Implications of China's Reform Experience*

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As reform approaches the end of its second decade, the prospect of an interpretive summary of China's recent economic experience becomes irresistible. The analyst may plausibly hope to separate trend from cycle and pick out key elements in the kaleidoscopic jumble of events. China's unique combination of enormous size, large and unexpected economic gains, unorthodox policies, hybrid institutional structures and formidable challenges to future economic advance adds to the promise of such a review. This article begins with a summary of reform outcomes, followed by discussions of the reform process, the implications of recent reform experience and China's economic prospects. It concludes with a hesitant excursion into the realm of "lessons" from China's reform experience.

Reform Outcomes

There is no need to rehearse the quantitative details of China's economic gains. Reform has propelled China to the top of the world growth league.[1] Beginning with the onset of reform in the late 1970s, China has experienced rapid and virtually uninterrupted growth of every plausible measure of economic growth or material welfare. Macroeconomic fluctuations, often described as cycles of boom and bust, remain mild by international standards. Reform has produced no readily identifiable groups of losers whose income and material welfare have declined.

This growth spurt coincides with striking qualitative change. The profit motive appears everywhere. Even large state industrial firms show clear signs of adapting to the culture of the market. Despite the continuation of various forms of subsidy, agents throughout China's economy are increasingly forced to live with market-generated financial outcomes. Domestic industries, formerly insulated from international market trends by a wall of state protection, find themselves buffeted by international market forces.[2] Domestic institutional arrangements bend in the face of external pressures. These developments continue to reshape individual attitudes, expectations and behaviour at every level of Chinese society.

* The ideas developed in this article reflect the influence of ongoing collaboration with Gary H. Jefferson and Yuxin Zheng. I have also benefited from conversations with Edward Green, Nicholas Lardy, Cyril Lin, Alvin Roth, Julius Rubin and Jan Svejnar, as well as detailed comments from Michael W. Michalak and several conference participants. None of these colleagues necessarily agrees with what follows.

1. Official Chinese statistics undoubtedly overstate the pace of recent growth. Plausible downward adjustments would not alter this or other statements advanced here.

2. In textiles, for example, "fluctuations in international market prices directly affect domestic price movements." See Dong Yunliang, "This year's changes in domestic prices of textile products and their consequences," *Jiage lilun yu shijian* (*Price Theory and Practice*), No. 10 (1994), p. 24.

Yet China's transition to a market system remains far from complete. Three outstanding issues, to be treated below, illustrate this point. State enterprises, most in the industrial sector, shelter an army of redundant but tenured workers. The banking system remains suspect. With estimates of non-performing loans running as high as 40 per cent of total borrowing[3] and new "policy" (that is, non-commercial) loans adding to the stock of dubious assets, even Chinese sources now suggest the possibility that the main banks have negative net worth.[4] A flurry of problems involving foreign firms has drawn attention to limited enforcement of property rights and commercial agreements. Similar difficulties affect purely domestic transactions.

The Process of Chinese Economic Reform[5]

Conventional policy advice pictures economic reform as a series of changes imposed by decree, much in the style of central planning. Many economists counsel governments to implement rapid and simultaneous change across a broad range of economic and social arenas.[6] They recommend "early and comprehensive price decontrol," "rapid privatization of small enterprises" and "full commercialization and privatization" of finance.[7] Divergence between this advice and the recent history of dynamic economies in Japan, Taiwan, Korea and Singapore is rarely considered.

Reform in China did not follow conventional lines. Orthodox recommendations take the creation of United States-style market arrangements as the objective of reform. But in China, the objective of creating a "socialist market economy" emerged only in the 1990s. The idea of a market outcome received little consideration during the first decade of reform. The initial reform goal was to improve performance by tinkering with the socialist system. Even the slogan *mo shitou guohe* (crossing the river by stepping from stone to stone) exaggerates the systematic component of China's early reforms by suggesting a firm objective – the far

3. One report mentions "bad debts" of "nearly 1 trillion *yuan* in 1994, 40% of the country's total bank loan" (Wang Xiaozhong, "Bold, new moves needed to make headway," *China Daily*, 9 January 1995, p. 4). Another notices: "Statistics indicate that defaulted loans account for 11 to 15% of total bank loans" ("This year's reforms to focus on state enterprises," *China Daily*, 30 January 1995, p. 4). A third states that "16.7% or 400 billion ... in loans have been defaulted (Sun Shangwu, "Workers' interest is priority," *China Daily*, 17 January 1995, p. 4). Any of these figures is high by international standards.

4. "The ratio of liabilities to assets of China's State-owned enterprises is nearly 70:30 ... banks have to bear nearly all the operation risks of State enterprises, which would probably lead banks to bankruptcy" (Tong Ting, "Overseas funds aid state firms," *China Daily*, 30 December 1994, p. 7).

5. This section summarizes ideas developed in Gary H. Jefferson and Thomas G. Rawski, "How industrial reform worked in China: the role of innovation, competition and property rights," *Proceedings of the World Bank Annual Conference on Development Economics 1994* (Washington, D.C.: The World Bank, 1995), pp. 129–156.

6. Farid Dhanji, "Transformation programs: content and sequencing," *American Economic Review*, Vol. 81, No. 2 (1991), pp. 323–28, offers a particularly clear statement of this view.

7. International Monetary Fund *et al.*, *The Economy of the USSR: Summary and Recommendations* (Washington, D.C., 1990), pp. 24–26, 32.

bank of the river – where none existed. In the absence of clear goals, policy announcements from the Centre remained partial and tentative. The Centre ratified but did not direct the momentous shift from collective to household farming. Central initiatives in the reform of industry focused on incremental relaxation of controls over state-owned enterprises. Even the revolutionary "open door" strategy, which shattered long-standing barriers to China's participation in the world economy, concentrated on expanding trade and investment activity in a few provinces and special zones along China's south-east coast.

China's reforms typically involve what might be termed "enabling measures" rather than compulsory changes. Instead of eliminating price controls, reform gradually raised the share of sales transacted at market prices. Instead of privatization, there was a growing range of firms issuing shares. Production planning does not vanish, but its span of control gradually shrinks. This open-ended approach invites decentralized reactions that the Centre can neither anticipate nor control. Governments at all levels become participants, sometimes even followers, as well as leaders of reform. Reform unfolds as a process replete with interactions among governments, enterprises, workers and consumers rather than a sequence of events in which the state makes decisions to which businesses and individuals react. The steep decline in the ratio of government revenue, especially central revenue, to national product illustrates the importance of unforeseen outcomes.

The nature of the reform process is perhaps best seen by looking at a schematic representation for industry, which is both the largest sector of China's economy and the source of the most intractable policy dilemmas. What emerges is a picture of economic momentum arising from a virtuous circle of reform, a cumulative and mutually reinforcing process of interaction among market-leaning institutional change, technical innovation and economizing behaviour. The dynamics of partial reform in China's industry unfold as a succession of responses to imbalance and disequilibrium on the part of both enterprises and governments, much in the spirit of Albert Hirschman's analysis of unbalanced growth.[8] The sequence of responses that transforms partial reform into improved performance is simple and direct.

Government initiates partial reform measures. Chinese industry includes several types of firms – joint ventures, state firms, urban collectives, township–village enterprises and private producers – each with its own technical capabilities and institutional constraints. There is a distinct hierarchy of capabilities, product quality and labour costs, all of which are highest in joint ventures and state-owned firms. Competition occurs within a framework of "product cycles" in which low-wage firms increase sales and profits by imitating goods introduced at higher levels of the hierarchy; advanced firms strive to maintain their advantage by upgrading the quality and variety of their products. Reform begins when the government implements partial reform measures that reduce entry bar-

8. *The Strategy of Economic Development* (New Haven: Yale University Press, 1958).

riers and lower the cost of many types of transactions. These initiatives have a differential impact on the opportunity sets available to various groups of firms. Partial reform accelerates the domestic product cycle by facilitating the transmission of cost pressures and technologies up and down the hierarchy of industrial enterprises.

Partial reform destabilizes outcomes and intensifies competition. The unequal impact of reform efforts destabilizes the existing division of industrial resources and product markets among different types of firms. Competition in industrial product markets intensifies. China's early reforms allowed rural industry, formerly confined to fabricating local materials and serving local buyers,[9] to burst into markets that they had coveted for years. China's southern provinces, excluded from large-scale investment during three decades of central planning, used the new "open door" policy to promote industrial growth with the aid of capital, skill and commercial contacts from overseas Chinese. Defence conversion brought strong new entrants into a number of civilian sectors. Finally, China's long-standing policy of building "complete sets" of state-owned industries in most provinces provided a ready-made source of competition.

Competition reduces profitability. Stronger competition diminishes flows of profits created by entry barriers and market segmentation. At the micro-level, reduced profitability limits the growth of wages and bonuses for some firms; others are thrown into a position of financial loss. At the macro-level, erosion of profits limits the growth of revenues accruing to local and provincial authorities and to the central government. Reform brought dramatic reductions in industrial profits. The dominance of the public sector made governments the chief victim.

Tax and profit deliveries from industry, which provided 83 per cent of fiscal revenue in 1980, lagged far behind the growth of output. The ratio of industrial tax revenues to total industrial output tumbled from 20 per cent to 4 per cent between 1978 and 1993.[10] Widespread tax evasion exacerbated the fiscal consequences of falling profits. This decline in earnings affected all segments of domestic industry. Profit rates for township–village enterprises fell even faster than for state industry.[11] The decline in earnings increased the number of unprofitable firms, with losses concentrated primarily, but by no means exclusively, in the state sector.

Enterprises respond to financial pressures. Firms react to financial stress by choosing one or more of the following strategies: restructuring operations; lobbying for further deregulation to facilitate profit-seeking; lobbying for subsidies or official intervention to restore the initial

9. Dwight H. Perkins *et al.*, *Rural Small-Scale Industry in the People's Republic of China* (Berkeley: University of California Press, 1977).

10. *Zhongguo tongji nianjian 1994* (*China Statistical Yearbook*, hereafter *Yearbook*) (Beijing: Zhongguo tongji chubanshe, 1994), pp. 215, 375.

11. The data for the township–village sector include all enterprises, not just industry. See Thomas G. Rawski, "An overview of Chinese industry in the 1980s," in Gary H. Jefferson and Inderjit Singh (eds.), *Reform, Ownership, and Performance in Chinese Industry* (forthcoming), Table 12.

financial position. The dimension of market opportunities and the scale and accessibility of official subsidies influence micro-level decisions to emphasize one or another response to financial pressures.

Governments react to financial pressures and enterprise lobbying. Governments also face financial pressures that reduce their share of total output and destabilize the distribution of fiscal revenue across regions, missions and administrative levels. Officials face conflicting enterprise lobbying efforts, some demanding further autonomy and deregulation, others seeking protection from the effects of earlier reforms.

Governments' declining share of economic output is a key link in Chinese reform dynamics. As they lack funds to provide all firms with "soft budget constraints," central officials repeatedly faced an unwelcome choice between escalation of fiscal deficits and forcing state enterprises to seek sustenance from market activities rather than from the state. Central officials frequently, although not always, selected the latter option. Provincial and local governments, whose share of revenues rose at the expense of the Centre, also restricted subsidies. Again, competition provides an explanation. Provincial and local governments compete for foreign and domestic investment. With little access to credit markets, local governments fear that large subsidy payments will cripple local competitive strength by delaying vital infrastructure projects.

Feedback effects accelerate the impact of reform. The induced responses of firms and governments further erode entry barriers and reduce transaction costs. Beneficial feedback effects accelerate every dimension of the reform process by intensifying competition, further diminishing profits and motivating additional reform efforts on the part of enterprises and governments. These changes initiate more rounds of technical development, economizing efforts and reform increments.

Experience reforms attitudes and expectations as well as behaviour. This entire process affects the attitudes of enterprise personnel and government officials toward the direction and outcome of reform. Changing attitudes affect the objectives and strategies of all participants. The experience of partial reform created pro-market sentiment among former advocates of central planning. Susan Shirk finds that managers of large-scale industry "changed from lazy conservatives coddled by the state to active reformers challenging the state."[12] The thinking of government officials and political leaders experienced similar gradual changes.

The rise of pro-market sentiments among the political and administrative elite represents the biggest feedback of all. In the early 1990s, these reactions coalesced into a stunning reversal of deep-seated attitudes. Ideas that only ten years earlier stood outside the limits of permissible discussion now took centre stage. Ambitious bureaucrats began to resign

12. *The Political Logic of Economic Reform in China* (Berkeley: University of California Press, 1993), p. 288. See also Thomas G. Rawski, "Progress without privatization: the reform of China's state industries," in Vedat Milor (ed.), *The Political Economy of Privatization and Public Enterprise in Post-Communist and Reforming Communist States* (Boulder: Lynne Rienner, 1994), pp. 27–52.

their official posts to pursue private business careers.[13] China's Communist Party formally announced a national goal of creating a decentralized market economy.[14]

This remarkable change in outlook, combined with intense fiscal pressures, has sparked a series of policy innovations aimed at relieving governments of the burden of supporting loss-making enterprises. Although official documents avoid terms like "ownership reform" or "privatization" to describe these changes, recent initiatives amount to a policy of gradual and induced privatization. Ministries, provinces and localities have begun to lease state-owned industrial firms to private agents (including foreign companies). Some loss-making firms are forced to merge with stronger enterprises, with substantial loss of jobs[15]; others are auctioned off to the highest bidder. The government has also begun to support the reorganization of state enterprises into limited-liability entities owned by government, corporate and private share-holders.

Although this analysis focuses attention on endogenous or bottom-up aspects of the reform process, it does not imply that China's recent industrial experience consists only of induced responses to the initial tranche of partial reforms. The mix of top-down initiative and bottom-up reaction is itself a variable element within the reform mechanism. In the 1980s, when the Centre lacked clear objectives, initiative gravitated to lower levels. In the 1990s, a new elite consensus favouring market outcomes stimulated a volley of centrally-directed reforms affecting taxation, banking and corporate governance. China offers a shifting array of forces in which many policy changes, such as the partial commercialization of bank lending and the reduction of budgetary appropriations for industrial research, probably represent a combination of bottom-up response and independent central initiative.

This capsule account summarizes developments more fully described by Naughton and others.[16] In essence, institutional changes arising from partial reform created a virtuous circle in which the growing intensity of competition not only rewarded winners and punished losers but, by slowing the growth of tax revenues, diminished the state's ability to protect losers from the consequences of high cost, poor quality, neglect

13. Kathy Chen, "Chinese bureaucrats take hopes private," *Wall Street Journal*, 26 January 1994, p. A10.

14. "China's central government decision on resolving several problems concerning the establishment of a socialist market economic system," *Renmin ribao* (*People's Daily*), 17 November 1993, p. 1.

15. One report notes that "the biggest problem with mergers are the job losses." Many of the enterprises acquiring loss-making firms "are only interested in obtaining the equipment and extra space," which creates a "problem of redundancies." See Huang Zhiling, "Mergers revive loss-making firms," *China Daily*, 16 April 1994, p. 4.

16. Barry Naughton, *Growing Out of the Plan: Chinese Economic Reform, 1978–1993* (New York: Cambridge University Press, 1995); Kang Chen, Gary H. Jefferson and Inderjit Singh, "Lessons from China's economic reform," *Journal of Comparative Economics*, Vol. 16, No. 2 (1992), pp. 201–225; John McMillan and Barry Naughton, "How to reform a planned economy: lessons from China," *Oxford Review of Economic Policy*, Vol. 8, No. 1 (1993), pp. 130–143; and Alan Gelb, Gary H. Jefferson and Inderjit Singh, "Can Communist economies transform incrementally?" *NBER Macroeconomics Annual 1993* (Cambridge, MA: MIT Press, 1993), pp. 87–132.

of customers and other legacies of planning. State firms, stung by competition and only partially compensated for lost earnings, pressed for further deregulation and sought relief from costly social obligations from which their collective rivals largely escaped. These pleas brought fresh increments of deregulation, stronger competition, additional erosion of profits, slower growth of government revenue, and so on.

Implications

History matters. The foregoing sketch highlights the importance of specific initial conditions – the decentralized nature of Chinese economic planning, the pre-reform growth of rural industry, the dispersion of large-scale manufacturing facilities, and the availability of commercial information, technical knowledge and funds from overseas Chinese communities – in propelling a virtuous circle of institutional change, market competition, financial pressure, innovation and further incremental reform. More distant historical patterns also influenced the outcome of reform. Consider the unexpected rural economic boom that followed decisions by China's leaders to allow the restoration of household farming and rural market activity. This growth spurt is widely attributed to the flowering of pent-up entrepreneurial energies. But where did these energies come from? Important elements of the rural market economy persisted throughout the collective era. The revival of market dynamism in rural China was an extension of ongoing activities. It did not crucially depend on individual or collective memory of economic patterns prior to 1949.

Rural industry entered the reform era with a substantial base of 1.5 million commune and brigade enterprises employing 28.3 million workers.[17] Village studies show continuous household participation during the collective era in markets for building materials, sideline products and brides. From the perspective of household finances the scale of transactions was large. In Guangdong, the sale of one litter of piglets "provided a family with almost as much income as the husband could earn in half a year's work in the collective fields," while the cost of materials for building a house "could easily amount to 1,000–2,000 *yuan*" – equivalent to several years' collective wages for a strong man. Furthermore, these markets were volatile: growing prevalence of marriages within single villages caused bride prices to plunge from "a thousand *yuan* and up...to a modest 100–300 *yuan*" within "a couple of years."[18]

Market skills did not disappear under the collective system. The communes themselves nurtured a class of official entrepreneurs who commanded public respect because of their ability to "work the system" to the advantage of their constituents. These talents fuelled the post-reform growth of rural industry, where over 70 per cent of persons responsible for creating and managing industrial enterprises "formerly

17. Data for 1978 are from *Yearbook 1994*, pp. 361–62.
18. Anita Chan, Richard Madsen and Jonathan Unger, *Chen Village Under Mao and Deng* (Berkeley: University of California Press, 1992), pp. 173, 191, 194.

served as cadres for townships or villages or in different sectors at the basic levels."[19] The survival of business skills in rural communities enabled reform to draw on China's "abundance of small-time entrepreneurs."[20]

Martin King Whyte's contribution to this volume shows how scholars of China once viewed Chinese social structures as inimical to economic growth. Mounting evidence from the work of Gary Hamilton, Whyte and others supports the opposite view that Chinese society contains elements that facilitate successful adaptation to the modern market economy.[21] China's reform experience, especially in its rural dimension, offers fertile ground for pursuing this elusive but significant line of inquiry.

Marshallian economics is not enough. Economic theory offers valuable perspectives for evaluating any economy. Claims that the Tiananmen massacre of June 1989 heralded the failure of China's reforms illustrate the danger of proceeding with no coherent economic perspective. But discussions of socialist reform often overstep the limits of economic theory. Problems cluster in two areas: substitution of ideal types for practical objectives and excessive reliance on what might be termed Marshallian economics.

Reform aspires to improve economic performance, leading to higher material welfare and better life chances. Reform aims to *alleviate* problems and to *relax* constraints. Replicating the economic achievements of Japan, Taiwan or Korea would represent a huge success. Each of these economies prospered despite the cost of protection, corruption, waste, distortion and monopoly. Dynamic economies can overcome the burdens of mismanagement and policy errors. The task of reform is to encourage dynamism and to limit the drag imposed by foolish policies and defective institutional structures. Nothing remotely approaching perfection is required.

Discussions of socialist transition easily slip into a rhetoric of policy extremism. Reformers are advised to replicate the institutional framework of the United States economy or, more precisely, a highly idealized version of this system. Even though no major market in the American economy escapes the heavy hand of government intervention, veteran policy analysts advise Russia to pursue "immediate and comprehensive price deregulation," so that sellers can "set whatever prices they choose" as a "necessary condition for all the other reforms that we advocate."[22]

19. Jiao Ran, "Facing the challenge," *Zhongguo xiangzhen qiye* (*China Township Enterprise*), No. 11 (1994), p. 27.

20. Tim Wright, "Growth of the modern Chinese coal industry: an analysis of supply and demand," *Modern China*, Vol. 7, No. 3 (1981), p. 325.

21. Gary Hamilton (ed.), *Business Networks and Economic Development in East and Southeast Asia* (Hong Kong: University of Hong Kong Centre of Asian Studies, 1991); Martin King Whyte, "The Chinese family and economic development: obstacle or engine?" unpublished paper, 1995; Thomas G. Rawski, "Social foundations of East Asian economic Dynamism," unpublished paper, 1994.

22. Alfred E. Kahn and Merton J. Peck, "Price deregulation, corporatization, and competition," in Merton J. Peck and Thomas J. Richardson (eds.), *What is To Be Done:*

The idea of necessary conditions or prerequisites, thoroughly discredited by scholars of economic history[23] and development,[24] recurs again and again. Equally common is what Harold Demsetz terms "the *nirvana* approach," in which the imperfectness of arrangements observed in actual economies is taken as sufficient reason to invoke the superiority of an unexamined alternative.[25] Since "partial reform is fraught with pitfalls," some writers leap to embrace the mythic goals of "true markets" or a "true market mechanism," as if this could banish all difficulty.[26]

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. Relations between buyers and sellers, producers and consumers, or workers and managers; attitudes towards work, education and personal responsibility; links between elites and masses or between citizens and the state – all these and more are deeply influenced as the consequences of reform unfold.

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 rigour and relevance. Marginal analysis is a powerful tool for investigating the consequences of incremental change against a stable institutional backdrop, but it is not intended for studying systems in the midst of massive socio-economic change.

Application of marginal analysis reveals that China's economy is riddled with distortions that undoubtedly limit the growth of productivity and output. It is tempting to conclude that "partial reforms will not suffice."[27] But this makes sense only if progress requires the eradication

footnote continued

Proposals for the Soviet Transition to the Market (New Haven: Yale University Press, 1991), pp. 21, 40.

23. Alexander Gerschenkron, *Economic Backwardness in Historical Perspective* (New York: Praeger, 1965), chs. 1–2.

24. Albert O. Hirschman, "Reflections on economic development policy," observes that "the search for components that have to be in place" continues even though "we should have noticed that whenever development occurs, it does so in the absence of one or several of these 'required' components or preconditions" (in Robert E. Asher *et al.* (eds.), *Development of the Emerging Countries* (Washington, D.C.: Brookings, 1962), p. 41).

25. "Information and efficiency: another viewpoint," in D.M. Lamberton (ed.), *Economics of Information and Knowledge* (Harmondsworth: Penguin, 1971), p. 160. Peter Nolan advises me that this concept originated with Karl Popper.

26. Kevin Murphey, Andrei Schleifer and Robert Vishny, "The transition to a market economy: pitfalls of partial reform," *Quarterly Journal of Economics*, Vol. 107, No. 3 (1992), pp. 905–906; János Kornai, *The Socialist System: The Political Economy of Communism* (Princeton: Princeton University Press, 1992), p. 496.

27. Richard E. Ericson, "The classical Soviet-type economy: nature of the system and implications for reform," *Journal of Economics Perspectives*, Vol. 5, No. 4 (1991), p. 25.

of all distortions, a view that conflicts with experience as well as theory. It overlooks Dudley Seers' warning that "weaknesses in administration" make it impossible to deploy top-quality policy staff "on all fronts at the same time."[28] Governments may be well advised to concentrate on measures that promise to maintain the momentum of growth and ignore many harmful distortions, simply because the cost of identifying and remedying distortions often exceeds the benefit.[29]

Reform amid confusion. Chinese reform is often criticized for its unsystematic, even chaotic, approach. There is no "coherent or predetermined blueprint."[30] The rules are not clear. This ambiguity increases uncertainty, encourages corruption and raises costs. In addition to technical and market risks, would-be investors must shoulder extra burdens arising from the fluid policy environment. This reduces the incentive to invest.

Consistent evidence of excessive rather than inadequate demand for investment suggests that regulatory uncertainty may contribute more than a simple drag on investment. The standard argument about "investment hunger" emanating from state firms operating under "soft budget constraints" rings increasingly hollow as more and more state enterprises feel the grip of market discipline. Furthermore, the share of fixed investment financed through official grants and domestic loans to state-owned entities, which fell to 19.3 per cent in 1993, is no longer large enough to determine aggregate investment trends.[31]

Focus on the absence of clearly defined rules arises from thinking about reform as an *event* that government imposes on society in the mode of central planning. This perspective may be appropriate in the resolution of massive macroeconomic instability of the sort visible in Russia during the early 1990s.[32] But stabilization is only one aspect of economic reform, which also includes liberalization of prices and markets as well as "deep institutional change."[33] Recent experience of deregulation, privatization and deficit reduction in the main market economies confirms that institutional change requires a lengthy reform *process* involving the passage of time as well as extensive interaction among governments, enterprises and

28. Dudley Seers, "Why visiting economists fail," *Journal of Political Economy*, Vol. 70, No. 4 (1962), p. 331.

29. Perfection is prohibitively expensive in industry as well. U.S. firms often neglect to cost out alternative manpower arrangements because the cost of doing so exceeds probable benefits (Michael J. Piore, "The impact of the labor market upon the design and selection of productive techniques within the manufacturing plant," *Quarterly Journal of Economics*, Vol. 82, No. 4 (1968), p. 611).

30. Qimao Fan and Mark E. Schaffer, "Enterprise reforms in Chinese and Polish state-owned industries," London School of Economics, Development Economics Research Programme, STICERD, CP No. 13, April 1991, p. 21.

31. *Yearbook 1994*, pp. 139, 145.

32. Jeffrey Sachs, "Russia's struggle with stabilization: conceptual issues and evidence," in *Proceedings of the World Bank Annual Conference on Development Economics 1994* (Washington, D.C., 1995), pp. 57–80.

33. Leszek Balcerowicz and Alan Gelb, "Macropolicies in transition to a market economy: a three-year perspective," in *ibid.* pp. 21–44.

citizens. This outcome bears no resemblance to the notion of shock therapy in which centrally determined reform policies drive unwilling agents toward market outcomes.

An entirely different perspective arises from Douglass North's study of early market systems in Western Europe.[34] North traces the origins of commercial property rights to the efforts by ambitious rulers to expand their domains. 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 per cent in 1978 to 15 per cent in 1993.[35] Governments at all levels find it difficult to fulfil their traditional obligations while dealing with environmental clean-up, 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.

Statistical analyses show that loss-making firms are most likely to obtain greater managerial autonomy.[36] They also link enterprise autonomy with higher productivity growth and greater reliance on contract workers and performance wages.[37] These associations provide a quantitative reflection of an environment of ad hoc, decentralized reform in which governments seek to shed the burden of subsidizing weak enterprises by offering partial grants of property rights. They show how loosely co-ordinated local decision-making, conducted in the absence of clear central policy direction, has pushed enterprises, managers and workers from extreme dependence upon state largess toward increasing financial self-reliance and responsiveness to market forces.

Simultaneous unco-ordinated negotiation in many jurisdictions has produced the current wide variety of commercial regulation that businesses find both tempting and frustrating. This seeming confusion can be viewed as the sort of market for institutions proposed by James Buchanan, who insists that commerce "is not competitive by assumption

34. Douglass C. North, "Institutions," *Journal of Economic Perspectives*, Vol. 5, No. 1 (1991), pp. 97–112.

35. Christine P. W. Wong, Christopher Heady and Wing Thye Woo, "Economic reform and fiscal management in China," draft paper, May 1993; Wanda Tseng *et al.*, *Economic Reform in China: A New Phase* (Washington, D.C.: International Monetary Fund, Occasional Paper No. 114, 1994), p. 23. Revenue data are adjusted to standard international definitions. Borrowing is excluded from revenue.

36. Jefferson and Rawski, "How industrial reform worked in China."

37. Theodore Groves, Yongmiao Hong, John McMillan and Barry Naughton, "Autonomy and incentives in Chinese state enterprises," *Quarterly Journal of Economics*, Vol. 109, No. 1 (1994), pp. 183–209.

or by construction," but "*becomes* competitive, and competitive rules *come to be* established as institutions emerge" to shape behaviour.[38]

China exemplifies this "process of becoming." Institutional arrangements are worked out through bargaining and experimentation. Reform is driven by fierce regional rivalries and by the culture of envy that permeates China's economy. There is a cacophony of complaints about unfairness. A 1993 survey found that "72.4 per cent of enterprise managers feel they are treated unfairly in competition ... most enterprises reported that their counterparts get preferential policies."[39]

Two decades of reform experience have taught firms and managers to evaluate alternative institutional arrangements in the same way that they analyse the profit consequences of different product designs, machines or compensation arrangements. The "market for institutions" resembles commodity and asset markets in that chaotic appearances conceal important regularities. There is a predictable sequence of events. Reform begins with conventional standard arrangements (or a limited range of permissible variation). An experimental phase creates new alternatives. The range of observed outcomes expands rapidly. Eventually, the experimental success of specific new arrangements leads to institutional closure. The range of outcomes shrinks as competing jurisdictions scramble to implement successful policies and institutions.

This perspective makes sense of many reform phenomena. The dismantling of communes and the spread of special export zones are typical examples. In 1991, nobody knew what to do about redundant workers in state factories. By 1993, it was widely understood that state factories could transfer large numbers of workers onto the payrolls of newly created service establishments without risking major disruption or political censure. The delay in winding down the current round of inflationary pressures reflects another aspect of institutional closure, as thousands of jurisdictions race to replicate the infrastructure investments that have brought foreign capital and buoyant growth to China's south-east coast.

At any moment, the customs and regulations that govern business life seem both heterogeneous and unpredictable. Chinese commerce, with its legions of grafters and "fast-buck artists," displays a streak of wildness. This "cowboy capitalism" limits China's ability to draw on the world's deepest pools of funds to satisfy its immense capital requirements. Any province that can create a system of business legislation, regulatory practice, courts and financial institutions that appeals to overseas equity investors will attract capital inflows on a far larger scale than the foreign investments of the recent past. If one jurisdiction succeeds in this venture – Shanghai and Guangdong seem the most likely candidates – the ensuing institutional closure could sweep the vestiges of socialism from China's polity with astonishing speed.

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

39. Liu Weiling, "Enterprise managers upset by 'unfair' regulations," *China Daily*, 18 September 1993, p. 2.

China's market for institutions, like markets everywhere, appears wasteful. If some central authority could determine the best price for steel sheets or the best arrangement for organizing the manufacture of steel, vast savings in time and effort would accrue. Ironically, economists who never question the benefit of decentralized price determination now advocate the central planning of institutions. China's approach to institutional change, which represents a historical outcome that was neither anticipated nor welcomed by China's central leaders, has surely expanded the achievements of reform far beyond what could have been accomplished by top-down initiatives dependent on political consensus among national leaders.

The Centre cannot hold. The reform literature exaggerates the role of central governments, often assuming that central officials are uniquely committed to the social good. China's size and heterogeneity, coupled with the superior accessibility of publications and informants sympathetic to the interests of the Centre, can tilt discussions towards an excessively centralized view of the reform process.

Fiscal weakness is both an unintended consequence and a powerful engine of China's reform. The most difficult reform task is to force state enterprises and their employees, the principal clients of China's central government and Communist Party, from comfortably protected niches into the hurly-burly of market competition. The declining revenue share of the state, especially the Centre, was essential in motivating a serious push towards this difficult and unpalatable objective.

The interests of reform seem best served when the economy stands at the brink of dangerous levels of excess demand. It is when deficits and price pressures seem to threaten frightening instability that the Centre mounts a concerted effort to transfer enterprises from the rolls of official clients into the marketplace. In 1989–90, when a political crisis intensified economic alarm bells, there was for the first time a willingness to allow anonymous market forces to undermine the position of state-sector units and workers within the inner ring of government clients. In 1993–94, an upsurge of inflation elicited a barrage of tough measures that shattered long-standing barriers to market pricing of energy products and, again breaking new ground, aimed the big capitalist guns of credit restriction, bankruptcy and layoffs directly at money-losing state enterprises.

From this perspective, another consequence of fiscal austerity, its contribution to the unexpected flight of elite Chinese from the civil service, may substantially influence the long-term prognosis for reform. The declining prestige attached to official employment certainly increases the prospect for a market-leaning outcome to the still-unresolved issue of government's role in designing China's economic future.

The erosion of insuperable obstacles. The nature of China's reform dynamics must influence the perception of threats to the continued buoyancy of China's economy. As noted above, it is not necessary to eradicate obstacles, only to reduce the resulting costs and distortions to tolerable levels. Furthermore, the uneven pace of reform, with long periods of seeming inaction followed by quick changes in outlook or behaviour, makes it difficult to determine whether amelioration of real or potential obstacles is under way.

One standard argument against gradualism is that slow change gives conservatives an opportunity to organize blocking coalitions. This is surely relevant for China, where enterprise leaders have gained only a portion of the autonomy promised in the July 1992 regulations for state industrial firms.[40] Nevertheless, warnings that reform would perish because of bureaucratic resistance have all but ceased. This is because prolonged exposure to the reform process has convinced growing numbers of officials that the opportunities created by market expansion far outweigh its costs. As new perceptions permeate China's administrative establishment, the bureaucracy, like some giant ocean vessel, swings gradually from opposition toward manipulative participation. Most recently, with large numbers of officials departing to "test the waters" (*xiahai*) of business, announcements of large reductions in the civil service – unthinkable only a few years ago – have become routine.[41]

A larger example concerns the complex and intertwined issues surrounding the reform of state-owned industrial enterprises and the reorganization of China's banking system. The task of reform is daunting. Many state enterprises are hopelessly uneconomic. The number of redundant employees is crudely but plausibly estimated at 10–40 million.[42] Bank assets include large stocks and, worse yet, continuing flows of unrepayable loans. Producers often continue to supply non-paying customers in the expectation that the banks will eventually extend loans to unwind the resulting chains of inter-enterprise claims.

The difficulties, although formidable, can be exaggerated. Reports of big losses in state industry come from fiscal data that understate profits. With taxes and fees absorbing an estimated 86 per cent of declared profits in state industry,[43] tax fraud is endemic. Concealed profits may exceed

40. "Text of regulations on transforming state enterprises," U.S. Department of Commerce, Foreign Broadcast Information Service, *Daily Report: China*, 28 July 1992, pp. 27–36. On the limited impact of these reforms, see "Executives of major firms meet in Beijing to discuss the program of enterprise reform," *Zhongguo gongye jingji yanjiu* (*Research in China's Industrial Economics*), No. 2 (1993), pp. 4–10.

41. Cao Min, "State to cut 2m jobs in year-long slim plan," *China Daily*, 17 December 1994, p. 1; Wang Rong, "Guangdong to cut government staff by 40,000," *China Daily*, 21 January 1995, p. 3.

42. Gu Shutang and Cao Xuelin, "Create the circumstances to overcome difficulties: on enlivening state enterprises to escape contradictions," *Jiage lilun yu shijian* (*Price Theory and Practice*), No. 2 (1993), pp. 13–14. Huang Xiaohui, Yan Changle and Lou Xuesong, "Thoughts on the reform and development of large and medium-sized state enterprises," *Zhongguo gongye jingji* (*China Industrial Economics*), No. 2 (1995), p. 50. These figures refer to redundant workers in all state enterprises, not industry alone.

43. "Statistics from 1980 to 1993 show that the profits tax, energy transportation funds and budgetary adjustment funds collected from State industrial enterprises averaged 86% of their total profits" ("State firm is base of economy," *China Daily*, 21 January 1995, p. 4).

reported earnings.[44] Genuine losses arise from price controls, defence conversion and the burden of officially-mandated social expenditures as well as business failure. Claims that "China's banks do what central and local governments tell them" seem considerably inflated.[45] They conflict sharply with interview materials and published reports indicating the banks' increasingly commercial orientation. Press reports routinely describe the quandary faced by enterprises whose credit lines have been severed.[46] Enterprise managers offer a worm's-eye view of bank behaviour that emphasizes credit ratings and ability to repay.

Despite the exaggeration of difficulties and the very real accomplishments of state industry in raising output, productivity, exports and technological capabilities, persistent weaknesses may yet stall the entire reform process (see below). But the limited progress of reform may conceal underlying movement toward institutional closure that could reduce the prospects for "stagflation" or macroeconomic instability arising from weaknesses in state industry and banking. Ingredients in this emerging cluster of reform initiatives include the following:

(i) Dispose of hopelessly uneconomic enterprises via auction, merger or closure. Workers whose jobs disappear will receive compensation, retraining, and/or offers of alternate employment.
(ii) Relax controls over the dismissal of redundant workers as unemployment insurance and other social support programmes expand.
(iii) Concentrate non-commercial bank lending in new "policy banks," allowing the ordinary banks (*zhuanye yinhang*) to expand the application of commercial criteria to industrial lending.
(iv) Strengthen the capital position and balance sheets of the commercial banks by assigning them shares in state enterprise assets during the reorganization of bankrupt firms and the restructuring of viable units.[47]

Even though implementation of these reforms could take years, the existence of feasible and promising policy responses can serve to focus central policy deliberations, guide regional and local experimentation,

44. Wang Haibo, "Now is the time to strengthen the unity between high speed growth and raising efficiency," *Zhongguo gongye jingji yanjiu* (*Research on China's Industrial Economics*), No. 10 (1992), p. 26.
45. Robert Cottrell, "A vacancy awaits: a survey of China," *Economist*, 18 March 1995, p. S–10.
46. Fu Jian, "Stockpiles hurt healthy development," *China Daily*, 5 January 1995, p. 4, reports banks "decreasing or stopping credits to certain enterprises" with excessive stockpiles. According to Su Ning and Lu Zhongyuan, "Because the specialized banks day-by-day increase their attention to the safety, liquidity and profitability of their funds, some old enterprises seek for loans but find no suppliers, and face bankruptcy and closure" ("Fiscal difficulties of state industries and the way out," *Caimao jingji* (*Finance and Economics*), No. 8 (1994), pp. 17–20.
47. "China's largest bankrupt enterprise, a freight container producer" in Wuhan, was sold for 42 million *yuan* to the International Business Section of the Hubei Branch of the Agricultural Bank of China, its main creditor. "Bankrupt enterprise sold to bank," *China Daily*, 23 January 1995, p. 7.

and introduce an element of stability into expectations about future arrangements.

The emergence of schematic solutions also clarifies the relative magnitude of specific obstacles to continued growth. From this perspective, the presence of perhaps 30 million redundant tenured workers becomes a costly nuisance rather than a threat to China's economic viability.[48] The unchecked spread of the debt-chains (*sanjiaozhai*), which now extend beyond the state sector[49] and threaten to undercut the credibility and control capabilities of China's central bank, seems much more dangerous to growth and stability.

Can Gradual Reform Continue?

The discovery of plausible approaches to resolving difficulties does not ensure that China's economy can maintain its forward momentum. Making predictions about China's medium- and long-term economic prospects is difficult, partly because there is little debate among proponents of opposing views. One group of writers (including this author) focuses on reform achievements. Despite scepticism 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 (including those mentioned in this article) confronting China's economy – a weak tactic because there are no problem-free economies. The most convincing aspect of this approach is the authors' instinctive sense that China's economic mechanism cannot sustain continued growth.

The instincts of the pessimists need to be confronted with the empirical knowledge of the optimists. Might current trends unfold in directions that drain the economy's powerful momentum? This article is no place for an extended discussion of China's economic prospects, but it can include a brief examination of 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, it is only necessary to 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

48. In percentage terms, this backlog of on-the-job unemployed is no larger than Japan's cadre of three million corporate window-sitters (*madogiwazoku*). See Christopher Wood, *The End of Japan Inc.* (New York: Simon & Shuster, 1994), p. 19.

49. Figures presented in Wu Yunhe, "Economic setting advances," *China Daily*, 28 January 1995 p. 4, imply that state enterprises account for two-thirds of outstanding debts at year-end 1994, but contributed only 43% of the 1993–94 increase. Debts of state firms rose by 38% during 1994, while debts of enterprises outside the state sector jumped by 263%.

revenues.[50] This surplus is also expected to support a large work force (including millions of redundant employees), satisfy the housing, educational, health and pension costs of tens of millions of dependents and retirees, and contribute to the financing and development of the joint venture and collective sectors, all in addition to supplying capital for its own restructuring and technical development.

With the after-tax profit rate for state firms stuck in the vicinity of 3 per cent,[51] the ability of state industry to fulfil 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 inflow and Barry Naughton's description of inefficiencies in China's banking system underscore the importance of ascertaining the capacity of domestic industry to finance its own restructuring and technical development.

In addition to the hierarchies of technology and cost mentioned earlier, Chinese industry can be visualized in terms of 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 steps in the direction of import liberalization 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.[52]

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. Since state firms are China's main taxpayers, it is difficult for the state to assume these burdens without fuelling inflation. But inflation threatens to undermine China's banks, which could then endanger the supply 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.

Research based on current data from large numbers of enterprises offers the most promising opportunity to penetrate this thicket of issues.

50. Tseng *et al.*, *Economic Reform in China*, note (p. 29) that 80% of China's direct tax payments in 1991 came from state enterprises. In 1993, the state sector contributed 308 billion *yuan* to government revenues; revenue from collectives, private firms and "other" entities (including foreign-linked enterprises) was only half as large (*Yearbook 1994*, p. 215).

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

52. He Jun, "State firms urged to finance education," *China Daily*, 4 April 1995, p. 1.

It is necessary to move beyond debates about industry-wide *averages* (such as for productivity growth) to look for patterns of organization and behaviour that have pushed enterprises on to trajectories of self-sustaining development. The search for patterns of success should begin with an open mind; for China, as for Japan and Korea, there is no reason to expect winning resource combinations to replicate successful arrangements observed in other economies.

What Are the Lessons of China's Reform Experience?

To anyone familiar with the cant and fraud associated with previous rounds of "learning from China," an invitation to expatiate on the lessons of China's reform experience mixes opportunity with danger. Yet China's reform experience can enlarge perceptions of the possibilities and pitfalls of socialist reform, as well as the scope and content of economic theory. This article therefore concludes with a summary of what might be learned from the brief history of China's economic reforms.

Reform means improvement, not perfection. Successful reform moves economic institutions in directions that facilitate improved economic outcomes. Some aspects of economic performance, such as output, incomes, employment, exports and productivity, are readily quantified. Others, such as innovative effort, links between contribution and reward, and the balance between market-directed profit-seeking and bureaucratically-oriented "rent-seeking," are more difficult to measure. The recent development of China's economy provides an array of evidence pointing to performance gains in many dimensions of economic life. The magnitude of beneficial change swamps any doubts about data quality.

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. The survival of enterprise subsidies, redundant workers, soft credits and other leftovers from the plan era only confirms the obvious: reform is not complete. To judge the robustness of the reform process requires a move beyond mere enumeration of difficulties to evaluate the chances that current shortcomings can seriously undercut future economic performance or fritter away the momentum of reform. Such judgments necessitate a quantitative frame of mind (to gauge the scale of negative forces) even when measurement is impossible.

Appraising the durability of reform is a practical matter of comparative economics. It is comparative because the best available yardsticks come from existing human economic experience. Is "full commercialization and privatization" of banking essential to the reform enterprise?[53] Perhaps not, since government-controlled banks account for more than 80 per cent of bank loans and deposits in Taiwan, while Korean banks "remain subservient" to the Ministry of Finance and the central bank.[54] And it is practical because comparing real economies with the vacuous perfection of textbook abstractions leads to an "economics of nirvana" that is devoid of useful policy consequences.

Gradual reform initiated but not directed or controlled from above, is feasible and may be highly effective. Early in the recent spate of reforms, a survey of Russia's prospects led representatives of international organizations to the following viewpoint: "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...."[55] China's recent experience shows that gradual reform that leads to "early harvesting of the fruits of increased economic efficiency" can happen. Even if published statistics exaggerate China's economic gains as well as the losses suffered in Eastern Europe and the former Soviet Union, the contrasts in performance are unmistakable.

Initial conditions count. This review of China's reforms emphasizes the importance of economic, institutional and social inheritance in shaping the potential of alternative policy strategies and the outcome of actual reform initiatives. It rejects the idea that "one size fits all." In China's case, the implications of what Ohkawa and Rosovsky[56] term "social capability" extend far beyond the widely remarked availability of capital and business expertise from Hong Kong and Taiwan.

The importance of initial conditions should not divert attention from commonalities among the ex-socialist nations. In their haste to find Chinese experience irrelevant to problems of reform in Eastern Europe and the former Soviet Union, for instance, Sachs and Woo exaggerate the consequences of China's relatively large farm sector by emphasizing that "China began reform as a peasant agricultural society ... fac[ing] the classic problem of normal economic development, the transfer of workers from low-productivity agriculture to higher-productivity industry."[57] For them, the chief characteristic of pre-reform China is backwardness, not socialism. A perceptive essay by Dwight Perkins shows the limited

53. International Monetary Fund *et al., The Economy of the USSR*, p. 32.

54. Ya-hwei Yang, "Taiwan: development and structural change of the banking system," pp. 302–303 and Yung Chul Park and Dong Won Kim, "Korea: development and structural change of the banking system," p. 195, both in Hugh T. Patrick and Yung Chul Park (eds.), *The Financial Development of Japan, Korea, and Taiwan* (New York: Oxford University Press, 1994).

55. International Monetary Fund *et al., The Economy of the USSR*, p. 2.

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

57. Jeffrey Sachs and Wing Thye Woo, "Structural reforms in the economic reforms of China, Eastern Europe, and the former Soviet Union," *Economic Policy*, April 1994, pp. 102–103.

validity of this distinction,[58] which in any case brushes aside China's whole apparatus of state control: 83,700 state-run industrial enterprises, 74 million subsidized and tenured workers in the state sector,[59] the automatic priority claim of state entities on funds for investment or research, college graduates, foreign exchange and scarce materials.

Chinese initial conditions *are* different. They may be so different that Chinese-style reform cannot generate favourable outcomes elsewhere. But any such conclusion must rest on sustained comparison between Chinese reform mechanisms and corresponding possibilities elsewhere.

Official policy is only part of the reform story. Research and policy advice typically overstate the significance of official actions, especially policies of the central government, in determining reform outcomes. Preoccupation with the concerns of the Centre inclines the analyst towards the central planning approach to reform, which portrays bureaucrats as operating on society in the fashion of surgeons reshaping the organs or limbs of a comatose patient.[60] The resulting preoccupation with "optimal" programme design injects an element of fantasy into many discussions of socialist transition.

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 implemented under different circumstances.

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.

Disciplinary tools are inadequate. Marshallian analysis is best suited to the analysis of incremental or marginal changes in market systems operating under stable institutions. Recent studies focused on the impact of strategic behaviour, organizational issues and information problems

58. Dwight H. Perkins, "Economic systems reform in developing countries," in Dwight H. Perkins and Michael Roemer (eds.), *Reforming Economic Systems in Developing Countries* (Cambridge, MA: Harvard University Press, 1991), pp. 11–54.

59. Data for 1978 from *Yearbook 1985*, pp. 216, 305.

60. See, for example, János Kornai, *The Road to a Free Economy* (New York: W. W. Norton, 1990), pp. 176–78.

challenge the applicability of standard analysis even to modern market economies.[61] The relevance of standard analytic results to China, where the institutional structure is neither uniform nor stable, is open to question.

This difficulty is nowhere more evident than in issues of state enterprise reform. Stiglitz finds "no scientific basis" for identifying full and early privatization as a cornerstone of effective reform.[62] The presence of government regulation eliminates the presumption that private firms are more efficient than public entities.[63] Desirable enterprise behaviour 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 succour 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.[64]

But the market conditions must be real, not imaginary. It does no good to insist that, for reform to succeed, "the enterprise needs clear objectives, it should face the correct prices for its inputs and outputs, the managers should have the correct incentives, which in turn requires that their performance can be monitored."[65] If success means improvement rather than perfection, this is nonsense. Without precise numerical relations for evaluating trade-offs among current and future profit, risk levels, environmental outcomes, executive pay and a host of other priorities, there can be no clear objectives for multinational corporations. The notion that actual market economies manufacture "correct" prices is simply wrong. Should we travel to Paris, Chicago, Tokyo or Hong Kong to locate the "correct" price of petrol, wheat, steel or a visit to the doctor? If sustained and beneficial development required "correct" managerial incentives, individual proprietorships would have driven corporations into extinction before the Second World War.

Economic theory itself has entered a period of reform and transition. New theories incorporating strategic behaviour, organizational concerns and information problems upset traditional verities, including Adam Smith's "invisible hand" results – the bedrock of economics for more

61. For a summary, see Joseph Stiglitz, *Whither Socialism* (Cambridge, MA: MIT Press, 1994).

62. *Ibid.* p. 261.

63. Jean-Jacques Laffont and Jean Tirole, "Privatization and incentives," *Journal of Law, Economics, & Organization*, Vol. 7 (1991), special issue, pp. 84–105.

64. Summarizing 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" ("Economic perspectives on privatization," *Journal of Economic Perspectives*, Vol. 5, No. 2 (1991), p. 118.)

65. David M. Newbery, "Transformation in mature versus emerging economies: why has Hungary been less successful than China?" *China Economic Review*, Vol. 4, No. 2 (1993), p. 110.

than two centuries. Even under standard assumptions, they "*remove* the widespread belief that markets are necessarily the most efficient way of allocating resources."[66] 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,"[67] 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 of economic analysis. In economics, the Chinese surely qualify as the world's leading experimentalists. The 20th-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 pre-war decades) to rigid state micromanagement (in 1982, restive researchers in Canton insisted that "even toilets require approval from Beijing").

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,[68] the Chinese are not content with aspiring to match foreign achievements. They trumpet their intention 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 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

66. Stiglitz, *Whither Socialism*, p. 32.
67. Piore, "Impact of the labor market," p. 605.
68. Jeffrey Sachs, *Poland's Jump to the Market Economy* (Cambridge, MA: MIT Press, 1993).

share of marketed output reaches 50 or 60 per cent, and that the benefit of raising the market share to 80 or 90 per cent may not offset the social dangers of rapid price liberalization?

The explosive growth of China's township and village enterprises, which now employ roughly 100 million workers and contribute 40–50 per cent 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. Indeed Chinese journals are filled with complaints about the lack of clearly-defined property rights in rural industry.[69] 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."[70]

The reform of state-owned industry provides a final intersection between economic theory and research on China's economy. Aghion, Blanchard and Burgess conclude that it may be impossible for the state to impose privatization on unwilling enterprise communities. 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."[71] Stiglitz finds "little reason for the government not to retain a large minority interest" in enterprises undergoing privatization.[72] 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.

China's reforms have unleashed a process of growth and institutional change that has moved its vast economy to the brink of a market system in less than two decades. The extent of these economic achievements, although exaggerated by official measures, is immense. Flagrant imbalance between Peking's partial and tentative policy initiatives and the magnitude of subsequent change directs attention to the mechanism of domestic economic change. It also challenges popular views about appropriate strategies for socialist transition and contributes to growing scepti-

69. "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" ("Ministry of Agriculture offers opinions on reforming the property rights system of township and village enterprises," *Zhongguo xiangzhen qiye* (*China Township and Village Enterprise*), No. 5 (1994), p. 4.

70. Stiglitz, *Whither Socialism*, p. 176.

71. Philippe Aghion, Olivier Blanchard and Robin Burgess, "The behaviour of state firms in Eastern Europe, pre-privatization," *European Economic Review*, Vol. 38, No. 3–4 (1994), pp. 1327–49.

72. Stiglitz, *Whither Socialism*, p. 186.

cism concerning fundamental tenets of economic theory. Recent economic gains are intimately linked with China's unusual socio-economic inheritance. It is possible, but by no means necessary, that other ex-socialist nations could benefit by incorporating specific aspects of Chinese transition patterns into their own reform strategies.

China's political leaders and business managers know that, despite many achievements, vast potential remains untapped, especially in the financial sector and its chief clients in state-owned industry. Their efforts to realize these latent opportunities will maintain, and perhaps increase, China's rapid pace of institutional change, with results that promise to contain as many surprises as have emerged during the past two decades. As the world's second- or third-largest economy, China deserves careful investigation. Its unique combination of blazing growth and unorthodox policy demands close attention. And its penchant for creating new combinations of material resources and institutional arrangements ensures that research on China's economy will continue to produce abundant intellectual rewards.