



Enterprise Reform in China

Ownership, Transition, and Performance



Edited by
Gary H. Jefferson
Inderjit Singh

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Cover: The Chinese characters that appear on the cover and that open each chapter (pronounced *chigai*) mean enterprise reform.

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Contributors

The affiliations shown are those pertaining at the time of writing.

| | |
|--------------------|---|
| Chen Jianbo | Rural Development Research Center, State Council, China |
| Albert G. Z. Hu | Department of Economics, Brandeis University |
| Gary H. Jefferson | Department of Economics, Brandeis University |
| Lu Mai | Harvard University Institute for International Development and Development Research Center, State Council |
| Frances C. Perkins | East Asia Analytical Unit, Department of Foreign Affairs and Trade, Canberra Australia |
| Mark M. Pitt | Department of Economics, Brown University |
| Louis Putterman | Department of Economics, Brown University |
| Thomas G. Rawski | Department of Economics, University of Pittsburgh |
| Inderjit Singh | Transition Economics Division, World Bank |
| Wang Benzhou | China Everbright Financial Holdings, LTD, Hong Kong |
| Xing Junling | State Statistics Bureau, China |
| Zhang Ping | Economic Research Institute, Chinese Academy of Social Sciences |
| Zhang Shouqing | State Statistics Bureau, China |
| John Z. Q. Zhao | Department of Economics, Brandeis University |
| Zheng Yuxin | Institute of Quantitative and Technical Economics, Chinese Academy of Social Sciences |

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Overview

Gary H. Jefferson and Inderjit Singh

The transformation and growth of China's economy, which raised living standards for one-fifth of the world's population and provided indirect benefits for many more, stands among the most significant economic developments of the late twentieth century. This book rests on two premises. The first is that the key to China's dramatic economic transformation is that country's industrialization. The second is that the real story of China's industrialization is unfolding at the level of the individual Chinese enterprise and factory.

This volume seeks to document the impact of economic reforms on China's industrial sector and to explain why China's reforms, which appear meager relative to the more ambitious reform programs of Eastern Europe and even Russia, have had such wide-reaching effects. This book differs from much of the research and analysis of China's economy in several ways:

- It provides the first in-depth comparative look at different ownership systems, going well beyond the standard state/nonstate contrast to illustrate the real organizational, behavioral, and performance differences among China's systems of ownership.
- It analyzes the extent to which specific reforms have altered the behavior and performance of Chinese enterprises across different forms of ownership.
- It examines how the millions of enterprises in China interact with their institutional and international environments to create a dynamic reform process that has greatly magnified the impact of reform initiatives from the center.
- It attempts to distinguish, evaluate, and reconcile various perspectives or schools of thought regarding the nature of China's reform.

The story of the industrial enterprise, the most basic unit of organized production, affords the deepest and most comprehensive insight into the

progress and problems of China's economic transition. Through its connection to other parts of the economy, the enterprise provides a window through which the reform of China's labor markets, banking system, social insurance system, systems of foreign trade and investment, and legal and regulatory system can be viewed and understood. Because the enterprise stands at the nexus of so many other economic institutions, reform of the industrial enterprise is synonymous with China's economic reform.

This book is the outgrowth of a World Bank project that began in the late 1980s. That project commissioned two large-scale enterprise surveys. One survey covers 1,200 state-owned enterprises and collective-owned enterprises in the "urban system"; the other includes 300 township and village enterprises. Both surveys span the period from the early 1980s through 1991–92 and include detailed information about the management systems of the participating enterprises. A third data set, produced by China's State Statistical Bureau, includes about 5,000 of China's large and medium-size enterprises for the period 1988–92, nearly one-third of the total during that period. For one year, 1993, the data include the entire population of 18,500 large and medium-size enterprises, spanning 14 different ownership types. This State Statistical Bureau data set enables us to extend our analysis to the important foreign sector, which contains both foreign-funded and overseas Chinese-funded enterprises, sometimes collectively referred to as foreign-invested enterprises. Two additional surveys were designed to investigate the dynamics of technical innovation and of foreign trade in China's industrial enterprises. One or more of these five data sets provides the empirical foundation for most chapters in this book. They also provide a rich source of statistical material that is being made available to a wide range of scholars.

These survey data, which capture the experience of more than 7,000 enterprises, create a record from which researchers can document the ways in which China's enterprises, both old and new, have responded to changes in their institutional and policy environment. The statistical records of these enterprises document the experience of each individual enterprise and allow us to construct a broad picture of the program, process, and outcome of China's overall reform experience. While the data upon which most chapters in this book are based will be "antiquated" before long, these data and the analysis that follows provide a critical record of a period that is likely to define the Chinese economy for decades to come.

In addition to this overview, the book contains 11 coordinated studies that document and analyze changes in the governance and performance of China's industrial enterprises. Chapter 1 presents an overview of the structure of China's industrial economy. Chapter 2 extracts key aspects of the survey data to describe, compare, and contrast the systems

of governance of key ownership types. Chapters 3 through 5 should be read together. Chapter 3 describes the special features of China's economic and institutional structure that create a kind of dynamic endogenous reform process, characterized by the authors as an "industrial innovation ladder." The ladder has two interactive dimensions. The first is technical innovation, which is modeled and empirically tested in chapter 4. The second is institutional change, or enterprise reform, which is viewed in chapter 5 as arising from both conditions within the industrial system and the efforts of central reformers. Chapters 6 and 7 assess the performance of Chinese industry—chapter 6 through a general review of the literature on Chinese enterprise reform and chapter 7 by comparing the performance of state-owned enterprises and township and village enterprises. By controlling for policy and firm-specific differences, chapter 7 seeks to identify the "pure ownership" effect on productivity.

Like chapter 7, chapters 8 through 11 present formal models and technical econometric work. Each of these chapters seeks to examine the behavior of one or more samples of enterprises with respect to a particular enterprise function. Chapter 8 focuses on the comparative wage-setting and employment behavior of state-owned enterprises, urban cooperatives, township and village enterprises, and foreign-invested enterprises. Chapter 9 targets township and village enterprises and some private rural enterprises to investigate whether enterprises in this important and poorly understood sector overemploy, underemploy, or choose more-or-less profit-maximizing levels of employment. Examining the investment process, chapter 10 asks a key question, perhaps the most important for any transition economy: are the most successful enterprises capturing scarce investment resources in order to expand their share of production? Chapter 11 examines the impact of various open door policies on export performance among state-owned enterprises and foreign-invested enterprises.

For the reader focused on the "idea" of China's economic reform, three "high-concept" essays in this volume may be of particular interest. Appendix A develops the analogy between the optimal reform strategy and the investment decision of the firm, looking at reform from the perspective of the social welfare-maximizing leader or reformer. Chapter 3 looks at China's industrial economy as a system. It extends the product cycle and quality ladders of Vernon (1966) and Grossman and Helpman (1991) to China's domestic industrial economy to portray a dynamic process of institutional change as well as technical innovation. The section in chapter 5 entitled "Implications: the commons, coase, and a property rights market" extends the notion of a public good and social externalities to state enterprises and argues for the application of the

logic of the Coase theorem to the reform of Chinese industry. This prescriptive material identifies the establishment of a property rights market as the central policy priority implied by the two other essays.

Highlights of China's reforms

Volumes have been written describing and characterizing China's economic reform program.¹ This account cannot substitute for these excellent descriptions of China's reform program. The brief discussion below is intended simply to orient the less familiar reader to key elements of China's reform program and to alert the more knowledgeable reader to those initiatives that constitute the essential ingredients of China's dynamic reform process.

Much of the impetus for China's industrial transformation originated with two highly successful reform initiatives—the Open Door policy and the rural reform program—the outline of which became clear in the late 1970s and early 1980s. The massive impact of these complementary initiatives was not anticipated by China's early reformers. The Open Door policy opened China's coastal provinces to foreign trade, investment, and an influx of new technologies, managerial initiative, and foreign exchange. The rural reform program led to immediate productivity gains in rural agriculture that, in turn, vastly expanded the supply of domestic savings and surplus labor while unleashing individual and local government entrepreneurial initiative. Together the Open Door policy and the rural reform program created a surge of new industrial enterprise formation, intense competition within many product groups, and pressures for both technological and institutional change. These conditions have forced China's centrally controlled trading system, its institutions of factor allocation, and its industrial enterprise system to adapt continuously to the requirements of a modern market-oriented economy.

The Open Door policy and the rural reform program created a fertile environment that allowed for the formation and entry of new capital, labor, managerial initiative, and firms, thereby creating effective competition throughout most of Chinese industry. Two other reforms—the devolution of managerial autonomy to the firm, and the two-track price system—created the necessary incentive structure. Allowing firms to retain profits and provide bonuses established a powerful, if uneven, set of incentives for workers and managers to expand and accumulate financial surpluses. By exposing decisions at the margin to market forces, the dual-track price system served two functions. First, it enabled smaller new firms to secure the necessary market access and producer goods from established firms to enter the market and grow. In addition, it afforded firms already

operating in the state sector the product and market space into which to expand and restructure their operations in search of financial gain.

A critical prerequisite for the efficacy of these meta- and microinitiatives has been the creation of a comparatively stable macroeconomic environment, which Chinese authorities have maintained through a mix of direct and indirect instruments. Recollection of the high political and economic costs of rising inflation during 1989 are likely to motivate China's political leaders and policymakers to sustain macroeconomic stability into the foreseeable future.

China's industrial performance

China's industrial economy created \$340 billion of value added in 1995, about a fifth of the U.S. figure for that year (World Bank 1997). By other measures, however, the size of China's industrial economy overwhelms that of every other nation. By the mid-1990s more than 7 million industrial enterprises in China employed more than 140 million workers, up from about 50 million in 1978 and nearly equal to the combined industrial work forces of the 28 OECD economies.

China's economy is adding more industrial production each year than any other economy in the world, including the United States. Most of the average annual industrial growth of 14 percent during the 15-year period 1980–95 was powered by three factors: the growth in the industrial work force by 90 million workers, two-thirds of whom have moved from China's agricultural sector; a doubling of the industrial sector's fixed assets every four to five years, fueled in large part by the nation's domestic savings rate, which rose from 25 percent in 1965 to 35 percent by 1980 and now stands at more than 40 percent; and overall industrial productivity that has grown by 3–4 percent a year (chapter 6, this volume; World Bank 1997).

While growth in China's state-owned industry has been rapid by world standards, averaging nearly 8 percent between 1980 and 1995, two emerging sectors have served as the principal engines of China's industrial growth and transformation. The first is the rural township and village sector, which reported annual real rates of growth of nearly 22 percent over this 15-year period, increasing its share in industrial output to more than one-quarter by 1995 (see table 1.3). While township and village enterprises served as the engine of industrial growth during the 1980s, the so-called "other" sector, comprising individual enterprises, joint stock companies, domestic joint ventures, and foreign-invested enterprises (both joint and wholly owned ventures), emerged as the principal source of growth in the 1990s.

The variety of ownership forms in this “other” sector confounds the conventional public-private dichotomy. While much of the original capital in this sector was publicly owned (most notably the state and collective enterprises that have been converted to joint ventures or joint stock companies), most of the conversions themselves were made possible by injections of private capital, both domestic and foreign. More than 90 percent of enterprises in the sector are small, wholly privately owned firms classified as “individual” or “private.”

By the mid-1990s China’s industrial structure could be broadly characterized as one-third state-owned, one-third collective- and township and village-owned, and one-third joint public-private or wholly privately owned. This burgeoning growth of township and village enterprises, foreign-invested enterprises, and public-private enterprises, not the privatization of public enterprises, has accounted for the greatest source of change in China’s industrial ownership structure.

Chinese industry: what needs to be explained?

The extraordinary performance of China’s industrial economy has been widely acknowledged. There is not, however, unanimity concerning the causes and sustainability of this growth. Many observers are puzzled by three paradoxes:

- Relative to other transition economies and to the general notion shared by most economists of what constitutes an effective set of market institutions, China’s industrial reforms have been partial and piecemeal. As a result key institutions, including bankruptcy law, the banking system, and the social insurance system, remain undeveloped. Nevertheless, China’s industrial growth has been robust and appears likely to continue.
- China’s economy has been dominated by publicly owned firms, both state- and collective-owned. Although these factories display many of the negative characteristics that economists ascribe to public ownership, they accounted for most of the extraordinary growth of Chinese industry during the critical early years of transition.
- Most literature on productivity in Chinese industry, principally in state industry, reports that productivity is growing. Yet profitability in state industry is declining, and the number of loss-making enterprises is on the rise.

One approach to resolving these paradoxes is simply to dismiss them. Sachs and Woo (1997), for example, contend that rising productivity in state industry is illusory and that China’s publicly owned enterprises, including its township and village enterprises, are inherently flawed and destined to fail—

sooner rather than later. They believe that China's robust economic growth is unsustainable without rapid, comprehensive, and immediate reform.

Another approach to resolving these paradoxes is suggested by the proponents of gradual reform. Nolan (1995), for example, argues that incremental reform creates the conditions for effective transition, whereas a "big bang" destroys the institutions needed for transition with growth. The improving performance measures of China's state and collective enterprises should not be surprising, he maintains, since "a wide variety of property rights regimes can now be seen to be compatible with effective economic performance" (1995, p. 317). Others, including McKinnon (1994) and Murphy, Schleifer, and Vishny (1992) offer "second best" reform models in which the relaxation of certain government controls leads to instability in the context of incomplete liberalization.

Our view is that these paradoxes do exist: China's economy has performed impressively despite inadequately reformed economic institutions, the intrinsic weaknesses of public ownership, and extensive loss-making in China's state industry. A central purpose of this volume is to clarify and resolve each of these three paradoxes.

What are the major findings?

The conclusions put forth in this volume are organized around several basic questions:

- What are the key features of China's economic reform process? What is the motive for continuing and widening the reform process? Why has such limited reform initiative from the center had so much effect? How do we resolve the paradox of rapid growth with limited reform?
- What changes in governance and the institutional environment are most responsible for changes in enterprise conduct and performance? What is the role of ownership in accounting for differences in conduct and performance among enterprise types? Can we account for the paradox of high-performance publicly owned enterprises?
- How well are China's industrial enterprises performing? Has the performance of state-owned enterprises improved? How can the paradox of rising productivity and falling profitability throughout Chinese industry, most notably in the state sector, be resolved?
- In what ways has the behavior of the Chinese firm been altered with respect to employment and wage-setting behavior, investment activity, innovation, and export orientation? Are enterprises increasing efficiency by responding to incentives and relative price changes?

The key findings of the volume are summarized below.

Growth and reform

Reform strategy. Uncertainty over its vision of the future and aversion to risk help explain China's initial "groping" reform strategy. Advantageous initial conditions and fortuitous early reform initiatives have facilitated China's transition, and success has sustained the continuity of a gradual or evolutionary approach to reform.

Success has many fathers. Not surprisingly, numerous interpretations of China's successful experience have been offered. Emphasizing the importance of initial conditions, Sachs and Woo (1997) argue that the dominance of an agricultural sector comparatively free of subsidies and social services allowed China's underdeveloped economy to respond to the meager, incoherent reform agenda more as a developing country than as an industrial socialist economy encumbered by the weight of ubiquitous subsidies and useless fixed assets. Jefferson and Rawski (chapter 3 and appendix A) also emphasize the importance of China's prereform endowment (that is, its initial conditions) that has allowed for the emergence of intense competition and powerful incentives for managers and local governments. These conditions, which are built into the system, are, in turn, creating a dynamic process of endogenous reform. For Groves, Hong, McMillan, and Naughton (1994), the creation of effective incentives, particularly managerial incentives, explains China's ability "to grow out of the plan."

Although these interpretations may have different policy implications, as explanations of China's rapid industrial transformation none is inconsistent with the others. We combine these interpretations to create a synthesis of explanations that points to initial conditions, competition, and incentives. All of these conditions have enabled limited reform to have substantial impact; all also create pressures for new rounds of reform. Naughton (1994) observes that there is a "generally consistent logic to the way [planned economies] dissolve" (p. 306). The view that emerges from this volume is that within a competitive economic setting, there is also a consistent logic to the process by which China is replacing its planned economy with a market economy.

A more rapid reform scenario may have been possible, but it would have exacted additional costs and risks. Day, Wang, and Zou (1994) develop several policy reform scenarios based on a dynamic adaptive model of enterprise behavior. They conclude that under a rapid reform scenario, in which prices were freed more rapidly and greater financial resources were redirected to facilitate more rapid restructuring, China's economy would have been more susceptible to inflation and fluctuations and would have experienced more layoffs.

In their general theory Jefferson and Rawski (chapter 3 and appendix A) liken the reform process to the firm's investment decision, in which the