of social welfare and benefits is perhaps the single most important nonfinancial interest that government jurisdictions have in their enterprises. China's reformers have tread in this area lightly, understanding full well that the revocation of these customary rights for urban workers is the kind of action most likely to touch off labor unrest (Walder 1991).

This interest, however, also varies across government jurisdictions, because only the larger state enterprises of the kind concentrated at the center and in large urban jurisdictions like Tianjin will provide these services. Large urban collective enterprises provide fewer benefits, those in rural counties fewer still, and those in townships and villages almost none. The situation in villages and townships differs fundamentally in this regard, as citizens who are registered as members of agricultural rather than urban households are not eligible for national labor insurance, health insurance, or pensions, and they will in almost all cases build and own their own homes.

BUDGET CONSTRAINTS ON GOVERNMENT JURISDICTIONS

Kornai's analysis assumes the budget constraint on government itself to be relatively soft. This is a reasonable assumption for the unreformed command economy. Budget deficits for subnational governments would be made up if they could be rationalized as legitimate costs, and the central government could manipulate the money supply, cut wage increases, or raise prices of consumer goods to keep deficits from expanding. Another key assumption is that of a vast process of redistribution, in which surpluses produced by profitable firms would be used to make up losses incurred by the unprofitable. This, in turn, was the primary cause of soft budget constraints for enterprises.

There are two ways in which the assumption of a soft budget constraint on government requires modification for China. The first is the way in which the fiscal contracting system and the retention of extrabudgetary funds change the calculations of government officials with regard to their budgets. In the earlier hierarchical budgeting system, a revenue shortfall might cut into the budgetary slack that motivated officials, but that revenue shortfall could also provide a legitimate basis for obtaining a larger

budgetary allocation for the subsequent year (and therefore regain the slack lost). Under fiscal contracting, however, any revenue shortfall comes directly out of the residual share of the jurisdiction. Some localities may be able to reduce their contractual payments if they meet with unexpected shortfalls due to circumstances beyond their control (e.g., natural disasters or drastic changes in foreign trade policy). But such a request will stimulate a close examination of both budgetary and extrabudgetary funds, and any adjustment made will usually allow the locality to meet only its most pressing obligations.¹¹ While there is no plausible threat to “close” a government jurisdiction that loses money, the residual upon which the locality depends for discretionary spending would be lost entirely. The new system of revenue sharing therefore creates much larger opportunity costs than the earlier budgetary arrangement—and the intensity with which these costs are felt varies along with the level of industrialization of the locality.

These budget constraints, further, vary according to the scale of a jurisdiction’s industrial base. Earlier work has stressed the government’s ability to engage in a massive balancing operation, redistributing funds from profitable enterprises to subsidize those that lose money. This clearly assumes a large and diversified industrial base, one, moreover, in which the prices and markets are fixed and expected profits highly predictable. This assumption is violated in China because increasingly the prices and markets of industrial output fluctuate, and in fact the profits of all public firms have tended to shrink and converge under the impact of market competition (Naughton 1992*b*). The assumption is further violated in a different way as one moves down the hierarchy of government and as the industrial base becomes smaller and less diversified. Balancing operations assumed in theory simply cannot be sustained at these lower levels, where local government budgets are exposed directly to market competition with public enterprises of other government jurisdictions.

THE REGIME OF BARGAINING: VARIATIONS IN BILATERAL MONOPOLY

Another central assumption is that a “dual dependence” between government and enterprise leads to a suboptimal regime of bargaining that softens budget constraints and provides insufficient incentives to manag-

¹¹ In some cases the localities may not be able to meet even their basic obligations. In the 1980s many rural jurisdictions were so strapped for cash, in part because of investment in industry, that they were forced to pay peasants in scrip instead of cash for their harvests (Oi 1993).

ers of public enterprise (Kornai 1992; see also Naughton 1992*a*; Walder 1986*b*; Wong 1986*a*). This leads to the argument that efforts to provide market incentives for either managers or government officials will fail unless the underlying situation of dual dependence is changed. It is further reasoned, based on the earlier Hungarian experience, that only a separation of government and industry through privatization can end this situation of dual dependence.

The notion of dual dependence is a familiar one in institutional economics and, in sociology, in power-dependence theory. When two parties each have goods needed by the other for which there are no plausible alternatives, there exists a situation of bilateral monopoly (Blau 1964, pp. 171–77), or extreme “asset specificity” (Williamson 1985, pp. 30–32). Under these conditions, it is difficult to establish a stable contract for mutual provision of services, because each side seeks continually to enhance their position at the expense of the other, and their efforts to do so are unconstrained because of the lack of alternatives for either party. Bilateral monopoly therefore leads to continual bargaining over the terms of cooperation, hiding of slack resources, concealment of information, and underprovision of effort. This is an apt characterization of central planning.

The changes described above have begun to reduce the prevalence of bilateral monopoly and to change the parameters of bargaining between government and enterprise managers. Note first that to the extent that fiscal reform strengthens the interests of government in the financial performance of firms, the ability and willingness of government to tolerate poor financial performance is reduced. Such financial pressures remain weakest at the top of the government hierarchy, especially at the center and in large and heavily industrialized provinces and cities, but they have become strong at lower levels of government, especially in rural areas, where local governments are quickly faced with the decision either to close or to reorganize a firm that has become a serious financial liability.

Even if the budget constraints on many levels of government are becoming harder, do not the important nonfinancial interests of government in their enterprises heighten their dependence on the firms and weaken their ability to bring financial pressures to bear upon firms’ performance? To the extent that these interests are still important, they constrain government discretion and serve to perpetuate bilateral monopoly. But we have already seen that these constraints are changing and that they are variable across levels of government. The fact that governments allocate smaller proportions of industrial output within plans and have increased the extent to which the sales and supply of enterprises work through market mechanisms, the dependence of even the larger government jurisdictions on firms for their outputs will be proportionately reduced. Such

dependence will vary with the market structure for a given industry and the degree of monopoly or oligopoly among producers, and as markets spread dependence has therefore become a variable. Moreover, as I have already noted, such interests in the output of enterprises are reduced as one moves down the hierarchy of government and into smaller and less diversified industrial systems. At the bottom of the hierarchy, in rural counties, townships, and villages, local governments' interests in the physical output of enterprises has given way almost entirely to financial interests.

Similarly, the constraints on a government's bargaining position placed by its interests in the provision of full employment, social insurance, and housing are reduced sharply as one moves down the hierarchy. These interests remain high in the large urban areas with heavy concentrations of large state firms, but they approach zero as one moves into rural counties, townships, and villages. As we have already seen, rural areas are interested more in the provision of higher paying jobs than in the prevention of unemployment. Workers laid off by a plant closing will in most cases return to family farms or will migrate to cities to search for temporary work.¹² The collective enterprises that dominate industry in these rural areas, moreover, supply few if any of the benefits that urban state enterprises supply to their employees at great cost. Therefore these nonfinancial constraints upon government in its bargaining with public enterprise approach zero in the rural jurisdictions. The consequent hardening of budget constraints at the lower levels is observable in the economic downturn of 1988–90: while the number of urban, state-owned firms nonetheless *increased* by 5,300 (5.3%), the number of township and village enterprises *decreased* by 9,000 (3.8%) and 53,000 (7.2%), respectively (State Statistical Bureau 1991, p. 391).¹³

¹² The rural roots of industrial workers at this level were made plain to me during a round of interviews in the state and collective enterprises of one rural county in 1988: most firms I visited were shut down for the June wheat harvest, in deference to their workers' interest in returning to help their families in the fields. Localities that hire large numbers of workers from outside their jurisdictions will be even less constrained by concern about unemployment—laid off workers simply return to their homes (see the arrangements described in one highly industrialized coastal region in Chan, Madson, and Unger [1992, pp. 299–308]).

¹³ Nee (1992) has also emphasized the harder budget constraints facing rural governments and their firms, but his reasoning about the reduction of bilateral monopoly in rural jurisdictions runs counter to my own. Noting that the rural collective firms are far more numerous than large state enterprises (see, e.g., tables 2–5 above), he reasoned that “marketized firms are a legion of small-scale, low-capital operations; if any one goes under, there are many others to provide a continuing revenue base for local government” (Nee 1992, p. 11). Therefore local governments have many alternative sources of income and are therefore free to close any one small firm. My own reasoning is based on the observation that the number of enterprises *per jurisdiction*

OWNERSHIP AS CONTROL: VARIATIONS IN MONITORING CAPACITY

A final crucial assumption of past analyses has been that bargaining between government and enterprise took place in the context of poor information and a weak government capacity to monitor the financial performance of firms. There are two main justifications for this assumption.

First was the notion that the physical output indicators used to judge firm performance in the past did not provide necessary information on the efficiency of firms and that even financial indicators would not provide a useful substitute unless prices reflected market scarcities. Second was the idea that a socialist bureaucracy contained multiple “principals” with whom a socialist firm has to bargain: bureaus of taxation, finance, labor, prices, as well as industrial bureaus. Each of these bureaucracies makes slightly different demands, many of which run counter to the demand for strong financial performance, and they constitute a layer or two of bureaucracy between the top government leaders and the enterprises. Many of these bureaus (esp. industrial bureaus) themselves collude with enterprises in concealing slack resources and work at cross-purposes with those bureaus designed to monitor financial performance (Walder 1992a). Bureaucracy complicates monitoring by creating a number of separate, often competing, principals and by further impeding or distorting the flow of information back to the top decision makers.

These assumptions are less tenable after a decade of reform in China. First, the financial scrutiny placed upon enterprise is now much more intense than anything experienced in the past. Physical indicator planning has largely ended, and loan and investment decisions in even the highest levels of government now involve a long and protracted process of financial risk analysis and feasibility planning to ensure that a firm will be able to repay its investment loan—something never undertaken in past years when investment capital was simply allocated to enterprises as a grant (Walder 1992a). While it is true that bargaining continues to characterize the relationship between government and enterprise, such bargaining takes place now over entirely different matters—no longer focusing on supplies, prices, budgets for investment projects, but on sales forecasts, financial performance, capacity to repay a loan (Walder 1989, 1992a; Naughton 1992a). In this process of bargaining, enterprises are pitted against one another as competitors for investment loans (Walder

is in fact *much smaller* in the lower ranks (see tables 2–5) and that local governments are less able to tolerate poor performance from any single firm *precisely because there are so few enterprises that they cannot therefore redistribute income among them as posited by Kornai*.

1992a). This in itself indicates that bargaining today takes place in the context of much greater information about firm performance than in the past. Moreover, the impact that such close financial scrutiny and internal competition for investment have upon the strategy and behavior of enterprise managers has to be considered as an important potential constraint that operates alongside the incentives provided in the form of profit retention. Whereas past work has tended to interpret evidence of such bargaining as evidence of a soft budget constraint (Walder 1986b, 1992a; Wong 1986a), bargaining activity, in reference to the question of whether enterprise budget constraints are hardening, is itself less relevant than are the changing parameters within which that bargaining takes place. These parameters have gone largely unanalyzed.

The monitoring problems created by several layers of government bureaucracy and the related creation of multiple bureaucratic principals with divergent interests is also a variable, not a constant. To be sure, it continues to be a problem at the highest levels of government, where top decision makers are still separated from their firms by several layers of bureaucracy. In the large urban jurisdiction of Tianjin there are 10 industrial bureaus that oversee almost 1,700 enterprises, with another 1,600 clustered under bureaus for agriculture, construction, commerce, and transportation (see table 4 above and Tianjin Municipal Statistical Bureau 1991). The industrial bureaus themselves subdivide their enterprises into a large number of "companies" (*gongsi*), which are in effect subbureaus.

Economic theorists have been prone to argue that such subdivisions alleviate monitoring costs by reducing the number of entities that each monitor must supervise—provided that adequate incentives are given to agents. But organizational sociology has long taught us that this theoretical result is difficult to attain. Increases in the number of levels of bureaucracy creates barriers to the upward flow of information, especially because the lowest level monitors have interests closer to those of enterprises than those of local government officials. Interviews in these local bureaucracies have shown that industrial bureaus and companies have interests similar to those of enterprises (in capturing larger investments and reducing government fiscal extractions) and, in fact, they bargain with local government supervisory organs on behalf of enterprises. The industrial bureaus are also responsible for preparing the statistical and financial reports that inform planners of enterprise performance. The city government itself monitors the industrial bureaus and companies through a large number of "specialized" supervisory bureaus, the most important of which are responsible for taxation, finance, prices, and labor and wages, whose work is coordinated by a planning or an economic commission. A plan for a capital investment project typically takes a series of

meetings among representatives of all of these agencies over the period of one year (Walder 1992a).

By contrast, the number of enterprises under a county government is close to the total number of bureaus and companies in a large city. One county near the national mean in terms of industrial output (see table 6) had a total of only 47 enterprises in 1992, most of which were directly administered by a single economic commission that had a staff of fewer than 10, with the remaining enterprises held by the grain and commerce bureaus. Only this single layer of administration stands between the county magistrate and party secretary and the enterprises themselves, and the economic commission and two bureaus are clearly the agents of the government. Major financial decisions are made relatively quickly at meetings attended by a handful of people, and local officials attend these meetings and are aware in detail of the operations and financial performance of their enterprises (Walder 1994b).

To be sure, monitoring problems at the higher levels are not as severe as the raw numbers of enterprises suggest. It appears that in most jurisdictions fewer than 20% of the enterprises yield around 75% of financial returns (table 7), making the task of effective financial control less daunting. This reduces the effective task of the government of Tianjin to that of monitoring 482 relatively large enterprises—still too large to exercise effective corporate control. But the contrast with lower jurisdictions still holds: a highly industrialized county like Changshou must monitor 30 larger enterprises, Zouping County only four. These numbers are closer to the scale of manufacturing companies and corporations in market economies. The numbers, of course, are smaller still in townships and villages, where the numbers of enterprises are so small that in most jurisdictions there are only a few clerical personnel and the township and village head is in effect the head of a small to medium-sized company in which enterprise managers carry out delegated tasks (Oi 1990, 1992). In view of the widespread belief that government officials should be prevented as much as possible from interfering in enterprise decisions, it is ironic that it is precisely in those sectors where government's capacity to monitor and direct public enterprise is at its greatest that some of the best economic performance has been observed.

In an unexpected fashion, therefore, public enterprise owned by the lower levels of government in China has solved the monitoring problems and weak assertion of ownership claims that privatization is usually designed to overcome. It is recognized by many that privatization alone will not resolve such monitoring problems, especially if it takes the form of widely dispersed shareholding as in the Czech Republic and Poland (McKinnon 1992). Such diffuse ownership claims are seen by some as the cause of softened budget constraints and weaker performance in

TABLE 6
PUBLIC ENTERPRISES AND OUTPUT BY GOVERNMENT JURISDICTION, ZOUPIING COUNTY, SHANDONG, 1992

Jurisdiction	No. of Jurisdictions	Gross Output (in Millions of <i>yuan</i>)	No. of Enterprises	Enterprises per Jurisdiction	Output per Enterprise (in Millions of <i>yuan</i>)
County	1	615.3	47	47	13.1
State		353.2	23		15.4
Collective		146.4	22		10.9
Township	17	218.2	129	7.6	1.7
Village	857	390.7	390	.5	1.0

SOURCE.—Zouping County Statistical Bureau (1993), p. 121.

TABLE 7
SCALE AND CONCENTRATION OF INDUSTRY, VARIOUS GOVERNMENT JURISDICTIONS

Jurisdiction	No. of Enterprises (1)	No. of Large and Medium Enterprises (2)	Col. 2 Share (%) of Gross Value of Output (3)	Col. 2 Share (%) of Profits and Taxes (4)
Tianjin City	3,251	482	63	73
Guangzhou City	1,112	208	68	N.A.
Suzhou City	433	115	81	76
Changshou County	187	30	59	77
Zouping County	47	4	91	73

SOURCES.—Tianjin Municipal Statistical Bureau (1991), pp. 340, 342, 428; Guangzhou Municipal Statistical Bureau (1991), pp. 1, 29, 45–46, 50–53, 101–111, 123; Suzhou Municipal Statistical Bureau (1991), pp. 68–69, 75, 84–101; Zouping County Statistical Bureau (1993), pp. 121, 128, 158–59.

NOTE.—Col. 1 includes only those enterprises under the direct supervision of the named jurisdiction; enterprises located within the boundaries of the jurisdiction but under the supervision of lower or higher levels of government are excluded from these figures.

American corporations compared to their Japanese and German counterparts (see, e.g., Jensen 1989). One of the purposes of the sale of shares in public enterprises in Poland is precisely to encourage government, which will retain majority ownership during the transition, to assert its ownership rights more vigorously and harden budget constraints on firms (Lipton and Sachs 1990). This is what has occurred, without shareholding or any other form of privatization, in China's smaller industrial bureaucracies.

"PRIVATE" INCENTIVES FOR OFFICIALS: AN ALTERNATIVE EXPLANATION?

Despite my insistence on the "public" nature of enterprise owned and operated by village and township governments, and of the closer monitoring and more effective government control of industrial assets at these levels, there is one version of the partial or "hidden" privatization argument that is still plausible. This is the idea that the *private* incentives for government officials are larger as one moves down the hierarchy of government, to the point where in many rural townships and villages local officials have something functionally equivalent to an "equity share" in public firms that ties their personal and family income directly to the growth and prosperity of local industry.¹⁴ Another way to put this is that officials at the lower levels are better able to treat *public* enterprise as a source of *private* income.

Indeed, my portrayal of government officials' motives as deriving from a desire to maximize their budgetary revenue and therefore their discretion and power is not entirely realistic. Village and township officials have been known to pay themselves large bonuses keyed to the growth and profitability of local industry (Oi 1996). And the socialist tradition of privileged access to subsidized goods and services continues to provide officials with advantages that are linked to the relative budgetary affluence of government jurisdictions. Officials in rapidly industrializing rural counties and townships will enjoy rapid improvements in living standards: their access to government-owned luxury sedans, the quality and size of their living quarters, their ability to travel around the country and even abroad will all improve in direct correspondence to the growth of local industry. The "private" incentives for officials at these lower jurisdictions therefore mirror, and are directly aligned with, the increased flows of budgetary revenue generated by local industry. While these are indeed "private" incentives for officials, they are the equivalent of execu-

¹⁴ I am indebted to Andrei Shleifer and Donald Clarke for independently suggesting this alternative explanation.

tive bonuses and fringe benefits in market economies and do not have serious implications for the designation of rural enterprises as publicly owned.

There is another dimension of private incentives for officials that could have implications for ownership issues, however. It has sometimes been documented, and is even more widely suspected, that significant numbers of village-run and perhaps even township-run enterprises are in effect operated as family businesses, in which there is no clear distinction between officials' income and village revenue. This can occur when village officials grant rights to operate public industrial assets to themselves or to family members or other partners on contracts that give them fixed percentages of the enterprises' profits after contractual payments to the government are made. This may also occur through embezzlement and the abuse of expense accounts. It is intriguing to think that such practices are so widespread that they subtly alter the ownership structure of rural industrial firms. Unfortunately there are no reliable estimates of how widespread such "hidden privatization" is, but we suspect that it is primarily a phenomenon of villages and perhaps smaller townships in which one family plays a powerful and unchallenged role.

Does this phenomenon really represent partial private ownership, or an equity share, or is it simply the use of public enterprise for private gain? This variety of official corruption is similar to the "spontaneous privatization" decried by proponents of mass privatization in Eastern Europe, and it is a practice that these advocates see as a recipe for economic ruin, not enterprise efficiency (Sachs 1993). Indeed, Kornai (1990*b*, p. 57) considers this arrangement different from private enterprise in one fundamental respect—while residual income increasingly passes into the pockets of "natural persons," the losses (and risks) are not borne by the same party, but by the government. In this sense "hidden privatization" is *not* the equivalent of an equity share, because government officials do not have invested equity at risk.

Even if we do interpret such practices as a creeping form of privatization, we still do not have an alternative explanation of industrial performance to the organizational one offered in these pages, for the only difference is in the portrayal of officials' motives. If we substitute private gain for officials' interests in expanding *public* revenue, we still have only an argument about officials' incentives. In the same way that I argued that government financial incentives alone are insufficient to explain industrial dynamism, we need further reasoning about why these private incentives are translated into industrial performance. Any argument about corruption as an incentive is therefore subject to the same organizational analysis offered in this paper.

Let us assume that all officials are motivated by opportunities to turn

public funds into personal income—this incentive does not resolve the problems of bilateral monopoly and monitoring. Why should official corruption, widely assumed as the enemy of clear ownership rights and enterprise efficiency by proponents of privatization (Sachs 1993), lead to industrial efficiency? It would do so only under the organizational conditions at the bottom of the government hierarchy. At higher level government jurisdictions, where problems of bilateral monopoly and monitoring remain serious, the incentive provided by corruption is more likely to lead simply to unproductive plunder of public funds. Where officials are able to manage directly or tightly oversee their firms, their interest in personal income is more likely to be translated into entrepreneurial behavior. “Hidden privatization” arguments, to the (still unknown) extent that they accurately characterize the operations of village and township industry, offer a different (and perhaps more realistic) account of the “private” versus “public” motivations of officials, but they do not offer an alternative explanation for variation in the performance of China’s public industry.¹⁵

CONCLUSION

The predictions yielded by Kornai’s theory of soft budget constraint change along with the organizational characteristics one assumes. At the higher levels of China’s government hierarchies, many of the predicted problems associated with the phenomenon of bargaining and soft budget constraints should be prevalent, while at the lower levels the same reasoning would predict that the problems associated with soft budget constraints and bargaining should be drastically reduced. This article therefore leaves intact the core of Kornai’s reasoning about public ownership in a redistributive bureaucracy.

The argument clearly implies that China’s reforms are highly path dependent, in that before the reforms began its industrial hierarchies were already much more decentralized than those of the Soviet Union and vastly larger than those of the smaller communist countries (Qian and Xu 1993). My analysis therefore does not show that privatization is not advisable elsewhere. It does support those who have argued for a more flexible and evolutionary approach toward institutional design, one more sensitive to differing institutional legacies (see, e.g., Stark 1996). It also supports the argument that the real issue in transitional economies

¹⁵ The issue is not whether interest in public revenue *alone* is a sufficient incentive to motivate officials, for Oi (1992, 1996) indicates that traditional Communist privileges for officials—personal use of government luxury sedans, better housing, bonuses—will also grow rapidly with growth of public revenue and that the incentive effects will be more intense at the lower levels.

is not whether government should play a role but what that role should be, for government action is pervasive in market economies as well (Stiglitz 1994).

There is another way in which China's path has diverged fundamentally from that of most other transitional economies—in its political institutions. Although the years 1989–91 marked the collapse of Communist party rule and the move toward some form of electoral democracy in Eastern Europe and the Soviet republics, the period marked the (at least temporarily) successful defense of Communist dictatorship in China. A recognition that officials from the old regime might seize public assets as private property was a major political motive for privatization among the new political leadership and was an explicit reason why Sachs (1992, 1993) and others saw privatization as an urgent task. Further, after one adds voters to an agency analysis of public industry, matters are complicated greatly. In an ironic fashion, local officials who depend directly upon citizens for their office may be more sensitive to the interests that citizens have as employees of public enterprise and beneficiaries of soft budgets; central officials who depend on votes in parliament may be more sensitive to calls from regional officials for bailouts and subsidies—especially in regions where their electoral base is weak or eroding (Treisman 1994).¹⁶ Privatization in Eastern Europe is therefore part of a *political* program to dismantle communism, just as the defense of public industry is part of a political program to preserve it in China. These important political foundations for economic institutions suggest further that China's implications for Europe are neither simple nor direct.

The recent successes of Chinese public enterprise do not imply that property rights do not matter; they show that there is an important distinction between privatization and property rights reform. China's fiscal reforms have served to clarify the rights of local governments over assets they administer, in effect reallocating property rights downward within government hierarchies (Oi 1992; Walder 1994a). In the smaller jurisdictions, where governments face harder budget constraints and are unable to engage in financial balancing operations between enterprises, and where they are better able to monitor enterprises and enforce their interests in strong financial performance, public enterprises have attained many of the desirable features that some have thought possible only by stripping governments of ownership and control. Government officials themselves have become market-oriented actors. Where previous work

¹⁶ I am in fact indebted to János Kornai for pointing out to me the ways in which a shift to electoral democracy in China would strengthen the nonfinancial interests of local officials regarding public industry and lead ironically to a repoliticization of economic management.

has tended to frame the analytic problem of transitional economies either as the creation of well-functioning markets or as the rebuilding of economic institutions (and establishment of property rights), the Chinese case suggests (as Oi 1992 shows) that the same problems may be fruitfully recast in organizational terms, as ones of government administrative capacities and incentives for officials.

REFERENCES

- Aoki, Masahiko. 1988. *Information, Incentives, and Bargaining in the Japanese Economy*. Cambridge: Cambridge University Press.
- Bian, Yanjie. 1994. *Work and Inequality in Urban China*. Albany: State University of New York Press.
- Blanchard, Olivier, Rudiger Dornbusch, Paul Krugman, Richard Layard, and Lawrence Summers. 1991. *Reform in Eastern Europe*. Cambridge, Mass.: MIT Press.
- Blau, Peter M. 1964. *Exchange and Power in Social Life*. New York: Wiley.
- Brus, Włodzimierz. 1989. "Evolution of the Communist Economic System: Scope and Limits." Pp. 255–77 in *Remaking the Economic Institutions of Socialism: China and Eastern Europe*, edited by Victor Nee and David Stark. Stanford, Calif.: Stanford University Press.
- Burawoy, Michael, and Pavel Krotov. 1992. "The Soviet Transition from Socialism to Capitalism: Worker Control and Economic Bargaining in the Wood Industry." *American Sociological Review* 57:16–38.
- Burawoy, Michael, and János Lukács. 1992. *The Radiant Past: Ideology and Reality in Hungary's Road to Capitalism*. Chicago: University of Chicago Press.
- Byrd, William A. 1990. "Entrepreneurship, Capital, and Ownership." Pp. 189–218 in *China's Rural Industry: Structure, Development, and Reform*, edited by William A. Byrd and Qingsong Lin. New York: Oxford University Press.
- . 1991. *The Market Mechanism and Economic Reforms in China*. Armonk, N.Y.: M. E. Sharpe.
- Byrd, William A., and Alan Gelb. 1990. "Why Industrialize? The Incentives for Rural Community Governments." Pp. 358–87 in *China's Rural Industry: Structure, Development, and Reform*, edited by William A. Byrd and Qingsong Lin. New York: Oxford University Press.
- Byrd, William A., and Qingsong Lin. 1990. "China's Rural Industry: An Introduction." Pp. 1–18 in *China's Rural Industry: Structure, Development, and Reform*, edited by William A. Byrd and Qingsong Lin. New York: Oxford University Press.
- Chan, Anita, Richard Madsen, and Jonathan Unger. 1992. *Chen Village under Mao and Deng*, expanded and updated ed. Berkeley and Los Angeles: University of California Press.
- Chandler, Alfred. 1962. *Strategy and Structure*. Cambridge, Mass.: MIT Press.
- . 1977. *The Visible Hand*. Cambridge, Mass.: Harvard University Press, Belknap Press.
- Chen, Kuan, et al. 1988. "Productivity Change in Chinese Industry: 1953–85." *Journal of Comparative Economics* 12:570–91.
- Coase, R. H. 1992. "The Institutional Structure of Production." *American Economic Review* 82:713–19.
- Comisso, Ellen. 1991. "Property Rights, Liberalism, and the Transition from 'Actually Existing' Socialism." *East European Politics and Societies* 5:162–88.
- Cui, Zhiyuan. 1994. "Can Privatization Solve the Problems of Soft Budget Con-

- straints?" Pp. 213–27 in *Changing Political Economies: Privatization in Post-Communist and Reforming Communist States*, edited by Vedat Milor. Boulder, Colo.: Lynne Rienner.
- Demsetz, Harold. 1983. "The Structure of Ownership and the Theory of the Firm." *Journal of Law and Economics* 26:375–90.
- Eggertsson, Thráinn. 1990. *Economic Behavior and Institutions*. New York: Cambridge University Press.
- Granick, David. 1987. *Job Rights in the Soviet Union*. Cambridge: Cambridge University Press.
- . 1990. *Chinese State Enterprises: A Regional Property Rights Analysis*. Chicago: University of Chicago Press.
- Groves, Theodore, Yongmiao Hong, John McMillan, and Barry Naughton. 1994. "Autonomy and Incentives in Chinese State Enterprises." *Quarterly Journal of Economics* 109:183–209.
- Guangzhou Municipal Statistical Bureau. 1991. *Guangzhou tongji nianjian 1991* (Guangzhou statistical yearbook 1991). Beijing: Zhongguo tongji chubanshe.
- Huang, Philip C. C. 1990. *The Peasant Family and Rural Development in the Yangzi Delta, 1350–1988*. Stanford, Calif.: Stanford University Press.
- Jefferson, Gary H., and Thomas G. Rawski. 1994. "Enterprise Reform in Chinese Industry." *Journal of Economic Perspectives* 8 (2): 47–70.
- Jefferson, Gary H., Thomas G. Rawski, and Yuxin Zheng. 1992. "Growth, Efficiency, and Convergence in China's State and Collective Industry." *Economic Development and Cultural Change* 40:239–66.
- . 1994. "Productivity Change in Chinese Industry: A Comment." *China Economic Review* 5:235–41.
- Jefferson, Gary H., and Wenyi Xu. 1991. "The Impact of Reform on Socialist Enterprises in Transition: Structure, Conduct, and Performance in Chinese Industry." *Journal of Comparative Economics* 15:45–64.
- Jensen, Michael. 1989. "Eclipse of the Public Corporation." *Harvard Business Review* 89 (September–October): 61–74.
- Kornai, János. 1980. *The Economics of Shortage*, 2 vols. Amsterdam: North-Holland.
- . 1990a. "The Affinity between Ownership Forms and Coordination Mechanisms: The Common Experience of Reform in Socialist Countries." *Journal of Economic Perspectives* 4 (3): 131–47.
- . 1990b. *The Road to a Free Economy: Shifting from a Socialist System, the Example of Hungary*. New York: Norton.
- . 1992. *The Socialist System: The Political Economy of Communism*. Princeton, N.J.: Princeton University Press.
- Lazonick, William. 1991. *Business Organization and the Myth of the Market Economy*. Cambridge: Cambridge University Press.
- Lin, Nan, and Chih-jou Chen. 1994. "Local Initiatives in Institutional Transformation: The Nature and Emergence of Local Market Socialism in Jiangsu." Presented at the Annual Meetings of the Association for Asian Studies, Boston, March.
- Lin, Nan, and Mai-shou Hao. 1992. "Local Market Socialism." Manuscript. Duke University.
- Lipton, David, and Jeffrey Sachs. 1990. "Privatization in Eastern Europe: The Case of Poland." *Brookings Papers on Economic Activity* 2:293–341.
- Liu, Yia-ling. 1992. "Reform from Below: The Private Economy and Local Politics in the Rural Industrialization of Wenzhou." *China Quarterly* 130:293–316.
- McKinnon, Ronald I. 1992. "Spontaneous Order on the Road Back from Socialism: An Asian Perspective." *American Economic Review* 82 (May): 31–36.
- Migüe, J. L., and G. Balanger. 1974. "Towards a General Theory of Managerial Discretion." *Public Choice* 17 (Spring): 27–43.

- Murrell, Peter. 1991. "Can Neoclassical Economics Underpin the Reform of Centrally Planned Economies?" *Journal of Economic Perspectives* 5 (1): 59–76.
- Naughton, Barry. 1992a. "Hierarchy and the Bargaining Economy: Government and Enterprise in the Reform Process." Pp. 245–79 in *Bureaucracy, Politics, Decision Making in Post-Mao China*, edited by Kenneth G. Lieberthal and David M. Lampton. Berkeley and Los Angeles: University of California Press.
- . 1992b. "Implications of the State Monopoly over Industry and Its Relaxation." *Modern China* 18 (January): 14–41.
- . 1995. *Growing Out of the Plan: Chinese Economic Reform, 1978–1993*. New York: Oxford University Press.
- Nee, Victor. 1989. "Peasant Entrepreneurship and the Politics of Regulation in China." Pp. 169–207 in *Remaking the Economic Institutions of Socialism: China and Eastern Europe*, edited by Victor Nee and David Stark. Stanford, Calif.: Stanford University Press.
- . 1992. "Organizational Dynamics of Market Transition: Hybrid Forms, Property Rights, and Mixed Economy in China." *Administrative Science Quarterly* 37 (March): 1–27.
- Nee, Victor, and Su Sijin. 1993. "Local Corporatism and Informal Privatization in China's Market Transition." Working Papers on Transitions from State Socialism no. 93-2. Cornell University, Einaudi Center for International Studies.
- Niskanen, William A. 1975. "Bureaucrats and Politicians." *Journal of Law and Economics* 18:617–43.
- Odgaard, Ole. 1990. "Inadequate and Inaccurate Chinese Statistics: The Case of Private Rural Enterprises." *China Information* 5 (Winter): 29–38.
- Ody, Anthony. 1992. "Rural Enterprise Development in China, 1986–90." World Bank Discussion Papers no. 162. Washington, D.C.: World Bank.
- Oi, Jean C. 1986. "Commercializing China's Rural Cadres." *Problems of Communism* 35 (September–October): 1–15.
- . 1988. "The Chinese Village, Inc." Pp. 67–87 in *Chinese Economic Policy*, edited by Bruce Reynolds. New York: Paragon.
- . 1990. "The Fate of the Collective after the Commune." Pp. 15–36 in *Chinese Society on the Eve of Tiananmen: The Impact of Reform*, edited by Deborah Davis and Ezra Vogel. Cambridge, Mass.: Harvard University Press.
- . 1992. "Fiscal Reform and the Economic Foundations of Local State Corporatism in China." *World Politics* 45 (October): 99–126.
- . 1993. "Reform and Urban Bias in China." *Journal of Development Studies* 29:129–48.
- . 1996. *Rural China Takes Off: Incentives for Industrialization*. Berkeley and Los Angeles: University of California Press.
- Peck, Merton J., and Thomas J. Richardson. 1991. *What Is to Be Done? Proposals for the Soviet Transition to the Market*. New Haven, Conn.: Yale University Press.
- Peng, Yusheng. 1992. "Wage Determination in Rural and Urban China: A Comparison of Public and Private Industrial Sectors." *American Sociological Review* 57: 198–213.
- Perkins, Dwight, ed. 1977. *Rural Small-Scale Industry in the People's Republic of China*. Berkeley and Los Angeles: University of California Press.
- Poznanski, Kazimierz Z. 1993. "Restructuring of Property Rights in Poland: A Study in Evolutionary Economics." *East European Politics and Societies* 7:395–421.
- Qian, Yingyi, and Chenggang Xu. 1993. "Why China's Economic Reforms Differ: The M-Form Hierarchy and Entry/Expansion of the Non-State Sector." *Economics of Transition* 1:135–70.
- Rawski, Thomas G. 1994a. "Chinese Industrial Reform: Accomplishments, Prospects, and Implications." *American Economic Review* 84 (2): 271–75.

- . 1994b. "Progress without Privatization: The Reform of China's State Industries." Pp. 27–52 in *Changing Political Economies: Privatization in Post-Communist and Reforming Communist States*, edited by Vedat Milor. Boulder, Colo.: Lynne Rienner.
- Riskin, Carl. 1971. "Small Industry and the Chinese Model of Development." *China Quarterly* 46:245–73.
- . 1987. *China's Political Economy*. New York: Oxford University Press.
- Rozelle, Scott. 1991. "The Economic Behavior of Village Leaders in China's Reform Economy." Ph.D. Dissertation. Cornell University, Department of Agricultural Economics.
- Sachs, Jeffrey D. 1992. "Privatization in Russia: Some Lessons from Eastern Europe." *American Economic Review* 80 (May): 43–48.
- . 1993. *Poland's Jump to the Market Economy*. Cambridge, Mass.: MIT Press.
- Sachs, Jeffrey D., and Wing Thye Woo. 1994. "Structural Factors in the Economic Reforms of China, Eastern Europe, and the Former Soviet Union." *Economic Policy* 18:102–45.
- Schurmann, Franz. 1968. *Ideology and Organization in Communist China*. Berkeley and Los Angeles: University of California Press.
- Sicular, Terry. 1992. "Public Finance and China's Economic Reforms." Discussion Paper no. 1618. Harvard University, Institute of Economic Research, November.
- Solinger, Dorothy. 1992. "Urban Entrepreneurs and the State: The Merger of State and Society." Pp. 121–42 in *State and Society in China: The Consequences of Reform*, edited by Arthur L. Rosenbaum. Boulder, Colo.: Westview Press.
- Stark, David. 1990. "Privatization in Hungary: From Plan to Market or From Plan to Clan?" *East European Politics and Societies* 4:351–92.
- . 1992. "Path Dependence and Privatization Strategies in Eastern Europe." *East European Politics and Societies* 6:17–54.
- . 1996. "Recombinant Property in East European Capitalism." *American Journal of Sociology* 101 (4), in press.
- Stark, David, and Victor Nee. 1989. "Toward an Institutional Analysis of State Socialism." Pp. 1–31 in *Remaking the Economic Institutions of Socialism: China and Eastern Europe*, edited by Victor Nee and David Stark. Stanford, Calif.: Stanford University Press.
- State Council, National Industrial Census Directors' Office. 1987. *Zhonghua renmin gongheguo 1985 nian gongye pucha ziliao* (Material from the 1985 industrial census of the People's Republic of China), 10 vols. Beijing: Zhongguo tongji chubanshe.
- State Statistical Bureau. 1986. *Zhongguo tongji nianjian 1986* (China statistical yearbook 1986). Beijing: Zhongguo tongji chubanshe.
- . 1991. *Zhongguo tongji nianjian 1991* (China statistical yearbook 1991). Beijing: Zhongguo tongji chubanshe.
- . 1993. *Zhongguo tongji nianjian 1992* (China statistical yearbook 1992). Beijing: Zhongguo tongji chubanshe.
- Stiglitz, Joseph. 1994. *Whither Socialism?* Cambridge, Mass.: MIT Press.
- Stinchcombe, Arthur L. 1990. *Information and Organizations*. Berkeley and Los Angeles: University of California Press.
- Suzhou Municipal Statistical Bureau. 1991. *Suzhou tongji nianjian 1991* (Suzhou statistical yearbook 1991). Beijing: Zhongguo tongji chubanshe.
- Szelenyi, Ivan. 1989. "Eastern Europe in an Epoch of Transition: Toward a Socialist Mixed Economy?" Pp. 208–32 in *Remaking the Economic Institutions of Socialism: China and Eastern Europe*, edited by Victor Nee and David Stark. Stanford, Calif.: Stanford University Press.
- Tianjin Municipal Statistical Bureau. 1991. *Tianjin tongji nianjian 1991* (Tianjin statistical yearbook 1991). Beijing: Zhongguo tongji chubanshe.

- Treisman, Daniel. 1994. "The Politics of Fiscal Federalism in Post-Soviet Russia." Manuscript. Harvard University, Department of Government.
- Vogel, Ezra F. 1989. *One Step Ahead in China: Guangdong under Reform*. Cambridge, Mass.: Harvard University Press.
- Walder, Andrew G. 1986a. *Communist Neo-Traditionalism: Work and Authority in Chinese Industry*. Berkeley and Los Angeles: University of California Press.
- . 1986b. "The Informal Dimension of Enterprise Financial Reforms." Pp. 630–45 in *China's Economy Looks toward the Year 2000*, vol. 1. Joint Economic Committee, U.S. Congress. Washington D.C.: Government Printing Office.
- . 1989. "Factory and Manager in an Era of Reform." *China Quarterly* 118: 242–64.
- . 1991. "Workers, Managers, and the State: The Reform Era and the Political Crisis of 1989." *China Quarterly* 127:467–92.
- . 1992a. "Local Bargaining Relationships and Urban Industrial Finance." Pp. 308–33 in *Bureaucracy, Politics, and Decision Making in Post-Mao China*, edited by Kenneth G. Lieberthal and David M. Lampton. Berkeley and Los Angeles: University of California Press.
- . 1992b. "Property Rights and Stratification in Socialist Redistributive Economies." *American Sociological Review* 57:524–39.
- . 1994a. "Corporate Organization and Local Government Property Rights in China." Pp. 53–66 in *Changing Political Economies: Privatization in Post-Communist and Reforming Communist States*, edited by Vedat Milor. Boulder, Colo.: Lynne Rienner.
- . 1994b. "The Industrial Organization of Zouping County: Agency and Ownership in Local Public Enterprise." Presented at the Annual Meetings of the Association for Asian Studies, Boston, March.
- Wang, Shaoguang. 1995. "The Decline of Central State Fiscal Capacity in China." Pp. 87–113 in *The Waning of the Communist State: Economic Origins of Political Decline in China and Hungary*, edited by Andrew G. Walder. Berkeley and Los Angeles: University of California Press.
- Wank, David L. 1995. "Bureaucratic Patronage and Private Business: Changing Networks of Power in Urban China." Pp. 153–83 in *The Waning of the Communist State: Economic Origins of Political Decline in China and Hungary*, edited by Andrew G. Walder. Berkeley and Los Angeles: University of California Press.
- Whyte, Martin K., and William L. Parish. 1984. *Urban Life in Contemporary China*. Chicago: University of Chicago Press.
- Williamson, Oliver. 1975. *Markets and Hierarchies*. New York: Free Press.
- . 1985. *The Economic Institutions of Capitalism*. New York: Free Press.
- Wong, Christine. 1985. "Material Allocation and Decentralization: Impact of the Local Sector on Industrial Reform." Pp. 253–78 in *The Political Economy of Reform in Post-Mao China*, edited by Elizabeth J. Perry and Christine Wong. Cambridge, Mass.: Harvard University Press.
- . 1986a. "The Economics of Shortage and Problems of Reform in Chinese Industry." *Journal of Comparative Economics* 10:363–87.
- . 1986b. "Ownership and Control in Chinese Industry: The Maoist Legacy and Prospects for the 1980s." Pp. 571–603 in *China's Economy Looks toward the Year 2000*, vol. 1. Joint Economic Committee, U.S. Congress. Washington D.C.: Government Printing Office.
- . 1987. "Between Plan and Market: The Role of the Local Sector in Post-Mao China." *Journal of Comparative Economics* 11:385–98.
- . 1988. "Interpreting Rural Industrial Growth in the Post-Mao Period." *Modern China* 14:3–30.
- . 1992. "Fiscal Reform and Local Industrialization: The Problematic Sequencing of Reform in Post-Mao China." *Modern China* 18:197–227.

- Woo, Wing Thye, Gang Fan, Wen Hai, and Yibiao Jin. 1993. "The Efficiency and Macroeconomic Consequences of Chinese Enterprise Reform." *China Economic Review* 4:153–68.
- . 1994. "Reply to Comment by Jefferson, Rawski and Zheng." *China Economic Review* 5:243–48.
- Woo, Wing Thye, Wen Hai, Yibiao Jin, and Gang Fan. 1993. "How Successful Has Chinese Enterprise Reform Been? Pitfalls in Opposite Biases and Focus." *Journal of Comparative Economics* 18:410–37.
- Xiao, Geng. 1991. "Managerial Autonomy, Fringe Benefits, and Ownership Structure: A Comparative Study of Chinese State and Collective Enterprises." Research Paper Series no. 20. Socialist Economies Reform Unit, Country Economies Department. World Bank, Washington, D.C.
- Zouping County Statistical Bureau. 1993. *Zouping tongji nianjian 1992* (Zouping statistical yearbook 1992). Jinan: Zouping xian tongji ju.