

Reflections on Three Decades of “China-Watching”*

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This paper summarizes the author’s three decades of research on China’s economy. Socialism achieved substantial economic gains in China, but at high cost. China’s unorthodox policy of gradual reform has produced an unexpected growth spurt. The author considers the implications of this experience for research on China’s economy and for the study of economic science. The paper concludes with reflections on “China-watching,” which the author sees as eroding the quality of China-oriented research.

Keywords: China-watching; transition; economic reform; socialism; research methods

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My career as a “China-watcher” began during the late 1960s. At that time, factual information on China’s economy was scarce. China-oriented economic research involved the expenditure of vast effort to splice tiny snippets of information into plausible generalizations about economic change. The intervening decades have brought a vast expansion of China’s information industry. Quantitative and qualitative material about China’s economy, formerly notable for its absence, now exists on a scale unimagined by researchers working in the 1960s and 1970s.

The information sector is not China’s only growth industry. My research career has coincided with a remarkable economic surge that has produced large increases in output, productivity, exports and living standards, created whole new industries, and integrated a wide

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range of production and organizational technologies into China's domestic economy. These changes have important diplomatic and military implications whose consequences are only gradually becoming apparent.

Economic Growth Before and After Reform

While the pace of economic change has accelerated sharply under China's reform regime dating from the late 1970s, the popular notion that China's economy "stagnated" or "failed" during the era of socialist planning is mistaken. China's socialist planned economy certainly failed to match the dynamic gains achieved by Japan, Taiwan, South Korea, Hong Kong, and Singapore. But if performance is measured against outcomes for a broader sample of low-income states, China's absolute and relative standing in the ladder of per capita incomes is seen to have risen markedly during a quarter-century of socialist planning.¹ Steep increases in life expectancy, a variable inextricably linked to society's success in providing ordinary citizens with what World Bank strategists call "basic needs," confirm the picture of rising material welfare conveyed by (admittedly problematic) estimates of national economic aggregates.²

Despite blunders, waste, low productivity growth, and other well-known shortcomings,³ socialist planning succeeded in introducing many new activities into China's economy, including the manufacture of motor vehicles, power plant equipment, plastics, chemical fertilizers, oil refinery equipment, nuclear weaponry, electronics, and aerospace products. Recent theory emphasizing the central role of innovation⁴ in the long-term development process should alert us to the danger of underestimating the significance of these often modest beginnings. Here again, socialist achievements, while lagging far behind the accomplishments of China's East Asian neighbors, seem more impressive in a wider context.

¹David Morawetz, *Twenty-five Years of Economic Development: 1950 to 1975* (Baltimore: Johns Hopkins University Press, 1977), 20.

²Judith Banister, *China's Changing Population* (Stanford, Calif.: Stanford University Press, 1987).

³Barry Naughton, "Pattern and Legacy of Economic Growth in the Mao Era," in *Perspectives on Modern China: Four Anniversaries*, ed. Kenneth Lieberthal et al. (Armonk, N.Y.: M. E. Sharpe, 1991).

⁴Paul Romer, "New Goods, Old Theory, and the Welfare Costs of Trade Restrictions," *Journal of Development Economics* 43, no. 1 (1994): 5-38.

All this suggests that the economic aspect of China's socialist experience is best summarized in terms of limited and often costly advances rather than stagnation or failure. In reflecting on the outcome of China's socialist period, we should remember that economic development is an inherently wasteful process. From this perspective, the frequency with which discussions of socialist transition are couched in terms of "efficiency" seems distinctly odd.

Further evidence of economic progress under Chinese socialism comes from the recent growth and export success of joint ventures involving overseas business partners. The dynamism of joint ventures is often interpreted as evidence of the stagnation of China's state enterprises and the desirability of privatization. But the Chinese component of large-scale joint ventures usually comes from the ranks of state-owned industrial enterprises. The joint-venture boom seems to indicate that the leading segment of China's state industry was rather close to achieving international competitiveness before reform began, needing only a quick infusion of product design, organization, equipment, management savvy, marketing, funds, or technology to break into world markets. Add to this the not inconsiderable export achievements of state firms themselves, and we conclude that, despite obvious deficiencies, industrial progress under the aegis of socialist planning was quite substantial.

More recently, China's economy has recorded remarkable and completely unexpected gains under the reform policies of the 1980s and 1990s. Striking progress is evident on many fronts, including growth of aggregate and per capita output; widespread and clearly visible increases in living standards; higher levels of productivity; internationalization of the economy, with large increases in foreign trade and investment; and a remarkable information revolution, which has vastly increased Chinese knowledge of global developments in every sphere of human endeavor.

Accompanying these changes is a massive, but incomplete shift of structure, behavior, and sentiment in the direction of market outcomes. Evidence of these changes continues to accumulate. Table 1 illustrates the rapid diminution of official control over prices. Of particular significance is the increased scope of market forces in the pricing of major industrial goods. Recent years have brought big reductions in official controls over the price of goods like coal, petroleum, steel, and cement—formerly the heart of the plan process. Capping off a remarkable turnaround in popular and official attitudes toward markets, prices, profits, and other capitalist trappings, China's

Table 1
Locus of Price Determination in Chinese Commodity Markets, 1990-94 (%)

	Share of prices determined by		
	State order	State guidance	Market forces
Retail commodities			
1990	29.8	17.2	53.0
1991	20.9	10.3	68.8
1992	5.9	1.1	93.0
1993	4.8	1.4	93.8
1994	7.2	2.4	90.4
Agricultural products			
1990	25.0	23.4	51.6
1991	22.2	20.0	57.8
1992	12.5	5.7	81.8
1993	10.4	2.1	87.5
1994	16.6	4.1	79.3
Production materials			
1990	44.6	19.0	36.4
1991	36.0	18.3	45.7
1992	18.7	7.5	73.8
1993	13.8	5.1	81.1
1994	14.7	5.3	80.0

Source: Guo Jianying, "The Proportion and Changes for Three Types of Prices," *Zhongguo wujia* (China Price), 1995, no. 11:10-12.

Communist Party now stands committed to create a "socialist market economy with Chinese characteristics." Its November 1993 decision on this matter employs language that stood far outside the boundaries of permissible discussion in 1978, 1983, or even 1985.

The Process of Reform in China

China's reform process, which has unleashed vast momentum for growth as well as an ongoing chain of market-leaning institutional changes, is most unusual. In particular, China's reform experience stands far apart from the policy mix recommended by most economists, including experienced specialists in major international organizations. China's combination of unorthodox reform policy and superior performance raises important research issues: in explaining what Peter Nolan summarizes as "China's Rise, Russia's

Fall,"⁵ should we look primarily at initial conditions, reform policies, or the implementation and response to new policies?

Without attempting to resolve this issue, we may note some important features of Chinese reform. Official reform initiatives eschew sweeping, compulsory measures like across-the-board price liberalization, bankruptcy, or privatization. Reform measures take the form of partial, even timid measures that enlarge the scope of choice available to agents in the economy. Examples include special economic zones (SEZs), profit-sharing, the dual-track pricing system, and conversion of some state enterprises to corporate entities.

The center has repeatedly failed to anticipate the consequences of its own reform initiatives. As a result, Peking often finds itself adopting a reactive stance as reform leadership comes primarily or even exclusively from the decentralized efforts of provincial and local governments, enterprises, and households to wring maximum advantage from current rules and from initiatives that anticipate future reforms. The Lucas critique acquires special pungency in a society where the aphorism "*ni you zhengce, wo you duice*" [you have policy, I have counter-measures] enjoys wide currency.

Examples of unanticipated consequences are legion:

—Foreknowledge of the long decline in the ratio of government revenue (especially central revenue) to aggregate output⁶ would have squelched reform from the start.

—Measures intended to "enliven" state industry had the unanticipated effect of stimulating the explosive growth of rural industry; the resulting upsurge of power, wealth, and prestige, if anticipated, would never have remained in the hands of the lowly Ministry of Agriculture.

—The whole story of industrial reform—entry, competition, falling profit, loss of government revenue, pressure for more reform⁷—represents an unending chain of unexpected developments.

⁵Peter Nolan, *China's Rise, Russia's Fall: Politics, Economics and Planning in the Transition from Stalinism* (New York: St. Martin's Press, 1995).

⁶Christine P. W. Wong, Christopher Heady, and Wing Thyee Woo, *Fiscal Management and Economic Reform in the People's Republic of China* (Hong Kong: Oxford University Press, 1995).

⁷Gary H. Jefferson and Thomas G. Rawski, "How Industrial Reform Worked in China: The Role of Innovation, Competition and Property Rights," in *Proceedings of the*

Although China's economy displays great vigor and dynamism, so much so that advocates of "free markets" are often discomfited by the unvarnished greed associated with the "wild West" aspects of Chinese capitalism, the future of China's gradual and somewhat chaotic reform is open to question.⁸ One group of writers (including this author) focuses on reform achievements. Despite skepticism about the potential of China's approach to reform, these researchers produce detailed evidence to show how gradual reform has worked for China. The unspoken implication is that gradual reform can continue to produce impressive results.

Pessimists attempt, with limited success, to pick holes in the optimists' empirical evidence. They recite the problems confronting China's economy—a weak tactic because there are no problem-free economies. The most impressive aspect of this approach is the authors' instinctive sense that China's economic mechanism cannot sustain continued growth.

We need to confront the instincts of the pessimists with the empirical knowledge of the optimists. Might current trends unfold in directions that drain the economy's powerful momentum? This essay is no place for an extended discussion of China's economic prospects, but we can briefly examine the plausibility of significant erosion in the pace of growth and identify areas that might contribute to a slowdown.

To see why a dramatic reduction in growth might occur, we need only consider the position of state-owned industry, a sector whose contributions are widely misunderstood both within and outside China. The financial surplus of state industry is China's largest source of tax revenues.⁹ This surplus is also expected to sustain a large work force (including millions of redundant employees), to satisfy the housing, educational, health, and pension costs of tens of millions of dependents and retirees, and to support the financing and development of the joint venture and collective sectors, all in

World Bank Annual Conference on Development Economics 1994 (Washington, D.C.: World Bank, 1994), 129-56.

⁸The following paragraphs draw on Thomas G. Rawski, "Implications of China's Reform Experience," *The China Quarterly*, no. 144 (December 1995): 1150-73.

⁹Wanda Tseng et al., *Economic Reform in China: A New Phase*, Occasional Paper no. 114 (Washington, D.C.: International Monetary Fund, 1994), 29; *Zhongguo tongji nianjian 1994* (Statistical yearbook of China 1994), 215.

addition to supplying capital for the restructuring and technical upgrading of state industry itself.

With the after-tax profit rate for state firms mired in the vicinity of three percent,¹⁰ the ability of state industry to fulfill multiple obligations *and* accelerate the pace of technological change is open to question. Nicholas Lardy's discovery that China has received no significant net capital inflow¹¹ and Barry Naughton's description of inefficiencies in China's banking system¹² underscore the importance of ascertaining the capacity of domestic industry to finance its own restructuring and technical development.

We can visualize Chinese industry in terms of hierarchies of technology and cost.¹³ We can also imagine a ladder of financial capability, with firms and industrial branches ranging from robust strength to permanent insolvency. If large numbers of firms slip down this financial ladder, not just individual firms, but localities, industrial sectors, or the whole industrial system can experience a declining capacity to generate self-sustaining growth.

Pressure on profitability is unlikely to slacken. The expansion of joint ventures, the maturation of collective industry, the gradual emergence of Chinese private industry, and continued liberalization of imports all point to further intensification of competition in the markets for Chinese industrial output.

Efforts to focus corporate resources on purely industrial tasks will meet stiff resistance, as when the State Education Commission urges state firms "to continue running their primary and high schools"—at enterprise expense.¹⁴

Enterprise reforms do not occur in isolation. Transferring state firms to private owners may be difficult without agreement on the financing of social burdens traditionally entrusted to state industry.

¹⁰Profit rate is the ratio of after-tax profits to the sum of fixed assets' net value and the average value of quota-circulating funds. Data come from *Zhongguo tongji nianjian 1994*, 399, and *Zhongguo gongye jingji tongji nianjian 1993* (Statistical yearbook of China's industrial economy) (Beijing: Zhongguo tongji chubanshe, 1994), 66.

¹¹Nicholas R. Lardy, "The Role of Foreign Trade and Investment in China's Economic Transformation," *The China Quarterly*, no. 144 (December 1995): 1065-82.

¹²Barry Naughton, "China's Macroeconomy in Transition," *The China Quarterly*, no. 144 (December 1995): 1083-1104.

¹³Gary H. Jefferson, Thomas G. Rawski, and Yuxin Zheng, "Institutional Change and Industrial Innovation in Transitional Economies," *Journal of Asian Economics* 5, no. 4 (1994): 585-604.

¹⁴He Jun, "State Firms Urged to Finance Education," *China Daily*, April 4, 1995, 1.

Since state firms are China's main taxpayers, it is difficult for the state to assume these burdens without fueling inflation. But inflation threatens to undermine China's banks, which act as key suppliers of credit to finance industrial expansion and reform. Now that China's regions and localities have developed a considerable appetite for autonomy, even well-crafted central reform initiatives may be difficult to implement.

Implications of China's Recent Economic Experience

Regardless of what the future holds, two decades of economic reform supply ample material for preliminary speculations on the implications of recent Chinese economic experience for economics and for the interpretation of Chinese economic affairs.

*Implications for Studying China's Economy*¹⁵

Reform means improvement, not perfection. Reform moves economic institutions in directions that facilitate improved economic outcomes. Successful reform does not require the removal of all obstacles. Any effort to abolish all policy and institutional blockages is doomed by the same information gaps that limit the transformative capacity of central planning. Wise reform strategy identifies the most pressing shortcomings and concentrates resources on the relaxation of binding constraints. Limited administrative capacity ensures the presence of diminishing returns in institutional change. Attempting more may accomplish less.

Gradual reform initiated but not directed or controlled from above, is feasible and may be highly effective. In 1990, specialists from several international organizations argued that "Ideally, a path of gradual reform could be laid out which would minimize economic disturbance and lead to an early harvesting of the fruits of increased economic efficiency. But we know of no such path. . . ."¹⁶ China's recent experience shows that gradual reform can lead to "early harvesting of the fruits of increased economic efficiency." Even if published statistics exaggerate China's economic gains as well as the

¹⁵The following paragraphs are based on Rawski, "Implications of China's Reform Experience."

¹⁶International Monetary Fund et al., *The Economy of the USSR: Summary and Recommendations* (Washington, D.C.: International Monetary Fund, 1991), 2.

economic losses suffered in Eastern Europe and the former Soviet Union, the contrasts in economic performance are unmistakable.¹⁷

History counts. Serious analysis of China's reform experience cannot escape the importance of economic, institutional, and social inheritance in shaping the potential of alternative policy strategies and the outcome of actual reform initiatives. We must reject the idea that, in socialist reform policy, "one size fits all." In China's case, the implications of what Kazushi Ohkawa and Henry Rosovsky¹⁸ term "social capability" extend far beyond the widely remarked availability of capital and business expertise from Hong Kong and Taiwan. Chinese initial conditions *are* unusual. They may be so different that Chinese-style reform cannot generate favorable outcomes elsewhere. But any such conclusion must rest on sustained comparison between Chinese reform mechanisms and corresponding possibilities in other economies.

Official policy is only part of the reform story. Research and policy advice typically overstate the significance of official actions, especially the central government policies, in determining reform outcomes. Preoccupation with the concerns of national leaders and officials inclines the analyst toward a central planning vision of reform, which portrays bureaucrats as operating on society in the same fashion that surgeons reshape the organs or limbs of a comatose patient.¹⁹

This is not to deny the essential function of public policy. But if reform is a *process* rather than an event, policy decisions represent only one aspect of a complex dynamic that revolves around *interactions* among reform initiatives, decentralized responses to specific policies, economic trends associated with underlying socioeconomic forces, and changes in perceptions and attitudes within and outside the policy elite. Initial conditions influence both the range of feasible reform measures and the impact of policies actually implemented. The same policy will yield different results if applied under different circumstances.

¹⁷World Bank figures show that Chinese aggregate output has risen every year since 1978. Russian figures covering 1990-94 show large and nearly monotonic decreases in gross domestic product (GDP), private consumption, and fixed investment. See World Bank, *China: Macroeconomic Stability in a Decentralized Economy* (Washington, D.C.: World Bank, 1995); and World Bank, *Russian Federation: Toward Medium-Term Viability* (Washington, D.C.: World Bank, 1996).

¹⁸Kazushi Ohkawa and Henry Rosovsky, *Japanese Economic Growth: Trend Acceleration in the Twentieth Century* (Stanford: Stanford University Press, 1973), chap. 8.

¹⁹János Kornai, *The Road to a Free Economy* (New York: W. W. Norton, 1990), 176-78.

Recognition of the common sense inherent in these assertions is essential to any effort to interpret the past two decades of Chinese reform experience. The image of central policy as the hammer of reform that reshapes the economy cannot explain the profound consequences of partial reform, nor can it illuminate the sequence of events that led China's Communist Party to embrace market economy ideas that languished far beyond the limits of permissible discussion only a few years earlier.

Implications for Studying Economics

Whether we think in terms of individual participants or total output, we must recognize that China accounts for a substantial and growing fraction of global economic activity. It therefore seems appropriate to think about the implications of China's economic dynamics for the general study of economics. Here, Chinese experience offers several suggestions:

Marshallian analysis is not sufficient to study economic change. Economic reform, even the tentative and partial reforms initiated by China's central government, massively restructures the organization of economic life and the conduct of everyday business. The consequences of these shifts are often obscured from view and sometimes take years to play out, but they gradually pervade society from top to bottom, and eventually produce fundamental and dramatic change. To deal with this shifting landscape, economists often deploy a theoretical vision based on what might be termed a Marshallian approach. Alfred Marshall is revered for his systematic exploration of "marginal analysis," which focuses on the consequences of particular changes in price, cost, or tastes by assuming that other relevant factors remain fixed (*ceteris paribus*) while the consequences of the specified disturbance unfold.

Marshallian analysis of reform issues poses a sharp conflict between rigor and relevance. Marginal analysis is a powerful tool for investigating the consequences of incremental change against a stable institutional backdrop, but it is not designed for studying systems in the midst of massive socioeconomic change. The relevance of standard analytic methods and results to China, where everything—prices, structures, institutions, values—is in motion, must be questioned.

This difficulty is nowhere more evident than in issues of state enterprise reform. Joseph Stiglitz finds "no scientific basis" for identifying full and early privatization as a cornerstone of effective

reform.²⁰ The presence of government regulation eliminates the presumption that private firms are more efficient than public entities.²¹ Desirable enterprise behavior is most likely when competition creates pressures to economize and innovate and when governments allow unsuccessful firms and their workers to suffer the consequences of failure. If government is unwilling or unable to succor the victims of competition, enterprises must learn to compete regardless of ownership. This explains the success of America's public universities. If government offers subsidies, protection, or employment guarantees to failed firms and their workers, the distinction between public and private ownership is again blurred. Performance is likely to depend more on market conditions than on ownership.²²

Economic theory has itself entered a period of reform and transition. New theories incorporating strategic behavior, organizational concerns, and information problems upset traditional verities, including Adam Smith's "invisible hand" results—the bedrock of economics for more than two centuries. Even under standard assumptions, they "remove the widespread belief that markets are necessarily the most efficient way of allocating resources."²³

Like engineers who find that weeks of observation and testing on the factory floor are not enough "to separate the essentials for the process from the witchcraft,"²⁴ economists cannot fully specify the central determinants of market performance. There is no agreed answer to the question "what is a market system?" Efforts to transform former socialist nations into high performance economies create unparalleled opportunities to study this and other fundamental issues.

Research on Chinese experience can strengthen the foundations

²⁰Joseph Stiglitz, *Whither Socialism* (Cambridge, Mass.: MIT Press, 1994), 261.

²¹Jean-Jacques Laffont and Jean Tirole, "Privatization and Incentives," *Journal of Law, Economics, & Organization* 7, Special Issue (1991): 84-105.

²²Summarizing empirical comparisons of public and private firms producing similar products, John Vickers and George Yarrow observe that "the most important point to emerge is the importance of competitive conditions and regulatory policies, as well as ownership, for incentives and efficiency." See John Vickers and George Yarrow, "Economic Perspectives on Privatization," *Journal of Economic Perspectives* 5, no. 2 (1991): 118.

²³Stiglitz, *Whither Socialism*, 32.

²⁴Michael Piore, "The Impact of the Labor Market Upon the Design and Selection of Productive Techniques Within the Manufacturing Plant," *Quarterly Journal of Economics* 82, no. 4 (1968): 605.

of economic analysis. The Chinese surely qualify as the world's leading economic experimentalists. The twentieth-century economic history of China, Taiwan, Hong Kong, Singapore, and the overseas Chinese diaspora spans the entire gamut of economic regimes from virtually unrestricted competition (nominal tariff protection, tiny government, and free banking in China during the early prewar decades) to rigid state micromanagement.

The Chinese view of themselves as exceptional ensures the continued accumulation of valuable evidence. Unlike the Poles, whose reform seeks to adopt the basic institutions of European capitalism, the Chinese are not content with aspiring to match foreign achievements. They trumpet their intent to surpass the West by developing a "socialist market economy with Chinese characteristics," and initiate bold experiments that involve genuine institutional innovation.

Such experiments often fail. The Great Leap Forward of 1958-60, which caused in a great famine, is the most obvious example. Others succeed, like the "barefoot doctors" of the 1960s and 1970s, whose ministrations contributed to large improvements in mass welfare (life expectancy rose dramatically between the censuses of 1953 and 1982) long before the World Bank urged low-income nations to focus on the "basic needs" of their citizens.

The consequences of more recent experimentation speak directly to the central concerns of microeconomic theory.

China's dual price structure flourished during the decade beginning in 1984. Commodity flows were partitioned into plan and market components, with the latter transacted at more-or-less uncontrolled prices. Once the share of output exchanged becomes substantial (say one-third), so that anyone can easily learn the market price of coal, wheat, yarn, or any other commodity, how closely does the resulting semi-market system approach the information requirements of a full market system? Is it possible that most of the efficiency gains from allowing prices to signal scarcity and glut accrue before the share of marketed output reaches 50 or 60 percent? If so, perhaps the benefit of raising the market share to 80 or 90 percent (rather than 50-60 percent) may not offset the social dangers of rapid price liberalization.

The reform of state-owned industry provides a final intersection between economic theory and research on China's economy. Philippe Aghion, Olivier Blanchard, and Robin Burgess conclude that it may be impossible for the state to impose privatization on

unwilling enterprise communities.²⁵ They propose to set aside hard budget constraints so that "selective debt write-downs can be used to buy off coalitions adverse to restructuring or unbundling" of state enterprises that combine production with social responsibilities, because "giving managers a share in the privatized firm leads them to act closer to value maximization." Stiglitz finds "little reason for the government not to retain a large minority interest" in enterprises undergoing privatization.²⁶ Although these authors are perhaps unfamiliar with efforts to "corporatize" China's state enterprises, the resonance between their theory-based inferences and recent Chinese reform initiatives is unmistakable.

The economic growth of Japan has inspired economists to examine unfamiliar Japanese institutional arrangements—permanent employment, seniority wages, J-firm structure, systems of intra-firm communication, subcontracting arrangements, the organization of innovation, just-in-time inventory controls, the main bank system, general trading companies, and administrative guidance. The outcome of these investigations has substantially influenced the evolution of certain branches of economic theory.

We may expect the study of Chinese institutions to yield similarly rich intellectual dividends for economists. Indeed, the process of extracting theory lessons from recent Chinese experience has already begun, most notably in the study of China's rural collective industries.²⁷

The explosive growth of China's township and village enterprises (TVEs), which now employ roughly 100 million workers and contribute 40-50 percent of China's production and export of manufactures, challenges widely-held conceptions about ownership and property rights. An elaborate vocabulary of denial obscures the uncomfortable reality that these firms, widely described as collectives, TVEs, non-state, quasi-private, or even private enterprises, are typically owned and controlled by local governments. Chinese journals are filled

²⁵Phillippe Aghion, Olivier Blanchard, and Robin Burgess, "The Behaviour of State Firms in Eastern Europe, Pre-privatization," *European Economic Review* 38, no. 3-4 (1994): 1327-49.

²⁶Stiglitz, *Whither Socialism*, 186.

²⁷Martin Weitzman and Chenggang Xu, "Chinese Township-Village Enterprises as Vaguely Defined Cooperatives," *Journal of Comparative Economics* 18, no. 4 (1994): 121-45; Richmond Harbaugh, "A Theory of Equity Sharing and Participation" (University of Pittsburgh Department of Economics Working Paper no. 300, 1995).

with complaints about the lack of clearly-defined property rights: "Property rights of township and village collective enterprises are vague. Everybody has some part, nobody asks questions, the responsibility for property rights is not clear."²⁸ As Stiglitz notes, "traditional economic theory . . . would suggest that this system is a recipe for economic failure. Yet the success is palpable," suggesting that property rights, a staple building block of standard economic theory, may "play a far less important role than is conventionally ascribed to them."²⁹

Rural industry is not the only aspect of China's economy with possible implications for economic theory. Consider the plight of state-owned factories whose costs are inflated by the burden of surplus workers amounting to perhaps 20-30 percent of total employment. Chinese managers have responded to this situation by inventing a new arrangement—*xiagang*—or on-the-job layoff.

Firms send unwanted workers home with fractional pay—a sort of employer-provided unemployment allowance. *Xiagang* is widespread. Recent reports give the total of *xiagang* workers at 660,000 for Shanghai, 200,000 for Shenyang, and 200,000 for Chongqing (i.e., 17-28 percent of state-sector employment in these localities).³⁰ In Shanghai's steel industry, where some firms claim to have furloughed 25 percent of their workers, the weakest 1-2 percent of employees in every job category (including managers as well as manual workers) may be laid off. Furloughed workers are required to attend training courses; outstanding trainees are invited back to work.

This system seems capable of pushing fully employed workers to exert vigorous effort—a key function of labor markets—even though no conventional labor market exists—nobody is dismissed and, with widespread redundancy, few are hired.³¹

Implications for China-Watching

I am not an enthusiast of "China-watching." To me, this term

²⁸Ministry of Agriculture, "Ministry of Agriculture Offers Opinions on Reforming the Property Rights System of Township and Village Enterprises," *Zhongguo xiangzhen qiye* (China Township and Village Enterprise), 1994, no. 5:4.

²⁹Stiglitz, *Whither Socialism*, 176.

³⁰Sources: speech of July 16, 1995 by Dr. Fan Gang; *Wall Street Journal*, June 13, 1995, A14 and April 13, 1994, A11; *Zhongguo laodong gongzi tongji nianjian 1993* (China yearbook of labor and wage statistics 1993) (Beijing: Zhongguo tongji chubanshe, 1993).

³¹*Jingji guanli* (Economic Management), 1994, no. 11; 1994 interviews.

connotes an excessive preoccupation with Chinese affairs that excludes comparative and discipline-based concerns and invites narrow thinking. I believe that excessive focus on short-term political and economic change often lowers the quality of China-related research. Preoccupation with "China-watching" has also obstructed the integration of Chinese experience into the mainstream of disciplinary thinking in the social sciences.

The following suggestions are not new, but reflect concerns I have held since my early years as a researcher.

Look carefully at the data. Twenty-five years ago, with little data available, China studies offered free play for the viewer's imagination. But now, with vast amounts of quantitative and qualitative information available to all researchers, serious efforts to understand and interpret the evolution of China's political economy require careful attention to a variety of data. Since the flow of data far exceeds the monitoring capacity of any individual or organization, crucial decisions arise even before research commences, when the observer (explicitly or implicitly) posits an analytic framework that channels attention to certain types of information. A distorted framework and/or focus on information that misleads or fails to enlighten dooms the analysis before it begins.

Chinese economic data, while generally adequate to support many kinds of economic analysis, contain ambiguities and pitfalls that can confuse or derail the unwary user. Two examples may suffice. Official data overstate the growth rate of total output. The main culprit is rural collective industry. Figures for this sector overstate actual performance because (1) proliferation of markets facilitates specialization and division of labor which tilts the gross value measure (roughly equivalent to sales) employed by Chinese statisticians toward upward bias; also (2) official figures for collective output imply impossibly low rates of inflation;³² furthermore (3) some local officials overstate output growth to gain prestige or policy preferences reserved for outstanding performers: "fiddling with industrial output figures has become rampant among township enterprises," so much so that statistical officials "declined to comment"

³²Gary H. Jefferson, Thomas G. Rawski, and Yuxin Zheng, "Chinese Industrial Productivity: Trends, Measurement Issues, and Recent Developments," *Journal of Comparative Economics* (forthcoming).

on the veracity of “staggering” increases in the output of rural industry reported for 1993/94. A new amendment to China’s Statistics Law, aimed at “the country’s grass-roots level,” stipulates “severe punishment for those who falsify statistics.”³³

Information on electricity consumption suggests that measurement problems are concentrated in several coastal provinces with large and dynamic collective industries. Calculations in table 2 show astonishingly low 1989 rates of power use per *yuan* of output for TVE firms in Jiangsu and Zhejiang. The reported declines in unit consumption of electricity for TVE industry in Guangdong and Shandong seem equally improbable. With TVE firms under constant attack for their *inefficient* use of energy, the patterns of electricity utilization reported for TVE firms in these provinces seem more likely to reflect exaggeration of output growth than huge increases in energy efficiency. Chinese statisticians are not unaware of these difficulties: a press account complains that one county reported a 100 percent increase in industrial output value for 1991/92 even though industrial power consumption rose by only 14 percent.³⁴

A second issue arises from the tendency for official data to understate the *level* of output and employment in services, especially transportation, trade, and construction, and to *overstate* the number of farm workers, quite probably by more than 100 million persons. These errors lead both Chinese officials and outside observers to magnify recent declines in agricultural productivity growth, to exaggerate the amount of “surplus labor” in the countryside, to overstate the benefits of pursuing self-sufficiency in food-grains, and to understate the capacity and effectiveness of domestic labor markets.³⁵

Careful selection among sources is essential to avoid allowing current events to obscure larger trends. One example concerns the announcement of restrictions on the flow of electronic business news, which generated headlines such as “China Chokes Flow of News About Business” and “China Tells Internet Users to Register with Police.”³⁶ These policy decisions represent temporary and

³³Wu Yunhe, “Crackdown on Statistics Abusers,” *China Daily*, September 7, 1994, 3; and “Amendment to Stiffen False-Statistics Penalties,” *ibid.*, May 23, 1996, 1.

³⁴“Inflated Figures Ruin Credibility,” *China Daily*, January 15, 1994, 4.

³⁵Thomas G. Rawski and Robert W. Mead, “On the Trail of China’s Phantom Farmers” (Unpublished draft, 1996).

³⁶*Wall Street Journal*, January 17, 1996, B1 and February 15, 1996, A11.

Table 2
Electricity Consumption per Yuan of Industrial Output, 1989-92

	Industrial output		Industrial electricity consumption		Power consumption kwh per yuan of output	
	[A]		[B]		[C]	
	1989	1992	1989	1992	1989	1992
All Industry	2,201.2	3,706.2	464.6	583.0	.211	.157
TVE Industry	614.4	1,319.3	62.0	113.8	.100	.086
Provincial data						
Jiangsu	114.9	255.2	7.5	11.1	.065	.043
Zhejiang	63.8	135.5	4.2	7.0	.066	.052
Shandong	76.1	176.8	9.0	12.2	.118	.069
Guangdong	44.8	108.4	4.8	6.9	.107	.064
Other provinces	314.8	643.4	36.5	76.6	.116	.119
All Industry Except TVE						
Unadjusted	1,586.8	2,387.3	402.6	469.2	.253	.196
Adjusted*	1,586.8	2,023.1	402.6	469.2	.253	.232

[A] = gross output value, current prices, billion yuan.

[B] = industrial electricity consumption, billion kwh.

[C]: [B]/[A] - kwh of electricity per yuan of nominal output.

Note: Data provided by the State Statistics Bureau show the following 1992 price indexes for industrial goods (1989 = 100): for state industry, 118.0; for collective industry, 99.1.

*1992 nominal output figure divided by 1.180 to eliminate impact of inflation on unit electricity consumption.

Sources: *Zhongguo tongji nianjian 1994* (Statistical yearbook of China 1994), 197; *China Energy Statistics Yearbook 1991*, 91, 161; *China TVE Statistics Yearbook* (1990), 149, 175; *ibid.* (1993), 93, 207; *China Industrial Statistics Yearbook 1993*, 34.

unsustainable attempts to reverse a massive expansion of information resources throughout China's economy. In the wake of the 1989 Tiananmen crisis, Chinese users of fax machines were required to supply the police with copies of incoming messages. Seven years later, these measures are long forgotten. Surely the same fate awaits efforts to limit Internet access. The larger story is contained in obscure reports that sales of personal computers jumped by 54 percent to 1.1 million units in 1995, with the share of household purchases doubling from 10 to 20 percent.³⁷

³⁷*Ibid.*, February 16, 1995, A9.

Neglect of long-term trends is also evident in most discussions of “human rights.” World media typically present a distorted image, focusing on individual outrages while overlooking major advances in freedom of speech, movement, religion, assembly, and economic choice affecting the vast majority of China’s immense population.

Study China’s economy by focusing on economics, not politics. For years, I have advised China-oriented economics researchers to follow the slogan “ignore politics, understand economics.” This is something of a joke, but it is partly serious as well. China’s government is powerful. Chinese leaders and bureaucrats are not afraid to exercise power. Government power extends into economic life. Government is capable of imposing its will on any individual, agent, or group of economic actors. China’s recent economic history includes many instances of official power in action: land reform; five-year plans; the Great Leap Forward; the creation of SEZs.

The application of power, however, requires sustained effort by the state. Officials have neither the energy nor the resources to administer all policies in a determined and resolute fashion. Even before the reform period, we observe countless instances in which economic agents take advantage of official inattention to circumvent or ignore official policies.

Today, with the authority of the state diluted by the countervailing power of the marketplace, with reform blurring the content of official regulations, and with different agencies and levels of government often engaged in open competition, growing numbers of companies, agencies, and individuals are quick to flout official policy unless government actions convince them that the state is truly determined to enforce a particular segment of announced policy. Without clear evidence of this sort, economic agents routinely evade, circumvent, or even ignore government edicts when there is money to be made by doing so.

The market for chemical fertilizers offers a small, but typical illustration. The government, anxious to provide farmers with regular supplies of standard fertilizer at “affordable” prices, limits entry into the fertilizer distribution business to a small number of agents. Fertilizer manufacturers are required to sell 90 percent of their output to these authorized dealers, often at concessional prices. Only 10 percent of domestic output is supposed to enter the open market. But with demand outstripping supply at controlled prices, the official system is all but abandoned in favor of a scramble for profit. A 1994 report summarized “the actual situation”:

In addition to the agricultural goods producer companies, agricultural depots that sell seeds, fertilizers, and technology, many party and government organizations, enterprises that deal in farming machinery, grain, foreign trade, and township and village enterprises all sell fertilizers. Many of these units, and even individuals deal in chemical fertilizers. According to survey results, Hubei province has 70,000 organizations and individuals acting as illegal dealers in chemical fertilizers. Daye county alone has over 700 illegal dealers. In Guigang, Guangxi Province there are over 500 enterprises dealing in chemical fertilizer.³⁸

Personal intervention from top officials may prove ineffectual: in 1994, seeking

to control the price of imported urea fertilizer, the State Council promulgated Document (94) 45. Vice Premier Zhu Rongji stressed that the central fiscal authorities would give subsidies to keep the price level below 1,540 *yuan* per ton, but this did not happen. The China Agriculture Materials Corporation transferred urea imports to the regions at a price of 1,990 *yuan* per ton.³⁹

Two years later, nothing has changed. The center continues to issue pronouncements, such as "Instruction [*tongzhi*] on Strengthening the Management of Markets for Fertilizers, Insecticides, and Seeds"⁴⁰ and to announce that "prices for fertilizers will stay the same because the State has been supplying coal, oil, and power to certain fertilizer plants at low prices."⁴¹ However, since "fertilizer output in 1995 . . . was not enough to meet the demand," prices remain high because authorized dealers "surreptitiously raise prices" and sometimes allow "local black markets in fertilizers to develop," while "many fertilizer producers ignore the State's quota and sell up to 90 percent of their total output through their own channels" instead of turning it over to authorized dealers.⁴²

Politicians struggle for access to the levers of power, but the fertilizer example shows that the levers of power may not be connected to the flows of commodities, services, and funds that define

³⁸Zhang Guangyuan, "Let Us Free Up the Prices of Agricultural Production Materials," *Jiage lilun yu shijian* (Price Theory and Practice), 1994, no. 9:32.

³⁹Zhu Shizhen, "Large-Scale Expansion of Agriculturally-Based Industries Is the Key to Stabilizing Prices of Agricultural Inputs," *ibid.*, 1995, no. 4:16. Note that the vice premier's promise was undercut by a government agency. Note also that an academic journal did not hesitate to offer a detailed account of the vice premier's failed effort.

⁴⁰*Zhongguo xiangzhen qiye*, 1996, no. 2:26.

⁴¹*China Daily*, April 5, 1996, 5.

⁴²*Ibid.*, April 20, 1996, 3.

economic life. Under these circumstances, it is not public policy, but the self-interested efforts of China's myriad managers and workers, buyers and sellers, households and businesses, that determine the course of economic change.

Do not exaggerate the power of the center. When studying the interface between government and economy, the policies of local governments may be more important than the perspectives and decisions of the center. The weakness of the center is one of the driving forces behind China's reform success.

Douglass North traces the origins of commercial property rights to the efforts by ambitious European rulers to expand their domains.⁴³ Expansion required large revenues that could come only from large-scale commerce. Merchants, unable to match the military strength of the rulers, relied on mobility and diversification to limit their exposure to arbitrary exactions. The law of contract and the protection of private property arose from a gradual and incremental process of accommodation between rulers and merchants.

North's perspective offers a fresh vision of China's reform experience. China, like Europe, has many governments. Reform has brought the ratio of government revenue to national output crashing down from 33 percent in 1978 to 15 percent in 1993.⁴⁴ Governments at all levels find it difficult to fulfill their traditional obligations while dealing with environmental cleanup, telecommunications infrastructure and other new requirements. As a result, government bodies negotiate informal local agreements about commercial property rights and official prerogatives with foreign and domestic companies; these pacts often differ widely from conventional procedures and official regulations.

Simultaneous uncoordinated negotiation in many jurisdictions has produced the current checkerboard of commercial regulation that overseas businesses find both tempting and frustrating. This seeming confusion can be viewed as the sort of market for institutions proposed by Nobel laureate James Buchanan, who insists that commerce "is not competitive by assumption or by construction," but "*becomes* competitive, and competitive rules *come to be* established as institu-

⁴³Douglass C. North, "Institutions," *Journal of Economic Perspectives* 5, no. 1 (1991): 97-112.

⁴⁴See notes 6 and 9 above.

tions emerge" to shape behavior.⁴⁵

These circumstances raise important questions. Why do Chinese local governments, unlike local administrations in India, for example, take economic development as their chief objective? Historical studies by authors like Kenneth Pomeranz⁴⁶ and Emily Hill⁴⁷ push the idea of local governments as "developmental states" back into the Republican era, which directs attention to the historical roots of local government behavior in present-day China.

Remember that China's system is in motion. Nothing stands still. Old and familiar categories—reds vs. experts, state vs. non-state, plan vs. market, democrats vs. Communists—may obfuscate rather than illuminate. The career of Chen Yun, the prominent economist, illustrates the bewildering pace of change. In the late 1970s, Chen was a somewhat daring reformer. His "birdcage" imagery was widely used to justify early reform efforts—expanding the cage (by relaxing mandatory plan requirements and allowing marginal expansion of markets) would allow the bird to spread its wings in flight (i.e., permit accelerated economic growth). By the time of his death in 1995, Chen's thinking was ignored or dismissed, not because his views had changed, but because, at every level, public opinion had first tilted, and then stampeded in the direction of market opening that extended far beyond anything Chen Yun had ever contemplated.

Expect surprises. Economists have a poor record of anticipating long-term trends, particularly in Asia. Practitioners of the "dismal science" failed to recognize incipient growth spurts in Japan, Taiwan, South Korea, and, most recently, in China. Nobody inside or outside China recognized the growth potential inherent in China's partial and timid reforms, certainly not the present author, whose early writings on China's reform efforts, fortunately never published, incline toward skepticism and doubt.

China's vast economy harbors myriad experiments and a multitude of uncertainties. Local instabilities abound. Global instability

⁴⁵James M. Buchanan, *What Should Economists Do?* (Indianapolis: Liberty Press, 1979), 29.

⁴⁶Kenneth Pomeranz, *The Making of the Hinterland: State, Society, and Economy in Inland North China, 1853-1937* (Berkeley: University of California Press, 1993).

⁴⁷Emily M. Hill, "The Life and Death of Feng Rui (1899-1936): Sugar Mills, Warlord Rule in Guangdong, and China's Agrarian Economy" (Dissertation draft, Cornell University, 1996).

remains a distinct possibility. Insightful analysis of China's evolving economy requires flexibility, persistence, imagination, and luck. Those who form strong opinions about China's economy prior to intense and open-minded empirical scrutiny are certain to find their ideas ambushed by events.