Between hierarchy and market: industrial reform in the People's Republic of China in an institutional perspective

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Between hierarchy and market: Industrial reform in the People's Republic of China in an institutional perspective

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Iowa State University, 1990
Between hierarchy and market: Industrial reform in the People's Republic of China in an institutional perspective

by

Xiao-jia Ge

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Ames, Iowa
1990

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# TABLE OF CONTENTS

ACKNOWLEDGMENTS ........................................... vii

CHAPTER 1. INTRODUCTION ................................. 1
   Overview .................................................. 1
   Statement of the Problem ............................... 3
   Objectives of the Study ................................ 6

CHAPTER 2. THEORETICAL FRAMEWORK ................. 11
   Overview .................................................. 11
   Institutional Perspective ............................... 13
   Emphasis on the State ................................ 23
   Concept of Dual Dependence ........................... 27
   Summary .................................................. 34

CHAPTER 3. STATE-ENTERPRISE RELATIONS IN TRANSI-
   TION: CHANGE AND CONTINUITY ...................... 36
   Overview .................................................. 36
   Simplifying Administration and Decentralizing ...... 41
      Enterprise funds system: 1978-1979 ................ 41
      Profit retention system: 1979-1980 ................ 43
      Economic responsibility system: 1981-1982 ....... 48
CHAPTER 4. THE PERSISTENCE OF HIERARCHY: PATERNALISM AND SOFT BUDGET CONSTRAINTS

Paternalism and Soft Budget Constraints
State-enterprise Relations as Reflected in Contracts
Persistence of Paternalism

Paternalism and power dependency
Absence of link between performance and reward
Profit leveling: redistribution at the provincial level
Profit leveling inside enterprise

Soft Budget Constraints in Action
Price manipulation as a means of subsidization
A Soft Tax system
State subsidies to loss-making enterprises
A Soft Credit system ............................................. 111
Discussion: Unbroken Ties between State and Enterprise .......... 114

CHAPTER 5.  INSTITUTIONAL EFFECTS: THE STATE-IMPOSED
PRICE SYSTEM ................................................. 118
Overview ......................................................... 118
The Micro-Macro Reform Debate .................................. 119
Two-Level Analysis of Institutional Effects ......................... 124
   The two-level effect model .................................. 125
   Data and estimation methods ................................. 130
Discussion ....................................................... 134

CHAPTER 6.  CONCLUSION ....................................... 141
Theoretical and Empirical Findings ............................... 141
Sociological Reflections ....................................... 145
Research Limitations and Future Directions ...................... 148

APPENDIX: LIST OF NAMES OF CONTRACTING ENTERPRISES 152

BIBLIOGRAPHY .................................................. 154
### LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 3.1</td>
<td>Profit Distribution and State Revenues: 1978-1982</td>
<td>54</td>
</tr>
<tr>
<td>Table 3.2</td>
<td>State Industrial Performance Indicators: 1978-1982</td>
<td>55</td>
</tr>
<tr>
<td>Table 3.3</td>
<td>Categories of Enterprises under Contract Responsibility in Fujian Province: 1987</td>
<td>75</td>
</tr>
<tr>
<td>Table 3.4</td>
<td>The Distribution of Outside and Inside Contractors</td>
<td>78</td>
</tr>
<tr>
<td>Table 4.1</td>
<td>State Assistance to and Requirements of Firms</td>
<td>97</td>
</tr>
<tr>
<td>Table 4.2</td>
<td>Income of the Xiamen City State Enterprises Redistributed by the State: 1986</td>
<td>99</td>
</tr>
<tr>
<td>Table 4.3</td>
<td>Comparison of Economic Performance and Profit Retention for State Industrial Enterprises: 1985-1988</td>
<td>102</td>
</tr>
<tr>
<td>Table 4.4</td>
<td>Comparisons among Profitable, Marginally profitable and Loss-making State Enterprises in Fujian Province: 1988</td>
<td>103</td>
</tr>
<tr>
<td>Table 4.5</td>
<td>Profit Leveling inside a Fujian Provincial Autoparts Company, as reflected in Contract: 1988</td>
<td>105</td>
</tr>
<tr>
<td>Table 4.6</td>
<td>Profit Sharing between the Fujian Auto-transportation Company and the Provincial Finance Bureau</td>
<td>113</td>
</tr>
<tr>
<td>Table 5.1</td>
<td>Distribution of Sample Enterprises Across Industries</td>
<td>137</td>
</tr>
<tr>
<td>Table 5.2:</td>
<td>Comparison Between Sample, Average Large- and Medium-Sized, and All State Industrial Enterprises</td>
<td>138</td>
</tr>
<tr>
<td>Table 5.3:</td>
<td>Distribution of Sample Enterprises and Degree of Industrialization Across Provinces</td>
<td>139</td>
</tr>
<tr>
<td>Table 5.4:</td>
<td>Models Estimated and OLS/WLS Comparison</td>
<td>140</td>
</tr>
</tbody>
</table>
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CHAPTER 1. INTRODUCTION

Overview

Probably no events in recent years have captured more attention than the revolutionary changes besetting the communist world during the 1980s. Contrary to the prediction a quarter century ago by Brzezinski and Huntington (1964) that no forces from within—neither socio-economic complexity nor technological modernity—would lead to the emergence of a pluralist society behind the "Iron Curtain," the 1980s witnessed massive political and economic reform efforts in the communist world. Although uneven, these reforms have begun to reshape—and will ultimately transform—the social structures of communist societies.

This is a study of one such reform. Specifically, the study focuses on the reform of the state industrial sector in the People's Republic of China (PRC) and on the emerging institutional pattern of its industrial organization. In the PRC, as in other communist countries, state-owned industrial enterprises (hereafter, state enterprise), after rapid socialist industrial expansion beginning in 1949, encompass a full range of production and constitute the mainstay of the national economy, (for a detailed description, see Walder, 1984). By the year 1987, this sector included 97,000 enterprises employing over 40 million workers and producing 70 percent of the gross value of industrial output (State Statistical Bureau, 1988a: 301-313). Despite of its rapid
expansion the state enterprise in the PRC shares with its communist counterparts a host of structural weaknesses: chronic shortages, stagnant productivity growth, structural imbalance, slow technological innovation, and inefficient use of resources (Kornai, 1980a; Perkins, 1986).

Recognition of critical dysfunction prodded leadership in the PRC to modify the principles and procedures governing economic activities at both the macro- and the micro-levels. To invigorate the economy, a resolution was adopted by the Third Plenary Session of the 11th Party Congress in December 1978 to decentralize decision making and to place greater reliance on the market mechanism. In accordance with this reform idea, various policies have been implemented since 1978 to reform the state industrial sector. These policies were initially effected on an experimental basis and were gradually expanded nationwide after 1984 (Central Committee of the Chinese Communist Party, 1984).

The crux of the reform was to modify the rules and procedures governing the economic activities of participating individuals and organizations. It involved a redefinition of boundaries in that it attempted to establish a new relation between state and economic enterprises. It also involved the introduction of a limited market mechanism, in place of state planning, to regulate economic activities, rather than to insulate them from market forces. The general thrust has been towards the controlled delegation of power to economic enterprises by allowing a certain degree of freedom in the pursuit of economic objectives. Through these changes, it was expected that, by limiting arbitrary state interventions, the reform would make state enterprises relatively independent financially and thus responsible for their own losses and profits. It was envisioned that the reform would link reward to enterprise performance and
thus provide incentives for state enterprises to improve efficiency.

Statement of the Problem

In view of the importance of the reform, questions arise as to what extent it has been implemented and as to what changes it has brought about in state enterprises. The ten years of reform have provoked a wide range of reactions, and scholars are divided on their assessments of the outcomes of the reform. To some observers, the reform has been a great success in breaking down the rigid economic structure and in revitalizing the economy (Chen, Wang, and Colleagues, 1988; Hua, Zhang, and Luo, 1988). Zhao (1987:30), for instance, concluded that "significant achievements have been scored in the reform of China's economic structure, which has instilled new vitality into socialism." The same reform, however, has been viewed as a failure by others (Johnson, 1988; Wong, 1986). In assessing industrial reform in the PRC, Johnson (1988: S241) argued that in the state industrial sector, "either little reform has occurred or, when there have been significant reforms, most reforms have misfired because the reform was incomplete and the results that occurred had serious negative consequences."

The divergent assessments of the reform give rise to some important questions. First, how has the reform process evolved since 1978, when it was initially introduced? Second, what progress has it achieved, and what difficulties has it encountered during the process? Third, what continuities and discontinuities has it involved? A detailed examination of the process of the reform and an objective assessment of its relative successes and failures is not only necessary to answer these questions but is also important inasmuch as it will add to our understanding of momentous social change.
occasioned by the reform.

It has long been recognized by theorists that organizations are embedded in institutional environments within which they operate (Granovatter, 1985). Environment has a profound influence on organizations (Pfeffer and Salancik, 1978). Such recognitions have been, however, largely based on the observations of organizations and of their institutional environments in Western societies (Scott, 1987; Perrow, 1986; Pfeffer and Salancik, 1978). The question of how the institutional environment exerts influence on organizations in socialist societies has not been systematically studied (Carroll, Goldstein, and Gyenes, 1988). To what extent can the principle be validated by evidence from socialist societies? What represents the major variation of this principle, and what modification is needed if the principle is to be applied to studies of socialist countries?

In contrast to the market economy, in which market conditions and horizontal interorganizational relations constitute the environments of industrial firms, in a socialist economy, the state and its relations with organizations form the basic institutional environment within which organized activities take place. Many functions performed by the market in a market economy are performed by the state in a socialist economy. The socialist state, an important part of the organizational environment, has been pivotal in shaping organizations' behaviors.

Theory of state (Evans, Rueschemeyer, and Skocpol, 1985; Hamilton and Biggart, 1988s) suggests that the state plays an important role in national development and that state building is a crucial element of national modernization. Reforms in socialist societies generally, however, take the form of state withdrawal from certain areas of the economy (Nee, 1989). Thus, further questions arise as to how changes
in the state's role will affect the behavior of organizations. How does change in the state-organization relation affect the activities of organizations? And, importantly, how will the absence of change in certain aspects of this relation impede change in the organization of socialist economies?

One of the most remarkable features of industrial reform in the PRC has been an attempt to change the rules and procedures governing the economic activities of industrial organizations in the state sector. Specifically, reform efforts have been directed to modification of the rules and principles governing the relation between the state and industrial economic enterprises. According to the institutional perspective (North, 1981; Nee and Su, 1990), social change is a process of changing the rules and principles governing social and economic activities. But how do socialist institutions change? And how are the activities of organizations affected by institutional changes in socialist societies?

Another question to be addressed is whether the reforms in socialist societies have resulted in the emergence of a new institutional pattern distinct from the old one. If so, what are the similarities and the differences between the old and new pattern? Kornai (1987, 1989) describes the resulting institutional pattern in Hungary under its reform as a mode of dual dependence characterized by a persistence of paternalism and continued soft budget constraints. To what extent are Kornai's observations valid in the PRC's setting? Are the features recognized in the institutional pattern of Hungary also recognizable in the PRC's emerging institutional pattern?

If the institutional environment in a socialist economy plays a similar role in shaping economic organizational behavior as observed in market economies, what instrument can be effectively used to ascertain such institutional effects? Developments
in empirical methodology have not kept pace with the rapid development of new institutional perspectives in social sciences (Williamson, 1985; March and Olsen, 1989; Moe, 1984; Stark and Nee, 1989). The major difficulty causing the slow development of methodologies has been the issue of multilevel units of analysis. Thus, a final question this study poses is whether an institutional effect can be effectively assessed through a statistical means or, specifically, how the issue of multilevel information can be used in a statistical analysis.

**Objectives of the Study**

The major concern of this study is the changes and continuities of the institutions governing the economic activities of industrial organizations in the PRC. It is not, however, a study on industrial economics in the PRC, for it does not attempt to analyze the production of goods and services, monetary systems, or economic transactions. Nor is this a study on the Chinese political economy, because it does not attempt to analyze the politics of economic reform, such as how different interests have affected the trajectory of reform. Rather, this study will examine the system of socially defined relationships underlying economic processes and behavioral regularities. As Smelser (1963: 33) pointed out, the major concern of economic sociology is to examine the social relationships within "concrete economic units" and "between economic units and their social environment." In this study, I attempt to accomplish the analysis in the second setting—that is, the social relationships between economic units and their institutional environment.

Instead of performing any formal economic analysis, this study will focus on the mechanism underlying the economic production and exchange, the relationships...
tying the economic units and their environment, and the institutional arrangements shaping the behaviors in production and transaction. In short, this study is interested in the social nature of economic activities. Underlying this research focus is a sociological assertion that production and transaction cannot be performed in an isolated relationship between producers and their production activities, or between a seller and a buyer. What happens to the organization in the course of producing or transacting is determined, to a great extent, by a larger setting within which these activities take place. That setting, be it a capitalist or a socialist society, is institution. Therefore, production and its relation to organization cannot be understood without reference to the institutionalized systems in which organizations operate. Understanding institutional arrangement and the way they govern is the key to discovering the behavioral regularity of organizations and the way in which organizations relate to others. Here lies the answers to the questions about what the reform in the PRC has achieved, what it failed, and how further reform should proceed.

In his discussion of economic action and social structure, Granovetter (1985:504) criticized the tendency of sociologists to refrain from the "serious study of any subject already claimed by neoclassical economists." By elaborating on how economic behavior is embedded in social structure, Granovetter (1985) demonstrated the way sociology could contribute to understanding of economic behavior. Therefore, a question should be posed as to what can sociology contribute to an understanding of economic reforms in socialist societies. In turn, another question can also be asked as to how can the economic reform can inform the study of sociology.

By using an institutional approach, the current study takes as its point of departure the assertion that economic organizations are inescapably bound to their
institutional environments and tangled in a web of authority relations that constrain their behaviors. To change the behavior of an organization, one must change the context of the behavior—that is, the institutions governing that behavior. Thus, by viewing reform in socialist societies as a process of institutional change modifying the rules and principles governing economic activities, this study pays special attention to the process of institutional changes resulting from industrial reform in the PRC.

In order to understand the social nature of economic activities, the study will examine the relations between enterprises and the state in the PRC. This relationship is important because the state in a socialist economy plays a decisive role in shaping the behavior of enterprises, and because the state itself constitutes the most important element of the social environment of economic units. Because the major thrust of the reform has been directed towards changing the state-enterprise relation, the emphasis of this study will be, specifically, on changes and continuities of state-enterprise relations. The rationale underlying this emphasis is the argument that economic activities of industrial organizations in the PRC cannot be fully understood without a detailed analysis of the role of the state and of the ways in which the state is related to economic organizations.

Because the sweeping reforms in socialist countries are new phenomena, the issue of how to approach the reform with an appropriate theoretical framework will be the major concern of the second chapter. Through a systematic review of the major comparative studies of communism, this study argues that an emerging institutional perspective, with its potential to accommodate the role of the state and its emphasis on changes in rules and procedures, provides an appropriate theoretical framework to study reforms in socialist countries. In line with the institutional perspective, this
study maintains that Kornai's (1987) theory of dual dependence is an appropriate theory for studying the changes and continuities in the state's role and in the emerging institutional pattern under the reform.

How institutions change will be the focus of the third chapter, in which the changes and continuities in the rules governing state-enterprise relations will be described and the major stages of the reform process discussed. By way of a detailed examination of ten years of reform as evidenced by documentary data, this study argues that although there have occurred gradual expansions of enterprise autonomy since the reform, these events have been accompanied by serious unanticipated consequences. As can be seen in the progress of and in the difficulties encountered by the reform process, the piecemeal nature of reform is the major factor impeding its success.

The characteristics of state-enterprise relations will be studied in the fourth chapter, in which the difficulties of reform will be examined in light of Kornai's concepts of paternalism and soft-budget constraint. These concepts will be elaborated upon, and hypotheses regarding them will be developed and partially tested against empirical data. Based on this analysis, the persistence of these phenomena will be discussed in relation to Kornai's theoretical framework of dual dependence.

The fifth chapter will focus on a statistical analysis of industrial enterprise data. By proposing a multilevel model by which to assess institutional effects, the structural effects of the distorted price system on the continued failure of enterprise to link reward to performance will be demonstrated. It will be argued that decentralization of power to the state enterprises should be coordinated with the reform of the state-imposed price structure because reforms in these two areas are highly interrelated.
and because the price structure constitutes a major external environment in which economic organizations operate.

In the sixth chapter, the major theoretical and empirical findings will be summarized, and their sociological importance will be highlighted. This final chapter will conclude with a discussion of the research limitations of the study.
CHAPTER 2. THEORETICAL FRAMEWORK

Overview

This chapter will focus on the general theoretical framework used in this study. Three major components constitute this framework: an institutional perspective, an emphasis on the role of the state, and Kornai’s concept of dual dependence.

First, this chapter will review the body of literature on the comparative study of communism associated with the PRC. It will be argued that three dominant perspectives—totalitarianism, modernization, and Marxism—are not appropriate to the study of current reforms in socialist societies. Instead, the emerging institutional perspective, with its potential to accommodate the concept of state and with the emphasis on institutional change, provides a useful theoretical framework in which to understand these reforms. Institution is defined according to March and Olsen (1989) as sets of rules and routines through which activities of participants are structured. Likewise, institutional reform is defined as the process of change in principles and in procedural rules that define actions of and interactions among participants. Thus defined, the institutional perspective permits the study of issues such as the extent to which rules and procedures have been changed under reforms, and the extent to which participants’ activities have been affected by changes or by the lack of change in the institution.
Second, the scant attention paid to the role of the state in Western organizational theory will be criticized, and the important role played by the state in socialist societies will be discussed. By highlighting the importance of the role of the state, the second section will discuss the rationale for incorporating the concept of state into the institutional perspective. To accomplish this, *state* is defined as an authoritative part of the institutional framework of society. It consists of a set of authoritative institutions and procedural rules that, taken together, constitute a vital aspect of the structural environment within which organizations operate and interact. Incorporating the concept of state into the general theoretical framework allows attention to be focused on the evolving relations between state and economic enterprises, a relation of central importance to the PRC's industrial reform.

Third, in keeping with the institutional perspective and the emphasis on state, Kornai's concept of dual dependence will constitute part of the theoretical framework. *Dual dependence*, according to Kornai (1987), is a mode of institutional governance in which, state-owned enterprises are vertically dependent upon the state and, at the same time, horizontally dependent upon market. Dissimilar to both hierarchical mode, which is characterized by state economic control and central planning, and to market mode, which is characterized by private ownership and free-market transactions, the dual dependence represents an emerging mode of institutional governance in socialist economies under reforms. It will be argued that applying Kornai's (1987) dual dependence concept to the Chinese setting provides an opportunity to observe problems generic to the reform of socialist economies.
Institutional Perspective

Rhetoric of paradigmatic confrontation and succession has been commonplace in every area of scientific inquiry. Not unlike their counterparts in other scientific disciplines, social scientists today adhere to a variety of perspectives. Researchers into the study of socialist societies are no exception to this rule. Over the past four decades or so, three perspectives have dominated this field: totalitarianism, modernization, and Marxism (and neo-Marxism). For example, as Whyte, Vogel, and Parish (1977: 180) claimed in their review of sociological studies of China, "modernization theory, totalitarianism, and Marxism (with Chinese modifications) all have had some influence" on this field.

The studies of comparative communism, like those of other social science fields, have revolved around the question of how social order is possible. Developed to explain the rapid consolidation of social order after the overthrow of old regimes, the theory of totalitarianism gained preeminence before the 1960s. According to this theory (Friedrich and Brzezinski, 1956), the strengthening of social order in the societies involved was accomplished through a pessimistic asymmetry: power was concentrated in the state at the macro-level, mass was atomized at the micro-level. It was argued by this theory (Friedrich and Brzezinski, 1956) that, through this asymmetry, the new regimes created conditions that helped ensure elimination and containment of challenges from lower levels.

In sharp contrast to industrial capitalist societies, in which procedural democracy balances social interests, and the market mechanism regulates exchanges, communist societies, according to the totalitarianism school (Friedrich, 1954), were characterized by a single mass party armed with communist ideology and relying upon political
terror, which devastated the boundary between public and private and between state and economy, thus penetrating into every realm of economic and social life (Brzezinski, 1956; Friedrich and Brzezinski, 1956; Wolfe, 1956). Under totalitarian regimes, the entire economic process was directed to the launching, execution, and supervision of centralized state planning. The state, through centralized planning and political mobilization, stretched its control of a nation's economy to an extent never before experienced in human history.

This asymmetrical image depicted by totalitarianism was pessimistic. As long as a monopolistic party-state maintains its total control over the allocation of social rewards and punishment, the totalitarianism school argued, this system could endure the challenges of technological modernization, industrial specialization, and bureaucratization without significantly altering its core Leninist institution (Brzezinski and Huntington, 1964). As Stark and Nee (1989:4) pointed out, "the possibility that existing socialisms might evolve or be transformed was precluded by a theory that portrayed an atomized citizenry, a frozen society, and an immutable state."

The static imagery of socialist society was expressed no more conspicuously than in the discussion of the future development of communist societies by Friedrich and Brzezinski (1956: 294-303) in their study of totalitarianism.

Researchers into socialist societies who were guided by the school of totalitarianism rightly grasped the role of the state as the key to their comparative studies. But they were misguided in their reduction of socialist society to one of total state control and total societal submissiveness. Rather than identifying the complex institutional processes by which social relations were constantly being developed, the approach drew a static picture of a totalitarian party-state with a captive society, a picture
that excluded the likelihood of these societies’ evolution.

In direct contrast to the totalitarian school of socialist studies, Marxist social science in the East vigorously defended the pervasive state through a brand of proletarian dictatorship. Based on the theories of class conflict and permanent revolution, the Marxist school believed that the only way to do away with evils of capitalism was by means of the proletarian dictatorship expressed by the pervasive state acquiescing to all possible means of proletarian domination. The nationalization of industry, the Marxist social scientists argued, would eliminate the anarchical tendency inherent in the market economy. Similarly, state monopoly through a transfer of means of production from private to public ownership and centralized state planning through a hierarchical system would do away with class exploitation via state redistribution. Consequently, the public ownership represented by state monopoly would serve as an effective means of emancipating the productive force from the fetters of the capitalist mode of production.

Even when there was evidence that continued social stratification and inefficiency resulted from central planning, Marxist social scientists generally ascribed these effects to bureaucratic distortion of the proletarian state or to the remnants of capitalism or even of feudalism (Zhao, 1987). Using such familiar paired concepts as productive forces versus relations of production, and economic infrastructure versus ideological superstructure, the Marxists portrayed an image of a marketless socialist society as an equitable and vital force that would ultimately demonstrate the superiority of socialism over capitalism.

Nevertheless, Marxist paradigm was as ill-equipped to explain how socialist societies operated as it was to explain what was happening in the capitalist world. Except
in terms of ideological justifications, the Marxist concept of the mode of production could not help explain the patterns of institutional regularity. As Nove (1983:20) concluded, "there is no Marxist political economy of socialism." Based on utopian assumptions of abundance rather than on serious considerations of scarcity, "Marxist economics," Nove (1983:59) argued, "is either irrelevant, or misleading, in respect to the problems that must be faced by any socialist economy which could exist."

Marxism, as a dominant paradigm in socialist countries, shared with its totalitarian counterparts an ideological tenor and is thus also guilty of same reductionism.

Partly as a result of dissatisfaction with the static view of totalitarianism and partly as a result of the observations of the trend towards bureaucratization and routinization in Russia after large-scale industrialization, writers have shifted their emphasis since the late 1960s to the observed changes in socialist societies (Johnson, 1970). The paradigm that has emerged in the west is modernization theory. Modernization theorists, unlike their totalitarianism predecessors who focused on ideology, attached explanatory primacy to technology and modern values (Stark and Nee, 1989). Based upon the historical experience of industrialization in the West, the modernization theorists questioned the static view of totalitarianism. They argued that technological needs and the requirements of bureaucratization were in direct conflict with totalitarian dictatorship. The inherent contradiction between industrialization and totalitarian control would give rise to changes in these societies (Lewis, 1969).

Both communist and capitalist states, the modernization theorists argued, are obliged to adapt to the exigencies of the modern period, with its increasingly sophisticated industrial production and pattern of modern life (Walder, 1979). By extending
the logic of industrialism (Kerr, Dunlop, Harbison, and Myers, 1960) observed in technologically advanced capitalist societies to the development of communist societies, the modernization theorists believed that there were certain inherent characteristics such as rationalization, differentiation, and bureaucratization that delineate the developmental trajectory beyond conscious social intervention (Kerr, Dunlop, Harbison, and Myers, 1960; Lewis, 1969; Lowenthal, 1970).

As a result of this paradigmatic shift, the schematic questions changed from how totalitarian ideology and control prohibited socialist society from change to how changes were determined in socialist societies, and what direction of change the societies would follow. Taking constancy of change in the societies as a given, scholars in this area began to ask questions such as how changes in socialist societies were determined by the peculiar characteristics of the societies or by the processes intrinsic to large-scale industrial production (Walder, 1979).

In part because of an awareness of the distinctively Chinese traditional social structure, and in part because of the PRC's renounced split from the Soviet revisionists and determination to forge a Maoist approach to development, studies of the PRC under the modernization paradigm focused on the convergence thesis. Thus, attention was directed to extent to which the Soviet-style social structure was altered and transformed as introduced into China, whether it was possible to retain certain characteristics of the Soviet model while rejecting others, and whether the PRC's approach to economic organization was an alternative both to the Soviet and to the capitalist model (Whyte, Vogel, and Parish, 1977).

Accepting the premise that Maoist approach to industrial organization was indeed distinct from both the Soviet and the capitalist model, the argument advanced
by convergence theorists was the invariant process of modernization. Theorists (Lewis, 1969; Lowenthal, 1970) denounced the PRC's attempt as inherently infeasible and elaborated on the detrimental effects of the approach. The deviant Chinese mode, according to this view, was doomed to counter-productivity and failure because the inherent character of technology and the requirements of modern methods of economic organization demanded increasing differentiation and large-scale organization.

But the divergence theory was upheld by others (Andors, 1977; Hoffmann, 1974). Accepting the thesis that there was a distinctive Chinese road to development, divergence theorists viewed the strategies employed by the PRC as not only realistic but also effective means of directing large-scale development. Here was a participatory management aimed at eliminating human alienation (Andors, 1977; Hoffmann, 1974). Here was a self-reliance strategy that was realistic in its desire to avoid being engulfed in the capitalist system (Bettelheim, 1974). Here was an anti-bureaucracy innovation directly challenging the logic of industrialism (Gurley, 1971). To those who favored particularity in contrast to generality, the PRC was a solid example of a development model that was a feasible alternative both to the Soviet-style and to capitalist model of development (Bettelheim, 1974; Gurley, 1971).

Both sides of the debate concerning the modernization paradigm have their merits as well as their shortcomings. Difficulties encountered by the PRC's development strategy in the 1970s proved its infeasibility, as the convergence theorists had argued. In addition, by this time it had become clear that the Maoist approach to economic organization was not something really distinctive but only a variant of the Soviet-style centralized command economy (Waldr, 1986; Riskin, 1987; Whyte, 1989). The
Maoist approach shared with its East European counterparts the same host of problems: overcentralized management, irrational factor allocation, slow technological progress, and poor labor motivation, which are the classical symptoms predicted by the convergence theory (Lardy, 1983; Nove, 1983; Riskin, 1987). The convergence school, however, can be faulted for oversimplification in extending the process of modernization observed in the West to its Eastern counterpart and for insensitivity to complex institutional arrangements. Not unlike the Marxist persuasion of mode of production, according to which economic base dictates choice of institutional superstructure, the convergence theorists (Lowenthal, 1970) argued that technology and large-scale production dictates that a socialist society adopt an institutional structure consistent with that of the functions and values of technologically advanced capitalist society.

The divergence thesis of attending to the particular did, in fact, breed some fruitful results and sensitized scholars to cultural diversity and distinctive institutional patterns. The earlier applause for the uniqueness and feasibility of Chinese approaches, however, was based largely upon fragmentary information and upon government media report (Whyte, Vogel, Parish, 1977). Research increasingly showed that the earlier impressions bore very little resemblance to organizational realities (Walder, 1989). For example, a host of literature on China's participative management practice was proved false by Walder's (1986) later, systematic investigation. In addition, the divergence thesis can also be cited for its tendency to project an idealized view of socio-political and economic processes onto the study of socialist societies.

Clearly, no single paradigm reviewed above can be said to have come to grips
with many perplexing and complex problems calling for insight and analysis. Moreover, current changes in the communist world and widespread reform efforts have rendered these paradigms irrelevant for the most part (Walder, 1989). For example, the Chinese reformers' attempts to approach their work within the Marxist framework by arguing that the PRC was in the "primary stage of socialism" (Zhao, 1987: 9-18) was itself a conceptual manipulation aimed at providing accommodation for other theories. On the other hand, neoclassical economics as a major branch of modernization theory was increasingly plagued by its lack of applicability due to free-market assumptions and institutional insensitivity. It has become clear that neither totalitarianism, Marxism, nor modernization was a useful research paradigm for which many scholars were searching. It is increasingly evident, however, that the emerging theoretical framework known as the "new institutional perspective" provides a point of view from which contemporary socialist societies can be studied, analyzed, and understood fruitfully.

The new institutional perspective emerged recently from a general dissatisfaction with an inability of existing paradigms to explain the operation, change, and transformation of social systems. Developed mainly by an economist (Williamson, 1985) and designed to facilitate study of the transition to hierarchical governance in capitalist societies, this perspective gained popularity in sociology (Granovatter, 1985; Zald, 1987; Stark, 1986; Nee, 1989; Nee and Su, 1990; Stark and Nee, 1989) and political science (March and Olsen, 1989; Moe, 1984). Institution is defined by this perspective as sets of formal or informal rules and procedures that set constraints on actions of, and interactions among, participants, be they individuals, groups, or organizations (March and Olsen, 1989). The basic tenet of the perspective, in sharp
contrast to that of the neoclassical formulation, is the assertion that the variety of behaviors and performances of participants are, by and large, profoundly influenced by institutional arrangements. In analyzing economic action, new institutional theorists maintain that institutional arrangement influences transaction costs (i.e., costs over and above production costs) and thereby determines the structure of incentives, which shapes the behavior of participants as well as the form of organizations (Nee and Su, 1990; Williamson, 1985).

The institutional perspective's emphasis on transitions undergone by organizational forms and institutional patterns is particularly suited to understanding the development pattern of the socialist system and its recent reform. The institutional changes in the PRC from 1949 to 1978, for example, can be viewed as an institutional change that replaced the rules and procedures of the market economy with those of a command economy. It took place mainly in the area of redistribution of property through state nationalization of wealth and creation of state and collective organizations. These massive institutional changes eliminated the market and replaced it with a hierarchy allocating resources and regulating transactions, a hierarchy that subsequently sealed state enterprises from market forces. By the same token, the recent economic reforms can be understood as a process of modification and reformulation of governing rules and procedures in response to the perceived failure of the centralized command economy. From the institutional perspective, the economic reforms in the PRC since 1978 can be viewed as an effort to replace the rules and procedures of centralized state bureaucratic planning with the rules and procedures governing the marketplace. From this angle, then, the emphasis of the study can be to what extent the rules and procedures have been replaced, and what new in-
institutional pattern has been introduced by the reforms. Similarly, attention can be
directed to how changes in rules and principles have affected economic activities of
individual economic organizations.

Several advantages of the new institutional perspective over the existing paradigms
can be observed. First, the institutional approach broke with previous frameworks
in its accommodation of changes and evolutions. Unlike the neoclassical formulation,
which assumes a static equilibrium (Langlois, 1986; Nelson, 1986), the institutional
perspective studies change as a process of institutional evolution (Schotter, 1986). In
contrast to the totalitarianism school, which depicts an immutable state and a frozen
society, the institutional perspective draws attention to institutional characteristics
facilitating or impeding change. Developed to explain the transition between organ­
izational forms, the institutional perspective is particularly suited to studying the
changes and reforms recently taking place in communist societies.

Second, unlike the existing paradigms analyzing socialist societies in terms of
the West (see Stark and Nee, 1989 for a criticism of this method), the institu­
tional perspective avoids bias by paying strict attention to distinctive institutional
arrangements in communist societies and by identifying specific institutional pro­
cesses through which institutional structure is reproduced. In addition, studies con­
ducted by some social scientists from socialist societies, particularly those of Kornai
(1980a; 1987; 1989), have played an important part in the development of the institu­
tional perspective. of Kornai (1980a; 1987; 1989). Kornai’s work has in fact reversed
the traditional trend of conceptual borrowing from the West by the East (Stark and
Nee, 1989).

Third, the institutional perspective allows interpenetration between analyses of
economic organizations and social institutions, thereby combining the strengths of sociology, political science, and economics. Unlike neoclassical economics, which depicts an economic man striving to maximize utility, unfettered by socio-political institutional constraints, the institutional perspective recognizes the complex interplay between socio-political institutions and economic activities.

Fourth, unlike many other theories of formal organizations which do not take the state's role into consideration, the institutional perspective has the potential to accommodate this role (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). By focusing on change in the rules and procedures governing the relations between the state and micro-economic organizations, the theory provides a framework in which socialist institutions can be better understood.

Fifth, the institutional perspective pays particular attention to the systemic nature of a social structure and, in the study of social change, recognizes the functional interconnectedness of social systems. Institutional theorists maintain that changes in one area will lead to changes in others. Institutions are functionally interrelated to the extent that it is impossible to change one without triggering changes in others. Thus, institutional theory attaches importance to the sociological interpretation of social change.

Emphasis on the State

Despite the paramount importance of the role played by the socialist state, scant attention has been paid it by Western organizational theorists. Having enjoyed long applicability to market economies, Western organizational theories have in fact very limited utility in the study of issues arising from socialist systems.
As Carroll, Goldstein, and Gyenes (1988) pointed out, one obvious weakness of Western organizational theories is the neglect of the role of the state. Assuming that organizations are basically autonomous entities and legally independent of the state, conventional organizational theories have attached only marginal importance to the state’s role. Major graduate textbooks on organizational theories (Hall, 1987; Perrow, 1986; Scott, 1987), for example, seldom include the word *state* in the subject index. Even the institutional approach, the only approach seemingly capable of accommodating this role, is basically concerned with culturally held values and beliefs enacted and maintained by the state (Meyer and Rowan, 1977; DiMaggio and Powell, 1983).

Such an orientation is understandable. In the West, the basic assumptions of organization are colored by the observation that organizations are all autonomous entities with the legal right to compete in a free marketplace. And even comparative studies dealing with organizational issues in socialist societies are largely overshadowed by influential works such as those by Bendix (1963) and Schurmann (1968), in which the overarching concern is ideology, not state. As Scott (1987: 181) observed, "[theorists] are just beginning to become aware of the importance of the state structures and activities...as powerful forces shaping the environment of all types of organizations."

Such neglect is hardly defensible (Carroll, Goldstein, and Gyenes, 1988). The role of the state in shaping the trajectory of industrialization has long been observed by sociologists. For example, the dependence of economic enterprises upon subvention and protection by the Russian government in the 19th century and the role played by the state in the Soviet Union’s industrialization was well documented by Bendix
The differences in state-business relations between three Asian countries and differing degrees of pervasiveness of the state in determining their organizational forms were discussed by Hamilton and Biggart (1988). Even in advanced capitalist societies, the expanding role played by the state should not be overlooked. Melman (1970), for example, illustrated how large firms in the defense industry depend on the government contracts. Based on a case study of the relation between the aeronautics and microelectronics industries and the Pentagon, Hooks (1990) demonstrated the effort of the state to shape production and distribution in these industrial sectors in the United States.

In socialist societies, the state plays a decisive role in defining the institutional environment for organizations and is the most important factor in shaping interorganizational relations (Carroll, Goldstein, and Gyenes, 1988). Not only does the state directly perform certain functions performed by the market in capitalist societies, it also penetrates almost every aspect of organizational lives (Walder, 1986). In socialist countries, the state itself forms the significant environment for economic organizations. Failure to recognize the role of the state in some sense reflects a cultural bias in organizational theory development and reveals a defect in the basic assumptions of conventional organizational theories.

Ironically, the motivation to bring the state back in to the social sciences has not come from the organizational but from both the comparative development theorists (Skocpol, 1979; Evans, Rueschemeyer, and Skocpal, 1985) and the comparative economists in the East (Kornai, 1980a; Horvat, 1982; Richet, 1989). Paradoxically, unlike scholars from the West (Evans, Rueschemeyer, and Skocpol, 1985) who generally pointed to the theoretical importance of the state in explaining national de-
development, scholars (Kornai, 1980a; Horvat, 1982) from the East pointed to the detrimental effects of a pervasive state. Although the subjects dealt with by the theories are quite different, all indicate the importance of the state's role. Inspired by this theoretical development, the current study emphasizes the state and its direct relation with organizations.

*State* refers to an authoritative part of the institutional framework of society. It consists of a set of authoritative institutions and procedural rules that, taken together, constitute an important part of the structural environment within which organizations operate and interact. The emphasis here is on the word *authoritative*, which distinguishes the state from other institutional frameworks such as the market. One advantage of this definition is that it avoids a pitfall of resource dependence theory (Pfeffer and Salancik, 1978; Aldrich, 1979), which assumes that resources are the sole source of power, and which overlooks the sovereignty and authority of the state. Another advantage of this definition is that it incorporates the concept of power into the study of state-enterprise relations because the state derives its power not from economic but from political resources.

State is also defined as a neutral term embodying a real and independent authority that can either promote or destroy socially desirable outcomes. Although studies of comparative development often emphasize the role of the state as an active promoter in national development (Evans, Rueschemeyer, and Skocpol, 1985), the role can be overestimated (Hooks, 1990). Instead, the neutral definition does not preassume this active role, but argues that a pervasive state will not necessarily but can have, detrimental effects on national development as well.

Given the importance of the state, some questions arise as to what role it plays in
the reform of socialist societies. The theory of state building emphasized the beneficial effects of state intervention on national development (Evans, Rueschemeyer, and Skocpol, 1985). But reforms in socialist countries have generally entailed the state's withdrawing itself from society and the economy. Ten years of economic reform in the PRC, for example, has witnessed a partial withdrawal of the state from the economy, in the form of the family responsibility system in the rural areas (Huang, 1989; Nee, 1989; Nee and Su, 1990) and in the form of expanding enterprise autonomy in industrial sectors (White, 1989). Therefore, a question that can be asked is how the state of the PRC, given its previously pervasive role, has withdrawn from the economy and what impact this withdrawal has had on the economy. By viewing the state as a major factor in the determination of organizational behavior, this study takes the state-organization relations as a key factor in analysis of the PRC's industrial reform.

**Concept of Dual Dependence**

Institutional economists often use the antithetical concepts of hierarchy and market to form a bipolar scheme of comparative economic institutions (Williamson, 1985; Kornai, 1989). A market mode of governance represents a means of regulating economic activities through continual and spontaneous adjustments of supply and demand of products, money, and labor. The price system it furnishes provides information with which to coordinate the actions of various economic agents. The transactions under the market mode of governance are characterized by a horizontal relation between individuals and organizations participating in exchange activities (Kornai, 1989; Richet, 1989).

In a hierarchical mode of governance, by contrast, the coordination of activities
is carried out by administrative means through the transmission of commands along a multilevel, vertical structure (Kornai, 1987, 1989). This mode involves a pyramid structure of administrative control in which centralized planning is the main feature of coordination. Therefore, the transactions and information exchanges under hierarchical governance are characterized by a vertical relation between the coordinating individuals and organizations on the one hand and the coordinated individuals and organizations on the other (Kornai, 1989).

Contemporary economic institutions share, to various degrees, some features from both modes of economic governance. Those subject to hierarchical governance, in which the vertical relations prevail, are simultaneously regulated by various elements of the market modes. Those subject to market governance, in which price is the most important signal for the adjustment of actions, are frequently constrained by state regulations and other types of intervention (Richet, 1989). As Kornai (1986) argued, however, the two pure types can be distinguished by considering three sets of constraints facing a basic economic unit: resource constraints, demand constraints, and budget constraints. According to Kornai (1980a:23-25), resource constraints refer to the use of production inputs not exceeding the amount of available resources, whereas demand constraints refer to the limits under which sale of products do not exceed the buyer demand at given prices. Budget constraints refer to a set of financial disciplines under which firm’s financial expenses cannot exceed the amount of its money stock and of its proceeds from sales. Budget constraints are “hard” if strictly enforced and “soft” otherwise (Kornai, 1986).

In its classical form, the market mode of governance is a demand-constrained system in which production increases are constrained by buyer demand. Under the
market economy, a firm exists as long as it can maintain its sales while keeping its costs low enough to make profit. By contrast, under the shortage conditions characterizing socialist economies, the classical relation of supply to demand under the market economy is altered. A firm in the socialist economy is resource- rather than demand-constrained, and the budget constraints it faces are soft rather than hard. In sum, its survival and growth are not dependent upon its performance on the market.

As Williamson's (1985) study indicates, emerging corporatism and hierarchical forms of organizations can be seen as adaptive responses of organizations to market failure in capitalist economies. In the same vein, the adoption of limited market mechanisms as a result of reforms in socialist countries should be viewed as a response to organizational failure in socialist economies (Stark and Nee, 1989). Though various theories have been proposed to explain such organizational failures in socialist economies, Kornai's (1980) institutional explanation has been the most telling. Central to his explanation is the assertion that organizational failures in socialist economies are rooted in the relations between firms and the state. A high level of paternalism, institutionalized by state ownership, and soft budget constraints are the fundamental characteristics of a relation leading to a broad spectrum of economic dysfunction (Kornai, 1980a).

If reform in socialist countries can be viewed as an organizational response to perceived failures in the hierarchical mode of governance, to what extent have the reforms been directed to reduce paternalism? To what extent has the phenomenon of soft budget constraints been reduced? Because reform in the PRC has primarily taken the form of state withdrawal and of adoption of market mechanism, what has
been the emerging institutional pattern? More to the point, as Walder (1989:421) asked, to what extent can market forces be combined with hierarchical planning in the long run? And "are market and hierarchy incompatible dualities, fundamentally at odds with each other as forms of coordination in socialist economy" (Stark and Nee, 1989:19)?

Some studies of China's economic reforms have already noted the distinctiveness of the emerging economic institution. Boisot and Child (1988), for example, described what they termed a "fiefdom-type" transaction pattern. From a cultural perspective, they argue that degree of codification and diffusion of information, as well as physical and technological infrastructures is the major factor responsible for the fiefdom-like governance. Independent of Boisot and Child, Solinger (1989) found that a hybridized pattern of relational contracting developed as a result of three structural properties: degree of scarcity, lack of standardization, and uncertainty of information. Byrd (1989) developed a general equilibrium model to account for the economic activities under the hybrid of a two-tier plan-market system. Although the three just cited studies approached the basic issues of Chinese reform from different angles, all noticed that the emerging pattern, whether fiefdom, relational contracting, or two-tiered system, is distinct from the ideal-typical market governance on the one hand and from the hierarchically arranged administrative structure on the other.

This study argues that the PRC's industrial reform, as a response to perceived bureaucratic failure and as a move towards greater reliance on the market mode of governance, has given rise to a combination of elements from both modes of governance. Though the reform has pushed the PRC away from the traditional Soviet-style model, the emerging model is far from the full-fledged market mode embraced by re-
formers and expected by economists. This emerging mode of economic governance, orchestrated by reform policies, is characterized by the co-existence of rules, norms, and principles from the different political and economic systems as the three studies just summarized (Boisot and Child, 1988; Solinger, 1989; Byrd, 1989) have suggested.

But unlike studies attributing the emerging mode of governance to exogenous determinants such as culture (Boisot and Child, 1988) or infrastructure (Solinger, 1989), the current study places greater emphasis on the process of change and continuity and on the characteristics of state-enterprise relations. Unlike neoclassical studies which analyze the relative magnitude of freely marketed products to determine the success or failure of reforms, this study maintains that certain structural properties are more important than others and that they will not disappear easily with a decrease in the amount of planned goods and an increase in the magnitude of freely marketed products.

In previous studies on industrial reform in the PRC, most attention has been focused on the reduction in central planning and the increase in markets (Tidrick and Chen, 1987). Self-evident although largely ignored by the literature is the relational context within which economic activities are performed and economic transactions conducted. From a sociological perspective, this study will pay special attention to changes in and continuities of a set of relations existing between participants. The study will also rely heavily upon Kornai’s theoretical framework of dual dependence.

Dual dependence, as coined by Kornai (1987;1989), represents a phenomenon in which an enterprise “depends vertically on the bureaucracy and horizontally on its suppliers and customers” (Kornai, 1989:40). Under dual dependence, enterprises have begun to depend, to some extent, on the market in order to buy and sell products. As
Kornai (1987; 1989) showed in his analyses, however, a whole spectrum of enterprise activities, including entry and exit; determination of input, output, price, wage, and employment; and choice of technology, management, and investment, is determined by government authorities. It is true that under dual dependence the market has begun to play some regulatory role in reformed economies. Notwithstanding, the combination of elements from two modes does not necessarily mean that there is a harmonious symbiosis of hierarchy and market. Instead of standing for the establishment of the so-called "planned commodity economy" (Zhao, 1987:23), or regulated market envisioned by reformers (see White, 1989 for their views), dual dependence represents a paradoxical mixture whose dominant flavor is bureaucratic.

According to Kornai (1980a;1987;1989), two features characterize the relation between state and enterprise under dual dependence. One is continued soft budget constraints. The other is persistent paternalism. Kornai's (1980a) concept of soft budget constraints refers to a lack of financial disciplines in the micro-economic activities of an organization. Soft budget constraints are characterized by a unique phenomenon: firms are not obliged to cover their expenditure from revenues made at market; instead, expenditures can be recompensed by state assistance via pricing, taxes, grants, credit, and other subsidies.

Paternalism is a concept evoking the relationship between parent and child, and Kornai (1980a) uses the term in his analysis of relation between state and enterprise in socialist societies. Kornai's framework (1980) characterizes paternalism by five levels of increasing dependence: degree 0: self-supporting, unassisted; degree 1: self-supporting, assisted; degree 2: financial allowance; degree 3: grants in kind, wishes actively expressed; and degree 4: grants in kind, passive acceptance. Coinciding with
the ideal typology of market and hierarchy as polarized economic institutions, Kornai (1980) argued that the classical Soviet-type economy can be represented by a high level of paternalism, the ideal free-market economy envisaged by the Friedman-Hayek school can be represented by a low level of paternalism.

In describing economic reform in Hungary, Kornai (1980a) noted a shift away from paternalism in Hungarian state-enterprise relations (i.e. from degree 4 and 3 towards degrees 2 and 1). But he also noted that the shift was incomplete and that it coexisted with a strong tendency to regress to greater degree of paternalism (Kornai, 1980a;1989). The persistence of paternalism coupled with continued state intervention under dual dependence (Kornai, 1989) has had notable ramifications on the economy.

First, under dependence, economic reform generally takes a cyclical form whereby reform and retrenchment, decentralization and recentralization, acceleration and deceleration alternate (Kornai, 1980b). Second, under dual dependence with persistent paternalism and soft budget constraints, state enterprise can continue to rely on state subsidies, which undermines the link between performance and reward. Third, there is no real incentive for enterprise to improve efficiency, because subsidized prices, credit, and grants can be obtained easily through state patronage. The fourth and final result of continued dependence on the state and soft budget constraints imposed on enterprise is beleaguered economic performance.

The dual dependence perspective is different from cultural and neoclassical economic perspectives in that, first, it pays particular attention to the relational aspects of economic life and to how authorities and economic agents are related. Instead of assessing the reform by measuring the relative magnitude of freely marketed or cen-
trally planned goods, the dual dependence perspective provides a framework in terms of which to explain the behavior of economic organizations, a framework which disen­tangles the exiting relation between of command and obedience, thereby recognizing the interplay of economic organization and socio-political institution. Second, the dual dependence perspective emphasizes the role played by the state in shaping organizational behavior. While recognizing the importance of culture, it overcomes the limitation of a cultural perspective that neglects the role of the state in enacting and maintaining culturally held beliefs. By emphasizing the state, it also distinguishes itself from other institutional economics by assigning a place to authority and dependency. Third, its level of analysis is organizational rather than individual and thus encourages sociological analyses. It should not be forgotten, however, Kornai’s concept of dual dependence is based upon his observation of the Hungarian economic reform experience. Can his observations be generalized to other socialist countries under reform? To what extent can his theory be supported by reform experiences in the PRC?

Summary

Based on the literature review and discussion, the theoretical framework used in this study can be summarized as follow:

First, reform in socialist countries can be viewed as an organizational response to perceived failure of the centralized bureaucratic mode of governance. Such reform generally takes the form of partial state withdrawal from the economy and the society by relinquishing a certain autonomy to economic organizations and by allowing market mechanisms a limited role in coordinating economic activities.
Second, this partial state withdrawal involves a process of institutional change that modifies the rules and principles governing relations between the state and the economy. The resulting change in this relation is generally towards an expansion of autonomy of the economic units within limits specified by the state.

Third, because of the systemic nature and the interconnectedness of the systems involved, piecemeal reform is often accompanied by both intended and unintended consequences. Continuities and discontinuities are involved. Under piecemeal reform, changes made in one area coexist with lack of change in other areas. Thus, reform process generally takes an incremental form in which start and stop, acceleration and deceleration, alternate.

Fourth, the piecemeal nature of reform, and the coexistence of change and continuity, gives rise to a paradoxical phenomenon Kornai (1987) termed dual dependence. Under this mode of governance, persistent paternalism and continued soft-budget constraints are the primary features characterizing state-enterprise relations. The persistence of these two socio-economic features are of great consequence to the economic development of socialist economy.

Fifth, the nature of interconnectedness of the systems is particularly evident in the linkage between macro- and micro-economic reforms in socialist economies. The tension between expanded micro-economic units' autonomy and continuation of state controlled pricing is particularly acute under a piecemeal reform. Consequently, the need for a coordinated reform both micro- and macro-levels is of central importance to the success and failure of institutional reform in socialist economies.
CHAPTER 3. STATE-ENTERPRISE RELATIONS IN TRANSITION: CHANGE AND CONTINUITY

Overview

While social scientists (Chandler, 1977; Perrow, 1981; Williamson, 1985) were explaining market failure and the emergence of a hierarchical mode of economic governance in the West, it was already clear that the hierarchically administrative mode of economic governance in socialist countries fell far short of what had been envisioned (Kornai, 1980). Before reform, industrial organization in the PRC had been modeled, in large part, on that of the Soviet Union, and state-owned enterprise had operated in a highly bureaucratic environment. The erection of a state hierarchical mode after industrial and commercial nationalization and the rapid expansion of state industry transferred substantial power from the society to the state bureaucracy and thus established the state's control over the market (Perkins, 1966). It was a pervasive state that regulated the economy by means of centralized plans enforced by a hierarchy of political and administrative agencies. The role of market relations was greatly circumscribed by political and administrative bodies.

The state-enterprise relation was characterized by omnipresent administrative control, with state dominance on the one hand, and dependent enterprise on the other. Even to casual observers, it was clear that state-owned enterprises were little
more than appendages of state bureaucracy. Such enterprises operated in a rigid hierarchical pyramid, with substantial external control imposed by administrative governing bodies, be they ministries or bureaus at the provincial or county levels (Perkins, 1966; Schurmann, 1968). These bodies acted as giant conglomerates internalizing all exchange activity and were further integrated into the center by means of both central planning and chains of command. Such a system, as Richet (1989) put it, provide means for state domination of all economic processes and control over the entire economy as if it were a single large enterprise; it allowed the state to penetrate into the market and society to an extent perhaps unattainable in a market economy.

Four principles of administrative control governed each of the following areas: planning, monetary allocation, material supply, and employment. First, state enterprises were bounded by detailed mandatory plans in which physical output targets and input quotas were the dominant criteria by which enterprise performance was evaluated. These centrally determined plan indicators were disaggregated successively from higher to lower echelons along a multilevel hierarchy, with factories at the bottom of the pyramid.

Second, monetary relations between enterprise and the state were governed by a principle of unified control of revenue and expenditure (tongshuo tongzhi). Under this highly centralized budgetary system, an enterprise was required to remit all its profits and depreciation funds to state agencies while receiving all its investment funds and working capital from the state, according to a centrally predetermined plan.

Third, factory products were purchased and sold by the state commercial sector under a unified purchase and sale system (tongguo tongziao) while its resources were
supplied by the state under a system of unified allocation (tingyi diaobo). Transactions, by and large, were monopolized by the state according to the prescribed quantity and quality specified in the annual plan. Product prices were determined administratively by the State Price Management Bureau, with no regard to supply and demand of the market.

Fourth, labors were allocated administratively by the State Labor Bureau (tongbao tongpei) according to the plan, and workers were paid according to a unified national wage scale stipulated by the state. This undermined the possibility of remuneration according to merit. Accordingly, factory managers were appointed by the state and were bound in a web of bureaucratic control that left them little opportunity for autonomous behavior beyond that directed towards fulfilling output targets. Under such a hierarchical governance, enterprises were expected neither to have their own objectives nor to apply their own criteria in decision making; instead, they were expected to apply the criteria dictated by the state.

No concept better captures the essence of such state-enterprise relations than Kornai's (1980a:561) concept of "degree of paternalism." Kornai (1980a) uses this concept, which evokes the relationship between parent and child, to analyze the relation between state and enterprises in socialist economies. Classifying relations between state and enterprise into five categories of increasing dependence, Kornai argues (1980a) that the classical Soviet-style economy can be represented by a great degree of paternalism, whereas free-market economy can be represented by a low degree of paternalism.

In studying Hungarian economic reform, Kornai (1980a) noted a shift towards a lower degree of paternalism in state-enterprise relations. But he also noted that
arbitrary state interventions remained, and that firms continued to depend upon the state for pricing, taxes, and credit subsidies (1980b;1987;1989). Not only was there pressure to renew paternalistic practice, but such pressures succeeded in certain cases (1980b). Kornai (1987) argued, based on these observations, that partial reform in Hungary had resulted in a mode of governance he termed dual dependence, which was distinct from both the bureaucratic mode of centralized planning and the mode of coordination of free-market.

What has been the experiences of the PRC's reform? The aforementioned four principles governing the state-enterprise relation in the PRC can be identified as high degree of paternalism. The unified allocation of capital, labors, and credit by the state and passive acceptance of the centrally prescribed command by enterprises were consistent with the degrees 3 and 4 of paternalism classified by Kornai (1980a). Recognizing the dysfunction caused by paternalism, the major thrust of reform over the past decade in the state industrial sector of the PRC has been directed at changing the rules and procedures governing existing state-enterprise relations. Specifically, efforts have been directed at reducing the high degree of paternalism characterizing state-enterprise relations and at making enterprise financially independent and responsible for its own profits and losses. This attempt at reform has undergone three stages: between 1978 and 1982, a major effort was made to simplify administration and decentralize (jianzheng fangquan), specifically to delegate business power to enterprise managers. The second stage which lasted from 1983 to 1985, was an attempt to substitute tax for profit (li gai shui). In late 1986, these events sparked a revival of interest in the contract responsibility system (chengbao zheren zhi), interest which extends to the present (Hua, Zhang, and Luo, 1988).
Does the reform in the PRC bear a resemblance to Hungary's as observed by Kornai (1987; 1989)? What change process was the reform of PRC actually involved? Have the Chinese efforts to reduce paternalism been successful? What have been the results they brought about? The following sections will trace ten years of industrial reform in the PRC and will address these questions. First, the institutional perspective maintains that institutional change takes the form of modification of rules and procedures. Therefore, the process of reform that modified the rules and procedures will be examined. Second, partial state withdrawal has been considered as a general trend of reform of socialist societies. Thus, attention will be paid to the extent to which the state has withdrawn from the economy. Third, it was an alleged objective of the reform in the PRC to reduce paternalism and to make enterprise independent. Issue that will also be addressed will include the extent to which paternalism in state-enterprise relations has been reduced. Fourth, the institutional perspective argues that institutional arrangements influence incentive structure and thus determines activities of organization. The change and continuity of incentive structure and how it facilitated or impeded improvement of organization's efficiency will be discussed. Fifth, Kornai (1989) observed that changes taking place in the Hungarian reform were uneven, and that reform accelerated and decelerated in turn. The following section will describe the pattern of industrial reform in the PRC and compare it to Kornai's (1987; 1989) discussion of that in Hungarian reform. Finally, it is argued that peicemeal reform is often accompanied by unintended consequences. Therefore, a discussion of both intended and unintended consequences will follow the descriptions of each reform stage.
Simplifying Administration and Decentralizing

Evolution of the state-enterprise relation began with what was later called simplifying administration and decentralizing (jianzheng fangquan). Because the fundamental structural weaknesses identified by early critics was over-centralization and lack of incentives, both factors which stifled flexibility and initiative at lower echelons of the system, the first stage of reform attempted to remove the rigidity in the system. The primary means of accomplishing this objective was devolving limited business decision-making power to enterprise and reducing the scope of state hierarchical control while improving the incentive system. But because this stage of industrial reform involved only a redefinition of administrative power for each echelon in the system and did not attempt to change any of the fundamentals such as introduction of market mechanism and reforming ownership system, the stage was later referred to as simple administrative decentralization.

Enterprise funds system: 1978-1979

The process of simplifying administration and decentralizing began with a revival of the enterprise funds system (qiye jijin) (Ministry of Finance, 1978). This system had been practiced in the PRC periodically during the 1950s and the 1960s (Lee, 1987). Its essence was to give a slice of autonomy to enterprise managers so that they could dispose of funds as incentives to their own initiatives. In November 1978, state enterprises were allowed to retain an amount of up to five percent of their total wage bills, as long as they fulfilled government procurement contracts and the so-called "eight indicators" (including total output value, product varieties, quality, consumption of raw material and energy, labor productivity, cost of pro-
duction, profit, and amount of working capital appropriated). Such retained funds could be utilized discretionally in three funds proportionately (san jin): a production development fund, a worker and staff welfare fund, and a bonus fund.

The revival of enterprise funds represented the first step towards reforming state-enterprise relations. By establishing these enterprise funds, the state began to allow enterprises to pursue interests not necessarily identical to the state's. It was expected that these incentives to enterprise managers would promote initiative and creativity.

The effect of this step, although positive, should not be exaggerated. First, the re-establishment of enterprise funds was simply a revival of a measure practiced periodically during the 1950s and the 1960s (for a discussion, see Lee, 1987). Second, the power delegated to enterprise was very limited. Except for the managerial right to use as they saw fit an amount equal to five percent of the total wage bill, no other power was entrusted to enterprise. Third, even this limited discretion was highly circumscribed by government authorities. For example, the distribution of funds among production development, welfare, and bonus funds was subject to approval by the higher administrative organ. The last but not least important aspect of the limitation was that being based on the total wage bill it favored enterprises with large workforces and was not linked to actual performance. These factors undermined the link between enterprise funds and its increased profitability. In one sense, the funds actually reinforced the parameters set by the state because physical rather than profit indicators were required by the state.

Thus, one year later, in late 1979 when the profit retention system was introduced during late 1979, the eight indicators were reduced to four (quantity, quality, profitability, and fulfilment of procurement contract) by the Ministry of Finance (1979).
In keeping with the prevailing profit retention system, enterprises were allowed to retain 15 to 25 percent of their above-plan profit. The distinction between the enterprise fund system and the new profit retention system became increasingly blurred. With a great majority of enterprises gradually shifting to the profit retention system, the enterprise fund system was eventually merged with the so-called profit retention system.

**Profit retention system: 1979-1980**

In 1978 in the Sichuan Province, six pilot schemes were conducted to experiment with expanded enterprise autonomy. In early 1979, this pilot scheme was extended to include 100 enterprises in Sichuan and eight large enterprises in Beijing, Shanghai, and Tianjin. Based on the results of pilot projects, five sets of regulations (the State Council of PRC, 1979a;1979b;1979c;1979d;1979e) were promulgated as guidelines and extension of testing to other localities was encouraged. Consequently, the number of enterprises involved grew rapidly. By July 1979, a total of 2,100 enterprises, accounting for 35 percent of total industrial profits and 26 percent of total output value, had abandoned the enterprise funds system and embarked on a program of profit retention (the State Economic Commission, 1980).

There were four major components of the expanded enterprise autonomy scheme. First, profit-making enterprises were allowed to retain a share of profits instead of remitting them all to the state. Second, taxes were levied on fixed capital used by enterprises—previously such capital had not been not taxed. Third, 70 percent of the depreciation fund could be used by enterprises as they saw fit, assuming the higher organ approved. Fourth, the working capital of an enterprise, instead of being
allocated by the Ministry of Finance, was dispensed by banks charging very low rates of interest.

At the core of this scheme was the system of profit retention. According to the State Economic Commission and the Ministry of Finance (1980b), the retained share of profit from 1979 onward was to be assessed on the basis of a ratio between 1) production development funds, personnel welfare funds, and bonus funds in 1978 and 2) the total amount of profit realized that year. Two objectives were expected to be accomplished by the new system. First, enterprises would gain autonomy in terms of the disposition of funds. Second, retained funds would be linked to total profit to encourage the profit motive at the enterprise level.

As a major component of simplifying administration and decentralizing, this profit retention scheme represented a positive step towards reducing excessive state control over the economy inasmuch as autonomy was relinquished to the economic units. Under the enterprise fund system, the amount of retained fund, had been calculated on the basis of the total wage bill, which was fixed by the superior government bodies. Thus enterprises with large labor force were favored, but enterprise efficiency was not involved. The profit retention system placed more resources at the disposal of enterprise because an enterprise could now have a welfare fund equal to 11 percent of the total wage bill, a bonus fund equal to 10 percent of the total wage bill, a new product development fund equal to 1 to 2 percent of the total profit, and a technical training fee, all of which were used as a basis for calculating the share of retained profit. These funds were in addition to the original enterprise funds equal to five percent of total wages (The State Economic Commission and the Ministry of Finance, 1980b).
Because the calculation was based on total profits in the previous year, an enterprise's retention would increase only if its profit exceeded that of the previous year. Likewise, enterprise would retain less than it had previously if actual realized profits declined. Thus, the profit retention system had an advantage over the enterprise fund system in that it attempted to link reward to performance based on a criterion—profit.

Enterprises were quick to embark on the new program in the hope of enjoying additional autonomy and of obtaining discretionary funds. Despite the document issued in July 1979 by the State Council (1979a), which requested only a limited experiment in carefully selected enterprises, the program expanded rapidly. The number of enterprises approved in July 1979 was 2,100. This figure doubled, however, to 4,200 by the end of 1979 (the State Economic Commission, 1980).

Despite its rapid growth and its clear advantage over the previous enterprise funds system, this 1979 version of profit retention was not without problems. A major difficulty was the so-called "whipping the faster ox" factor (bianda kuainiu), which referred to an inverse relation between retention ratio increase and previous performance. Because the profit retention scheme was based on the calculation of the ratio between the retained funds and the total profit in previous years, this method in reality rewarded those who had had lower levels of profitability in a previous year, because these enterprises had a greater potential to increase profit margin.

Although local government and enterprises were most concerned with the calculation of the retention ratio, the problems of declining state revenues and four major economic indicators, and the indiscriminant and excessive distribution of bonuses by enterprise drew the state attention. In The Explanation Concerning Experimental
Methods of Profit Retention in State Industrial Enterprises issued jointly by the State Economic Commission and the Ministry of Finance (1980a), it was estimated that in 84 experimental enterprises in Sichuan province, where the profit retention system had first been introduced, 38 percent of the increased profits in 1979 were retained by enterprise. It was also estimated, however, that on the national average, retained profits by state enterprises were 40 percent of total realized profits. Compared with the enterprise fund system, in which enterprises retained profits equivalent to only five percent of their total wage bills, more resources were at the enterprises' disposal under the profit retention system, which, in turn, led to a serious reduction in profits remitted to the state.

In addition to this manifest reduction, the government also noticed that some enterprises had become so concerned with profits that they failed to fulfill the four indicators. Some enterprises were criticized for irrational behavior in that they pursued short-term benefits at the expense of long-term interests of the state (The State Economic Commission, 1980). Other were criticized for taking advantage of loopholes created during the transitional period. Rather than striving to improve efficiency, many firms resorted to raising product prices and lowering product quality to raise profits. Other enterprises with more resources at hand used retained profits mainly as bonuses and indiscriminantly distributed them among workers, regardless of actual performances (The State Economic Commission, 1980; the State Economic Commission and the Ministry of Finance, 1980b).

In response to these problems, the state revised the profit retention scheme in early 1980, only five months after its official initiation. The major revision was meant to address the problem of "whipping the faster ox." Instead of using the total-sum
method to calculate retained profits based on the previous year's record, the revised method differentiated baseline profits realized in the previous year from those realized in the incremental part of the given year and gave each part a unique retention rate. Once an enterprise fulfilled the profit level equivalent of the previous year's record, it was entitled to a fixed amount of retention. If the realized profits exceeded the baseline, another sharply increased percentage of retained profit would apply.

This method was expected to have two consequences. First, it was intended to safeguard the state's profit share by requiring enterprises at least to match the previous year's profit. Second, by increasing the retained profit margin once the enterprise reached the previous record, the system was intended to encourage improved performance. This method was later referred to as the baseline figure method (jishu fa), as distinguished from the total-sum method.

In the revised profit retention scheme, the requirement to fulfill the four major indicators (quantity, quality, profit, and procurement agreement) was reaffirmed. It was decreed that retained profit would be reduced 10 percent if any one of the four indicators were not satisfied. Furthermore, no less than 60 percent of the retained profits could be used for production development, and no more than 40 percent for bonus and welfare funds (The State Economic Commission, 1980).

By specifying parameters for the use of newly acquired discretionary resources, the state tried to direct enterprises to its desired end by way of economic incentives. To remedy the problem of state revenue decline, more restrictive measures were developed to limit enterprises' retention of profit. In the baseline figure, a fixed rate was assessed on the basis of the previous profit record, either in the preceding year or averaged over several preceding years. This was called the fixed-comparison (dingbi)
method. Early in 1980, a new circular-comparison (huanbi) method was formulated with a shifting annual baseline. Under this method, the comparison was no longer made to a fixed year or an average of several preceding years but to the preceding year. Once an enterprise's profit reached a given level, this level became the new baseline for the next year.

Despite the more restrictive measures adopted by the profit retention scheme, enterprises involved in the program continued to grow rapidly. As mentioned previously, a total of 4,200 enterprises had been included in the experiment by the end of 1979. By June 1980, 6,600 state enterprises, accounting for 60 percent of the output value and 70 percent of the total profit of the state-owned large and medium-sized enterprises, had abandoned the system of enterprise funds and embarked on the experiment in expanded enterprise autonomy (the State Economic Commission, 1980).

**Economic responsibility system: 1981-1982**

Partly in line with the readjustment policy in response to state revenue decline, and partly as a result of technical design problem technical design and other unanticipated consequences of decentralization, reforms during 1981-1982 were reformulated according to what was termed the industrial production economic responsibility system (gongye shengchan jingji zeren zhi, hereafter responsibility system). As a partial recentralization measure, the responsibility system was introduced in April 1981 at the National Industrial and Transportation Work Conference. Reiterating the Communist Party Central Committee's priorities of readjustment over reform, these policy papers (The State Economic Commission and the State Council System Reform Of-
fice, 1981) attempted to integrate the profit retention program with strengthening central planning.

Consistent with the call for strengthening central planning, these papers asked state enterprise to take responsibility for fulfilling the quantity, quality, variety, and cost targets given in the state plan, in addition to any profit target (The State Economic Commission and the State Council System Reform Office, 1981). The state had noted certain unforeseen consequences (decline in state revenue, decline in product quality, blind pursuit of profit, increase in costs, and explosion of bonuses), but it maintained that the key issue was to strengthen and clarify responsibility at all echelons of the industrial hierarchy.

Along this policy line, several documents were issued to promote the implementation of the economic responsibility system (The State Council, 1981). In addition, detailed rules and regulations were worked out by the State Economic Commission, the Ministry of Finance, and other relevant government bodies (The State Council, 1981; The Ministry of Finance, 1981). As a result, by October 1982, 80 percent of the medium- and large-sized enterprises were involved in one form or another of the responsibility system (Wang and Zhu, 1985:840).

Three characteristics of this system distinguished it from those of previous reforms. First, it emphasized the responsibility of both industrial hierarchy and state planning. In the Provisional Regulations Concerning Issues of Implementing the Industrial Production Economic Responsibility System promulgated by the State Economic Commission and other government bodies (The State Council, 1981), all levels in the hierarchical system, including government bodies in charge of industrial enterprises, state enterprises, workshops in every enterprise, work groups under workshops,
and individual workers, were required to clarify their own economic responsibilities to the state hierarchy. In addition, it restated the requirement to fulfill state plan targets, "no matter whether they are profitable to the enterprises" (Wang and Zhu, 1985:163). Priority, it held, should be placed on fulfilling remittance responsibilities to the state treasurer. The profit sharing ratio for the increased portion of profits had to be in favor of the state (a minimum of 60 percent) not enterprises (a maximum of 40 percent).

Second, the system stressed internal management by enterprise. As stated in *Suggestions Concerning Issues of Implementing the Industrial Production Economic Responsibility System* by the State Economic Commission and the State Council System Reform Office (1981), the economic responsibility system was to focus on both the responsibility of the enterprise to the state and the internal responsibility within the enterprise hierarchy. The system also restated the upper limits on bonuses that could be distributed and the ceilings for extra piece-work wages, which were stated in other policy papers by the State Council (1981) in the same year. Its emphasis on structured internal responsibility was reiterated in policy papers in 1982 (The State Economic System Reform Commission, the State Economic Commission, and the Ministry of Finance, 1982).

The third characteristic of this system was the wide variety of forms subsumed under its name. Because enterprises differed in terms of such as specific product price imposed by the state, technological sophistication, input and investment allocated by the state, labor and technical personnel skills, tasks assigned by the state plan, and status in the industrial hierarchy, profitabilities ranged widely. Thus, the earlier design of a relatively uniform retention rate was impractical and led many en-
terprises to complain about the problem of unevenness of hardship and satisfaction (kule bujun). Additionally, state agencies in different localities tended to negotiate with individual enterprises about the profit remittance rate, a practice which led to destandardization. Thus, to cope with existing practices the economic responsibility system was reformed to accommodate diverse state-enterprise relations.

As summarized in a suggestion made by the State Economic Commission and the State Council System Reform Office (1981), the responsibility system involved three broad categories: Profit retention, contract for profits and losses (yinkui baogan), and tax substitutions for profit with responsibility for profits and losses (yishui daili, zifu yinkui). The enterprises participating in the responsibility system usually took one of several courses of action.

One such course was the retention of baseline-figure profit plus increased profit (jishu liucheng jia zhengzhang liren liucheng). This strategy was considered suitable for firms with good potential to increase production and profit. The base figure would be assessed based either on the previous year’s profit or on profit average over the previous three years. Another course was the retention of total profit (quane liren liucheng). This was considered suitable for firms operating near capacity, with regular production and stable profits. Retention ratios were assessed on the average retention ratio of the previous three years. Some enterprises used the retention of the above-plan profit (chaojihua liren liucheng), A suitable strategy for firms suffering from profit decline or from insufficient production assignments during the period of economic adjustment.

The profit contract system (liren baogan) was practiced by enterprises whose profitability was considered marginal (weili qiye). Two categories were developed:
enterprises with a potential for increased profit were considered suitable for a base-figure contract and for an increase in shared profit \((jishu\ baogan,\ zengzhang\ fencheng)\); those with less potential were considered suitable for a base-figure contract and for the retention of increased profit \((jishu\ baogan,\ chaoshuo\ liuyong)\). In the loss contract system \((kueisun\ baogan)\), money-losing enterprises were state subsidized by a fixed amount. Additionally, such firms were allowed to keep all or part of its loss reduction. Another category was that of enterprise given a contract for reduction in loss, with the firms keeping any reduction. The final category was that of enterprise substituting tax for profit remittance, with firms taking responsibility for their own losses and profits \((yishui\ daili,\ zifu\ yingkuei)\). This was practiced in profitable and well-managed medium- and large-sized enterprises that had obtained the approval of the Ministry of Finance. By 1982, 456 enterprises were experimenting with this last form, which was later developed into a tax-for-profit system.

The tendency to recentralize relaxed to some extent towards the end of 1982, when an Industrial Economic Responsibility System Conference was convened for eleven provinces, municipalities, and regions. In a policy paper prepared jointly by the State Economic System Reform Commission, the State Economic Commission, and the Ministry of Finance \((1982)\) in November 1982, enterprise autonomy was reemphasized. Following the policy line decided upon in the 12th Party Congress, the new policy paper pointed out that state planning should be supplemented by market regulations and that, according to specific conditions, it could take different forms, such as directive planning, guidance planning, or enterprises autonomy to make business decision \((\text{The State Economic System Reform Commission, The State Economic Commission, and The Ministry of Finance, 1982})\).
Discussion

The first stage of the administrative simplification and decentralization reform represented the deliberate state's withdrawal from the economic sphere by relinquishing limited power to enterprise. This partial state withdrawal primarily involved in the modification of existing rules and procedures governing state-enterprise relations. As a result, the evolution of reform in the state-enterprise relation during the period of 1978-1982 was characterized by a rapid increase in the profit retained by enterprise. In 1978, profits retained by state industrial enterprise totaled 6.8 billion yuan, which accounted for only 13.4 percent of the total realized profit. The figure rose to 20.7 billion yuan, or 35.1 percent, by 1982 (see Table 3.1). In addition to the expanded financial autonomy of enterprise, reform in this period was characterized by increasing simplification of the criteria used by the state to judge enterprise success, with emphasis gradually shifting from multiple physical targets to simple financial targets, particularly those of profits.

While state enterprise under this scheme began to enjoy increased autonomy in economic decision-making and increased resource base, resources at the state's disposal were reduced. As indicated by Table 3.1, profit sharing between state and enterprise resulted in a substantial decrease in state revenue. Although the profit retained by state enterprise increased from 6.8 billion to 20.7 billion between 1978 and 1982, the amount of profit remitted to the state by state industrial enterprise

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1 Statistics are not altogether consistent. For example, in the Report on the National Conference on the Work of Tax-for-profit, it was estimated that retained profits were 11.9, 13.2, and 15.0 percent of the total realized profits in 1980, 1981, and 1982, respectively. It was also estimated that the total amount of retained profits during 1978-1982 was 42 billion yuan (The Ministry of Finance, 1983a).
Table 3.1: Profit Distribution and State Revenues: 1978-1982

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Profit</td>
<td>50,880</td>
<td>56,240</td>
<td>58,544</td>
<td>57,967</td>
<td>59,766</td>
</tr>
<tr>
<td>Retained</td>
<td>6,838</td>
<td>11,121</td>
<td>13,624</td>
<td>16,376</td>
<td>20,697</td>
</tr>
<tr>
<td>Remitted</td>
<td>44,042</td>
<td>45,119</td>
<td>44,920</td>
<td>41,591</td>
<td>39,069</td>
</tr>
</tbody>
</table>

State revenue/ National income

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>State revenue</td>
<td>37.2%</td>
<td>31.9%</td>
<td>28.3%</td>
<td>25.8%</td>
<td>25.4%</td>
</tr>
<tr>
<td>from industry</td>
<td>39,300</td>
<td>40,900</td>
<td>41,400</td>
<td>38,200</td>
<td>35,300</td>
</tr>
</tbody>
</table>

Unit: million yuan.


The State Statistical Bureau, 1984:35.

The State Statistical Bureau, 1984:418.

decreased from 4.4 billion in 1978 to 3.9 billion in 1982. State revenue relative to national income declined from 37.2 percent in 1978 to 25.4 percent in 1982. These figures indicate that profit retention by enterprise in fact contributed to state revenue reduction because retained profit represented net loss to the state.

In view of the expansion of enterprise autonomy, questions that should be asked are to what extent the limited autonomy given enterprise helped it improve economic performance. Did the limited reduction of the role of the state in the economy result in improved efficiency? What effects were produced by the first stage of reform? And
Table 3.2: State Industrial Performance Indicators: 1978-1982

<table>
<thead>
<tr>
<th>Indicators</th>
<th>1978 (%)</th>
<th>1979 (%)</th>
<th>1980 (%)</th>
<th>1981 (%)</th>
<th>1982 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit/ fixed asset</td>
<td>15.9</td>
<td>16.2</td>
<td>15.7</td>
<td>14.4</td>
<td>13.7</td>
</tr>
<tr>
<td>Output/ Fixed asset</td>
<td>103</td>
<td>103</td>
<td>101</td>
<td>96</td>
<td>95</td>
</tr>
<tr>
<td>Profit+tax/ Total funds</td>
<td>24.2</td>
<td>24.8</td>
<td>24.8</td>
<td>23.8</td>
<td>23.5</td>
</tr>
<tr>
<td>Profit/ Output</td>
<td>15.5</td>
<td>15.8</td>
<td>15.5</td>
<td>15.0</td>
<td>14.4</td>
</tr>
</tbody>
</table>


Finally, to what extent did the administrative simplification and decentralization help reduce paternalism in state-enterprise relations?

First, although state enterprises were given increased discretionary power and incentives, the financial performance indicators showed little evidence of improvement. In reality, between 1978 and 1982, all financial indicators of state enterprise had deteriorated. As Table 3.2 indicates, the ratio of profit, tax, and output generated by state enterprise to the input was not improved between 1978 and 1982. On the contrary, all declined, except for 1979.

Second, because a portion of the profit and depreciation funds was now at the disposal of enterprise, overextention of capital investment became a problem. Coupled with redundant investment concentrated in the consumer goods industries, excessive investment created the problem of imbalance at the macro-level and intensified the shortages of raw materials, energy, and transportation facilities already the PRC's economy. The shortage and imbalance, in turn, not only increased pressure on the state budget, but also increased demand for bank loans to match local investment.
funds. As a result, excessive investment created high potential of inflation.

Third, after the bonus system was revived, the indiscriminant reward of bonuses, welfare allowance, and other subsidies to workers in state enterprises became a problem (Walder, 1987). Because state-sector workers were typically employed in the same enterprise for life and were unlikely to be dismissed, any attempt to provide rewards based on merit rather than on seniority resulted in grievances from workers (Walder, 1987). Indiscriminant distribution of rewards was aggravated by the absence of a direct link between profit and efficiency, and by the absence of feasible means to judge economic performance. These absences had become the basic problem underlying all others.

Fourth, as a result of administrative simplification and decentralization, covert problems inherent in the system of unified revenue and expenditure and unified purchase and sale surfaced. Chief among these was variation among enterprises in terms of skilled labor, material and capital supply, market, size, and location. Under the so-called unified system, capital, material, equipment, and technical personnel were allocated administratively, without consideration for market factors. Differences in terms of these factors made it difficult, however, to apply a unified rate of profit retention across industry. Inequalities among enterprises were exacerbated by the distorted price structure formulated under the system of unified purchase and sales.

As the reform began to place primary value on monetary terms, that is, to focus on profit instead of physical output targets, the distorted pricing system made it difficult to differentiate between profit resulting from improved efficiency and profit gained from arbitrarily set high prices. Because it was unreasonable to penalize enterprise and its workers for problems beyond their control, different schemes had to
be introduced to remedy the situation. The multitude of strategies and the inconsistencies among them not only increased the workload of the design and bargaining administration, but also enabled participating firms to claim excessive shares of retained profits (Lee, 1987). In some instances, enterprises capable of increasing profit attempted to run their factories at less than full capacity to avoid reaching profit levels that would be difficult to surpass the next year. Additionally, the ambiguity of reform schemes allowed enterprises to violate accounting rules and reap unreasonable profits (The State Economic Commission, 1980).

Moreover, because state ownership is paternalistic by nature, loss-making enterprises were not allowed to go bankrupt. The result was that the profit retention ratio was negotiable, and enterprises had ample room to bargain. Bargaining and disputing over baseline figures between superorgans and enterprises were incessant. As long as bargaining was successful, a manager could retain a handsome profit and workers a bonus, without any improvement in economic efficiency occurring. The net result was that responsibility for profit making was accepted by enterprises but not the responsibility for losses.

In sum, although the implementation of administrative simplification and decentralization reduced excessive state intervention, diverse forms, tedious computations, incessant bargaining, and scheme designs began to constitute a workload too heavy for existing administration. At the same time, contrary to the objective of the reform, many loopholes were created causing serious decline in state financial revenue. Clearly the introduction of new regulatory forms gave rise to a new type of dysfunction and to some extent intensified the problems inherent to the old mode of governance.
Trial implementations

The evolution of reform in 1979-1982 revealed a fundamental dilemma of such partial reforms. On the one hand, reduction in mandatory physical targets slightly loosened administrative control, and profit sharing began to devolve some authority to enterprise; on the other hand, enterprise's newly acquired power remained circumscribed by continued arbitrary interference from state authorities at the municipal, provincial, or ministerial levels (White, 1985; Lin, 1989). Even though enterprises now had enlarged powers to dispose of retained profits, no corresponding economic measures had been developed to regulate its activities. On response, and perhaps not surprisingly, state authorities resorted to administrative measures with arbitrariness and inefficiency.

From 1983 to 1986, the PRC government successively introduced a two-stage reform of the financial relation between state and enterprise. This reform was called substituting taxes for profits (yili daishui), or more concisely, tax-for-profit (li gai shui). Under this reform, state enterprise no longer remitted profits to the state; instead, they delivered taxes on both sales revenues and profits. Despite its significance in the evolution of state-enterprise relation, the tax-for-profit reform has received the least attention from PRC watchers (see, however, Lee, 1987 and Bachman, 1987). Therefore, details of its policies and of the process of its implementation will be described and its origin and failure examined.

The tax-for-profit system emerged as an alternative to profit retention, an offshoot of the perception that collectively-owned enterprises with independent account-
ing (duli hesuan jiti qiye) were relatively successful, as well as of a strong motivation to assure state revenue. The earliest experimental "tax-for-profit" schemes evolved from state policy towards most collectively-owned enterprises. Unlike state-owned enterprises, which were directly controlled by the state, the collectively-owned enterprises practiced independent accounting and were responsible for their own profits and losses (duli hesuan, zifu yingkuei); over these firms the state had exercised relatively indirect control.

The tax-for-profit experiment was first attempted in Guanghua county of Hubei province in 1979, with small state enterprises at the county level. The independent accounting practice of collectively-owned enterprises was extended to five large state enterprises (Sichuan No.1 Cotton Textile Mill, The Chengdu Electric Wire Plant, The Southwest China Electric Appliance Plant, The Chongqing Clock and Watch Company, and the Chongqing No.3 Printing House), some small state-owned enterprises in Sichuan province (Wang, 1982), enterprises under Light Industrial Corporation in Shanghai, and plants in other localities such as Liuzhou in Guangxi province, Shashi in Hubei province, Chongqing in Sichuan province, and Changzhou in Jiangsu province. The participating enterprises were allowed to deliver taxes in place of profits and were required to assume full responsibility for their own profits and losses (The State Economic Commission, 1980).

Early in September 1980, the State Economic Commission (1980) summarized three basic experimental models in Sichuan, Shanghai, and Liuzhou and requested every local government to select one or two enterprises to test according to three models: a) the "Sichuan model," which required experimental enterprises to pay three types of taxes—an industrial and commercial tax, a fixed-asset tax, and an income
tax; b) the "Shanghai model," which stipulated that participating enterprises, instead of remitting profits, had to pay five taxes and two fees—an industrial and commercial tax, an income adjustment tax, a real estate tax, a transportation license tax, an income tax, a fixed-asset utilization fee, and a working capital utilization fee; and c) the "Liuzhou model," under the sponsorship of the Ministry of Finance, which required enterprises to pay four taxes and two fees—an appreciation tax, a natural resource tax, a progressive income adjustment tax, an income tax, and fixed-asset and working capital utilization fees.

In March 1981, the Ministry of Finance (1981b) promulgated a document providing a series of regulations concerning the tax-for-profit scheme in selected experimental enterprises. The document decreed that, in such experimental enterprises, four types of taxes would be collected: a resource tax, which would be collected on industries producing oil, natural gas, and rare metals, having relatively high profitabilities; an income tax collected on all enterprises at the rate of 50 percent of their incomes; a working capital utilization fee charged at a monthly rate of 0.2 percent; and a fixed-assets utilization fee charged at a monthly rate of between 0.2 percent to 0.8 percent, depending upon the industry. Additionally, a Joint Circular issued by the State Economic Commission and nine other state agencies (1981) in May 1981 requested that extension of experimental enterprises cease. Many enterprises, however, were enthusiastic about this trial. By mid-1982, 456 enterprises had been included as experimental enterprises with tax-for-profit schemes (Wang and Zhu, 1985:841).

After these experiments, the government decided to expand the tax-for-profit program nationwide. From 1983 to 1985, it was introduced in two stages. The first stage (1983-84) involved the coexistence of tax and profit: enterprises paid an
industrial-commercial tax on their sales revenues and an income tax on their realized income and then handed over a share of their profits to the state. In the second stage (1984-85), profit remittance was expected to be replaced entirely by income tax (The Ministry of Finance, 1983a).

Coexistence of tax and profit: 1983-1984

In March 1983, a National Tax-for-profit Work Conference was convened by the Ministry of Finance, and a report was compiled (The Ministry of Finance, 1983a). This report was subsequently sent to the State Council for approval. On 24 April 1983, the State Council handed down an endorsement that highly praised the report. The Council believed that the tax-for-profit program represented a step in the right direction towards solving the problems of state-enterprise relations and that "it is much superior to alternative methods" (The Ministry of Finance, 1983a:1). It was believed that the program would serve five purposes. First, through standardized tax rates, the distributive relations between state and enterprise could be formalized; by linking performance and reward, the reform would encourage enterprise to improve management. Second, formalized taxation would solve the problems arising from bargaining between state and enterprise over the baseline figure resulting from profit retention schemes. Third, a unified taxation system could help solve the problem of local protectionism. Fourth, such a system would provide the state with an effective economic lever by which to coordinate the economic activity according to the macro-economic need. And fifth, it would ensure stable revenues for the state and balance the interests of state, enterprises, and individuals (The Ministry of Finance, 1983a).

To ensure a smooth transition from profit remittance to taxation, the first stage
of this reform was cautiously designed to be a coexistence of tax and profit. State-owned enterprises were each placed in one of two categories (medium- and large-scale enterprises, and small-scale enterprises) according to their original fixed asset value (1,500,000 yuan being the dividing point) and annual profit (200,000 yuan being the dividing point). Small-scale enterprises were required to pay taxes on their profits according to an eight-tiered, progressive tax scale. After paying the tax, they would take responsibility for their own profits and losses (The Ministry of Finance, 1983b).

From the medium- and large-scale enterprises, 55 percent of profits were to be collected as income tax after the enterprise had paid an industrial commercial tax (turnover tax) on their sales revenues. This rate applied to all industries except the military, postal and telecommunications, grain production, foreign trade, and agriculture industry, and those industries run by labor reform camps. The after-tax profits would be shared by the state and the enterprise, according to one of several methods (a progressive profit-sharing rate, a fixed rate of profit remittance, an adjustment tax, and a fixed delivery quota applied only to mining enterprises), each of which was assessed on the basis of profit figures for the 1982 fiscal year. Once the rates were set, they would remain fixed for three years (The Ministry of Finance, 1983b).

The retained portion of profit was designed for distribution among five funds (wujin): a new-product development fund, a production development fund, a reserve fund, a welfare fund, and a bonus fund. The sum of the first three funds, later known as the production development fund, was decreed to be no less than 60 percent of total retained profits, whereas the sum of the latter two could be no greater than 40 percent (The Ministry of Finance, 1983b).
The first stage of the tax-for-profit program, or the coexistence of tax and profit, was launched primarily because of perceived failure in the previous efforts to change state-enterprise relations. This stage represented a positive step towards reducing paternalism in that it allowed small-scale enterprise to take full responsibility for its profits and losses. Yet, it was conservative to the extent that it did not address paternalism in the medium- and large-scale state enterprises. In fact, such enterprises had the same after-tax profit retention as in 1982 and were thus not yet responsible for profits and losses. Because of the coexistence of tax and profit, bargaining over profit retention persisted and in some instances even intensified. As Bachman (1987:138) pointed out, "LGS (it li gai shui) in 1983 was more an extension of the previous profit-retention system than it was a new policy initiative."

The second stage of tax-for-profit: 1984-1986

Consistent with the policy of formalizing state-enterprise relations through taxation, the second stage of tax-for-profit was expected to be a major step by the state towards solving the problems already discussed. The revised program was adopted in June 1984 and introduced nationwide the next October. A comprehensive tax scheme was designed to replace the unified industrial-commercial tax with product, value-added, salt, and operational taxes; to introduce a new resource tax; to set new local taxes, including city construction, real estate, land utilization, and transportation taxes; and to install an income tax (55 percent) as well as an adjustment tax to be levied on the basis of 1983's realized profit with the overfulfilled portion shared between the state and the enterprise at the ratio of 30:70. Once decided, this ratio would remain unchanged for seven years unless there were a significant change in gov-
ernment policy or an irresistible change in the business environment (The Ministry of Finance, 1984).

For small-scale enterprises, a revised eight-tiered progressive tax system was adopted. Revision of the system placed enterprises with less than 3,000,000 yuan fixed assets and 300,000 yuan annual profit in this category. For small-scale enterprises in Beijing, Shanghai, and Tianjing municipalities, the criteria were set at 4,000,000 yuan and 400,000 yuan, respectively.

Obviously the second stage of the tax-for-profit reform was intended to reform the medium- and large-scale state enterprises in two regards. First, the intent was to reduce the degree of paternalism in state-enterprise relation by formalizing the financial relation by means of a standardized taxation system. Second, the state hoped to create a competitive, marketlike environment for enterprises through a delicate financial design expected to "tax away" variations across them.

It was assumed that by breaking down the original industrial commercial tax (turnover tax) into four components (product, value-added, business, and salt) and by mirroring the existing price structure through setting taxes according to price, the state would tax away product profitability differentials created by distorted pricing structure. It was also assumed that by introducing a firm-specific adjustment tax, the state would absorb the remaining undeserved portion of profits not covered by other taxes (Wong, 1986). Finally, in the original design, a fixed asset tax was to be built into the resource tax, which was assumed to tax away the differences in capital intensity across enterprises (Hua, Zhang, and Luo, 1988). Through these mechanisms, therefore, it was expected that the system would take careful account of discrepancies in product prices and in access to resources, thereby allowing reward to be linked to an
enterprise's real performance, with no external factors (e.g., price, capital, technology, labor quality) affecting that linkage. Consequently, a simulated competitive market could be created, and enterprises would face a competitive environment on equal standings.

By the end of 1985, 81 percent of all state enterprises had reportedly shifted from the responsibility to the tax-for-profit system (The State Statistical Bureau, 1986b). By the end of 1986, it was claimed that, with the exception of Capital Steel and several dozen other enterprises permitted to test out alternative reform programs, all state enterprises were under the tax-for-profit system (Hua, Zhang, and Luo, 1988).

Discussion

Although the first stage of the tax-for-profit program took the form of coexistence of tax and profit and was thus conservative, representing at most an extension of previous reform programs, the second stage of reform was seen as a significant step towards both reforming state-enterprise relations and reducing the degree of paternalism. The original design was intended to create a genuine competitive environment for state enterprise, through the dampening of allocational distortions caused by the state-imposed pricing system, a system reflecting neither actual costs nor relative scarcity. By using a standardized tax system to formalize state-enterprise financial relations, reformers attempted to make enterprise truly responsible for profits and losses and to redefine the boundary between the state and the economy.

Lee (1987) highly praised this reform and concluded that it was "an innovative alternative to command economy" (p.210) and "constituted a significant step toward the economic approach"(p.211). But as plausible as it may have seemed, in real-
ity, the reform was, as Wong (1986; 1988) pointed out, generally a failure. It not only exacerbated the problems inherent in the old system but also generated novel distortions. The original designers had envisaged that formalized state-enterprise distributive relations and standardized taxation would eliminate administrative arbitrariness; to the contrary, these reforms introduced their own irrationality and produced new administrative arbitrariness (Naughton, 1985; Bachman, 1987).

The foremost defect of the second stage of the tax-for-profit plan was to be found in how profit was shared between state and enterprise. The relatively high product tax proposed by the Ministry of Finance encountered full-fledged resistance from local enterprises (Shirk, 1989) For example, later investigations revealed that the entire province of Jilin had never truly implemented the tax-for-profit scheme but had, instead, "used some flexible method to adhere to the responsibility system" (Micro Economic Research Office of the State Economic System Reform Institute, 1988:1). During the tax-for-profit reform, some areas in Guangdong Province implemented a so-called underground contract system in resistance to tax-for-profit (Capital Entrepreneur Association, 1988).

In theory, enterprise should have shifted to the tax-for-profit program by the end of 1985 (Wang and Zhu, 1985:324), but in practice many did not. For example, instead of shifting to tax-for-profit, Jilin Industrial Chemical Corporation actually implemented a progressive profit contract system during 1983-1985 (Capital Entrepreneur Association, 1988c). In Fujian Province, real levied income tax rarely exceeded 40 percent of actual profits, whereas the decreed percentage was 55. As the director of the Reform Theory Bureau under the State Economic System Reform Commission pointed out, the phenomenon of widespread underground contract
systems testified to the shortcomings inherent in formalized taxation as a means for reforming the economy (Song, 1988).

As with the first stage of reform which had turned out to be more conservative than local experiments would have indicated (Bachman, 1987), substitution of an adjustment tax for a fixed assets tax was a good example of organizational inertia and the politics of reform. In this latter stage of reform, it had originally been proposed to incorporate a fixed asset tax to narrow the differential in capital intensities among enterprises. In the final version of tax-for-profit regulations, however, this fixed assets tax was not mentioned. Instead, the adjustment tax, which was believed to introduce administrative arbitrariness, was encouraged (Hua, Zhang, and Luo, 1988). As described by Shirk (1989), the reason for this flip-flop was to compensate the Ministry of Finance for lowering the product tax.

Finally, the arbitrariness and ambiguity inherent in the profit sharing system were not alleviated. In some instances, they were intensified. The arbitrariness introduced by the adjustment tax replaced the baseline profit as a bargaining focus. Ambiguities in tax rules allowed some enterprises to violate the rules and to evade taxation altogether.

The most serious consequence of this reform was that it deterred further efforts. Because the design of the program mirrored the distorted price structure, on which large amounts of taxes were based, the program actually served to reinforce rather than to correct distortion. As Bachman (1985:139) rightly argued, "once it (the tax-for-profitscheme) becomes institutionalized, it is likely to deter meaningful price reform due to the difficulties in changing the established sharing system and large reduction of revenue that is based on the irrational price system."

The contract responsibility system: a revival of profit retention?

The failure of the tax-for-profit program to reach the dual objectives of creating a competitive environment for state enterprise and of formalizing state-enterprise relations led reform the PRC to enter the third stage—the contract responsibility system. Recognizing the defects inherent in the simple material incentive of profit sharing, in the decentralization of administration, and in the failure of uniform taxation in the absence of a rational pricing system, the contract responsibility system was ushered in as an alternative method of reforming state-enterprise relations. Based on the belief that separation of ownership from management was the key to invigorating medium- and large-scale state enterprise, this new program was designed to replace hierarchical relations with contractual relations.

Unlike that of the first stage of reform, the objective of the third stage was to establish a contractual relation between the state and its enterprises that would be compatible with the principles and procedures of the market economy (Hua, Zhang, and Luo, 1988). The first stage of reform was based on the belief that the overarching defect of the Soviet-type economic system was overcentralization. It was thus expected that once enterprises were given some autonomy and allowed to claim a slice of residual profit, they would have sufficient incentive to improve efficiency. But the contract responsibility system actually implemented after 1986 was based on a different line of thinking. It was based on the recognition that one of the central perplexities of the Soviet-type economic system is the issue of property rights (the ownership system). As the proponents of reform argued, "the success or failure of a
market-oriented reform, by and large, depends on the establishment of a property-structure compatible with the principles and procedures of the market economy” (Hua, Zhang, and Luo, 1988:5).

In addition, the failure of tax-for-profit reforms reminded some reform theorists of the duality of the role played by the state—that is, as property owner on one hand and as manager of society on the other. The subject of reform of the state-enterprise relation was still the same, but the focus had become clarification of the vague boundary between state and enterprise. The reform theorists believed that to cut state enterprise’s traditional role as a state appendage and to make them genuinely independent financially, ownership and management had to be separated. This separation was to be achieved through a contractual relation replacing the command relation (the State Economic Commission and the State Economic System Reform Commission, 1987).

The proponents of the contract responsibility system, therefore, reasoned not only that the underlying rationales of the third stage of reform had transcended the simple material incentives and simple administrative decentralization of the first stage, but also that the objective of separating ownership from management was quite different from the objective of expanding enterprise autonomy. The first stage had been designed to effect reform within the scope of the existing Soviet-type system, they argued, but the third stage was designed to touch the core of the system itself. While the first stage of reform had been implemented primarily as administrative decentralization, the third stage was implemented to establish market-like contractual relations aimed at making enterprises genuinely independent (Hua, Zhang, and Luo, 1988).
Although the underlying rationales and objectives of the two stages of reform were different, the contract responsibility system later turned out to be, to a great extent, a repetition of the first stage of reform. Furthermore, the problems and difficulties it encountered during implementation were similar to those encountered by the first. Despite the arguments of reform theorists (Hua, Zhang, and Luo, 1988), who defended this third stage of reform in terms of its disposition to substitute market-like contractual relations for hierarchical ones, the real effect of the reform were hardly what the theorists had envisaged.

First, the contract responsibility system grew from complaints made by enterprise managers about heavy taxation imposed by tax-for-profit reforms. A sharp decline in both industrial growth rate and productivity in many industrial enterprises confirmed their point. Reformers had believed that enterprise managers should be given enough autonomy in decision-making, which was expected to be the driving force of the earlier high industrial growth rates. The earlier profit retention scheme by which enterprises were given relatively more profits was therefore considered an appropriate means of stimulating productivity.

Second, the contract responsibility system also grew from reformers' dissatisfaction with the tax-for-profit plan's inability to create a competitive environment for enterprise. The reform theorists believed that, given the wide range of variation across different enterprises in terms of both capital and technological intensity and price distortion, the only way to create a competitive environment was to determine the profit remittance ratio on a case by case base through contracting between government superordinate bodies and enterprises. As former premier Zhao (1988:9-10) put it, "state enterprises are currently operating in an unequal environment; this
unequal environment can be alleviated through the contract responsibility system."
He argued that the creation of an equitable environment involved reform of the price
and planning systems, reform then impossible. He thus saw the contract responsibil-
ity system as a feasible means of pushing enterprises towards accountability for their
own losses and profits (Zhao, 1988).

Third, the reformers believed that as long as no changes occurred in the state’s
dual role of property owner and society manager, the coexistence of tax and profit
could remain a feasible means of distributive relations between the state and its
enterprises. So a return to profit retention through contracting instead of through
formalized taxation was seen as the proper direction to take (Zhao, 1988). Thus,
although the reform had as its basic theoretical principle the new idea of separating
ownership and management, the actual means resorted to was not new at all.

The implementation of the contract responsibility system

With the objectives of separating ownership from management, in December
1986, the State Council (1986) issued a document calling for deepening enterprise
reform and invigorating enterprise. In this document, past failure to implement ex-
panded enterprise autonomy were blamed mainly on the intermediaries who had not
implemented the central policies sincerely and who had withheld large portions of
decentralized power. The document decreed that, based on the principle of sepa-
ration of ownership and management rights, the most important aspect of the new
program regarding deepening reform and invigorating the economy was the granting
of adequate managerial autonomy to enterprise managers.

As with the tax-for-profit reform, state-owned enterprises were divided into two
categories: medium- and large-scale state enterprises and small-scale state enterprises. The latter were to take part in an experimental system of leases and contractual operations, whereas the former were to take part in variations on the contract responsibility system or in a shareholder system (The State Council of PRC, 1986).

In addition to clarifying the reform objectives in the direction of establishing contractual relationship, State enterprises were encouraged, in addition to clarifying reform objectives towards establishing contractual relations, to quickly implement a factor-director responsibility system. They were also given autonomy in wage and bonus scales decision making within the state-stipulated range, and encouraged to merge or to establish the horizontal links by which to develop into industrial and commercial conglomerates. At the same time, the state intended to limit its command of enterprise and to encourage self-marketing.

In accordance with contract responsibility system policy, the State Economic Commission and the State Economic System Reform Commission (1987) jointly issued another policy paper entitled *Suggestions Concerning Deepening Enterprise Reform and Improving the Contract Responsibility System* in August 1987. This paper elaborated on rationales and detailed stipulations. It stated that "the contract system is not a transitional expedient measure; it might be a way (of reforming state/enterprise relations). Therefore, it must be continued and improved gradually" (The State Economic Commission and The State Economic System Reform Commission, 1987:36).

This report formally stated the objectives of formalizing the state-enterprise relation through contracts and of attaching independent-entity status to state enterprises. It suggested an introduction of competition into the contractual process by
using bids as a mechanism by which to identify entrepreuneureship. In addition, it suggested that separate accounts should be kept for state and enterprise funds, which was considered a step in the direction towards separation of ownership and management; at the same time, enterprises were encouraged to become major investors and developers under the state’s guidance.

Based on these policy suggestions, the State Council (1988) issued a tract entitled *Provisional Regulations Concerning the Contract Operational Responsibility System in State-Owned Industrial Enterprises* in February 1988 that finally formalized this system. As with the policy implementations of the previous two stages of reform, enterprise shifted direction rapidly. By mid-1987, 74.7 percent of the medium- and large-scale state industrial enterprises had implemented this system, according to a variety of profit retention contracts; 43 percent of the small-scale enterprises had either become collectively-owned enterprises or had been leased to individuals for operation (People’s Daily, August 10, 1987). According to the Statistical Communique published by the State Statistical Bureau (1988b;1989), by the end of 1987, the number of enterprises implementing the contract responsibility system had increased to 8,118, or 82 percent, among the medium- and large-scale state enterprises. The number increased to 9,024, or more than 90 percent, by the end of 1988.

Like the economic responsibility system implemented during the first stage of reform, the contract responsibility system was a generic name subsuming different forms of contracting. To obtain a clear view both of how enterprises were grouped under the system and of the extent to which the systems was implemented, it is useful to look at summary statistics of how the system was implemented at the provincial level. Fujian and Guangdong will be used in this example.
According to a "Summary Table of the Current Situation Concerning Implementation of the Contract Responsibility System in Fujian Province" (Fujian Provincial Finance Bureau, 1988) which was collected during the field trip, there were 1,056 state-owned industrial enterprises under the jurisdiction of the Fujian Provincial government that were involved in one or another form of the contract responsibility system. The real implementation of this system occurred after 1987, however, because only one small enterprise and only 93 medium- and large-scale enterprises operated under this system before 1987. These firms accounted for less than 10 percent of the total number of state enterprises. State enterprises were grouped into four general categories: medium- and large-scale enterprises, small-scale enterprises, marginally profitable enterprises, and loss-making enterprises. Each of the categories was considered suited to a specific contract system. For the medium- and large-scale enterprises, three major types of contract systems applied: the two guarantees and one link (liangbao yigua), the progressive profit remittance contract (shangjiao liren dizheng baogan), and the baseline figure profit remittance contract (shangjiao liren jishu baogan), with 18.8, 30.6, and 38.0 percent of these enterprises in each of the three categories, respectively, and the remainder being given other types of contract. For small-scale enterprises, there were two major contract types: the contract system (chengbao zhi) and the leasing system (zuling zhi), with the majority of such enterprises under the former (97.6 percent).

Seventy-six enterprises operated at a loss, or 7.2 percent of the total, and 150 of the enterprises were marginally profitable, or 14.2 percent. For enterprises operating at a loss, a loss contract system applied; the report did not indicate how marginally profitable enterprises operated under the contract responsibility system.
Table 3.3: Categories of Enterprises under Contract Responsibility System in Fujian Province: 1987

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number</th>
<th>Percent (Category)</th>
<th>Percent (Total)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Mid- and Large-Scale Enterprises</td>
<td>271</td>
<td>100.0</td>
<td>25.66</td>
</tr>
<tr>
<td>a. Two Guarantees and One Link</td>
<td>51</td>
<td>18.8</td>
<td>4.83</td>
</tr>
<tr>
<td>b. Progressive Profit Contract</td>
<td>83</td>
<td>30.6</td>
<td>7.86</td>
</tr>
<tr>
<td>c. Base-figure Profit Contract</td>
<td>103</td>
<td>38.0</td>
<td>9.75</td>
</tr>
<tr>
<td>d. Other Types of Contract</td>
<td>34</td>
<td>12.5</td>
<td>3.22</td>
</tr>
<tr>
<td>2. Small-Scale Enterprises</td>
<td>466</td>
<td>100.0</td>
<td>44.13</td>
</tr>
<tr>
<td>a. Contract Systems</td>
<td>455</td>
<td>97.6</td>
<td>42.99</td>
</tr>
<tr>
<td>b. System of Leasing</td>
<td>11</td>
<td>2.4</td>
<td>1.04</td>
</tr>
<tr>
<td>3. Marginally Profitable Enterprise</td>
<td>150</td>
<td>100.0</td>
<td>14.20</td>
</tr>
<tr>
<td>4. Loss-Making Enterprises</td>
<td>76</td>
<td>100.0</td>
<td>7.20</td>
</tr>
</tbody>
</table>

a Fujian Provincial Finance Bureau, 1988.

The pattern of distribution in Guangdong Province was somewhat different. According to one report prepared by the Industrial Economics Research Institute (1988), by the end of 1987, 1,824 out of 1,920 enterprises, or 95 percent, under the jurisdiction of the Guangdong provincial government had implemented the contract responsibility system. Unlike in Fujian province, the Guangdong province did not make distinction between medium- and large-scale and small-scale enterprises and between profitable and marginally profitable ones. Instead, enterprises were assigned one of four major contract types: 1,022, or 56.0 percent, implemented the baseline figure profit contract system; 220, or 12.1 percent, the two guarantee and one link system; 315, or 17.3 percent, the progressive profit contract system; and 127, or 7.0 percent, the loss-contract system. The report did not indicate what the remaining
137, or 7.6 percent implemented.

An observation should be made regarding the pattern of distribution. In general, the distribution pattern of the two provinces indicated that the largest group of enterprises was that under the baseline figure profit remittance contract system. The second largest was the group under the progressive profit remittance contract system. The third largest was the group under the system of two guarantees and one link. In both provinces, 7 percent of enterprises operated at a loss. As was seen in the economic responsibility system of 1982, different forms of contractual systems placed different requirements on enterprises. The two guarantees and one link was the system with the most stringent requirements, and the baseline figure system was that with the least stringent requirements (see discussion, in Chapter IV). Therefore, a relation readily apparent is that fewer enterprises were included in the more stringent category than in the least stringent one.

Discussion

The third stage of reform was designed to replace hierarchical command relations between state and enterprise with a market-like contractual relation, and thus to make enterprises independent economic entities. One of the key goals of this stage of reform was to introduce competitive mechanisms into the contractual process that were considered essential to the reform (Hua, He, Luo, and Zhang, 1986; China Enterprise Reform Research Group, 1988; Hua, Zhang, and Luo, 1988). Given these goals, questions arise as to what extent the contract responsibility system actually introduced competitive mechanisms into enterprise contracting and to what extent the objective of making state enterprises independent economic entities responsible
for their own profits and losses was accomplished.

The difficulties encountered by the outside contractors attempting to enter reflects upon the degree of competitiveness introduced into the contractual process. Despite repeated calls to introduce competition into contracting through bidding, no evidence supports an increase in bidders. Of 90 managers I interviewed in 1988, only 11 reported that contracts were based on bids from more than one bidder. Only nine reported that the management group reorganized after contracting.

Late in 1987, the same pattern was reported by a broad survey of industrial managers that was conducted by the China Enterprise Reform Research Group (1988). Its findings indicate that, with exception of enterprises under the leasing system in which 25 percent of managers are outside bidders, all other enterprise categories had very low frequencies of entry by outside contractors. This suggests that less competitive mechanisms were introduced into the medium- and large-scale enterprises than the small state enterprises (Table 3.4) because the leasing system was only applied to the latter. Furthermore, a report made by Party Secretary He (1988) of Jilin Province, a model province in industrial reform, indicated that, in his province, more than 90 percent of contractors were inside bidders. Of these, more than 70 percent had been the original managers.

The result of a broad survey conducted by the State Statistical Bureau (1987b) is even more revealing. It reported that the overwhelming majority of state enterprises were contracted to the original managers. Out of 18,000 enterprises (including non-industrial business) surveyed, less than 100 managers had won bids through real competition. Of these enterprises, 26 were in Shijiazhuang, Hebei Province, which was the system's "experimental site." Only one or two competitive examples could
Table 3.4: The distribution of outside and inside contractors^a

<table>
<thead>
<tr>
<th>Contractors</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outside</td>
<td>3.5</td>
<td>3.9</td>
<td>10.5</td>
<td>9.4</td>
<td>25.0</td>
</tr>
<tr>
<td>Inside</td>
<td>96.5</td>
<td>96.1</td>
<td>89.5</td>
<td>91.6</td>
<td>75.0</td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>N</td>
<td>376</td>
<td>308</td>
<td>38</td>
<td>32</td>
<td>100</td>
</tr>
</tbody>
</table>


The low rate of entry by outside bidders illustrates the absence of competition in the contracting process. In fact, as China's Enterprise Reform Research Group (1988) reported, 54.6 percent of 1,296 enterprise managers reported that the major reason for implementing the system was that it was required by the superior government bodies; only 13.8 percent reported profit maximization was the major reason for implementation.

Enterprises continued to rely heavily on government favor and hidden subsidies after implementation of the contract responsibility system. An industrial survey by the State Statistical Bureau (1987b) showed that many superior government bodies followed the traditional ways of disaggregating planning tasks to subordinate enterprises; thus "no responsibilities nor risks were contracted" (the State Statistical Bureau, 1987c:5). Many enterprises complained that the system contracts only profit remittance tasks, and that other contracts are simply nonsensical. In this view, the
system is merely a tool for the state to assure its profit shares, at the same time strengthening its authority rather than relinquishing it (the State Statistical Bureau, 1987b:5-7).

The managers I interviewed frequently referred to the support of government bodies (shangji lingdao zhichi) as the most important factor behind their successes. This hanging of success and failure on the state has led to a situation similar to that described by Kornai (1980b) in his essay on the Hungarian reform experience. In Hungary, as in the PRC, enterprises granted autonomy by reform voluntarily resubjected themselves to state patronage. By requesting price adjustments, tax cuts, lower profit remittance rates, and increasing credits to ensure operation, they confirmed their dependence on the state apparatus. Thus the behavior of enterprise in effect served to perpetuate the paternalistic nature of state-enterprise relations and to reinforce its own dependency on the state.

Conclusion

What can we learn from ten year of reform in the PRC? First, how does a socialist institution change? The institutional perspective maintains that institutions change through a process in which rules and procedures governing participants' activities are modified. The PRC's ten-year reform experiences testifies to the validity of this tenet. By presenting analysis of government documents, this study reveals that the rules and procedures governing industrial organizations in the PRC's state sector have undergone noteworthy changes, particularly in terms of state-enterprise relations. Institutional changes have been carried out primarily by the PRC government through conscious efforts aimed at reducing the role of the state and at changing the
paternalistic nature of state-enterprise relations.

Ten years of reform have led to both claims and counter-claims about the degree to which paternalism and inefficiency have been reduced. The extent to which the reform efforts to change rules and procedures have been successful is in question, as are the continuities and discontinuities in the reform involved. The institutional perspective maintains that institutional arrangements affect the incentive structure and thus influence participants' behavior. To what extent have the modified rules and procedures affected incentive structure and enterprise behavior?

As demonstrated in the preceding discussions, industrial reform in the PRC has indeed brought about genuine change in some areas, particularly in terms of the criteria used to assess managerial performance, the degree of enterprise autonomy in decision making, and the incentives given managers and workers. At the same time, this study indicates that reform efforts to reduce the role of the state and to specify new rules and procedures have generally failed. Failure has resulted not only because each stage of reform introduced its own problems and unintended consequences, but also because it failed to alter some fundamental property of state-enterprise relation, specifically, the omnipresent paternalism. As White (1989:24) argued, "the fundamental nature of the relationship between state and enterprises has changed little", "nor has market process expanded as much as the reform blueprint envisaged" (White, 1989:24).

The successive reforms did indeed introduce the profit motive into the lives of enterprise managers (Reynolds, 1987; Byrd and Tidrick, 1987). This, however, did not guarantee that enterprise would be driven by market forces instead of bureaucratic forces. As I will demonstrate in the following chapters, under the current system,
profits are raised primarily by bureaucratic manipulation and are thus largely unrelated to actual performance. Profit-remittance has indeed been to a great extent replaced by taxes. But in actuality, bargaining over plan targets has been replaced by bargaining over retained profits, tax rates, investments, and prices of inputs and outputs, all of which remain important activities of enterprise managers. Although there has been a gradual shift in the traditional relation between a strong, pervasive state and its weak, captive enterprises, paternalism seems entrenched in state-enterprise relations. When enterprise managers realize that they will be better off if dependent on the state, they surrender their newly acquired autonomy and behave in the familiar docile manner.

The process of social change has long been a concern of sociology (Zaltman, 1973). What are the characteristics of this process directed by the government of the PRC? Organizational inertia (Hall, 1987), systemic nature, and interconnectedness of social systems (Watson, 1973) all of which can impede change. As shown in the previous discussion, implementation of reform often resembled only superficially what reformers had originally envisaged. That the tax-for-profit program was resisted by an underground contract system in Jilin and Guangdong, and that the contract responsibility system was implemented such that most enterprises were included in the least stringent system are good examples of organizational resistance to change. Furthermore, the reluctance of the PRC government to alter fundamentally the pattern of ownership and the inchoate nature of the reform testifies to the organization's being itself a major factor in the resistance to change.

As indicated, a social system is a complex organism; it is difficult to change one aspect of the system without effecting concomitant changes in other aspects (Watson,
1973). Thus unreformed aspects of the financial structure (e.g., pricing structure, labor allocation, bankruptcy laws) had deeply felt ramifications on the reform of state/enterprise relations. Expanded enterprise autonomy without accompanying regulatory measures also had serious consequences (Perkins, 1988). As I will illustrate in the fifth chapter, the unreformed pricing structure impeded the objective judgment of organizational performance and consequently weakened the link between efficiency and reward.

As was observed by Kornai (1980b; 1987) in his study of the Hungarian reform, the wave of economic dynamism brought about by decentralization and market forces was followed by several unintended consequences: overinvestment, budget deficits, wage and bonus explosions, and inflation pressures (Perkins, 1988). Resolution of these defects is overshadowed by persistent inefficiency in industrial production and by paternalistic state-enterprise relations, which, in addition to being the root cause of inefficiency, also constitute the most intricate dilemma faced by socialist reformers.

In keeping with Kornai's (1987; 1989) observations, the reform of state-enterprise relations in the PRC reveals a pattern of alternating decentralization and recentralization, reform and reversal, and progress and entrenchment. This alternating pattern of evolution of reform, supports Kornai's (1980b) argument that institutional reform in socialist economy, if not implemented in a coordinated manner, will involve a long historical process sometimes accelerating, sometimes decelerating, and in certain periods even reversing itself.

The progress and difficulties accompanied the entire process of industrial reform demonstrate that it is far more difficult to abdicate a centrally managed bureaucratic mode of governance than to install one. The PRC economy, restructured by ten years
of reform, has moved away from generic Soviet-type socialism. But this restructuring has been, at most, piecemeal and has represented, by and large, technical improvements within the existing Soviet-type system, rather than attempts at fundamental reform. As Perkins (1988: 618) argued, after these ten years, "both bureaucratic and market forces governed enterprise behavior"; but, at the same time, the economy, as Baum (1989: 121) put it, was "neither effectively plan-driven nor essentially market-driven." Enterprises have begun to evidence the profit motive and limited autonomy in their operations. At the same time, they continued to rely on the government. The emerging mode, dissimilar to either the ideal-typical market or the hierarchy described by economists (Williamson, 1985), turned out to resemble Kornai's (1987) dual dependence.
CHAPTER 4. THE PERSISTENCE OF HIERARCHY:
PATERNALISM AND SOFT BUDGET CONSTRAINTS

Economic reform in the PRC raised new concerns in 1988. With the highest inflation rate ever experienced in the history of PRC, a large budget deficit (eight billion yuan), and continued low efficiency, the early heroism and euphoria of reformers were forgotten in the face of public dismay and suspicion. Many traditional methods that had been abandoned during the reform years began to reappear. For example, political and administrative means were again advocated by the state as instruments to counter the inflation. Dominant concern of the late 1980s, instead of how to choose from among alternative reform strategies, became whether any such reforms could rescue the PRC from the economic morass in which it found itself.

Aggregated statistics were disappointing. Losses to state enterprises totaled 4.2 billion yuan in 1982; this figure was nearly doubled by 1988, when losses totaled 8.2 billion (the State Statistical Bureau, 1989:325). Performance indicators were also gloomy. Although the gross value of industrial output produced by fixed assets increased, both profits and taxes generated by inputs decreased, indicating faltering efficiency (the State Statistical Bureau, 1986a:326;1987a:323;1988a:389;1989a:320).

After ten years of reform, many features of hierarchical planning were still entrenched in the system. The entire economy continued to be plagued by symptoms
typical of a shortage economy as described by Kornai (1980). Questions therefore naturally arose as to why the ten years of reform had not been adequate to eliminate these classic phenomena. What had constituted the root cause of continued organizational failure?

In this chapter, I will argue that the continued dominance of paternalism in state-enterprise relations and the persistence of soft budget constraints observed by Kornai in Hungary (1980b;1987;1989) are features also characterizing relations in the PRC and that they are the major factors responsible for continued organizational failure. In the first section of the chapter, I will elaborate Kornai's concepts of paternalism and soft budget constraints, and develop hypotheses regarding these concepts. I will then test these hypotheses in part and discuss Kornai's concepts as they pertain to the PRC's state industrial sector. I will base the hypothesis testing and the discussion on a number of case studies of both documentary and statistical data and conclude the chapter with a theoretical discussion.

**Paternalism and Soft Budget Constraints**

In the hierarchical mode of governance, Kornai (1986:7) argued, "shortage is continually reborn out of social conditions and certain characteristics of the economic mechanisms" and "the explanation of chronicle shortage, of suction, and of the functioning of a resource-constrained system is to be found not in the financial sphere, or in special features of price information, but at a deeper level, in institutional relationships and in behavioral regularities which the institutional relations foster in decision-makers" (Kornai, 1980a:559). Two primary features characterize these institutional relations and behavioral regularities. One is a high degree of paternalism and
the other is soft budget constraints. As Kornai (1980a) indicated, the phenomenon of chronic shortage was perpetuated by both a high degree of paternalism and soft budget constraints manifesting this paternalism.

Kornai (1987) maintained that the persistence of paternalism and soft budget constraints are the defining features of state-enterprise relations in an economy characterized by dual dependence. Because Kornai's concepts were developed from his observation of the Hungarian economy, questions arise as to what extent they can be applied to other socialist countries. Were state-enterprise relations in the PRC also characterized by a high degree of paternalism whereby enterprise continued to be subsidized? Have budget constraints on enterprise in the PRC's state sector been hardened after reform? These questions will be elaborated on and hypotheses will be developed.

In his discussion of socialist economies, Kornai (1980a:562) argued that "the degree of paternalism in the relation between state and micro-economic organization is an important characteristic of the nature of a system." But because he "does not embark on a detailed analysis of the social relations and political and power structures of the socialist economies" (Kornai, 1980a:561), the sociological importance of paternalism was not elaborated. In my view, implicit in his other discussions (1986;1987;1989), there are two highly interrelated components that serve to constitute the concept of paternalism. On one hand, paternalism represents state efforts through state ownership, to assist and protect subordinate economic units in their initiation, survival, and expansion. On the other hand, these indulgences are accompanied by the dependence of economic units on their superordinate bureaucrats and by hierarchical control and intervention. Thus, under vigorous paternalism, economic
units at lower echelon will not only obtain assistance and protection from their superiors, but will also obtain such assistance and protection by simultaneously sacrificing independence and by subjecting themselves to the control and influence of the latter.

Power and dependence have long been concerns of sociologists studying social relations. Weber (1978:942) argued that "the great majority of all economic organization, among them the most important and most modern ones, reveal a structure of dominancy". He also pointed out that power and domination exists when "the will of the one has influenced that of the other even against that other's reluctance....and this statement holds true for all relationship of exchange, including those of intangibles" (Weber, 1978:947). Weber's argument implies that power is relational; in fact, Dahl (1957: 202-203) has defined it succinctly: "A has power over B to the extent that he can get B to do something B would not otherwise do."

Because power exists in relations, contemporary power dependency theorists maintain that it is inseparable from the other party's dependence (Blau, 1964; Emerson, 1962). The higher the degree of dependence of B on A, the more power A will wield over B. In Kornai's definition of paternalism, he emphasizes state assistance to enterprise but does not mention the power-dependence component.

Sociologists (Kleining, 1984; Walder, 1986) have studied the power-dependence dimension of paternalism. For example, in studying welfare capitalism and industrial dependence in company towns, Nelson (1975) noted that dependence became a consequence of paternalism when workers obtained protection from their company. Kleining (1984) related paternalism explicitly to coercion exercised by one party and loss of freedom experienced by the other. Walder (1986), in analyzing industrial relations in the PRC, linked paternalism to organized dependence. Most of these
studies, however, have been concerned with the relations between individual workers and organizations. Little has been written about paternalism at the organizational level.

This study will incorporate the power-dependency component into Kornai's paternalism framework. It is hypothesized first that the two components (power and dependency) are positively related. Thus, a reasonable hypothesis can be developed that the more a firm depends on the state, the more power the state will have over the firm (Hypothesis I). Dependence can be measured by the extent to which a firm is assisted by the state, whereas power can be measured by the extent to which the state can direct the firm's behavior.

The degree of paternalism can also be determined indirectly by looking at several phenomena. Because power is one important dimension of paternalism, the latter can be assessed in terms of the extent to which a firm's revenue is redistributed by the state. So, Hypothesis II will stated that the more a firm's revenue is redistributed by the state, the greater the degrees of dependence and paternalism.

Paternalism can be determined by looking at the extent to which a firm's reward is linked to its performance. This is so because strong paternalism means protection and assistance, regardless of the beneficiary's performance. Hypothesis III thus state that the weaker the linkage between performance and reward, the greater the degree of paternalism.

Paternalism can also be assessed by looking at the extent to which a firm's expansion and growth depend upon its performance and asset accumulation, or depend upon government assistance. Hypothesis IV states that the more a firm's expansion and growth depend upon the firm itself, the lower the degree of paternalism, and that
the more they depend on government assistance, the higher the degree of paternalism.

Soft budget constraints as developed by Kornai (1980a), refer to a lack of financial discipline in micro-economic relations. Soft budget constraints are characterized by a phenomenon in which firms were not obliged to cover expenditures from revenues made on the market, but instead supplemented by bureaucratic institutions in terms of price, tax, state grants, credit, and other subsidies. Soft budget constraint is also a concept encompassing a cluster of phenomena that prevalent in socialist societies. In discussing the problems of soft budget constraints in socialist economies, Kornai (1980a) noted several conditions that breed soft budget constraint phenomenon.

First, in socialist economies, a firm is a price-maker rather than a price-taker, a statement referring to the phenomenon whereby prices are not subject to the demand and supply conditions of the market. State authorities can adjust prices at their will, and firms can influence them. Second, the tax system is soft. Not only is the tax rule formulation subject to the influence of various authorities, but exemptions or postponement can be granted to firms according to the will of the authorities. Third, free state grants can be extended to enterprises regardless of firm performance. Fourth, the credit system is soft. Credit at low interest rates, and in some cases at no interest at all is extended to enterprises in financial trouble.

As Kornai (1980a) indicates, soft budget constraints are also the manifestation of a vigorous paternalism. In fact, the two concepts are in one sense intertwined and inseparable. One of the direct results of the softening of budget constraints is that the survival and growth of a firm are not associated with firm performance. Bail-outs in the form of free state grants (compensation for money-losing enterprises) directly contribute to the formation of paternalistic expectations in the minds of managers.
(Kornai, 1980a). Once such phenomena are institutionalized, managers will become likely to expect a paternalistic support whenever financial trouble arise. Thus, a high degree of paternalism and soft budget constraints interact with and mutually reinforce each other, together perpetuating chronic shortage.

Several phenomena need to be considered to ascertain the hardness or the softness of budget constraints faced by firm. The first phenomenon is the extent to which product price can be manipulated by the government in favor of or against firms. The second is the extent to which tax rules can be bent by the government to provide subsidies to firms. The third is the extent to which firm losses can be compensated for by the government and extent to which firms operating at permanent loss survive or grow. The fourth is the extent to which credit given firms is related to performance, or the extent to which credit at low interest rates or at no interest is given as a means of subsidy. The final phenomenon is the extent to which free grants are provided to firms as a means of subsidy. It is hypothesized that frequent manifestation of these phenomena indicates soft budget constraints and that absence of these phenomena indicates hard constraints.

**State-enterprise Relations as Reflected in Contracts**

Despite the importance of state-enterprise relations in the socialist economy of the PRC, how the state was related to enterprise during the period of reform has not been systematically studied. Part of the reason for this indifference is the difficulty involved in assessing the data. During my field trip to China in 1988, I had access to 35 state-enterprise contracts (hereafter referred simply as contracts). These contracts not only revealed in detail the way in which enterprises were related
to the state, but also provided information on how the current contract responsibility system operated at the local level. Because of their importance, a general description of these contracts will be provided. Twenty-five of these contracts were collected in Fujian, a southeastern province that is neither innovative nor a laggardly in reform. For the sake of consistency, I will describe these Fujian contracts (see Appendix for names of contracting enterprises).

A contract is an agreement between the state, represented by government agencies, and a state enterprise. Government agencies most frequently represented are the local Finance Bureaus, superior bureaus originally in charge of the firm, and sometimes the local Systemic Reform Commissions (at the provincial level) or Systemic Reform Offices (at municipal or prefecture levels). The contract, as a new form of mutual obligations and rights, reveals the essence of the relation between the two parties involved.

The contracts between enterprise and state generally consisted of eight components. First, the form of contract responsibility system adopted was stated. The contracts I collected in Fujian Province ranged from examples of the loss-making contract responsibility system to the profit-increase contract system. Second, the duration of the contract was included. Among the 25 contracts reviewed, the longest duration was eight years and the shortest three. Average duration was four years. Three factors affected the duration of the contract: the industrial sector a firm belonged to, the type of contract system it had adopted, and the time at which the contract was signed. For example, most industrial mineral enterprises have contracts of longer duration than those of other industries. Those who adopted the input-output contract system and the fixed subsidy contract system generally had
contracts of longer durations than those of other systems. And finally, those contracts signed before 1987 were of longer duration than those signed later. Whether these differences are due to production type or policy considerations is unclear.

Third, the types of contracted responsibilities could be examined. Indicators of evaluation were generally specified, and the targets, both physical and monetary, were indicated. Generally, a table illustrating stated targets in numeric terms was attached. For example, those adopting the progressive profit contract responsibility system would state the amount of annual profit remittance to the state. In addition, the rate of annual increase, as well as the method by which increased profit was to be distributed between the state and the enterprise, was stated.

The method of profit sharing, which specified the retention ratio or, for loss-making firms, the amount needing to be subsidized, was the fourth component. Generally, contracts specified the ways in which realized profits were to be distributed between the two parties signing the contract or, for loss-making enterprises, the burden shared between them. Distributive relations between state and enterprise ranged from enterprise subsidization of 600,000 yuan annually to 70 percent profit remittance to the state.

Fifth, the distribution ratio of the retained profit (sanjin bili), that is how the retained profit would be used and, in particular, how it would be distributed among production development, welfare, and bonus funds was specified. To check excessive and indiscriminate distribution of bonuses, the state stipulated a maximum limit of retained profits to be used as welfare and bonus funds. A variety of distributive methods were also used. These ranged from one whose production development funds equaled to 80 percent of retained profits to another whose funds equaled 40 percent.
Profits retained from contracted target amounts were generally distributed at a ratio of 70:30 between production development funds, and welfare and bonus funds. But for profits retained from overfulfilled portion, the ratio became 30:70 because enterprises were entitled to greater profit share if they could surpass their targets.

Sixth, rewards and penalties for contractors were indicated; the maximum bonus and the maximum penalty incurred were stated in the contract. An upper limit was set so that the total income of a manager could not be greater than three times that of the average worker in the factory. That different systems of rewards were used was evident from these contracts. Some specified reward in terms of bonus, some in total salary, and still others in fixed salary. On average, if a firm fulfilled all the contracted tasks, its manager was entitled to a salary double that of the average worker. If it overfulfilled the contract by one percent the contracted profit amount, the manager would get a 0.6 percent raise. The vice-manager’s salary was stipulated as 80 percent of the managers; this person was entitled to the same proportional rewards and subjected to penalties.

Other obligations, which included the requirement of sticking with the four cardinal principles (Marxism-Leninism, people’s democratic dictatorship; the socialist road; and Communist Party leadership), abiding by state regulations and laws, affirming the Marxist principle of "to each according to his works", implementing an internal responsibility system, upholding the quality of products, and maintaining safety standards, comprised the seventh component.

Finally, contracts included provisions for termination and change. This eighth component took up the issues of breach of terms by either party and how contract content would be revised if changes in government rules and regulations, or irresistible
changes in the business environment affected contract fulfillment.

Of these eight components, the form of contract responsibility system adopted was the most important because it not only dictated the distributive ratio of profits, but also influenced the duration of the contract, method of profit sharing, and the obligations of both parties. Eventually, this component became the focus of bargaining between the state and its enterprises. In the contracts I collected, eight subtypes of the contract responsibility systems were used to define relation between enterprise and state:

The input-output contract system (*touru chanchu baogan*) was applied to mineral producing firms. Under this type of contract, the provincial Finance Bureau agreed to provide certain investments as input while the firm was obliged to produce a specific output (physical or monetary). If the physical or monetary targets were reached, the firm would be entitled to retain a certain percentage of profit. Part of the contract overfulfilment could be used as welfare and bonus funds. Under the Loss-making contract system (*kueisuen baogan*), a money-losing firm was subsidized by the provincial Finance Bureau to insure that workers would be entitled to welfare and bonuses no less than those working in profit-making firms and that the firm would have at its disposal enough money to survive and expand. In the progressive profit contract system (*dizeng baogan*), a firm would contract to increase its profit at a certain rate in exchange for retaining funds from additional work as welfare and bonus funds and as means of repaying bank loans. In the fixed profit remittance contract system (*dinger shangjiao, chaoshuo quanliu, quebao huandai*), a fixed amount of profit (often 55 percent) was required to be remitted to the state. The remaining profit was retained by the firm to repay bank loans and to cover welfare funds and bonuses.
The fixed subsidies contract system (dinger butie, chaokuei bubu, jiankuei quilu, yingli bujiao) was a system under which firms were subsidized by the state at a fixed amount. After accepting the subsidies, firms would be fully responsible for operation. The most common type of contract adopted was the base-figure contract system, which entailed enterprise sharing of increased profit (jishu baogan, chaojishu fencheng, qianshu zibu). Eleven out of the 25 of Fujian contracts had adopted this system, which was designed for those with the potential to increase profits. Under it, a base-figure profit remittance was negotiated by government bureaus and the firm. Profit resulting from overfulfillment of the contract was shared at a rate agreed upon by the two parties. Although the two guarantees and one link system (liangbao yigua) has been promoted by the state, only two of the contracts from Fujian were of this type. This system was usually applied to factories that had both the potential to increase profit and had relatively stable supplies of material and markets. Two guarantees refer to a guarantee of profit remittance and a guarantee of technological upgrading. The one link generally refers to the linking of the factory's total wage bill to its level of remitted profit and tax. Finally, the unified responsibility for profits and losses contract system (tongfu yingkuei chengbao zhi) applied only to enterprises in the military industry. Under this system, the sector at the provincial as a whole level was to retain all remaining profits after 15 percent had been handed over to the Provincial Finance Bureau, because its supplies and investments came from the military budget. Nevertheless, various contract systems could be implemented inside the sector between firms and the Provincial Military Industry Office.
Persistence of Paternalism

Paternalism and power dependency

In discussing paternalism, I have indicated that the concept has two components. The first is government assistance to and protections of an enterprise. The second is enterprise relinquish independence.

It has been hypothesized that the more a firm depends on the state for assistance, the more power the state will have over the firm. To test this hypothesis, the 25 contracts were grouped into three categories according to the degree to which enterprises were assisted by the state: enterprises dependent upon conspicuous government subsidies (e.g., input-output contract system, loss-making contract system, fixed-subsidies contract system, and unified responsibility contract system); enterprises relying on hidden government subsidies such as budgetary refunds and credit favors (e.g., some enterprises practiced the fixed profit remittance system); and enterprises to which no government subsidies were provided (e.g., the two guarantees and one link system). Seven contracts were in the first category, which specified government subsidies in terms of direct investment and loss compensation. Seven contracts were in the second category, which specified hidden subsidies by the government in the form of tax cuts, budgetary refunds, and repayment of bank loans before tax (see discussion in section IV of this chapter). The remaining eleven were in the third category and received no government subsidies (Table 4.1).

The contracts revealed that four of the seven enterprises in the first category were required by the state to fulfill tasks in addition to that of profit target. For example, Luoyang Iron Mine was required to supply its products to a specific plants
(Sanmin Iron and Steel) in specified quantity and quality. In return, it received a 10 million yuan investment fund from the provincial Finance Bureau. Nanping Alumininum Products Factory was required to supply one third of its products to the provincial Department of Material Supply for a unified allocation. Another third of its products was required to be supplied to other state agencies that had invested in the enterprise. Only the remaining one third of its products was left the enterprise for sale within provincial markets. Sanming Iron and Steel was also required to supply its products to the provincial planning body at a price lower than that of market, and the remaining products could be sold only within the provincial market. In contrast, no requirements other than profit targets were made of firms in the other two categories (Table 4.1).

Another phenomenon reflecting paternalism and power-dependency is the extent to which firm revenue is redistributed by the state. As Kornai (1986:91) stated, "one of the important indicators of the financial dependence of enterprises on the state is the magnitude of income redistribution among enterprises." It has been hypothesized that the greater the amount of firm revenue redistributed by the state, the greater the degrees of both dependence on the state and paternalism.
One government document illustrates in detail the redistribution process. In a report submitted by the Xiamen City Economic Commission to the Xiamen City Government, a detailed description of redistribution of income of enterprises under the commission's jurisdiction was summarized. It was estimated that, during 1986, total realized profit had been 128.57 million yuan for these enterprises (Table 4.2). After paying taxes (including income tax and adjustment tax), bank loans, and an energy and transportation fund, however, only 22.44 million yuan, or 17.5 percent, of total realized profits could be retained by the enterprises. Moreover, these retained profits had to be divided among three funds (welfare, bonus, and production development). After welfare and bonus funds had been set, only 39.6 percent of the retained profit was available for distribution as production development funds. But the enterprises were required to buy a fixed amount of government bonds using their production development fund. In short, only 1.88 million yuan, or 1.5 percent of the total realized profit, was left at the enterprises' disposal in the form of production development funds.

Absence of link between performance and reward

In the ideal market economy, there is a strong interdependence between efficient performance and reward. Additionally, firm expenditures should be limited by sale earnings (Kornai, 1987). In the PRC's socialist economy, however, budgets of firms may expand or contract quite independent of their firm performance. The link between the performance and reward has become attenuated as a result of the redistribution process. The contract responsibility system, as initially introduced, was intended to ensure economic incentives at all levels, to improve efficiency.
Table 4.2: Income of the Xiamen City State Enterprises Redistributed by the State: 1986\(^a\)

<table>
<thead>
<tr>
<th>Items</th>
<th>Amount</th>
<th>Percentage (Total)</th>
<th>Percentage (Retained)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total realized profit</td>
<td>128.57</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Income tax paid</td>
<td>-39.00</td>
<td>30.3</td>
<td>30.3</td>
</tr>
<tr>
<td>Adjustment tax paid</td>
<td>-15.00</td>
<td>11.7</td>
<td></td>
</tr>
<tr>
<td>Loans repaid</td>
<td>-46.00</td>
<td>35.8</td>
<td>35.8</td>
</tr>
<tr>
<td>Energy and Trans. fund</td>
<td>- 6.13</td>
<td>4.8</td>
<td></td>
</tr>
<tr>
<td>Profit retained</td>
<td>=22.44</td>
<td>17.5</td>
<td>17.5</td>
</tr>
<tr>
<td>1) Welfare fund</td>
<td>-4.52</td>
<td></td>
<td>20.1</td>
</tr>
<tr>
<td>2) Bonus fund</td>
<td>-9.04</td>
<td></td>
<td>40.3</td>
</tr>
<tr>
<td>(SEZ subsidies)</td>
<td>(6.00)</td>
<td>(26.7)</td>
<td>(26.7)</td>
</tr>
<tr>
<td>3) Production fund</td>
<td>=8.88</td>
<td>39.6</td>
<td>(39.6)</td>
</tr>
<tr>
<td>(Government bond)</td>
<td>(7.00)</td>
<td>(31.2)</td>
<td>(31.2)</td>
</tr>
</tbody>
</table>

\(^a\)Source: Xiamen City Economic Commission; SEZ: Special Economic Zone; Unit: Million Yuan.

Unfortunately, profit retained had little to do with original profit, for it was highly circumscribed by the state's redistributive measures and subject to a leveling of profit similar to what Kornai (1989) noted in Hunagry.

This section will attempt to demonstrate certain phenomena. It has been hypothesized that paternalism can be assessed by analysis of the link between performance and reward. The stronger the association between the two, the lower the degree of paternalism. Data at the PRC's national level will be used.

During recent years, four performance indicators have frequently been used by the state to assess overall performance of state enterprises: profit and tax generated by the enterprises relative to total funds used, including both net value of fixed assets and working capital (Indicator I), profit and tax generated relative to the gross
value of industrial output (Indicator II), the ratio between profit and tax versus the original value of fixed assets (Indicator III), and the decreasing rate of comparable costs (Indicator IV). Since 1985, the overall trend of the four indicators has been deteriorating, indicating a worsening of performance.

For example, the profit and tax generated by total funds used (Indicator I) declined from 23.8 percent to 20.6 percent; this fact indicates that more inputs were needed to generate each unit of profit and tax. The profit and tax generated by the gross value of industrial output (GVIO, Indicator II) declined from 23.60 percent to 17.84 percent, indicating excessive inventory. Similarly, the ratio between a unit of profit and tax and a unit of fixed assets declined over the four years; this fact indicates that the state enterprises with a given amount of fixed assets could produce only a decreased amount of profits and taxes. The decreasing rate of comparable cost (Indicator IV) was defined by the PRC’s State Statistical Bureau (1988a:419) as the "ratio of the cost for producing a unit of product in a given year relative to that of the preceding year." A positive sign indicated decreased costs and negative sign increased costs. From 1985 to 1987, the magnitude of the negative figure decreased marginally. The magnitude of negative figure increased from -7.04 to -15.59; this indicates that costs in 1988 increased relative to those of 1987. The deterioration of enterprise performance was also evidenced by the fact that losses incurred by money-losing firms increased from 5.4 billion to 8.2 billion between 1986 and 1988 (Table 4.3). Rather than being penalized, these money-losing firms were compensated by the state to allow them to survive.

What was the trend of reward? Reward will be measured in terms of the total profit retained by the state-owned enterprises. Greater reward meant more profit
retained by enterprise whereas less reward meant less profit retained. If the profit retained by enterprise decreased as performance indicators declined, the relationship would be positive. If, on the other hand, profit retention increased with declining performance indicators, the relationship would be negative. Contrary to the trend of worsening performance, retained profits for the state industrial sector as a whole increased, from 23.3 billion yuan to in 1985 to 32.4 billion yuan in 1988 (Table 4.3). This negative relation between performance and reward can be observed. Clearly, data from the national level support the argument that reward is negatively associated with enterprise performance in the PRC’s state industrial sector.

Profit leveling: redistribution at the provincial level

Can the argument that reward is negatively linked to performance in the PRC’s state industrial enterprises be supported by data from the provincial level? Did state-owned enterprises at specific provinces deviate from the national data? In my field trip to Fujian Province in late 1988, the Balance Sheet of Fujian Provincial State-Owned Enterprises was obtained. This sheet classified state industrial enterprises into four categories: profitable enterprises (yiangli qiye), marginally profitable enterprises (weili qiye), small-sized profitable enterprises (xiaoxing yianli qiye), and money-losing enterprises (kueisun qiye). Because incomplete data are reported for the third category (small-sized profitable enterprises), only the others will be compared.

Profitable enterprises retained only 24.06 percent of profits realized, but marginally profitable enterprises retained about 51.62 percent of profits realized (Table 4.4). The total actual profit generated by loss-making enterprises was only 84,110 thousand yuan. The negative contracted profits-remittance figure shows that these enterprises
Table 4.3: Comparison of Economic Performance and Profit Retention for State Industrial Enterprises: 1985-1988$^a$

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Indicator $^b$</td>
<td>23.80</td>
<td>20.70</td>
<td>20.30</td>
<td>20.60</td>
</tr>
<tr>
<td>Indicator $^c$</td>
<td>23.60</td>
<td>22.34</td>
<td>18.93</td>
<td>17.84</td>
</tr>
<tr>
<td>Indicator $^d$</td>
<td>22.40</td>
<td>19.90</td>
<td>19.30</td>
<td>20.20</td>
</tr>
<tr>
<td>Indicator $^e$</td>
<td>-7.70</td>
<td>-7.34</td>
<td>-7.04</td>
<td>-15.59</td>
</tr>
<tr>
<td>Total losses$^f$</td>
<td>N.A</td>
<td>5.40</td>
<td>6.10</td>
<td>8.20</td>
</tr>
<tr>
<td>Retained Profit$^g$</td>
<td>23.30</td>
<td>22.80</td>
<td>26.50</td>
<td>32.40</td>
</tr>
</tbody>
</table>


$^b$ Ratio between profit and tax versus gross output, in percentage.

$^c$ Ratio between profit and tax versus original value of fixed assets, in percentage.

$^d$ Ratio between profit and tax versus the original value of fixed assets, in percentage.

$^e$ The decreasing rate of comparable cost.

$^f$ In billion yuan.

$^g$ In billion yuan.
Table 4.4: Comparisons amongprofitable, Marginally Profitable, and Loss-making State Enterprises in Fujian Province: 1987\textsuperscript{a}

<table>
<thead>
<tr>
<th>Items</th>
<th>Profitable enterprises</th>
<th>Marginally profitable enterprises</th>
<th>Loss-making enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total realized profits (1)</td>
<td>6,699.00</td>
<td>379.81</td>
<td>84.11</td>
</tr>
<tr>
<td>Contracted profit remittance (2)</td>
<td>2,254.05</td>
<td>44.20</td>
<td>-107.55</td>
</tr>
<tr>
<td>Overfulfilled profit (3)</td>
<td>274.28</td>
<td>115.74</td>
<td>189.38</td>
</tr>
<tr>
<td>(3)/(1)</td>
<td>4.09%</td>
<td>30.47%</td>
<td>225.16%</td>
</tr>
<tr>
<td>Overfulfilled part remitted (4)</td>
<td>65.10</td>
<td>9.21</td>
<td>5.91</td>
</tr>
<tr>
<td>Total retained profits (5)</td>
<td>1,612.06</td>
<td>190.06</td>
<td>183.47</td>
</tr>
<tr>
<td>(5)/(1)</td>
<td>24.06%</td>
<td>51.62%</td>
<td>218.13%</td>
</tr>
<tr>
<td>Number of firms</td>
<td>271</td>
<td>150</td>
<td>76</td>
</tr>
<tr>
<td>Average wage per worker (6)\textsuperscript{b}</td>
<td>1,455</td>
<td>1,198</td>
<td>1,468</td>
</tr>
</tbody>
</table>

\textsuperscript{a}Source: Fujian Province Finance Bureau; Unit: million yuan
\textsuperscript{b}Unit: yuan.
were compensated by the provincial government in the amount of 107,550 thousand yuan. Furthermore, when they overfulfilled the contracted amount (189,380 thousand yuan), they were entitled to retain 96.8 percent of this amount. The net result was that they retained more than twice their actual realized profits.

The average wage for profitable enterprises was 1,455 yuan per worker, which was higher than that for only marginally profitable enterprises. But the average wage in money-losing companies was highest (1,468 yuan per worker), fact indicating disassociation of individual reward with overall performance.

Kornai (1987, 1989) observed that in Hungarian enterprises, the most profitable firms would not receive greater profit share than the less profitable ones: "profits distributed to employees are almost independent of the 'true', 'original' profitability of the enterprises" (Kornai, 1989:91). The general tendencies seen in Table 4.4 echo Kornai's observation: profit sharing between state and enterprise which has, through state redistribution, become a regular component of wages, is not associated with performance. The classical relationship between performance and reward in the market economy has been altered in this instance.

Profit leveling inside enterprise

The absence of a link between reward and performance is not limited to bureaucratic redistributive practices. It is also a common phenomenon in the basic economic units. In one of the cases I studied, profit leveling was also used as a redistributive measure of enterprise financial practice. The Fujian Provincial Auto-parts Company (fujiansheng qiche peijian gongsi), a state-owned enterprise at the provincial level, had nine subcompanies at each prefactural or municipal level, with headquaters at
Table 4.5: Profit Leveling inside a Fujian Provincial Autoparts Company, as Reflected in Contract: 1988

<table>
<thead>
<tr>
<th>Subcompany</th>
<th>Base Figure</th>
<th>Income Tax</th>
<th>Adjustment Tax</th>
<th>Retained Profit</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headquarter</td>
<td>407.0</td>
<td>224.0</td>
<td>53.0</td>
<td>130.0</td>
<td>31.9</td>
</tr>
<tr>
<td>Putian</td>
<td>90.0</td>
<td>50.0</td>
<td>15.0</td>
<td>25.0</td>
<td>27.8</td>
</tr>
<tr>
<td>Quanzhou</td>
<td>189.0</td>
<td>104.0</td>
<td>36.0</td>
<td>49.0</td>
<td>25.9</td>
</tr>
<tr>
<td>Xiamen</td>
<td>124.0</td>
<td>68.0</td>
<td>15.0</td>
<td>41.0</td>
<td>33.1</td>
</tr>
<tr>
<td>Zhangzhou</td>
<td>109.0</td>
<td>60.0</td>
<td>20.0</td>
<td>29.0</td>
<td>26.6</td>
</tr>
<tr>
<td>Sanming</td>
<td>160.0</td>
<td>88.0</td>
<td>26.0</td>
<td>46.0</td>
<td>28.8</td>
</tr>
<tr>
<td>Longyan</td>
<td>359.0</td>
<td>197.0</td>
<td>72.0</td>
<td>90.0</td>
<td>25.1</td>
</tr>
<tr>
<td>Nanping</td>
<td>383.0</td>
<td>211.0</td>
<td>77.0</td>
<td>95.0</td>
<td>24.8</td>
</tr>
<tr>
<td>Ningde</td>
<td>64.0</td>
<td>35.0</td>
<td>7.0</td>
<td>22.0</td>
<td>34.4</td>
</tr>
<tr>
<td>Total</td>
<td>1,885.0</td>
<td>1,037.0</td>
<td>321.0</td>
<td>527.0</td>
<td>27.9</td>
</tr>
</tbody>
</table>

Source: Contract No.19 see Appendix. Unit: 1,000 Yuan.

Fuzhou, the capital city of Fujian.

Between 1988 and 1990, a so-called internal unified redistribution system was used to adjust the portion of profit retained by each subcompany. In the three years, profits made by each subcompany ranged from 407,000 yuan to 64,000 yuan (Table 4.5). Each subcompany was required to deliver 55 percent of its realized profit to the state as income tax. But after this tax was paid, subcompanies were required by the general company to pay an adjustment tax at a rate between 11 and 20 percent. After the adjustment tax was paid, the subcompany realized the least profit (Ningde) retained the highest percentage (34.4%) of these profits, whereas the subcompanies ranking second (Nanping) and third (Longyan) in terms of initial profit realized retained the lowest percentages (24.8% and 25.1%), respectively. The internal redistribution system resulted in an inverse relation between reward and performance.
Soft Budget Constraints in Action

Case studies will be used to discuss phenomenon of soft budget constraints and to test whether Kornai's concept can be applied in the PRC setting. The documentary data that I collected during my field trip will be discussed in relation to Kornai's theory.

Price manipulation as a means of subsidization

In a shortage economy, Kornai (1980) argued, the administratively determined price structure can be bent to provide financially-troubled enterprises with hidden subsidies, because the state-imposed prices are disassociated with supply and demand and do not reflect scarcity of resources. As described by Kornai (1980b), a firm facing financial pressure can react in two different ways. It can adapt to this difficulty by adjusting its production, marketing, and financial strategies. But this way of reacting involves taking risks and may or may not be successful; even if it succeeds, it has involved certain sacrifices. An alternative for enterprises in socialist economies is to ask higher authorities for help in the form of price adjustments, tax cuts, credit increases, and so on. Because this involves less risk, enterprises are more apt to resort to it. An example from Xiamen city in PRC illustrates this phenomenon.

When the contract responsibility system was implemented in 1987 in Xiamen, Fujian Province, complaints and grievances were filed by factory managers. Although government officials tried to convince managers to sign the contract, no single manager was willing to do so; they asked the city government to resolve certain so-called external problems. The most frequently mentioned issues were that they faced an insufficient and irregular supply of water and electricity and that they faced increases in
the price of their inputs, particularly of raw materials. The factory managers insisted that one of two measures had to be adopted before they would sign the contracts: profit remittance figure had to be lowered or factories had to be allowed to raise prices.

The solution proposed by the Municipal Economic Committee was to ask the Municipal Price Committee to allow the factories flexibility in increasing the prices of their products, as long as prices remained within the state-set price limits. So for those whose earnings from increased prices still could not offset the increased price of inputs, the municipal government would change the profit retention base-figure (Xiamen City Economic Committee, 1987).

Other methods were also used by enterprises or government agencies to manipulate prices. For example, enterprises whose products were awarded such titles as "brand name" or "superior quality" by the state could raise their price by 5-15 percent; enterprises often bargain very hard to get such titles in order to reap profits. In some instances, bribes were used. On the other hand, bureaucrats often took advantage of this mechanism to give hidden subsidies to enterprises (Micro-Research Department, Economic System Reform Research Institute, 1986:47).

A Soft Tax system

Tax exemption and reduction can be extended to enterprise at the will of bureaucrats. Disguised subsidies can be provided enterprises by various means created by state bureaus. In the PRC as in Hungary (Kornai, 1989), both conspicuous and hidden subsidization were practiced by the state.

As stated in the The Trial Measures for the Second Stage of the Tax-for-Profit
Program by the Ministry of Finance (1983b), enterprises were to pay 55 percent of total realized profits as income tax. Exceptions to the rule were allowed, however, for enterprises operating at a loss and for those repaying loans to banks. Loss-making enterprises were divided into two types (money-losing due to either government policy or mismanagement) and, in theory, different measures of subsidization were to be applied. But in fact, distinctions were often difficult to make, and subsidies were provided without inspection. For enterprises repaying loans to banks, before-tax profits were allowed for this purpose. Even though it was stated that only the profits generated from bank loans could be used in repayment, again in practice, little distinction could be made between profits generated from different sources. In the contracts collected, no stipulations were included regarding this matter.

One of the practices of soft budget constraints is the so-called budgetary refund (caizheng fanhuan). Through this practice, a firm is required to pay taxes according to the tax law formulated by the state. After its tax payment, however, part or all of the payment can be reimbursed by the state finance bureau to help the firm pay bank loans (Contract No.17), add to production development funds (Contract No.18), or distribute bonus or welfare funds (Contract No.19).

For example, the Jianyang Automobile Repair Factory had a loan of 550,000 yuan from a bank during 1988. Its tax payment and profit remittance to the state Financial Bureau equalled 440,000 yuan. After payment, according to the contract between the factory and the Finance Bureau, the latter had to return 330,000 yuan. Thus, by combining its refund with the 220,000 yuan in production development funds, the factory could pay back all its bank loans (Contract No.16). Another example was the contract signed between the Fujian Auto-transportation Company and the Finance
Bureau. The company was allowed to use 60 percent of its realized profits to pay back bank loans before taxes were assessed. In addition, after paying 26.9 percent of its total realized profits as taxes (including the income tax and the adjustment tax), 75 percent of this amount was returned to the company as a budgetary refund. In fact, the company paid only 6.7 percent of total profits in taxes (Contract No. 13).

State subsidies to loss-making enterprises

As Perkins (1988) pointed out, the existence of loss-making enterprises propped up by subsidies is symptomatic of what Kornai calls soft budget constraints. In the PRC's socialist economy, money-losing firms, even if they lose money for years, are generally compensated for by the state through various means. In 1989, state subsidies to money-losing companies amounted to 59.98 billion yuan, which accounted for as much as 20 percent of total state budgetary spending (Wang, 1990). Most firms operating at a loss still distributed profit sharing money among their employees. In the contracts I collected, there are a number of cases which reveal such practices.

Pucheng Bronze and Copper Mine was a loss-making enterprise. In a contract signed between the Finance Bureau and the mine, the mine was permitted to lose 400,000 yuan between 1988 and 1991. It was also agreed that the mine would receive the same amount as subsidy. The contract specified that 34,000 yuan could be used as bonuses so that each worker would received 200 yuan per year in bonuses (Contract No. 5). Another example was Fujian Provincial Ship-building Corporation, which was contracted to lose 600,000 yuan during 1988-1990. With a subsidy matching its loss, the contract specified that 45 percent of the company's retained profit should be distributed as bonuses and 15 percent as welfare funds (Contract No. 18).
Money lost by mismanagement can also be compensated for by the state. For example, during 1985-1986, the Fujian Computer Corporation imported some low-quality products, which resulted in a loss of 4.31 million yuan. A final contract was signed between the Financial Bureau and the computer company allowing the latter to use its realized profit to compensate the loss. After this compensation was made, taxes were calculated on the remaining profit (Contract No. 4).

Another example was the Provincial Agricultural Machinery Company. The contract between the company and the Finance Bureau stated that instead of reducing bonuses and welfare funds, the company was allowed to use production development funds to compensate for losses due to poor quality and wasted products (Contract No. 12).

During 1987, 76 out of 1,056 medium- and large-scale state enterprises under the jurisdiction of Fujian Province were permanent money-losing enterprises losing 12.33 million yuan per year (Fujian Provincial Finance Bureau, 1988). For these enterprises, a loss contract system was designed whereby the state would subsidize annually a certain amount of money guaranteeing their survival. Aforementioned Pucheng Bronze and Copper Mine and the Fujian Provincial Ship-Building Corporation are examples. The latter had to rely on these subsidies to upgrade equipments and technologies. In the contract, the provincial Finance Bureau agreed to subsidize the company by providing 600,000 yuan per year for its investment in technological upgrading (Contract No. 18). This form of free grant is a common subsidy designed to assist troubled industries.
A Soft Credit system

One symptom of the soft-budget constraints described by Kornai is the credit system. "The bank sector," said Kornai (1989:43), "acts as a credit-rationing administrative authority and not as a genuine bank following commercial principle. Granting and denying credit is almost uncorrelated with the past or present profitability and credit worthiness of the firm. To some extent, the opposite relationship is true. The credit system is used frequently to bail out firms failing on the market." The same phenomenon described by Kornai (1989) was found in the PRC. In their detailed study of relations between banks and enterprises, Bowles and White (1989) found that the reformed bank system, after being empowered to supervise, restrict credit, audit, and penalize poorly performing enterprises, had not become more discriminant in its granting of loans. On the contrary, it had become to a great extent softer than before.

The softening of bank constraints on state enterprises was also evidenced by the surprisingly high percentage of insolvency in the state-owned Construction Banks in 18 cities investigated by the 1985 CESRRI survey (see Chen, Wang, and Colleagues, 1988: Table 5). Based on their investigation, these researchers argued that the bank system, once the hardest constraint on state enterprises, showed a tendency to soften. As the World Economic Herald (1988) reported, the state-controlled banks often allowed enterprises to use state funds irresponsibly, and it was estimated that over half of these loans might not be paid back. An even more striking case was reported by Bowles and White (1989). According to their findings, between 1980 and 1986, 70 billion yuan had been issued as state allocation credit, of which only 3.2 billion (4.6 percent) had been repaid. This had occurred because the loans had
not been involved any legally binding terms.

The softening of the credit system was evidenced by the contracts examined in this study. For example, out of 25 contracts, 10 explicitly specified the firm obligation to repay bank loans. Some contracts even provided exact amount the contractors had to pay each year. Why the Finance Bureau was so concerned with loan repayment was at first perplexing issue because the bureau's major responsibility is to collect profits and taxes. One bureau official explained, however, that because enterprises' failing to repay or deferring their repayment had been such widespread phenomenon, the banks had had to ask the bureau for help.

Kornai (1987;1989) has discussed classical examples of both manipulation of tax rules and price structures that are, in effect, hidden subsidies to state enterprise in Hungary. Similar practices can also be observed in reformed state enterprises in the PRC. One of the most striking cases is the manipulation of pre-tax payment of bank loans. During my interviews in 1988, pre-tax and post-tax payment was frequently debated by tax collectors and factory managers. According to state tax law, each enterprise is required to pay 55 percent of its profit as income tax to the state. This rule, however, is often subject to manipulations. The Finance Bureau often allowed certain enterprises to pay their bank loans before taxation, therefore, taxes, assessed only on the remaining profits, are reduced.

Table 4.6 illustrates pre-tax manipulations. During 1988-1990, the Fujian Auto-transportion Company was expected to generate a profit of 50 million yuan. The contract specified that 60 percent of profit could be used to repay bank loans and only 40 percent assessed for taxes. Fifty-five percent of the remaining part would be paid as income tax (22 percent of the total profit) and 12.3 percent as adjustment
Table 4.6: Profit Sharing between the Fujian Auto-transportation Company and the Provincial Finance Bureau

<table>
<thead>
<tr>
<th>Items</th>
<th>1988 (%)</th>
<th>1989 (%)</th>
<th>1990 (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realized profit</td>
<td>20.00</td>
<td>15.00</td>
<td>15.00</td>
<td>50.00</td>
</tr>
<tr>
<td>Percentage</td>
<td>(100.00)</td>
<td>(100.00)</td>
<td>(100.00)</td>
<td>(100.00)</td>
</tr>
<tr>
<td>Pre-tax</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Repayment of loan</td>
<td>10.00</td>
<td>10.00</td>
<td>10.00</td>
<td>30.00</td>
</tr>
<tr>
<td>Percentage</td>
<td>(50.00)</td>
<td>(66.67)</td>
<td>(66.67)</td>
<td>(60.00)</td>
</tr>
<tr>
<td>Profit</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject to tax</td>
<td>10.00</td>
<td>5.00</td>
<td>5.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Percentage</td>
<td>(50.00)</td>
<td>(33.33)</td>
<td>(33.33)</td>
<td>(40.00)</td>
</tr>
<tr>
<td>Income tax</td>
<td>5.50</td>
<td>2.75</td>
<td>2.75</td>
<td>11.00</td>
</tr>
<tr>
<td>Percentage</td>
<td>(27.50)</td>
<td>(18.33)</td>
<td>(18.33)</td>
<td>(22.00)</td>
</tr>
<tr>
<td>Adjustment tax</td>
<td>12.26</td>
<td>6.13</td>
<td>6.13</td>
<td>2.45</td>
</tr>
<tr>
<td>Percentage</td>
<td>(2.45)</td>
<td>(4.09)</td>
<td>(4.09)</td>
<td>(4.90)</td>
</tr>
<tr>
<td>Budgetary refund</td>
<td>5.04</td>
<td>2.52</td>
<td>2.52</td>
<td>10.09</td>
</tr>
<tr>
<td>Percentage</td>
<td>(25.22)</td>
<td>(16.82)</td>
<td>(16.82)</td>
<td>(20.18)</td>
</tr>
</tbody>
</table>

*Source: Contract No. 13, P.2; Unit: million yuan.*

tax (4.9 percent of the total). By this pre-tax manipulation, the company could pay 26.9 percent of its total profit as tax, whereas, as stated earlier, the standardized tax rule was 55 percent. In addition, it would receive a budgetary refund from the Finance Bureau that equaled to 75 percent of its paid taxes (Table 4.6).

One important rationale underlying the tax payment practice was that the pre-tax measure was essentially a remedy for heavy taxation. Yet, the pre-tax remedy was far from satisfactory. In reality, it became a measure for administrative bureaucrats to deprive enterprises of their autonomy inasmuch as enterprise needs the approval of higher authorities to secure both bank loan and pre-tax payment loans as favors.
In return, the enterprise is obliged to accept an unprofitable production plan created by administrative bodies.

**Discussion: Unbroken Ties between State and Enterprise**

This chapter has examined the main features of the dual dependence mode of governance discussed by Kornai (1980a;1987), a mode characterized by persistent paternalism and soft budget constraints. The concept of paternalism is further elaborated and the sociological importance of the power-dependency relation discussed. Hypotheses about paternalism are developed and partially tested against empirical data. First, the hypothesized power-dependency component of paternalism is supported by the positive association between the degree of assistance provided by the state to enterprise and the degree of power wielded by the state in controlling enterprise activities. Second, power dependence in state-enterprise relations is illustrated by examining the extent to which enterprise revenue is redistributed by the state. The example used tends to support Kornai’s observation that a large portion of the enterprise revenue was still redistributed by the state. Third, the hypothesis regarding the absence of link between performance and reward is partially tested against data from the national, provincial, and enterprise levels. It was found that there is in fact a negative relationship between enterprise performance and reward. The findings also tend to support Kornai’s (1980a) argument that a firm’s expansion and survival under dual dependence are not associated with market performance.

Kornai’s concept of soft budget constraints is also discussed and further elaborated in the context of the PRC’s reforms. It was found that the major dimensions of this concept can be found in state-enterprise relations in the PRC. Price manipula-
tions, tax cuts, a soft credit system, and subsidies, all of which bolstered loss-making enterprises, were discussed on the basis of the PRC data.

Some observations can be made based on these findings. One of the major purposes of industrial reform in the PRC has been to free enterprise from bureaucratic ties and to increase enterprise autonomy. After ten years of reform, however, there is as yet little evidence to suggest that its purposes have been realized. Instead of a significant improvement in these respects, state enterprises in the PRC remain highly dependent on the state, and enterprise loss and poor performance are still widespread. A high degree of paternalism continues to be a characteristic of state-enterprise relations.

This continued dependence of enterprise on the state is evidenced by the continued direct control of the state over wage rates, workforce size, managerial appointments, investment finance, and key material inputs and working capital allocation (Perkins, 1988). Even in areas where formal autonomy has been granted enterprise (e.g. retained portion of profit), enterprise continued to depend upon the state for directions and the state redistribution remained prominent.

Although Kornai's concepts were developed from his observation of the Hungarian economy, they apply to the PRC as well. In the state industrial sector of the PRC, the state indulgence towards enterprises in financial troubles went even beyond what Kornai (1980a) had observed in Hungary. Through succession of profit-retention schemes, tax rates, prices, and profit retention rates remained highly negotiable. The leniency with which enterprises were treated escalated. Through contract bargaining, bureaucrats manipulated tax rules, price structures, credit and loans practices, and even free state grants to provide subsidies to enterprise.
There was no genuine competitive pressure, no risk of bankruptcy, and, therefore, no real incentive for enterprises to improve performance. As long as they were successful in bargaining with bureaucrats, enterprises could easily survive and even expand. Instead of striving to become independent, enterprises found it rather comfortable to behave exclusively in accord with their prescribed roles—to implement policy and to adhere to script written for them by bureaucrats. After ten years of reform, even enterprises with a degree of autonomy remained highly dependent on the state. Paternalism and soft budget constraints remained the main features of the system.

Given the evidence of the widespread state redistribution of enterprise income and the implied high degree of dependence of enterprises on the state, questions arise as to why the characteristics of the shortage economy described by Kornai (1980) remain entrenched in this system after ten years of reform. The answer is that reforms have been incomplete. Because little effort has been made either to touch the root cause of paternalism, which lies in state ownership, or to reform the state-imposed price system, enterprises remain insulated from market forces and face no genuine competition.

Budget constraints on state enterprises remain soft rather than hard. State enterprises are still able to rely on the state for subsidies, free grants, credits, and tax cuts to survive and expand. Under such conditions, there is no pressure for them to improve efficiency. In contrast, there is ample incentive for them to continue in their dependence upon the state. The direct result, as Kornai (1980b) recorded it, is that enterprises initially granted autonomy by the reform voluntarily surrendered their newly acquired rights and subjected themselves to the state patronage. By requesting
tax cuts, free grants, bank credits, or other species of financial aid, enterprises actually reaffirm the paternalistic relationship and their dependence on state (Kornai, 1980b).

The unbroken ties between state and enterprise and the persistent phenomenon of soft budget constraints observed in this chapter confirm the dual dependence argument made by Kornai (1987). Continued poor performance by enterprise confirms the observation made by Baum (1989: 115) that "China's partially-reformed, partially-restructured economy at present is neither effectively plan-driven nor essentially market-driven; indeed, it is something of a hybrid mutant that has tended to capture—and accentuate—some of the worst features and distortions of both systems."

In his review of economic reforms in the PRC, Perkins (1988) points out three keys to assessing socialist industrial reform: whether loss-making firms will be allowed to go bankrupt; whether bank credit and state grants are available to financially troubled enterprises; and who hires, fires, and promotes enterprise managers. Judged against these standards, the PRC's state enterprises still have a long way to go in reforming their troubled structures. Without both complete and thorough change and decisive reform in the ownership structure, which is the root cause of paternalism, it is difficult to see how budget constraints could be hardened. It is also difficult to see how significant reform in state-enterprise relations could be effective without concomitant systemic reform in price structures and other macro-economic mechanisms.
CHAPTER 5. INSTITUTIONAL EFFECTS: THE STATE-IMPOSED PRICE SYSTEM

Overview

One of the least reformed areas in the PRC is the industrial price system. In this area, state control has remained prominent, and most industrial product prices are still set by state pricing bureaucrats, who pay little regard to market conditions (Perkins, 1988). This chapter will examine the administrative pricing system and its institutional effect on the behavior of micro-economic organizations. First, I will briefly review the theoretical debates encountered during reform, a debates which centered on the relative importance of micro- or macro-structural reforms. Second, I will propose, based upon these theoretical debates, a two-level statistical model to be used in ascertaining institutional effects. I will use data from PRC state-owned large- and medium-sized enterprises to test the effect of state-imposed price distortions. Based on the statistical analysis, I will discuss the adverse ramifications of the administrative pricing system and will argue that coordinated reform is needed to implement further reform. Third, I will attempt to tie my discussion to the general consideration of industrial reform and to argue that micro- and macro-reforms are, in reality, interrelated and inseparable.
The Micro-Macro Reform Debate

Since the introduction of reform, PRC reform theorists have been concerned with micro- and macro-priorities in the implementation of institutional reforms of the state industrial sector. Industrial reform during the past decade has been characterized mainly by reorganization of a Soviet-type centralized planning system through simple decentralization of decision-making power to basic economic units. These efforts to enlarge autonomy at the level of economic units has generally been viewed by Chinese theorists as a micro-reform because it is aimed at enhancing the responsibility of micro-economic units for their profits and losses, improving micro-incentives through restoring bonus systems, shifting power to the hands of enterprise directors, and eliciting accountability from micro-economic organizations.

This micro-approach to PRC institutional reform has provoked reactions from researchers both inside and outside of China. Although researchers agreed on the necessity of the measures, they have disagreed on the importance of this approach. On one side of the debate, reform at the micro-level has been praised as highly successful in its dismantling of the Soviet-type centralized planning system and in bringing about industrial growth (Hua et al, 1988; Zheng, 1987; Chen, Wang, and Colleagues, 1988). The same strategy, however, has been viewed by others as piecemeal, partial, and unsuccessful (Johnson, 1988; Wu, 1988). These differing assessments have led the PRC reform theorists to split into two major groups. Some give priority to enterprise autonomy; others stress reform of pricing system.

According to one group, reform at the micro-level bore fruitful results in that it reorganized the highly centralized planning system, expanded enterprise autonomy, and streamlined the internal organization of enterprises. This micro-reform, they
argued, has introduced competitive mechanisms into enterprises and the contract responsibility systems have resulted in the formation of a market system both between and inside enterprises (Micro-Research Department, 1988; Hua, Zhang, and Luo, 1988).

Even though they agreed that there have been some inadequacies inherent in the simple decentralization of power and recognized the need for macro-level reform, they argued that further reform should be pursued along micro lines through further strengthening the power of the enterprise managers and clarifying the distributive relation between the state and micro-economic units. The micro-oriented reform theorists argued that "restructuring micro-economic organization through reforming property right relationship is the central task of economic system reform" (Hua, He, Zhang, and Luo, 1986:12). Therefore, the contract responsibility systems and those accompanying shareholder systems, system of leasing, and more radically, the reform of the system of ownership were considered desirable by this group in solving the problems of paternalism and the soft-budget constraint syndrome in the state-owned enterprises (Hua, Zhang, and Luo, 1988; Li, 1988).

The group associated with macro-orientation was examplified by the viewed held by Mr. Wu Jinglian affiliated with the State Council Economic Research Center and some other PRC economists. According to the group with a macro orientation, the micro-reform centered around the simple delegation of power to micro-level managers has generally been a failure. Although they agreed on the essential role played by the decentralization, the macro-oriented reform theorists argued that the microreform failed because it was not complete (Wu, 1987; 1988). For these theorists, a complete or coordinated package of reforms at the macrolevel, particularly the reform of the
pricing system would be needed in addition to the decentralization of power to level of the enterprises. Although this group argued for a synchronized reform at both levels, because macro-reform (such as reform in finance, banking, and the pricing system) has lagged behind the micro ones, what is necessary and essential, according to them, is a reform at the macro-level.

The importance of the macro approach has been stressed by most western observers. Johnson (1988) expressed his pessimistic view that micro-reforms "have represented desirable adjustment within the framework of the existing system" (1988:322). He (1988:524) admitted that he was "relatively pessimistic about the effectiveness of reforms that rely on shifting decision making and financial responsibility to the enterprise level until there is a fundamental reform of the price system." The delegation of power to the micro level has also been criticized for not being implemented simultaneously with macro-level price reforms. Tidrick (1986:204-205), in his article on the PRC's economic planning, argued that "giving enterprises the right to determine what products they produce will be beneficial only if it is coordinated with price reform" and "these changes must go hand-in-hand with rationalization of prices to ensure that they reflect social cost and benefits."

It should be noted that both groups agreed upon the necessity of reform; and both recognized the importance of reforming the price system and expanding enterprise autonomy. The difference between them lies in the relative importance they attributed to, and the relative priority they attached to, the two levels. The differences between the two approaches also stems from the basic assessment of the previous reforms and the fundamental defects attributed to the Soviet-type economic system. For the micro-oriented theorists, the fundamental defect in the existing system is to
be found in the micro level: lack of autonomy of enterprise managers and lack of incentives to both managers and workers caused by the rigid wage systems. Compared with macro-reform, the micro-oriented theorists believed that little reform had been directed to the enterprises that were the micro cells of the economy. But for the macro-oriented group, the fundamental defect of the old structure is to be found at the macro level: the misallocation of resources due to mistaken signals from distorted price systems imposed administratively by the state. According to this group, it was the price reform, not other problems, that was seriously lagging behind reforms in other spheres of the economy.

Contentions between these assessments have led to different arguments for further reforms. The suggestion forwarded by the micro-oriented theorists was that micro reform centered on clarifying the vague boundary of property rights (Li, 1988), because they (Micro Research Department, 1988:42) believed that "the difficulty for further reform lies in eliminating micro-causes for the instability of the macroeconomy. Therefore, the reform of the micro-operational mechanism is crucial to deepening the reform of the whole economic process." Without deepening the micro-level reform and strengthening the responsibility of enterprise managers, "its [the state's] control of the wage fund has resulted in declining productivity;...and its price reform has almost become a synonym for price hikes or increasing subsidies," and "the microeconomic organizations are unable or unwilling to adjust their modes of activities following changes in the macro-environment"(Micro Research Department, 1988:44-45). The micro-oriented reform theorists believed that, even if there is a market-determined price, enterprises cannot reap the benefits unless they have meaningful discretionary authority in their operations and enterprises may not be responsive to
price signals if they don't have any incentive to do so. The logical extension of the argument, of course, is that further reform should be focused on clarifying property rights at the microfoundation of macroeconomy (Hua, He, Luo, and Zhang, 1986). Generally speaking, the revival of the contract responsibility system after 1986 has reflected this line of reasoning.

The failure of individual organization to alter their behavior after the simplifying administration and expanding enterprise autonomy was taken by the macro-oriented reform theorists as evidence for the priority of macroreform. Many problems that arose in the economic structure, they argued, were related to the fact that the ongoing reforms were piecemeal and fragmented (Wu, 1988). Wu (1988) argued that "the only remedy would be to adopt a comprehensive set of reforms in a coordinated manner." Because the most acute gap between micro and macro reform lies in the lag related to the necessary price reform (Wu, 1988), such reform should come at the top of the agenda (Yenal, 1990).

Because the macro-oriented reform theorists believed that both the ability of the central planners to allocate budgetary resources to meet national growth objectives and of enterprise managers to organize production to meet micro efficiency objective, depend on the transmission and receipt of clear and correct signals for resource utilization, without market-determined prices, efficient allocation of resources, economic calculations and judgments of success or failure of micro-economic units would be impossible (Wu, 1988). Profit retention cannot possibly be linked with enterprise performance until meaningful criteria for judging performance are developed. But performance, in turn, is highly dependent on a rational price system that reflects consumers' demands for scarce resources. Meaningful discretionary power of enter-
prise managers, they argued, has to be based on meaningful criteria for assessing real efficiency, which has to be embedded in and determined by a market-furnished price structure. Thus, the most urgent task is to reform the state-imposed administrative pricing system (Wu, 1988).

**Two-Level Analysis of Institutional Effects**

The clearest contrast between these two alternative perspectives can be found in micro-macro debate in almost every area of the social sciences. Researchers have long been aware of issues in choosing the unit of analysis and problems of linking analysis on data collected at one level to another. However, the technique known as multilevel analysis (Bock, 1989; Goldstine, 1987) or contextual analysis (Boyd and Iversen, 1979; Blalock and Wilken, 1979; Blalock, 1984; Mason, Wong, and Entwisle, 1984) developed during recent years, provides a promising tool to disentangle multilevel effects and to study macro effect on micro variables.

Basically, a multilevel analysis is developed out of the need to deal with data that are available at two or more levels of observation, particularly on individuals and groups to which they belong (for example, students and classes or schools; and residents and their communities). This technique represents an effort to explain lower level dependent variables using a combination of lower-level and higher-level independent variables. In its simipliest form, the behavior or characteristic $Y_{ij}$ of the $i$th individual in the $j$th group is explained by a combination of the individual-level independent variable $X_{ij}$ and the group mean $X_j$ (Blalock, 1984).

A two-level effect model is appropriate in dealing with the micro-macro issue; it will be used to illustrate the macro institutional effect on performances of micro
organizations. Specifically, it will be used to study the effect of the state-imposed price system on the performance of the state-owned large- and medium-sized industrial enterprises in the PRC. This study argues that in the PRC's partially reformed industrial sector, an individual organization's performance is dependent on the institutional price arrangement; this price arrangement has serious ramifications for the future resource allocation in the PRC's economy.

The two-level effect model

The starting point of a two-level effect model is individual organizations. In the basic model, it is hypothesized that the the PRC's state enterprises' production is determined by the level of their capital and their labor inputs, that is:

\[ Q_{ij} = f(K_{ij}L_{ij}) \]  

This function specifies that an organization's production \( Q \) is a function of two variables: capital \( K \) and labor \( L \). In theory, this function in equation 5.1 can be written in the following logarithmic form:

\[ \ln(Q_{ij}) = \alpha_{ij} + \beta_k \ln(K_{ij}) + \beta_l \ln(L_{ij}) + U_{ij} \]  

where \( i=1, \ldots, n_i \) represent the \( n_i \) enterprises in each \( j \) industry, \( j=1, \ldots, N_j \), representing \( \sum n_i = N_j \) industries. In equation (5.2), \( Q_{ij} \) is the quantity of gross value of products, \( K_{ij} \) is fixed assets at original value, \( L_{ij} \) is the number of workers, and \( U_{ij} \) represents a stochastic disturbance term.

The model proposed thus far is similar to neoclassic formulation in that its unit of analysis is individual organization (in this case the state enterprises). The major concern in this section, however, is with the determinants of production beyond
conventional labor and capital assumed by neoclassic economics. What is of interest is whether the term of intercept $\alpha_{ij}$ is determined by some other variables. This concern requires that the model be extended beyond this single-level model to take into account other variables.

One additional variable is the extent to which differentials in the average wage among these factories influences performance, given that one of the important aspects of the industrial reform has been to relate work incentive to work performance. Another variable is the extent to which the enterprise performance is dependent upon the state-imposed price structure; that is, how will an institutional arrangement affect an individual business performance?

$$\alpha_{ij} = \alpha_0 + \beta_w \ln(W_{ij}) + \beta_p \ln(P_{ij}) + V_{ij} \quad (5.3)$$

Equation (5.3) specifies that the term of intercept $\alpha_{ij}$ depends upon the micro incentives measured by the average wage per worker, $W_{ij}$ of $i$th enterprise in $j$th industry and the relative prices for each industrial products $P_{ij}$. Substituting equation (5.3) into equation (5.2), gives:

$$\ln Q_{ij} = \alpha_0 + \beta_w \ln(K_{ij}) + \beta_l \ln(L_{ij}) + \beta_w \ln(W_{ij}) + \beta_p \ln(P_{ij}) + \epsilon \quad (5.4)$$

where $K_{ij}$ is a quantity of capital used by $i$th enterprise in $j$th industry; $L_{ij}$ is a quantity of labor employed by $i$th enterprise in $j$th industry; $W_{ij}$ is average wage per worker for $i$th enterprise in $j$th industry; and $P_{ij}$ is the relative prices for each enterprise’s products; and $\epsilon = (U_{ij} + V_{ij})$.

In estimating this model, two issues need to be discussed before any analysis can be applied. The first involves the measurement of the relative price structure.
Because no systematic data have been released on relative prices for different industrial products, the correct proxy variable seems unaccessible. In addition, even for single industrial products, there exists a number of different prices after the introduction of a dual price system (Byrd, 1989); the real percentage of a product's in each price category is unknown. This adds more complexity to using price in predicting performance.

Nevertheless, an alternative exists. Since it is well known that the PRC's industrial enterprises are less diversified and that in general are specialized along product lines (Tidrick and Chen, 1987), and that the price system is also arranged along industrial lines, the overall profitabilities generally reflect the price arrangement (Walder, 1987). Therefore, the sample enterprises can be grouped roughly according to their belonging to each of the industries; the average industrial profitabilities \( P_j \) becomes an approximation of the price structure. By using average industrial profitability, therefore, the model to be estimated gives:

\[
\ln(Q_{ij}) = \alpha_{0ij} + \beta_k \ln(K_{ij}) + \beta_l \ln(L_{ij}) + \beta_w \ln(W_{ij}) + \beta_p \ln(P_j) + \epsilon \tag{5.5}
\]

where \( K_{ij} \) is the fixed assets for \( i \)th enterprise in \( j \)th industry, \( L_{ij} \) is the total number of employee of \( i \)th enterprise in \( j \)th industry, \( W_{ij} \) is average wage per worker for \( i \)th enterprise in \( j \)th industry, and \( P_j \) is the average profitability for \( j \) industry, and \( \epsilon = (U_{ij} + V_{ij}) \). The null hypotheses are that the coefficients \( \beta_w \) and \( \beta_p \) are not significantly different from zero. The null hypotheses will be rejected if they are significantly different from zero.

However, if an industrial average profitability \( P_j \) is used in place of \( P_{ij} \) of relative price, a second issue emerges because \( P_j \) is a variable at the industry level. The analysis thus far has only dealt with variables at the individual organizational level,
such as gross value of products of each factory, number of workers in each one, fixed assets of each factory, and average wage per worker in a factory. The average profitability used in this model, however, is a variable at the industry level; therefore, the model being estimated is essentially a multi-level model with variables at both the enterprise level and the industry level. Thus this model involves two levels of analysis, which would generally be estimated separately by conventional methods. And now, the possibility of violating of homosticesticity assumption in the use of the ordinary least square estimation should be discussed.

First, it is well known that the ordinary least square (OLS) estimation is based on a homoscedasticity assumption; that is, the variance of error term should be relatively constant across all the cases. This classical assumption, however, is likely to be violated because the error variance in this two level analysis is likely to be proportional to the variance of the industry in which these enterprises are grouped. That is, the error magnitude is likely to have a systematic relation to the level of one of the independent variables—industrial profitability. The issue can be illustrated algebraically (for discussion, see Neter, Wasserman, and Kutner, 1983:167-172). For ordinary least square, the least square criterion in a two-variable equation takes the form

\[ G_{ij} = \sum_{i=1}^{n} (Q_{ij} - \alpha_{0ij} - \beta_{1} P_{ij})^2 \]  \hspace{1cm} (5.6)

However, if \(P_j\) is used instead of \(P_{ij}\), the model includes variables at two levels and it is likely for variance of error term \(\sigma_{ij}^2\) to be proportional to \(P_j\) which is a variable at industry level around which the enterprises are grouped. That is:

\[ \sigma_{ij}^2 = kP_j^2 \]  \hspace{1cm} (5.7)
Thus, instead of a homoscedastic $\sigma^2_{ij}$, the error variance is likely to vary with the independent variable at the higher level (in this case the industries). In violating the homoscedasticity assumption, according to Neter, Wasserman, and Kutner (1983), the ordinary least square estimates will no longer be the minimum variance unbiased estimators, though they are still unbiased.

One of the remedies is to use weighted least square (WLS) estimates instead of conventional ordinary least square estimators. According to Neter, Wasserman, and Kutner (1983), the weighted least square, in a simple two-variable equation, takes the form:

$$ G_{ij}w = \sum_{i=1}^{n} w(Q_{ij} - \alpha_{0ij} - \beta_{1j}P_i)^2 $$  \hspace{1cm} (5.8)

where the weights $w = \frac{1}{\sigma^2_{ij}}$, of which the $\sigma^2_{ij}$ are the error variances likely to vary with the level of the industry variable. Because $\sigma^2_{ij} = kP^2_j$ and because the proportionality constant $k$ can be dropped from the normal equation, the weights can be used:

$$ w = \frac{1}{P^2_j} $$  \hspace{1cm} (5.9)

SPSSx version 3 has a procedure to perform such a weighted least square regression by simply specifying the variable containing the weight. After specifying the average industry profitability as the variable containing the weight, a weighted least square model can be estimated. If the weighted least square is significantly different from the results of the ordinary least square, it implies that there might be possible violation of homoscedasticity assumption. In such cases, the weighted least square estimates should be used instead of that of the ordinary least square.
Data and estimation methods

The data used to estimate equation (5.5) are 1986 financial statistics for 622 state-owned large-and medium-sized industrial enterprises reported by the State Statistical Bureau (1988a:400-415) in the PRC’s Statistical Yearbook for 1988. The data reported for the enterprises are mainly financial: gross value of industrial products, net value of industrial products, total number of employees, total wage bill, total sales revenue, total amount of tax and profit, total circulation funds; and total fixed assets at original value. This is the first time such systematic data on individual state enterprises have been included in the PRC’s yearbook.

This dataset, however, can only provide us with information on these 622 state enterprises at the individual organizational level. In order to get information at the industry level, other data have to be used. Fortunately, almost all of these enterprises were named after their localities and products (e.g., Shanghai Leather Shoes Factory, Beijing No.2 Woolen Product Factory, and Jiangxi No.1 Suger Factory). These conventions allowed grouping these enterprises into different industries according to the conventional division of industrial sectors in the PRC and to use the data on average profitability of each industry during 1986 reported by the State Statistical Bureau (1987a) in the 1987 yearbook. Data regarding those factories whose categories of products were not clear were treated as missing data. the remaining 584 factories were classified into 23 industries (Table 5.1).

Despite the fact that the data was reported by the PRC’s official statistical bureau, the issue of representativeness was still a major concern. First, these data were reported for only part of all large- and medium-sized enterprises following a stratified sampling procedure. Industrial factories were selected according to the
total number of industrial establishments in each province; within each province, one or several representative factories in each of the industries were selected. For those provinces or municipalities with larger numbers of industrial plants (e.g., Shanghai and Beijing), more factories were selected than those with small numbers of industrial establishments (e.g., Tibet did not have a single factory included in this sample).

Table 5.2 includes information on some characteristics of the sample enterprises. They are compared with those of the large- and medium-sized, and all state industrial enterprises. First, enterprises included in the sample were more productive than the average of entire population of state enterprises as well as the average of large- and medium-scale ones. Productivity was measured by using the ratio between the gross value of industrial products and the total number of employees in a firm. Second, the size of enterprises, measured by average number of employees, included in the sample were larger than the average of all state enterprise but smaller than that of large- and medium-sized ones. But the size measured by fixed assets and gross value of industrial products (GVIO) of the sample enterprises tended to be larger than both other groups. This indicates that the sample enterprises are more capital intensive than the average of both other two groups. Third, average ratio of profit and tax generated by total sales, by gross value of industrial products, and by fixed assets, for sample enterprise were generally higher than the average of all state enterprises and that of large- and medium size ones, except for ratio between profit and tax versus total sales, because no information was available for the group of large- and medium-sized enterprises. These indicated they were more profitable and had more capacity to generate taxes. Fourth, the ratio of gross value of industrial products to total fixed assets in sample enterprise was higher than that of the large-medium-size
enterprises but lower than the average of all state enterprises. Finally, the average wage per worker in sample enterprises tended to be higher than both the average of large- and medium-sized and all state enterprises.

A possible reason for this sample bias might be the sample procedure used by this data collection. The level of industrialization tended to be higher in provinces and municipalities with larger number of industrial establishments; they also enjoyed the advantages of industrial connections and better transportation and communications. More weight given to them might be one of the reasons for this sample bias. Table 5.3 shows the distribution of enterprises sampled across different localities and their relative degree of industrialization (measured by ratio of industrial output relative to that of agriculture, the State Statistical Bureau, 1987a). It indicates that, more enterprises have been selected from provinces and municipalities with higher degrees of industrialization.

Second, because this sampling procedure were attempted to comprehensively cover industries within each localities, it tended to choose at least one factory from each industry regardless of whether or not the industry has been an appropriate one to be sampled in some of the localities. For example, except for the Xinjiang Autonomous Region and three municipalities (Beijing, Shanghai, Tianjin), all the provinces have at least one mineral industrial establishment included in the sample regardless of whether the mineral industry has been appropriate to the random procedure or not.

The single-level model was first estimated to see how the gross value of industrial products has been determined by capital and labor. The result of this equation illustrates that the gross value of products of these state-owned large- and medium-
sized enterprises depends on fixed assets and the total number of its workforce (Table 5.4, model 1). This equation, however, only reconfirms the neoclassic argument of the input-output relation in which a firm's gross value of products is determined by the capital and labor.

In the second model, another variable was introduced into the equation to test whether the variation in average yearly wage per worker among the state-owned industrial enterprises contribute significantly to the variation in production. The coefficients indicate that the differential in average wage among enterprises contributes significantly to the levels of production. The coefficient of ($\beta_w = 0.4599$) and standardized coefficient ($B=0.1276$) are statistically significant at 0.01 level (Table 5.4, Model 2). This result indicates that the reformed incentive structure began to play its role in contributing to the level of production. If we look at the relative increment of variance explained by adding this variable into the equation, however, the role of the incentive structure played in level of production is limited. The $R^2$ of the second model is 0.5295; ther is only .0152 increment in additional variance explained by including the wage variable, indicating the limited role played by the differential in average wage across these enterprises.

The third model is the two-level effect model that examines the extent to which the enterprise performance is dependent on industry profitability that reflects the price structure. The result shows that there is indeed a significant contribution of the variable to the gross value of products. The coefficient $\beta_p 0.6946$, or the standardized coefficient $Bp 0.4223$, are significnat at 0.01 level (Table 5.4, Model 3). The results indicate that $Bw$ and $Bp$ are significantly different from zero. The null hypotheses are therefore rejected.
The results of the weighted least square are reported in Table 5.4, Model 4. to compare with Model 3. Because no significant differences are found between the coefficients of the two models, the ordinary least square estimates can also be accepted. This allows me to compare the $R^2$s to see whether there is a significant increment in variance explained by Model 3 compared with Model 2. The $R^2$ for this equation is .7376 (Table 5.4, Model 3). There is a 0.2081 increment in additional variance explained by introduction of the industry profitability variable, indicating the important role played by this industry-level variable in predicting the level of performance of individual enterprises.

**Discussion**

This statistical analysis demonstrates that the performance of an enterprise is dependent not only on its level of capital and labor, but also on individual incentives measured by average wage per worker and the industry’s profitability reflecting the state-price arrangement. It supports the hypothesis that institutional price system imposed by the state at the macro level exerts a significant impact on industrial performance of enterprises at the micro level. Therefore, an argument that can be derived from this analysis is that an enterprise in an industry with a higher level of profitability is more efficient than a factory in an industry with lower level of profitability. Because an industry’s profit level is largely a reflection of the state-imposed price system, it can be argued that enterprises in industries favored by the price system had better performance than enterprises in industries disfavored by the state-imposed prices. This study also supports the argument that enterprises with higher levels of average wage performed relatively better than those with lower level
of average wage.

This statistical analysis has some important implications. First, it illustrates the importance of the state-imposed price structure in determining economic activities of micro organizations. It implies that an enterprise's membership in an industry favored by the high price set by the administration, or its status in the industrial system, is important. An enterprise happening to be in a specific industry favored by price structure will find it easier to make profit than one disfavored by price structure imposed by the state.

Second, it implies that it is difficult to judge an enterprise's performance because profit does not necessarily reflect the real efficiency but is more likely to reflect price arrangement. Because an enterprise's performance is highly dependent on the state-imposed macro-price system, there is little hope for judging real performance with any meaningful criteria in the absence of a price reform. Consequently, because irrational pricing precludes using profitability as a reliable basis for evaluating managerial and productive efficiency, there is no meaningful penalty and reward that can be applied to the micro-economic units. Budget constraints on them have to remain soft and the state has to continue to rely on redistributive methods in dealing with state-owned enterprises.

Third, this statistical analysis not only illustrates the statistical dependence of the micro-enterprise performance on the macro-price structure, but more importantly, it also highlights the nature of what Walder (1987:38) called "fatal interconnectedness of all aspects of industrial reform." The continued unsatisfactory performance of state industrial enterprises is a direct result of the persistent problem of soft-budget constraints rooted in the paternalistic characteristic of the state-enterprise relation. This
continued soft-budget constraint is, in turn, highly interrelated with the distortion of the price structure.

Fourth, the analysis of the effect of state-imposed price structure on microeconomic organizational performance also highlights another important aspect of the state-enterprise relation. The price system is arranged by the state so that profit attained by an enterprise is more likely to be the result of bureaucratic influence than that of a genuine operating efficiency. Therefore, micro-organizations have no alternative but to behave according to this arrangement. Just as Chinese economists have argued, it is not the behavior of enterprises that is irrational, it is the irrational structure of institutional arrangement that makes enterprises behave accordingly (Wu, 1988).

Finally, this analysis demonstrates the systemic weakness of the PRC's industrial economic institutions. It shows that persistent problems in a soft-budget constraint mode cannot be solved by simple decentralization of power to the micro economic organizations without changes in the macro fiscal and price structures. Likewise, the simple revision of the macro price structure would not do any good if micro organization is not responsive to the signals, as the micro-oriented reform theorists have argued. Reforms in one area are dependent on reforms in other areas. The profit contract or profit retention program, for example, cannot possibly resolve the problems of soft-budget constraints until useful indicators of economic efficiency are developed. But the latter is highly dependent on the development of a rational price system. Without reforming the irrational price structure, simple profit retention can only encourage more distortion in economic investment and exacerbate the structural imbalance of an already unbalanced economy.
Table 5.1: Distribution of Sample Enterprises Across Industries

<table>
<thead>
<tr>
<th>Industries</th>
<th>number</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coal Mining and Preparation</td>
<td>19</td>
<td>3.25</td>
</tr>
<tr>
<td>Crude Petroleum Extraction</td>
<td>14</td>
<td>2.39</td>
</tr>
<tr>
<td>Lumber material Preparation</td>
<td>8</td>
<td>1.32</td>
</tr>
<tr>
<td>Water Supply</td>
<td>12</td>
<td>2.05</td>
</tr>
<tr>
<td>Food Processing</td>
<td>35</td>
<td>5.98</td>
</tr>
<tr>
<td>Beverages</td>
<td>10</td>
<td>1.61</td>
</tr>
<tr>
<td>Tobacco Manufacturing</td>
<td>26</td>
<td>4.44</td>
</tr>
<tr>
<td>Printing and Paper Products</td>
<td>26</td>
<td>4.44</td>
</tr>
<tr>
<td>Textile Products</td>
<td>64</td>
<td>10.94</td>
</tr>
<tr>
<td>Lumber and Wood Products</td>
<td>6</td>
<td>1.03</td>
</tr>
<tr>
<td>Pharmaceutical</td>
<td>12</td>
<td>2.05</td>
</tr>
<tr>
<td>Petroleum Processing</td>
<td>19</td>
<td>3.25</td>
</tr>
<tr>
<td>Chemicals</td>
<td>48</td>
<td>8.21</td>
</tr>
<tr>
<td>Chemical Fibre</td>
<td>14</td>
<td>2.39</td>
</tr>
<tr>
<td>Rubber Goods</td>
<td>22</td>
<td>3.76</td>
</tr>
<tr>
<td>Plastic Products</td>
<td>9</td>
<td>1.54</td>
</tr>
<tr>
<td>Construction Materials</td>
<td>26</td>
<td>4.44</td>
</tr>
<tr>
<td>Ferrous Metal Processing</td>
<td>39</td>
<td>6.66</td>
</tr>
<tr>
<td>Nonferrous Metal Processing</td>
<td>8</td>
<td>1.37</td>
</tr>
<tr>
<td>Fabricated Metal Products</td>
<td>22</td>
<td>3.76</td>
</tr>
<tr>
<td>Machine Building</td>
<td>45</td>
<td>7.69</td>
</tr>
<tr>
<td>Transportation equipments</td>
<td>36</td>
<td>6.15</td>
</tr>
<tr>
<td>Electrical and Electronics</td>
<td>67</td>
<td>11.45</td>
</tr>
<tr>
<td>Total</td>
<td>584</td>
<td>100.00</td>
</tr>
</tbody>
</table>
Table 5.2: Comparison Between Sample, Average Large- and Medium-Sized, and All State Industrial Enterprises

<table>
<thead>
<tr>
<th></th>
<th>Sample enterprises</th>
<th>Large- and Medium-size enterprises</th>
<th>All state enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average wage</td>
<td>1,647.6</td>
<td>1,291.0</td>
<td>1,388.0</td>
</tr>
<tr>
<td>Labor Productivity</td>
<td>28,155.5</td>
<td>18,026.0</td>
<td>15,451.0</td>
</tr>
<tr>
<td>Number of employees</td>
<td>10,244</td>
<td>25,866</td>
<td>561</td>
</tr>
<tr>
<td>Fixed assets</td>
<td>29,586.8</td>
<td>5,485.8</td>
<td>956.6</td>
</tr>
<tr>
<td>Gross Value of products</td>
<td>28,353.2</td>
<td>4,662.6</td>
<td>879.5</td>
</tr>
<tr>
<td>Profit and Tax-sales ratio</td>
<td>28.28</td>
<td></td>
<td>9.79</td>
</tr>
<tr>
<td>Profit and tax-output ratio</td>
<td>27.19</td>
<td>26.82</td>
<td>19.28</td>
</tr>
<tr>
<td>Output-asset ratio</td>
<td>92.62</td>
<td>84.99</td>
<td>109.00</td>
</tr>
<tr>
<td>Profit and Tax-asset ratio</td>
<td>25.18</td>
<td>22.79</td>
<td>21.02</td>
</tr>
</tbody>
</table>
Table 5.3: Distribution of Sample Enterprises and Degree of Industrialization Across Provinces

<table>
<thead>
<tr>
<th>Locality</th>
<th>number sampled</th>
<th>percentage in the total</th>
<th>degree of industrialization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beijing</td>
<td>30</td>
<td>4.82</td>
<td>7.63</td>
</tr>
<tr>
<td>Tianjin</td>
<td>26</td>
<td>4.18</td>
<td>7.48</td>
</tr>
<tr>
<td>Hebei</td>
<td>23</td>
<td>3.70</td>
<td>5.80</td>
</tr>
<tr>
<td>Shanxi</td>
<td>14</td>
<td>2.25</td>
<td>5.88</td>
</tr>
<tr>
<td>Neimongol</td>
<td>10</td>
<td>1.61</td>
<td>4.47</td>
</tr>
<tr>
<td>Liaoning</td>
<td>46</td>
<td>7.40</td>
<td>7.19</td>
</tr>
<tr>
<td>Jilin</td>
<td>21</td>
<td>3.38</td>
<td>6.08</td>
</tr>
<tr>
<td>Heilongjian</td>
<td>25</td>
<td>4.02</td>
<td>6.22</td>
</tr>
<tr>
<td>Shanghai</td>
<td>50</td>
<td>8.04</td>
<td>8.17</td>
</tr>
<tr>
<td>Jiangsu</td>
<td>27</td>
<td>4.34</td>
<td>6.68</td>
</tr>
<tr>
<td>Zhejiang</td>
<td>15</td>
<td>2.41</td>
<td>6.33</td>
</tr>
<tr>
<td>Anhui</td>
<td>17</td>
<td>2.73</td>
<td>4.80</td>
</tr>
<tr>
<td>Fujian</td>
<td>15</td>
<td>2.41</td>
<td>5.01</td>
</tr>
<tr>
<td>Jiangxi</td>
<td>14</td>
<td>2.25</td>
<td>4.99</td>
</tr>
<tr>
<td>Shandong</td>
<td>25</td>
<td>4.02</td>
<td>5.50</td>
</tr>
<tr>
<td>Henan</td>
<td>20</td>
<td>3.22</td>
<td>4.92</td>
</tr>
<tr>
<td>Hubei</td>
<td>20</td>
<td>3.22</td>
<td>5.79</td>
</tr>
<tr>
<td>Hunan</td>
<td>20</td>
<td>3.22</td>
<td>4.96</td>
</tr>
<tr>
<td>Guangdong</td>
<td>29</td>
<td>4.66</td>
<td>4.93</td>
</tr>
<tr>
<td>Guangxi</td>
<td>17</td>
<td>2.73</td>
<td>4.42</td>
</tr>
<tr>
<td>Sichuan</td>
<td>39</td>
<td>6.27</td>
<td>5.08</td>
</tr>
<tr>
<td>Guizhou</td>
<td>18</td>
<td>2.89</td>
<td>4.59</td>
</tr>
<tr>
<td>Yunnan</td>
<td>19</td>
<td>3.05</td>
<td>4.59</td>
</tr>
<tr>
<td>Shaanxi</td>
<td>26</td>
<td>4.18</td>
<td>5.60</td>
</tr>
<tr>
<td>Gansu</td>
<td>21</td>
<td>3.38</td>
<td>5.43</td>
</tr>
<tr>
<td>Qinghai</td>
<td>10</td>
<td>1.61</td>
<td>4.12</td>
</tr>
<tr>
<td>Ningxia</td>
<td>9</td>
<td>1.45</td>
<td>4.72</td>
</tr>
<tr>
<td>Xinjiang</td>
<td>16</td>
<td>2.57</td>
<td>4.63</td>
</tr>
</tbody>
</table>
Table 5.4: Models Estimated and OLS/WLS Comparison

<table>
<thead>
<tr>
<th></th>
<th>Model 1 (OLS)</th>
<th>Model 2 (OLS)</th>
<th>Model 3 (OLS)</th>
<th>Model 4 (WLS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ln(L_{ij})</td>
<td>.3690**</td>
<td>.4158**</td>
<td>.5773**</td>
<td>.5645**</td>
</tr>
<tr>
<td></td>
<td>(.3918)</td>
<td>(.4415)</td>
<td>(.5721)</td>
<td>(.5449)</td>
</tr>
<tr>
<td>Ln(K_{ij})</td>
<td>.2721**</td>
<td>.2246**</td>
<td>.1973**</td>
<td>.2038**</td>
</tr>
<tr>
<td></td>
<td>(.3550)</td>
<td>(.2930)</td>
<td>(.2452)</td>
<td>(.2566)</td>
</tr>
<tr>
<td>LN(W_{ij})</td>
<td>.4599**</td>
<td>.5924**</td>
<td>.5975**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(.1276)</td>
<td>(.1644)</td>
<td>(.1610)</td>
<td></td>
</tr>
<tr>
<td>Ln(P_j)</td>
<td></td>
<td></td>
<td>.6946**</td>
<td>.6881**</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(.4223)</td>
<td>(.4680)</td>
</tr>
<tr>
<td>(\alpha)</td>
<td>3.9696</td>
<td>4.8625</td>
<td>1.8563</td>
<td>1.9066</td>
</tr>
<tr>
<td>(R^2)</td>
<td>.5143</td>
<td>.5295</td>
<td>.7376</td>
<td>.7532</td>
</tr>
</tbody>
</table>

\(\alpha\): significant at .01 level; Standardized coefficients in parentheses
CHAPTER 6. CONCLUSION

This chapter will first summarize the theoretical findings and highlight some observations from this study. Then it will be followed by the discussion of sociological reflections of this study, and it will conclude with the discussion of limitations of the study and suggestions for future studies.

Theoretical and Empirical Findings

Industrial reform of the PRC is a process of institutional change by which rules and procedures are modified. By focusing on the state-enterprise relation, this study views the reform process as a state effort to withdraw from economy by relinquishing certain autonomy to economic enterprises and allowing market mechanisms to play a limited role in coordinating economic activities. Based on documentary data, this study examines in detail how rules and principles were changed under the reform efforts of the state in the PRC, particularly the rules and procedures governing the state-enterprise relations.

The third chapter examines the changes that have taken place in the institutional arrangement since reform was first instituted in 1978. The PRC's industrial reform has been implemented through three stages with different instruments. The first stage simplified administration and decentralized certain decision making power to
enterprise. This stage has been characterized by an increased expansion of enterprise autonomy and by introduction of a certain market sort of mechanisms into state-enterprise relations. The second stage has been a tax-for-profit reform aiming at formalizing the state-enterprise relation through standardized taxation. And the third stage has been represented by an introduction of contract responsibility system that was expected to replace the bureaucratic command relation between the state and enterprises with a market contractual relation. Although the three stages of industrial reform represents a continual effort to change the state-enterprise relations, each stage has had its difficulties and limitations.

Ten years of reform in the PRC has brought about some changes in its state-enterprise relations, particularly in such areas as profit sharing, managerial autonomy in decision making, and limited market competition. Nevertheless, little change has taken place in such areas as labor allocation, wage determination, manager appointment, and more importantly, the ownership systems. It is true that reform in the PRC has taken the form of state withdrawal, but it has been partial and limited. Although enterprises has been granted certain autonomy enabling them to claim a residual profit, but this autonomy has been highly circumscribed by continued arbitrary state intervention.

Although each of the three stages of reform represents significant effort of the state in its own right and has been based on novel ideas, all has had some serious unintended consequences. These unintended consequences have forced the state either to reformulate its strategies or to resort previous methods. The unintended consequences of each stage of reform and continued poor performances of state enterprise has resulted from the interconnectedness of the systems on the one hand
and reluctance of the state to implement a synchronized reform on the other. The intrinsic nature of functionally interconnectedness of systems demands reform to be implemented in a coordinated manner. Thus, the reluctance of the state to alter fundamentally the pattern of the state-enterprise relation resulted in a process in which acceleration and deceleration, reform and reversal, progress and entrenchment alternated to form a pattern of the reform. This pattern testifies to the sociological assertion that society is a functionally interrelated organism that it is difficult to reform one aspect without effecting concomitant change in the others.

The reluctance of the state in the PRC to engage in a coordinated reform and to fundamentally alter the hierarchical mode of governance have also resulted in a emergence of mode of dual dependence. It has been the repeated intention of the reformers in the PRC to harden financial constraints on state enterprises. The study suggests that little evidence indicates a movement toward this direction. Even though by modifying the existing rule of principles, the reform in the PRC has made it possible to rationalize the bureaucratic mode to some extent, strong bureaucratic control has remained intact. Under reform, market mechanisms have undeniably been allowed to play a more significant role in regulating economic actions. But the amount of discernible change could have been easily exaggerated. Enterprises, particularly the medium- and large-scale ones, continued to be insulated from the forces of market competition. Market mechanisms, even though existed to some degree, have still been overshadowed by state control and bureaucratic scrutiny. The objective of greater reliance on market has not been realized and it has been negated by the lax of financial disciplines and paternalistic state assistances. The findings of this study support Johnson (1988s) and Wong's (1986) assessments that the PRC's
industrial reform has seriously been stymied and that in general, it has failed.

The ten-year reform efforts have been remarkable in themselves, but the results has been disappointing. The gap between vision and reality has been particularly manifest when looking at the persistent paternalism and continued soft budget constraints characterizing state-enterprise relations. Because enterprises have remained largely unaffected by market forces, they have not been subjected to real budgetary constraints. Failure to address the issues of paternalism and soft budget constraints is one of the major reasons for continued organizational failure in the PRC's economy.

The partial reform and the resulting coexistence of changes and continuities have given rise to an institutional pattern distinct from both market and hierarchical modes of governance. By using Kornai's (1987) dual dependence mode in analyzing this emerging institutional pattern, hypotheses about persistent paternalism of continued soft budget constraints were partially tested. Similar to what happened in Hungary, paternalism and soft budget constraints have remained prominent features characterizing state-enterprise relations in the PRC. The findings of this study support Kornai's (1987) argument that partial reforms in socialist societies give rise to a dual dependence mode of governance in which firms vertically depend on bureaucratic state apparatus and horizontally depend on market. It is argued that a sociological meaning of power dependency dimension should be attached to Kornai's concept of paternalism that the power of the state to direct a firm's behavior is positively related to state assistance to the firm.

One of the least reformed areas is the state-imposed price system. Scholars are divided on the relative importance of reform on macro price structure versus reform of micro organizations. A multilevel effects model was developed to test the effects
of state-imposed institutional prices on the performance of individual enterprises. It was hypothesized that there was a macro-level effect on enterprise performance in addition to micro-level effects. This hypothesis was supported by data from state-owned medium- and large-sized enterprises in the PRC. Based on this finding, it is argued that both micro- and macro-arguments have strengths and weaknesses. Institutional reforms are highly interrelated; reform in one area cannot be successful unless coordinated with reforms in other areas. Therefore, a synchronized reforms in both ownership and pricing systems is suggested. Since reform in one area is highly dependent on, and interrelated to, reform in other areas in a systemic way, the conclusion reached is that, without a decisive move in this direction, it is difficult for the PRC to escape from the dilemma of dual dependence.

Sociological Reflections

What can sociology contribute to an understanding of economic action? How can an economic reform in socialist country supply information to the study of sociology? From the seminal work of Weber (1978) to such recent work of Granovetter (1985), Perrow (1981;1986), and Zald (1987), sociologists have long been concerned with the issue of interplay of economy, state, and society. Granovetter (1985) demonstrated the importance of social structure in determining economic actions. Perrow (1981;1986), in his study of transition of organization, demonstrated the efficacy of authority perspective in explaining corporitism and organizational transition.

By emphasizing change and continuity in rules and procedures governing state-enterprise relation, this study demonstrates how non-economic factors such as institution can facilitate or impede changes in economic behavior of organization. By
focusing on state-enterprise relation, this study suggests that authority relation that exist between state and economic organization is one of the most important factor in shaping economic activities of organization. In studying economic action, neoclassical economists often underestimated the importance of institution. The current study, however, indicates that understanding of organization is not limited to such economic concepts as economy of scale, profit motivation, and barrier to entry. Instead, sociological concepts of organization such as long-term relational pattern, institutional structure, and authority relations can play significant role in the understanding of economic action.

First, by employing an institutional perspective, this study illustrated the argument that institutional arrangement has a profound influence on the economic behavior of organization. Changes, or a lack of change, in an institutional pattern can facilitate or impede transition in micro-economic organization, because it is the institutional arrangements that determines the structure of incentives, therefore shaping the forms and behaviors of economic organizations. The example of how a persistence of certain features in an institutionalized state-enterprise relation has impeded changes in the behavioral pattern of the economic organizations in the PRC testifies to this assertion.

Second, understanding of the systemic nature of a social structure can contribute to the study of the economic reform in socialist societies. As demonstrated by this study, change in one area is highly dependent on changes in other areas. The interconnectedness of institutional arrangements has, in fact, made it difficult for the reform in the PRC to succeed, because it is impossible for one to reform one area without effecting reform in others. The highly interrelated nature of decentralization and
reform in macro-economic regulations demonstrates the importance of sociological interpretation.

Third, economists often ignore the power dimension of economic behavior based on an assumption of utility maximization. The current study, however, illustrates how power exists in contractual relations. As Weber (1978) argued, command and obedience, as well as conformity and control, exist in every sphere of human interaction. Economic activities are no exception. Failure to address the issue of power in the study of state-enterprise relation would impede or mislead precise interpretations.

Fourth, the concept of state has long been neglected not only by economists but also by organizational theorists. The sociological and political importance of state were demonstrated. Not only did the state play an important role in the political sphere, but it also had a decisive role in shaping economic activities of organizations. The state constitutes one of the most significant elements of the social environment of economic organization. Failure to recognize the role of the state by economists and organizational theorists may significantly reduce the validity of a study, particularly when applied to socialist countries. In contrast to neoclassical economists who take the institutional environment as given, sociology, with its strength in studying social relations and institutions, can contribute significantly to the examination of economic actions.

Because this research is still at its beginning and the reform process in the PRC is still unfolding, it would be premature to give a precise prediction of the future of the reform. The future of the reform is still contingent on the interplay of various social, political, and economic factors. However, one argument seems to hold firm, given the analyses thus far, that is, without a decisive shift from hierarchy to a structure
of market governance, and without coordinated, synchronized, and complete reform in those interrelated areas of China's industrial economic system, there can be no escape from the dilemma of dual dependence.

Research Limitations and Future Directions

The research objectives of this study are to examine the process of industrial reform in the PRC, to make an objective assessment on this reform, to apply an institutional perspective in the study of this reform, to incorporate concept of state into the institutional perspective, and to test Kornai's theory of dual dependence against the PRC's reform experiences. However, both empirical and theoretical limitations prevent detailed explanations of the massive state-initiated reform. It is necessary to point out some of the limitations of this study, both methodologically and theoretically.

Methodologically, students of the PRC have long been aware of the difficulties involved in access to empirical data and research field in the PRC. Social scientists who studied the PRC have relied heavily on secondary data. Though this study attempted to overcome data limitations by using diverse sources of information and to combine them in a coherent manner, some clear inadequacies still remain.

Systematic data collection turned out to be a major problem in studying the PRC's state industrial enterprises. Because of both time and resource limits, the data used in this study tend to be fragmented and the sources of information tend to be unsystematic. For example, few of the state-enterprise contracts collected contained adequate information to allow further analysis. Few of them reported background information on the enterprises involved in the contracts, such as total number of
workers, total amount of fixed assets, amount of inventory, and even their previous records of performance. These inadequacies indicate lower level of formalization of the contract system and add the difficulties to interpretation.

The procedure for grouping enterprises into industries was performed by identifying each enterprises by its name and products. Some enterprises may have diversified their product lines across more than one industry, therefore, the grouping procedure is likely to produce inaccuracy. Because the enterprises included in the data analysis were not randomly sampled and tend to be more productive, technologically more advanced, and more from highly industrialized areas, biases could have been introduced. Due to all these limitations, caution should be made when generalizing to a larger population.

In addition to the data limitations, the lack of a systematic theoretical framework in studying socialist societies continues to be a major problem that impedes interpretation. Though an attempt to overcome this difficulty uses an institutional perspective to study socialist economy and combines strength of Kornai's economics of shortage with a sociological interpretation, theoretical limitations remain.

First, for example, for simplicity in this analysis, it was assumed that a state is a coherent entity that is represented by various state agencies at national, provincial, and county levels. However, this assumption neglects the fact that there exists great differences between various levels of government, their interests are often not identical, and sometimes even in conflict, as many scholars have discovered recently (Wong, 1988; Naughton, 1985; Shirk, 1989). Local governments might sometimes line up with the enterprises under their jurisdiction to confront the central government, and sometimes they were the real extension of the central government in controlling
micro-economic organizations. Therefore, for future studies, a distinction should be made among the different levels of the state apparatus and their political interplay should be studied. It is believed that by doing so the role of state may be more fruitfully analyzed.

Second, it was also assumed in this study that there is a generalized applicability of the interpretations to different localities in the PRC's socialist economy. However, the interpretations made and conclusions reached may not necessarily be generalizable because of diverse local conditions and complex situations in various settings. Further investigation should be conducted to unravel diverse patterns across the different localities.

Third, no distinction has been made between the levels of subordination of an enterprise due to the data limitations. However, there have been suggestions that the subordinating levels of an organizations (i.e., city, province, central ministries) might be one of the important variables in determining the survival and growth of an organization in the PRC.

Fourth, the description of the evolution of the reform relied heavily on government documents as the data base. However, the actual implementation in local settings may deviate from the central state policies. This deviation was not likely to be revealed from study of central government documents. Although I attempted to check this validity by referring to other information such as questionnaires and personal interviews with industrial managers, more effort should be made in future studies to examine these diversities. In addition, most analysis of the state-enterprise relation was analyzed in terms of the state's domination over individual organizations. But my interviews with enterprise managers indicated that this relation shoud
be better understood as a two-way interaction. There has been a number of cases in which counter-tactics were used by enterprise managers in this relation, particularly in bargaining over the profit-retention ratio with the state agencies. Further studies will be needed to explore the contribution of the organizational inertia at the firm level to the perpetuation of soft-budget constraints.

Fifth, politics are accepted as a given. But other studies have suggested that political interests have played important roles in the strategic considerations (Shirk, 1989; Bachman, 1987; Naughton, 1985). For example, the advocacy of piecemeal and incremental reforms may be the only strategy that is politically feasible. Mounting political pressure from the public for fear of inflation resulted from price reform might be the most important consideration for micro-oriented reform theorists to avoid advocating price reform because it is politically safer than a synchronized reform.

Though in theory, allowing prices to adjust themselves according to market conditions would solve the problems in many areas, political reality and administrative complexity only allowed reformers to sidestep such reform. In addition, reforms generally involve a redistribution of power, status, and privilege that will benefit some to the detriment of others. Viewing it from this angle, a reform is an political process in which different interest groups play in a political arena. For these reasons, further reform might be highly dependent upon political process underlying the PRC's economic reform.
APPENDIX: LIST OF NAMES OF CONTRACTING ENTERPRISES

1. Fujian Provincial Autoparts Corporation.
2. Fujian Provincial Mechnic Supply Company.
5. Pucheng Bronze and Copper Mine.
7. Xiamen Wolfram Products Factory.
8. Sanming Iron and Steel.
11. Fujian Provincial Coal Ming and Preparation Corporation.
12. Fujian Provincial Agricultural Machinery Company.
13. Provincial Auto-Transportation Company.
15. Fujian Provincial Petro-chemicals Supply Company.
17. Fuzhou Auto-Repair Factory.
22. Provincial Fuzhou Warehouse.
23. Fujian Provincial Metallurgical Industrial Corporation.
25. Fujian Provincial Electrical Industrial Equipment Corporation.
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Andors, Stephen

Bachman, David

Baum, Richard

Bendix, Reinhard

Bettelheim, Charles

Blalock, Hubert M. and Paul H. Wilken

Blalock, Hubert M.
Blau, Peter M.  

Bock, R. Darrel  

Boisot, Max and John Child  

Bowles, Paul and Gordon White  

Boyd, Lawrence H. and Gumund R. Iversen  

Brzezinski, Zbigniew  

Brzezinski, Zbigniew and Samuel Huntington  

Byrd, William  


Byrd, William and Gene Tidrick  

Capital Entrepreneur Association (ed.)  


Carroll, Glenn R., Goldstein, Jerry, and Gyenes, Antal

Chandler, Jr. Alfred D.

Chen, Yizi, Wang, Xiaoqiang, and Colleagues

China's Enterprise Reform Research Group

Central Committee of CCP

DiMaggio, Paul J. and Walter W. Powell

The Economic Printing House
Emerson, Richard C.  

Evans, Peter B., Dietrich Rueschemeyer, and Theda Skocpol (eds.)  

Friedrich, Carl J.  

Friedrich, Carl J. and Zbigniew Brzezinski  

Fujian Provincial Finance Bureau  
1988 *Summary Table of Current Situation of Implementing Contract Responsibility System*.

Goldstine, Harvey  

Granovetter, Mark  

Gurley, John C.  

Hall, Richard H.  

Hamilton, Gary G. and Nicole W. Biggart  
He, Zhukang

Hoffmann, Charles

Hooks, Gregory

Horvat, Branko

Hua, Sheng, Jiacheng He, Xiaopeng Luo, and Xuejun Zhang

Hua, Sheng, Xuejun Zhang, and Xiaopeng Luo

Huang, Shu-min

Industrial Economics Research Institute

Johnson, D. Gale
Johnson, Chalmers (ed.)

Kerr, Clark, J. Dunlop, F. Harbison, and C. Myers

Kleining, John

Kornai, Janos

Langlois, Richard N. (ed.)

Lardy, Nicholas

Lee, Peter N.S.

Lewis, J. Wilson
Li, Yining  

Lin, Cyril Zhiren  

Lowenthal, C.  

March, James G. and Johan P. Olsen  

Mason, M. William, George Y. Wong, and Barbara Entwisle  

Melman, Seymour  

Meyer, John and Brian Rowan  

Micro-Research Department, China's Economic System Reform Institute  

Micro Research Office of China Economic System Reform Institute  

The Ministry of Finance of PRC  


Moe, Terry

Naughton, Barry

Nee, Victor

Nee, Victor and Sijin Su

Nelson, Daniel
Nelson, Richard R.

Neter, John, William Wasserman, and Michael H. Kutner

North, Douglass

Nove, Alec

People's Daily

Perkins, Dwight H.

Perrow, Charles

Pfeffer, Jeffrey and Salancik, Gerald R.

Reynolds, Bruce (ed.)
Richet, Xavier

Richman, Barry M.

Riskin, Carl

Schotter, Andrew

Schurmann, Franz

Scott, Richard

Shirk, Susan

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Smelser, Neil

Solinger, Dorothy J.

Song, Tingmin

Stark, David

Stark, David and Victor Nee

The State Council


The State Economic Commission

The State Economic Commission and the Ministry of Finance


The State Economic Commission and other nine state agencies

The State Economic Commission and the State Council System Reform Office
The State Economic Commission and the State Economic System Reform Commission

The State Economic System Reform Commission, the State Economic Commission, and the Ministry of Finance

The State Statistical Bureau

Tidrick, Gene

Tidrick, Gene and Chen Jiyuan (eds.)
Walder, Andrew

Wang, Binqian

Wang, Haibo

Wang, Jiye and Yuanzhen Zhu (eds.)

Watson, Goodwin

Weber, Max

White, Gordon
168


Williamson, Oliver

Whyte, Martin King

Whyte, Martin King, Ezra F. Vogel, and William Parish

Wolfe, Bertrame

Wong, Christine P. W.

World Economic Herald

Wu, Jinglian

Xiamen City Economic Commission

Yenal, Oktay

Zald, Mayer N.

Zaltman, Gerald (ed.)

Zhao, Ziyang

Zheng, Guangliang